

**f\_fCf,,f<fAfbfv flfbfgf[]fN,ÌŠT—v**

f\_fCf,,f<fAfbfv flfbfgf[]fN,ÍAWindows NT fŠf,[]fg fAfNfZfX fT[]fjfX (RAS) ,lfNf%ofCfAf“fg”Á,Á,·[]B

f\_fCf,,f<fAfbfv flfbfgf[]fN,ðŽg,æ,Æ[]AŽ©‘î,âzfef<,È,Ç[]Af,fff€,ð[]Ú‘±,Á,«,é“d~b

%oñü,lfWfffbfN,Æ“dCE¹fRf“fZf”fg,ª, ,éfŠf,[]fg fTfCfg,È,ç,ç,±,©,ç,Á,àlftfBfX,lffbfgf[]fN,É[]Ú‘±,·,é,±,Æ,ª,Á,«,Ü,·[]Bf\_fCf,,f<fAfbfv flfbfgf[]fN,Í[]Af\_fCf,,f<fAfbfv

fT[]fo[],ðCEÄ,Ñ[]o,µ[]Aflfbfgf[]fN,Æ,ì“d~b[]Ú‘±,ðŠm—š,·,é,±,Æ,É,æ,Á,Ä<@“\,µ,Ü,·[]B,ç,Á,½,ñ[]Ú‘±,ªŠm—š,³,è,½,ç[]AflftfBfX“à,Áflfbfgf[]fN,âf[]fj< f[]f^fx[]fX,Æ‘¼[]Ú‘±,µ,Ä,ç,é,Æ,«,Æ,Ü,Á,½,-

“~,¶,æ,æ,ÉfAfvfŠfP[]fVf#f“,ðŽÀ[]s,µ[]A[]i<Æ,·,é,±,Æ,ª,Á,«,Ü,·[]B

,½,Æ,!,Î[]AŽÿ,ì,æ,æ,È,±,Æ,ª,Á,«,Ü,·[]B

- Windows NT fGfNfXfvf[]f%o,ðŽg,Á,ÄfŠf,[]fg f[]f^fx[]fX,ÉfAfnfZfX,Á,«,Ü,·[]B

- “dŽqf[]f<,ð’—Žó[]M,Á,«,Ü,·[]B

- flftfBfX,lfvfŠf“f^,Äftf@fCf<,ð^ó[]ü,Á,«,Ü,·[]B

f\_fCf,,f<fAfbfv flfbfgf[]fN fNf%ofCfAf“fg,Í[]ATCP/IP[]AIPX[]ANetBEUI ,ì,ç,·,è,©,ðŽg,ç[]Af,fff€[]AISDN

%oñü[]AX.25[]APPTP ,ì,ç,·,è,©,ð%oi,µ,Ä[]A, ,ç,ä,é SLIP fT[]fo[][]APPP fT[]fo[][]A,“,æ,Ñ Microsoft RAS fT[]fo[],É[]Ú‘±,Á,«,Ü,·[]B

Macintosh f{fŠf...[]f€,“,æ,Ñ AppleTalk fvfŠf“f^,Ö,lf\_fCf,,f<fCf“%oñü,ð%oi,µ,½[]Ú‘±,lfTf[]fg,³,è,Ä,ç,Ü,¹,ñ[]B

œ»Ÿ,ì“d~b’ ,É“o~^ ,³,ê,Ä,ç,é,; ,x,Ä,ìfGf“fgfŠ,ì^è— ,Ä,·BfGf“fgfŠ,ð‘I’ð,μAŽŸ,É [f\_fCf,,f<]  
,ðfNfŠfbfN,μ,Ä,,¾,³,çB,Ü,½A[ ,» ,ì‘¼]  
,ðfNfŠfbfN,·,é,ÆA fGf“fgfŠ,ì•ÖW A•;i»Aíœ,È,Ç,ª,Ä,«,Ü,·B  
Šù’è,ì“d~b’ ,íAfvfXfef€“d~b’ (rasphone.pbk) ,Ä,·B,Ü,©,ì“d~b’ ,ðŠù’è,ì“d~b’ ,É,; ,é,É,íA[ ,» ,ì‘¼]  
,ðfNfŠfbfN,μA[ft[fU[Ÿè] ,ðfNfŠfbfN,μ,Ü,·BŽŸ,ÉA[“d~b’ ] f^fu,ÄACEÂ|—  
p“d~b’ ,Ü,½,í,»,ì‘¼,ì“d~b’ ,ð‘I’ð,μ,Ü,·B

“d~b’ ,ÉfGf“fgfŠ,đ’Ç%Á,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B

fGf“fgfŠ,ì•ÒW□A□í□œ□A•;□»„È,Ç,đ□s,ƣfRf}f“fh,đ•\Ž!,·,é,Æ,«„ÉfNfŠfbfN,μ,Û,·□B

f\_fCf,,f<,³,ê,é"Ô□t,ª□A□Ú"ª"Ô□t□A□Ú"ö"Ô□t,àšÜ,ß,Ä□Af\_fCf,,f<,³,ê,é,Æ,¨,è,É•\Ž!,³,ê,Ü,·□B"Ô□t,ì•\Ž!•ù-  
@,đ•İ□X,μ,½,è□A^êŽž"l,ÉfGf"fgfŠ,ÉŠÖ~A•t,¯,ç,ê,Ä,ç  
,é"Ô□t^ÈŠO,ì"Ô□t,Éf\_fCf,,f<,·,é,½,ß,É□V,μ,ç"Ô□t,đf{fbfNfX,É"ü—í,μ,½,è,·,é,É,í□A[□Š□Ý'n]  
,đfNfŠfbfN,μ,Ü,·□B

,Ç,ìŠŸ'n,©,çf\_Cf,,f<,:é,©,ðŽw'è,μ,Û,·B

f%ofbvfvgfbfv fRf"fsf...[f^,ðŽg,Á,Ä,ç,éê±,íAflftfBfXAZ©'íAfzfej<,È,Ç,ì,³,Û,´,Û,ÈŠŸ'n,É,Á,ç  
,ÄAfvfjpfefB,ðŸ'è,μ,Ä,",,±,Æ,ª,Ä,«,Û,·B,±,π,μ,Ä,"-,íAŠŸ'n,ìŸ'è,ðŠî,ÉAZsŠO<Ç"Ô,â,»,±,ÄŽg—  
p,Ä,«,é'É~bfj[fh"Ô†,ðf\_Cf,,f<,:é,æ,π,É"d~b' fGf"fgfŠ,ðffXf^f}fCfY,Ä,«,Û,·B

'l'đ,μ,½ŠŸ'n,lfvf[]pfefB,đ•İX,;é,Æ,«,âA[]V,μ,čŠŸ'n,đ[]-;é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B  
,±,lf{f^f",đfNfŠfbfN,μ,½,Æ,«,É•\Ž!,³,ê,éf\_fCfAf[]fO f{fbfNfX,íA[Šî-{} f^fu,ì  
[fefCEftfHfj[] f\_fCf,,f<,lfvf[]pfefB,đŽg,±] f`fFfbfN f{fbfNfX,đfif",É,μ,Ä,č,é,©,Ç,±  
,©,É,æ,è•í,í,Á,Ä,«,Ü,·BSù'è,ìŸ'è,Ä,íA,±,lf`fFfbfN f{fbfNfX,ífift,É,É,Ä,Ä,"èA<CEfo[]fWf#f",ì RAS  
,Ä,àŽg,í,é,Ä,č,½ [Ü"à"Ö[]] f{fbfNfX,Æ [Ü"ö"Ö[]] f{fbfNfX,đ-~—p,Ä,«,Ü,·B  
fefCEftfHfj[] .lf\_fCf,,f<@"\,đŽg,±ê[]#,íA,±,lf`fFfbfN f{fbfNfX,đfif",É,μ,Ä,,¾,¾,č[]B,±,ì<@"\,đŽg,±%oÄ"\  
[]<,ª, ,é,ì,íA'<—£'Ê~b,đŽg,±ê[]#,âAfNfCEfWfbfg fj[]fh,đŽg,±ê[]#,Ä,·B

[f\_fCf,,f<,·,é“d~b’ fGf“fgfŠ] f{fbfNfX,Å‘l’ð,³,ê,Ä,ç,é“d~b’ fGf“fgfŠ,Éf\_fCf,,f<,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B



f\_CfAfO f{fbNfX,đ•Â,ŋ,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B

f\_fCf,,f< ,.éfgf"fgfŠ,ì-¼'O (%oĩŽĐ-¼AfT[fó[-¼,È,Ç) ,đ"ü—í,μ,Û,·B1 ,©,ç 256  
•¶Žš,Û,Ä,ì"í"à,Å, ,è,ì,Ç,ì,æ,π,È-¼'O,đ•t,¯,Ä,à,©,Û,ç,Û,<sup>1</sup>,ñB'Éí,íAfŠf,[]fg fT[fó[,ì-  
¼'O,©A,Û,½,íÚ'±,ìŽí—p ("PPP fCf"f^[flfbfgÚ'±"A"SLIP fCf"f^[flfbfgÚ'±" ,È,Ç) ,đ•t,¯,Û,·B  
,±,ì-¼'O,íA"d~b' ,ì^ê—,É•\Ž,³,è,Û,·B

fGf“fgfŠ,ÉŠÖ,·,éŠo,i□‘,«,đ“ü—í,·,é□é□Š,Å,·□B%º½,à“ü—í,μ,È,,Ä,à,©,Ü,ç,Ü,<sup>1</sup>,ñ□B

f\_fCf,,f<æ,îf\_fCf,,f<fAfbfv fT[]fo[]L,ì""Ô[]t,ð'l,Ñ,Ü,:[]B

f\_fCf,,f<æ,lf\_fCf,,f<fAfbfv fT[]fo[]l,žsŠO<Ç"Ô,đ"ü—í,μ,Û,·B

f\_fCf,,f<fAfbfv fT[]fo[]l,ª"ú-{[]ŠO,É, ,é[]ê[]‡,í[]A,±,±,É,í[]æ"ª,ì 0 ,đŠÛ,Û, ,ÉŽsŠO<Ç"Ô,đ"ü—í,μ,Ä,-  
,¾,¾,ç[]B,½,Æ,!,í[]AŽsŠO<Ç"Ô,ª 071 ,í[]ê[]‡,í[]A71 ,Æ,¾,~"ü—í,μ,Û,·B

f\_fCf,,fAfbfv fT[fo[,"d~b"Ôt,đ"ü—í,μ,Ü,·B,±,±,ÅŽw'è,Å,«,é"ÁŽê,È•ŋŽš,É,Â,ç  
,Ä,íA"d~b"Ôt,ìCüžqv,đŽQÆ,μ,Ä,,¾,¾,çB

,±,ìfGf"fgfŠ,ÉŽg,π 2 ,Â-Ú^È~ ,ì"d~b"Ô+ ,đ'Ç%oÁ, ,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B1 ,Â-Ú,ì"d~b"Ô+ ,ÂÚ'±  
,Â,«,È,©,Á,½ê±,íAÚ'±,³í,ÉŠm—š,Â,«,é,Û,Â 2 ,Â-Ú^È~ ,ì"d~b"Ô+ ,±,Éf\_fCf,,f<,³,ê,Û,·B

f\_fCf,,f<,ÉŽg,κ'•'u,δ'ı'δ,μ,Ü,·□B[frfW□[□ó'Ô,ı,Æ,«,ı•Ê,ıf□[fg,đŽg,κ] f`fFbfN f{fbfNfX,đfıf“,É,μ,Ä,“,-  
,Æ□A,±,±,Ä'ı'δ,μ,½'•'u,Ä,ı□Ú'±,ÉŽ,“s,μ,½,Æ,«,ı□A“~,ıŽı—p,ı,Ü,©,ı'•'u,đŽg,Ä,Ä□Ú'±,ªŽŽ,Ý,ç,è,Ü,·□B  
[f\_fCf,,f<•û-@] f{fbfNfX,Ä,ı□Af\_fCf,,f<,É•ı□”ı%ñ□ü,đŽg,κ,æ,κ,É'ı'δ,·,é,±  
,Æ,à,Ä,«,Ü,·□B•ı□”%ñ□ü,δ'ı'δ,·,é,Æ□A•ı□”ı•”—□“ı,È%ñ□ü,đ~—□“ı,È 1 ,Ä,ı “©”  
,ÉÆ<□‡,·,éf}f<f`fŠf“fN<@“\,ªŽg,ı,è,Ü,·□B,±,ı<@“\,Ä,ı□A1 -{,ı•ı□‡fŠf“fN,đ□ı□-,·,é,±  
,Æ,É,æ,è□A'Ñ^æ•□,ª'□%Á,μ,Ü,·□B  
f}f<f`fŠf“fN,đŽg,κ,É,ı□AfNf%oCfAf“fg,ÆfT□[fo□[ı—¼•û,Äf}f<f`fŠf“fN<@“\,ª—LCEø,É,È,Ä,Ä,ç  
,È,~,è,ı,È,è,Ü,ı,ñ□B  
□Ú'±,ÉŽg,κf,fff€,âfAf\_fvf^,δ'ı,Ô,É,ı□A[□\□-] ,đfNfŠfbfN,μ,Ü,·□B



'•'uCEÅ—L,ì□Ý'è,ð□\□¬,;é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B,½,Æ,ì,Î□A□Ú'±,Éf,fff€;ðŽg,¼□ê□‡,Í□A,±,±,ðfNfŠfbfN,μ,Ä□Af,fff€,ì'É□M'¬“x,ð□Ý'è,μ,½,è□Af,fff€^3□k<@“\,ð—LCEø,É,μ,½,è,Å,«,Û,·□B

, ±, ĩf` fFfbfN f{fbfNfX, íAfeſĈeftfHfj[] , ĩf\_fCf,, f<<@“\, đŽg, ɤ, Æ, «, Éfıf“, É, μ, Ü, ·□B, ±, ì<@“\, í□A’<<—  
£’É~b, Å□Ú’ ±, ·, é□é□‡, â□AfNfĈefWfbfg fj□[fh, đŽg, ɤ□é□‡, É•Ö—~ , Å, ·□B, ±, ĩf` fFfbfN  
f{fbfNfX, đfıf“, É, ·, é, Æ□A[f\_fCf,, f:fAfbfv flfbfgf□□[fN] fEfBf“fhfE, ì [□Š□Ý’n]  
, đNfŠfbfN, μ, ½, Æ, «, É□AfeſĈeftfHfj[] [—p, ĩfvf□fpfefB fy□[fW, º•Ž!, ³, é, Ü, ·□B, ±, ĩf` fFfbfN  
f{fbfNfX, đfıft, É, ·, é, Æ□A<Ĉfo□[fWf‡f“, ì RAS , Å, àŽg, í, é, Ä, ċ, ½ [□Ú“º”Ô□†] f{fbfNfX, Æ [□Ú”ö”Ô□†]  
f{fbfNfX, º•Ž!, ³, é, Ü, ·□B  
“à□ü, Éf\_fCf,, f<, ·, é□é□‡, í□A, ±, ĩf` fFfbfN f{fbfNfX, ĩfıf“, É, μ, È, ċ, Å, , ¾, ³, ċ□B

f\_fCf,,f<fAfbfv fT[]fo[][,iŽí—p,đ'í'đ,μ,Ü,·□BfT[]fo[][,iŽí—p,đ,í,©,ç,È,ç□é□‡,í□A[PPP] ,đ'í,ñ,Ā,,¾,¾,ç□BSLIP  
fT[]fo[][,đĀ,Ñ□o,·□é□‡,í□A[SLIP] ,đ'í,ñ,Ā,,¾,¾,ç□B<Āfo[]fWf‡f“ ,ì RAS fvf□fgfRf<,đŽg,Ā,Ā,ç  
,éfT[]fo[][,Éf\_fCf,,f<,·é□é□‡,í□A[RAS] ,đ'í,ñ,Ā,,¾,¾,ç□B  
,±,±,Ā'í'đ,μ,½fT[]fo[][,iŽí—p,É,æ,Ā,Ā,í□A[fT[]fo[][]  
f^fu,lfvf□fgfRf<,â,» ,ì'¼,lfvfVf‡f“ ,ì^è•” ,đ'í'đ,Ā,« ,È,ç□é□‡,à , ,è,Ü,·□B

[f]bfgf[]fN fvf[]fgfRf<] ,Å'í'ð,·,évf[]fgfRf<,í[]Af\_fCf,,f<fAfbfv fT[]fo[][,Æ,ì[]Ú'±,ªŠm—§,³,è,½CEã[]ALAN  
[]ä,ìŠeŽifT[]fo[][,Æ'É[]M,·,é,Æ,«,ÉŽg,xfvf[]fgfRf<,Å,·[]B,Ç,ìfvf[]fgfRf<,ð'í'ð,·,é,x,«,©,í,©,ç,É,ç,ç[]ê[]#,í[]Af]b  
fgf[]fNŠÇ—[]ŽÒ,É-â,ç[]#,í,¹,Ä,,³/₄,³,ç[]B  
·,±,±,Å,í[]A·;[]",ìfvf[]fgfRf<,ð'í'ð,·,é,±,Æ,à,Å,«,Ü,·[]BŠù,ÉfRf"fsf...[]f^,ÉfCf"fxfg[]f<,³,è,Ä,ç  
·,évf[]fgfRf<,ìf`ffbfN f{fbfNfX,í[]ASù'è,ì[]Ý'è,Åf]f",É,È,Á,Ä,ç,Ü,·[]B

TCP/IP (Transmission Control Protocol/Internet Protocol) " " — äfvf</fCf“f^ [f]fbfg  
fvf< ) , íACEY, ç, ÉÚ'±, ³, è, ½f]fbfg [fNŠÖ, Å, ì'ÉM, ð'ň<ÿ, , éf]fbfg [fN fv<fvf<, Å, ·B  
TCP/IP , íAfcf“f^ [f]fbfg, ĀŽg, í, è, éf]fbfg [fN fv<fvf< fZfbfg, Å, ·B



NetBEUI, í Microsoft fíbfjgffN—p,ÉŠj”, ³,è,½fíbfjgffN fvffjgRf<,Á,·B,±,ìfvffjgRf<,íANetBIOS  
<KŠi,đŽÀ•,μ,½fvffjgRf<,ì Microsoft ”Á,Á,·B

,±,ì“d~b’ fGf“fgfŠ—p,ì TCP/IP ,ìÝ’è’l,ðÝ’è,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·BMicrosoft fT[]fo[] (Windows NT[]AWindows 95[]A,Û,½,í,»,’¼,ì Microsoft RAS fT[]fo[]() ,ðÆÄ,Ño,·ê[]#,í[]ATCP/IP ,ìÝ’è’l,ð\ []-,·,é•K—v,í, ,è,Û,¹,ñ[]B



f\_fCf,,f<fAfbfv flfbfgf□□[fN,Å,Í□Af,fff€É,æ,é^³□k,³fTf|□[fg,³,é,Ä,ç,é,¾,¯,Å,È,□Af\  
ftfgfEjfFA,É,æ,éff□[f^³□k,ì<@“\,à’ñ<ÿ,³,é,Ä,ç,Ü,·□B,±,ì,½,ß□AfXf<□[fvfbfg,ðCEü□ã,³,¹,é-Ú“l,Å^³□k<@“\  
,ðŽg,¤□ê□‡,Í□Af,fff€^³□k,ðfif“,É,·,é•K—v,í, ,è,Ü,¹,ñ□B  
,±,ìf`fFfbfN f{fbfNfX,ðfif“,É,·,é,Æ□Af\ftfgfEjfFA^³□k,ª—LCEø,É,È,è,Ü,·□B  
□Å’å,ì^³□kCEø—¡,ð“¾,é,½,ß,É□,„§,·,éŽ-□€,É,Â,ç,Ä,Í□A□u^³□k,ÉŠÖ,·,éŽw□j□v,ðŽQ□Æ,µ,Ä,,¾,³,ç□B

,±,İf`fFfbfN f{fbfNfX,đflf“,É,·,é,Æ□APPP ,ì□V<@“\,ª—LCEø,É,È,è,Û,·□B,±,è,ç,İŠg’f<@“\,đŽg,α,Æ□ACEĀ,ç  
PPP f\ftfgfEfffA,đŽg,Á,Ā,ç,éft□[fo□[,ðCEĀ,Ñ□o,μ,½,Æ,«,É-â’è,ª”□¶,·,é%oĀ”\□«,ª, ,è,Û,·□BCEp’±,μ,Ā-  
â’è,ª”□¶,·,é□ê□‡,É,¾,~□A,±,İf`fFfbfN f{fbfNfX,đflft,É,μ,Ā,,¾,³,ç□B  
 ,±,İf`fFfbfN f{fbfNfX,đflft,É,·,é,Æ□ALCP ,í□APPP ,ì LCP flfSfVfG□[fVf‡f“,É,“,·,é Time-Remaining  
fpfPfbfg,Æ Identification fpfPfbfg,ì—□M□A,“,æ,ÑfR□[f<fofbfN—v□,đ□s,í,È,,È,è,Û,·□B

f\_fCf,,f<Æä,ÉfXfNfŠfvg,àf^[]f~fif<,àŽg,í,È,ç[]ê[]‡,Í[]A,±,ìf|fvfVf‡f“,đ'í'đ,μ,Û,·[]B

f\_fCf,,f<CEä,Éf^[]f~fif< fEfBf“fhfE,ðŽg,æ[]ê[]‡,í[]A,±,ìfifvfVf‡f“,ð'!‘ð,μ,Û,·[]B  
[]ufŠf.[][fg\_f[]Ofif“,É RAS f^[][f~fif<ðŽg,æ[]v,ðŽQ[]Æ,μ,Ä,,¾,¾,¾,ç[]B

f\_fCf,,f<CEă,ÉfXfNfŠfvfg,đŽg,æ□ê□#,Í□A,±,ìf|fvfVf#f“,đ'í'đ,μ,Û,·□B

f\_fCf,,f<CEã,ÉŽg,xfXfNfŠfvg,đ'ı'đ,μ,Ü,·□B,±,±,Å'ı'đ,Å,«,éfxfnfšfvg,í□ASWITCH.INF “à,É<L□q,<sup>3</sup>,é,Ä,ç  
,éfxfnfšfvg,Å,·□BSWITCH.INF  
,đ•Ò□W,·,é,Î□ASù'¶,ìfxfnfšfvg,đ□C□<sup>3</sup>,μ,½,è□A□V,μ,çfxfnfšfvg,đ□ì□¬,μ,½,è,Å,«,Ü,·□B  
□uSWITCH.INF fxfnfšfvg,đŽg,Á,ÄfŠf,□[fg\_f□fOfıf“,đŽ©“@%o»,·,é□v,đŽQ□Æ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

Šù'¶,ìfXfNfŠfvg,đ•Ò□W,μ,½,è□A□V,μ,çfXfNfŠfvg,đì□¬,μ,½,è,·,é,½,ß,É SWITCH.INF ,đŠJ,-  
,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

SWITCH.INF ,ð•Ò□W,μ,½CEã□AfXfNfŠfvg,ì^ê—,ð□X□V,·,é,½,ß,ÉfNfŠfbfN,μ,Û,·□B



f\_fCf,,f' O,ÉfXfNfŠfvfg,đŽg,ϣéϣ,ÉfNfŠfbfN,μ,Ü,·B,½,Æ,ı,îAf\_fCf,,f' O,lfXfNfŠfvfg,íAfNf%ofCfAf"fg'ϣ  
,ÉY'u,³,ê,Ä,ç,é'†%ôî'•u,đŽg,ϣéϣ,É,Ç,É•K—v,É,È,è,Ü,·B

f\_fCf,,fAfbfv fT[fO[.,Æs,κ" F∅,Æ^ Ā+%%»,)fSfVfG[fVf+f", ĀŽg,κE' '¥,đ'l,Ô,±  
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□,Ā,·B^ Ā+%%»,)đŸ'è,.,é,ÆA'ÊM%oňü,đŽg,Ā,Ā" ]'—,³,ê,éff[f^,đ'æŽOŽÒ,ªŠĀŽ<.,.é,ì,đ-h,®,±  
,Æ,ª,Ā,«,Ü,·B

fT[]fo[], ©,ç—v<[],<sup>3</sup>,ê,½, ,ç,ä,é”F[]Ø (MS-CHAP[]AMD5-CHAP[]ASPAP[]APAP) ,đŽg,ꝛ[]Ú’±,đ<-  
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fT[]fo[], ©, ç—v<[], ³, ê, ½ PAP ^ÈŠO, ì”F[]Ø, ðŽg, x[]Ú’±, ð<-‰oÂ, μ, Ü, ·[]B  
, ±, ìf|fvfVf#f“, í[]AMicrosoft []» , Â, í, È, çfT[]fo[], ðCEÄ, Ñ[]o, ·, Æ, «, É[]AfpfXf[]fh, ²’É[]M‰oñ[]ü[]ã, ðfNfŠfA  
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MS-CHAP ,ì" F∅,đŽg,ꝛÚ'±,ì,Ý,đ<-‰Á,μ,Û,·B

,±,ìfìfvfVf#f",íAMicrosoft »),ìfT[fó[.đĀÄ,Ño,·ê#É•Ö—~ ,Á,·B,±

,ìfìfvfVf#f",đ'ì'đ,·,é,ÆAf[f^,ì^Á+‰»),đs,ꝛ,æ,ꝛŽw'è,μ,½,èAf\_fCf,,f<fAfbfv flfbfgf[fN,đ  
‰ô,μ,½pfXf[fh,ì·íX,³fTf[f,³,é,é,æ,ꝛŽw'è,·,é,±,Æ,à,Á,«,Û,·B

%oňü,ðEo—R,μ,Ä'—M,³,ê,éff[f^,í,;,x,Ä^Ä+%%»³,ê,Ü,·B,±,ìfìfvfVf#f“,íAWindows NT Version 3.5  
^Ê~,ì RAS fRf“fsf...[f^,Ä,ì,Ý—~—p,Ä,«,Ü,·BWindows NT RAS ,Ä,íAfff[f^,ì^Ä+%%»³,í RSA Data  
Security Incorporated ŽĐ,ì RC4 fAf:fSfŠfYf€,ðŽg,Ä,Ä'ň<Ý³,ê,Ü,·B  
,±,ìf`fFfbfN f{fbfNfX,ðfìf“,É,·,é,ÆA^Ä+%%»³,ê,Ä,ç,È,çÚ'±,íØ'f³,ê,Ü,·B

, ±, ìfìfvfVf#f", íAŽ©'î, ìRf"fsf... [f^, ðAflftfBfX, ìfìfbfgf [fN, ÉÚ' ±  
, ³, è, ½f [fNfXfe [fVf#f", ì' ä, í, è, Æ, µ, ÄŽg, ¼ê [f, ÉÅ"K, ÈfìfvfVf#f", Å, ·B, ±, ìf`fFfbfN  
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,ìf{f^f“,ðfNfŠfbfN,·,é,Æ□A•Ù‘¶,³,ê,½fpfXf□□[fh,ð□Á<Ž,Å,«,Ü,·□B



f\_fCf,,f<□æ,ì X.25 flfbfgf□□[fN,ì-¼'O,ð'i,Ñ,Ü,·□B

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,±,ìf`fFfbfN f{fbfNfX,đflf“,É,·,é,Æ□Af\_fCf,,f<,·,é“d~b”Ô□t,³ [f\_fCf,,f<fAfbfv flfbfgf□□[fN] fEfBf“fhfE,É•\  
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,±,ìf`fFfbfN f{fbfNfX,đflft,É,·,é,Æ□A□Ú’±□^—□,ìŠÔ,ÉfjfbfvfAfbfv•\Ž!,³,è,éf\_fCf,,f<□ó’Ô,đŽ!,·f\_fCfA□fO  
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,±,ìf`fFfbfN f{fbfNfX,ðflf“ ,É,·,é,Æ□A□Ú'±,ž©“ ®“l,ÉŠm—š,³,è,é'O,ÉŠm”F,ð<□,β,ç,è,Û,·□B,±,ì<@”\  
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%½,à^—□,ªs,í,ê,È,ç□ó'Ô,ì,Æ,«,É□Ú'±,ð□Ø'f,·,é,Û,Ä,ìŽžŠÔ,ð•b'P^Ê,ÄŽw'è,μ,Û,·□B  
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□¶,μ□AfT□[fo□[,©,ç□Ú'±,ª□Ø'f,³,è,é%Å"□«,à,·,é,©,ç,Ä,·□B  
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1 ,Û,·,[]AfT[]fo[][,³[]AfT[]fU[][-¼,ÆfpfXf[][]fh,³[]³,μ,ç,©,Ç,κ,©,ð”»'f,μ,Û,·[]B

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□B

^ê—,©,ç“d~b’ ,đ’l’đ,·,é,©□A,Ü,½,íŽg—p,·,é“d~b’ ,ì-¼’O,đŠ®‘S,ĚpfX,đ•t,·,Ä“ü—í,μ,Ü,·□B  
“d~b’ ,đĚŸ□ö,·,é,É,í□A[ŽQ□Æ] ,đfNfŠfjbfN,μ,Ü,·□B

,±,lfRf“fsf...[f^ã,ì“d~b’ ,ðŒŸö,μ,½,èA,Ù,©,lfRf“fsf...[f^ã,ì“d~b’ ,ì^è—  
,ðŒ©,½,è,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B





,±,lf`fFfbfN f{fbfNfX,ðfif“,É,·,é,Æ□A%oñü,ì□ó’Ô,É%ož,¶,Ä’l’ð,μ,½%oñü,ìŽí—p,©,ç’á,ç•iŽž,ì%oñüŽí—  
p,Ö,lfSfVfG□[fVf†f“,à□s,í,è,Ü,·□B

’□ ISDN fj□[fh,É,æ,Á,Ä,í□A[%oñüŽí—p,lfSfVfG□[fVf†f“] f`fFfbfN f{fbfNfX,àfif“,É,È,Á,Ä,ç,é,Æ□A  
%oñü,ìŽí—p,Æf`fffif<,i□“,ì—¼•ù,É,Á,ç,ÄfSfVfG□[fVf†f“,à□s,í,è,Ü,·□B,Á,Ü,è□A•iŽž,ì□,,ç%oñüŽí  
—p ([64K fffWf^f<]) ,©,ç•iŽž,ì’á,ç%oñüŽí—p ([56K %o¹□²])  
,Ö,lfSfVfG□[fVf†f“,à□s,í,è,é,¾,¯,Ä,È,□A•i□“,lf`fffif<,©,ç•K—v,É%ož,¶,Ä,æ,è□-  
,È,çf`fffif<□“,Ö,lfSfVfG□[fVf†f“,à□s,í,è,Ü,·□B

f\_fCf,,f<fCf“ ,·,é□æ,lfT□[fo□[ ,ª,» ,lf□□[ f]□[ CEÅ—L,lfvf□fgfRf<,μ, ©fTf]□[fg,μ,Ä,ç,È,ç□ê□‡,Í□A,±,lf`fFfbfN  
f{fbfNfX,ðf|f“ ,É,μ,Ü,·□B,½,Æ,¡,Í□AfT□[fo□[ ,ÆfNf%ofCfAf“ fg,ì—¼•û,Å DigiBoard ŽĐ,ì•‘u,ðŽg,Á,Ä,ç  
,é□ê□‡,È,Ç,ªŠY“ -,μ,Ü,·□B

•;□“,ì ISDN %oñ□ü,ð%oî,μ,Äf}f<f`fŠf“fN,ðŽg,æ□ê□‡,Í□A,±,lf`fFfbfN f{fbfNfX,lf|ft,É,μ,Ä,-  
,¾,³,ç□Bf}f<f`fŠf“fN,Á,Í□AfT□[fo□[ ,Ä,àfNf%ofCfAf“ fg,Ä,àf□□[ f]□[ CEÅ—L,lfvf□fgfRf<,Í•K—v, ,è,Ü,¹,ñ□B

,±,lf`fFfbfN f{fbfNfX,ðflf",É,·,é,Æ□Afff□f^,²'—□M'O,É^³□k,³,ê,Ü,·□Bfn□[fhfEfffA^³□k,ð—  
LCEø,É,·,é□ê□‡,í□AfvftfgfEfffA^³□k,íflft,É,μ,Ä,,³/4,³,¢□B

'□ fn□[fhfEfffA^³□k,í□A,·,x,Ä,ì ISDN fj□[fh,Ä'ñ<ÿ,³,ê,Ä,¢,é,í,¯,Ä,í, ,è,Ü,¹,ñ□B,±,lf`fFfbfN  
f{fbfNfX,ðflf",É,μ,Ä,à□AfvftfgfEfffA^³□k<@"\,ð'ñ<ÿ,μ,Ä,¢  
,É,¯,ê,í□Afff□f^,ífxf<□[fvfbfg,íCëü□ä,μ,Ü,¹,ñ□BŽg—p,μ,Ä,¢,éj□[fh,É^³□k<@"\,³•t,¢,Ä,¢,é,©,Ç,x  
,©,³,í,©,ç,É,¢□ê□‡,í□AfvftfgfEfffA^³□k,íflft,É,μ,Ä,,³/4,³,¢□B

Žg—p,μ,Ä,ç,éfj□[fh,ª•j□",ì ISDN f`fffflç,ð'©,Ë,ÄŽg,κ<@“\,ð'ñ<ÿ,μ,Ä,“,è□AfŠf,□[fg fAfNfZfX fT□[fo□[.ì  
ISDN fj□[fh,àf`fffflç,ð'©,Ë,ÄŽg—p,Ä,«,é,æ,κ,É□□¬,³,ê,Ä,ç  
,é□ê□‡,í□A•j□",ìf`fffflç,ð'ì'ð,μ,ÄfXf<□[fvfbfg,ðCEü□ã,·,é,±,Æ,ª,Ä,«,Ü,·□B□ufGf“fgfŠ,ì'Ç  
‰Á□A•Ö□W□A•j□»,ð□s,κ□v,ì□uISDN ,ì“d~b”Ô□†□v,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

ISDN fhf%ofCfo,É,æ,Á,Ä,í□A'©,Ë,éf`fffflç,ì□",ð□\$CEÀ,Ä,«,È,ç□ê□‡,à, ,è,Ü,·□Bf`fffflç□",ð□\$CEÀ,Ä,«,È,çfhf  
%ofCfo,ðŽg,Á,Ä,ç,éfRf“fsf...□[f^,ð'...□M—p,É□□¬,μ,Ä,ç,é□ê□‡,í□Af`fffflç□",ìŽw'è,ð 2 ^È‰º,É,·,é,æ,κ  
,É□Af\_fCf,,f<fCf“,·,éfNf%ofCfAf“fg,ÉŽwŽ!,μ,Ä,,¾,³,ç□B,» ,κ,μ,È,ç,Æ□A•j□",ì ISDN  
fj□[fh,ðfCf“fXfg□[f<,μ,½fvfXfef€ ,ðŽg,Á,Ä,ç,é†□[fU□[.ª□AfT□[fo□[.ìf`fffflç,ð,·,×,Ä“Æ□è,μ,Ä,μ,Ü,κ‰Á“\  
□«,ª, ,è,Ü,·□B

'□ Žg—p,μ,Ä,ç,é ISDN fj□[fh,Ä—~—p‰Á“\,È□",æ,è'½,çf`fffflç□",Ä□Ú'±,ðŠm—š,·,é,±  
,Æ,í,Ä,«,Ü,¹,ñ□BŽÀ□Ú,É□A—~—p‰Á“\,Éf`fffflç,ì□Ä'â□",ð'·,ì,é□",ðŽw'è,·,é,Æ□A,Ü,Ä,½,□Ú'±  
,Ä,«,È,ç‰Á“\□«,à, ,è,Ü,·□B

fCf“fXfg[f<,³,ê,Ä,ç,éf,fff€,ª•\Ž!,³,ê,Ü,·□B

'□ f,fff€,đ•İ□X,μ,½,è□A□V,μ,çf,fff€,đfCf“fXfg[f<,μ,½,è,·,é,É,Í□Afrf“fgf□□[f< fpf]f<,ì [flfbfgf□□[fN] fAfCfRf“,đf\_fuf<fNfŠfbfN,μ,Ü,·□B[fT□[frfX] f^fu,Â□A[fŠf,□[fg fAfNfZfX fT□[frfX] ,đ'!đ,μ□AŽŸ,É [fvf□fpfefB] ,đfNfŠfbfN,μ,Ü,·□B□Ú□x,É,Ä,ç,Ä,Í□A,±,İf\_fCfAf□fO f{fbfNfX,İfif“f%ofCf“ fwf<fv,đŽQ□Æ,μ,Ä,,¾,³,ç□B

f,ff€,afŠf,[]fg fAfNfZfX fT[]fo[],lf,ff€,Æ,ìfSfVfG[]fVf+f“,đŠ)Žn,·,é,Æ,«,ì bps (frfbfg/•b)  
'P^Ê,ì'Ê[]M'¬“x,đ'l'đ,μ,Û,·[]B'Ê[]M'¬“x,í[]AfSfVfG[]fVf+f“,ì%oß'ö,Å[]ã,ª,Á,½,è%ooª,ª,Á,½,è,·,é,±,Æ,à, ,è,  
Û,·[]B

Žg—p,μ,Ä,ç,éj,ff€,ÅfTf|□[fg,<sup>3</sup>,ê,Ä,ç,È,çfn□[fhfEfFfA<@“\,ð‘‘ð,μ,Ä,àpftfH□[f}f“fX,É,í%½,ì%e<ξ,à, ,è,Û  
,<sup>1</sup>,ñ□B

,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,·,é,Æ□Afn□[fhfEfffA,É,æ,éfnf“fhfVffCfN,ª—LCEø,É,È,è,Ü,·□B,±,ì<@”\  
,É,æ,è□Aff□[f^,ª,ç,Á,İ,ç,É,È,Á,Ä%ñ□ü,Éff□[f^,ð’—□M,Å,«,,È,Á,½,Æ,«,,â□A<t,É’—□M%oÅ”\  
,É,È,Á,½,Æ,«,,É□Af,fff€,ªfŠf,□[fg fAfNfZfX fVftfgfEfffA,É”` ,ì,é,±,Æ,ª,Å,«,,é,æ,ª,É,È,è,Ü,·□B,±  
,ê,É,æ,è□AfŠf,□[fg fAfNfZfX fVftfgfEfffA,í□A•K—v,É%ož,¶,Ä^èŽž”l,Éff□[f^,ì”]’—  
,ð’+Ž~,Å,«,,Ü,·□Bfnf“fhfVffCfN,í□Aff□[f^,ì”`—,ð□‡—□%o»,μ□AfI□[fo□[f%of“ fGf%o□[,ì”□¶,ð-  
h,®,½,β□ACE<%oÊ”l,Éff□[f^“]’—,ì’S’ì”l,ÈfXf<□[fvfbfg,ªCEü□ă,μ,Ü,·□B



ff[f^ fuf]fbfN,lfGf%o[δ,,%oñç'·CEŸ] (CRC) ,É,æ,Á,Ä'²,x,Ü,·Bf,ff€É,æ,éfGf%o[[]\$CEä,ð—  
LCEø,É,·,é,ÆAf,ff€í³,μ,"]—,³,ê,È,©,Á,½ff[f^,ðÄ"]—,μ,Ü,·B,μ,½,³,Á,ÄAf,ff€ŠÔ,Ä,lfGf%o[í"-  
[]μ,Ü,¹,ñBÚ×,É,Â,ç,Ä,ÍAMNP4v, ",æ,ÑV.42v,ðŽQÆ,μ,Ä,,³/₄,³,çB

,±,lf fFbfN f{fbfNfX,ðfif“,É,·,é,Æ□Af,fff€ŠÔ,Ā‘—Žó□M,³,é,éff□[f^,ª³□k,³,é,Ā□A“]’—  
,³,é,éff□[f^,lf ofCf g□“,ª□,È,,È,è,Û,·□B,±,ìĀ<%oĒ□A“]’—ŽžŠÔ,ð‘Z□k,μ,Û,·□B,Ç,ì‘ö“x’Z□k,³,é,é,©,í□A“]’—  
,³,é,éff□[f^,ì□ç‘“x,É,æ,Ā,ĀĀĀ^,Û,è,Û,·□B

‘□ f,fff€,æ,è,àfRf“fsf...□[f^,ì•û,ª—~—p%oĀ“\,Èf pf^□[f“ fofbftf@,ª,í,é,©,É‘â,«,ç  
,½,β□Afn□[fhfE fFfA^³□k,æ,è,à\ftfgfE fFfA^³□k,ì•û,ªĀø—!‘Ā,·□B,Û,½□Af,fff€,ì^³□k<@“\,ðŽg,κ  
,Æ□Af,fff€,í□A“à•“,lf pf^□[f“ fofbftf@,ð-,,β,é,¾,̄,ì—È,iff□[f^,ªfRf“fsf...□[f^,©,çf,fff€,Ö“]’—  
,³,é,é,Û,Ā□Ā□%o,ì“]’—,ð□s,í,·□A‘x%o,,,ª“□¶,μ,Û,·□B\ftfgfE fFfA^³□k,Ā,í□A^³□k,ì,½,β,iff□[f^“]’—  
,lfRf“fsf...□[f^,Æf□f,fs,ìŠÔ,Ā□s,í,è,Û,·,ª□A,±,ì‘—“x,lfRf“fsf...□[f^,Æf,fff€  
,ìŠÔ,Ā,ì“]’—‘—“x,æ,è,,Ā,Æ□,‘—,Ā,·□B,³,ç,É□A\ftfgfE fFfA^³□k,Ā,í□Af,fff€,Æf,fff€  
,ìŠÔ,lfZfOf□f“fg,¾,̄,Ā,í,È,□AfRf“fsf...□[f^ŠÔ,lfŠf“fN‘S‘ì,ð^³□k,³,é,½ff□[f^,ª“]’—,³,é,é,±  
,Æ,É,È,è,Û,·□B

^ê”É,É□AŠÛ,É^³□k,³,é,Ā,ç,éff□[f^,ð^³□k,μ,Ā,à□A^³□k—!,ª□,,Û,é,±,Æ,í, ,è,Û,<sup>1</sup>,ñ□B,μ,½,ª,Ā,Ā□Af,fff€  
,ì^³□k<@“\,Æf\ftfgfE fFfA^³□k,ð”~Žž,ÉŽg—p,·,x,«,Ā,í, ,è,Û,<sup>1</sup>,ñ□BŽĀ□Û,É□Af,fff€,ªŽg,xfAf<fSfŠfYf€  
,É,æ,Ā,Ā,í□A—¼•û,ì^³□k,ð□s,κ,Æ□A“]’—,³,é,éff□[f^,lfTfCfY,ª‘â,«,,È,é□é□‡,à, ,è,Û,·□B

f\_fCf,,f<Žž,É□AfXfNfŠfVfG%»»,<sup>3</sup>,ê,½fRf}}f“fh,ðŽÀ□s,·,é‘ă,í,è,É AT fRf}}f“fh,ðŽè“ @,Åf,fff€,É“ü—  
Í,·,é□ê□‡,Í□A,±,ìf fFfbfN f{fbfNfX,ðflf“,É,μ,Ü,·□B,±,ì<@“\,Í□Af,fff€,ìfXfNfŠfVfG ftj@fCf< (MODEM.INF)  
,É□V,μ,čfGf“fgfŠ,ð□ì□—,·,é,Æ,«,É□AfXfNfŠfVfG,É<L□q,·,é•¶Žš—ň,ðfefXfg,·,é□ê□‡,É—~—  
p,Å,«,Ü,·□B,Ü,½□A□Ú‘±□^—□,ì“r’t,Åft□□fU□□[“ü—Í,<sup>a</sup>•K—v,Æ,È,é,æ,α,È—áŠO“l,È□ê□‡,É,à□A,±,ì<@“\,ð—  
—p,Å,«,Ü,·□B  
^è”Ê,É□A□IŠÖ,ìfìfyf□□f^,^í%ž,·,é□ēš·,ð’Ê,¶,Ä□Ú‘±,·,é,Æ,«,È,Ç,ì,æ,α  
,É□A“d~b<@,ðŽžg,Á,Ä\_fCf,,f<·,·,é□ê□‡,Í□A,±,ì<@“\,ðŽžg,í,È,č,Å,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,č□B

,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,·,é,Æ□Af,ff€,ìf\_fCf,,f< fg□lf“ ,â□Ú'±%o¹,a•.,±,!,È,,È,è,Ü,·□B

, ±, ìfAjjfEf“fg, ì Windows NT fhf□fCf“ fpfXf□□[fh, íŠúÆÀ, æ∅, ê, Ä, ç, Ü, ·□B□i, ·, ® fpfXf□□[fh, ð, ±, ìf\_fCfA f□fO  
f{fbfNfx, É“ü—í, μ, Ä□A•ï□X, μ, Ä,, ¾, ¾, ç□B  
fpfXf□□[fh, í□A’â•¶Žš, Æ□¬•¶Žš, æ<æ•Ê, ¾, ê, Ü, ·□B□V, μ, ç fpfXf□□[fh, ð“ü—  
í, ·, é, Æ, «, í□A’â•¶Žš, Æ□¬•¶Žš, Ì, Ç, ÿ, ç, ðŽg, Á, ½, ©, ðŠo, ¡, Ä, ¨, ç, Ä,, ¾, ¾, ç□B

CE»Ÿ,lfpfXf[]fh,ð“ü—í,μ,Ü,·B

□V,μ,ϕpfXf□□[fh,δ“ü—í,μ,Ü,·□B

Šm" F, ì, ½, ß, É □ A □ V, μ, ç f p f X f □ □ [ f h, ð, à, æ ^ ê " x " ü — í, μ, Ü, · □ B



f\_fCf,,f<fAfbfv fT□[fo□[.í□A'É~b—¿<à,đfT□[fo□[ 'x,Å•%o'S,;,é,È,Ç-Ú"l,É%ož,¶,Ä•Ö—~,ÉŽg—p,Å,«,é,æ,x  
,É□AfNf%ofCfAf"fg,Žw'è,μ,½"Ô□t,ÅfR□[f<fofbfN,·,é,æ,x,É□□→,³,ê,Ä,ç,Û,·□B  
fR□[f<fofbfN"Ô□t,ìŽw'è,í□AŽ©"®%o»,Å,«,Û,·□B,±,ê,đ□s,x,É,í□A[,>,ì'¼] ,đfNfŠfbfN,μ,Ä [ft□[fU□[□Y'è]  
,đfNfŠfbfN,μ□AŽŸ,É [fR□[f<fofbfN] f^fu,ìfivfVf†f",đ'l'đ,μ,Û,·□B

fŠf.□[fg fAfNfZfX fT□[fo□[, ©, ç, ìfR□[f<fofbfN, ÉŽg, x"Ô□†, ð"ü—í, μ, Ü, ·□B

f,fff€ (,Ü,½,í,»,'¼,ì'Ú'±'•'u) ,©,çfGf%o[,'ª•Ô,³,ê,Ü,μ,½BfTf|[[fg,³,ê,Ä,ç,éf,fff€,ðŽg,Á,Ä,ç  
,éê±,íA^ê“xf,fff€,ì“dCE¹,ð∅,Á,Ä“dCE¹,ð“ü,ê'¼,μ,Ä,,¾,¾,çB,Ü,½AfŠf,[[fg fAfNfZfX fT[[fxf,ð|—  
¹,μAÄ<N“@,μ,Ä,©,çAf\_fCf,,f<,μ'¼,μ,Ä,,¾,¾,çB  
fŠf,[[fg fAfNfZfX,ÄfTf|[[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,íAf,fff€,ì»'çCE³,É-â,ç±,í,¹,Ä,-  
,¾,¾,çB,Ç,ìf,fff€,³fTf|[[fg,³,ê,Ä,ç,é,©,É,Ä,ç,Ä,íA□wWindows NT  
fn[[fhfEfFfACEÝŠ·«fŠfXfg□x,ðŽQ□Æ,μ,Ä,,¾,¾,çB  
f,fff€,³fŠf,[[fg fAfNfZfX—p,É□³,μ,□□¬,³,ê,Ä,ç,é,±,Æ,ðŠm”F,μ,Ä,,¾,¾,çB□□¬,ðŠm”F,·,é•û-@,É,Ä,ç  
,Ä,íA□uf\_fCf,,f<fAfbfv\_flfbfq□□[fN,ðÄ□□¬,·,é□v,ðŽQ□Æ,μ,Ä,,¾,¾,çB

fŠf\_fCf,,f<,:é,Ü,Å,ì•b□”,øffEf“fgf\_fEf“,μ,Ü,·□BfŠf\_fCf,,f<,í□A[ft□[fU□[□Ý’è] f\_fCfA□fO f{fbfNfX,ì [f\_fCf,,f<]  
f^fu,Å,ì□Ý’è,ÉŠî,Ã,ç,Ä□s,í,ê,Ü,·□B

,±,lfGf"fgfŠ,ĂŽg,α,æ,α,É'í'ð,³,è,Ä,ç,éfvf[]fgfRf<,ì,α,¿[]A[],È,,Æ,à 1 ,Ă,ª[]Ú'±,ÉŽ, "s,μ,Û,μ,½[]B  
[Žó,~"ü,è,é] ,ðfNfŠfbfN,·,é,Æ[]A·\Ž!,³,è,Ä,ç,éfvf[]fgfRf<,ðŽg,Á,Ă[]Ú'±,³,è,Û,·[]B  
f`fFfbfN f{fbfNfX,ðfjf",É,·,é,Æ[]AŽŸ%ñf\_fCf,,f<,μ,½,Æ,«,É,à[]A[]i%ñ,lf\_fCf,,f<,Ă[]Ú'±  
³,è,½fvf[]fgfRf<,¾,~,ªŽg,í,è,Û,·[]B,±,lf`fFfbfN  
f{fbfNfX,ðfjf",É,μ,È,ç[]è[]#,í[]AfGf"fgfŠ,ÉŽg,α[]Ú'±fvf[]fgfRf<,ðf\_fCf,,f<fAfbfv flfbfgf[][]fN,©,ç•ï[]X,μ,Ä,-  
,¾,³,ç[]B,±,è,ð[]s,α,É,í[]Af\_fCf,,f<fAfbfv flfbfgf[][]fN,ĂfGf"fgfŠ,ð'í'ð,μ[]A[,»,í'¼]  
,ðfNfŠfbfN,μ,Û,·[]BŽŸ,É[]A[fGf"fgfŠ,Æf`fff€,lfvf[]pfefB,ì•Ö[]W] ,ðfNfŠfbfN,μ[]A[fT[]fo[][] f^fu,Ă[]A[]Ú'±  
,ÉŽg,αflfbfgf[][]fN fv[]fgfRf<,ð'í'ð,μ,Û,·[]B

•\Ž! ,<sup>3</sup> ,ê,Ä,ç,éfvf□fgfRf<,đŽg,Á,Ä□Ú'±,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B

□Ú'±,δ□Ø'f,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B

, ±, ìf`fFfbfN f{fbfNfX, ðflf“ ,É, ·, é, Æ□AŽŸ%œñf\_fCf,,f<, μ, ½, Æ, «, É□A□i%œñ, ìf\_fCf,,f<, Å□Ú' ±

,<sup>3</sup>, ê, ½fvf□fgfRf<, ¾, ¯, aŽg, í, ê, Û, ·□B  
fGf“fgfŠ, ÉŽg, ¼□Ú' ±fvf□fgfRf<, ð•ï□X, ·, é, É, í□Af\_fCf,,f<fAfbfv flfbfgf□□[fN, ÅfGf“fgfŠ, ð'l'ð, μ□A[, »], ì'¼]

, ðfNfŠfbfN, μ, Û, ·□BŽŸ, É□A[fGf“fgfŠ, Æf, fff€, ìfvf□fpfefB, ì•Ö□W] , ðfNfŠfbfN, μ□A[fT□[fo□[] f^fu, Å□A□Ú' ±

, ÉŽg, ¼flfbfgf□□[fN fvf□fgfRf<, ð'l'ð, μ, Û, ·□B



f\_fCf,,f:fAfbfv flfbfgf[]fN,ì”F[]Ø,ÉŽg,í,è,éfAjjfEf”fg[]î•ň,í[]A’É[]í,í[]Aflfbfgf[]fN f[]fOfjf”—  
p,ìfAjjfEf”fg[]î•ň,Æ”˘,¶,Å,·[]Bf\_fCf,,f:fAfbfv flfbfgf[]fN,í[]A,±,è,ç,ìfAjjfEf”fg[]î•ň,ðŽg,Å,Ä[]AfNf  
%ofCfAf”fg ft[]fU[][,ª•” —[]“l,Éflfbfgf[]fN,ÖfAfNfZfX,·,é[]E —˘,ðŽ[],Å,©,Ç,κ  
,©,ð[]Eÿ[],,μ,Ü,·[]B,½,¾,μ[]Af\_fCf,,f:fAfbfv flfbfgf[]fN,íŽÀ[]Ù,ÉfŠf,[]fg  
ft[]fU[][,ðf[]fOfjf” ,³,¹,é,í,˘,Å,Í, ,è,Ü,¹,ň[]B,±,ì,½,ß[]AfŠf,[]fg  
ft[]fU[][,í[]A•Ù[]Eì,³,è,½flfbfgf[]fNŽ’[]E¹,ÉfAfNfZfX,·,é,É,í[]A,½,ç,Ä,ç,ì[]ê[]#[]A[]Ú’±,ªŠm—  
š,³,è,½[]Eã,ÉŽ[]©•ª,Åf[]fOfjf” ,·,é•K—v,ª, ,è,Ü,· (Windows NT ,ì[]ê[]# ,È,ç[]ACtrl + Alt + Del fL[][,ðŽg,ç  
,Ü,·)[]B

fŠf,□[fg fAfNfZfX—p,ìft□[fU□[-¼,đ“ü—í,μ,Û,·□B

fŠf.□[fg fAfNfZfX—p,ìpfXf□□[fh,đ“ü—í,μ,Ü,·□B

Microsoft » , Å, í, È, ç, f, T, [f, o, [ , ð, Ç, Ä, Ñ, o, , µ, Ä, ç, é, ê, ð, ð, Í, [A, fhf, [f, Cf, " , ð " ü — í, , ·, é • K — v, í, , è, Û, <sup>1</sup>, ñ, [B  
Microsoft f, T, [f, o, [ , ð, Ç, Ä, Ñ, o, , µ, Ä, ç, é, ê, ð, ð, Í, [A, ±, ±, Å " ü — í, , ·, é, fhf, [f, Cf, " - ¼, Í, [A, Windows NT RAS  
f, T, [f, o, [ [A, Û, ½, Í, Ž, ©, ·, ð, lf, \_f, Cf, ,, f, <f, Af, b, f, v, fl, f, b, f, g, f, [f, N, f, Af, j, f, E, f, "f, g, , ð, ®, , µ, Ä, ç, é, Windows NT fhf, [f, Cf, " , ì-  
¼, 'O, Å, È, , ·, è, Í, È, è, Û, <sup>1</sup>, ñ, [B, ±, è, Í, [A, P, P, P, f, v, f, [f, o, f, Cf, \_ , â, SLIP, f, v, f, [f, o, f, Cf, \_ , ©, ç, Ž, æ, "¾, µ, ½, DNS, fhf, [f, Cf, " -  
¼, Å, Í, , è, Û, <sup>1</sup>, ñ, [B, ½, Æ, !, !, [A, www, halcyon, com , Æ, ç, Å, ½, fhf, [f, Cf, " - ¼, Å, Í, È, [A, Accounting , È, Ç, ì, fhf, [f, Cf, " -  
¼, Æ, È, è, Û, ·, [B, fhf, [f, Cf, " , " , æ, Ñ, [M — Š, Š, Ö, Ç, E, W, È, Å, ç, Ä, Í, [A, w, f, R, f, "f, Z, f, v, f, g, f, Af, "f, h, f, v, f, %o, f, "f, j, j, "f, O  
f, K, f, C, f, h, [x, ð, Ž, Q, [Æ, µ, Ä, , ¾, <sup>3</sup>, ç, [B  
MSN , È, [Ú, ' ±, ·, é, ê, ð, ð, Í, [A, [f, +, [f, U, [ [ - ¼ ] f {f, b, f, N, f, X, È, msn \username , Æ " ü — í, µ, [A, [fhf, [f, Cf, " ] f {f, b, f, N, f, X, È, Í  
%o, ½, à " ü — í, µ, È, ç, Å, , ¾, <sup>3</sup>, ç, [B

,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,·,é,Æ□A,±,ìfGf“fgfŠ,ìpfXf□□[fh,ª•Ù‘¶,³,ê,Û,·□BŽŸ%œñ,±  
 ,ì“d~b’ fGf“fgfŠ,ðŽg,Á,Ä□Ú’±,·,é,Æ,«,©,ç,í□A,±,ì”F□Øf\_fCfA□f□O f{fbfNfX,í•\Žì,³,ê,Û,¹,ñ□B  
 ,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,µ,Ä□Ú’±  
 ,µ□ACEã,©,çfGf“fgfŠ,ìpfXf□□[fh,ð•í□X,·,é□ê□‡,í□A“d~b’ fGf“fgfŠ,ð•Ò□W,µ□A[fzfLf...fŠfefB] f^fu,Å  
 [fpfXf□□[fh,ð•Ù‘¶,µ,È,ç] ,ðfNfŠfbfN,µ,È,¯,ê,î,È,è,Û,¹,ñ□B

f\_fCf,,f<fAfbfv flfbfgf□□[fN,ìfNf%ofCfAf“fg,í□AIP fAfhfCEfX,đŽ□,Á,Ä,č  
,È,˘,ê,î,Ê,è,Û,ˆ,ñ□BfAfhfCEfX,af\_fCf,,f<fAfbfv fT□[fo□[.É,æ,Á,ÄŽ©“@“l,ÉŠ,,è“-,-,Ä,ç,ê,é□ê□†,í□A,±  
,ìfjfvfj†f“,đ‘l‘đ,μ,Û,·□B

f\_fCf,,fAfbfv flfbfgf[]fN fNf%ofCfAf“fg,Æ,μ,Ä“Á’è,ì IP fAfhfCEfX,ª•K—v,Èéé±,íA,±  
,ìfjvfVf±“ ,ð’l’ð,μA•K—v,È IP fAfhfCEfX,ð“ü—í,μ,Ü,·B

•K—v,È IP fAfhfCEfX,ð“ü—í,μ,Û,·□Bf\_fCf,,f<fAfbfv fT□[fo□[í□AfNf%ofCfAf“fg,ª“Á’è,ì IP fAfhfCEfX,ðŽg,±,±,Æ,ðfNf%ofCfAf“fg,É<-%oÂ,·,é,æ,±,É□\□¬,³,ê,Ä,ç,È,¬,ê,î,È,è,Û,¹,ñ□B



f\_fCf,,f<fAfbfv flfbfgf[]fN fNf%ofCfAf“fg,í[]AfRf“fsf...[]f^,ªŽg,ª IP fAfhfCEfX,ð[]ŠÔ,ªŽg,ª,í,©,è,â,·,ç-  
¼‘O,É•İŠ·,·,éfT[]fo[],ð•K—v,Æ,·,é[]ê[]‡,ª, ,è,Û,·[]B,½,Æ,ı,ı[]A198.105.232.1 ,ı[]Aft[]fU[],ª  
ftp.microsoft.com ,Æ,ç,ª-¼‘O,ÅŽQ[]Æ,·,éfRf“fsf...[]f^,ı IP fAfhfCEfX,Å,·[]B

DNS (Domain Name System[]F fhf[]fCf“ f[]f[]f€ fVfXfef€) fT[]fo[],ı[]A[]çŠE‘t,ı TCP/IP  
flfbfgf[]fN,ÅŽg,ı,ê,Ä,ç,Û,·[]BWINS (Windows Internet Name Service[]F Windows fCf“f^[]flfbfg f[]f[]f€  
fT[]f[]fX) fT[]fo[],ı[]AWindows NT Version 3.5 ,©,ç“±“ü,ª,ê,½fT[]fo[],Å,·[]B,Ç,ı,ç,à[]AWindows NT  
f\_fCf,,f<fAfbfv flfbfgf[]fN fNf%ofCfAf“fg,É-¼‘O%oðCE^fT[]f[]fX,ð‘ñ<Ÿ,μ,Û,·[]B

,±,ıf[]f[]f[]f[]f“ ,ð‘ı‘ð,·,é,Æ[]Af\_fCf,,f<fAfbfv fT[]fo[],ªf\_fCf,,f<fAfbfv flfbfgf[]fN fNf%ofCfAf“fg,É DNS  
fT[]fo[], © WINS fT[]fo[],ðŠ,,è“-,Ä,é,æ,ª,É,È,è,Û,·[]B

,±,ìfìfvfvf#f“,ð‘ì‘ð,·,é,Æ□ADNS fT□[fo□[□AWINS fT□[fo□[□A,“,æ,Ñ,»,ê,¼,ê,ìfZfjff“f\_fŠ  
fT□[fo□[ (fofbfNfAfbfv fT□[fo□[) ,ðŽw’è,Å,«,Ü,·□B  
0.0.0.0 ,É□Ý’è,³,ê,½fAfhfçfX,Ü,½,í‘l,ª“ü—í,³,ê,Ä,ç,È,çfAfhfçfX,ðŽw’è,μ,À,à□A,»,ìf□[f€  
fT□[fo□[ fAfhfçfX,ì□\□¬,í•ï□X,³,ê,Ü,¹,ñ□B

DNS fT[]fo[][,ì IP fAfhfCEfX,ð“ü—í,μ,Ü,·[]B

fZjff“f\_fŠ DNS fT□[fo□[.ì IP fAfhfCEfX,ø“ü—í,μ,Ü,·□B

WINS fT[]fo[],ì IP fAfhfÇfX,ð“ü—í,μ,Û,·□B

fZjf“f\_fŠ WINS fT□[fo□[,ì IP fAfhfĈefX,š“ü—í,μ,Ü,-□B

,±,ìf`fFfbfN f{fbfNfX,í□APPP fT□[fo□[.Ö,ìf□Ofif“□^—□’t,¨,æ,ÑfifSfVfG□[fVf†f“’t,É Van Jacobson IP  
fwfbf\_□[ ^³□k,đŽg,¤,©,Ç,¤,©,đ□Ý’è,μ,Û,·□B

,±,ìf`fFfbfN f{fbfNfX,đfif“ (Šù’è,ì□Ý’è) ,É,·,é,Æ□Af\_fCf,,f<fAfbfv flfbfgf□□[fN,í VJ fwfbf\_□[ ^³□k,đŽg,¨,¤  
,Æ,μ,Û,·□B ^³□k,đŽg,Á,½’É□M,ª,Á,«,é,©,Ç,¤,©,ìfŠf,□[fg PPP fT□[fo□[,ì<@”\

,É^É’¶,·,é,½,β□A□→CE÷,·,é□é□‡,àŽ,¨s,·,é□é□‡,à, ,è,Û,·,ª□AVJ  
fwfbf\_□[ ^³□k,ìfifSfVfG□[fVf†f“ ,ÉŽ,¨s,μ,Á,à□Ú’±,ª’tŽ~ ,³,é,é,±,Æ,í, ,è,Û,¹,ñ□B

,±,ìf`fFfbfN f{fbfNfX,đfift,É,·,é,Æ□Af\_fCf,,f<fAfbfv flfbfgf□□[fN,í□AfT□[fo□[,É VJ fwfbf\_□[ ^³□k,đ—  
v<□,μ,½,è□AfT□[fo□[.©,ç—v<□,³,é,Á,à,» ,ì^³□k—v<□,đŽó,¨·t,¨,½,è,μ,Û,¹,ñ□BMicrosoft

□» ,Á,í,È,çCEÁ,çfo□[fWf†f“ ,ì PPP fT□[fo□[ f†f†f†f†f†fA,ì□é□‡,í□AVJ fwfbf\_□[ ^³□k,đ—LCEø,É,μ,Á,¨,·,Æ  
Windows NT f\_fCf,,f<fAfbfv flfbfgf□□[fN,Æ’É□M,Á,« ,È,ç,±,Æ,à, ,è,Û,·□B,±,ìf`fFfbfN

f{fbfNfX,đfift,É,μ,È,¨,é,ì,È,ç,È,ç,ì,í□A□³□í,É□Ú’±,Á,« ,é,ì,É□A•Đ•ûCEü,Û,½,í—¼•ûCEü,É IP ff□[f^ ,đ”]’—  
,Á,« ,È,ç□é□‡,¾,¨,·,Á,·□B

,±,ìf`fFfbfN f{fbfNfX,đfift,É,·,é,Æ□AZÿ,ìfCEfWfXfgfS’l,í-³CEø,É,È,è,Û,·□B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\Rasman\PPP\IPCP\  
AcceptVJCompression

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\Rasman\PPP\IPCP\  
RequestVJCompression

, ±, ìf` fFbfN f{bfNfX, íAflfbfgf[]fN fj[]fh, ðŽg, Á, Ä, ç, Ä LAN , É, à“ ~ Žž, ÉÚ‘ ±, ³, è, éf\_fCf,, f<fAfbfv  
flfbfgf[]fN fNf%oCfAf“fg, É, µ, ©“K—p, ³, è, Ü, ¹, ñB, ±, ìf` fFbfN f{bfNfX, ðflf“ , É, ·, é, ÆA f[]fj f<  
flfbfgf[]fN, Éf<[]f efBf“fO, Å, «, È, ç (‘—M[]æ, ²Æ©, Ä, ©, ç, È, ç) fpfPfbfg, ífŠf, []fg  
flfbfgf[]fN, ìŠù`è, ìfQ[]fgfE fFfC, É“]’—, ³, è, Ü, ·B, ³, ç, ÉAfŠf, []fg flfbfgf[]fN, Æf[]fj f<  
flfbfgf[]fN, ìŠÔ, ÅfAfhfCefX, ì<£[]‡, ²”[]¶, µ, ½[]ê[]‡, íAfŠf, []fg flfbfgf[]fN, ð—D[]æ, µ, ÄfAfhfCefX  
%oðCE^, ³, è, Ü, ·B



f\_fCf,,f<fAfbfv flfbfgf□□[fN fNf%ofCfAf“fg,í□ASLIP fT□[fo□[,É□Ú'±,Å,«,Ü,·□BSLIP fT□[fo□[,É□Ú'±  
,·,é,É,í□AIP fAfhfCEfX,ðŽw'è,μ,È,¯,è,î,È,è,Ü,<sup>1</sup>,ñ□BIP fAfhfCEfX,í□A'É□í,í^□[f~fif< fEfBf“fhfE,Å“ü—  
í,μ,Ü,·,<sup>a</sup>□A,±,±,Å, ,ç, ©,¶,ß“ü—í,μ,Ä, ¨,,±,Æ,à,Å,«,Ü,·□B□Ú'±Žž,ÉfT□[fo□[,<sup>a</sup>Š,,è“-.,Ä,é IP fAfhfCEfX,<sup>a-</sup>  
%oň“¯,¶□ê□‡,É,<sup>3/4</sup>, □A,±,±,ÉfAfhfCEfX,ð“ü—í,μ,Ä,,<sup>3/4</sup>,<sup>3</sup>,ç□B

DNS fT[]fo[][]AWINS fT[]fo[][]A,¨,æ,Ñ,»,ê,¼,ê,ìZfjff“f\_Š fT[]fo[][] (fofbfNfAfbfv fT[]fo[][])  
,đŽw’è,Å,«,Ü,·□B  
0.0.0.0 ,É□Ý’è,³,ê,½fAfhfÇfX,Ü,½,í’l,ª“ü—í,³,ê,Ä,ç,È,çfAfhfÇfX,đŽw’è,μ,Ä,à□A,»,ìf[]f€  
fT[]fo[][] fAfhfÇfX,ì□\□¬,í•ï□X,³,ê,Ü,¹,ñ□B

DNS fT[]fo[][,ì IP fAfhfCEfX,ø“ü—í,μ,Ü,·[]B

fZjff“f\_fŠ DNS fT□[fo□[.ì IP fAfhfCEfX,ø“ü—í,μ,Ü,·□B

WINS fT[]fo[],ì IP fAfhfÇfX,ð“ü—í,μ,Û,·B

fZjf“f\_fŠ WINS fT□[fo□[,ì IP fAfhfĈefX,š“ü—í,μ,Ü,-□B

f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì SLIP ,Á,í□AVan Jacobson (VJ) TCP/IP fpfPfbfg fwfbf\_□[<sup>^3</sup>□k<@“\,²fTf|  
□[fg,<sup>3</sup>,é,Ä,ç,Ü,·□BV] ,í□A<sup>1/2</sup>,,ì SLIP □<sup>^</sup>—□CEn,ÁfTf|□[fg,<sup>3</sup>,é,Ä,ç,éfvf□fgfRf<□Á“K%»<@“\,Á,·,²□A<sup>è</sup>•”,ì SLIP  
□<sup>^</sup>—□CEn,í VJ ,ðfTf|□[fg,μ,Ä,ç,Ü,<sup>1</sup>,ñ□B

,±,ìf`fFfbfN f{fbfNfX,ðfift (Šù`è,ì□Y`è) ,É,·,é,Æ□Af\_fCf,,f<fAfbfv flfbfgf□□[fN,ì SLIP  
,í□A<sup>^3</sup>□k,<sup>3</sup>,é,½fpfPfbfg,ðCEŸ□o,μ,æ,κ,Æ,μ□A<sup>^3</sup>□k,<sup>3</sup>,é,½fpfPfbfg,²CE©,Á,©,Á,½□é□±,ÍŽ©“@“I,É VJ  
fwfbf\_□[<sup>^3</sup>□k,ðŽg,ç,Ü,·□B,±,ì□Y`è,É,μ,Ä,“,·,Æ□A□Ú`±,ð³□í,ÉŠm—š,Á,«,é%oÁ“\□«,²□Á,à□,,-  
,È,è□A,<sup>3</sup>,ç,É□A,½,ç,Ä,ç,ì□é□±,í□Á—Ç,ìfpftfH□[f}f“fX,ð“¾,é,±,Æ,²,Á,«,Ü,·□B

fT□[fo□[‘κ,ÆfNf%oCfAf“fg’κ,ì—¼•û,Á<sup>^3</sup>□k,ìCEŸ□o,²ŽŽ,Ý,ç,é,é□é□±,í□A<sup>^3</sup>□k<@“\,²fAfNfefBfu%o»,<sup>3</sup>,é,É,ç  
,±,Æ,à, ,è,Ü,·□BfŠf,□[fg fT□[fo□[,à VJ fwfbf\_□[<sup>^3</sup>□k,ðfTf|□[fg,μ,Ä,ç,é,±,Æ,²,í,©,Á,Ä,ç,é□é□±,í□A,±  
,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,μ,Ä<sup>^3</sup>□k<@“\,ðfAfNfefBfu,É,μ□AfpftfH□[f}f“fX,ðCEü□ă,<sup>3</sup>,¹,Ä,-  
,¾,<sup>3</sup>,ç□Bf\_fCf,,f<fAfbfv flfbfgf□□[fN f,fjf^,ì [□ó‘ó] f^fu,ì<sup>^3</sup>□k□î•ñ,ðŠÄŽ<·,é,±  
,Æ,É,æ,Á,Ä□A<sup>^3</sup>□k,²□s,í,é,Ä,ç,é,©,Ç,κ,©,ðŠm”F,Á,«,Ü,·□B

’□ ,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,μ,Ä,ç,Ä□AfŠf,□[fg fT□[fo□[,² VJ fwfbf\_□[<sup>^3</sup>□k,ðfTf|□[fg,μ,Ä,ç  
,É,©,Á,½□é□±□AŽó□M,í□³□í,É□s,í,é,Ü,·,²□A’—□M,ÍŽ,“s,μ,Ü,·□B,±,ì,æ,κ  
,É□é□±□A,Ü,Æ,ñ,Ç,ìfAvfŠfP□[fVf†f“,Á,í‘o•ûCEü,ìÉ□M,²•K—  
v,Æ,È,é,½,β□A’É□í,í□AfZfbfVf†f“,í’tŽ~,<sup>3</sup>,é,Ü,·□B

, ±, ìf` fFbfN f{bfNfX, íAflfbfgf[]fN fj[]fh, ðŽg, Á, Ä, ç, Ä LAN , É, à“ ~ Žž, Éú‘ ±, ³, è, éf\_fCf,, f<fAfbfv  
flfbfgf[]fN fNf%oCfAf“fg, É, µ, ©“K—p, ³, è, Ü, ¹, ñB, ±, ìf` fFbfN f{bfNfX, ðflf“ , É, ·, é, ÆA f[]fj f<  
flfbfgf[]fN, Éf<[]fefBf“fO, Å, «, È, ç (‘—M[]æ, ²Æ©, Ä, ©, ç, È, ç) fpfPfbfg, ífŠf, []fg  
flfbfgf[]fN, ìŠù`è, ìfQ[]fgfEjFfC, É“]’—, ³, è, Ü, ·B, ³, ç, ÉA fŠf, []fg flfbfgf[]fN, Æf[]fj f<  
flfbfgf[]fN, ìŠÔ, ÅfAfhfCefX, ì<£[]‡, ²“[]¶, µ, ½[]ê[]‡, íA fŠf, []fg flfbfgf[]fN, ð—D[]æ, µ, ÄfAfhfCefX  
%oðCE^, ³, è, Ü, ·B



'—□MftfÆ□[f€,ìTfCfY,ð'ì,Ñ,Ü,·□BŠù'è,ìÝ'è,Å,í□A,±,ìTfCfY,í 1006 ,Å,·□BfŠf,□[fg fAfNfZfX fT□[fo□[,ª  
1500 fofCfg,ìfpfPfbfg,ðŽó, ¯•t, ¯,é□ê□‡,í□A1500 ,à'ì'ð,Å,«,Ü,·□B

RAS f^ [f~fif<, í AfŠf, [fg fRf“fsf... [f^, ©, ç' —, ç, ê, Ä, «, ½ f [Oflf“ ^ — — p, ì • ¶ Žš — ñ, ð • \  
Ž, , é • ¶ Žš f x [fX, ì fE fBf“ fhfE, Ä, · B' Ê í A, ±, ì fE fBf“ fhfE, í AfŠf, [fg fRf“fsf...  
 [f^, Ö, ì f [Oflf“, ð í ~ b“ i, É i, B, é, ½, B, É Ž g — p, Ä, «, Ü, · B Ž è“ ©, ì f [Oflf“, í Af^ [f~fif<  
fE fBf“ fhfE, ð Ž g, í, , É AfX fNfŠ fvf g, ð Ž g, Á, Ä Ž ©“ @%o», , é, ±, Æ, à, Ä, «, Ü, · B Ú ×, É, Ä, ç, Ä, í A u f Š f, [fg  
f [Oflf“, É RAS f^ [f~fif<, ð Ž g, g [v, ð Ž Q [Æ, µ, Ä, , ¾, ¾, ç B  
f\_fCf,, f<‘O, “, æ, Ñ f\_fCf,, f<Æ ä, ì f f v f v f f f“, ð • Ì X, ·, é, É, í Af\_fCf,, f< f A f b f v f l f b f g f [fN, ì [fX fN fŠ f v f g] f^ f u, ð Ž g, ç  
, Ü, · B

fŠf,□[fg fRf“fsf...□[f^,ì IP fAfhfCEfX,đ“ü—í,μ,Ü,-□B

fŠf.□[fg fRf“fsf...□[f^,Æ,ìî~b,ð,·,×,ÄŠ@—<sup>1</sup>,μ,½CEã,ÉfNfŠfbfN,μ,Ü,·□B

f\_fCf,,f<fAfbfv flfbfgf□□[fN,ìf}f<f`fŠf“fN<@”\,í□A•;□”,ì•” —□“l,ÈfŠf“fN,ð□A~ \_—□“l,È 1 ,Â,ì ““©”  
,ÉCE<□‡,μ,Û,·□B,±,ì•;□‡fŠf“fN,ð□i□¬,·,é,±,Æ,É,æ,è□A’Ñ^æ•□,ð□L,,·,é,±  
,Æ,ª,Â,«,Û,·□Bf}f<f`fŠf“fN,ª□Â,à^ê”Ê“l,ÉŽg,í,è,é,ì,í□AISDN f`fff|f<,ìCE<□‡,Â,·,ª□A•;□”,ìf,fff€  
,ðCE<□‡,³,¹,½,è□Af,fff€,Æ ISDN %oñ□ü,ðCE<□‡,³,¹,½,è,·,é,±,Æ,à,Â,«,Û,·□Bf}f<f`fŠf“fN,ðŽg,ª  
,É,í□Af\_fCf,,f<fAfbfv fT□[fo□[,Â,àf}f<f`fŠf“fN,ª—LCEø,É,È,Á,Ä,ç,È,¯,ê,Î,È,è,Û,¹,ñ□B  
CEÄ,Ñ□o,μŽž,ÉCEÝ,ç,ÉfŠf“fN,³,¹,é’•’u,ð’l’ð,μ,Ä,,¾,³,ç□B

,±,ì'•'u,ì□V,μ,ϕ“d~b”Ô□t□A,Û,½,í'ã'Ö“d~b”Ô□t,ð'Ç%oÁ,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

'•'uCEĀ—L,ìŸ'è,ð\Ÿ¬,;é,Æ,«,ÉfNfŠfbfN,μ,Û,·B,½,Æ,!,ÎAŸ'±,Éf,fff€;đŽg,ꝛêŸ‡,ÍA,±,±,đfNfŠfbfN,;é,ÆAŸ,fff€,ìÊM'¬"x,đŸ'è,μ,½,èAŸ,fff€^³Ÿk<@"\,đ—LCEø,É,μ,½,è,Ā,«,Û,·B

,±,ìfRf“fsf...[]f^[]ã,ì'•'u,ì't,©,ç[]A[]Ú'±[]ó'Ô,đ•\Ž|,.,é'•'u,đ'l,Ñ,Ü,·[]B



Ú±,ªfAfNfefBfu,È,Æ,«,íA,±,±,É,íCE»Ý,ì'•u,ìŽg—pó<µ,ª•\Žì,³,ê,Ü,·BfNf%ofCfAf“fg,ìê±,íA“d~b' f  
Gf“fgfŠ,ª•\Žì,³,êAfT[]fo[],ìê±,íAÚ'±,³,ê,Ä,ç,éft[]fU[],ª•\Žì,³,ê,Ü,·B  
Ú±ó'Ó,ª”ñfAfNfefBfu,ì,Æ,«,íACE»Ý,±,ìfGf“fgfŠ,ìÚ'±,í[s,í,ê,Ä,ç,Ü,¹,ñB

f,ff€,,Æ,İŠÔ,İff□[f^,İ“]’—’—“x,<sup>a</sup> bps (frfbfg/•b) ’P^Ê,Å•\Ž!,<sup>3</sup>,ê,Ü,.□B

• " —□"l,É□Ú'±,ªŠm—š,µ,Ä,©,ç,ìŒo%œßŽžŠÔ,ª•b'P^Ê,Å•\Ž! ,ª,ê,Ü,·□B

ŽóMff[]f^,ìó'Ô,ª•\Ž!,³,ê,Û,·B

'—□Mff□[f^,ì□ó'Ô,â•\Ž|,³,ê,Û,·□B

□Ú'±'†,É"□¶,μ,½fGf%□[,³•\Ž!,³,ê,Û,·□B

,±,ìÚ'±,ð'Ê,¶,ÄŽóM,μ,½fofCfg",ì‡CEv,ª•\Ž!,³,ê,Û,·B,±,ì""l,íA^³k%øðœ,³,ê,½CEã,ìfofCfg",ð•\ ,μ,Ä,ç,Û,·B

fT[fō[ , ©,čŽóM,μ,½~\_—f|fbfgf[fN ftjCE[f€” ,ª•\Ž!,³,ê,Ü,·BftjCE[f€,ìCE`Ž® ,íAŽg—p,μ,Ä,ç  
,éf|fbfgf[fN fvjfgfRf<,É,æ,èCE^,Ü,è,Ü,·BftjCE[f€,ìA’âftjCfY,í 1514 fofCfg,Å,·B—‘z”l,ÈŽd—  
l,ÅÝCEv,³,ê,½fNf%fCfAf“fg fT[fō[ fAfvfŠfP[fVf#f” ,íAŠeftjCE[f€  
,đŠ®‘S,ÉA,Ü,½,í,Ù,ÚŠ®‘S,ÉŽg,çAftjCE[f€” ,ª,Å,« ,éCEÀ,è,È,,È,é,æ,ª,É,μ,Äff[f^,đ”]’—  
,μ,Ü,·BftjCfY,ì¬,³,çftjCE[f€,ª’â—É,É”]’—,³,ê,Ä,ç,éèè#AŽÀs’t,ìfAfvfŠfP[fVf#f” ,íA,¨,»,-  
A”]’—’¬“x,ì’x,çÚ’±,ÅCEø—!,æ,ŽÀs,Å,« ,é,æ,ª,É,íÝCEv,³,ê,Ä,ç,Ü,¹,ňB



ŽóM,μ,½ff□[f^,ì^³□k,ì"ä—,ª•\Žì,³,é,Ü,·□B^³□k—,í□A'ì,ª□,,ç•û,ª—],Ü,μ,çfpf  
%of□□[f^,Ä,·□B,½,Æ,ì,î□A400 fojCfg,ìff□[f^,đŽóM,μ,Ä^³□k%ø□œ,·,é,Æ 1000  
fojCfg,É,É,Ä,½□ê□#,í□A^³□k—,í 60% ,Ä,·□B,±,ì'ì,É"½%of,³,é,Ä,ç,é,ì,í□Añ  
ftfgfEjFA^³□k,¾, ,Ä,·□B'B□—,Ä,«,é^³□k—,í□A"ì'—,³,é,éff□[f^"à,É, ,é□ç'·"•ª,ì—  
É,É,æ,Ä,ÄÆ^,Ü,è,Ü,·□B,½,Æ,ì,î□AfejljXfg,âfrfbjgf}fbfv,íÆø—,æ,^³□k,³,é,Ü,·,ª□AZÄ□s%oÄ"\  
,Èftj@fCfç,âŠù,É^³□k,³,é,Ä,ç,éff□[f^,í, ,Ü,èÆø—,æ,^³□k,³,é,Ü,¹,ñ□B

IP fv□f□gRfç VJ fwfbf\_□[³□k,đŽg,Ä,Ä (fAfNfefBfu,É,μ,Ä) □Ú'±,μ,Ä,ç,é□ê□#,í□A,±,ì'ì,Éfwfbf\_□[,ì^³□k—,à  
%oÄ,ì,ç,è,Ü,·□B,±,ì,½,ß□A[ñftfgfEjFA,É,æ,é^³□k,ð□s,π] f`fFjbfN f{fbfNfX,ðfift,É,μ,Ä,ç,Ä,à (,±  
,ì□Y'è,íff□[f^,ì,Ý,É"K—p,³,é,é,ì,Ä□Añft,É,μ,Ä,àfwfbf\_□[,ì^³□k,í-³Æø,É,É,è,Ü,¹,ñ)□A,±,ì'ì,í 0  
,É,É,ç,É,ç□ê□#,à, ,è,Ü,·□B

'□ f}fç`fLfffXfg ff□[f^fof%of€,âftjCfy,ì"ñ□í,É□—,³,çftjCE□[f€,È,ç,ì^è•",ìftjCE□[f€,É'í,μ,Ä,í□Añ  
ftfgfEjFA^³□k,í□s,í,é,Ü,¹,ñ□B,±,ì,æ,π,ÈftjCE□[f€,í□A^³□k□^—□,ìÆvZZ,É,ÍSÜ,Ü,é,Ü,¹,ñ□B

,±,ìÚ'±,ð'Ê,¶,Ä'—M,μ,½fofCfg",ì‡CEv,ª•\Ž!,³,ê,Û,:B,±,ì""'l,íA^³k%œ,³,ê,é'O,ìfofCfg",ð•\  
,μ,Ä,ç,Û,:B

fT[fO[.Ö'—M,μ,½~\_—flfbfgf[fN ftjCE[f€",ª•\Ž!,ª,è,Ü,·BftjCE[f€,ìCE`Ž® ,íAŽg—p,μ,Ä,ç  
,élfbfjgf[fN fvjfgfRf<,É,æ,Á,ÄCE^,Ü,è,Ü,·BftjCE[f€,ìA'âftjCfY,í 1514 fofCfg,Ä,·B—'z"l,ÈŽd—  
l,ÄÝCEv,ª,è,½fNf%ofCfAf"fg fT[fO[ fAfvfŠfP[fVf#f",íAŠeftjCE[f€  
,đŠ®'S,ÉA,Ü,½,í,Ü,ÚŠ®'S,ÉŽg,çAftjCE[f€",ª,Ä,«,éCEÀ,è,,È,,È,é,æ,æ,É,μ,Äff[f^,ð"j'—  
,μ,Ü,·BftjCfY,ì¬,ª,çftjCE[f€,ª'â—É,É"j'—,ª,è,Ä,ç,éèè#AŽÀs't,lfAfvfŠfP[fVf#f",íA,¨,»,-  
A"j'—'¬"x,ì'x,çÚ'±,ÄCEø—!,æ,ŽÀs,Ä,«,é,æ,æ,É,íÝCEv,ª,è,Ä,ç,Ü,ª,ñB

"J'—,μ,½ff□[f^,ì^³□k,ì"ä—,ª•\Ž!,³,ê,Ü,·□B^³□k—,í□A'l,ª□,,ç•ù,ª-],Ü,μ,çfpf  
%of□□[f^,Ä,·□B,½,Æ,!,í□A1000 fofCfg,ìff□[f^,ð 400 fofCfg,É^³□k,μ,Ä"J'—,μ,½□ê□#,í□A^³□k—,í 60%  
,Ä,·□B,±,ì'l,É"½%of,³,ê,Ä,ç,é,ì,í□A\ftfgfEjFfA^³□k,¾,¯,Ä,·□B'B□-,Ä,«,é^³□k—,í□A"J'—,³,ê,éff□[f^"à,É, ,  
é□ç'·"•ª,ì-É,É,æ,Á,ÄCE^,Ü,è,Ü,·□B,½,Æ,!,í□AfeLjXfg,âfrfbfgf}fbfv,íCEø—,æ,^³□k,³,ê,Ü,·,ª□AŽÀ□s  
%oÄ"\,Èftf@fCf<,âŠù,É^³□k,³,ê,Ä,ç,éff□[f^,í, ,Ü,èCEø—,æ,^³□k,³,ê,Ü,¹,ñ□B

IP fv□f□fgfRf< VJ fwfbf\_□[ì^³□k,ðŽg,Á,Ä (fAfNfefBfu,É,μ,Ä) □Ú'±,μ,Ä,ç,é□ê□#,í□A,±,ì'l,Éfwfbf\_□[ì^³□k—,à  
%oÁ,!,ç,ê,Ü,·□B,±,ì,½,ß□A[\ftfgfEjFfA,É,æ,é^³□k,ð□s,π] f`fFfbfN f{fbfNfX,ðfift,É,μ,Ä,ç,Ä,à (,±  
,ì□Y'è,ìff□[f^,ì,Ý,É"K—p,³,ê,é,ì,Ä□Aift,É,μ,Ä,àfwfbf\_□[ì^³□k,í-³CEø,É,È,è,Ü,¹,ñ)□A,±,ì'l,í 0  
,É,È,ç,È,ç□ê□#,à, ,è,Ü,·□B

'□ f}f<f`fLfffXfg ff□[f^fof%of€,âfTfCfY,ì"ñ□í,É□-,³,çftfCE□[f€,È,Ç,ì^ê•",ìftfCE□[f€,É'í,μ,Ä,í□A\A  
ftfgfEjFfA^³□k,í□s,í,ê,Ü,¹,ñ□B,±,ì,æ,π,ÈftfCE□[f€,í□A^³□k□^—□,ìCEvŽŽ,É,íŠÜ,Ü,ê,Ü,¹,ñ□B

„%ñç'·Ĉÿ (CRC) ,ž, "s,É,æ,è"¶,μ,½fGf%o[ ,ì" ,ª·\Ž!,³,è,Û,·BCRC fGf%o[ ,íAff[ f^  
fpfPfbfg"à,ÉfT[f o[ ,©,ç³,μ,“ž'... ,μ,È,©,Á,½·¶Žš,ª, ,é,±,Æ,ðŽ!,μ,Û,·B

'—,ç,ê,Ä,,é,í,,ì•ŕŽš,ð^è'èŽžŠÔ“à,ÉŽó□M,Å,«,©,Á,½%ñ□”,ª•\Ž!,³,ê,Ü,·□B,±,ĵGf%□[,ª”-  
□ŕ,·,é,Æ□Aƒf□Ĵf^,ªŽ,,í,ê,½,ÆCE©,È,³,ê□AƒfĵgfEƒfA,í□Ä'—v<□,ð'—,è,Ü,·□B

ŽóM,μ,½•ŕŽš,ª—,ç,è,Ä,,é,í,,ì•ŕŽš,Æ^Ù,È,Á,Ä,ç,é%ň",ª•\Ž!,ª,è,Û,·B^è"Ê,ÉAZ,,í,è,½•ŕŽš,ª, ,é,Æ  
,«A,Û,½,Íf^fCf€fAfEfg fGf%[],"[]μ,½,Æ,«,ÉAfAf%ofCf[]"fg fGf%[],"[]μ,Û,·B

"ň"~Šú'É□M,Å-³CEø,ÉfXf^□[fg frfbfg,Ü,½,ÍfXfgfbfv frfbfg,ð"²,π•¶Žš,ðŽó□M,μ,½,±,Æ,ðŽ!,·fGf%□□,ì"□¶  
%□ñ□" ,ª•\Ž!,³,è,Ü,·□B,±,ÌfGf%□□,ª"□¶,μ,ÄfŠf,□[fg fAfNfZfX□Ú'±,ðŠm—š,Å,«,È,ç□ê□‡,Í□AfRf"fsf...  
□[f^,©,çf,fff€,Ö,ì (DTE ,©,ç DCE ,Ö,ì) ff□[f^" ]'—'—"x,ªŠÖ^á,Ä,Ä,ç,é%□Å"□«,ª, ,è,Ü,·□B,±,ì-â'è,ª"-  
□¶,μ,½,Æ,ç,π,±,Æ,Í□AfŠf,□[fg fAfNfZfX—p,Ìf,fff€,ì□□—"à—e,ªŽg—p,μ,Ä,ç,é,fff€,É□‡,Ä,Ä,ç,È,ç%□Å"\  
□«,ª, ,è,Ü,·□Bf{□[ fCE□[fg,Ü,½,Ífn□[fhfEfFfA ftf□□[□§CEä,ì□Ý'è,ð•İ,¡,é,Æ□A-  
â'è,ðCEyCE ,Å,«,é□ê□‡,ª, ,è,Ü,·□B,±,ÌfGf%□□,ªCEp'±"l,É"□¶,·,é□ê□‡,â□ARAS CEo—R,ì□Ú'±,ªŠm—  
š,Å,«,È,ç□ê□‡,Í□AfVfXfefeŠÇ—□ŽÒ,É-â,ç□‡,í,¹,Ä,,³/4,³,ç□B



'—□M'α, ðRf"fsf...□[f^, É, æ, éff□[f^, ì"]'—'—"x, a□AŽó□M'α, ðRf"fsf...□[f^, ðfn□[fhfEjFfA fCEfxf<, Å, ð^—□" \—  
í, ð', ð, ½%ñ□", a•\Ž, ³, ê, ð, ·□B, ±, ð-â'è, aCEp'±, ·, é□è□±, í□Af{□[ fCE□[fg, ð'á, ç'l, É•İ□X, µ, Ä, , ¾, ³, ç□B

'—□M'α, ðRf"fsf...□[f^, É, æ, éff□[f^, ì"]'—'—"x, a□AŽó□M'α, ðRf"fsf...□[f^, ðftfgfEjFfA fCEfxf<, Å, ð^—□" \—  
í, ð', ð, ½%ñ□", a•\Ž!, ³, ê, ð, ·□B, ±, ð-â'è, aCEp'±  
, ·, é□ê□†, í□A{□[ fCE□[fg, ð'á, ç'í, É•ï□X, ·, é, ©□A, ð, ½, íŽó□M'α, ðRf"fsf...□[f^, ð CPU , É, ©, ©, é•%  
%x, ðCEyCE, μ, Ä, , ¾, ³, ç□B

,±,ìÚ'±,ÉŠÖ, :é“Æv□î•ñ,ð 0 ,ÉfŠfZfbfg,μ,Û, □B

,±,ì'•'u,ìfìbfqf□□[fN□Ú'±,ÉŠÖ,·,é□Ú□×□î•ñ,ª•\Žì,³,ê,Ü,·□B

□Ú'±,đ□Ø'f,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B

f,fff€ŠÔ,ìfSfVfG[]fVf+f",³|—¹,µ,½,Æ,«,É[]Af[][]fjf< f,fff€,©,çfRf"fsf...[]f^,É'—[]M,³,ê,½•¶Žš—ñ,ª\ Ž,³,ê,Ü,·[]B^ê"É"l,É[]A•¶Žš—ñ,í CONNECT ,ĂŽn,Ü,è[]A'½,- ,ìê[]#[]A,» ,ìĀă,É[]AfSfVfG[]fVf+f",³,ê,½<@"\,ì[]ó<µ,Æ%ñü'→"x,ª±,«,Ü,·[]B,½,Æ,ì,î[]A"V.42 bis is in use" ,È,Ç,Â,·[]BISDN %ñü,đŽg,Á,Ă,č,éê[]#,í[]A,±,±,É,í%½,à•\Ž,³,ê,Ü,¹,ñ[]B"ĂŽê,È%ž"š,ì[]à- ¾,É,Â,č,Ă,í[]AŽg—p,µ,Ă,č,éf,fff€,ìf}ffj...fAf<,đŽQ[]Æ,µ,Ă,,¾,³,č[]B

'•'u,āŽóM,μ,½ff[f^,ì^³k%øðœ'O,ìfofCfg",ā•\Ž!,³,ê,Û,·B

'•'u, a' — □M, μ, ½ff□[f^, î^3□kÆã, ìfofCf g□", a•\Ži, 3, ê, Û, ·□B



,Ç,İfİbfçfN,ÆA,±,İRf“fsf...[f^ä,İ,Ç,İ'•'u,ªÚ'±,³,ê,Ä,ç,é,©A,¨,æ,Ñ,Ç,İft[fU[ªÚ'±,³,ê,Ä,ç  
,é,İ,©,ðE©,é,±,Æ,ª,Ä,«,Ü,·B

,±,ì'•'u,ìfìbfqf□□[fN□Ú'±,ÉŠÖ,·,é□Ú□×□î•ñ,ª•\Žì,³,ê,Ü,·□B

□Ú'±,đ□Ø'f,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B

ŽŸ,ÉŽ!,·Ú'±f□bfZ□[fW,đ"`,!,é,½,ß,É%°¹,đ-Â,ç,·,æ,κ,ÉRf“fsf...□[f^,đ□□¬,Â,«,Ü,·□B

,±,ìf`fFfbfN f{fbfNfX,ðfif“,É,·,é,Æ□A□Ú'±,³□³□f,ÉŠm—§,³,è,½,Æ,«,É%°¹,ð-Â,ç,μ,Û,·□B

,±,ìf`fFbfN f{fbfNfX,ðfif“,É,·,é,Æ□A□Ú‘±,³□Ø’f,³,è,½,Æ,«,É%°¹,ð-Â,ç,μ,Û,·□B

, ±, ì, f, F, f, b, f, N, f, {, f, b, f, N, f, X, ð, f, l, f, “, É, ·, é, Æ, □, A, f, f, □, [, f, ^, , a, “, ], ‘, —, ³, ê, ½, Æ, «, É, %, °, ¹, ð, -Â, ç, µ, Û, ·, □, B

,±,ÿ`fFbfN f{fbfNfX,ðfif“,É,·,é,Æ□AfGf%□[,³”□¶,μ,½,Æ,«,É%□¹,ð-Â,ç,μ,Û,·□B



,±,ìf`fFbfN f{fbfNfX,ðfif“ ,É,·,é,Æ□Aflfbfgf□□[fN f,;jjf^,ª<N“ ®,³,è,½CEä,É□Af^fXfNfo□[ ,É [f\_fCf,,f<fAfbfv  
flfbfgf□□[fN f,;jjf^ ] fAfCfRf“ ,É'í%ž,·,éf{f^f“ ,ª•\Ž|,³,è,Ü,·□B

f\_fCf,,f:fAfbfv flfbfgf[]fN f,fjf^,í[]AfXfe[]f^fX f%fCfg,ðfAfCfRf“,©ffXfNfgfbfv[]ã,ìEfbf“fhfE,ì 2  
,Ã,ìE` ,ì,Ç,ì,ç,©,É•Žì,·,é,æ,π,É[]¬,Å,«,Ü,·[]B

,±,ìfifvfVf#f“,ð'ì'ð,·,é,Æ□AfXfe□[f^fX f%ofCfG,í□Af^fXfNfo□[,ìŽžÆv,ì—x,É [f\_fCf,,f·fAfbfv flfbfgf□□[fN  
f.fjf^] fAfCfRf“,Æ,μ,Ä·\Žì,³,ê,Û,·□B

,±,ìfìfvfVf#f“,ð'ì'ð,·,é,Æ□AfXfe□[f^fX f%ofCfg,í□AfffXfNfgfbfv□ã,É [f\_fCf,,f<fAfbfv flfbfgf□□[fN f,fjff^]  
fEfBf“fhfE,Æ,μ,Ä•\Žì,³,ê,Ü,·□B

,±,ìf`fFbfN f{fbfNfX,đfif“,É,·,é,Æ□A[f\_Cf,,f<fAfbfv flfbfgf□□[fN f,fff^] fEfBf“fhfE,Éf^fCf<g<,ª•\  
Ž,³,è,Û,·□B

,±,ìf`fFbfN f{fbfNfX,ðflf“ ,É,·,é,Æ□A[f\_Cf,,f<fAfbfv flfbfgf□□[fN f,fjf^]  
fEfBf“fhfE,í,í,É,Ù,©,ìEfBf“fhfE,æ,è,àŽè'O,É•\Ž,³,è,Ü,·□B

fXfe[]f^fX f%fCfg,³fRf“fsf...[]f^[]ã,ì,ç,ìfffofCfX,ìó'Ô,ðŽì,·,©,ð'l,Ô,Æ,«,ÉfNfŠfbfN,μ,Û,·[]B

,±,±,Å%oÁ,!,½•ĪX,đ,·,®Éf\_Cf,,f<fAfbfv flfbfgf[]fN f,fjf^,É“K—p,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B



,±,ìf`fFfbfN f{fbfNfX,ðflf“,É,·,é,Æ□Af\_fCf,,f<fAfbfv flfbfgf□□[fN f,ffj^,ìfEfbf“fhfE“à,ÅfXfe□[f^fX f  
%ofCfg,³□è,ß,é—ì^æ,ì'å,«,<sup>3</sup>,ð□§CEä,Å,«,é,æ,π,É,È,è,Ü,·□B

,±,ìfRf“fsf...[]f^[]ã,ì'•u,ì't,©,ç[]AfXfe[]f^fX f%ofCfg,ð•\Ž!,:,é'•'u,ð'l'ð,μ,Û,·[]B

'l'đ,μ,½'•'u,Ü,½,ÍÚ'±,ª•\Žl,³,ê,Ü,·□B

,±,ì'•'u,ª□Ú'±,ÉŽg,Á,Ä,č,éfvf□fgfRf<,ª•\Ž!,³,ê,Û,·□B

f\_fCf,,f<fAfbfv fT[]fo[],©,çRf“fsf...[]f^,ÉŠ,,è“-,Ä,ç,ê,½fAfhfçfX,î^è—,ª•\Ž,³,è,Ü,·B•\ Ž,³,è,é,ì,í[]Af\_fCf,,f<fAfEfg[]Ú'±-p,Æ,μ,Ä-L∅,É,È,Á,Ä,ç,éfvf[]fgfRf<,îfAfhfçfX,¾,¯,Ä,·B

RAS fT[]fo[],ì IP fAfhfCEfX,³•\Ž!,³,ê,Ü,-□B

f\_fCf,,fAfbfv fT[fo[.,©,çRf“fsf...[f^,ÉŠ,,è“-,Ä,ç,ê,½ IPX flfbfgf[[]fN”Ô[†,ª•\Ž|,³,ê,Ü,·[B

IPX fm[]fh,íA“Á'è,lfRf“fsf...[]f^,đŽ`•Ê,μ,Ü,·[]B



,±,ìfRf“fsf...[]f^,ì-¼'O,ª•\Žì,³,ê,Ü,·[]B

f\_fCf,,f·fAfbfv flfbfgf□□[fN,Å,íŠefGf“fgfŠ,É•;□”,ì“d~b”Ô□†,ðŠ,,,è“- ,Ä,é,±,Æ,³,Å,« ,Ü,·□B,±  
.ê,í□A•;□”,ì“d~b”Ô□†,ð—p^Ó,μ,Ä, ,é□Ú’±□æ,É□Ú’±,·,é□ê□‡,É•Ö—~ ,Ä,·□B  
fGf“fgfŠ,É 2 ,Ä-Ú^È□~ ,ì“d~b”Ô□†,ð’Ç%oÁ,·,é,É,í□A□V,μ,ç“d~b”Ô□†,ð“ü—í,μ□A[‘Ç%oÁ]  
.ðfNfŠfbfN,μ,Ü,·□B

fGf“fgfŠ,É 2 ,Â-Ú^È~ ,ì“d~b”Ô†,đ'Ç%oÁ, ,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B

[“d~b”Ô□t] f{fbfNfX,Å'ı'đ,³,ê,Ä,ç,é“d~b”Ô□t,đ□V,μ,ç“d~b”Ô□t,É'u,«Š,ı,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

fGf“fgfŠ,ì‘ă‘Ö“d~b”Ô□t,ì^ê—,ª•\Žì,³,ê,Û,·□B

[“d~b”Ôt] f{fbfNfX,Å‘đ,μ,½“d~b”Ôt,đA-Ú“l,ì#~ ,É,È,é,Ü,Åã,É^Ú“® ,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B  
f\_fCf,,f<fAfbfv flfbfgf[fN,íAÚ’±,Šm—š,³,é,é,Ü,Åã,ì”Ôt,©,ç#Éf\_fCf,,f<,μ,Ä,ç,«,Ü,·B

[“d~b”Ôt] f{fbfNfX,Å‘đ,μ,½“d~b”Ôt,đA-U“l,ì#~ ,É,È,é,Ü,Å%º,É^Ú“ ®,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B  
f\_fCf,,f<fAfbfv flfbfgf[fN,íAÚ’±,Šm—š,³,é,é,Ü,Åã,ì”Ôt,©,ç#Éf\_fCf,,f<,μ,Ä,ç,«,Ü,·B

[“d~b”Ôt] f{fbfNfX,Å'1'ð,μ,½“d~b”Ôt,ðíœ,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B



,±,ìf`fFfbfN f{fbfNfX,ðfif“,É,μ,Ä,¨,,Æ□A□³□í,É□Ú‘±,³,ê,½“d~b”Ô□t,ª^ê——  
,ì^ê”Ô□ã,Û,Å^Ú“®,³,ê,Û,·□BŽŸ%oň“˘,¶“d~b’ fGf“fgfŠ,Åf\_fCf,,f<.,é,Æ,«,í□A,Û,·□ã,É^Ú“®,³,ê,½”Ô□t,Å□Ú’  
±,ªŽŽ,Ý,ç,ê,Û,·□B

Ú“á”Ô†,ÍA“d~b’ fGf“fgfŠ,ì“d~b”Ô†,ìæ“á,É’Ç%Á,³,ê,Û,·B  
—~—p%Á“\,ÈÚ“á”Ô†,ì^ê—,ÉÚ“á”Ô†,ð’Ç%Á,·,é,É,ÍA,±,ìf{fbfNfX,ÉÚ“á”Ô†,ð“ü—Í,μA[’Ç%Á]  
,ðfNfŠfbfN,μ,Û,·B

—~—ρ%oÁ“\,È□Ú“a”Ô□†,ì^è—,É□V,μ,ϕ□Ú“a”Ô□†,đ’Ç%oÁ,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

[Ú“a”Ôt] f{fbfNfX“à,Å<'²•\Ž|,³,ê,Ä,ç,éÚ“a”Ôt,ðV,μ,çÚ“a”Ôt,É'u,«Š,ı,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B

—~—p%oÂ“\,È□Ú“a”Ô□†,ì^ê—,a•\Ž! ,è,Û,·□B

'l'đ,μ,½Ú"ª"Ô†,đ-Ú"l,ì†~ ,É,È,é,Û,Åă,É^Ú" ® ,: ,é,Æ,« ,ÉfNfŠfbfN,μ,Û, ·B

'l'đ,μ,½Ú"ª"Ô†,đ-Ú"l,ì†~ ,É,È,é,Û,Å%º,É^Ú"® , : ,é,Æ,« ,ÉfNfŠfbfN,μ,Û, ·B

'l'đ,μ,½Ú"á"Ô†,đíœ, : é,Æ,«,ÉfNfŠfbfN,μ,Û,·B



Ú"ö"Ôt,íA"d~b' fGf"fgfŠ,ì"d~b"Ôt,ìĀă,ë,É'Ç%Á,³,ê,Û,·B  
—~—p%Á"\,ÈÚ"ö"Ôt,ì^ê—,ÉÚ"ö"Ôt,đ'Ç%Á,·,é,É,íA,±,ìf{fbfNfX,ÉÚ"ö"Ôt,đ"ü—í,μA['Ç%Á]  
,đNfŠfbfN,μ,Û,·B

—~—ρ%oÁ"\,È□Ú"ö"Ô□†,ì^ê—,É□V,μ,ç□Ú"ö"Ô□†,ð'Ç%oÁ,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

[Ú"ö"Ôt] f{fbfNfX"à,Å<'²•\Ž!,³,ê,Ä,ç,éÚ"ö"Ôt,ðV,μ,çÚ"ö"Ôt,É'u,«Š,!,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B

—~—p%oÁ"\,È□Ú"ö"Ô□†,ì^ê—,ª•\Ž†,³,ê,Û,·□B

'l'δ,μ,½Ú"ö"Ô†,δ-Ú"l,ì†~ ,É,È,é,Ü,Åä,É^Ú"® ,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B

'l'δ,μ,½Ú"ö"Ô†,δ-Ú"l,ì‡~ ,É,È,é,Û,Å%º,É^Ú" ® ,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B

'l'đ,μ,½Ú"ö"Ô†,đíœ,:é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B

,ç,ìŠŸ'n,©,çfCf,,f<,:.é,©,đ'I,Ñ,Ü,.B



□V,μ,ϕ□Š□Ý'n,đ'Ç%oÁ,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·□B'Ç%oÁ,μ,½□Š□Ý'n,Í□A[f\_fCf,,f<fAfbfv flfbfgf□□[fN]  
fEfBf“fhfE,ì [“□MCE³] f{fbfNfX,Ā'l'đ,Ā,«,é,æ,α,É,È,è,Ü,·□B

Ú“a”Ôt,žw'è,·,é,ÆAŠe“d~b' fGf“fgfŠ,đ•ĪX,μ,È,,Ä,àA^êŽž“l,É,·,x,Ä,ì“d~b' fGf“fgfŠ,ì“d~b”Ôt,ì  
æ“a,É,»,”Ôt,đ'Ç%oÁ,·,é,±,Æ,a,Ä,«,Ü,·B  
'l'đ,μ,½ŠÝ'n,ÉŽg,αÚ“a”Ôt,đ'l'đ,μ,Ä,,¾,¾,çB

V,μ,φÚ“a”Ôt,đ’Ç%Á,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·B

Ú“a”Ôt,î^ê—,íAfRf“fsf...f^ã,İseftfU[,ªCEÂ•É,ÉŞÇ—,·,é,à,î,Â,·B

Ú"ö"Ôt,žw'è,·,é,ÆAŠe"d~b' fGf"fgfŠ,đ•ĩX,μ,È,,Ä,àA^êžž"l,É,·,x,Ä,ì"d~b' fGf"fgfŠ,ì"d~b"Ôt,ìĚ  
ã,ë,É,»,"Ôt,đ'Ç%oÁ,·,é,±,Æ,³,Å,«,Û,·B  
'l'đ,μ,½ŠÝ'n,ÉŽg,αÚ"ö"Ôt,đ'l'đ,μ,Ä,,¾,³,čB

V,μ,φÚ"ö"Ôt,đ'Ç%oÁ,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B

Ú"ö"Ôt,ì^ê—,íAfrf"fsf...[f^ã,ìŠeft[fU[,ªCEÂ•Ê,ÉŠÇ—,·,é,à,ì,Â,·B

,±,ìf{fbfNfX,É,íA□V,μ,ϕ□Š□Ý'n,đ“ü—í,μ,Ü,·□B

ŠÝ'n,î^ê—,ÉV,μ,ϕŠÝ'n,đ'Ç%Á,·,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B

[ŠÝ'n] f{fbfNfX,Å'l'ð,μ,½ŠÝ'n,ðV,μ,çŠÝ'n,É'u,«Š·,!,é,Æ,«,ÉfNfŠfbfN,μ,Ü,·B



,±,ìfRf“fsf...[]f^,ÅŽg—p,Å,«,éŠŸ'n,ì^ê—,ª•\Ž!,³,ê,Ü,·B

'l'đ,μ,½ŠŸ'n,đíœ,:é,Æ,«,ÉfNfŠfbfN,μ,Ü,:B

[f\_fCf,,f<Žž,É•Â,ŕ,é] f`fFfbfN f{fbfNfX,đfif“,É,.,é,Æ□A“d~b’ (f\_fCf,,f<fAfbfv flfbfgf□□[fN)  
,Í\_fCf,,f<’t,É,í”ň•\Ž!,É,È,è□A□Ú’±,ªŠm—š,³,è,é,Æ•Â,ŕ,ç,è,Û,·□B

f\_fCf,,f'0,ÉfXfNfŠfvfg,àf^[]f~fif<,àŽg,í,È,ç[]é[]#,Í[]A,±,ìf|fvfVf#f“,ð'l'ð,μ,Û,·[]B

f\_fCf,,f<'O,Éf^[]f~fjf< fEfBf“fhfE,ðŽg,æ[]ê[]#,í[]A,±,ìfjfvfVf#f“,ð'l'ð,μ,Û,·[]B  
[]ufŠf.[][fg\_f[]Of[]f“,É RAS f^[][f~fjf<,ðŽg,æ[]v,ðŽQ[]Æ,μ,Ä,,¾,³,¢[]B

f\_fCf,,f'0,ÉfXfNfŠfvfg,đŽg,ϣé□†,í□A,±,ífífvfVf†f“,đ'í'đ,μ,Ü,·□B

f\_fCf,,f' O,ÉŽg,xfXfNfŠfvg,đ'l'đ,μ,Ü,·B,±,±,É•\Ž!,³,ê,éXfNfŠfvg,íASWITCH.INF “à,É<Lq,³,ê,Ä,ç  
,Ü,·BSWITCH.INF  
,đ•ÒW,·,ê,ÎASù'¶,ìXfNfŠfvg,đC³,μ,½,èA□V,μ,çXfNfŠfvg,đì□,μ,½,è,Å,«,Ü,·B  
□uSWITCH.INF fXfNfŠfvg,đŽg,Á,ÄŠf,□fg f□Ofif“,đŽ©“®%o»,·,é□v,đŽQ□Æ,μ,Ä,,¾,³,ç□B

Šù'¶, ìfXfNfŠfvg, ðC³, µ, ½, èA V, µ, çfXfNfŠfvg, ðì¬, µ, ½, è, ·, é, ½, ß, É SWITCH.INF , ðŠJ, -  
, Æ, «, ÉfNfŠfbfN, µ, Ü, ·B



SWITCH.INF ,đ•Ò□W,μ,½CEã□AfXfNfŠfvg,ì^ê—,đ□X□V,·,é,Æ,«,ÉfNfŠfbfN,μ,Û,·□B

,±,lf`fFfbfN f{fbfNfX,ðflf“,É,·,é,Æ□A[f\_Cf,,f<•û-@] f{fbfNfX,ÅŽw`è,μ,½'•'u,ªŽg—p,Å,«,È,ç  
,Æ,«,Í□A“~ ,ŋŽí—p,ì'•'u,ª□ú'±,³,è,Ä,ç,é,Û,©,lf|□[fg,ªŽg,í,ê,Û,·□B,½,Æ,í,î□A[f\_Cf,,f<•û-@] f{fbfNfX,Å  
[•W□€f,fff€ (COM1)] ,ð'í'ð,μ□A,±,lf`fFfbfN f{fbfNfX,ðflf“,É,μ,Ä,ç,½□ê□±□ACOM1 ,lf,fff€,ªŽg—  
p't,ì,Æ,«,Í□AŽ©“®“l,É COM2 ,lf,fff€,ªŽg,í,ê,Û,·□B

•;□”,ì'•'u,ð□□¬,μ,Ä,ç,Ä□Ä□%o,ì'•'u,É%o½,©^Û□í,a, ,é□ê□±,Í□A,±,lf`fFfbfN f{fbfNfX,ðflft,É,·,é,ÆCE  
`^ö,ð“È,«Ž~,ß,â,·,È,è,Û,·□B

RAS ,íAŽ ,”s,μ,½fŠf“fN,ìÄÚ’±,žž,Ý,Ä,č,Ü,·B,±,ì<@”\,ð•ïX,·,é,É,íAf\_fCf,,f<fAfbfv  
flfbfgf[]fN,ÅA[„,ì¼] ,ðNfŠfbfN,μ,Ä [ft[]fU[][]’è] ,ð’I’ð,μ,Ü,·BŽŸ,ÉA[f\_fCf,,f<]  
f^fu,ÅA[fšf“fNŽ ,”sžž,Éšf\_fCf,,f<,·,é] f`fFfbfN f{fbfNfX,ðflft,É,μ,Ü,·B  
 ,±,ì<@”\,³[]í,É“®[]i,·,é,É,íARAS ,ìf[]f\_gf\_fCf,,f<,žÄ[]s,³,è,Ä,č  
,É,·,è,î,È,è,Ü,¹,ñBf[]f\_gf\_fCf,,f<,ð<N“® ,·,é,É,íAfRf“fgf[]f< fpflf<,ì [fT[]f\_rfX]  
fAfCfRf“ ,ðf\_fuf<fNfŠfbfN,μA[Remote Access Autodial Manager]  
,ðf\_fuf<fNfŠfbfN,μ,Ü,·B[fXf^[]f\_gfAfbfv,ìŽí—p] ,Å [Ž©“®] ,Ü,½,í [Žè“®] ,ð’I’ð,μA[OK]  
,ðNfŠfbfN,μ,Ü,·BŽŸ,ÉA[fT[]f\_rfX] f\_fCfAfbfv f{fbfNfX,Å [Šžn] ,ðNfŠfbfN,μ,Ü,·B

,±,ìf`fFfbfN f{fbfNfX,ðfif“ ,É,·,é,Æ□A□Ú'±,ªŽ,“s,μ,½,Æ,« ,ÉfŠf\_fCf,,f< ,·,é<@“\,ª—LCEø,É,È,è,Ü,·□B,±,ì<@“\ ,ª—LCEø,É,È,Á,Ä,ç,é,Æ□A□Ú'±,ªŽ,“s,μ,½,Æ,« ,É,ÍŽ©““®“I,É□Ä□Ú'±,ª,è,Ü,·□B,±,ì<@“\,Í□ARemote Access Autodial Manager fT□[frfX,ªŽÀ□s,ª,è,Ä,ç,é,Æ,« ,É,μ,©““®ì,μ,Ü,¹,ñ□B

Remote Access Autodial Manager fT□[frfX,ð<N“® ,·,é,É,Í□AfRf“fgf□□[f< fpf]f<,ì [fT□[frfX] fAfCfRf“ ,ðf\_fuf<fNfŠfbfN,μ□A[Remote Access Autodial Manager]

,ðf\_fuf<fNfŠfbfN,μ,Ü,·□B[fXf^□[fgfAfbfv,ìŽí—p] ,Å [Ž©“®] ,Ü,½,í [Žè“®] ,ð'I'ð,μ□A[OK]

,ðfNfŠfbfN,μ,Ü,·□BŽÿ,É□A[fT□[frfX] f\_fCfAf□fO f{fbfNfX,Å [Š]Žn] ,ðfNfŠfbfN,μ,Ü,·□B

**“ÁŽě,Èf\_fCf,,f< flfvfVf†f”**

1.Â,lfGf“fgfŠ,É•j□”,l“d~b”Ô□t,ðŽg,⊘

□Ú“a”Ô□t,.,æ,Ñ□Ú”ö”Ô□t,ðŽg,⊘

fpf<fX f\_fCf,,f< (%oň“lŽ@f\_fCf,,f<)

fg□[f“ f\_fCf,,f< (fvfbfVf...Ž@f\_fCf,,f<)

“d~b”Ô□t,l□C□üŽg

flfyfC□[f^,Ü,½,lŽè“@,É,æ,éf\_fCf,,f<

fŠf\_fCf,,f<,l□Ý’è

**1 ,Ä,lfGf“fgfŠ,É•i□”,ì“d~b”Ô□t,ðŽg,æ**

f\_fCf,,f<fAfbfv flfbfgf□□[fN,Ä,ÍŠefGf“fgfŠ,É•i□”,ì“d~b”Ô□t,ðŠ,,,è“-„Ä,é,±,Æ,ª,Ä,«„Ü,·□B,±  
,é,í□A•i□”,ì“d~b”Ô□t,ª—p^Ó,³,è,Ä,ç,é□Ú’±□æ,É□Ú’±,·,é□ê□‡,É•Ö—~„Ä,·□B

**fGf“fgfŠ,É 2 ,Ä-Ú^È□~,ì“d~b”Ô□t,ð’Ç%oÁ,·,é,É,Í**

- 1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì [Šî-{} f^fu,Ä□A[„»„ì’¼] ,ðfNfŠfbfN,µ,Ü,·□B
- 2 [□V,µ,ç“d~b”Ô□t] f{fbfNfX,É□V,µ,ç“d~b”Ô□t,ð“ü—í,µ□A[’Ç%oÁ] ,ðfNfŠfbfN,µ,Ü,·□B
- 3 [“d~b”Ô□t] f{fbfNfX,Ä“d~b”Ô□t,ð’l’ð,µ,Ä,©,ç [□ä,Ö]□A[%o,Ö]□A[□í□œ] ,ì,ç,„,è,©,ðfNfŠfbfN,·,é,±  
,Æ,É,æ,è□A’l’ð,µ,½“d~b”Ô□t,ð-Ú“l,ì^È’u,Ü,Ä^Ú“®„µ□A“d~b”Ô□t,ì□‡□~,ð•í□X,µ,Ü,·□Bf\_fCf,,f<fAfbfv  
flfbfgf□□[fN,í□A□Ú’±,ªŠm—š,³,è,é,Ü,Ä□A^è—,ì“d~b”Ô□t,ð□ä,©,ç□‡,Éf\_fCf,,f<„µ,Ü,·□B
- 4 [OK] ,ðfNfŠfbfN,µ,Ü,·□B

**Ů“a”Ůt, ,æ,ŇŮ“o”Ůt,žg,æ**

f\_fCf,,f<fAfbfv flfbfgf[fN, íAŮ“a”Ůt,âŮ“o”Ůt,žg,æ,æ,É  
Ů-,Ā,«,Ů,ŮBŮ“a”Ůt,ÆŮ“o”Ůt,žg,æ,ÆŮAŠe“d~b’ fGf“fgfŠ,đ•íX,μ,È,,Ā,àA^èžž“l,É,·,x,Ā,ì“d~b’ f  
Gf“fgfŠ,ì“d~b”Ůt,ÉŮA‘l’đ,μ,½”Ůt,đ’Ç%oĀ,·,é,±,Æ,ª,Ā,«,Ů,ŮBŮ“a”Ůt,ÆŮ“o”Ůt,íA f,fff€  
,žg,Ā,Āf\_fCf,,f<,³,è,é,·,x,Ā,ì“d~b’ fGf“fgfŠ,É“K—  
p,³,è,Ů,ŮB,Ů,½ŮŮ“a”Ůt,ÆŮ“o”Ůt,íA•;Ů”,ì“d~b”Ůt,žg,ĀfGf“fgfŠ,É,à“K—p,³,è,Ů,ŮB  
,½,Æ,ì,îAŠŮŮü,É“d~b,·,é,É,í 8 ,đf\_fCf,,f<,·,é“K—v,ì , ,ézfef<,É’ØŮÝ,μ,Ā,č,ĀŮA’Ē~b—z<à,ìžx•¥,č  
,ÉfNfCEfWfbfg fŮ[fh,žg,æ,èŮŮ,íA,±,lf\_fCfA fŮO f{fbfNfX,žg,Ā,Āzfef<,ìŠŮŮü”ŮM”Ůt,Æ’<—É’Ē~b  
—p,ìžsŠO<Ç”Ů,đŮ“a”Ůt,Æ,μ,Āžw’è,μŮfNfCEfWfbfg  
fŮ[fh”Ůt,Æ^ĀŮŮ”Ůt,đŮ“o”Ůt,Æ,μ,Āžw’è,μ,Ů,ŮB

**“ĀžêfRŮ[fh**

“d~b”Ůt,ì’O,Éf\_fCf,,f<,·,é 0ŮA9ŮA, ,æ,Ň 8 ,íA%oižĐ,È,Ç,ì“d~b’fVfXfef€,Ā^è”É,É,æ,-  
žg,í,é,éŮ“a”Ůt,Ā,ŮB  
Ů”Ů“d~b,Ā,íŮŮfVfXfef€,à—~—p,Ā,«,é<@”\,à,³,Ů,´,Ů,Ā,ŮB,»,ì¼,ì“ĀžêfRŮ[fh,É,Ā,č,Ā,íŮACE\_-ň,μ,Ā,č  
,é“d~b%oižĐ,â’<—É’Ē~b—p,ì’ÉŮM<ÆžŮ,É-â,čŮŮ,í,¹,Ā,,¾,³,čŮB

**“d~b’ fGf“fgfŠ,ÉŮ“a”Ůt,âŮ“o”Ůt,đ’Ç%oĀ,·,é,É,í**

- 1 [f\_fCf,,f<fAfbfv flfbfgf[fN] fEfBf“fhfE,ĀŮA[ŮŠŮÝ’n] ,đfNfŠfbfN,μ,Ů,ŮB
- 2 -Ů“l,ìŮ“a”Ůt,Ů,½,íŮ“o”Ůt,đ,»,è,¼,è,ì^è—,©,ç’l’đ,μ,Ů,ŮB^è—,É•\ž!,³,è,Ā,č  
,È,čŮ“a”Ůt,Ů,½,íŮ“o”Ůt,đ’Ç%oĀ,·,é,É,íŮA[Ů“a”Ůt,ì^è—],Ů,½,í [Ů“o”Ůt,ì^è—]  
,đfNfŠfbfN,μ,Ů,ŮB
- 3 [OK] ,đfNfŠfbfN,μ,Ů,ŮB

šŮ~AŮ€-Ů

“d~b”Ůt,ìŮ“a”Ůt

“d~b”Ůt,ìŮ“o”Ůt

**“d~b”Ôt, ÌÚ“a”Ôt**

Ú“a”Ôt, ðŽw'è, ., é, ÆA“d~b' fGf“fgfŠ, Ì“d~b”Ôt, Ìæ“a, É, » , Ì”Ôt, ð'Ç%Á, Å, «, Ü, .B

—~—p%Á”\, ÈÚ“a”Ôt, Ì^ê—, ÉÚ“a”Ôt, ð'Ç%Á, ., é, É, Í

- 1 [f\_fCf,,f<fAfbfv flfbfgf[fN] fEfBf“fhfE, Ì [ŠÝ'n] , ðfNfŠfbfN, μ, Ü, .B
- 2 [ŠÝ'n, ÌÝ'è] f\_fCfAfbfO f{fbfNfX, Ì [Ú“a”Ôt, Ì^ê—] , ðfNfŠfbfN, μ, Ü, .B
- 3 [V, μ, çÚ“a”Ôt] f{fbfNfX, ÉV, μ, çÚ“a”Ôt, ð“ü—Í, μ, Ü, .B
- 4 [‘Ç%Á] , ðfNfŠfbfN, μ, Ü, .B“ü—Í, μ, ½Ú“a”Ôt, a^ê—, É'Ç%Á, ³, è, Ü, .B[Ú“a”Ôt] f{fbfNfX, Å<'2•\ Ž!, ³, è, Ä, ç, éÚ“a”Ôt, ðV, μ, çÚ“a”Ôt, É'u, «Š, !, éêç, ÍA['uŠ] , ðfNfŠfbfN, μ, Ü, .B
- 5 [Ú“a”Ôt] f{fbfNfX, ÅÚ“a”Ôt, ð'Í'ð, μ, Ä, ©, ç [ä, Ö]A[%º, Ö]A[íœ] , Ì, ç, ., é, ©, ðfNfŠfbfN, ., é, ± , Æ, É, æ, èA'Í'ð, μ, ½Ú“a”Ôt, ð-Ú“Í, Ì^ê'u, Ü, Å^Ú“® , μAÚ“a”Ôt, Ìç~ , ð•íX, μ, Ü, .B
- 6 [OK] , ðfNfŠfbfN, μ, Ü, .B



**“d~b”ÔĤ,ÌŮ”ö”ÔĤ**

Ů”ö”ÔĤ,ðžw'è,·,é,ÆŮA“d~b' fGf“fgfŠ,Ì“d~b”ÔĤ,ìĈĚă,ë,É,»,"ÔĤ,ð'Ç%Á,Å,«,Û,·ŮB

—~—p%Á”\,ÈŮ”ö”ÔĤ,Ì^ê—,ÉŮ”ö”ÔĤ,ð'Ç%Á,·,é,É,Í

- 1 [f\_fCf,,f<fAfbfv flfbfgfŮŮ[fN] fEfBf“fhfE,Ì [ŮŠŮÝ'n] ,ðfNfŠfbfN,μ,Û,·ŮB
- 2 [ŮŠŮÝ'n,ÌŮÝ'è] f\_fCfAfbfO f{fbfNfX,Ì [ŮŮ”ö”ÔĤ,Ì^ê—] ,ðfNfŠfbfN,μ,Û,·ŮB
- 3 [ŮV,μ,ċŮŮ”ö”ÔĤ] f{fbfNfX,ÉŮV,μ,ċŮŮ”ö”ÔĤ,ð“ü—Í,μ,Û,·ŮB
- 4 [‘Ç%Á] ,ðfNfŠfbfN,μ,Û,·ŮB“ü—Í,μ,½ŮŮ”ö”ÔĤ,ª^ê—,É'Ç%Á,³,ê,Û,·ŮB[ŮŮ”ö”ÔĤ] f{fbfNfX,Å<²·\ Ž!,³,ê,Ä,ċ,éŮŮ”ö”ÔĤ,ðŮV,μ,ċŮŮ”ö”ÔĤ,É'u,«Š·,!,éċċŮ,ÍŮA[‘uŠ·] ,ðfNfŠfbfN,μ,Û,·ŮB
- 5 [ŮŮ”ö”ÔĤ] f{fbfNfX,ÅŮŮ”ö”ÔĤ,ð'Í'ð,μ,Ä,©,ċ [Ůă,Ů]ŮA[%º,Ů]ŮA[ŮíŮœ] ,Ì,ċ,,ê,©,ðfNfŠfbfN,·,é,± ,Æ,É,æ,èŮA'Í'ð,μ,½ŮŮ”ö”ÔĤ,ð-Ů“l,Ì^ê'u,Û,Å^Ů“® ,μŮAŮŮ”ö”ÔĤ,ÌŮŮ~ ,ð·ÍŮX,μ,Û,·ŮB
- 6 [OK] ,ðfNfŠfbfN,μ,Û,·ŮB

**fpf<fX f\_fCf,,f< (%oň“]Ž@f\_fCf,,f<)**

f\_vb\_fVf...Ž@,lfg[f“ f\_fCf,,f<,Åf\_fCf,,f<,μ,Ä,ç,ÄA%oň“]Ž@,lfpf<fX  
f\_fCf,,f<,É∅,è'Ö,ì,é,É,íA“d~b”Ôt,lfpf<fX f\_fCf,,f< (%oň“]Ž@f\_fCf,,f<) ,đŠ]Žn,·,éêŠ,É "P"  
,đ'“ü,μ,Ü,·B

,½,Æ,ì,îAŽÿ,ì,æ,æ,È“d~b”Ôt,đŽw'è,μ,½,Æ,μ,Ü,·B

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,±,îê#Af\_fCf,,f<Afbfv flfbfgf[fN,íA555-5678 ,đf\_fCf,,f<,μ,Ä,©,çpf<fX f,[]fh (%oň“]Ž@f,[]fh)  
,É∅,è'Ö,ìAŽÿ,Éfpf<fX f\_fCf,,f< (%oň“]Ž@f\_fCf,,f<) ,Å 555-1234 ,đf\_fCf,,f<,μ,Ü,·B

ŠÖ~A€-Ú

fg[f“ f\_fCf,,f< (f\_vb\_fVf...Ž@f\_fCf,,f<)

**fg[]f" f\_fCf,,f< (fvfbfVf...Ž@f\_fCf,,f<)**

%oň" ]Ž@ ,\fpf<fX f\_fCf,,f<,Áf\_fCf,,f<,μ,Ä,ϕ,Ä[]AfvfbfVf...Ž@ ,\fg[]f"

f\_fCf,,f<,É[]Ø,è'Ö,ì,é,É,í[]A"d~b"Ô[]t,\fg[]f" f\_fCf,,f< (fvfbfVf...Ž@f\_fCf,,f<) ,ðŠ]Žn, ,é[]é[]Š,É "T"  
,ð'}"ü,μ,Ü, ·[]B

,½,Æ,!,î[]AŽÿ,ì,æ,α,È"d~b"Ô[]t,ðŽw'è,μ,½,Æ,μ,Ü, ·[]B

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,±,ì[]é[]#[]Af\_fCf,,f<fAfbfv flfbfgf[][]fN,í[]A555-5678 ,ðf\_fCf,,f<,μ,Ä,©,çfg[]f" f,[]fh (fvfbfVf...Ž@f,[]fh)

,É[]Ø,è'Ö,ì[]AŽÿ,Éfg[]f" f\_fCf,,f< (fvfbfVf...Ž@f\_fCf,,f<) ,Ä 555-1234 ,ðf\_fCf,,f<,μ,Ü, ·[]B

ŠÖ~A[]€-Ú

fpf<fX f\_fCf,,f< (%oň" ]Ž@f\_fCf,,f<)

**“d~b”Ôt,ìCüŽq**

•ŕŽš	<@”\
, (fj“f})	^êžž’âž~ ,μ,Ä, ©, ç (, Û, Æ, ñ, Ç, ìf, fff€, ìê# , íA2 •bŠÓ) Af_fCf,,f<, ð’±s, μ, Û, ·B
@	□, È, , Æ, à 1 %oñ, ìCEÄ, Ñ□o, μ %o¹, Æ□A□” •bŠÓ, ì-³ %o¹□ó’Ö, ð’Ö, ÿ, Û, ·B
P	fg□lf“ f_fCf,,f< (fvfbfVf...Ž®) , ©, çpf<fX f_fCf,,f< (%oñ“]Ž®) , É□Ø, è’Ö, ì, Û, ·B
T	fpf<fX f_fCf,,f< (%oñ“]Ž®) , ©, çg□lf“ f_fCf,,f< (fvfbfVf... Ž®) , É□Ø, è’Ö, ì, Û, ·B
W	f_fCf,,f< fg□lf“ , ð’Ö, Á, Ä, ©, ç’±s, μ, Û, · (2400bps ^É□ã, ì’É□M’-“x, ìf, fff€—p)□B

, ½, Æ, ì, ì Afzfef<, ì”%o®, ©, çf\_fCf,,f<, ·, éê# , íAŠOü, É, ©, -, é, ½, ß, É“d~b”Ôt, ì’O, É 9 , ð’Ç  
%oÁ, μ, È, -, è, Ì, È, ç, È, ç, ±, Æ, ð, , è, Û, ·B, ±, ìê# □A”Ôt, ÌŽÿ, ì, æ, x, É, È, è, Û, ·B

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, ±, ì, æ, x, ÉŽw’è, ·, é, Æ□A9 , ìCEã, è, ìfj“f}, ì”•ª, ÅŠOü”□M, Å, «, é□ó’Ö, É, È, é, Û, Å□\  
•ª, É’Ö, Á, Ä, ©, ç□AŽc, è, ì”Ôt, ìf\_fCf,,f<, ð’±s, μ, Û, ·B

**f1fyfCE[f^,Ü,½,íŽè“@,É,æ,éf\_fCf,,f<**

,±,ì<@“\,ðŽg,æ,ÆAflfyfCE[f^,æ€ì,.,éCEðŠ.‘ä,ð%oi,µ,½CEÄ,Ño,µ,ðs,æ,È,ÇAf\_fCf,,f<fAfbfv  
flfbfgf[fN,lf\_fCf,,f<<@“\,ðŽg,í,,ÉAŽè“@,Äf\_fCf,,f<,.,é,±,Æ,ä,Ä,«,Ü,·B

**f1fyfCE[f^,ð%oi,µ,½f\_fCf,,f<,âŽè“@f\_fCf,,f<,ðs,æ,É,í**

- 1 f\_fCf,,f<fAfbfv flfbfgf[fN,ÄAf\_fCf,,f<,.,é“d~b' fGf“fgfŠ,ð'í'ð,µA[,»,ì'¼] ,ðfNfŠfbfN,µ,Ü,·B
- 2 [f1fyfCE[f^,Ü,½,íŽè“@,É,æ,éf\_fCf,,f<] ,ðfNfŠfbfN,µA[f\_fCf,,f<] ,ðfNfŠfbfN,µ,Ü,·B,µ,Ü,·B  
[,»,ì'¼] fffj...[.,ì [f1fyfCE[f^,Ü,½,íŽè“@,É,æ,éf\_fCf,,f<] ,Éf`fFfbfN f}[fN,ª•t,ç,Ä,ç  
.,éê±,¾,~A[f1fyfCE[f^CEo—R,Ü,½,íŽè“@CEÄ,Ño,µ] f\_fCfAfbfv f{fbfNfX,ª•\Ž,³,è,Ü,·B
- 3 “d~b,íŽó~bŠí,ðŽæ,èä,°A”Ô±,ðf\_fCf,,f<,.,é,©Af1fyfCE[f^,Éf\_fCf,,f<,.,é,æ,æ,É^È—Š,µ,Ü,·B  
.,±,ì,Æ,«A”Ô±,ª,í,©,è,â,.,ç,æ,æ,ÉAfGf“fgfŠ,ÉŠ,,è“-Ä,ç,è,Ä,ç,é”Ô±,æf\_fCfAfbfv f{fbfNfX,É•\  
Ž,³,è,Ä,ç,Ü,·B
- 4 f\_fCf,,f<,ªŠ@—¹,µ,½,çA,.,@,É [OK] ,ðfNfŠfbfN,µ,Ü,·B
- 5 f,fff€,ª%ooñü,ð§CEä,.,éó'Ô,É,È,Á,½,çŽó~bŠí,ð'u,«,Ü,·B'Éí,íA-ª%ª¹ó'Ô,É,È,Á,½,çAf,fff€,ª  
%ooñü,ð§CEä,µŽn,ß,½,Æ”»f,Ä,«,Ü,·B  
.,ç,ì,æ,æ,Èê±,Ä,àAf\_fCf,,f<fAfbfv flfbfgf[fN,É,æ,éft[fU[-  
¼,ÆfpfXf[fh,ìŠm”F,ªŠ)Žn,ª,è,Ä,©,çŽó~bŠí,ð'u,~,î^À'S,Ä,·B

## fŠf\_fCf,,f<,lŸ'è

,±,ì<@“\,ðŽg,ᄡ,Æ□A'ì'ð,μ,½fGf“fgfŠ,Ö,ì□Ú'±,ªŽ, ”s,μ,½,Æ,«,É□Af\_fCf,,f<fAfbfv  
flfbfgf□□[fN,ªŽ©“@“l,ÉfŠf\_fCf,,f<,:é%ñ□”,ðĈ^'è,Ā,«,Û,·□B

## Ž©“@fŠf\_fCf,,f<<@“\,ðflf“,É,·,é,É,í

- 1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì [,»,ì'¼], ðfNfŠfbfN,μ□A[ft□[fU□[Ÿ'è] ,ðfNfŠfbfN,μ,Û,·□B
- 2 [f\_fCf,,f<] f^fu,ì [fŠf\_fCf,,f<,l%ñ□”] f{fbfNfX,Ā□A'ì'ð,μ,½fGf“fgfŠ,Ö,ìf\_fCf,,f<,Ā□Ú'±  
,ÉŽ, ”s,μ,½,Æ,«,ÉŽ©“@fŠf\_fCf,,f<,:é%ñ□”,ð'ì'ð,μ,Û,·□B
- 3 [fŠf\_fCf,,f<,lŠÔŠu] f{fbfNfX,Ā□A□Ú'±  
,lŽŽ□s,ÉŽ, ”s,μ,Ā,©,çŽŸ,ìf\_fCf,,f<,ðŠJŽn,·,é,Û,Ā,ì•b□”,ð'ì'ð,μ,Û,·□B'É□M'•'u,í□A,±  
,ì'áz~ŽžŠÖ,ìŠÖ,É□AfŠf\_fCf,,f<,l,½,β,ÉŽ©ĈÈfŠfZfbfg,μ,Û,·□BŠù'è'l,í□A15 •b,Ā,·□B,±,é,Ā,í•s□  
•ª,É□è□‡,í□AŸ'è'l,ð'á,«,μ,Ā,,¾,¾,ç□B,Û,½□A,à,Ā,Æ'Z,ç□Ÿ'è'l,É,·,é,±,Æ,à,Ā,«,Û,·□B,½,¾,μ□A,±  
,ì'áz~ŽžŠÖ,ð'Z,·,é,Æ□A'É□M'•'u,ªŽ©ĈÈfŠfZfbfg,·,éŽžŠÖ,ðŠm•Û,Ā,«,È,,È,é%Ā”\□«,ª, ,è,Û,·□B
- 4 [□Ø'f,·,é,Û,Ā,ì'Ò,;ŽžŠÖ] f{fbfNfX,Ā□A%½,à□^—□,ª□s,í,è,È,ç□ó'Ô,ì,Æ,«,É□Ú'±  
,ð□Ø'f,·,é,Û,Ā,ìŽžŠÖ,ðŽw'è,μ,Û,·□B,½,¾,μ□Af\_fCf,,f<fAfbfv ft□[fo□[,ì•ù,É,à□Ú'±  
,ð□Ø'f,·,é,Ÿ^fCf}□[,ªŸ'è,¾,è,Ā,ç,Û,·□B,±,ì,½,β□A,±,±,É'á,«,çf^fCf€fAfEfg'l,ðŸ'è,μ,Ā,ç  
,½,Æ,μ,Ā,à□AŸ'è,μ,½ŽžŠÖ,ªĈo%β,·,é,Û,Ā,í□Ú'±,ª□Ø'f,¾,è,ç,Æ,íĈĀ,è,Û,¹,ñ□B,±,±  
,ÉŸ'è,μ,½ŽžŠÖ,ªĈo%β,·,é'Ö,É□Aft□[fo□[,ì•ù,Āf^fCf€fAfEfg,ª”□¶,μ□Aft□[fo□[.©,ç□Ú'±,ð□Ø'f,¾,è,é  
%Ā”\□«,à, ,é,©,ç,Ā,·□B
- 5 '€□ì,ð□—¹,μ,½,ç□A[OK] ,ðfNfŠfbfN,μ,Û,·□B

**fGf“fgfŠ, Ì’Ç%ÁA•ÒWPA•i□» , ð□s, x**

- f\_fCf,,f<fAfbfv flfbfgf□□[fN,Á□AZÏ, Ì, ç, , , è, ©, Ì’€□], ð□s, ç, Û, ·□B
- “d~b’ ,ÉfGf“fgfŠ, ð’Ç%Á, ·, é□é□#, Í□A[□V<K] , ðfNfŠfbfN, µ, Û, ·□B
- “d~b’ fGf“fgfŠ, ð□C□³, ·, é□é□#, Í□A[„, Ì’¼] , ðfNfŠfbfN, µ, Û, ·□B
- Šù’¶, ÌfGf“fgfŠ, ðfRfs□[µ, Á□V, µ, çfGf“fgfŠ, ð□□¬, ·, é□é□#, Í□A[„, Ì’¼] , ðfNfŠfbfN, µ□A[fGf“fgfŠ, Æf, fff€, Ìfvf□pfefB, Ì•i□»] , ðfNfŠfbfN, µ, Û, ·□B

**ISDN , Ì“d~b”Ò□†**

ISDN %oñü, ð%ô, µ, Á□Ú’±, µ□A•i□” , Ìf`ffff<, ðŽg, x, ±, Æ, ð—  
 v<□, ·, é□é□#, Í□AŠef`ffff<, Ì“d~b”Ò□†, ðŽw’è, µ, È, ¬, ê, Ì, È, è, Û, ¹, ñ□B, ½, Æ, Ì, Ì□A3 f`ffff<Žg, x, ±, Æ, ð—  
 v<□, ·, é□é□#, Í□A“d~b”Ò□†, ð 3 , ÁŽw’è, µ, È, ¬, ê, Ì, È, è, Û, ¹, ñ  
 (Še”Ò□†, Í□Afxfy□[fx, ð“ü, è, , , ÉfRf□f“, Á<æ□Ø, è, Û, ·)□B’Ê□í, ÌfGf“fgfŠ, ð’Ç  
 %oÁ□A•ÒWPA, Û, ½, Ì•i□», ·, é, Æ, «, Æ“¬, ¶, æ, x, É□A[Ši-{ ] f^fu, Ì [“d~b”Ò□†]  
 f{fbfNfx, É“d~b”Ò□†, ð’}“ü, µ, Á, , ¾, ¾, ç□BŽÏ, É—á, ðŽÌ, µ, Û, ·□B

555-1234:555-1234:555-5678

4 f`ffff<, ðŽg, Á, ½□Ú’±, ð—v<□, ·, é□é□#, Í□A“d~b”Ò□†, ð 4 , ÁŽw’è, µ, Û, ·□BŽÏ, É—á, ðŽÌ, µ, Û, ·□B

555-1234:555-1234:555-5678:555-5678

’□ Žw’è, µ, ½“d~b”Ò□†, æ, è, à’½, , Ìf`ffff<, a, , é□é□#, Í□A□ÁÇä, Ì”Ò□†, ðŽg, Á, Ä—]•a, Éf`ffff<, Á, Ì□Ú’±  
 , aŽŽ, Ý, ç, è, Û, ·□B’Ê□í□AISDN %oñü, Ì 1 %oñü, Á 2 , Á, Ìf`ffff<, ðfTf|□[fg, µ, Á, ç, é, Ì, Á□A1  
 , Á, Ì“d~b”Ò□†, Á 2 , Á, Ìf`ffff<, ðÇÄ, Ñ□o, ·, ±, Æ, a, Á, «, Û, ·□B, ½, ¾, µ□AISDN “d~b  
 %oĩŽÐ, É, æ, Á, Ä, Í□AŠef`ffff<, ÉÇÄ—L, Ì“d~b”Ò□†, ðŠ,,, è“¬, Á, È, ¬, ê, Ì, È, ç, È, ç□é□#, à, , è, Û, ·□BÇE\_—  
 ñ, µ, Á, ç, é ISDN <ÆŽÒ, É—â, ç□#, Ì, ¹, Á, , ¾, ¾, ç□B

ŠÖ~A□€-Ú

“d~b”Ò□†, Ì□C□üŽq

**f\_fCf,,f<fAfbfv flfbfgf□□[fN,đÄ□□¬,.,é**

f,fff€,,đ•ï□X,μ,½,è□A'•'u,đ'Ç%Á,μ,½,è□A,Ù,©,lfVfŠfAf< f□[fg,àf\_fCf,,f<fAfbfv flfbfgf□□[fN,Á—~—  
p,Ä,«,é,æ,æ,É□□¬,.,é□é□#,í□AfŠf,□[fg fAfNfZfX fT□[frfX,đÄ□□¬,.,é•K—v,ª, ,è,Ü,·□B

- 1 □V,μ,ç'•'u,đfCf"fxfg□[f<,μ□AfRf"fsf...□[f^,đÄ<N" @,μ,Ü,·□B
- 2 Windows NT ,lfRf"fgf□□[f< fpflf<,Á□A[flfbfgf□□[fN] fAfCfRf",đf\_fuf<fNfŠfbfN,μ,Ü,·□B
- 3 [fT□[frfX] f^fu,Á□A[šf,□[fg fAfNfZfX fT□[frfX] ,đ'í'đ,μ□A[fvf□pfefB] ,đfNfŠfbfN,μ,Ü,·□B
- 4 fŠf,□[fg fAfNfZfX—p,É□V,μ,çf□[fg,đ□□¬,.,é□é□#,í□A['Ç%Á] ,đfNfŠfbfN,μ,Ü,·□B
- 5 [fŠf,□[fg fAfNfZfX fZfbfgfAfbfv] f\_fCfAf□fO f{fbfNfX,Á□A□V,μ,ç'•'u—p,É□□¬,.,éf□[fg,đ'í'đ,μ□A[□□¬] ,đfNfŠfbfN,μ,Ü,·□B
- 6 [f□[fgŽg—p,ì□□¬] f\_fCfAf□fO f{fbfNfX,Á□A[ f\_fCf,,f<fAfEfg,ì,Ý]□A['...□M,ì,Ý]□A,Ü,½,í [f\_fCf,,f<fAfEfg,Æ'...□M] ,ì,ç,.,é,©,đ'í'đ,μ,Ü,·□B
- 7 [OK] ,đfNfŠfbfN,μ□A[šf,□[fg fAfNfZfX fZfbfgfAfbfv] f\_fCfAf□fO f{fbfNfX,ì ['±□s] ,đfNfŠfbfN,μ,Ü,·□B
- 8 [flfbfgf□□[fN] f\_fCfAf□fO f{fbfNfX,ì [OK] ,đfNfŠfbfN,μ□AfRf"fsf...□[f^,đÄ<N" @,μ,Ü,·□B



**fjbfjgff[]fN fvffjgRf<,ìÝ'è**

fjbfjgff[]fN fvffjgRf<,íA,ç,Á,½,ñ RAS fT[]fo[][,Æ,ìÚ'±,ªSm—§,³,è,½CEã[]ALAN  
[]ä,ìŠeŽífT[]fo[][,Æ,ì'É[]M,ÉŽg,í,é,éfvffjgRf<,Á,·[]B,Ç,ìfvffjgRf<,ð'ì'ð,·,é,ì,æ,ç  
,©,í,©,ç,È,çê[]±,í[]Aìfjbfjgff[]fNŠÇ—[]ŽÒ,É-à,ç[]±,í,¹,Ä,,³/4,³,ç[]B

PPP ,í[]Af\_fCf,,f<fAfbfv fjbfjgff[]fN,ÉŽg,í,é,é•W[]€“ì,È WAN fvffjgRf<,Á,·[]BPPP fvffjgRf<,ðŽg,ª  
,Æ[]AfjCfefBfu,ì TCP/IP fAfvfŠfP[]fVfj[]“[]AIPX fAfvfŠfP[]fVfj[]“[]A,“,æ,Ñ NetBEUI  
fAfvfŠfP[]fVfj[]“,ðŽÀ[]s,Á,«,Ü,·[]BSLIP ,íCEÄ,ç<KŠi,Á,·[]Bf\_fCf,,f<fAfbfv fjbfjgff[]fN fNf  
%ofCfAf“fg,Á,ì[]ASLIP fT[]fo[][,É,à[]Ú'±,Á,«,é,æ,ª,É[]ASLIP fvffjgRf<,à'ñ<Ý,³,è,Ä,ç,Ü,·[]B

**fjbfjgff[]fN fvffjgRf<,ð'ì'ð,·,é,É,í**

- 1 f\_fCf,,f<fAfbfv fjbfjgff[]fN,ì [fT[]fo[][] f^fu,Á[]Af\_fCf,,f<[]æ,Æ,·,é\_fCf,,f<fAfbfv fT[]fo[][,ìŽí—  
p,ð'ì'ð,μ,Ü,·[]B[]Ú'±[]æ,ìfT[]fo[][,ìŽí—p,ª,í,©,ç,È,çê[]±,í[]A[PPP] ,ð'ì,ñ,Á,,³/4,³,ç[]BSLIP  
fT[]fo[][,ðCEÄ,Ñ[]o,·[]ê[]±,í[]A[SLIP] ,ð'ì,Ñ,Ü,·[]B<[]Efo[]fWfj[]“,ì Microsoft RAS (Windows NT 3.1 ,“,æ,Ñ  
LAN Manager) ,ÁŽg,í,é,Ä,ç,½ Microsoft RAS fvffjgRf<,ðŽg,ª•K—v,ª, ,é[]ê[]±,í[]A[RAS] ,ð'ì,ñ,Á,-  
,³/4,³,ç[]B
- 2 [fjbfjgff[]fN fvffjgRf<] ,Á[]ATCP/IP[]AIPX[]A,Ü,½,í NetBEUI ,ð'ì'ð,μ,Ü,·[]B
- 3 PPP ,Ü,½,í SLIP ,Á TCP/IP ,ðŽg,ª[]ê[]±,í[]AŽ©•ª,ÁŽw'è,μ,½ IP fAfhfCEfX,ðŽg,ª,æ,ª,ÉŽw'è,·,é,±  
,Æ,à,Á,«,Ü,·[]B,±,é,ð[]s,ª,É,ì[]A[TCP/IP ,ìÝ'è] ,ðfNfŠfjbfN,μ,Ü,·[]B
- 4 f\ftjgEjFfA,É,æ,éff[]f^³[]k,ð—LCEø,É,·,é,É,ì[]A[f\ftjgEjFfA,É,æ,é³[]k,ð[]s,ª] f`fjbfjN  
f{fjbfjNfX,ðfj[]“,É,μ,Ü,·[]B
- 5 PPP ,ì[]V<@“\,ð—LCEø,É,·,é,É,ì[]A[PPP LCP Šg'£,ðŽg,ª] f`fjbfjN f{fjbfjNfX,ðfj[]“,É,μ,Ü,·[]B,±  
,è,ç,ìŠg'£<@“\,ì[]ACEÄ,ç PPP f\ftjgEjFfA,ðŽg,Á,Ä,ç,éft[]fo[][,ðCEÄ,Ñ[]o,μ,½,Æ,«,É,ì-à'è,ð”[]¶,³,¹,éCE  
´^ö,Æ,É,é[]ê[]±,ª, ,è,Ü,·[]BCEp'±,μ,Á-à'è,ª”[]¶,·,é[]ê[]±,ì,Ý[]A[PPP LCP Šg'£,ðŽg,ª] f`fjbfjN  
f{fjbfjNfX,ðfjft,É,μ,Ä,,³/4,³,ç[]B  
,±,ìf`fjbfjN f{fjbfjNfX,ðfjft,É,·,é,Æ[]ALCP ,í[]A PPP ,ì LCP f\fsfvfG[]fVfj[]“,É,“,·,é Time-Remaining  
fpfPjbfjg,Æ Identification fpfPjbfjg,ì'—[]M[]A,“,æ,ÑfR[]f<fofjbfN—v<[],ð[]s,í,È,,È,è,Ü,·[]B

**,æ,□q,Ě,ç,ê,éŽž-â,Æ,»,ì%oň“š**

1. Žg—p,μ,Ä,ç,éf,fff€,âf\_fCf,,f<fAfbfv flfbfgf□□fN,Å,í<@”\,μ,Ü,<sup>1</sup>,ň□B,È,<sup>o</sup>,Å,·,© ? %oň“š

2. fT□[fo□[,É□Ú'±,Å,«,Ü,<sup>1</sup>,ň□B,È,<sup>o</sup>,Å,·,© ? %oň“š

3. □Ú'±,μ,æ,κ,Æ,μ,½,Æ,±,ë□AfT□[fo□[,<sup>a</sup>%ž“š,μ,È,ç,Æ,ç,κf□fbfZ□[fW,<sup>a</sup>•\Ž|,<sup>3</sup>,ê,Ü,μ,½□B,Ç,κ,·,ê,Î□Ú'±,Å,«,Ü,·,© ? %oň“š

4. f,fff€,ì'É□M'—“x (bps) ,<sup>a</sup>•K, Žw'è,μ,½'—“x,æ,è,à'á'—,É,È,è,Ü,·□B,È,<sup>o</sup>,Å,·,© ? %oň“š

5. flfbfgf□□fN□ã,ìfT□[fo□[,Æ,ìfZfbfVf†f“,<sup>a</sup>□Ø'f,<sup>3</sup>,ê,½,Ü,Ü,Å,·□B,Ç,κ,·,ê,ÎfZfbfVf†f“,<sup>o</sup>šm—š,Å,«,Ü,·,© ? %oň“š

6. ^Ü□í□Ø'f,<sup>3</sup>,ê,½□ê±,í□A,Ç,κ,·,ê,Î,æ,ç,Å,·,© ? %oň“š

7. □Ú'±,μ,æ,κ,Æ,·,é,Æfn□[fhfEfffA fGf%□□[,<sup>a</sup>“□¶,μ,Ü,·□B,È,<sup>o</sup>,Å,·,© ? %oň“š



fŠf, [fg fAfNfZfX fT [fo [ , aŽA s, 3, e, A, c, E, c % o A " \ < , a , , e, U, - B f v f x f e f e Š C - Ž O, E -  
â, c †, í, 1, A AfT [fo [ , aŽA s, 3, e, A, c, e, ©, Ç, x, ©, Šm " F, μ, A, , 3/4, 3, c BfT [fo [ , a' â Ž ~, μ, A, c  
, é ê †, í A Š C - Ž O, a f g f % o [ f f o, A Š A, f f o, Š 2, x AfT [f r f X, a' â Ž ~, μ, 1/2 - -  
R, Š 2, x, A, ©, ç AfT [f r f X, Š A Š J, μ, È, -, e, í, È, è, Ü, 1, ñ BfT [f r f X, aŽA s, 3, e, A, c, é ê †, í A Š C -  
Ž O, í A, U, ©, í Š f, [fg f [f N f X f e [f v f † f " , a 3 í, É U ±, A, «, A, c, é, ©, Ç, x  
, ©, Š 2, x, È, -, e, í, È, è, Ü, 1, ñ B, U, ©, í f N f % o f C f A f " f g, a U ±, A, «, A, c, é ê †, í A, ±, í f N f % o f C f A f " f g  
f [f N f X f e [f v f † f " , É C E A - L, ì - â ' è, a , , é, A Ž v, í, è, Ü, - B

- fT [fo [ , aŽA s, 3, e, A, c, é ê †, í A Ž Ÿ, ì, æ, x, É C E ^ ö, a [ , í, ç, è, Ü, - B
- — L C E ø, É f t [f U [ f A f f E f " f g, Ü, 1/2, í Š f, [fg f A f N f Z f X, ì < - % o A, a , , è, Ü, 1, ñ B
  - f f C f, , f < , μ, 1/2 " Ó t, a Š Ó ^ á, A, A, c, é, © A, Ü, 1/2, í f f C f, , f < , μ, 1/2 " Ó t, í [ 3, μ, c, -, e, Ç, à A 9 , È, Ç, Ì Š O ü " -  
M " Ó t, Š f f C f, , f < , μ - Y, è, A, c, Ü, μ, 1/2 B
  - Ž g - p, μ, A, c, é f, f f f € , í A f T [f o [ , í f, f f f € , A f f f S f v f g [f v f † f " , A, «, Ü, 1, ñ B f N f  
% o f C f A f " f g, A f T [f o [ , A " , ¶ < @ Ž í, í f, f f f € , Š Ž g, A, A, Y, A A - â ' è, a % o Š C E ^ , , é, ©, Ç, x, ©, Š 2, x, A, , 3/4, 3, c B
  - f, f f f € , í P [f u f < , É - â ' è, a , , è, Ü, - B " A, É A ' 1/2, , í f } f E f X, É • t ' ©, μ, A, c, é 9 f s f " , ©, ç 25  
f s f " , Ö, Ì • Í Š • Sí, í Ž g, í, È, c, æ, x, É, μ, A, , 3/4, 3, c B, ±, è, ç, Ì • Í Š • Sí, Ì t, É, í A f, f f f € M t, Š " ' - , μ, È, c, à, ì, à, , è, Ü, - B Š m Ž A  
, É % o ^ - p, A, «, é, æ, x, É A • Í Š • Sí, í A, ±, ì - p " r " è - p, É " » ' c, 3, è, 1/2, à, ì, Š Ž g, A, A, , 3/4, 3, c B u f P [f u f < , Ì -  
v C E [ v, Š Ž Q A E, μ, A, , 3/4, 3, c B
  - " d ~ b % o ñ ü ( , 1/2, A, í, í A f z f e f < , ì " % o @ , É, c, é ê †, È, Ç ) , a A Ž g - p, μ, A, c, é f, f f f € , Ì É M ' - " x, É ' í  
% o Ž, A, «, A, c, Ü, 1, ñ B ' É M ' - " x, Š % o 9 , °, é, © A ' 1/4 ü Š O ü, É U ±, μ, A, , 3/4, 3, c B
  - Ü, A, È, ñ, Ç, í f, f f f € , í A f A f í f o, Ì " d ~ b % o ñ ü, A, μ, © < @ " \, μ, Ü, 1, ñ B f A f í f o, Ì " d ~ b % o ñ ü, Š Ž g, A, A, c  
, é, ©, Ç, x, ©, Š m " F, μ, A, , 3/4, 3, c B, Ü, 1/2, í A f f f W f ^ f < " d ~ b % o ñ ü, Š Ž g, A, A, c, é ê †, í A f T [f o [ , A f N f  
% o f C f A f " f g, Ì - 1/4 • ù, A f f f W f ^ f < f, f f f € , Š Ž g, A, A, c, é, ±, A, Š m " F, μ, A, , 3/4, 3, c B





**ŽŸ, ì, ç, , ê, ©, Ì, Í, Î, Ñ, Ò, Ó, Ô, Õ, Ö, ×, Æ, , ¼, ³, ç, □, B**

- “d~b%ñü,ÉfLfffbf`fzf“<@\,ª, ,é,©,Ç,æ,©,ð¹²,×,Ä,,¾,³,ç□BfLfffbf`fzf“<@\,ª, ,é□é□#,Í□A,»ê,ð-³CEø,É,µ,Ä,,¾,³,ç□BfLfffbf`fzf“<@\,ð-³CEø,É,·,é•û-@,É,Ä,ç,Ä,Í□ACE\_-ñ,µ,Ä,ç,é“d~b%ïžĐ,É-â,ç□#,í,¹,Ä,-¾,³,ç□B
- ,à,æ^è“xf\_fCf,,f<,µ,Ä,,¾,³,ç□B%½,à□^—□,ð□s,í,È,ç,Ü,Û^è’èžžšŒ,ªCEo%ß,µ,½,½,ß□Afšf,□[fg fAfNfZfX fT□[fo□[.ª□Ú’±,ð□Ø’f,µ,½%°Å“\□«,ª, ,è,Û,·□B
- ‘N,©,ª“d~b,ìCEÄ,Ñ□o,µ,É’Í,µ,Äžó~bSí,ðžæ,Ä,Ä%ž“š,µ,È,©,Ä,½,©,Ç,æ,©,ð¹²,×,Ä,-¾,³,ç□B□[,ªžó~bSí,ðžæ,é,Æ□A□Ú’±,Íž©“®“l,É□Ø’f,³,è,Û,·□B
- f,fff€,ìfP□[fuf<,ª³,µ,□Ú’±,³,è,Ä,ç,é,±,Æ,ðšm”F,µ,Ä,,¾,³,ç□B

**ŽŸ,ì,ç,,ê,©,ì'í^•û-@,đŽŽ,μ,Ä,,¾,¾,ç□B**

- fŠf.□[fg fAfNfZfX fT□[fo□[,ŽÄ□s,¾,ê,Ä,ç,È,ç%oÄ"\□«,<sup>a</sup>, ,è,Ü,·□BfVfXfef€ŠÇ—□ŽÒ,É^È—Š,μ,Ä□AFT□[fo□[,ŽÄ□s,¾,ê,Ä,ç,é,±,Æ,đSm" F,μ,Ä,,¾,¾,ç□B
- Žg—p,μ,Ä,ç,éf,fff€,□AfŠf.□[fg fAfNfZfX fT□[fo□[,ìf,fff€,Æ□³□í,ÉfìfSfVfG□[fVf#f",Ä,«,È,ç%oÄ"\□«,<sup>a</sup>, ,è,Ü,·□B'É□M'—"x,đ%oo°,Ä,,¾,¾,ç□B□uf,fff€,ì<@"\,đ□Y'è,·,é□v,đŽQ□Æ,μ,Ä,,¾,¾,ç□B
- Žg—p,μ,Ä,ç,éfRf"fsf...□[f^,ìfVfSfAf< f□[fg,□A'ì'đ,μ,½'É□M'—"x,É'í%ož,Ä,«,È,ç%oÄ"\□«,<sup>a</sup>, ,è,Ü,·□Bf□[fg,ì□%Sú'É□M'—"x,đ%oo°,Ä□Ú'±,μ,Ä,,¾,¾,ç□B□uf,fff€,ì<@"\,đ□Y'è,·,é□v,đŽQ□Æ,μ,Ä,-¾,¾,ç□B



**ŽŸ,ì,ç,,ê,©,ì'í^•û-@,đŽŽ,μ,Ä,,¾,¾,ç□B**

- f,fff€,É“dCE¹,â“ü,Á,Ä,ç,é,±,Æ,đŠm”F,μ,Ä,,¾,¾,ç□Bf,fff€,ì“dCE¹,â□Ø,ê,Ä,ç,½□ê□#,í□A“dCE¹,đ“ü,ê,Ä,©,çf\_fCf,,f<,μ'¼,μ,Ä,,¾,¾,ç□B
- f,fff€,ì“dCE¹,â“ü,Á,Ä,ç,½□ê□#,í□AWindows NT ,ìfnfCfp□[f^□[f~fif<,đŽg,Á,Äf,fff€,â□³í,É<@“\ ,·,é,©,Ç,æ,©,đfefXfg,μ,Ä,,¾,¾,ç□B□uf,fff€,đfefXfg,·,é□v,đŽQ□Æ,μ,Ä,,¾,¾,ç□B
- f,fff€,âfnfCfp□[f^□[f~fif<,Á,í□³í,É<@“\,·,é,í,É□Af\_fCf,,f<fAfbfv flfbfgf□[fN,Á,í□³í,É<@“\ ,μ,È,ç□ê□#,í□A,“,»,,ç,□Af,fff€,ÆfRf“fsf...□[f^,í□Ú'±,ÉCEYS·□«,ì,É,çfP□[fuf<,âŽg,í,ê,Ä,ç,Û,·□BCEYS·□«,ì, ,éfP□[ fuf<,đŽg,Á,Ä,,¾,¾,ç□B□ufP□[fuf<,í—vCE□□v,đŽQ□Æ,μ,Ä,,¾,¾,ç□B

## **fVfŠfAf< f|[]fg**

COM1 ,Æ COM3 ,í[]AŠ,,è[]ž,ÝfCEfxf< (IRQ) 4 ,ð<α—L,·,é,±,Æ,É'[]^Ó,μ,Ä,,¾,¾,ç[]B,Ü,½[]ACOM2 ,Æ COM4 ,í[]AŠ,,è[]ž,ÝfCEfxf< (IRQ) 3 ,ð<α—L,μ,Ü,·[]B,±,ì,½,β[]AfVfŠfAf< Ê[]M,É COM1 ,Æ COM3 ,ð“~Žž,ÉŽg,Á,½,è[]ACOM2 ,Æ COM4 ,ð“~Žž,ÉŽg,Á,½,è,·,é,±,Æ,í,Ä,«,Ü,¹,ň[]B,½,Æ,í,í[]ACOM1 ,ðf\_fCf,,f<fAfbfv flfbfgf[][]fN,ÉŽg,ç[]ACOM3 ,ðfnfCfp[]f^[]f~fif<,ÉŽg,α,±,Æ,í,Ä,«,Ü,¹,ň[]B f}fEfX,ð[]Af\_fCf,,f<fAfbfv flfbfgf[][]fN,â Windows NT ,lfnfCfp[]f^[]f~fif<,È,Ç,ì,»,ì'¼,ìVfŠfAf< Ê[]MfVf[]fOf %of€,,Æ,ç,Á,μ,â,ÉŽg,α[]ê[]‡,É,à[]A,±,ì<K'¥,í“- ,Ä,í,Ü,è,Ü,·[]B ^ê•ù[]ADigiBoard fVfŠfAf< f|[]fh,È,Ç,lfcf“fejŠWfFf“fg fVfŠfAf< fAf\_fvf^ f|[]fh,ðŽg,α[]ê[]‡,í[]A,±,ì<K'¥,í“- ,Ä,í,Ü,è,Ü,¹,ň[]B

**ISDN ,ÉŠÖ,·,éfgf%ofuf<fVf...[]fefBf"fo**

ISDN %oňü,Äf\_fC,,f<,μ,Ä,ç,ÄÜ'±,ÉŽ,"s,·,é,ÆA"%ž"š,ª, ,è,Ü,¹,ňB" ,Æ,ç,xfGf%o[] ffbfZ[]fW,ª\ Ž|,³,è,Ü,·B,±,lf[]fbfZ[]fW,ª\Ž|,³,è,éCE´^ö,É,íAŽŸ,ì,ç,, ,è,©,ì·s<ì[]#,ª[]l,ì,ç,è,Ü,·B

- fŠf,[]fg fAfNfZfX fT[]fo[],ªA<N"®,³,è,Ä,ç,È,ç,©A,Ü,½,lf,ff€,ªÜ'±,³,è,Ä,ç,È,ç,Æ,ç,ç-—R,Å %ž"š,μ,Ü,¹,ň,Ä,μ,½BfVfXfef€SÇ—ŽÖ,É-â,ç[]#,í,¹,Ä,,¾,¾,çB
- %oňü,ªŽg—p't,Ä,·B
- Žg—p,μ,Ä,ç,éfn[]fhfEfffA,É-â'è,ª, ,è,Ü,·BISDN fj[]fh,ª[]³,μ,fCf"fXfg[]f<,"æ,Ñ[]-³,è,Ä,ç ,é,©,Ç,ª,©,ðŠm"F,μ,Ä,,¾,¾,çB
- fmfCfY,ª½,ç[]AÜ'±,ÉŠ,,è[]ž,Ý,ª, ,Ä,½,È,çA%oňü,ìó'Ó,ª,æ,, ,è,Ü,¹,ň,Ä,μ,½B,μ,î,ç,- ,μ,Ä,©,ç,à,ª^ê"x\_fC,,f<,μ,Ä,¾,¾,çB
- [ISDN ,ì[]-] f\_fCfAf[]fO f{fbfNfX,Ä'ì'ð,μ,½%oňü,ìŽí—p,lflfSfVfG[]fVf#",ðs,ª,± ,Æ,ª,Ä,«,È,©,Ä,½,½,ßA[ISDN ,ì[]-] f\_fCfAf[]fO f{fbfNfX,Ä'ì'ð,μ,½%oňü,ìŽí—p,Ä,ìÜ'±,ðŠm— s,Ä,«,Ü,¹,ň,Ä,μ,½B
- ISDN ,ìèðŠ-Ý"ö,ª[]-,Ý[]#,Ä,Ä,ç,é%oÄ"\[]ª, ,è,Ü,·B,μ,î,ç,,μ,Ä,©,ç,â,è'¼,μ,Ä,,¾,¾,çB

,±,è,ç,ì,ª,ìACE´^ö,Æ,È,Ä,Ä,ç,é%oÄ"\[]ª, ,é[]€-Ü,É,Ä,ç,ÄŠm"F,μ,Ä,,¾,¾,çB- â'è"·ª,ðC[]³,μ,½,çA,à,ª^ê"x"Ô[]t,ðf\_fCf,,f<,μ,Ä,,¾,¾,çB

**X.25 ,ÉŠÖ,·,éfgf%ofuf<fVf...□[fefBf“fo**

- 1 f\_fCf,,f<fAfbfv PAD ,ð%oi,μ,Ä□Ú'±,·,é,Æ□AFT□[fo□[,ª•K, ,fNf%ofCfAf“fg,ì”F□Ø,ÉŽ, ”s,μ,Ü,·□B%oðCE^□ô
- 2 □Ú'±,ÍŠm—š,ª,è,Ü,·,ª□Aflfbfgf□□[fN fhf%ofCfu,Æ,ì□Ú'±,ª%oð□œ,ª,è□AfZfbfvf#f“ ,ª—  
Ž,·,½,è□Aflfbfgf□□[fN fGf%o□[,ª”□¶,μ,½,è,μ,Ü,·□B%oðCE^□ô
- 3 ftf@fCf<,ì“]’—’t,É□A•p”É,É “flfbfgf□□[fN fhf%ofCfu,ª□Ø’f,ª,è,Ü,μ,½” ,Æ,ç,xfGf%o□[ f□fbfZ□[fW,â  
“flfbfgf□□[fN fhf%ofCfu,ì,à,æ’¶□Ý,μ,Ü,¹,ñ” ,Æ,ç,xfGf%o□[ f□fbfZ□[fW,ª•Ž!,ª,è,Ü,·□B%oðCE^□ô
- 4 MODEM.INF , ,æ,Ñ PAD.INF ,É□V,μ,□i□¬,μ,½fGf“fgfŠ,ª<@”\,μ,Ü,¹,ñ□B%oðCE^□ô
- 5 f\_fCf,,f<fAfbfv PAD ,É□Ú'±,ª,è,Ä,ç,éf,fff€,ª□A-{-^,æ,è,à’á’¬,Å□Ú'±,μ,Ü,·□B%oðCE^□ô

fŠf.□[fg fAfNfZfX fT□[fo□[<sup>a</sup>žÀ□s,<sup>3</sup>è,Ä,ç,é,ì,É□AfNf%ofCfAf“fg,<sup>a</sup> X.25 fXf}□[fg fj□[fh,Ü,½,ÍŠO•” PAD ,đ  
%oî,μ,ÄfT□[fo□[<sup>É</sup>¼□Ú□Ú‘±,Ä,«,É,ç□ê□#,í□Af\_fCf,,f<fAfbfv PAD ,ì X.3 fpf  
%of□□[f^,Ü,½,ÍvfŠfAf<□Ý‘è,<sup>a</sup>ŠÔ^á,Á,Ä,ç,é%oÄ”\□«,<sup>a</sup> ,è,Ü,·□BŠÇ—□ŽÒ,É-â,ç□#,í,<sup>1</sup>Ä□A□wflfbfgf□□[fN  
fKfCfh□x,ì□u‘æ 9 □í□@X.25 PAD fTf|□[fg□v,É, ,é^ê—,đŽQ□Æ,μ,Ä□<sup>3</sup>,μ,ç□Ý‘è,đŠm”F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

fŠf.□[fg fAfNfZfX fT□[fo□[ ,ì□ê—p%ñ□ü,ª□—ŽG,μ,Ä,ç,é,±,Æ,ªCE´^ö,¾,ÆŽv,í,ê,Ü,·□BŠÇ—□ŽÒ,í□AfNf  
%ofCfAf“fg,ªf\_fCf,,f<fCf“,ÉŽg,κ,·,×,Ä,ì'É□M'—“x,Ä,ì,·,×,Ä,ì COM f□[fg,ìŽg—p,ð□ACE»□Ý,ì□ê—p  
%ñ□ü,ì'É□M'—“x,ÄfTf□[fg,Ä,«,é,±,Æ,ðŠm“F,μ,È,·,è,ì,È,è,Ü,¹,ñ□B  
,½,Æ,ì,í□A4 'ä,ìNf%ofCfAf“fg,ª 9600bps ,Ä (f\_fCf,,f<fAfbfv PAD ,ðŽg,Ä,Ä) □Ú'±,·,é□ê□‡,í□AfT□[fo□[ 'κ  
,ì□ê—p%ñ□ü,É,í 38,400bps (9600bps ,ì 4 " {) ,ì'É□M'—“x,ª•K—v,Ä,·□B□ê—p%ñ□ü,ì'Ñ^æ•□,ª□\  
•ª,Ä,È,ç□ê□‡,í□Af^fCf€fAfEfg,ª”□¶,μ□A□Ú'±,μ,Ä,ç,éfNf%ofCfAf“fg,ìfpftfH□[f}f“fX,ª'á%º,·,é□ê□‡,ª, ,è,Ü  
,·□B,±,ì—á,Ä,í□AfŠf,□[fg fAfNfZfX fT□[frfX,Ä,·,×,Ä,ì'Ñ^æ•□,ðŽg,κ,±,Æ,ð'O'ñ,Æ,μ,Ä,ç  
,Ü,·□B'Ñ^æ•□,ð,Ü,©,ì—p“r,Æ<κ—L,·,é□ê□‡,í□A□Ú'±,Ä,«,é□”,í,à,Ä,Æ□,È,,È,è,Ü,·□B

X.25 fXf}[]fg fj[]fh,Å[]Aflfbfgf[]fN fpf%of[]f^,lfSfVfG[]fVf#",ð—LCEø,É,μ,Û,·[]B,±,ì-  
à'è,í[]Aft[]fo[][]Aflfbfgf[]fN[]A,,"æ,ÑfNf%ofCfAf"fg,ì X.25 flftfgfEfffA,Å[]A'—  
[]MfEfBf"fhfE,ÆŽó[]MfEfBf"fhfE,lfTfCfY,È,Ç,ì X.25 fpf%of[]f^,ªCEÝ,ç,É^Ù,È,é[]ê[]#,É"[]¶,μ,Û,·[]B  
fNf%ofCfAf"fg,ì X.25 flftfgfEfffA ('¼[]Ú X.25 []Ú'±,ðŽg,Á,Ä,ç,é[]ê[]#),Æft[]fo[],ì X.25 fl  
ftfgfEfffA,Åflfbfgf[]fN fpf%of[]f^,lfSfVfG[]fVf#",ð—  
LCEø,É,·,é,Æ[]Aft[]fo[][]Aflfbfgf[]fN[]A,,"æ,ÑfNf%ofCfAf"fg,ª<ª'É,μ,ÄflSfVfG[]fVf#",³,ê,½ X.25  
flfbfgf[]fN fpf%of[]f^,ðŽg—p,Å,«,é,æ,ª,É,È,è,Û,·[]B

MODEM.INF ,ÄA'¼ÚÚ'±—p, ,æ,ÑŠO•" PAD —p,ì,Ù,©,ìfGf"fgfŠ,đ'²,xA,»,±,É<Lq,³,ê,Ä,ç  
,éfRf"fg,đŠm"F,μ,Ä,,¾,³,çB%ñüfAfjf%ofCfU,âf^ [f~fjf< fv fOf%of€,đŽg,Á,Ä PAD —p,ì  
%ž"š,đ'²,x,é•K—v,ª, ,éê,à, ,è,Ü,·Bf\_fCf,,f<fAfbfv PAD fGf"fgfŠ,ìê,íAPAD.INF ,É<Lq,³,ê,Ä,ç  
,éfGf"fgfŠ,đ—á,Æ,μ,ÄŽg,çA,»,±,É<Lq,³,ê,Ä,ç,éfRf"fg,©,çqf"fg,đ"¾,Ä,,¾,³,çB



f,ff€,\fzfbfgfAfbfv fvf[]fOf%of€,ì^ê—,É•\Žì,<sup>3</sup>,ê,Ä,ç,éCEÝŠ·[]<,ì, ,é<@Ží,ÉCEđŠ·,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

**,Í,Ń,Œ,É**

f\_fCf,,f<fAfbfv flfbfgf□□[fN,í□ARAS ,lfNf%ofCfAf“fg”Å,Å□Af\_fCf,,f<fAfbfv fT□[fo□[Æ,ì□Ú'±  
,ÉŽg,í,ê,Û,·□B[f\_fCf,,f<fAfbfv flfbfgf□□[fN] fAfCfRf“,í□Af}fC fRf“fsf...□[f^“à,“,æ,Ń [fXf^□[fg] f□fjf...□[,ì  
[fAfNfZfTfŠ] ftfHf<f\_É, ,è,Û,·□B

1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,Å□A[□V<K□ì□-] ,ðfNfŠfbfN,μ,Ä□V,μ,ç“d~b' fGf“fgfŠ,ð□ì□-,·,é,©□A,Û,½,í  
[,>,ì'¼] ,ðfNfŠfbfN,μ□A[fGf“fgfŠ,Æf,fff€,ìfvf□fpfefB,ì•ò□W] ,ðfNfŠfbfN,μ,Û,·□B

2 fŠf,□[fg□Ú'±,ðŠm—š,·,é,É,í□A[f\_fCf,,f<] ,ðfNfŠfbfN,μ,Û,·□B

flfbfgf[]fN,Æ[]Ú'±,·,é

flfbfgf[]fN,Æ[]Ú'±,·,é,É,í

1 f\_fCf,,f<fAfbfv flfbfgf[]fN,Å[]A[]Ú'±[]æ,lfGf"fgfŠ,đ'í'đ,μ[]Af\_fCf,,f<,μ,Ü,·[]B

2 "ü—í,đ,[]B,ç,ê,½[]ê[]±,í[]A"[]F[]Ø—p,lfAfffEf"fg-¼[]Afpxf[]f[]h[]A,,æ,Ñfhf[]fCf",đ [ [],,Ö,ì[]Ú'± ] f\_fCfA[]f[]O f{fbfNfX,É"ü—í,μ,Ü,·[]B

'[] [ [],,Ö,ì[]Ú'± ] f\_fCfA[]f[]O f{fbfNfX,É"ü—í,·,éfhf[]fCf"-¼,í[]A[]Ú'±,·,é Windows NT RAS f[]f[]f[]o[],,á'®,·,é Windows NT fhf[]fCf",Å,È,·,ê,í,È,è,Ü,<sup>1</sup>,ñ[]B,±,±,É"ü—í,·,é,ì,í[]APPP fv[]f[]of[]Cf\_,â SLIP fv[]f[]of[]Cf\_,@,ç—^,ì,ç,ê,½ DNS fhf[]fCf"-¼,Å,í, ,è,Ü,<sup>1</sup>,ñ[]B,½,Æ,ì,í[]Awww.halcyon.com ,Æ,ç ,Á,½fhf[]fCf"-¼,Å,í,È,[]Accounting ,È,Ç,lfhf[]fCf"-¼,É,È,è,Ü,·[]B

flfbfgf[]fN,Æ,ì[]Ú'±,·,éŠm—š,<sup>3</sup>,ê,½[]Eä,í[]Af\_fCf,,f<fAfbfv flfbfgf[]fN,đ[]A[]-%»,,μ[]AŽg—p,μ,Ä,ç ,éfRf"fsf...[]f^,^ LAN ,É'¼[]Ú[]Ú'±,<sup>3</sup>,ê,Ä,ç,é,Æ,«,Æ,Ü,Á,½,"~,[]æ,æ,É'€[],·,é,± ,Æ,<sup>2</sup>,Ä,«,Ü,·[]B,Ä,Ü,è[]Aflfbfgf[]fN,^[]Y'u,<sup>3</sup>,ê,Ä,ç,élf[]f[]BfX,É,ç,é,Æ,«,Æ,Ü,Á,½,"~,[]æ,æ ,É"džqf[]f<,âfGfNfXfv[]f[]%o,đŽg,æ,±,Æ,<sup>2</sup>,Ä,«,Ü,·[]B

'[] "F[]Ø—p,lfAfffEf"fg[]î·ñ,í[]A'É[]í,lf[]fbfgf[]fN f[]f[]Of[]f",ÉŽg,æfAfffEf"fg[]î·ñ,Æ"~,[]A,·[]Bf\_fCf,,f<fAfbfv flfbfgf[]fN,í[]AfNf%[]fCfA[]f"fg f[]f[]U[],,á" —[]"l,Éf[]fbfgf[]fN,ÖfAfnfz[]fX,·,é[]E —~,đŽ[],Ä,©,Ç,æ,©,đ[]A,± ,é,ç,lfAfffEf"fg[]î·ñ,đŽg,Ä,Ä[]E[]Y[], ,μ,Ü,·[]Bf\_fCf,,f<fAfbfv flfbfgf[]fN,íŽÀ[]Ú,ÉfŠf,[]f[]g f[]f[]U[],,đf[]f[]Of[]f",<sup>3</sup>,<sup>1</sup>,é,í,·,Ä,í, ,è,Ü,<sup>1</sup>,ñ[]B,±,ì,½,β[]AfŠf,[]f[]g f[]f[]U[],,í[]A·Ü[]E],<sup>3</sup>,ê,½flfbfgf[]fNŽ'[]E<sup>1</sup>,ÉfAfnfz[]fX,·,é,É,í[]A'½,,ì[]ê[]±[]A[]Ú'±,^Šm— š,<sup>3</sup>,ê,½[]Eä,ÉŽ[]·@,Äf[]f[]Of[]f",·,é·K—v,<sup>2</sup>, ,è,Ü,· (Windows NT ,ì[]ê[]±,È,ç[]A[]Ctrl + Alt + Del f[]f[]l[],,đŽg,ç,Ü,·)[]B,½,¾,μ[]AŽ[]@·^,^Žg,æ Windows NT fx[]f[]X,lfRf"fsf... []f^,đ<N"®,μ,½,Æ,«,ÉŽ[]·@,lfhf[]fCf" fAfffEf"fg,Éf[]f[]Of[]f",μ,Ä,·,Æ (fŠf,[]f[]g fAfnfz[]fX[]Ú'±,đŠm— š,·,é'° ,É[]s,ç,Ü,·)[]A,±,ìž[]ê[]±,đ[]E,,±,Æ,<sup>2</sup>,Ä,«,Ü,·[]Bflfbfgf[]fN fP[]f[]uf<,Ä[]Ú'±,<sup>3</sup>,ê,Ä,ç ,È,ç[]ó'Ö,Äf[]f[]Of[]f",μ[]A,» ,ì[]Eäflfbfgf[]fN,Æ·"—[]"l,É[]Ú'±,μ,½[]ê[]±,È,à[]A,±,é,Æ"~,[]±,Æ,<sup>2</sup>— ,Ä,í,Ü,è,Ü,·[]B

flfbfgf[]fN,đŽg,æ

fŠf,[]f[]g fAfnfz[]fX f[]f[]o[],,Æ,ì[]Ú'±,đŠm—š,·,é,Æ[]A'd~b%[]o[]ñ[]ü,đ%[]o[]î,μ,Äf[]f[]f^ f[]f[]@[]fCf,,ÉfAfnfz[]fX,Ä,«,é,æ,æ,É,È,è,Ü,·,^[]AfŠf,[]f[]g,Äfv[]f[]Of[]f%[]f[]€,đŽÀ[]s,·,é,±,Æ,í,Ä,«,Ü,<sup>1</sup>,ñ[]B"d~b %[]o[]ñ[]ü,đ%[]o[]î,μ,Äfv[]f[]Of[]f%[]f[]€,đŽÀ[]s,·,é,Æ[]A,Ü,Æ,ñ,Ç,lfAfv[]f[]ŠfP[]f[]Vf[]f",íŽÀ—p,ÉŠ—,ì,È,ç ,@,ç,ç ŽÀ[]s'—"x,<sup>2</sup>x,,È,è,Ü,·[]B[]A"K,Èf[]p[]f[]H[]f[]f"[]fX,đ"¾,é,½,β,É[]A·K—v,ÉfAfv[]f[]ŠfP[]f[]Vf[]f",í[]A[]³Ž®,Éf %[]of[]Cfz[]fX,đŽæ"¾,μ,Ä[]AŽ[]@·^,lf[]f[]f[]f< fRf"fsf...[]f^,ÉfCf"fx[]f[]g[]f<,·,é,æ,æ,É,μ,Ä,,¾,<sup>3</sup>,ç[]B

ŠÖ~A[]€-Ü

[]Ú'±,đŠÄŽ<,μ[]A[]ó<μ,đ·ñ[]f[],·,é

"Äžè,Éf\_fCf,,f< flfv[]f[]f"

**Ž © •ª, ðfRf“fsf... [f^, Ö, ðf\_cf,, f<fcf“ fAfNfZfX, ð<-‰Á, ., é**

**, Û, ©, ðft [fU [ ,ª Ž © •ª, ðfRf“fsf... [f^, ÖfAfNfZfX, Á, «, é, æ, ¢, É, ., é, É, Í**

1. fŠf, [fg fAfNfZfXŠÇ—ft [fefBfŠfefB, ðŽg, Á, Ä AŽ © •ª, ðfRf“fsf... [f^, Ö, ðfAfNfZfX, ð<-‰Á, ., éft [fU [ , ÉfŠf, [fg fAfNfZfX, ð<-‰Á, ð— ^, ð, Û, ·B Û×, É, Á, ¢, Ä, Í A ufŠf, [fg fAfNfZfX, ð<-‰Á, ðŸ'è, ., év, ðŽQ AE, µ, Ä, ,¼, ¢B

2. fŠf, [fg fAfNfZfXŠÇ—ft [fefBfŠfefB, ©, ¢ AfŠf, [fg fAfNfZfX ft [frfX, ðŠ)Žn, µ, Û, ·B

**fRf“fsf... [f^, ð<N“ ©, µ, ½'¼ CEã, É, ©, ©, Á, Ä, «, ½ CEÄ, Ño, µ, ðŽó, ~“ü, é, é, É, Í**

1. Windows NT , ðfRf“fgf [f< fpf]f<, ð [ft [frfX] fAfCfRf“, ðf\_fuf<fNfŠfbfN, µ, Û, ·B

2. [Remote Access Server] , ð'ð, µ, Û, ·B

3. [fXf^ [fgfAfbfv] , ðfNfŠfbfN, µ, Û, ·B

4. [fXf^ [fgfAfbfv, ðŽí—p] , Á A [Ž © “ ©] , ð'ð, µ, Û, ·B

5. [OK] , ðfNfŠfbfN, µ, Û, ·B

**f\_fCf,,f<fAfbfv flfbfgf[]fN,iŠT—v**

f\_fCf,,f<fAfbfv flfbfgf[]fN,íAWindows NT fŠf,[]fg fAfNfZfX fT[]fxfX (RAS) ,lfNf%ofCfAf“fg fo[]fWf#f“,Á,·[]B

f\_fCf,,f<fAfbfv flfbfgf[]fN,đŽg,æ,Æ[]AWindows NT[]AMS-DOS Version 3.1 ^È[]~ (RAS Version 1.1a)[]A,“,æ,Ñ MS OS/2 Version 3.1 (RAS Version 1.1) ,lfŠf,[]fg ft[]fU[][,íAflfbfgf[]fN,É‘¼[]Ú[]Ú‘± ,µ,Ä,ç,é,Æ,«,Æ“~,¶,æ,æ,É[]<Æ,Ä,«,Ü,·[]BMicrosoft ,lf\_fCf,,f<fAfbfv flfbfgf[]fN,Á,íAMacintosh ,lf\_lfbfgf[]fN,“,æ,Ñ AppleTalk fvŠf“f^,Ö,lf\_fCf,,f<fCf“%oñü,ð%oi,µ,½fAfNfZfX,íAftfj[]fg,³,é,Ä,ç ,Ü,¹,ñ[]B

Windows NT RAS ,É,í[]AZÿ,i,æ,æ,È[]\[]—v’f,æŠÜ,Ü,é,Ü,·[]B

**f\_fCf,,f<fAfbfv flfbfgf[]fN fNf%ofCfAf“fg** Windows NT[]AMS-DOS (,½,¾,µ[]AMicrosoft Network Client ,æfCf“fXfg[]f<[]Y,Á, ,é,±,Æ)[]A,“,æ,Ñ LAN Manager ,ì RAS fNf%ofCfAf“fg,í[]A,·,x,Ä Windows NT RAS fT[]fo[][,É[]Ú‘±,Á,«,Ü,·[]B,Ü,½[]AfNf%ofCfAf“fg,í[]AMicrosoft[]»·i^ÈŠO,ì“C^Ó,ì PPP fNf %ofCfAf“fg,Á,à,©,Ü,ç,Ü,¹,ñ[]B

**RAS ft[]fo[]** Windows NT Server ,ì RAS ,Á,í[]A[]Á‘á 256 ,lfŠf,[]fg fNf%ofCfAf“fg,ª RAS ft[]fo[][,Éf\_fCf,,f<fCf“ ,Á,«,Ü,·[]BWindows NT Workstation ,ð RAS ft[]fo[][,Æ,µ,ÄŽg,æè±,í[]Af\_fCf,,f<fCf“ ,Á,«,é,fNf%ofCfAf“fg,í 1 ,Á,Á,·[]BRAS ft[]fo[][,í[]AfNf %ofCfAf“fg,æflfbfgf[]fN‘S‘ì,ÉfAfNfZfX,Á,«,é,æ,æ,É[]\[]—,·,é,±,Æ,à[]A,» ,ì RAS ft[]fo[][,É,µ,©fAfNfZfX,Á,«,É,ç,æ,æ,É[]\$CEÁ,·,é,±,Æ,à,Á,«,Ü,·[]B

**LAN fvf[]fgfRf<** LAN fvf[]fgfRf<,í[]ALAN (f[][]fjff< fGfŠfA flfbfgf[]fN) ,ð%oi,µ,ÄfpfPfbfg,ð“‘— ,µ,Ü,·[]BWindows NT ,Á,í[]ATCP/IP[]AIPX[]ANetBEUI ,È,Ç,ì LAN fvf[]fgfRf<,ðftfj[]fg,µ,Ä,ç ,é,½,ß[]AfCf“f^[]flfbfg[]ANetWare ft[]fo[][]A,“,æ,Ñ UNIX ft[]fo[][,ÉfAfNfZfX,Á,«,Ü,·[]BTCPIP ,Ü,½,í IPX ,ðŽg,Á,½ Windows Sockets fAvfŠfP[]fVf#f“[]A-¼‘O•t,«fjCfv[]AfŠf,[]fg fvf[]fv[]fWff fR[]f< (RPC)[]A,“,æ,Ñ LAN Manager API ,æftfj[]fg,³,é,Ä,ç,Ü,·[]B

**fŠf,[]fg fAfNfZfX fvf[]fgfRf<** fŠf,[]fg fAfNfZfX fvf[]fgfRf<,í[]AWAN (f[]fCfh fGfŠfA flfbfgf[]fN) ,ð %oi,µ,Äff[]f^,ì“‘—,ð[]\$CEä,µ,Ü,·[]BWindows NT ,Á,í[]APPP[]ARAS fNf%ofCfAf“fg[]ä,ì SLIP[]AMicrosoft RAS fvf[]fgfRf<,È,Ç,lfŠf,[]fg fAfNfZfX fvf[]fgfRf<,æftfj[]fg,³,é,Ä,ç,Ü,·[]B

**WAN flfv[]fVf#f“** fNf%ofCfAf“fg,í[]A‘Éí,ì“d~b%oñü,Æ[]Af,fff€,Ü,½,lf,fff€ fvf[]f<,ðŽg,Á,Äf\_fCf,,f<fCf“ ,Á,«,Ü,·[]BISDN ,ðŽg,æ ,Æ[]A,æ,è,‘—,ÈfŠf“fN,ðŽACE»,Á,«,Ü,·[]B,Ü,½[]AX.25[]ARS-232C Null f,fff€[]A,Ü,½,í[]A[]V,ì PPTP (Point-to-Point Tunneling Protocol[]F flfCf“fg fc[][ flfCf“fg fgflfŠf“fO fvf[]fgfRf<) ,ðŽg,Á,Ä RAS fNf%ofCfAf“fg,ð RAS ft[]fo[][,É[]Ú‘±,·,é,±,Æ,à,Á,«,Ü,·[]B

**fZLf...fŠfefB<@“\** Windows NT ,ì‘ñ<ÿ,·,é[]fOfif“,Æfhf[]fCf“,lfZLf...fŠfefB[]AfZfLf...fŠfefB fzfXfg,lfTfj[]fg[]Aff[]f^,ì^Ä[]+%o»[]A,“,æ,ÑfR[]f<fofbfN<@“\,É,æ,è[]AfŠf,[]fg fNf %ofCfAf“fg,í^À‘S,Éflfbfgf[]fN,ÉfAfNfZfX,Á,«,Ü,·[]B

**fCf“f^[]flfbfg ftfj[]fg** Windows NT ,Á,í[]ARAS ,ðŽg,Á,ÄfCf“f^[]flfbfg,ì ,ç,ä,éft[]fxfX,ð—~— p,Á,«,Ü,·[]B,½,Æ,ì,í[]AWindows NT Server fRf“fsf...[]f^,ðfCf“f^[]flfbfg ft[]fxfX fvf[]fofCf\_,Æ,µ,Ä[]\ []—,·,é,Æ[]APPP fNf%ofCfAf“fg,©,çf\_fCf,,f<fAfbfv,µ,Ä[]A,»,lfCf“f^[]flfbfg ft[]fo[][,É[]Ú‘±,Á,«,é,æ,æ ,É,È,è,Ü,·[]B,Ü,½[]AWindows NT Workstation fRf“fsf...[]f^,©,ç[]AfCf“f^[]flfbfg,É[]Ú‘±,µ,Ä,ç,é Windows NT Server (Version 3.5 ^È[]~) fRf“fsf...[]f^,â[]A<ÆŠE•W[]€,ì PPP ,Ü,½,í SLIP fx[]fX,ì“C^Ó,lfCf“f^[]flfbfg ft[]fo[][,Éf\_fCf,,f<fCf“,·,é,±,Æ,à,Á,«,Ü,·[]B[]Ú×,É,Á,ç,Ä,í[]A[]wWindows NT fŠf[]fX flfbfg[]x,ìwfcf“f^[]flfbfg fKfCfh[]x,ðŽQ[]Æ,µ,Ä,,¾,¾,ç[]B

**f\_fCf,,f<fAfbfv flfbfgf[]fN fNf%oCfAf“fg**

Windows NT RAS fT[]fo[]ÉÚ'±,·,éfNf%oCfAf“fg,íAWindows NTAWindows 95AMS-DOS  
(,½,¾,μAMicrosoft flfbfgf[]fN,lfNf%oCfAf“fg fftfgfEfffA,²fCf“fXfg[]f<[]í,Ý,Á, ,é,±,Æ)ALAN  
Manager[]A,Ü,½,Í“C^Ó,ì PPP fNf%oCfAf“fg,ì,ç,·,é,Á,à,©,Ü,ç,Ü,¹,ñBfNf%oCfAf“fg,É,íAf,fff€ ( []  
•²,ÈpftfH[]f}f“fX,ð“¾,é,É,íA9600bps ^Èã,lf,fff€,ð,“Š©,ß,μ,Ü,·) ,ÆfAfi[]fOŽ@“d“b  
%ñü[]A,Ü,½,í,Ü,©,ìCE`Ó,ì WAN []Ú'±,²•K—v,Á,·[]B,Ü,½[]AfŠf,[]fg fAfNfZfX f  
ftfgfEfffA,²fCf“fXfg[]f<,³,é,Á,ç,È,“ ,é,í,È,è,Ü,¹,ñ[]B

RAS ,ì f[]fgf\_fCf,,f<<@“\,ðŽg,²,Æ[]AÚ'±,²Ž“@%»»,³,é,Ü,·[]B,±,ì<@“\,É,æ,è[]ARAS fŠf“fN,ð  
%òì,μ,½,·,·,×,Á,ìÚ'±,²<L%»“ ,³,é,é,ì,ÁA2 %ñ-Ú^È~ ,ÉŽ^CE¹,ÉfAfNfZfX,·,é,Æ,«,íAZ©“@“I,É[]Ä[]Ú'±  
,³,é,Ü,·[]B

,Ü,½[]AMicrosoft fNf%oCfAf“fg,©,çŠÈ'P,Èfobf^ ftg@fCf<,Æ **rasdial** frf}f“fh[]A,Ü,½,í RAS  
,lfAfvfŠfP[]fVf}f“ fvf[]Of%oof~f“fO fCf“f^[]ftfFfCfX (API) ,ðŽg,Á,½[]è—p,ì RAS —  
pfAfvfŠfP[]fVf}f“ ,ðŽÀ[]s,μ,Á[]AÚ'±,ðŽ“@%»»,Á,«,·[]B,³,ç,É[]ARAS ,Æ **at** frf}f“fh,ðŽg,Á,Á[]AfŠf,[]fg  
frf“fšf...[]f^ ,Æ RAS fT[]fo[]l,ìŠÖ,ÁŽ“@“@fobfNfAfbfv,ðfXfPfwf...[]f<,·,é,±,Æ,à,Á,«,Ü,·[]B

**Windows NT 3.5[]A3.51 , ,æ,Ñ Windows 95 fNf%oCfAf“fg**

Windows NT Version 3.5x , ,æ,Ñ Windows 95 ,lfNf%oCfAf“fg,íAf}f<f Šf“fN<@“\,ðœ,ç,Ä[]AWindows  
NT Version 4.0 ,ì RAS ,ì<@“\,ð[]Á^âCEÀ,É—~—p,Á,«,Ü,·[]BWindows NT Version 3.5x , ,æ,Ñ Windows 95  
,lfNf%oCfAf“fg,íAMicrosoft []•i^ÈŠÖ,ì“C^Ó,lfŠf,[]fg fAfNfZfX PPP fT[]fo[]l,Ü,½,Í SLIP  
fT[]fo[]l,É,à[]Ú'±,Á,«,Ü,·[]B

Windows NT Version 3.5x , ,æ,Ñ Windows 95 ,lfNf%oCfAf“fg,íAMicrosoft RAS fT[]fo[]l[]APPP  
fT[]fo[]l[]A,Ü,½,ÍSLIP fT[]fo[]l,ì,ç,·,é,ìfT[]fo[]l,É'í,μ,Á,à[]Af[]Ofif“ ,Æ“F[]Ø,lfjfsfvfg[]fVf}f“ ,ð[]s,ç  
,Ü,·[]B,Ü,½[]ARAS ,ì“d~b' fGf“fgfŠ,ð[]\—,μ[]AfXfNfŠfvfg,ðŽg,Á,Á[]f[]Ofif“ ,ðŠ@'S,ÉŽ“@%»»,·,é,±  
,Æ,à,Á,«,Ü,·[]B

**Windows NT 3.1 fNf%oCfAf“fg**

Windows NT Version 3.1 fNf%oCfAf“fg,íAMicrosoft RAS fvf[]fgfRf<,ðŽg,Á,Á,ç  
,Ü,·[]B,Ü,½[]A,·,×,Á,lf[]f[]Wf}f“ ,ì Microsoft RAS ,ÆŠ@'S,ÈCEÝŠ·[]«², ,è,Ü,·[]B

Windows NT Version 3.1 fNf%oCfAf“fg,íAWindows NT Version 3.5 ,Á“±“ü,³,é,½ PPP fvf[]fgfRf<,ðfTf[]  
[]fg,μ,Á,ç,Ü,¹,ñ[]BTCP/IP ,Ü,½,Í IPX ,ðŽg,Á,Á LAN []ã,lfT[]fo[]l,Æ'¼[]Ú'É[]M,·,éfNf%oCfAf“fg  
fAfvfŠfP[]fVf}f“ ,ðŽÀ[]s,Á,«,é,ì,íAWindows NT Verson 3.5x ,Ü,½,í,Ü,©,ì PPP fNf%oCfAf“fg,¾,·,Á,·[]B

**MS-DOS , ,æ,Ñ LAN Manager fNf%oCfAf“fg**

Windows NT Server ,ìñ<ÿ,·,é Microsoft Network Client Version 3.0 for MS-DOS ,Á,à[]AfŠf,[]fg  
fAfNfZfX<@“\,ðŽg—p,Á,«,Ü,·[]B,Ü,½[]A•É” , ,ì LAN Manager RAS fNf%oCfAf“fg,Á,à[]AWindows NT  
Version 3.5x ,ì RAS fT[]fo[]l,ÉÚ'±,Á,«,Ü,·[]B,±,é,ç,lfNf%oCfAf“fg,íA,·,×,Á,lf[]f[]Wf}f“ ,ì Microsoft RAS  
fvf[]fgfRf<,ÆŠ@'S,È (3.5x) CEÝŠ·[]«², ,è,Ü,·[]B

Microsoft Network Client Version 3.0 for MS-DOS ,íAftf< fŠf\_fCfCEfNf^ ,ðŽg,²,æ,²  
,É[]Ý'è,μ,È,“ ,é,í,È,è,Ü,¹,ñ ( ,±,é,í[]AŠù'è,ì[]Ý'è,Á,·)[]BŠì-{}fŠf\_fCfCEfNf^ ,ðŽg,²,æ,²,É[]Ý'è,·,é,Æ[]AfŠf,[]fg  
fAfNfZfX fvf[]f[]Of%oof€,ì **rasphone** ,²<N“@ ,μ,Ü,¹,ñ[]B

MS-DOS[]A, ,æ,Ñ LAN Manager fNf%oCfAf“fg,í[]ARAS ,ì NetBIOS  
fQ[]fgfEfffC,ðŽg,Á,Á[]ATCP/IP[]AIPX[]A,Ü,½,Í NetBEUI ,ðŽÀ[]s,·,é NetBIOS  
fT[]fo[]l,ÉfAfNfZfX,Á,«,Ü,·[]B,½,¾,μ[]A,±,é,ç,lfNf%oCfAf“fg,Á,í[]AfNf%oCfAf“fg[]ã,Á TCP/IP ,Ü,½,Í IPX  
,ðŽg,í,É,“ ,é,í,È,ç,È,çfAfvfŠfP[]fVf}f“ ,ðŽÀ[]s,Á,«,Ü,¹,ñ[]B

,Ü,½[]A,±,é,ç,lfNf%oCfAf“fg,íAWindows NT Version 3.5 ,Á“±“ü,³,é,½ PPP fvf[]fgfRf<,ðfTf[][]fg,μ,Á,ç  
,Ü,¹,ñ[]B

**PPP fNf%oCfAf“fg**

Microsoft »•i^ÈŠO,Å,àATCP/IPAIPXA,Ü,½,Í NetBEUI ,ðŽg,» PPP fNf%ofCfAf“fg,Å, ,ê,îAWindows NT  
Version 3.5 ^È~ ,ì RAS fT[fo[ ,ÉfAfNfZfX,Å,«,Ü,·BRAS fT[fo[ ,íAŽ©“®“l,É PPP fNf  
%ofCfAf“fg,Æ”FØ,ìfSfVfG[fVf#f“ ,ðs,ç,Ü,·BWindows NT ,ì RAS f\ftfgfEfffA,Å,íAMicrosoft  
»•i^ÈŠO,ì PPP fNf%ofCfAf“fg,É’í,µ,Ä,àA“Á•Ê,È\—,í•K—v, ,è,Ü,<sup>1</sup>,ňB  
PPP fNf%ofCfAf“fg,ìÚ×,É,Â,ç,Ä,íAPPP fNf%ofCfAf“fg,ì\ftfgfEfffA,ì}fjf...fAf<,ðŽQÆ,µ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,çB

## fšf, [f]g fAfNfZfX fvf [f]gRf<

fšf, [f]g fAfNfZfX fvf [f]gRf<, í AWAN (f [f]Cfh fGfšfA flfbfgf [f]N), δ%î, μ, ½ff [f]f^, ì"´—, δ%\$Eä, μ, Ü, ·Bfšf, [f]g fAfNfZfX fNf%ofCfAf"fg, Afšf, [f]g fAfNfZfX fT [f]fo [f]L, ÅŽg, xflfyfCE [f]efBf"fo fVxfef€, AE LAN fvf [f]gRf<, É, æ, Á, ÄAfNf%ofCfAf"fg, ÅŽg, xšf, [f]g fAfNfZfX fvf [f]gRf<, æCE^, Ü, è, Û, ·Bfšf, [f]g fAfNfZfX fvf [f]gRf<, É, í APPP (Point-to-Point Protocol [f] f [f]Cf"fg fC [f] f [f]Cf"fg fvf [f]gRf<) [f] ASLIP (Serial Line Internet Protocol [f] fVfšfAf<%ñüfCf"fg [f] [f]fbfg fvf [f]gRf<) [f] Microsoft RAS fvf [f]gRf< [f]A, ", æ, Ñ NetBIOS fQ [f]gfEjFfC, ì 4 Ží—p, a, , è, Û, ·B

## PPP (Point-to-Point Protocol [f] f [f]Cf"fg fC [f] f [f]Cf"fg fvf [f]gRf<)

Windows NT RAS, Á, í APPP, šTf [f] [f]g, μ, Ä, ç, Ü, ·B PPP, íA<ÆŠE·W [f]E, ìftfCE [f]f~f"fo, AE" f [f]Ø fvf [f]gRf<, ìfZfbfg, ÅA^ÚŽí, ìfbfgf [f]N, š'ŠCEÝ, É% ^—p, μ, Ä, ç, è, ŠA<<, Á, à Afšf, [f]g fAfNfZfX, δ%Å" \, É, μ, Ü, ·B Microsoft, Á, í APPP, í\_ "í [f]A<ÆŠE·W [f]E, AE, μ, Ä, ì-šŠ, [f]A, ", æ, ÑfNf%ofCfAf"fg—p, AfT [f]fo [f]—p, ìfn [f]fhfEjFfA, Afšf, fEjFfA, ÉŠÖ, ·, é [f]—^"í, È [f]\_ "í [f]A<ÆŠE·W [f]E, AE, μ, Ä, ç, Ü, ·B

PPP, ìftf [f] [f]g, É, æ, è AWindows NT, šŽÀ [f]s, ·, éRf"fsf... [f]f^, í APPP <KŠi, É [f]E<', μ, Ä, ç, é" C^Ó, ìft [f]fo [f]L, δ%î, μ, Äšf, [f]g flfbfgf [f]N, Éf\_fCf, f<fCf", Á, <, Ü, ·B, Ü, ½ AWindows NT Server fRf"fsf... [f]f^, íA, Ü, ©, ì [f] [f] [f] [f] [f]šf, [f]g fAfNfZfX fšf, fEjFfA, ©, çEÄ, Ño, μ, δŽó, "Žæ, è [f]A, » ìf ftfgEjFfA, Éf, fbfgf [f]N fAfNfZfX, δ<-%Å, ·, é, ±, AE, à, Á, <, Ü, ·B

PPP fA [f] [f]efNf" ff, Á, í AfNf%ofCfAf"fg, íAIPX [f]ATCP/IP [f]A, ", æ, Ñ NetBEUI, š" C^Ó, É'g, Ý [f]#, í, 1, ÅŽg, x, ±, AE, a, Á, <, Ü, ·B, ±, ì, ½, B AWindows Sockets [f]ANetBIOS [f]A, Ü, ½, í IPX fCf"fg [f]ftfFfCfX—p, É [f] [f]—, 3, è, ½ AfvšfP [f]Vf#f", ššf, [f]g, ì Windows NT Workstation fRf"fsf... [f]f^, ÅŽÀ [f]s, Á, <, Ü, ·B

PPP, í Afšf, [f]g fAfNfZfX, ì·W [f]E<KŠi, É, È, Á, Ä, ç, Ü, ·B

fšf, [f]g fAfNfZfX fvf [f]gRf<, ì KŠi, í AIETF (Internet Engineering Task Force), È, Ç, æEö·z, ·, é "RFC" (Request for Comments), È'è<` , 3, è, Á, ç, Ü, ·BCE» [f]Ý, ìfo [f] [f]Wf#f", ì Windows NT RAS, šTf [f] [f]g, μ, Ä, ç, é RFC, í AZÝ, ì, AE, ", è, Á, ·B

- RFC 1549 HDLC ftfCE [f]fE"à, ì PPP
- RFC 1552 PPP IPXCP (Internetwork Packet Exchange Control Protocol [f] fCf"fg [f] [f]fbfgf [f]N f [f]PfbfgCE šš' [f] \$Eä fvf [f]gRf<)
- RFC 1334 PPP " f [f]Ø fvf [f]gRf<
- RFC 1332 PPP IPCP (Internet Protocol Control Protocol [f] fCf"fg [f] [f]fbfg fvf [f]gRf< [f] \$Eä fvf [f]gRf<)
- RFC 1661 LCP (Link Control Protocol [f] fšf" fN [f] \$Eä fvf [f]gRf<)
- RFC 1717 PPP f}f'f' fšf" fN fvf [f]gRf<

fšf, [f]g fNf%ofCfAf"fg, šT [f] [f]h f [f] [f]efB, ì PPP fT [f]fo [f]L, É [f]Ú' ±, ·, é [f]é [f] [f] Af [f]Of [f]f", ·, é, É, í Af\_fCf, f<CEä, Éf^ [f]f~fif< fXfNfšf, vfg, š<N" @, μ, È, ", è, Ì, È, ç, È, ç, ±, AE, a, , è, Û, ·BfT [f]fo [f]L, ššf, [f]g fNf%ofCfAf"fg, É APPP ftfCE [f]fE f, [f] [f]h, É [f]Ø, è'Ö, ì, é, ±, AE, š'É'm, μ, Á, <, ½, ç Af [f] [f]U [f]L, ìf^ [f]f~fif<, š<N" @, μ Af [f]Of [f]f", šš @—1, μ, È, ", è, Ì, È, è, Û, 1, ñ [f]B

## SLIP (Serial Line Internet Protocol [f] fVfšfAf<%ñüfCf"fg [f] [f]fbfg fvf [f]gRf<)

SLIP (Serial Line Internet Protocol [f] fVfšfAf<%ñüfCf"fg [f] [f]fbfg fvf [f]gRf<), íA'É [f]í, í UNIX fšf, [f]g fAfNfZfX fT [f]fo [f]L, ÅŽg, í, è, Á, ç, é<CEŽ @, ìšf, [f]g fAfNfZfX <KŠi, Á, ·B Windows NT f\_fCf, f<fAfbf flfbfgf [f]N fNf%ofCfAf"fg, í ASLIP, šTf [f] [f]g, μ, Ä, ç, é, ½, B ASLIP <KŠi, šŽg, Á, Ä, ç, éšf, [f]g fAfNfZfX fT [f]fo [f]L, É, à [f]Ú' ±, Á, <, Ü, ·B, ±, è, É, æ, è AWindows NT Version 3.5 fNf%ofCfAf"fg, íA'á<K-í, ÉfCf"fxfg [f] [f] fX [f]X, ì UNIX fT [f]fo [f]L, É [f]Ú' ±, Á, <, Ü, ·B, ½, ¾, μ AWindows NT fšf, [f]g fAfNfZfX fT [f]fo [f]L, í ASLIP fNf %ofCfAf"fg, šTf [f] [f]g, μ, Ä, ç, Ü, 1, ñ [f]B

- ±, ìfo [f] [f]Wf#f", ì Windows NT RAS, šTf [f] [f]g, μ, Ä, ç, é RFC, í AZÝ, ì, AE, ", è, Á, ·B
- RFC 1144 'á'—fVfšfAf< fšf" fN—p, ì TCP/IP fwfbf\_ [f]L, í^3 [f]k
- RFC 1055 fVfšfAf<%ñüfCf"fg [f] [f]fbfg, ì IP ff [f]f^fOf%ofE, ì"´— [f] SLIP

## Microsoft RAS fvf [f]gRf<



Microsoft RAS fvf[]fgfRf<, í[]AMicrosoft "ÆŽ©, ðfŠf, []fg fAfNfZfX fvf[]fgfRf<, Å[]ANetBIOS <KŠi, ðfTf| []fg, µ, Ä, ç, Ü, ·[]BMicrosoft RAS fvf[]fgfRf<, í[]A^È'O, ð, ·, x, Ä, ðfo[]fWf#f", ð Microsoft RAS , ÉŽg, í, è, Ä, ç , Ü, ·[]B, Ü, ½[]AWindows NT Version 3.1[]AMS-DOS[]A, ", æ, Ñ LAN Manager fNf%ofCfAf"fg, Å, àŽg, í, è, Ä, ç , Ü, ·[]B

Windows NT Version 3.1 , ðfT[]fo[][, Éf\_fCf, f<fCf" , ·, éê[]#[]ARAS fNf%ofCfAf"fg, í[]ANetBEUI fvf[]fgfRf<, ðŽg, í, È, ·, è, Í, È, è, Ü, ·, ñ[]B, ±, ð[]ê[]#[]ARAS fT[]fo[][, í[]AfŠf, []fg fNf%ofCfAf"fg, É'í, µ, Ä "fQ[]fQfEjFfC" , Æ, µ, Ä<@"\, µ[]ANetBEUI[]ATCP/IP[]A, Ü, ½, í IPX fvf[]fgfRf<, ðŽg, ðfT[]fo[][, ÉfŠf, []fg fNf %ofCfAf"fg, ðfAfNfZfX, Ä, «, é, æ, ð, É, µ, Ü, ·[]B

**NetBIOS fQ[]fQfEjFfC**

NetBIOS fQ[]fQfEjFfC, í[]A^È'O, ðfo[]fWf#f", ð Windows NT , Æ LAN Manager , ÅŽg, í, è, Ä, ç , ½fA[]fLfefNf`ff, Ä, ·[]BWindows NT , í[]ANetBIOS fQ[]fQfEjFfC, ð`ø, «'±, «fTf|[]fg, µ, Ä, ç, Ü, ·[]BfŠf, []fg fT[]fU[][, í NetBEUI , ðŽg, Ä, Ä[]Ú'±, µ, Ü, ·, ð[]ARAS fT[]fo[][, í•K—v, É%ž, ¶, Ä[]AfPpPfbfg, ð IPX , Ü, ½, í TCP/IP , É•İŠ·, µ, Ü, ·[]B, ±, ð<@"\, É, æ, è[]Aft[]fU[][, í[]A•i[]", ðfvf[]fgfRf<, ð[]—[]Ý, ·, é LAN , Åfjfbfgf[]fNŽ'CE¹, ð<ð— L, Ä, «, Ü, ·[]B, ½, ¾, µ[]AIPX , Ü, ½, í TCP/IP , ðŽg, ðfAfVfŠfP[]fVf#f", ðfNf%ofCfAf"fg'ð, ÅŽÀ[]s, ·, é, ± , Æ, í, Ä, «, Ü, ·, ñ[]BfŠf, []fg fNf%ofCfAf"fg, ð NetBEUI , ðŽg, ð[]ê[]#[], í[]A'Á, ÉŽw'è, µ, È, ç, ©, —, è NetBIOS fQ[]fQfEjFfC, ðŽg, í, è, Ü, ·[]B

NetBIOS fQ[]fQfEjFfC, ð<@"\, ðè—á, Æ, µ, Ä[]ALotus Notes fT[]fU[][, ðfŠf, []fg flfbfgf[]fN fAfNfZfX, ð<" , °, ç, è, Ü, ·[]BLotus Notes , í[]Af\_fCf, f<fAfbfv[]Ú'±, ð<@"\, ð'ñ<Ý, µ, Ä, ç , Ü, ·, ð[]Af\_fCf, f<fAfbfv, ð[]Ú'±æ, í[]ANotes fAfVfŠfP[]fVf#f", ÉCEÀ'è, ð, è, Ä, ç, Ü, ·[]BRAS , í[]A, ±, ð, æ, ð , È[]Ú'±<@"\, ð•à'« , µ[]A'á, çfRfXfg, Å, ·, çfPftfH[]f]f"fx, ðŽÀCE», Å, «, éfŠf, []fg flfbfgf[]fN<@"\, ð Notes fT[]fU[][, É'ñ<Ý, µ, Ü, ·[]BRAS , Ä, í[]ANotes , É[]Ú'±, Ä, «, é, ¾, —, Ä, È, []Aftf@fCf< fT[]fRfX, Æ^ò[]üfT[]fRfX, à[]A, Ü, ©, ðfjfbfgf[]fNŽ'CE¹, Ö, ðfAfNfZfX, à'ñ<Ý, ð, è, Ü, ·[]B

**WAN f1fvfvfjtf**

fNf%ofCfAf"fg,đFT[]fo[],ÉÚ'±,·,é,É,Í[]A"d~b%ñü,Æf,fff€[]AISDN[]AX.25[]ARS-232C Null f,fff€[]A,·,æ,Ñ PPTP (Point-to-Point Tunneling Protocol) ,đ~—p,Á,«,Ü,·[]B,±,±,Á,Í[]A,±,é,ç,lf1fvfvfjtf",É,Á,ç,Ä[]à-¾,µ,Ü,·[]B

**"d~b%ñü,Æf,fff€**

[]Á,à^è"É"l,ÉŽg,í,é,Ä,ç,é WAN []Ú'±,Í[]A'É[]í,lfAfif[]fOŽ@ "d~b%ñü,Æf,fff€,đŽg,Á,½[]Ú'± ,Á,·[]B'É[]í,lfAfif[]fOŽ@ "d~b%ñü,Í[]A[]çŠE't,Á~—p,Á,«,é,í,Á[]A[]íŽž^Ú" @ ,µ,Ä,ç,éft[]fU[][,Ì RAS ,É'í,·,éj[]fY,É,à%ž,í,é,±,Æ,ª,Ä,«,Ü,·[]B'É[]í,lfAfif[]fOŽ@ "d~b%ñü,Í[]A[]PSTN (Public Switched Telephone Network[]F CEö[]OCEđŠ·"d~b-Ô) ,Ü,½,Í POTS (Plain-old Telephone Service[]F 'É[]í"d~bf[]fX) ,ÆCEÄ,í,é,±,Æ,à, ,è,Ü,·[]B

Windows NT ,ÆCEÝŠ·[]«,ì, éf,fff€,Í[]A,·,æ,» 200 Ží—p, ,è,Ü,·[]B,Ü,½[]A[]H<Æ<KŠi,É[]€<',µ,Ä,ç ,é,Ü,Æ,ñ,ç,lf,fff€,Í[]A'ŠCEÝ,É%o^—p,Á,«,Ü,·[]B,½,¾,µ[]ACEÝŠ·[]«,ì,È,çf,fff€,đŽg,±,Æ[]A—Šú,µ,È,ç-â'è,ª'½",·,é,±,Æ,ª, ,è,Ü,·[]B,±,ì,æ,±,É-â'è,đ-h, @ ,É,Í[]AfNf%ofCfAf"fg,ÆfT[]fo[],Á"·,¶Ží—p,lf,fff€ ,đŽg,Á,Ä,,¾,¾,ç[]B

f,fff€,ìCEÝ[]o,Í[]AZ@ "®"l,É[]s,í,é,Ü,·[]Bf,fff€,ìŽ@ "®CEÝ[]o<@"\,Í[]AfCf"fXfg[]f<,¾,é,Ä,ç,é,é,ª·s-¾,É[]è[]±,É ( ,½,Æ,í,Í[]A"à' f,fff€,ìè[]±,É,ç)[]A"Á,É·Ö—~ ,Á,·[]B

fT[]fh fp[]fB,lf,fff€ fv[]f<,à[]AfNf%ofCfAf"fg'±,Ü,½,lfT[]fo[]['±,ÁŽg—p,Á,«,Ü,·[]Bf,fff€ fv[]f<,đ RAS ,ÁŽg—p,Á,«,é,æ,±,É,·,é,É,Í[]AfRf"fgf[]f< fp[]f<,ì [f]fbfgf[]fN] ,đŽg,Á,Ä[]Y'è,µ,Ü,·[]Bf,fff€ fv[]f<,ì[]Ú[]x,É,Á,ç,Ä,Í[]Af,fff€ fv[]f<,lf}jff...fAf<,đŽQ[]Æ,µ,Ä,,¾,¾,ç[]B

Windows NT ,Á,Í[]Af,fff€,lf[]f^ ^³[]k<@"\,ÆfGf%o[][]SCEä<@"\,đ~—p,Á,«,Ü,·[]B,½,¾,µ[]ARAS ,lf ftfgEJfFA^³[]k<@"\,đŽg,±,Æ[]Af,fff€,É,æ,éft[]f^ ^³[]k,æ,è[],,çpftfH[]f}f"fx,đ"¾,é,±,Æ,ª,Ä,«,Ü,·[]B

**ISDN**

RAS ,đŽg,±[]íY,lfŠf,[]fg ftfCfg,Á WAN []Ú'±,đ[],'~%»,·,é,É,Í[]AISDN (Integrated Service Digital Network[]F '[]±fffWf^f< fT[]fX-Ô) %ñü,đŽg,ç,Ü,·[]B'É[]í,Í" d~b%ñü,Á,Í[]A^è"É"l,É'É[]M'—"x,í-^·b 9600 frfbfg (bps) ,Á,·ª[]AISDN %ñü,ì'É[]M'—"x,Í[]A64kbps ,Ü,½,í 128kbps ,Á,·[]B

ISDN %ñü,Í[]A"d~b%ñüŽĐ,É^È—Š,µ,ÄfT[]fo[]['±,ÆfŠf,[]fg'±,ì— ¼·ù,lfTfCfg,É~[]Y,µ,È,·,é,í,È,è,Ü,¹,ñ[]B,Ü,½[]AISDN ,đ~—p,·,é,É,Í[]AfT[]fo[],ÆfŠf,[]fg fNf %ofCfAf"fg,ì—¼·ù,É[]Af,fff€,ì'ä,í,è,É ISDN f[]fh,²fCf"fXfg[]f<,¾,é,Ä,ç,é·K—v,ª, ,è,Ü,·[]BISDN ,ì<@Ší,Æ %ñü,É—v,·,é"i—p,Í[]Af,fff€,Æ" d~b%ñü,đŽg,±[]è[]±,æ,è[],,É,è,Ü,·ª[]A[]Ú'±ŽžŠÖ,ª'ZžžŠÖ,Ä[]i,±,ì,Á[]A —~—p—ž<à,đ[]B-ñ,Á,«,é,±,Æ,à, ,è,Ü,·[]B

1 -{,ì ISDN %ñü,É,Í[]A64Kbps ,Äf[]f^ ,đ"~—,·,é B f'fff[]f<,ª 2 ,Á,Æ[]A16Kbps ,Äf[]f^ ,đ"~— ,·,é[]M[]t'—Žó[]M—p,ì D f'fff[]f<,ª 1 ,Á·t,ç,Ä,ç,Ü,·[]BŠe B f'fff[]f<,Í[]A'P"Æ,lf[]fg,Æ,µ,Ä<@"\,·,é,æ,±,É[]\ []- ,Á,«,Ü,·[]B,Ü,½[]AISDN fhf%ofCfo,ìŽí—p,É,æ,Á,Ä,Í[]A·i[]",lf'fff[]f<,đ"[]±,µ,ÁŽg— p,Á,«,é[]è[]±,à, ,è,Ü,·[]B,Á,Ü,è[]A2 ,Á,ì B f'fff[]f<,Á'P^è,lf[]fg,Æ,µ,Ä<@"\,·,é,æ,±,É[]\ []- ,µ,Ä[]A,æ,è[]L,ç'Ñ^æ·[],đCEÁ'è"l,ÉŠ,,è"—,Á,é,±,Æ,ª,Ä,«,Ü,·[]B,±,ì,æ,±,É[]\[]- ,·,é,Æ[]A%ñü—"x,ì 128 KBps ,Ü,ÁCEüä,µ,Ü,·[]Bf'fff[]f<,ì"[]±,É,lfhf%ofCfo,²,Æ,ÉCEÁ—L,ì·úŽ@,ª[]i,ç,é,Ä,ç,é,½,ß[]AfNf %ofCfAf"fg,ÆfT[]fo[],ì—¼·ù,Á"·,¶lfhf%ofCfo,Æ"·,¶<@Ší,đŽg,í,È,·,é,í,È,è,Ü,¹,ñ[]B

**X.25**

X.25 ,Í[]AWAN []Ú'±—p,É[]YCEv,¾,é,½·W[]€,lfp[]PfbfgCEđŠ·É[]Mfv[]fgfRf< (,Ü,½,lfgf%of"fXf[]fg) ,Á,·[]B Windows NT RAS ,Í[]APAD (Packet Assemblers/Disassemblers) ,Æ X.25 fXf}[]fg f[]fh,đŽg,Á,Ä[]AX.25 <KŠi,ÉŠí,Á,Í[]Ú'±,đfT[]fg,µ,Ü,·[]B,Ü,½[]APAD ,áfXf}[]fg f[]fh,ì'ä,í,è,É[]Af\_fCf,,f<Afbfv[]Ú'±,đ'ñ<Y,·,é X.25 'É[]MŽ-<ÆŽÖ (Sprintnet ,â Infonet ,È,ç) ,Æf,fff€,đ~—p,·,é,±,Æ,à,Á,«,Ü,·[]B

**RS-232C Null f,fff€**

"·,¶è[]Š,É·i[]",lffbfgf[]fN,ª, ,è[]A,»è,ç,ª"~—[]"l,É[]Ú'±,¾,é,Ä,ç,È,ç,Æ,µ,Ü,·[]B,±,ì,æ,±,É[]è[]±,É[]A1



**fZfLf...fŠfefB<@”\**

Windows NT ,íA^À'S,È“®ìSĀ<«„đ'ñ<Ÿ,·,é,½,β,É□AC-2 fĈfxf< (•Ă□'□-h'□□È) ,lfZfLf...fŠfefB,ÉŠÖ,·,é—  
vĈ□,đ-ž,½,·,æ,α,É□YĈEv,³,é,Ā,ĉ,Ü,·□BWindows NT ,lfZfLf...fŠfefB<@”\,É,íAZŸ,ì,æ,α,È“Á'¥,ª, ,è,Ü,·□B  
▪ fVfXfef€ fŠf□[fX,Ö,lfAfNfZfX,đĈĀ•Ē,É□SĈĀ,Ā,«„Ü,·□B  
▪ ,·,×,Ā,lfVfXfef€ fAfNfZfX,đ<L~^,μ□AŠĀ□,·Ā,«„Ü,·□B  
▪ fVfXfef€,ÉfAfNfZfX,·,é,É,í□AfpfXf□□[fh,ª•K—v,Ā,·□B,Ü,½□AŠĀ□, <L~^,ªŽc,è,Ü,·□B

Windows NT Server ,Ā,í□Afhf□fCf“,ìM—ŠŠÖĈEW,Æ□A'P^êfIfbfgf□□[fN f□fOfIf“ f,fff<,đ□ì—p,μ,Ā,ĉ  
,Ü,·□B,±,lf,fff<,Ā,í□A, ,éfhf□fCf“,lf□□[fU□[,ÆfOf<□[fv,É□A,»„lfhf□fCf“,đ□M—Š,μ,Ā,ĉ  
,é•Ē,lfhf□fCf“,ìŽ'Ĉ¹,Ö,lfAfNfZfX,đ<—  
%oĀ,Ā,«„Ü,·□B“F□Ø,³,é,é,Æ□Aft□[fU□[,É,lfIfbfgf□□[fN□ā,ìŽ'Ĉ¹,ÉfAfNfZfX,·,é□é□±,É•K—  
v,ÉfAfJfEf“fg□î•ñ,ª—^,·,ç,è,Ü,·□BfIfbfgf□□[fN□ā,ìŽ'Ĉ¹,Ö,lfAfNfZfXĈE ,ª•K—v,É,Ē,Ā,½,Æ,«„í□A□í,É,±  
,lfAfJfEf“fg□î•ñ,ªŽg,í,é,Ü,·□BWindows NT Server fRf“fsf...□[f^,í□A•” —□“l,É^À'S,Ā, ,è,í□AƆ  
ftfgfEfFfA,đŽg,Ā,ĀŠO” ,©,çŠ@'S,ÉŽÖ'f,Ā,«„Ü,·□B

,±,ì,æ,α,È'P^êfIfbfgf□□[fN f□fOfIf“ f,fff<,í□ARAS ft□[fU□[,É,à“K—p,³,é,Ü,·□BRAS fAfNfZfX,í□AWindows  
NT ,lŠeft□[fU□[ fAfJfEf“fg,É'í,μ,ĀĈĀ•Ē,É<—%oĀ,Ā,«„Ü,·□BfIfbfgf□□[fN,Éf\_fCf,,f<fCf“,·,é<—%oĀ,đŠĈ—□ŽÖ,ª  
—^,·,é,Æ□Aft□[fU□[,í□AŠeŽ©,lfhf□fCf“ f□fOfIf“,đŽg,ĉ□ARAS ,đ%oî,μ,ĀfIfbfgf□□[fN,É□Ú±,Ā,«„é,æ,α  
,É,Ē,è,Ü,·□BRAS ,É,æ,Ā,Ā“F□Ø,³,é,é,Æ□Aft□[fU□[,í□Af□fOfIf“,μ,½fhf□fCf“,ìŽ'Ĉ¹,Æ□A,»„lfhf□fCf“,đ□M—  
Š,μ,Ā,ĉ,éfhf□fCf“,ìŽ'Ĉ¹,đŽg—p,Ā,«„é,æ,α,É,Ē,è,Ü,·□B

,³,ç,É□AWindows NT ,É,í□AŠĀ□, —p,lfCxf“fg frf...□[fA,ª—p^Ó,³,é,Ā,ĉ  
,Ü,·□BfVfXfef€□AfAfVfŠfP□[fVfƒf“□A,“ ,æ,ñfZfLf...fŠfefB,ÉŠÖ,·,é,·,×,Ā,lfCxf“fg,í□A^À'S,ÉŠĈ—□,³,é,Ā,ĉ  
,é'+%o>,lf□[f^fX□[fX,É<L~^,³,é,Ü,·□B“K□Ø,ÈĈ ĈĀ,ª, ,é,í□AfIfbfgf□□[fN□ā,ì,ç,±  
,©,ç,Ā,à,»„lf□[f^fX□[fX,đŽQ□Æ,Ā,«„Ü,·□BfVfXfef€ fZfLf...fŠfefB,đ□NŠQ,μ,æ,α  
,Æ,μ,½,è□ACE ĈĀ,đŽ□,½,·,ÉfT□[frfX,đŠJŽn,Ü,½,í'âŽ~ ,μ,æ,α,Æ,μ,½,è□A•ÚĈi,³,é,Ā,ĉ  
,éŽ'Ĉ¹,ÉfAfNfZfX,μ,æ,α,Æ,·,é,Æ□A,»„l'€□,ªfCxf“fg f□fO,É<L~^,³,é,Ü,·□BŠĈ—  
□ŽÖ,í□A,»„ì<L~^,đŽQ□Æ,Ā,«„Ü,·□B

## RAS fT[fO]

Windows NT Server ,lŠÇ—ŹŹ,íAšf,fg fAfNfZfXŠÇ—ft[fefBfŠfefB,đŽg,Á,ĀAfšf,fg fAfNfZfX  
fT[fO],íŠÇEäAfT[fU],íŽ!AfAfNfZfX,í-%ĀA,“,æ,Ńšf,fg fAfNfZfX fgf%ftfBfN,íŠŽ<,đšs,α  
,±,Æ,ā,Ā,«,Ü,·Bšf,fg fAfNfZfXŠÇ—ft[fefBfŠfefB,łŽg,č•ú,É,Ā,č,Ā,íARASadmin.hlp ,đŽQ[Æ,μ,Ā,-  
,¾,¾,čB

RAS fT[fO],É,íA}f<f f[fg fAf\_fvf^,Ü,½,lf,fff€ (□•ā,ÉfpftfH[f]f“fX,đ“¾,é,É,íA9600bps ^Èā,lf,fff€  
,đ,“š©,β,μ,Ü,·)AfAfifFOŽ@“d~b%ñü□A,Ü,½,í,Ú,©,ìCE`Ô,ì WAN □Ú±,ā•K—v,Ā,·□B,Ü,½□ARAS  
fT[fO],É,íARAS fftfgfEfffA,afCf“fXfg□f<,¾,é,Ā,č,È,·,é,í,È,è,Ü,¹,ñ□BRAS  
fT[fO],đŽg,Á,ĀfBfBfgf□fN,ÉfAfNfZfX,Ā,«,é,æ,α,É,·,é□ê□#,íAflfBfgf□fN,²,Æ,ÉCEĀ•É,lfBfBfgf□fN  
fAf\_fvf^ f□fh,đCf“fXfg□f<,μ□AšeflBfgf□fN,É□Ú±,μ,É,·,é,í,È,è,Ü,¹,ñ□B

RAS fT[fO],í□A□Ā%o,É RAS ,đfZfBfgfAfBfv,·,é,Æ,«,É□□—,¾,é,Ü,·□B,±,ì,Æ,«,É□AfNf  
%ofCfAf“fg,afBfBfgf□fN`S`ì,ÉfAfNfZfX,Ā,«,é,æ,α,É,·,é,©□A,Ü,½,í RAS fT[fO],É,¾,~fAfNfZfX,Ā,«,é,æ,α  
,É,·,é,©,đŽw`è,μ,É,·,é,í,È,è,Ü,¹,ñ□B,Ü,½□ALAN ,ĀŽg,afvf□fgfRf<(IPX□ATCP/IP□A,Ü,½,í NetBEUI)  
,Æ□A“F□Ø^Ā+%o»,lfBfBfgf“đ`đ,μ,É,·,é,í,È,è,Ü,¹,ñ□Bšf,fg fAfNfZfX fvf□fgfRf<,Æ LAN  
fvf□fgfRf<,í□Ú×,É,Ā,č,Ā,í□A,±,lfwf·fv,ì,».,¾,é,ÉŠY“—,·,é”•ā,đŽQ[Æ,μ,Ā,¾,¾,č□B

RAS fT[fO],lf□fg,í□ACEĀ•É,É□□—,μ,Ü,·□B,».,é,¾,é,lf□fg,í□A[fCf,·fAfEfG,ì,Ý]□A[...□M,ì,Ý]□A,Ü,½,í  
[fCf,·fAfEfG,Æ...□M],É□Y`è,Ā,«,Ü,·□B,±,é,ç,í□Y`è,ā“K—p,¾,é,é,í,í□A,·,x,Ā,lf□fg,Ā,í,È,□AŽw`è,μ,½f  
□fg,É,¾,~,Ā,·□B,½,Æ,í,í□AfNf%ofCfAf“fg,afBfBfgf□fN`S`ì,ÉfAfNfZfX,Ā,«,é,æ,α,É□ARAS fT[fO],í COM1  
,đ...□M—p,É□ACOM2 ,đfCf,·fAfEfG—p,Æ’...□M—p,É□□—,Ā,«,Ü,·□B,±,í□ê□#Afšf,fg  
ft[fU],í,ç,ç,ì COM f□fg,É,àR□fCf“Ā,«,Ü,·,ā□Af□□fj< ft[fU],ā“□M—p,ì RAS fR□f<,ÉŽg—  
p,Ā,«,é,ì,í□ACOM2 ,¾,~,Ā,·□B

fCxf“fg,ÆfGf%□,íAWindows NT RAS fNf%ofCfAf“fgā,“,æ,ŃfT[fO],lfCxf“fg frf...  
□fA,É~L^¾,é,Ü,·□BfCxf“fg frf...□fA,lf□FO,đ²,x,é,±,Æ,É,æ,è□A-â`è,ìCE`^ò,đ“Ā`è,Ā,«,Ü,·□B

RAS ,đCf“fXfg□f<,μ□A□□—,·,é,É,íAfRf“fg□□f< fpflf<,ì [flBfgf□fN] ,đŽg,č  
,Ü,·□B,Ü,½□AfT□fRfX,lfXf^□fgfAfBfv flfvfVfj“đŽw`è,·,é,É,íAfRf“fg□□f< fpflf<,ì [fT□fRfX] ,đŽg,č  
,Ü,·□B

Windows NT Server ,ì RAS ,Ā,í□A□Ā`ā 256 ,lfšf,fg fNf%ofCfAf“fg,ā RAS  
fT[fO],ÉfCf,·fCf“Ā,«,Ü,·□BRAS fT[fO],í□AfNf%ofCfAf“fg,afBfBfgf□fN`S`ì,ÉfAfNfZfX,Ā,«,é,æ,α,É□  
□—,·,é,±,Æ,à□A,».,ì RAS fT[fO],íŽ`CE¹,É,μ,©fAfNfZfX,Ā,«,É,č,æ,α,É□ŠÇĀ,·,é,±,Æ,à,Ā,«,Ü,·□B

RAS ,lfCf“fXfg□f<,Æ□□—,í□Ú×,É,Ā,č,Ā,í□A□uf\_fCf,·fAfBfv flBfgf□fN (RAS)  
,đCf“fXfg□f<,·,é□v,đŽQ[Æ,μ,Ā,¾,¾,č□B

**LAN fvf[]fgfRf<**

Windows NT ,Á,í[]ATCP/IP[]AIPX[]ANetBEUI ,È,Ç,ì LAN fvf[]fgfRf<,Æ[]APPP[]ASLIP[]AMicrosoft RAS fvf[]fgfRf<,È,Ç,ìfŠf,[]fg fAfNfZfX fvf[]fgfRf<,ðfTf[]fg,μ,Ä,ç,Û,·[]BLAN fvf[]fgfRf<,í[]ALAN (f[]fj< fGfŠfA flfbfgf[]fN) ,ð%oi,μ,ÄffpPfbfg,ð“`—,μ,Û,·[]B^è•û[]AfŠf,[]fg fAfNfZfX fvf[]fgfRf<,í[]AWAN (f[]fCfh fGfŠfA flfbfgf[]fN) ,ð%oi,μ,Äff[]f^,ì“`—,ð[]\$CEä,μ,Û,·[]B[]Ú[]×,É,Ä,ç,Ä,í[]A[]ufŠf,[]fg fAfNfZfX fvf[]fgfRf<[]v,ðŽQ[]Æ,μ,Ä,,¾,¾,¾,ç[]B

RAS ,ð[]\[]¬,μ[]AŠù‘¶,ìflfbfgf[]fN,Æ“[]±,·,é[]ê[]±[]AŠù‘¶,ìflfbfgf[]fN,ÄŽg,í,è,Ä,ç,éfvf[]fgfRf<,í[]ACEv %oæ[]ä,ì[]d—v,È—v’f,É,È,è,Û,·[]B

Windows NT RAS ,í[]ATCP/IP[]AIPX[]A,“ ,æ,Ñ NetBEUI ,ðfTf[]fg,μ,Ä,ç,Û,·[]B,±,±,Ä,ç,xfTf[]fg,Æ,í[]APPP fŠf,[]fg fAfNfZfX<KŠi,É[]),Á,Ä,ç,éŠù‘¶,ì Microsoft[]AUNIX[]A,Û,½,í NetWare flfbfgf[]fN,É[]AWindows NT RAS ,ð“[]±,Ä,«,é,±,Æ,ð^Ó—j,μ,Û,·[]B,Û,½[]AWindows NT RAS fNf%ofCfAf“fg,í[]AŠù‘¶,ì SLIP fx[]fX,ìfŠf,[]fg fAfNfZfX fT[]fo[]( Žã,É UNIX fT[]fo[]),É,à[]Ú‘±,Ä,«,Û,·[]B

RAS ,ðfCf“fXfg[]f<,μ[]A[]¬,·,·,é,Æ[]AŠù,ÉfRf“fsf...[]f^,ÉfCf“fXfg[]f<,¾,è,Ä,ç,éfvf[]fgfRf< (TCP/IP[]AIPX[]A,“ ,æ,Ñ NetBEUI) ,ì,ç,·,è,Ä,à[]ARAS ,ì’—[]MCEÄ,Ñ[]o,μ,Æ’...[]MCEÄ,Ñ[]o,μ,É‘í,μ,ÄŽ©“®“ì,É —LCEø,É,È,è,Û,·[]B

,Û,½[]ARAS ,ðfCf“fXfg[]f<,·,é,Æ,«,É[]AfNf%ofCfAf“fg,ð LAN ‘S’ì,ÉfAfNfZfX,Ä,«,é,æ,±,É,·,é,©,Ç,± ,©,ðŽw’è,μ,È,¬,è,ì,È,è,Û,¹,ñ[]BŽw’è,μ,È,ç[]ê[]±[]Aft[]fU[]),í RAS fT[]fo[](,É,μ,©fAfNfZfX,Ä,«,É,- ,È,è,Û,·[]BTCP/IP ,Û,½,í IPX ,ðŽg,Á,Ä LAN ‘S’ì,ÉfAfNfZfX,Ä,«,é,æ,±,É,·,é[]ê[]±,í[]AIP fAfhfCefX,Û,½,í IPX flfbfg“Ö[]±,ðfT[]fo[](,©,ç’ñ<ÿ,·,é•û-@,à[]¬,μ,È,¬,è,ì,È,è,Û,¹,ñ[]BNetBEUI ,ðŽg,Á,ÄfAfNfZfX,Ä,«,é,æ,± ,É,·,é[]ê[]±,í[]A,±,ì,æ,±,É[]¬,í•K—v, ,è,Û,¹,ñ[]B

ŠÖ~A[]€-Ú

IPX ,Æ RAS

TCP/IP ,Æ RAS

NetBEUI ,Æ RAS







fzfXfg, ©, ċfŠf, □[fg fAfNfZfX fNf%oCfAf“fg, É‘í, μ, Ā□Aping , đŽg—p, Ā, «, é, æ, x, Éf|fbfgf□□[fN f^□[ , a□  
□~ , ³, ê, Ā, ċ, é, ©, Ć, x, ©, đŠm“F, μ, Ü, ·□B, » , ìĒã□AZÿ, ì, æ, x, Ê□#□~ , Ā ping , đŽÀ□s, μ, Ü, ·□B

1 fŠf, □[fg fNf%oCfAf“fg, ©, ċf^□[fQfbfg fT□[fo□[□AfŠf, □[fg fNf%oCfAf“fg, ©, ċfŠf, □[fg fAfNfZfX  
fT□[fo□[□AZÿ, É□AfŠf, □[fg fAfNfZfX fT□[fo□[ , ©, ċf^□[fQfbfg fT□[fo□[

2 f^□[fQfbfg fT□[fo□[ , ©, ċfŠf, □[fg fNf%oCfAf“fg□Af^□[fQfbfg fT□[fo□[ , ©, ċfŠf, □[fg fAfNfZfX  
fT□[fo□[□AZÿ, É□AfŠf, □[fg fAfNfZfX fT□[fo□[ , ©, ċfŠf, □[fg fNf%oCfAf“fg

### TCP/IP flfbfgf□□[fN□ã, ì SLIP

SLIP (Serial Line Internet Protocol□F fVfŠfAf<%oňüfCf“f^□[flfbfg fvf□fgfRf< ) , ìTf|□[fg, É, æ, è□AWindows  
NT RAS fNf%oCfAf“fg, ì□ASLIP fŠf, □[fg’É□M<KŠi, đŽg, Ā, Ā, ċ, éfT□[fh fp□[fefB, ìfŠf, □[fg fAfNfZfX  
fT□[fo□[ , É□Ú’±, Ā, «, ·□BfNf%oCfAf“fg, a SLIP , đŽg—p, Ā, «, é, ì, ì□A“d~b’ , ìfGf“fgfŠ, É□Y’è, ³, ê, Ā, ċ, éf|  
□[fg, a fVfŠfAf< COM f|□[fg, ì□é□# , ¾, ~ , Ā, ·□B

ft□[fU□[ , a SLIP fT□[fo□[ , É□Ú’± , ·, é, Æ□AUNIX SLIP fT□[fo□[ , É‘î~b“i, Éf□fOfif“ , ·, é, ½, ß, ìf^□[f~fif<  
f\_CfAf□fo, a •\Ž| , ³, ê, Ü, ·□BUNIX f□fOfif“ , a—D□æ, ³, ê□ARAS f□fOfif“ , a •\Ž| , ³, ê, É, ċ, æ, x  
, É, È, è, Ü, ·□B^è“x□Ú’±, aŠm—š, ³, ê, é, Æ□AfŠf, □[fg flfbfgf□□[fN fAfNfZfX, ìf†□[fU□[ , ©, ċ“š%oß“i, É, È, è, Ü, ·□B

## NetBEUI ,Æ RAS

NetBEUI , íA -<K-í, Èf [fNfOf< [fv, â LAN , É“K, μ, ½fvf [fgfRf<, Å, ·BNetBIOS fQ [fgfEfFfC, Æ NetBEUI fNf%ofCfAf“fg fvf [fgfRf<, íA, ·, x, Ä, ì Windows NT RAS fT [fo [ ,Æ'å·"·ª, ì Windows flfbfgf [fN fNf %ofCfAf“fg, ÉŠù'è, ìÝ'è, ÅfCf“fXfg [f<, ³, è, Ü, ·B^È'O, ìfo [fWf#“ , ì Windows NT ALAN Manager A, ", æ, Ñ MS-DOS , ì ŠeRAS fNf%ofCfAf“fg, É, íANetBEUI,ª·K—v, Ä, ·B

**f\_fCf,,f-fAfbfv flfbfgf[]fN (RAS) ,đfCf“fXfg[]f<.,é**

RAS ,đfCf“fXfg[]f<.,éŽè[]f,íAŠù,ÉfCf“fXfg[]f<.,é,Ä,č,éflfbfgf[]fN fvf[]fgfRf<,É,æ,Ä,Ä'½-  
^Ü,È,è,Ü,·[]BTCIP ,Ü,½,í IPX fvf[]fgfRf<,đ RAS ,Æ'g,Ý[]f,í,¹,ÄŽg,æ[]è[]f,í[]ARAS  
,đfCf“fXfg[]f<.,é'Ó,É[]A,» ,lfvf[]fgfRf<,đfCf“fXfg[]f<.,é,Ä,č,É,č[]è[]f[]ARAS ,lfZfbfgfAfbfv,ì[]—  
,ÄŽg,æfvf[]fgfRf<,²,ç,©,¶,ßfCf“fXfg[]f<.,é,Ä,č,É,č[]è[]f[]ARAS ,lfZfbfgfAfbfv,ì[]—  
¹CEä,É[]A,» ,lfvf[]fgfRf<,lfCf“fXfg[]f<,đ<.,ß,é[]fbfZ[]fW,²·Ž!,³,è,Ü,·[]BŠefvf[]fgfRf<,lfCf“fXfg[]f<·û-  
@,É,Ä,č,Ä,í[]A[]wWindows NT Server ftj@[]fXfg fXfefbfv fKfCh[]x,đŽQ[]Æ,µ,Ä,³/⁄,³,č[]B

RAS ,đfCf“fXfg[]f<,µ[]A[]-.,é,É,í[]AAdministrators  
fOf<[]fv,lf[]“fo[][,Æ,µ,Äf[]fOf[]f“ ,µ,È,·,è,í,È,è,Ü,¹,ñ[]B

**fŠf,[]fg fAfNfZfX f\ftfgfEjFfA,đ'Ç%oÄ.,é,É,í**

- 1 fRf“fgf[]f< fpf[]f<,ì [flfbfgf[]fN] fAfCfRf“ ,đf\_fuf<fNfŠfbfN,µ,Ü,·[]B
- 2 [ft[][frfX] f^fu,ì ['Ç%oÄ] ,đfNfŠfbfN,µ,Ü,·[]B
- 3 [flfbfgf[]fN ft[][frfX] f{fbfNfX,©,ç [fŠf,[]fg fAfNfZfX ft[][frfX] ,đ'í'đ,µ[]AZÿ,É [OK] ,đfNfŠfbfN,µ,Ü,·[]B
- 4 "z-zftf@fCf<,lfpfX,đ“ü—í,·,é,æ,æ,É<[]B,É\_fCfAf[]fO f{fbfNfX,²·Ž!,³,è,½,ç[]AfpfX,đ“ü—í,µ[]AZÿ,É  
['±s] ,đfNfŠfbfN,µ,Ü,·[]B

RAS ,lf[]@fCf<,æfRf“fsf...[]f^ ,ÉfRfs[][,³,è,Ü,·[]B

- 5 %oæ-É,É·Ž!,³,è,éŽwŽ!,É[]],č[]A'í'đ,µ,½f[]fg,É[]Ú'±,³,è,Ä,č,é,f,fff€,đŽ““@CEÿ[]o,³,¹,é,©[]A,Ü,½,lf[]f[]  
[]fg,³,è,Ä,č,é,f,fff€,ì^è—,©,ç,f,fff€,đ'í'đ,µ,Ü,·[]B

- 6 [RAS fffofCfX,ì'Ç%oÄ] f\_fCfAf[]fO f{fbfNfX,Ä[]AfŠf,[]fg fAfNfZfX ft[][frfX,ÉŽg,æf[]fg,đ'í'đ,µ[]A[OK]  
,đfNfŠfbfN,µ,Ü,·[]B}f<f[]fg fAf\_fvf^[]AISDN f[]f[]h[]AX.25 f[]f[]h[]A,Ü,½,í,» ,ì'¼,lf[]ffofCfX,²³,µ,-  
fCf“fXfg[]f<,³,è,Ä,č,é[]è[]f,í[]A,» ,è,ç,lf[]ffofCfX,²^è—,É·Ž!,³,è,Ü,·[]B

- 7 [fŠf,[]fg fAfNfZfX fZfbfgfAfbfv] f\_fCfAf[]fO f{fbfNfX,ì [[]-] ,đfNfŠfbfN,µ,Ü,·[]B

- 8 [f[]fgŽg—p,ì[]-] f{fbfNfX,ÄŽÿ,ì,ç,·,è,©,đ'í'đ,µ[]A[OK] ,đfNfŠfbfN,µ,Ü,·[]B
- fRf“fsf...[]f^ ,đ RAS fNf%ofCfAf“fg[]è—p,ÉŽg,æ[]è[]f,í[]A[f\_fCf,,f-fAfEfg,ì,Ý] ,đfNfŠfbfN,µ,Ü,·[]B
- fRf“fsf...[]f^ ,đ RAS ft[][fo[][]è—p,ÉŽg,æ[]è[]f,í[]A['...[]M,ì,Ý] ,đfNfŠfbfN,µ,Ü,·[]B
- fRf“fsf...[]f^ ,đfNf%ofCfAf“fg,Æ,µ,Ä,àft[][fo[][,Æ,µ,Ä,àŽg—p,Ä,« ,é,æ,æ  
,É,·,é[]è[]f,í[]A[f\_fCf,,f-fAfEfg,Æ'...[]M] ,đfNfŠfbfN,µ,Ü,·[]B,½,¾,µ[]AfNf%ofCfAf“fg,Æft[][fo[][,ì—¼·û,ì<@“\  
,đ“ŽŽ,ÉŽg,æ,±,Æ,í,Ä,« ,Ü,¹,ñ[]B

- 9 RAS flfbfgf[]fN'S'ì,ì[]ý'è,đ[]-.,é,É,í[]A[flfbfgf[]fN] ,đfNfŠfbfN,µ,Ü,·[]B[]x,É,Ä,č,Ä,í[]A[]uLAN  
fvf[]fgfRf<,đŽg,æ,æ,æ,É RAS ,đ[]-.,é[]v,đŽQ[]Æ,µ,Ä,³/⁄,³,č[]B

'[] fŠf,[]fg fAfNfZfX,lfCf“fXfg[]f<,Æ[]- ,đ—LCEø,É,·,é,É,í[]AfRf“fsf...  
[]f^ ,đ[]Ä<N“@ ,µ,È,·,è,í,È,è,Ü,¹,ñ[]B

- fŠf,[]fg fAfNfZfX f\ftfgfEjFfA,É,í[]AZÿ,lfAfvfŠfP[]fVfj“ ,²ŠÜ,Ü,è,Ä,č,Ü,·[]B
- f\_fCf,,f-fAfbfv flfbfgf[]fN[]BRAS ,lfNf%ofCfAf“fg fo[]fWfj“ ,Ä,·[]Bf\_fCf,,f-fAfbfv ft[][fo[][,É[]Ú'±  
,·,é,½,ß,ÉŽg,ç,Ü,·[]B[f\_fCf,,f-fAfbfv flfbfgf[]fN] fAfCfRf“ ,í[]A[f]fC fRf“fsf...[]f^] fEfBj“fhfE,Æ[]A[fXf^[]fg]  
f[]fj...[][,ì [fvf[]fOf%of€] f[]fj...[][,ì [fAfNfZfTfŠ] ftfHf<f\_É, ,è,Ü,·[]B
- f\_fCf,,f-fAfbfv flfbfgf[]fN f.fjf^[]B[]Ú'±,ÆfffofCfX,ì[]ó'Ö,đŠÄŽ<.,é,½,ß,ÉŽg,ç,Ü,·[]BfRf“fgf[]f<  
fpf[]f<,É, ,è,Ü,·[]B
- fŠf,[]fg fAfNfZfXŠÇ—[]BRAS ft[][fo[][,É[]Ú'±,µ,Ä,č,é,fŠf,[]fg ft[][fU[][,đŠÄŽ<.,é,½,ß,ÉŽg,ç  
,Ü,·[]B[fXf^[]fg] f[]fj...[][,ì [fvf[]fOf%of€] f[]fj...[][,ì [ŠÇ—[]fc[]f< (<—L)] ftfHf<f\_É, ,è,Ü,·[]B



**LAN fvf[]fgfRf<,đŽg,æ,æ,É RAS ,đ[]-.,.é**

RAS ,í[]ALAN ,Ö,í[]AfNfZfX,đ'ñ<ÿ,µ,Ü,·[]B,±,ì,½,ß[]ALAN ,ÁŽg,æfvf[]fgfRf<,đ'í'đ,µ[]A[]  
[]-.,µ,È,·,è,ì,È,è,Ü,¹,ñ[]BWindows NT Workstation fRf"fsf...[]f^,Æ Windows NT Server fRf"fsf...  
[]f^,í[]ARAS fNf%ofCfAf"fg,Æ RAS fT[]fo[][,ì,ç,.,è,É,à[]-.,Á,«,é,ì,Á[]ARAS fNf%ofCfAf"fg,Æ RAS  
fT[]fo[][,ÁŽg,æ LAN fvf[]fgfRf<,đ,».,è,¼,è[]-.,µ,È,·,è,ì,È,è,Ü,¹,ñ[]BRAS ,ÉŽg,æf[]fg,ìŽg—p-  
@,ìŽw'è,É,æ,Á,Á[]ARAS fRf"fsf...[]f^,đfNf%ofCfAf"fg,É,·,é,©[]AfT[]fo[][,É,·,é,©,æ^,Ü,è,Ü,·[]B  
LAN fvf[]fgfRf<,ìÿ'è,í[]ARAS ,ÉŽg—p%oÁ"\\,È,·,×,Ä,ìf[]fg,É'í,·,é RAS ,ì,·,×,Ä,ì'è[],É"K—  
p,³,è,Ü,·[]B,½,Æ,ì,í[]A"Á'è,ì RAS fGf"fgfŠ,Á TCP/IP ,đŽg,æ,æ,Éÿ'è,·,é,É,í[]A ,ç,©,¶,ß RAS fRf"fsf...  
[]f^,ÁTCP/IP ,đŽg—p,Á,«,é,æ,æ,É,µ,Ä,·,©,È,·,è,ì,È,è,Ü,¹,ñ[]B

**LAN fvf[]fgfRf<,đŽg,æ,æ,É RAS ,đ[]-.,.é,É,í**

- 1 fRf"fgf[]f< f p f l f , ì [ f l f b f g f [] [ f N ] f A f C f R f " , đ f \_ f u f < f N f Š f b f N , µ , Ü , · [] B
- 2 [ f T [] [ f r f X ] f ^ f u , Á [] A [ f Š f , [] [ f g f A f N f Z f X f T [] [ f r f X ] , đ f N f Š f b f N , µ [] A Ž Ÿ , É [ f v f [] p f e f B ] , đ f N f Š f b f N , µ , Ü , · [] B
- 3 [ f Š f , [] [ f g f A f N f Z f X f Z f b f g f A f b f v ] f \_ f C f A f [] f O f { f b f N f X , ì [ f l f b f g f [] [ f N ] , đ f N f Š f b f N , µ , Ü , · [] B
- 4 [ f l f b f g f [] [ f N , ì [] - ] f \_ f C f A f [] f O f { f b f N f X , ì [ f \_ f C , , f < f A f E f g f v f [] f g f R f < ] , Á [] A R A S f N f % o f C f A f " f g , Æ , µ , Ä , Ü , © , ì f R f " f s f ... [] f ^ , É f \_ f C , , f < f A f E f g , · , é , Æ , « , É Ž g , æ f v f [] f g f R f < , đ ' í ' đ , µ , Ü , · [] B [ f \_ f C , , f < f A f E f g f v f [] f g f R f < ] , Á f v f [] f g f R f < , đ ' í ' đ , µ , È , ç [] è [] # , í [] A C E ä , Á f \_ f C , , f < f A f E f g — p , É " d ~ b ' f G f " f g f Š , đ [] - , · , é , Æ , « , É [] A , » , ì f v f [] f g f R f < , đ ' í ' đ , « , Ü , ¹ , ñ [] B  
f \_ f C , , f < f A f E f g — p , É [] - , ³ , è , Ä , ç , é f [] [ f g , æ , È , ç [] è [] # [] A [ f \_ f C , , f < f A f E f g f v f [] f g f R f < ] , í ' W [] F · \ Ž , ³ , è [] A — ~ — p , Á , « , Ü , ¹ , ñ [] B
- 5 [ f T [] [ f o [] [ , ì ÿ ' è ] , Á [] A R A S f R f " f s f ... [] f ^ , æ Š f , [] [ f g f N f % o f C f A f " f g , © , ç , ì ' ... [] M f R [] [ f < , É Ž g , æ LAN f v f [] f g f R f < , đ ' í ' đ , µ , Ü , · [] B  
' ... [] M — p , É [] - , ³ , è , Ä , ç , é f [] [ f g , æ , È , ç [] è [] # , í [] A [ f T [] [ f o [] [ , ì ÿ ' è ] , ì — ~ — p , Á , « , Ü , ¹ , ñ [] B
- 6 ^ Á [] + % » , ì f l f v f v f # " , đ ' í ' đ , µ , Ü , · [] B Š e f l f v f v f # " , ì Ó — ; , í Ž Ÿ , ì , Æ , · , è , Ä , · [] B  
· [ f N f Š f A f e f l f X f g , đ Š Ÿ , b " C Ó , ì " F [] Ø , đ < - % o Á , · , é ] , đ ' í ' đ , · , é , Æ [] A f N f % o f C f A f " f g , © , ç — v < [] , ³ , è , ½ , ç , , è , ì " F [] Ø ( M S - C H A P [] A S P A P [] A P A P ) , đ Ž g , Á , ½ [] Ú ± , Á , à < - % o Á , µ , Ü , · [] B , ± , ì f l f v f v f # " , í [] A R A S f N f % o f C f A f " f g , ì Ž í — b , æ ½ — ì , È [] è [] # , É · Ö — ~ , Á , · [] B  
· [ ^ Á [] + % » , ³ , è , ½ " F [] Ø , æ · K — v ] , đ ' í ' đ , · , é , Æ [] A P A P , đ Ø æ , ç , Ä [] A f N f % o f C f A f " f g , © , ç — v < [] , ³ , è , ½ , ç , , è , ì " F [] Ø , đ Ž g , Á , ½ [] Ú ± , Á , à < - % o Á , µ , Ü , · [] B  
· [ M i c r o s o f t ^ Á [] + % » " F [] Ø , æ · K — v ] , đ ' í ' đ , · , é , Æ [] A M S - C H A P , ì " F [] Ø , đ Ž g , Á , ½ [] Ú ± , ì , Ý , đ < - % o Á , µ , Ü , · [] B  
· [ f f [] [ f ^ , ì ^ Á [] + % » , æ · K — v ] f ^ f f b f N f { f b f N f X , đ f l f } , É , · , é , Æ [] A % o ñ ü , đ % o ì , µ , Á ' — [] M , ³ , è , é , · , × , Ä , ì f f [] [ f ^ , æ ^ Á [] + % » , ³ , è , Ü , · [] B
- 7 · " — [] " Ì , È · ; [] " , ì Š f " f N , đ ~ \_ — [] " Ì , È 1 , Á , ì " " © " , É C E < [] # , · , é , É , í [] A [ f } f < f Š f " f N , đ Ž g , æ ] f ^ f f b f N f { f b f N f X , đ f l f } , É , µ , Ü , · [] B , ± , ì · ; [] # Š f " f N , É , æ , è [] A ' Ñ ^ æ · [] , đ [] L , · , é , ± , Æ , æ , Á , « , Ü , · [] B f } f < f Š f " f N , æ [] Á , à ^ è " É " Ì , É Ž g , ì , è , é , ì , í [] A I S D N f ^ f f f l f < , ì C E < [] # , Á , · , æ [] A · ; [] " , ì f , f f f € , đ C E < [] # , ³ , ½ , è [] A f , f f f € , Æ I S D N % o ñ ü , đ C E < [] # , ³ , ½ , è , Ä , « , Ü , · [] B  
, ± , ì f ^ f f b f N f { f b f N f X , í [] A W i n d o w s N T S e r v e r f R f " f s f ... [] f ^ , É , ì , Ý " K — p , ³ , è , Ü , · [] B
- 8 f v f [] f g f R f < , ì ' í ' đ , đ [] — ¹ , µ , ½ , ç [] A [ O K ] , đ f N f Š f b f N , µ , Ü , · [] B
- 9 [ f Š f , [] [ f g f A f N f Z f X f Z f b f g f A f b f v ] f \_ f C f A f [] f O f { f b f N f X , ì [ ' ± [] s ] , đ f N f Š f b f N , µ [] A f Š f , [] [ f g f A f N f Z f X f Z f b f g f A f b f v , đ [] — ¹ , µ , Ü , · [] B

ŠÖ~A[]€-Ü

TCP/IP ,đŽg,æ,æ,É RAS fT[]fo[][,đ[]-.,.é

IPX ,đŽg,æ,æ,É RAS fT[]fo[][,đ[]-.,.é

NetBEUI ,đŽg,æ,æ,É RAS fT[]fo[][,đ[]-.,.é

RAS fNf%ofCfAf"fg,æŽg,æ-¼'O%ođCE^,đ[]-.,.é

RAS fgf"fgfŠ.ÉŽg.ɤfvf[]fgfRf<.đ'!.Ô

**NetBEUI ,đŽg,æ,æ,É RAS fT[fó[.đ\[-,.,é**

NetBEUI ,íA[-<K-í,È LAN ,Á NetBIOS fAfvfŠfP[fVf#f“ ,đŽÀ[s,.,éê[±,ÉA[Á,à—  
D,é,½fpftfH[f]f“fX,đ”Šö,µ,Ü,·B,Ü,½ANetBEUI ,đ[í[œ,µ,Ä,àATCP/IP ,Ü,½,Í IPX ,Æ<æ,É RAS ,đŽg—  
p,Á,«,Ü,·BfZfbfjAfbfv,ì,Æ,«,É,ÍANetBEUI fNf%ofCfAf“fg,afibfjgf[fN’S’ì,ÉfAfnfZfX,Á,«,é,æ,æ,  
.É,.,é,©A,Ü,½,Í RAS fRf“fsf...[f^,É,µ,©fAfnfZfX,Á,«,È,ç,æ,æ,É,.,é,©,đŽw’è,Á,«,Ü,·B

**NetBEUI ,đflfbfjgf[fN’Ú’±,ÉŽg,æ,æ,É RAS fT[fó[.đ\[-,.,é,É,Í**

- 1 fRf“fgf[f< fpflf<,ì [flfbfjgf[fN] fAfCfRf“,đf\_fuf<fNfŠfbfN,µ,Ü,·B
  - 2 [fT[frfX] f^fu,ÁA[fŠf.[fg fAfnfZfX fT[frfX] ,đfNfŠfbfN,µAŽŸ,É [fvf[fpfefB] ,đfNfŠfbfN,µ,Ü,·B
  - 3 [fŠf.[fg fAfnfZfX fZfbfjAfbfv] f\_fCfAf[fO f{fbfNfX,ì [flfbfjgf[fN] ,đfNfŠfbfN,µ,Ü,·B
  - 4 [fT[fó[.ìŸ’è] ,ì [NetBEUI] f^fFfbfN f{fbfNfX,đflf“,É,µA[[-] ,đfNfŠfbfN,µ,Ü,·B
  - 5 [RAS fT[fó[ NetBEUI ,ì[-] f\_fCfAf[fO f{fbfNfX,ÁANetBEUI fNf  
%ofCfAf“fg,Éflfbfjgf[fN’S’ì,Ö,ìfAfnfZfX,đ<-%oÁ,.,é,©A,Ü,½,Í RAS fRf“fsf...[f^,Ö,ìfAfnfZfX,ì,Ý,đ<-  
%oÁ,.,é,©,đ’ì’đ,µAŽŸ,É [OK] ,đfNfŠfbfN,µ,Ü,·B
  - 6 [flfbfjgf[fN,ì[-] f\_fCfAf[fO f{fbfNfX,ì [OK] ,đfNfŠfbfN,µ,Ü,·B
  - 7 [fŠf.[fg fAfnfZfX fZfbfjAfbfv] f\_fCfAf[fO f{fbfNfX,ÁAf[fg,ì,».,ì¼,ìflfvfVf#f“ ,đ\[-,µAŽŸ,É [’±[s]  
,đfNfŠfbfN,µ,Ü,·B
- ' [ •ìX“à—e,đ—LCEø,É,.,é,É,ÍAfRf“fsf...[f^,đÄ<N“ ©,µ,È,\_,é,ì,È,è,Ü,¹,ñB

**TCP/IP ,đŽg,æ,æ,É RAS fT[fO[L,đN[-,.,é**

RAS Ů'±,ĀŽg,æ,æ,É TCP/IP ,ìŸ'è,đN[-,Ü,½,íĀN[-,.,é,É,íĀfRf"fgf[f< fpf[f<,ì [f]fbfgf[fN] ,đŽg,ç,Ü,·B

RAS fT[fO[L,Ā,íĀTCP/IP ,ÉSÖ,µ,Ā 2 ,Ā,ìN[-,íĀ,è,Ü,·B

- LAN Ā,ìfT[fO[L,Æ,µ,Ā<@",.,é,½,β,ìŠî-{}N[-,Æ IP fAfhfçfX,ìŸ'èB[-,·û-@,É,Ā,ç,Ā,íĀTCP/IP ,ìf]f"fofçf" fwf<fv,đŽQ[Æ,µ,Ā,,¾,¾,çB
- RAS fNf%ofçfAf"fg,É IP fAfhfçfX,đ'ñ<Ÿ,.,é,½,β,ìN[-,B,±,±,Ā,íĀRAS fNf%ofçfAf"fg,É IP fAfhfçfX,đ'ñ<Ÿ,.,é,½,β,ì N[-,·û-@,đĀ-¾,µ,Ü,·B

**TCP/IP ,đf]fbfgf[fNŮ'±,ÉŽg,æ,æ,É RAS fT[fO[L,đN[-,.,é,É,í**

- 1 fRf"fgf[f< fpf[f<,ì [f]fbfgf[fN] fAfçfRf",đf\_fuf<fNfŠfbfN,µ,Ü,·B
- 2 [fT[fRfX] f^fu,ĀĀA[Šf,[]fg fAfNfZfX fT[fRfX] ,đfNfŠfbfN,µĀAŽŸ,É [fvf[]pfefB] ,đfNfŠfbfN,µ,Ü,·B
- 3 [Šf,[]fg fAfNfZfX fzfbfgfAfbfv] f\_fçfAf[]fo f{fbfNfX,ì [f]fbfgf[fN] ,đfNfŠfbfN,µ,Ü,·B
- 4 [fT[fO[L,ìŸ'è] ,ì [TCP/IP] f^fFfbfN f{fbfNfX,đf]f",É,µĀAŽŸ,É [N[-] ,đfNfŠfbfN,µ,Ü,·B
- 5 [RAS fT[fO[L TCP/IP ,ìN[-] f\_fçfAf[]fo f{fbfNfX,ĀĀTCP/IP fNf %ofçfAf"fg,Éf]fbfgf[fN'S'ì,Ö,ìfAfNfZfX,đ<-%Ā,.,é,©Ā,Ü,½,í RAS fRf"fsf...[]f^,Ö,ìfAfNfZfX,ì,Ÿ,đ<-%Ā,.,é,©,đ'ì'đ,µĀAŽŸ,É [OK] ,đfNfŠfbfN,µ,Ü,·B
- 6 fŠf,[]fg fNf%ofçfAf"fg,É—^,ì,é IP fAfhfçfX,đ"®"ìfzfXfg[]-fvf[]fgfRf< (DHCP) fT[fO[L,©,çŽæ"¾,.,é[]ĉ,íĀA[Šf,[]fg TCP/IP fNf%ofçfAf"fg,ìfAfhfçfXŠ,,è"-,Ā,É DHCP ,đŽg,æ] ,đfNfŠfbfN,µ,Ü,·B  
DHCP fT[fO[L,è~—p,Ā,«,È,ç[]ĉ,íĀA[Ā"ìfAfhfçfX fv[]f<,đŽg,æ] ,đfNfŠfbfN,µĀAŽŸ,ÉĀRAS fT[fO[L,šfNf%ofçfAf"fg,ÉS,,è"-,Ā,é IP fAfhfçfX,ì"í"í,đŽw'è,µ,Ü,·BIP fAfhfçfX,ì"í"í,íĀRAS fT[fO[L,è"®,.,éfTfuf]fbfg,Ā—Lçø,É"í"í,Ā,È,\_,è,ì,È,è,Ü,¹,ñB
- 7 RAS fNf%ofçfAf"fg—p,ÉS,,è"-,Ā,ç,è,Ā,ç,é"í"í,ì IP fAfhfçfX,đ [ŠŽnfAfhfçfX] f{fbfNfX,Æ [—fAfhfçfX] f{fbfNfX,É"ü—í,µ,Ü,·BĀ,È,,Æ,à 2 ,Ā,ì IP fAfhfçfX,đŠ,,è"-,Ā,È,\_,è,ì,È,è,Ü,¹,ñ (Šf,[]fg fNf %ofçfAf"fg,É 1 ,Ā,Æ RAS fT[fO[L,ìf]fbfgf[fN fAf\_fv^,É 1 ,Ā)B  
IP fAfhfçfX,íĀ"¾špfsfŠf]h,Ā<æ[]ø,ç,è,½ 10 [][] ,ì"Žš,Ā"ü—í,µ,Ā,,¾,¾,ç (—á: 110.11.0.0)B,±,± ,ÉŽw'è,.,é,íĀf]fbfgf[fNŠç—[]Ž,èŠ,,è"-,Ā,Ü,·B
- 8 IP fAfhfçfX,ì"í"í,©,ç[]œŠO,.,éfAfhfçfX,đ'è< ,.,é,É,íĀAŽŸ,ì,æ,æ,É [Š,,è"-,Ā[]œŠO"í"í] f{fbfNfX,Æ,»,ì[]f,ìfRf"fgf[f<,đŽg,ç,Ü,·B  
▪ []œŠO"í"í,ìĀ[]%,ì IP fAfhfçfX,đ [[]œŠOŠ]Žn] f{fbfNfX,É"ü—í,µĀA[]Āçä,ìfAfhfçfX,đ [[]œŠO[]—¹] f{fbfNfX,É"ü—í,µ,Ü,·BŽŸ,ÉĀ[C%Ā] ,đfNfŠfbfN,µ,Ü,·B,Ü,©,È,à[]œŠO,.,é"í"í,è,è,ìĀ"\_,[]'€[]],đçE],è•Ö,µ,Ü,·B  
▪ 'P^è,ì IP fAfhfçfX,đ[]œŠO,.,é,É,íĀA[[]œŠOŠ]Žn] f{fbfNfX,Æ [[]œŠO[]—¹] f{fbfNfX,É"\_,[]fAfhfçfX,đ"ü—í,µĀAŽŸ,É [C%Ā] ,đfNfŠfbfN,µ,Ü,·B  
▪ []œŠO"í"í,©,ç^è•",ì IP fAfhfçfX"í"í,đ[]œ,.,é,É,íĀA[Š,,è"-,Ā[]œŠO"í"í] f{fbfNfX,Ā,,»"í"í,đ'ì'đ,µĀAŽŸ,É [[]œ],đfNfŠfbfN,µ,Ü,·B
- 9 •K—v,É%ž,[]ĀA[Šf,[]fg fNf%ofçfAf"fg,ÉŽ—'O,É'è,β,½ IP fAfhfçfX,Ā,ì—v<,đ<-%Ā,.,é] f^fFfbfN f{fbfNfX,đf]f",É,µ,Ü,·B
- 10 [OK] ,đfNfŠfbfN,µ,Ü,·B
- 11 [f]fbfgf[fN,ìN[-] f\_fçfAf[]fo f{fbfNfX,ì [OK] ,đfNfŠfbfN,µ,Ü,·B
- 12 [Šf,[]fg fAfNfZfX fzfbfgfAfbfv] f\_fçfAf[]fo f{fbfNfX,ĀĀf[]fg,ì,»,ì"¾,ìf]fvf]f",àN[-,µĀAŽŸ,É [±[]s] ,đfNfŠfbfN,µ,Ü,·B

'[] •ĪX"à—e,đ—Lçø,È,.,é,É,íĀfRf"fsf...[]f^,đĀ<N"®,µ,È,\_,è,ì,È,è,Ü,¹,ñB



**RAS fNf%ofCfAf“fg,ì-¼‘O%oðCE^,ð\□-.,.é**

RAS fNf%ofCfAf“fg,ì-¼‘O%oðCE^,í□A—~—p%oÂ“\,Èflfbfgf□□fN fT□[frfX,Æ RAS fT□[fo□[.ì□□-.,ÉŠî,Ä,ç,Ä□s,í,é,Ü,·□B

- RAS fT□[fo□[.æflfbfgf□□fN□ä,ì WINS fT□[fo□[,Æ DNS fT□[fo□[,ðŽg,æ,æ,æ,É□□-.,³,é,Ä,ç,é□é□#,í□ARAS fNf%ofCfAf“fg,à“~.,¶ WINS fT□[fo□[,Æ DNS fT□[fo□[,ðŽg,ç,Ü,·□B
- RAS fT□[fo□[,É•i□“,ìflfbfgf□□fN fAf\_fvf^ f□□[fh,æŽæ,è•t,\_,ç,é,Ä,ç,é□é□#AfNf%ofCfAf“fg,í□AWINS,Æ DNS ,æ□□-.,³,é,Ä,ç,é□Ä□%o,ìflfbfgf□□fN□ä,ì WINS fT□[fo□[,ðŽg,ç,Ü,·□B

fNf%ofCfAf“fg,Ä,í□A[“d~b’ ,ìfGf“fgfŠ,ì•Ö□W] f\_fCfAf□fO f{fbfNfX,ì [fT□[fo□[ ] f^fu,Ä [TCP/IP ,ì□Ý’è] ,ðfNfŠfbfN,μ,Ä□□-.,.é,±,Æ,É,æ,è□AfGf“fgfŠ,²,Æ,É WINS fT□[fo□[,Æ DNS fT□[fo□[,ìfAfhfçfX,ðŽw’è,.,é,±,Æ,à,Ä,«.,Ü,·□B

IP fAfhfçfX,æ•ï□X,³,é,é,±,Æ,ì,È,ç□-<K-í,Èflfbfgf□□fN,Ä,í□ARAS fNf%ofCfAf“fg,ì-¼‘O%oðCE^,É HOST ftf@fCf<,Æ LMHOSTS ftf@fCf<,ðŽg—p,Ä,«,Ü,·□Bf□□[ffj< fhf%ofCfu□ä,ì,±,é,ç,ìftf@fCf<,ðŽg,æ,Æ□AWINS fT□[fo□[,É-¼‘O%oðCE^—v<□,ð“`—.,.éŽžŠÖ,â□Af,fff€,ð%oî,μ,½%ož“š,ð‘Ö,Ä,½,ß,ìŽžŠÖ,ð□ß-ñ,Ä,«,Ü,·□B

- ’□ •W□€,ìfuf□□[fhfLfffXfg-¼‘O%oðCE^,í□ARAS ,ð%oî,μ,Ä,í“@□ì,μ,Ü,¹,ñ□Bft□[fU□[,í□AWINS ,â LMHOSTS ftf@fCf<,É,Ç,ìžè’i,Ä-¼‘O%oðCE^,ð□s,æ,©□A,Ü,½,í IP fAfhfçfX,ðŽg,í,É,\_,é,î,È,è,Ü,¹,ñ□B

**RAS fGf“fgfŠ,ÉŽg,xfvf[]fgfRf<,đ‘I,Ô**

f\_fCf,,f<fAfbfv flfbfgf[][]fN,lfNf%ofCfAf“fg,Á,ÍAfŠf,[]fg flfbfgf[][]fN,ì-¼‘O,Æ“d~b”Ô[]t,đ“ü—  
Í,μ[]A,»,ì[]Ý’è,đ•ÚŽç,Á,«,Ü,·[]BfNf%ofCfAf“fg,Í[]Af\_fCf,,f<fAfbfv flfbfgf[][]fN,đŽg,Á,ÄfŠf,[]fg  
flfbfgf[][]fN,Æ[]Ú’±,μ,½,è[]A[]Ø’f,μ,½,è,Á,«,Ü,·[]Bf[]fU[][,Í[]Af\_fCf,,f<[]æ,lfT[]fo[][,ìŽí—p  
(PPP[]ASLIP[]A,Ü,½,Í Microsoft RAS) ,É%ž,¶,Ä[]A‘Á’è,ì“d~b’ fGf“fgfŠ,ÉŽg,xf[]fbfgf[][]fN  
fvf[]fgfRf<,đ‘I’đ,Á,«,Ü,·[]B

**RAS ,ì“d~b’ fGf“fgfŠ,ÉŽg,xfvf[]fgfRf<,đ‘I,Ô,É,Í**

- 1 f\_fCf,,f<fAfbfv flfbfgf[][]fN,Ä[]A“d~b’ fGf“fgfŠ,đ‘I’đ,μ[]AZÿ,É [,»,ì‘¼] ,đfNfŠfbfN,μ,Ü,·[]B
- 2 [fGf“fgfŠ,Æf,fff€,ìfvf[]fpfefB,ì•Ò[]W] ,Ü,½,Í [fGf“fgfŠ,Æf,fff€,ìfvf[]fpfefB,ì•i[]»] ,đfNfŠfbfN,μ,Ü,·[]B
- 3 [fT[]fo[][] f^fu,Ä[]Af\_fCf,,f<fAfbfv fT[]fo[][,ìŽí—p,đ‘I’đ,μ,Ü,·[]BfT[]fo[][,ìŽí—p,ª,í,©,ç,È,đ[]ê[]‡,Í[]A[PPP]  
,đ‘I’đ,μ,Ü,·[]B
- 4 Žg—p,·,é[]fbfgf[][]fN fvf[]fgfRf<,đ‘I’đ,μ,Ü,·[]BSLIP fT[]fo[][,Ü,½,Í PPP  
fT[]fo[][,Éf\_fCf,,f<,·,é[]ê[]‡,Í[]A[TCP/IP] f`fFfbfN f{fbfNfX,đfif“,É,μ[]AZÿ,É [TCP/IP ,ì[]Ý’è]  
,đfNfŠfbfN,μ,Ä[]ATCP/IP ,ì[]Ý’è,đ[]\[]-,·,é,±,Æ,ª,Á,«,Ü,·[]B

**IPX ,đŽg,æ,æ,É RAS fT[fō[.đŋ-.,é**

RAS ōÚ±,ĀŽg,æ,æ,É IPX ,ìŲ'è,đŋ-.,Ū,½,íĀŋ-.,.é,É.íĀfRf"fgfŋ[f< fpflf<,ì [flfbfgfŋ[fN] ,đŽg,đ ,Ū,·ŲB

**IPX ,đflfbfgfŋ[fNŲ'±,ÉŽg,æ,æ,É RAS fT[fō[.đŋ-.,.é,É,í**

- 1 fRf"fgfŋ[f< fpflf<,ì [flfbfgfŋ[fN] fAfCfRf" ,đf\_fuf<fNfŠfbfN,μ,Ū,·ŲB
  - 2 [fT[frfX] f^fu,Āŋ[fŠf,ŋ[f fAfNfZfX fT[frfX] ,đfNfŠfbfN,μĀŽŲ,É [fvŋfpfefB] ,đfNfŠfbfN,μ,Ū,·ŲB
  - 3 [fŠf,ŋ[f fAfNfZfX fzfbfgfAfbfv] f\_CfAfŋfO f{fbfNfX,ì [flfbfgfŋ[fN] ,đfNfŠfbfN,μ,Ū,·ŲB
  - 4 [fT[fō[.ìŲ'è] ,ì [IPX] f`fFfbfN f{fbfNfX,đflf" ,É,μ (IPX ,əfCf"fxfgŋ[f<,³,è,Ā,đ,éŋŋ,ìflf" ,É,É,Ā,Ā,đ ,Ū,·)ĀŽŲ,É [ŋŋ-] ,đfNfŠfbfN,μ,Ū,·ŲB
  - 5 [RAS fT[fō[ IPX ,ìŋŋ-] f\_CfAfŋfO f{fbfNfX,ĀŋAIPX fNf%ŋCfAf"fg,Éflfbfgfŋ[fN"š'ì,Ō,ìfAfNfZfX,đ<- %ŋĀ,·,é,ŋŋA,Ū,½,ì RAS fRf"fsf...ŋf^,Ō,ìfAfNfZfX,ì,Ų,đ<-%ŋĀ,·,é,ŋ,đ'đ,μĀŽŲ,ÉŋAIPX flfbfgfŋ[fN"Ōŋ,đŠ,,è"-,Ā,é•ŋ-@,đ'ì,Ŋ,Ū,·ŲBŠ,,è"-,Ā•ŋ-@,ìŽw'è,É,ìĀŽŲ,ìflfvfVf#f" f{f^f",Āf`fFfbfN f{fbfNfX,đŽg,đ,Ū,·ŲB
    - [Ž©"ŋ"ì,Éflfbfgfŋ[fN"Ōŋ,đŠ,,è"-,Ā,é]ŋBWindows NT RAS fŋftgfEfffA,íŋANetWare RIP (Router Information ProtocolŋF f<ŋ[fefBf"ŋŌŋi•ŋfvŋfgfRf<) ,đŽg,Ā,ĀŋAIPX flfbfgfŋ[fN"à,ĀŽg—p,³,è,Ā,đ,É,đ IPX flfbfgfŋ[fN"Ōŋ,đ²,x,Ū,·ŲBRAS fT[fō[.ìĀA,» ,ìflfbfgfŋ[fN"Ōŋ,đfŠf,ŋ[f fNf%ŋCfAf"fg,ÉŠ,,è"-,Ā,Ū,·ŲB
    - [flfbfgfŋ[fN"Ōŋ,ìŠ,,è"-,Ā] (Žè"ŋŠ,,è"-,Ā)ŋBŽè"ŋ,ĀŠ,,è"-,Ā,é•ŋ-@,ìĀfZfLf... fŠfefB,àŠĀŽ<,ì,½,β,ÉĀflfbfgfŋ[fN"Ōŋ,ìŠ,,è"-,Ā,đŋx,ŋ,ŋŋŋĀä,·,éŋŋŋ,É•Ō~ ,Ā,·ŲB
      - flfbfgfŋ[fN"Ōŋ,đŽè"ŋ,ĀŠ,,è"-,Ā,é•ŋ-@,đ'ì,ŋ,¾ŋŋŋ,íŋA[Š]Žn"Ōŋ] f{fbfNfX,ÉŋĀŋ% ,ìflfbfgfŋ[fN"Ōŋ,đ"ŋ—ì,μ,Ū,·ŲBRAS ,É,æ,Ā,ĀŋAŽ©"ŋ"ì,É—~—p%ŋĀ"\,Éf] ŋ[fg,ì"Ōŋ,²²,x,đ,éŋŋŋ—¹"Ōŋ] ,Éflfbfgfŋ[fN"Ōŋ,²} "ŋ,³,è,Ū,·ŲB
  - 6 RAS fT[fō[.Ā—^,ì,éfmŋ[fh"Ōŋ,Ā,ì,É,ŋAŽ©•Ā,Āŋŋ,½ IPX fmŋ[fh"Ōŋ,đ—vŋ,·,é,±,Ā,đfŠf,ŋ[f fNf %ŋCfAf"fg,É<-%ŋĀ,·,é,É.íĀŋfŠf,ŋ[f fNf%ŋCfAf"fg,É IPX fmŋ[fh"Ōŋ,Ā,ìŲ'±,đ<-%ŋĀ,·,é] f`fFfbfN f{fbfNfX,đflf" ,É,μ,Ū,·ŲB
  - 7 [OK] ,đfNfŠfbfN,μ,Ū,·ŲB
  - 8 [flfbfgfŋ[fN,ìŋŋ-] f\_CfAfŋfO f{fbfNfX,ì [OK] ,đfNfŠfbfN,μ,Ū,·ŲB
  - 9 [fŠf,ŋ[f fAfNfZfX fzfbfgfAfbfv] f\_CfAfŋfO f{fbfNfX,ĀŋAfŋ[fg,ì,» ,ì'¼,ìflfvfVf#f" ,đŋŋ-.,μĀŽŲ,É [±ŋŋs] ,đfNfŠfbfN,μ,Ū,·ŲB
- 'ŋ •ĭŋX"à—e,đ—Lŋŋ,É,·,é,É,ìĀfRf"fsf...ŋf^,đŋĀ<N"ŋ,μ,É,·,é,ì,É,è,Ū,¹,ŋŋB
- fŠf,ŋ[f fNf%ŋCfAf"fg,²Āŋŋ•Ā,Āfmŋ[fh"Ōŋ,đ'ì,đ,Ā,« ,é,æ,æ,É,·,é,Āŋflfbfgfŋ[fN,ÉfZfLf... fŠfefBŋä,ì—â'è,ì"ŋŋ,·,é%ŋĀ"\ŋŋ,²ŋ,·,É,è,Ū,·ŲBŽ©•Ā,Āfmŋ[fh"Ōŋ,đ'ì,Ō,±,Ā,²,Ā,« ,é,ĀŋfNf %ŋCfAf"fg,²ĀŋĀ'è'ŌfTŋ[fō[.Éŋŋ'±,μ,Ā,đ,½•Ē,ìfNf%ŋCfAf"fg,É,É,è,·,Ū,μŋŋ,» ,ìfNf %ŋCfAf"fg,əfAfNfZfX,μ,Ā,đ,½flfbfgfŋ[fNŽ'ŋĒ¹,ÉfAfNfZfX,·,é,±,Ā,à,Ā,« ,é,ŋ,đ,Ā,·ŲB

f[]fj]f< flfbfgf[]fN,lfuf%ofEfU,É•Ž!,<sup>3</sup>,ê,é,æ,æ,ÉfXf^f“fhfAf[]f“,lfŠf,[]fg fT[]fo[][,đ[]\[]-,.,é

,½,Æ,!,[]ARAS fT[]fo[][,đŽ©‘í,É‘u,«A[]E[]ê,lfRf“fsf...

[]f^,©,çŽ©‘í,lfT[]fo[][,Éf\_fCf,,f<fCf“.,.é[]ê[]‡,[]AfŠf,[]fg fNf%ofCfAf“fg,lfuf%ofEfU

fŠfXfg,ÉŽ©‘í,lfT[]fo[][,l-¼‘O,ª•Ž!,<sup>3</sup>,ê,é,æ,æ,É[]\[]-,μ,È,¯,ê,î,È,è,Û,<sup>1</sup>,ñ[]B

f[]fj]f< flfbfgf[]fN,lfuf%ofEfU,É•Ž!,<sup>3</sup>,ê,é,æ,æ,ÉfŠf,[]fg,ì RAS fT[]fo[][,đ[]\[]-,.,é,É,í

1 Ž©‘í,ì RAS fT[]fo[][,Á[]AfRf“fgf[]f< fpf]f<,ì [flfbfgf[]fN] fAfCfRf“,đf\_fuf<fNfŠfbfN,μ,Û,·[]B

2 [Ž¯•É] f^fu,ì [•ì[]X] ,đfNfŠfbfN,μ,Û,·[]B

3 [Ž¯•É,ì•ì[]X] f\_fCfAf[]fO f{fbfNfX,Á[]A[]V,μ,çfhf[]fCf“-¼,Û,½,Í[]f[]fNfOf<[]fv-¼,đ“ü—í,μ,Û,·[]B,±,±,É“ü—í,.,é-¼‘O,[]Af\_fCf,,f<fCf“,.,éNf%ofCfAf“fg,lfhf[]fCf“-¼,Û,½,Í[]f[]fNfOf<[]fv-¼,Æ^ê‘v,μ,Ä,ç,È,¯,ê,î,È,è,Û,<sup>1</sup>,ñ[]BŽŸ,É [OK] ,đfNfŠfbfN,μ,Û,·[]B

4 [fAf\_fvf^] f^fu,ì [‘Ç%oÁ] ,đfNfŠfbfN,μ,Û,·[]B

5 [flfbfgf[]fN fAf\_fvf^] f{fbfNfX,Á[]A[MS Loopback fAf\_fvf^] ,đ‘í‘đ,μ[]AZŸ,É [OK] ,đfNfŠfbfN,μ,Û,·[]B

6 [MS Loopback fAf\_fvf^] f[]f[]fh fZfbfgfAfbfv] f\_fCfAf[]fO f{fbfNfX,ì [OK] ,đfNfŠfbfN,μ[]AWindows NT,ì“z•zfffBfXfN,ìfpx,đ“ü—í,μ[]AZŸ,É [‘±[]s] ,đfNfŠfbfN,μ,Û,·[]B

Šù‘è,ìftf[]f[]f€ f^fCfv,đ•ì[]X,μ,È,ç,Ä,,¾,<sup>3</sup>,ç[]BRAS ,ÍŠù‘è,ì[]Y‘è,Á[]³[]í,É<@“\,μ,Û,·[]B

7 [flfbfgf[]fN] f\_fCfAf[]fO f{fbfNfX,ì [OK] ,đfNfŠfbfN,μ[]AfRf“fsf...[]f^,đ[]Ä<N“@,μ,Û,·[]B

‘[] []Ä<N“@,μ,½,ç[]A,½,Æ,lfRf“fsf...[]f^,ªflfbfgf[]fN,É[]Ú‘±,<sup>3</sup>,ê,Ä,ç

,È,ç[]ê[]‡,Ä,à[]Af]fbfgf[]fN‘S‘ì,Ö,lfAfNfZfX,đ<-%oÁ,.,é,æ,æ,ÉfŠf,[]fg RAS fT[]fo[][,đ[]\[]-,μ,Ä,-

,¾,<sup>3</sup>,ç[]B[]Ú[]x,É,Ä,ç,Ä,Í[]A[]u\_LAN\_fvf[]fgfRf<,đŽg,æ,æ,É RAS ,đ[]\[]-,.,é[]v,đŽQ[]Æ,μ,Ä,,¾,<sup>3</sup>,ç[]B

**NetBIOS IP ,Æ IPX —p,É,Û,©,ìf□□[fj□□,ìf\_fCf,,f<fAfbfv fT□[fo□□[,ð□□—,·,é**

,Û,©,ìf□□[fj□□,ìf\_fCf,,f<fAfbfv fT□[fo□□[,Éf\_fCf,,f<fCf“ ,·,é Windows NT fNf%ofCfAf“fg,ª□AIP ,Û,½,í IPX ,ðŽg,Á,Ä NetBIOS ,ìŽ‘CE¹,ÉfAfNfZfX,μ,È,¯,ê,î,È,ç,È,ç,±,Æ,ª, ,è,Û,·□B,±,ì,æ,κ,È□ê□±□Af\_fCf,,f<fAfbfv fT□[fo□□[,í□ANetBIOS ,ìfuf□□[fhfLfffXfg,ð“]’—,Á,«,é,æ,κ,É□□—,³,ê,Ä,ç,È,¯,ê,î,È,è,Û,¹,ñ□B,½,¾,μ□ALAN □ã,Ä NetBIOS ,ìfgf%oftfBfbfN,ª‘½,ç□ê□±,É□Afuf□□[fhfLfffXfg,ª“□¶,·,é,Æ□ARAS □Ú‘±,ð %oi,μ,½fìfbfgf□□[fN fAfNfZfX,ìfpftfH□[f}f“fX,ª‘á%oº,·,é,±,Æ,ª, ,è,Û,·□BNetBIOS ,ìfuf□□[fhfLfffXfg,ð“]’— ,Á,«,é,æ,κ,ÉfT□[fo□□[,ð□□—,·,é•û-@,É,Ä,ç,Ä,í□A□uNwlnkRip fpf%of□□[f^□v,ðŽQ□Æ,μ,Ä,¾,³,ç□B TCP/IP fìfbfgf□□[fN,ìfpftfH□[f}f“fX,ðCEü□ã,³,¹,é,É,í□AWindows NT fNf %ofCfAf“fg,©,ç,Û,©,ìf□□[fj□□,ìfT□[fo□□[,Éf\_fCf,,f<fCf“ ,·,é,Æ,«,É□AWINS fT□[fo□□[,Û,½,ìfvf□fLfv (“ã—□) fG□[fWfFf“fg,ðŽg,ç,Û,·□B,½,¾,μ□AfT□[fo□□[,ª LAN □ã,Ä Windows NT Server ,ì WINS fT□[fo□□[,Û,½,ìfvf□fLfv fG□[fWfFf“fg,ÉfAfNfZfX,Á,«,é,æ,κ,É□□—,³,ê,Ä,ç,é□ê□±,ÉCEÄ,è,Û,·□B

**fŠf, [fg fAfNfZfX, ì<-‰Â, ð•t—^, ·, é**

RAS , ðfT [fo [ , ÉfCf“fXfg [f<, µ, ½CEä, Å AfT [fU [ , ÉfŠf, [fg fAfNfZfX, ì<-‰Â, ð—  
^, |, È, ^, é, î, È, è, Û, ¹, ñ BfŠf, [fg fAfNfZfX, ì<-‰Â, ¢, È, ^, é, î Af\_fCf,, f<fAfbfv flfbfgf [fN, ìfNf%ofCfAf“fg f\  
ftfgfEfgfA, ¢fRf“fsf... [f^, ÉfCf“fXfg [f<, ³, é, Ä, ç, Ä, à AfT [fU [ , í RAS fT [fo [ , ÉÚ’ ±, Å, <, Û, ¹, ñ B

**fŠf, [fg fAfNfZfX, ì<-‰Â, ðft [fU [ , É•t—^, ·, é, É, í**

1 [fXf^ [fg] f [fj... [ , ©, ç [ŠÇ— [fc [f< (<æ’É) ] ftfHf<f\_ , ì [fŠf, [fg fAfNfZfXŠÇ— [ , ðfNfŠfbfN, µ, Ä AŠÇ—  
 [ft [ [fefBfŠfefB, ð<N” @, µ, Û, · B

2 fŠf, [fg fAfNfZfX, ì<-‰Â, ðŸ’è, ·, éfT [fo [ , Û, ½, íhf [fCf“ , ð’í’ð, µ, Û, · B

3 [ft [fU [ ] f [fj... [ , ì [fŠf, [fg fAfNfZfX, ì<-‰Â] , ðfNfŠfbfN, µ, Û, · B  
 [fŠf, [fg fAfNfZfX, ì<-‰Â] f\_fCfAf [fo f {fbfNfX, ¢•\Ž, ³, é, Û, · B

4 ^È~ , ì’€ [i•û-@ , É, Ä, ç, Ä, í A [fwf<fv] , ðfNfŠfbfN, µ, Ä Afwf<fv, ì à-¾, ðŽQ [Æ, µ, Ä, , ¾, ³, ç B

’ [ Guest fAfjEfg, ÉfŠf, [fg fAfNfZfX, ì<-‰Â, ð—^ , |, é, Æ A•s [³, ÈfAfNfZfX, ¢ [s, í, é, é‰‰Â”\  
 [ <, ¢ , é, ì, Å’ [^Ó, µ, Ä, , ¾, ³, ç B, ±, é, ð [s, ¢ [é [ž, í A Guest fAfjEfg, É•K, , fpfXf [ [fh, ðŠ,, è“- , Ä, Ä, -  
 , ¾, ³, ç B

**ISDN f fCfh fGfŠfA flfbfgf fN,lfCf“fXfg f**

ISDN ,đŽg,æ,AE A“d~b%ňü,AE”ä,x,Ä,‘,È’ÊM,đs,æ,±,AE,â,Ä,«,Ü,·B’Êí,ì“d~b  
%ňü,Ä,íA^ê”Ê“l,È’ÊM’~“x,í-^•b 9600 frfbfg (bps) ,Ä,·,ªAISDN %ňü,ì’ÊM’~“x,íA64kbps ,Ü,½,í  
128kbps ,Ä,·BISDN <@Ší,AE%ňü,É•K—v,È”i—p,íAf,fff€,AE“d~b%ňü,đŽg,æ,è,,-  
,È,è,Ü,·,ªAÚ±ŽžŠÔ,ªZZžŠÔ,Ä,í,·,ì,ÄA—~—p—z<à,đß-ñ,Ä,«,é,±,AE,à, ,è,Ü,·BŽÀ-±,Ä,±,ì,æ,æ  
,Ê,‘~’ÊM,ª•K—v,AE,È,é—á,AE,µ,Ä,íA½,,ìY’iŽD^ö,đ•ø,í,Ä,ç,éŠé<AE,âA’â—Ê,ì’ÊM,đ”ª,æSÇ—  
í<AE,đfŠf, f,ç,ªK—v,ª, ,éê (,½,AE,í,íA—f,è,½êŠ,ÉY’u,ª,è,Ä,ç,éff fNfXfe fVf” ,Éf  
ftgfEjFfA,đfCf“fXfg f,·,éê (È,Ç) ,ª,í,ç,è,Ü,·B

1 -{,ì ISDN %ňü,É,íA64Kbps ,Äff f^,đ“‘—,·,é B f fff f,ª 2 ,Ä,AE A16Kbps ,Äff f^,đ“‘—  
,·,éM—ŽóM—p,ì D f fff f,ª 1 ,Ä•t,ç,Ä,ç,Ü,·BISDN f f,íAfT f,·,æ,ÑSefNf  
%fCfA”fg,ÉfCf“fXfg f,µ,Ä,,¾,¾,ç (fCf“fXfg f,ì€ižè,É,Ä,ç,Ä,íAf f,í}fj...fAf<,đŽQ,µ,Ä,-  
,¾,¾,ç) B

Še B f fff f,íA P“AE,í f f,AE,µ,Ä<@“\,·,é,æ,æ,É f—,Ä,«,Ü,·B,Ü,½ AISDN fhf%ofCfo,ìŽí—  
p,É,æ,Ä,Ä,íA•;í” ,í f fff f,đ“ f,µ,ÄŽg—p,Ä,«,éê,à, ,è,Ü,·B,Ä,Ü,èA2 ,Ä,ì B f fff f,Ä’P^ê,í f  
 f,AE,µ,Ä<@“\,·,é,æ,æ,É f—,µ,ÄÄ“l,É,æ,èL,ç’Ñ^æ•,đS,,è“- ,Ä,é,±,AE,ª,Ä,«,Ü,·B,±,ì,æ,æ,É f  
 f—,·,é,AE A%ňü~“x,í 128 Kbps ,Ü,ÄEüã,µ,Ü,·Bf fff f,ì“ f,É,ífhf%ofCfo,²,AE,ÉEÄ—  
L,ì•úŽ@,ª,ç,è,Ä,ç,é,½,ß AfNf%ofCfA”fg,AEfT f,ì—¼•ú,Ä“ ,ífhf  
%ofCfo,AE“ ,¶<@Ší,đŽg,í,È, ,é,ì,È,è,Ü,¹,ñB





□ rasdial -- --á

**rasdial -- '□**

**rasdial** ,í□AfŠf,□[fg fAfNfZfX fvf□fOf%of€ (RASPHONE.EXE) ,ì [f\_fCf,,f<] f{f^f“ ,” ,æ,Ñ [□Ø'f] f{f^f“ ,É'Š“- ,·,éfRf}f“fh f%ofCf“ fRf}f“fh,Á□A'É□í,í□Afofbf` ftf@fCf<, © ,ç□Ú'±,đŠm—

- s,·,é□ê□‡,ÉŽg,í,ê,Ü,·□BRASPHONE.EXE ,ì<@“\,ì,α,¿ŽŸ,ì<@“\,í□Arasdial ,Á,ÍfTf|□[fg,³,ê,Ä,ç,Ü,¹,ň□B
- f\_fCf,,f< fV□[fPf“fX't□Af^□[f~fif< f,□[fh ft□[fU□[ fGf“fgfŠ,ª•K—v,Æ,É,éfGf“fgfŠ,Ö,ì□Ú'±□B
- □Ú'±,ÉŽ,“s,μ,½,Æ,«,ìŽ©“@fŠf\_fCf,,f<□B,½,¾,μ□ARASPHONE ,đŽÁ□s,μ,Ä,ç,é□ê□‡,í□Arasdial ,Áf\_fCf,,f<,³,ê,½fGf“fgfŠ,à□ARASPHONE ,É,æ,Á,ÁfŠf\_fCf,,f<,³,ê,Ü,·□B
- flfyf□E□[f^,Ü,½,íŽè“@,É,æ,éf\_fCf,,f<□B

rasdial ,ì□Ú□×,É,Ä,ç,Ä,í□AZŸ,ì,ç,, ,ê,© ,ìf{f^f“ ,đfNfŠfbfN,μ,Ä,,¾,¾,ç□B

- rasdial -- —á
- rasdial

**rasdial -- —á**

RASPHONE.PBK ,ì OFFICE ,Æ,ç,ıfGf“fgfŠ,ÉÚ’±,·,é,É,ÍAŽŸ,ì,æ,ı,É“ü—Í,μ,Û,·B

rasdial office

RASPHONE.PBK ,ì OFFICE 2 ,Æ,ç,ıfGf“fgfŠ,ÉÚ’±,μAfR[f<fofbfN”Ôt,ðŽw’è,·,é,É,ÍAŽŸ,ì,æ,ı,É“ü—Í,μ,Û,·B

rasdial "office 2" /callback:555-8086

EAST OFFICE ,Æ,ç,ıfGf“fgfŠ,Æ,ìÚ’±,đ%øœ,·,é,É,ÍAŽŸ,ì,æ,ı,É“ü—Í,μ,Û,·B

rasdial "EAST OFFICE" /d

rasdial ,ìÚ×,É,Â,ç,Ä,ÍAŽŸ,ì,ç,,é,©,lf{f^f“,đfNfŠfbfN,μ,Ä,,¾,¾,çB

▣ rasdial

▣ rasdial -- ‘

**rasadmin**

Žw'è,μ,½fpf%of□□[f^,đŽg,Á,Ä□AfŠf,□[fg fAfNfZfXŠÇ—□fvf□fOf%of€,đ•N“® ,μ,Ü,·□B

**rasadmin** [fhf□fCf“ -¼ | fT□[fo□[-¼] [/l] [/h]

**fpf%of□□[f^**

fhf□fCf“ -¼

ŠÇ—□,·,éfhf□fCf“,đŽw'è,μ,Ü,·□BŽw'è,μ,½fhf□fCf“,ì RAS fT□[fo□[,ª\Ž!,³,è,Ü,·□B

fT□[fo□[-¼

ŠÇ—□,·,éft□[fo□[,đŽw'è,μ,Ü,·□Bf□fOfif“,μ,½ft□[fU□[,í Administrators

fOf□[fv,ìf□“fo□[,Á,È,·,ê,Î,È,è,Ü,¹,ñ□B

**/l**

ŠÇ—□ŽÒft□[fefBfŠfefB,đ□A'á'¬%ñü□Ú'±f,□[fh,ÁŽÀ□s,·,é,æ,κ,É□Y'è,μ,Ü,·□B,±,ìfpf

%of□□[f^,đŽw'è,·,é,Æ□A'd~b%ñü,đ%î,·,é,ÆŽžŠÖ,ì,©,©,éfhf□fCf“ -¼,Æft□[fU□[-¼,ìŽQ□Æ,ªŽg—

p,Á,«,È,,È,è,Ü,·□Bft□[fo□[,âft□[fU□[,đŽQ□Æ,·,é•K—

v,ª,È,ç□ê□‡,í□AfpftfH□[f}fX,đCEü□ă,³,¹,é,½,ß,É□A,±,ìfpf%of□□[f^,đŽw'è,μ,Ä,,¾,³,ç□B(□¬•¶Žš,ì L ,Á,·)

**/h**

ŠÇ—□ŽÒft□[fefBfŠfefB,đ□AŠù'è,ìf,□[fh,Á, ,é□,·¬%ñü□Ú'±f,□[fh,ÁŽÀ□s,·,é,æ,κ,É□Y'è,μ,Ü,·□B,±,ìfpf

%of□□[f^,đŽw'è,·,é,Æ□Afhf□fCf“ -¼,Æft□[fU□[-¼,đŽQ□Æ,Á,«,Ü,·□B

rasadmin ,ì□Ú□×,É,Á,ç,Ä,í□AZŸ,ì,ç,, ,é,©,ìf{f^f“,đfNfŠfbfN,μ,Ä,,¾,³,ç□B

■ rasadmin -- '□

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**rasadmin -- '□**

**rasadmin** ,É,ífhf□fCf“ -¼,ÆfT□[fo□[-¼,ì,Ç,ì,ç,© ^ê•û,ðŽw'è,Å,«,Ü,·,ª□A—¼•û,ðŽw'è,·,é,±  
,Æ,í,Å,«,Ü,¹,ñ□B

^È'O,É'I'ð,μ,½Šefhf□fCf“, ;,æ,ÑfT□[fo□[,ì%ñ□ü□Ú'±f,□[fh ('á'¬□A□,'¬,ì,ç,,ê,©)

,í□A□f□fW□fX□fg□fŠ,É•Ú'¶,³,ê,Ä,ç,Ü,·□B,±,ì,½,ß□A'á'¬%ñ□ü□Ú'±,©,ç□,'¬%ñ□ü□Ú'±

,Ö,Æ□A^È'O,ì□Ý'è,ð•í,ì,é•K—v,ª, ,é□ê□†,í□**Arasadmin** ,É /h fpj%of□□[f^,ðŽw'è,μ,È,¯,ê,î,È,è,Ü,¹,ñ□B

rasadmin ,ì□Ú□×,É,Å,ç,Ä,í□AŽŸ,ì,ç,,ê,© ,ìf{f^f“,ðfNfŠfbfN,μ,Ä,,¾,¾,ç□B

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■ rasadmin

## rasadmin -- -á

'á' -%ñüú' ±, Å ANT\_SERVER01 ,Æ, ç, x-¼'O, ðT [fo [ , ðŠÇ - , . , é, É, Í AŽŸ, Ì, æ, x, É" ü - í, μ, Ü, · B

rasadmin \\nt\_server01 /I

rasadmin , Ì Ú ×, É, Å, ç, Ä, Í AŽŸ, Ì, ç, , , ê, ©, ðf{f^f" , ðfNfŠfbfN, μ, Ä, , ¼, ³, ç B

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## fZfLf...fŠfefB<@“\,İŠT—v

Windows NT ,İft□[fU□[ fAfJfEf“fg,Æfhf□fCf“,İ□A“F□Ø,İ^Ă□+‰»É,æ,éfZfLf...

fŠfefB,đ'ň<Ÿ,μ,Ü,·□B,³,ç,É□ARAS ,İ□AfR□[f<fofbfN,âff□[f^,İ^Ă□+‰»É,Ç,İfZfLf...

fŠfefB,đ'ň<Ÿ,μ,Ü,·□B,Ü,½□AfT□[fh fp□[fefB□»,İfZfLf...fŠfefB

fzXfg,đfCf“fXfg□[f<,μ□ACE CEÀ,İ,È,çft□[fU□[,É,æ,é LAN ,Ö,İfAfNfZfX,đ-h,® ,±,Æ,à,Ă,« ,Ü,·□B

,±,±,Ă,İ□AZŸ,İ,æ,α,È RAS fZfLf...fŠfefB<@“\,É,Ă,ç,Ă□à-¾,μ,Ü,·□B

- fhf□fCf“,Ă,İ RAS ,İfZfbfgfAfbfv
- ft□[fU□[ fAfJfEf“fg,É'İ,·,éfŠf,□[fg fAfNfZfX,İ<-‰oĂ,İ•t—^
- ft□[fU□[ fAfJfEf“fg,É'İ,·,é RAS fZfLf...fŠfefB,İ□Ÿ'è
- ff□[f^,İ^Ă□+‰»
- fR□[f<fofbfN fZfLf...fŠfefB
- fZfLf...fŠfefB fzXfg,İfTf|□[fg
- ŠĂ□,

**fhfjfcf"à,À RAS ,đfZfbfgfAfbfv,·,é**

RAS fZfLf...fŠfefB,đfNf%fcfAfg,É"K—p,·,é,É,íQAZÏ,ì 3 ,Á,ìžèq,ª•K—v,Á,·QB,Û,·AWindows NT fhfjfcf",É RAS ,đfZfbfgfAfbfv,µ,Û,·QBŽÏ,ÉAWindows NT ,ìft[ fU[ fAjjfEf"fg,ÉfŠf, [fg fAfNfZfX,ì<- %oÁ,đ—^,·,Û,·QBÁEä,ÉQA,±,è,ç,ìfAjjfEf"fg,É RAS fZfLf...fŠfefB,đq'è,µ,Û,·QB

,±,±,Á,íAWindows NT ,ìft[ fU[ fAjjfEf"fg,ÆQARAS ,ìfhfjfcf" fx[fX,ìfZfLf...fŠfefB,đŽÀ'·,·,é•û- @,É,Á,ç,Äqà-¾,µ,Û,·QB,±,±,Á,íAfhfjfcf",ªŠù,ÉŠm—š,³,è,Á,ç,é,±,Æ,đ'O'ñ,Æ,µAŠù'¶,ìfhfjfcf"Q'ç,É RAS ,đ"q,·,é•û-@,É,Á,ç,Äqà-¾,µ,Û,·QBWindows NT Server ,ìfhfjfcf" fx[fX,ìfZfLf...fŠfefB,đŽg,ª RAS ft[fo[.íQA'P^è,ìfhfjfcf",ÉQW't,³,¹,é,±,Æ,àQAQ—ŠŠÖEW,ªŠm—š,³,è,Á,ç ,é•;í",ìfhfjfcf",É•ªŽU,³,¹,é,±,Æ,à,Á,«,·QB

**ft[fo[.íQW't%o»**

ŠÇ—q,đ—e^Ö,É,·,éqèq,íQA'P^è,ìfhfjfcf",É,·,x,Á,ìfŠf, [fg fAfNfZfX ft[fo[.đQW't,³,¹,Û,·QB,± ,ìqèq,íQA1 ,Á,ìft[ fU[ fAjjfEf"fg ff[f^fx[fX,¾,·,đ•Ûžç,·,è,í,æ,QAfvxfef€ŠÇ—QŽO,í,·,x,Á,ì RAS ft[fo[.Æ RAS ft[fo[.đ^è"x,ÉŠÄž,Á,«,·QB(Še"·-ã,Áft[ fU[ fAjjfEf"fg,đ•Ûžç,·,éqèq,íQAQ— ŠŠÖEW,đŽg,ç,Û,·QB)

'Q fhfjfcf",íQA"·—Q"i,É'P^è,Á,í,É,QA~\_—Q"i,É'P^è,Á,·QBQW't %o»,³,è,½ft[fo[.íQA,³,Û,·,Û,Éqèš,É"z'u,µ,Á,àQA,»,ìfhfjfcf",ì^è•",É,·,é,±,Æ,ª,Á,«,·QB

fhfjfcf",íQM—ŠŠÖEW,đŠm—

š,µ,½qèq,íQAŠeft[ fU[.ìft[ fU[ fAjjfEf"fg,đ'P^è,ìfhfjfcf",ÉfZfbfgfAfbfv,·,é,±,Æ,ªQA'P,ì•û- @,Á,·QB"Á,ÉQAVersion 1.1 ^É'O,ì RAS ,đŽg,Á,Áf\_fcf",f:fcf",·,éft[ fU[.ª,ç,éqèq,É"-·,Á,í,Û,è,Û,·QB RAS ft[fo[.íQA,»,ìft[fo[.ìfhfjfcf",Áft[ fU[.ìfAjjfEf"fg,ªCE@,Á,©,ç,È,©,Á,½qèq,íQAQ—Š,³,è,é'ª ,ìfhfjfcf",đ"žž,ÉŠm"F,µQAQÁ%o,ì%ož"š,đŽó,~"ü,è,Û,·QBQÁ%o,É %ož"š,µ,½fhfjfcf",ìft[ fU[.ª•É,ìfpfXf[fh,đžQ,Á,Á,ç,é,©QA,Û,½,ìfŠf, [fg fAfNfZfX,ì<-%oÁ,đžQ,Á,Á,ç ,È,çqèq,íQA2 "Ô-Ú,É%ož"š,µ,½•É,ìfhfjfcf",ÉfŠf, [fg fAfNfZfX,ì<- %oÁ,đžQ,Á"·,¶ft[ fU[ fAjjfEf"fg,ª ,Á,Á,àQA"FOØ,ìž,·"s,µ,Û,·QB

**ft[fo[.i•ªŽU%o»**

Q\_ "íq«,âf[ ffc,Áq\$Eä,Á,«,é,±,Æ,đqđžç,·,é't<K-í,ìŠé<ÆQA,Û,½,ìfZfLf...fŠfefB,đQW't"i,ÉŠÇ—q,·,é•K— v,ª"Á,É,È,çŠé<Æ,Á,íQA"•ªŽUft[fo[ fvfxfef€" ,ì•û,ª"K,µ,Á,ç,éqèq,ª,·,è,Û,·QBªŽUft[fo[ fvfxfef€ ,Á,íQA"·-ã,Û,½,ìft[ fNfof<[fv,²,Æ,ÉQA,»,è,¾,è,ìfŠf, [fg fAfNfZfX fhfjfcf",đfZfbfgfAfbfv,µQA•Ûžç,µ,Û,·QB,±,ìqèq,íQAQ—ŠŠÖEW,đŽg,Á,Áfhfjfcf"ŠÖ,ìfAfNfZfX,đ<- %oÁ,Á,«,·QB

'Q Windows NT Server ,đŽg,Á,Á,ç,éqèq,íQAft[ fU[ fAjjfEf"fg,Æfhfjfcf",ìQúqx,É,Á,ç ,Á,íQAQwWindows NT Server fRf"fZfvfg fAf"fh fvf%of"fff"fo fKfCfhqx,đžQqÆ,µ,Á,¾,³,çQB



**RAS .Ö,lfAfNfZfX,ð<-‰Å,µAfŠf,[]fg fAfNfZfX,ì<-‰Å,ð•t—^,·,é**

RAS fT[]fo[][,ðfCf“fXfg[]f<,µ,½CEã,ÅAf\_fCf„f„fCf“ ,Á,« ,éft[]fU[][,ðŽw’è,µ,È,¯,ê,î,È,è,Û,¹,ñBfŠf,[]fg fAfNfZfXŠÇ—[]ft[]fefBfŠfefB,Û,½,íft[]fU[][ f}f[]fWff,ðŽg,Á,ÄAfRf“fsf...

[]f^,Û,½,lfhf[]fCf“ ,íft[]fU[][ fAfJfEf“fg,ð’I’ð,µ,Û,·BŽŸ,ÉACEã,Åà-¾,·,é•û-

@,ÅAfT[]fU[][ fAfJfEf“fg,ÉŠf,[]fg fAfNfZfX,ì<-‰Å,ð—^,·,Û,·BfŠf,[]fg ft[]fU[][,íAfŠf,[]fg

fAfNfZfX,ì”F[]Ø,ð’È‰β,µ,Å LAN ,ÉÛ’±,µ,½CEã[]AfAfNfZfXCE ,ðŽ,ÁfAfvfŠfP[]fVf#f“

ft[]fo[][,ìŽ’CE¹,ÉfAfNfZfX,Å,« ,Û,·BfŠf,[]fg fAfNfZfX,ì<-‰Å,íAfT[]fU[][,²,Æ,É—LCEø,Û,½,í-

³CEø,ÉŸ’è,·,é,±,Æ,É’^Ó,µ,Ä,,¾,³,çBRAS ,ª Windows NT Server []ã,Ä“@[]ì,µ,Ä,ç

,éê[]#,àAfIbfbgf[]fN,Ö,lfAfNfZfX,íAfAfNfZfX,ª•K—v,Éft[]fU[][,²,Æ,É-¾Ž’I,É<-

‰Å,µ,È,¯,ê,î,È,è,Û,¹,ñB

’[] fŠf,[]fg ft[]fU[][,íAZ--±[]Š,É,ç,éê[]#,Æ“¯,¶,æ,æ,É Windows NT Server ,lfZfLf...

fŠfefB,ì’íÛ,É,È,è,Û,·BCE CEÀ,ì,È,ç’€[]ì,âAfAfNfZfXCE ,ì,È,çŽ’CE¹,Ö,lfAfNfZfX,í,Å,« ,Û,¹,ñB

RAS ft[]fU[][]ê—p,íft[]fU[][ fAfJfEf“fg,ð[]ì—,·,é•K—v,í, ,è,Û,¹,ñBRAS ft[]fo[][,íAWindows NT

flfbfgf[]fN[]ã,ìM—Š,³,è,é’æ,lfhf[]fCf“ ,Û,½,íRf“fsf...[]f^,íft[]fU[][ fAfJfEf“fg,ðŽg,ç,Û,·B

fŠf,[]fg fNf‰fCfAf“fg,ðhf[]fCf“ ,É’Ç‰Å,·,é•û-@,É,Ä,ç,Ä,íAfRf“fgf[]f< fpfI<,lfwf<fv,ðŽQ[]Æ,µ,Ä,-

,¾,¾,çB

**fAfJfEf“fg,É RAS fZfLf...fŠfefB,đŸ’è,.,é**

fŠf.□[fg ft□[fU□[.í□AfJfbfgf□□[fn,ÉfAfNfZfX,.,é’O,É□A,Ü,½,ífgf%oftfBfbfN,đŸŸ□—,.,é’O,É□AfŠf,□[fg fAfNfZfX ft□[fo□[.©,ç”F□Ø,đŽó,~,È,~,é,Î,È,è,Ü,¹,ñ□B,±,ì”F□Ø,í□AWindows NT ,Ö,ìf□fofjf“ ,Æ,í^Ü,È,é□EÀ•Ê,ìŽè□#,Á,·□Bft□[fU□[ fpjxf□□[fh,Æ”F□Ø,ìŽè□#,í□A%ñ□ü,đ%oi,μ,Ä“`’— ,³,è,é,Æ,«,É^Ã□+%»»,³,è,Ü,·□B

fŠf.□[fg ft□[fU□[.afAfNfZfX,Á,«,é”í^í,í□AfJfbfgf□□[fn’S’ì,ÉŸ’è,.,é,±,Æ,à□AfŠf,□[fg fAfNfZfX ft□[fo□[.¾,~,É□\$CEÀ,.,é,±,Æ,à,Á,«,Ü,·□B,±,ì,½,ß□AŠÇ—□ŽÒ,í□AfŠf,□[fg ft□[fU□[.ª~— p,Á,«,é□î•ñ,đŠmŽÀ,É□\$CEä,μ□AfZfLf...fŠfefB,ì□NŠQ,ª ,Á,½□è□#,í□AfAfNfZfX,đ□\$CEÀ,Á,«,Ü,·□B

fŠf.□[fg fAfNfZfX,ì<-%oÁ,đft□[fU□[.É—^,; ,é•ú-@,É,Á,ç,Ä,í□A□ufŠf,□[fg fAfNfZfX,ì<- %oÁ,đŸ’è,.,é□v,đŽQ□Æ,μ,Ä,,¾,³,ç□B

**fJfbfgf□□[fn fAfNfZfX,đ<-%oÁ,μ,½,è<ÖŽ~,μ,½,è,.,é**

fŠf.□[fg ft□[fU□[.ìfJfbfgf□□[fn fAfNfZfX,í□A”fofCf”fh” ,ÆCEÄ,Î,é,é□AfJvf□fgfRf<,ÆfAf\_fvf^,ì’g,Ý□#,í,¹,đ— LCEø,Ü,½,í-³CEø,É,.,é,±,Æ,É,æ,Á,Ä□\$CEä,μ,Ü,·□B

- ft□[fU□[.É,æ,éŽ’CE¹,Ö,ìfAfNfZfX,đ<-%oÁ,.,é,É,í□AfofCf”fh,đ—LCEø,É,μ,Ü,·□B
- ft□[fU□[.É,æ,éŽ’CE¹,Ö,ìfAfNfZfX,đ<ÖŽ~,.,é,É,í□AfofCf”fh,đ-³CEø,É,μ,Ü,·□B

fofCf”fh,ì□Ú□×,É,Á,ç,Ä,í□AfRf”fgf□□[f< fpjlf<,ì [fJfbfgf□□[fn] fAfCfRf”□A,“,æ,ÑfRf”fgf□□[f< fpjlf<,ìfj”f %ofCf” fwf<fv,đŽQ□Æ,μ,Ä,,¾,³,ç□B

**fŠf,□[fg ft□[fU□[.ìfAfNfZfX”í^í,đf\_fCf,,f<fCf” ft□[fo□[.É□\$CEÀ,.,é**

fŠf.□[fg fAfNfZfX ft□[fo□[.afJfbfgf□□[fn,É□Ú’±,³,è,Ä,ç,é□è□#,Á,à□AfŠf,□[fg ft□[fU□[.afAfNfZfX,Á,«,é”í^í,đf\_fCf,,f<fCf” ft□[fo□[.É□\$CEÀ,μ□AfŠf,□[fg ft□[fU□[.afJfbfgf□□[fn,đ~— p,Á,«,É,ç,æ,μ,É,.,é,±,Æ,ª,Á,«,Ü,·□BRAS ,ìfZfbfgfAfbfv,Á,í□Aft□[fU□[.ÉfJfbfgf□□[fn’S’ì,Ö,ìfAfNfZfX,đ<- %oÁ,.,é,©□A,Ü,½,íft□[fo□[.Ö,ìfAfNfZfX,ì,Ý,đ<-%oÁ,.,é,©,đŽw’è,μ,Ü,·□B□Ú□×,É,Á,ç,Ä,í□A□uLAN fvf□fgfRf<,đŽg,μ,æ,μ,É RAS,đŸŸ□—,.,é□v,đŽQ□Æ,μ,Ä,,¾,³,ç□B

**Ú'±Žž,lfzflf...fšfefB,ì,μ,Ÿ**

ŽŸ,ìžè±,íAfNf%ofCfAf"fg,©,ç RAS fT[fo[,ðCEÄ,Ño,·%oB'ö,ðžì,μ,Û,·B

1 fNf%ofCfAf"fg,íAf\_fCf,,fAfbfv flfbfgf[fn,ðžg,Á,Äšf,[fg fAfNfZfX fT[fo[,Éf\_fCf,,f<,μ,Û,·B

2 fT[fo[,íA"FO,ì,½,ß,ì"ü—í,ðfNf%ofCfAf"fg,É<,ß,Û,·B

3 fNf%ofCfAf"fg,íA%ž"š,ð^Ä+%»μ,ÄfT[fo[,É'—M,μ,Û,·B

4 fT[fo[,íAft[fo[ f[fo[ f^fx[fX,ÉŠì,Ä,ç,Ä%ž"š,ðšm"F,μ,Û,·B

5 fAfjEf"fg,<sup>a</sup>—LCEø,Ä, ,ê,íAft[fo[,íAft[fo[.ífšf,[fg fAfNfZfX,ì<-%oÄ,ðšm"F,μ,Û,·B

6 fšf,[fg fAfNfZfX,ì<-%oÄ,<sup>a</sup>—^,ì,ç,ê,Ä,ç,ê,íAft[fo[,íAfNf%ofCfAf"fg,ÉÚ'±,μ,Û,·B

fR[f<fofbfN,<sup>a</sup>—LCEø,É,É,Ä,Ä,ç,éê±Aft[fo[,íAfNf%ofCfAf"fg,ÉfR[f<fofbfN,μ,Äžè± 2 ,©,ç 6 ,ðCEJ,è•Ô,μ,Û,·B

' fhf[Cf"ŠÄ<<,Ä RAS ,ðžg,±ê±,íAfšf,[fg fAfNfZfX,ì<-

%oÄ,ð•ìX,μ,Ä,àA,»,ì•ìX,<sup>a</sup>,·,×,Ä,ífT[fo[,Ä'¼,ç,É—LCEø,É,É,é,±,Æ,í, ,è,Û,<sup>1</sup>,ñBfhf[Cf""à,ì,Û,

©,ífT[fo[,É•ìX"à—e,ð•;»,·,é,½,ß,ÉAÄ'â,Ä-ñ 15 •<sup>a</sup>,©,©,é,±,Æ,<sup>a</sup>, ,è,Û,·B•K—

v,Ä, ,ê,íAfhf[Cf",ðÄ"~Šú%»,,é,±,Æ,É,æ,èA•ìX"à—

e,<sup>a</sup>šefT[fo[,Éž©"®"ì,É•;»,<sup>3</sup>,é,é,Û,Ä,ì, ,ç,<sup>3</sup>/<sub>4</sub>A<-

%oÄ,ðžæ,èÄ,<sup>3</sup>,é,½ft[fo[,±flfbfgf[fn,ÉfAfNfZfX,·,é,±,Æ,ð-hž~,Ä,«,Û,·B

**fR[f·fofbfN,đ□□¬,·,é**

fZfLf...fŠfefB,đ,³,č,É□,·,ß,é,½,ß,É□ARAS ,É,lfR□[f·fofbfN<@“\,ª—p^Ó,³,é,Ä,č,Ü,·□BfR□[f·fofbfN<@“\,đŽg,κ  
,Æ□ARAS fT□[fo□[ ,ÉfAfNfZfX,Ā,«,é,ì,Í□A’Á’è,ì□è□Š, ©,ç□Ú’±,μ,æ,κ,Æ,μ,Ä,č  
,éft□[fU□[ ,¾,¬,É,È,è,Ü,·□B,Ü,½□Aft□[fU□[ ,ì“d~b—ζ<à,đ□ß-ñ,·,é,±,Æ,à,Ā,«,Ü,·□B

fR□[f·fofbfN,đŽg,κ□è□±,Í□A□Ā□%□,Éft□[fU□[ ,ª RAS fT□[fo□[ ,đCEĀ,Ñ□o,μ□ARAS fT□[fo□[ ,É□Ú’±  
,μ,Ü,·□BRAS fT□[fo□[ ,Í□AZŽ,É□Ú’±,đ□Ø’f,μ□A, ,ç, ©, ¶,ß□Ý’è,³,é,Ä,č  
,éft□[f·fofbfN”Ô□†,đŽg,Ā,Ā’¼,ζ,Éft□[fU□[ ,ÉfR□[f·fofbfN,μ,Ü,·□BfR□[f·fofbfN<@“\,đŽg,κ  
,Æ□A’¼,ìft□[fU□[ ,đ’• ,Ā,ĀfIfbfgf□□[fN,ÉfAfNfZfX,μ,æ,κ,Æ,·,é□N”üŽÒ,ì’â•”•ª,đ’jŽ~ ,·,é,±,Æ,ª,Ā,«,Ü,·□B

Šeft□[fU□[ ,lfR□[f·fofbfN,ì<-%□Ā,Í□A□Šf,□[fg fAfNfZfX,ì<-%□Ā,đ—^ ,ì,é,Æ,« ,É□□¬,μ,Ü,· (fŠf,□[fg  
fAfNfZfX,ì<-%□Ā,ì•t—^ ,É,Ā,č,Ä,Í□A□ufŠf,□[fg fAfNfZfX,ì<-%□Ā,đ•t—^ ,·,é□v,đŽQ□Æ,μ,Ä,¾,³,ç)□B

fŠf,□[fg fAfNfZfXŠÇ—□,ì [fŠf,□[fg fAfNfZfX,ì<-%□Ā] f\_fCfAf□fO f{fbfNfX,Ā,Í□AZŽ,ì 3 ,Ā,lfR□[f·fofbfN  
flfvfVf†“ ,ì,č,·,è, ©,đ’I’đ,Ā,« ,Ü,·□B

- [Ž-’O□Ý’è]
- [”□MŽÒ,É,æ,é□Ý’è]
- [fR□[f·fofbfN,μ,É,č] (Šù’è,ì□Ý’è)

’□ ft□[fU□[ ,ª”F□Ø,³,é,ÄfR□[f·fofbfN,³,é,é,Ü,Ā (fR□[f·fofbfN,ª□Ý’è,³,é,Ä,č,é□è□±)□A□Šf,□[fg fNf  
%□fCfAf”fg,μ,½,ÍŠf,□[fg fAfNfZfX fT□[fo□[ , ©,çff□[f^ ,ì”]—,Í□s,ì,é,Ü,¹,ñ□B

**ft□[fU□[ ,lfR□[f·fofbfN flfvfVf†“ ,đ•Ī□X,·,é,É,Í**

- 1 fŠf,□[fg fAfNfZfXŠÇ—□,đ<N“ @ ,μ,Ü,·□B
- 2 [ft□[fU□[ ] f□fj...□[ ,ì [fŠf,□[fg fAfNfZfX,ì<-%□Ā] ,đfNfŠfbfN,μ,Ü,·□B
- 3 ft□[fU□[ ,đ’I’đ,μ,Ü,·□B
- 4 fR□[f·fofbfN flfvfVf†“ ,É•K—v,È•Ī□X,đ%□Ā,ì,Ü,·□B

**[Ž-’O□Ý’è]**

□Ā,à^À’S□« ,ì□,·,ç□Ý’è,đ’I,Ô,É,Í□A[Ž-’O□Ý’è] ,đ’I’đ,μ□Aft□[fU□[ ,lf,fff€,É□Ú’±,³,é,Ä,č,é  
%□ñ□ü,ì“d~b”Ô□†,đ“ü—ì,μ,Ü,·□B,±,ì□è□±Aft□[fU□[ , ©,ç,ìCEĀ,Ñ□o,μ,ªfŠf,□[fg fAfNfZfX fT□[fo□[ ,É“Í,-  
,Æ□Aft□[fo□[ ,ÍŽÝ,ìŽè□±,ĀfR□[f·fofbfN,μ,Ü,·□B

- 1 fT□[fo□[ ,lf□[fU□[[-¼,ÆfpfXf□□[fh,ª□³,μ,č, ©,ç,κ, ©,đ”»•É,μ,Ü,·□B
- 2 □³,μ,¬ ,é,Í□A,» ,lf□[fU□[ ,ÉfR□[f·fofbfN,·,é,±,Æ,đŽ!,·f□bfZ□[fW,đ•Ô,μ,Ü,·□B
- 3 □Ú’±,đ□Ø’f,μ□A, ,ç, ©, ¶,ß□Ý’è,³,é,Ä,č,é”Ô□†,đŽg,Ā,Āft□[fU□[ ,ÉfR□[f·fofbfN,μ,Ü,·□B  
,±,lfIfvVf†“ ,Í□AZŽ“î,É ,éRf”fsf...□[f^ ,È,Ç□A□□Ý,lfŠf,□[fg fRf”fsf...□[f^ ,É-đ—s,ζ,Ü,·□B

**[”□MŽÒ,É,æ,é□Ý’è]**

[”□MŽÒ,É,æ,é□Ý’è] ,Í□AZŽA□Ú,É,lfZfLf...fŠfefB<@“\  
,Ā,ì ,è,Ü,¹,ñ,ª□A,³,Ü,´,Ü,è□è□Š, ©,ç^Ü,È,é“d~b”Ô□†,ĀCEĀ,Ñ□o,·fNf%□fCfAf”fg,É-đ—s,ζ,Ü,·□B,Ü,½□A,±  
,ì,æ,κ,Éft□[fU□[ ,ì“d~b—ζ<à,đ□ß-ñ,·,é,±,Æ,à,Ā,« ,Ü,·□Bft□[fU□[ , ©,ç,ìCEĀ,Ñ□o,μ,ªfŠf,□[fg fAfNfZfX  
fT□[fo□[ ,É“Í ,Æ□Aft□[fo□[ ,ÍŽÝ,ìŽè□±,ĀfR□[f·fofbfN,μ,Ü,·□B

- 1 fT□[fo□[ ,Í□A□Ā□%□,Éft□[fU□[[-¼,ÆfpfXf□□[fh,ª□³,μ,č, ©,ç,κ, ©,đ”»•É,μ,Ü,·□B
- 2 □³,μ,¬ ,é,Í□Aft□[fU□[ ,lfRf”fsf...□[f^ ,É [fR□[f·fofbfN] f\_fCfAf□fO f{fbfNfX,ª•Ž!,³,é,Ü,·□B
- 3 ft□[fU□[ ,Í□A□\_fCfAf□fO f{fbfNfX,ÉfR□[f·fofbfN,ì”Ô□†,đ“ü—  
ì,μ□Aft□[fo□[ , ©,çfR□[f·fofbfN,³,é,é,ì,đ’O,ζ,Ü,·□B

**[fR□[f·fofbfN,É,μ]**

ft□[fU□[ [fAfJfEf”fg,ªfR□[f·fofbfN—p,É□□¬,³,é,Ä,č,É,ç□è□±,Í□A,» ,lf□[fU□[ ,ì-  
¼’O,ÆfpfXf□□[fh,ª”F□Ø,³,é,é,Æ□A’¼,ζ,É RAS □Ú’±,ªŠm—s,³,é,Ü,·□B





'‡%oi'•'u—p,lfXfNfŠfvg,đ<L□q,.,é

□Ä"lf\_fCfAf□fO,lfXfNfŠfvg,í□ASWITCH.INF ftf@fCf<,Å□AŠef\_fCfAf□fO,<sup>2</sup>,Æ,É 1  
,Ä,lfZfNfVf†f" ,É<L□q,<sup>3</sup>,é,Ü,·□B'‡%oi'•'u—p,lfXfNfŠfvg,í□A,.,x,Ä SWITCH.INF ftf@fCf<,É'Ç%ooÁ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç  
(PAD.INF ftf@fCf<,É X.25 flfbfgf□□lfN fXfNfŠfvg,ì—á,<sup>3</sup>, ,é,ì,Å□AZQ□Æ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç)□B

f,fff€ fv□[f<,Ü,<sup>1</sup>/<sub>2</sub>,lfZfLf...fŠfefB fzfXfg,đ%oi,μ,Ä□Ú'±  
,.,é□é□‡,í□A,»,ì'•'u,Æ,ìŠÖ,Åf\_fCfAf□fO,đŽ□,<sup>1</sup>/<sub>2</sub>,È,¯,é,î,È,è,Ü,<sup>1</sup>,ñ□Bf\_fCfAf□fO,í□Af\_fCf,,f<,ì'O,©f\_fCf,,f<,ìÆä  
,ì,Ç,ì,ç,©,É"-

□¶,μ,Ü,·□Bf\_fCf,,f<'Of\_fCfAf□fO,Æf\_fCf,,f<Æäf\_fCfAf□fO,É,í□A□Ä"lf\_fCfAf□fO,Æ'ŠCEÝf\_fCfAf□fO,ì,ç  
,.,é,Ä,àŽg—p,Ä,«,Ü,; ,□A^è"È,É□Af\_fCf,,f<'Of\_fCfAf□fO,í□Ä"lf\_fCfAf□fO,Ä, ,è□Af\_fCf,,f<Æäf\_fCfAf□fO,ìŠ  
CEÝf\_fCfAf□fO,Ä,·□B

Windows NT ,Ä'ñ<ÿ,<sup>3</sup>,é,é SWITCH.INF ftf@fCf<,É,í□A"Ä—p,lfXfNfŠfvg,<sup>3</sup><L□q,<sup>3</sup>,é,Ä,ç,Ü,·□BPPP  
fT□[fo□[ ,É□Ú'±,.,é'<sup>1</sup>/<sub>2</sub>,,ì□é□‡,í□A,±,lfXfNfŠfvg,đ,Ü,Æ,ñ,ç,Ü,<sup>1</sup>/<sub>2</sub>,í,Ü,Ä,<sup>1</sup>/<sub>2</sub>,•í□X,<sup>1</sup>,, ,ÉŽg—  
p,Ä,«,Ü,·□B,Ü, ,□A"Ä—p,lfXfNfŠfvg,đŽg,Ä,Ä□Ú'±,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B"Ä—p,lfXfNfŠfvg,Ä□<sup>3</sup>,μ,□Ú'±  
,Ä,«,É,ç□é□‡,í□A,±,lfXfNfŠfvg,đfRfs□[ ,μ□A□Ú'±□æ,lfŠf,□[fg fRf"fsf...  
□[f^ ,lf□fOfIf"Žè□‡,É□‡,í,<sup>1</sup>,Ä□C□<sup>3</sup>,μ,Ü,·□B

ŠÖ~A□€-Ú

SWITCH.INF fXfNfŠfvg,đŽg,Ä,ÄfŠf,□[fg f□fOfIf",đŽ©"@%o»,.,é





**fŠf,[]fg fAfNfZfX fT[]fo[], ì MODEM.INF ,ðffjXf^f}fCfY,·,é**

fŠf,[]fg fAfNfZfX fT[]fo[],Æf,fff€,ìŠÖ,ÉfZfLf...fŠfefB fzfXfg,ð'g,Ý[]ž,b,Æ[]AfT[]fo[],ìf,fff€,ÆfZfLf...fŠfefB fzfXfg,í[]A[]V,μ,ç Ží—p,ìf,fff€,Æ,μ,Ä<α,É<@"\\,μ,Ü,·[]BMODEM.INF ftf@fCf<,í[]A"Á'è,ìf,fff€,Æ'í,É,È,Á,Ä,ç ,éfTf[]fg'í[]Ü,ìfZfLf...fŠfefB fzfXfg,ì[]Ý'è,ðfef"fvf[]f[]fg,Æ,μ,Ä'ñ<Ý,μ,Ü,· (,½,Æ,ì,ì[]AACM/400 ,í[]AAT&T@ Comsphere 3820 f,fff€,Æ'í,É,È,Á,Ä,ç,Ü,·)[]B

fZfLf...fŠfefB fzfXfg,ð•É,ìf,fff€,Æ<α,ÉŽg,α,É,í[]AMODEM.INF ftf@fCf<,ð[]C[]³,μ,È,·,é,ì,È,è,Ü,¹,ñ[]BMODEM.INF ftf@fCf<,ì[]Ú[]x,É,Á,ç,Ä,í[]A[]uMODEM.INF ,ð[]C[]³,·,é[]v,ðŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

**MODEM.INF ,ðffjXf^f}fCfY,·,é,É,í**

- 1 MODEM.INF ftf@fCf<,ìfofbfNfAfbfv fRfs[][,ð[]i[]-,μ,Ü,·[]B
  - 2 fZfLf...fŠfefB fzfXfg,ìfZfNfVf#f" ,Á[]A\_on f}fNf[]," ,æ,Ñ\_off f}fNf[],ì,·,x,Ä,ì' (speaker\_on=M1 ,È,Ç) ,ð[]AŽg—p,·,éf,fff€,ìfZfNfVf#f" ,Á[]Ý'è,¾,è,Ä,ç,é'l,É'u,«Š·,ì,Ü,·[]B
  - 3 fZfLf...fŠfefB fzfXfg,ìfZfNfVf#f" ,Á[]A,·,x,Ä,ì COMMAND\_INIT= []s,ð[]AŽg—p,·,éf,fff€,ìfZfNfVf#f" ,É[]Ý'è,¾,è,Ä,ç,é COMMAND\_INIT= []s,É'u,«Š·,ì,Ü,·[]B
- fZfLf...fŠfefB fzfXfg,ìfZfNfVf#f" ,É,í[]AŽg—p,·,éf,fff€,ìfZfNfVf#f" ,Æ"·,¶[]",ì COMMAND\_INIT []s,¾,È,·,é,ì,È,è,Ü,¹,ñ[]BfZfLf...fŠfefB fzfXfg,ìfZfNfVf#f" ,Á[]A,» ,ì'¼,ì[]s,ð•í[]X,μ,È,ç,Ä,,¾,¾,ç[]B
- '[] LOOP= []s,í[]A,Ç,ìf,fff€,É,à•K—v,È[]s,Æ,ç,α,í,·,Á,í ,è,Ü,¹,ñ[]B,½,¾,μ[]A•s— v,Á ,é,Æšm[]M,Á,« ,È,ç[]é[]#,í[]AŽc,μ,Ä,,ç,Ä,,¾,¾,ç[]B

**fZfLf...fŠfefB fzfXfg,đfCf“fXfg□[f<,.é**

MODEM.INF ,lfZfLf...fŠfefB fzfXfg,lfZfNfVf#f“ ,đfjfXf^f}fCfY,μ,½,ç□AfRf“fgf□□[f< fpfjf<,ì [flfbfgf□□[fN] ,đŽg,Á,Ä□AfZfLf...fŠfefB fzfXfg,Æf,fff€,đ RAS fT□[fo□[.ÉfCf“fXfg□[f<,μ,Ü,·□B

**fZfLf...fŠfefB fffofCfX,đfCf“fXfg□[f<,.é,É,Í**

- 1 fRf“fgf□□[f< fpfjf<,ì [flfbfgf□□[fN] fAfCfRf“ ,đf\_fuf<fNfŠfbfN,μ,Ü,·□B
- 2 [fT□[frfX] f^fu,Å□A[Šf,□[fg fAfNfZfX fT□[frfX] ,đ'í'đ,μ□A[fvf□pfefB] ,đfNfŠfbfN,μ,Ü,·□B
- 3 [fŠf,□[fg fAfNfZfX fZfbfgfAfbfv] f\_fCfAf□fO f{fbfNfX,Å□AfŠf,□[fg fAfNfZfX fT□[fo□[.Æf,fff€,ìŠÔ,É□Ú'± ,³,ê,Ä,ç,éfZfLf...fŠfefB fffofCfX,đ'í'đ,μ□A[±□s] ,đfNfŠfbfN,μ,Ü,·□B  
fn□[fhfEfFfA ftf□□[ □§CEä,ašù'è,ì□Ý'è (fn□[fhfEfFfA ftf□□[ □§CEä,a—LCEø) ,©,ç•İ□X,³,ê,Ä,ç,È,ç,± ,Æ,đŠm“F,μ,Ä,³,³,ç□B
- 4 [flfbfgf□□[fN] f\_fCfAf□fO f{fbfNfX,ì [OK] ,đfNfŠfbfN,μ,Ü,·□B
- 5 [,Í,ç] ,đfNfŠfbfN,μ,ÄfRf“fsf...□[f^,đ□Ä<N“@,μ,Ü,·□B

**fNf%oCfAf“fg,Áf^□[f~fif< f,□[fh,ðfAfNfefBfu,É,·,é**

fŠf,□[fg fAfNfZfX f^□[f~fif<,ðŽg,æ,Æ□AfŠf,□[fg ft□[fU□[,Í□AfZfLf...fŠfefB  
fffofCfX,É□³,μ,çfAfNfZfX“Ó□†,È,Ç,ÌfAfNfZfX□î•ñ,ð’—

□M,Á,«,Ü,·□BfAfNfZfX□î•ñ,²□³,μ,¯,ê,Î□A,»],Íft□[fU□[,ÍfŠf,□[fg fAfNfZfX ft□[fo□[,É□Ú’±,³,ê,Ü,·□B

**f^□[f~fif< f,□[fh,É□‡,í,¹,ÄfNf%oCfAf“fg,ð€”ö,·,é,É,Í**

1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì“d~b’ ,Á□A□Ú’±□æfGf“fgfŠ,ð’l’ð,μ,Ü,·□B

2 [,>,ì¹/⁴] ,ðfNfŠfbfN,μ□A[fGf“fgfŠ,Æf,fff€,Ìfvf□fpfefB,ì•Ò□W] ,ðfNfŠfbfN,μ,Ü,·□B

3 [fXfNfŠfvgf] f^fu,Á□A[f^□[f~fif< fEfBf“fhfE,ðŠJ,] ,ð’l’ð,μ,Ü,·□B

4 [OK] ,ðfNfŠfbfN,μ,Ü,·□B

**fŠf,□[fg fAfNfZfX ft□[fo□[,É□Ú’±,·,é,É,Í**

1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì“d~b’ ,Á□Af^□[f~fif< f,□[fh—p,É□€”ö,μ,½fGf“fgfŠ,ð’l’ð,μ,Ü,·□B

2 [f\_fCf,,f<] ,ðfNfŠfbfN,μ,Ü,·□B

%œ—É,É•\Ž!,³,ê,éŽwŽ!,É□],Á,Ä□Aft□[fU□[-¼,ÆfpfXf□□[fh,ð“ü—Í,μ□A[OK] ,ðfNfŠfbfN,μ,Ü,·□B

3 [f^□[f~fif<] ,²•\Ž!,³,ê,½,ç□AfZfLf...fŠfefB fzfXfg,É—v<□,³,ê,éfAfNfZfX□î•ñ,ð“ü—  
Í,μ,Ü,·□B,½,Æ,ì,Î□ACEÁ□Ž~•É”Ó□†,ÆfZfLf...fŠfefB fj□[fh,É•\Ž!,³,ê,½”Ó□†,ð“ü—Í,·,é,æ,æ,É—  
v<□,³,ê,½,è□Aft□[fU□[-¼,ÆfpfXf□□[fh,ð“ü—Í,·,é,æ,æ,É—v<□,³,ê,½,è,μ,Ü,·□B

4 fZfLf...fŠfefB fzfXfg,²”F□Ø,É□—CE÷,μ,½,±,Æ,ð’É’m,μ,Ä,«,½,ç□A,·,®,É [Š®—¹]  
,ðfNfŠfbfN,μ,Ü,·□BZfLf...fŠfefB fzfXfg,©,ç,ì’É’m•ù—@,Í□AfZfLf...fŠfefB  
fzfXfg,²,Æ,É^Ù,É,è,Ü,·□B,½,Æ,ì,Î□A“OK” ,Æ•\Ž!,³,ê,é□é□‡,à, ,é,Î□Afj□[f\  
f<,²ŽŸ,ì□s,É□i,p,¾,¯,ì□é□‡,à, ,è,Ü,·□B

fŠf,□[fg fAfNfZfX ft□[fo□[,Á,ì”F□Ø,²ŠJŽn,³,ê,Ü,·□B

**fCEfWfXfgfŠ,đC□³,·,é**

fŠf,□[fg fAfNfZfX fT□[fxfX,đfT□[fo□[,ÉfCf“fXfg□[f<,·,é,Æ□AfZfbfgfAfbfv fvf□fOf%of€,É,æ,è□ARemote Access fL□[,ª Windows NT ,lfCEfWfXfgfŠ,É‘Ç%oÁ,³,è,Ü,·□BRemote Access

fL□[,Æ,»„lfTfufL□[,É,í□AfŠf,□[fg fAfNfZfX,É“Á—L,lfpf%of□[f^,ªŠÜ,Ü,è,Ü,·□B

fŠf,□[fg fAfNfZfX,lfZfbfgfAfbfv fvf□fOf%of€,í Windows NT ,lfCEfWfXfgfŠ,É Remote Access fL□[,đ‘Ç %oÁ,μ,Ü,·□B

^è”É,É□AfŠf,□[fg fAfNfZfX,í RAS ,lfpf%of□[f^,É“K□Ø,ÈŠù‘è‘l,đ□Ý‘è,·,é,ì,Å□A‘É□í,í□C□³,·,é•K— v,ª, ,è,Ü,¹,ñ□BfVfXfef€,É,æ,Á,Ä,í□A“Á‘è,lfj□[fY,É□±,í,¹,Ä□Afpf%of□[f^,đCEÁ•É,É²□® ,Å,«„Ü,·□B

,ç,,Á,©,lfpf%of□[f^,ì□W□±,đC□³,Ü,½,í‘Ç%oÁ,Å,«„Ü,·□B,±

,é,ç,ìŠù‘è,ì□Ý‘è,đ•í□X,·,é,É,í□AfCEfWfXfgfŠ,ìŠY“—,·,éfL□[,đC□³,Ü,½,í‘Ç%oÁ,μ,Ä,,¾,¾,ç□B,±

,é,ç,lfL□[,đŠÜ,bfCEfWfXfgfŠ fpfX,í□AŠefpf%of□[f^,đ□à-¾,·,é‘O,ÉŽwŽl,μ,Ü,·□B

**fCEfWfXfgfŠ,đ•ò□W,·,é,É,í**

1 [fXf^□[fg] f□fjf...□[,ì [ftf@fCf<-¾,đŽw‘è,μ,ÄŽÀ□s] ,đfNfŠfbfN,μ,Ü,·□B

2 [-¾‘O] f{fbfNfX,É□uregedt32□v,Æ“ü—í,μ,Ü,·□B

,±,lfRf}f“fh,í□AfRf}f“fh fvf□“fvfg,©,çŽÀ□s,·,é,±,Æ,à,Å,«„Ü,·□B

fCEfWfXfgfŠ,ÅfL□[,Éfpf%of□[f^,đ‘Ç%oÁ,·,é•û-@,ì□Ú□×,É,Á,ç,Ä,í□AWindows NT fCEfWfXfgfŠ

fGfffBf^,lfif“f%ofCf“ fwf<fv,đŽQ□Æ,μ,Ä,,¾,¾,ç□B

**RemoteAccess fpf%ofof^**

,±,ê,ç,lfpf%ofof^,îŠù'è'l,íA,.,x,Ä,ì Windows NT ,l'€ñ,Åñ^a,É<@"\,μ,Ü,·B

,±,ê,ç,lfpf%ofof^,íAŽŸ,ÉŽ!,.fCfWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RemoteAccess\Parameters

**AuthenticateRetries REG\_DWORD**

"í'íF 0 10

"FñØŽž,íAñ%o,ìŽŽñs,aŽ,"s,μ,½ñêñ,ÉñAŽ,"s,a<-,³,ê,éñÁ'áñÄŽŽñs%oññ",ðŸ'è,μ,Ü,·B  
Šù'è'lF 2.

**AuthenticateTime REG\_DWORD**

"í'íF 20 600 •b

ftñfUñ[,³ñ³í,É"ñFñØ,ðŽó,~,È,~,ê,î,È,ç,È,çŽžŠÓ,íñäCÉA,ðñA•b'P^É,ÄñŸ'è,μ,Ü,·BfNf%ofCfAf"fg,³,±  
,ìŽžŠÓ"à,É"ñFñØfjvfñfZfX,ðŠ@-¹,μ,É,~,ê,íA,».,lftñfUñ[,íñØ'f,³,ê,Ü,·B  
Šù'è'lF 120 •b

**AutoDisconnect REG\_DWORD**

"í'íF 0 1000 •a

fAfNfefBfu,Ä,È,çñÚ'±  
,³ñØ'f,³,ê,é,Ü,Ä,ìŽžŠÓ,ðŸ'è,μ,Ü,·BfAfNfefBfu,Ä,È,çŽžŠÓ,íñAftf@fCf<,lfRfsññAflfbfgfññfNŽ'CE¹,Ö,lf  
AfNfZfXñA,.,æ,Ñ"dŽqfññf<,ì'—ŽóñM,È,ÇñANetBIOS fZfbfVfñf",lffñf^"J'—,³ñs,í,ê,Ä,ç  
,È,çŽžŠÓ,É,æ,Ä,ÄCEV'a,³,ê,Ü,·BfNf%ofCfAf"fg,³ NetBIOS fññf^fOf%of€  
fAfVfŠfPñfVfñf",ðŽÀñs't,íñêñ,íA,±,lfpf%ofof^,ð 0 •a,ÉñŸ'è,Ä,«,Ü,·B,±,lfpf%ofof^,ð 0  
,ÉñŸ'è,.,é,ÆñA**AutoDisconnect** ,afift,É,È,è,Ü,·B  
Šù'è'lF 20 •a

**CallbackTime REG\_DWORD**

"í'íF 2 12 •b

fRñf<fofbfN<@"\,³ñŸ'è,³,ê,Ä,ç,éñêññAfnf  
%ofCfAf"fg,³fRñf<fofbfN,.,é'O,Éftñfoñ[,³ñØ<@,.,éŽžŠÓ,ðŸ'è,μ,Ü,·BŠefNf%ofCfAf"fg,íñAšf,ñf  
fAfNfZfX ftñfoñ[,ÉñÚ'±,.,é,Æ,«,ÉñA'ÆŽÓ,lfRñf<fofbfNŽžŠÓ,ì'l,ð'ÉñM,μ,Ü,·B,±,ì'l,íñAfnf%ofCfAf"fg  
—p,ì Modem.inf ftñf@fCf<,É"ü,Ä,Ä,ç,Ü,·B,±,ì'l,³ñÉñM,³,ê,È,çñêñ (,Ä,Ü,èñAfnf  
%ofCfAf"fg,³fRñf<fofbfNŽžŠÓ,ì'l,ð'ÉñM,μ,É,çñêññBfŠf,ñf fAfNfZfX Version 1.0 ,.,æ,Ñ 1.1 ,lfNf  
%ofCfAf"fg,³,±,ê,ÉŠY"-,μ,Ü,.) ,íñA**CallbackTime** fpf%ofof^,ì'l,³ñŽg,í,ê,Ü,·B  
Šù'è'lF 2 •b

**EnableAudit REG\_DWORD**

"í'íF 0 1

fŠf,ñf fAfNfZfX,ìŠÄñ, <@"\,³ñf",É,È,Ä,Ä,ç,é,©fift,É,È,Ä,Ä,ç,é,©,ð"»•É,μ,Ü,·B,±,ì<@"\,³—  
LCEø,É,È,Ä,Ä,ç,é,ÆñA,.,x,Ä,ìŠÄñ,í Windows NT ,lfCxf"fg fñfO,É<L~^,³,ê,Ü,·B,±  
,ê,ç,ìŠÄñ,íAWindows NT ,lfCxf"fg frf...ñfA,Ä•Ž!,Ä,«,Ü,·B  
Šù'è'lF 1 (—LCEø)

**NetbiosGatewayEnabled REG\_DWORD**

"í'íF 0 1

ftñfoñ[,ð NetBIOS fQñf ffgEfffC,Æ"~,ñ,æ,π,É<@"\,³,¹,ÄñAfnf%ofCfAf"fg,³ LAN ,ÉfAfNfZfX,Ä,«.,é,æ,π  
,É,μ,Ü,·B-³CEø,É,È,Ä,Ä,ç,é,ÆñAšf,ñf fNf%ofCfAf"fg,íñAšf,ñf fAfNfZfX  
ftñfoñ[ñä,ìŽ'CE¹,É,μ,©fAfNfZfX,Ä,«,Ü,¹,ññBf\_fCf,,f<fCf" ftñfUñ[,íñAflfbfgfññfN,ðCE©,é,±

,Æ,ª,Å,«, , □Aflfbfgf□□[fNŽ'Æ¹,ÉfAfNfZfX,Å,«,Ü,¹,ñ□B,±,lfpf%of□□[f^,ð'¼□Ú□C□³,·,é,±  
,Æ,Í,Å,«,Ü,¹,ñ□B,±,lfpf%of□□[f^,ð□C□³,·,é,Æ,«,Í□ARAS fZfbfgfAfbfv,ðŽg,Á,Ä,,¾,³,ç□B,±,ê,Í□ARAS  
fZfbfgfAfbfv,ª□A,±,lfpf%of□□[f^,ì•İ□XŽž,ÉfofCf“fh,à□C□³,·,é,©,ç,Å,·□B  
Šù'è'İ□F 1 (—LÆø)

**NetbiosGateway fpf%of[]f^**

,±,ê,ç,lfpf%of[]f^,íAŽŸ,ÉŽ!,.fCEfWfXfgfŠ fpfX,É, ,è,Ü,·B  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RemoteAccess\Parameters\NetbiosGateway

**DisableMcastFwdWhenSessionTraffic REG\_DWORD**

"í^í[]F 0 []` 1

NetBIOS fZfbfVfj",lfgf%oftfBfbfN (,½,Æ,í,íAWindows NT fx[]fX,lfAfvfŠfP[]fVfj") ,ðAf}f<f`fLfffXfg  
ff[]f^fOf%of€ (fT[]fo[] ffbfZ[]fW,È,Ç) ,æ,è,à-D[]æ,³,è,é,æ,x,É,µ,Ü,·B,Â,Ü,èAf}f<f`fLfffXfg  
ff[]f^fOf%of€,íAfZfbfVfj" fgf%oftfBfbfN,ª,È,ç[]è[]±,É,¾,~"J'—,³,è,Ü,·Bf}f<f`fLfffXfg ff[]f^fOf%of€  
,É`È'¶,·,éfAfvfŠfP[]fVfj",ðŽg,í,È,ç[]è[]±,íA,±,lfpf%of[]f^,ð-LCEø,É,µ,Ä,·,ç,Ä,,¾,³,ç[]B  
Šù`è'í[]F 1 (-LCEø)

**EnableBroadcast REG\_DWORD**

"í^í[]F 0 []` 1

fuf[]f[]fhfLfffXfg ff[]f^fOf%of€,áfŠf,[]fg fRf"fsf...[]f^,É"J'—,³,è,é,©,Ç,x,©,ð"»•É,µ,Ü,·B½,-  
,ìè[]±Afuf[]f[]fhfLfffXfg ff[]f^fOf%of€,í-LCEø,Á,í,È,-  
[]A'á'-fŠf"fN[]ä,Á,í'N^æ·[],ð[]A"i,µ,·,·,Ü,·Bfuf[]f[]fhfLfffXfg ff[]f^fOf%of€  
,É`È'¶,·,éfAfvfŠfP[]fVfj",ðŽg,í,È,ç[]è[]±,íA,±,lfpf%of[]f^,ð-³CEø,É,µ,Ä,·,ç,Ä,,¾,³,ç[]B  
Šù`è'í[]F 0 (-³CEø)

**MultiCastForwardRate** ,ì[]€,àŽQ[]Æ,µ,Ä,,¾,³,ç[]B

**EnableNetbiosSessionsAuditing REG\_DWORD**

"í^í[]F 0 []` 1

fŠf,[]fg fNf%ofCfAf"fg,Æ Windows NT fT[]fo[][ŠÔ,Á[]s,í,è,é NetBIOS fZfbfVfj",ìŠm—  
š,ÉŠÖ,µ,ÄAfŠf,[]fg fAfNfZfX,ìŠÄ, <@"\,ð-LCEø,Ü,½,í-³CEø,É,µ,Ü,·B,±,lfpf%of[]f^,ð-  
LCEø,É,·,é,Æ[]AŠÇ—[]ŽÖ,í LAN []ä,ÁfAfNfZfX,³,è,é NetBIOS Ž'CE¹,ð'Ç[]Ö,µ,â,·,è,è,Ü,·B  
Šù`è'í[]F 0 (-³CEø)

**MaxBcastDgBuffered REG\_DWORD**

"í^í[]F 16 []` 255

fNf%ofCfAf"fg,lfQ[]fgfEfc,É,æ,èofbftf@,³,è,éfuf[]f[]fhfLfffXfg ff[]f^fOf%of€  
,ì[]",ð[]Ý'è,µ,Ü,·Bf}f<f`fLfffXfg ff[]f^fOf%of€,Ü,½,ífuf[]f[]fhfLfffXfg ff[]f^fOf%of€  
,ð'È,µ,Ä[]lí'í,É'É[]M,ð[]s,xfAfvfŠfP[]fVfj",ðŽg,x[]è[]±,íAfŠf,[]fg fAfNfZfX fT[]fo[][,ª,·,·,·,Ä,lf[]f^fOf  
%of€,ðŠmŽÄ,É"z[]M,Á,«,é,æ,x,É[]A,±,lfpf%of[]f^,ì'í,ð'ä,«,µ,Ä,,¾,³,ç[]B  
Šù`è'í[]F 32.

**MaxDgBufferedPerGroupName REG\_DWORD**

"í^í[]F 1 []` 255

fOf[]f[]fv-¼,²,Æ,Éfobftf@,³,è,éff[]f^fOf%of€,ì[]",ð[]Ý'è,µ,Ü,·B,±,ì'í,ð'ä,«,·,·,é,Æ[]AfOf[]f[]fv-  
¼,²,Æ,Éfobftf@,³,è,éff[]f^fOf%of€,ì[]",ª[],ì,·,ª[]A,æ,è'½,,ì%¼'zf[]f,š,ð[]Á"i,·,é,±,Æ,É,È,è,Ü,·B  
Šù`è'í[]F 10

**MaxDynMem REG\_DWORD**

"í^í[]F 131072 []` 4294967295

ŠefŠf,[]fg fNf%ofCfAf"fg,ì NetBIOS fZfbfVfj" ff[]f^,lfobftf@,ÉŽg,í,è,é%¼'zf[]f,š,ì'S—e—  
È,ð[]Ý'è,µ,Ü,·B

'[] fŠf,[]fg fAfNfZfX fT[]fo[][,íA'á'-%ñü,Æ LAN ,Æ,ìŠÔ,lfQ[]fgfEfc,È,ì,Á[]A,·-%ñü (LAN)

, ©, ç' ... □M, μ, ½ff□[f^, í□A'á'—%ñ□ü ("ñ"~Šú%ñ□ü), É"']—, ³, è, é'O, É□A, » , íf□f, fŠ, ÉŠi" [ , ³, è, Ü, ·  
(fofbftf@, É"ü, è, ç, è, Ü, ·) □B

fŠf, □[fg fAfNfZfX fT□[fo□[ , í□AfVfXfefe, ì·" —□f□f, fŠ, Ìžg—p—É, ð□Á□—, É—}  
, ì, é, ½, ß□AfY□[fW, Ì□Á□—□W□# (fNf%ofCfAf"fg, ², Æ, É—ñ 64K) , ¾, · , ðf□fbfN, μ□Aff□[f^, Ìžc, è, Ì·"•², ð  
%o¼'zf□f, fŠ (**MaxDynMem** ^É"à) , Éfofbftf@, μ, Ü, ·□B

, μ, ½, ², Á, Ä□AfN□[fh fffBfXfN□ä, É Pagefile.Sys , ðŠg'£, Á, «, é, ¾, · , Ì—e—É, ², · , è, Ì□A, ±, Ìfpf  
%of□□[f^, Ì'ì, ð·K—v, É%ož, ¶, Á'á, «, · , Á, «, · , Ü, ·□B

fAfVfŠfP□[fVf#f" , ² LAN (□, '—) , Ì'—□M'x, Æ"ñ"~Šú ('á'—) , Ìžó□M'x, ðCE" , È, é□è□#□A, · , æ, Ñ'—□M'x  
, ²—□M, · , éff□[f^, ²¹/², · , —, ÁfŠf, □[fg fAfNfZfX fT□[fo□[ , ² **MaxDynMem**  
, Áfofbftf@, É"ü, è, ç, è, È, ç□è□#, í□A—â'è, ²□¶, ¶, é, ±, Æ, ², · , è, Ü, · □BfŠf, □[fg fAfNfZfX fT□[fo□[ , í□A'...  
□Mjff□[f^ , ð"ü, è, ç, è, é"ö"x, Ìfofbftf@—e—É, ²³/⁴, ç, è, è, Ü, Á□AfZfbfVf#f"□ä, Á Ncb.Receive , ð"-  
□M, ¹, · , É□ANetBIOS , Ìftf□□[□\$CEä, ð"K—p, μ, æ, x, Æ, μ, Ü, · □B, μ, ½, ², Á, Ä□A, ±  
, Ìží, ÌfAfVfŠfP□[fVf#f" , ðžg, x□è□#, í□AfŠf, □[fg fNf%ofCfAf"fg, É'á'—, ÁfŠf"fn, · , é, æ, x  
, ÈžžŠÖ, ², ©, ©, é□è□#, Á, à, · , x, Á, Ìff□[f^, ²""'—, ³, è, é, Ì, ð'Ò, Á, æ, x, É□A, » , ÌfAfVfŠfP□[fVf#f"  
fT□[fo□[□ä, Ì NetBIOS SEND/RECEIVE , Ìf^fCf€fAfEfg, ð'á, «, · , μ, È, · , è, Ì, È, è, Ü, ¹, ñ□B

Šù'è'ì□F 655350.

**MaxNames REG\_DWORD**

"í'í□F 1 □` 255

ŠefNf%ofCfAf"fg, ²žg—p, Á, «, é^è^Ó, Ì NetBIOS -¼, Ì□" , ð□Y'è, μ, Ü, · □BNetBIOS -¼, í□AfNf  
%ofCfAf"fg'S'ì, Á□#Ev 255 CEÁ, Ü, Á, Á, · □B

Šù'è'ì□F 255

'□ Windows NT , ðžÀ□s, μ, Ä, ç, éfŠf, □[fg fNf%ofCfAf"fg, Á, í□A, » , è, ¼, è 7 CEÁ, Ü, ½, Ì 8 CEÁ, Ì NetBIOS -  
¼, ²·K—v, È□è□#, ², · , è, Ü, · □B, ±, è, ç, ÌfRf"fsf...□[f^, É'í%ož, · , é, É, í□A**MaxNames** , ²  
^È□ä, È□Y'è, ³, è, Á, ç, é, ±, Æ, ðSm" F, μ, Ä, · , ¾, ³, ç□BWindows NT fNf%ofCfAf"fg, ©, çfo□[fWf#f" 1.1  
^É'O, ÌfŠf, □[fg fAfNfZfX, ðžÀ□s, · , éfT□[fo□[ , Éf\_fCf, f\_fCf" , · , é□è□#, í□A, ±, Ìfpf%of□□[f^, ð 8  
^È□ä, È□Y'è, μ, Ä, · , ¾, ³, ç□B

**MaxSessions REG\_DWORD**

"í'í□F 1 □` 255

ŠefNf%ofCfAf"fg, ²~žž, É<N" @, Á, «, é NetBIOS fZfbfVf#f" , Ì□Á'á□" , ð□Y'è, μ, Ü, · □BNetBIOS  
fZfbfVf#f" , í□AfNf%ofCfAf"fg'S'ì, Á□#Ev 255 , Ü, Á"~žž, É<N" @, Á, «, Ü, · □B·í□" , ÌfNf  
%ofCfAf"fg, ð"~žž, È□Ú'±, μ□A, » , è, ¼, è 4 , Á, Ü, ½, Ì 5  
, Á, ÌfZfbfVf#f" , ðžÀ□s, ¹, é□è□#, í□A□#EvfZfbfVf#f"□" , ² 255 , ð' , Ì, È, ç, æ, x, É□A, ±, Ìfpf  
%of□□[f^, Ì'ì, ð□—, ³, · , μ, Ü, · □B

Šù'è'ì□F 255.

**MultiCastForwardRate REG\_DWORD**

"í'í□F -1 (-³CEø)□A0 □` 32,767 · b

, · , x, Á, ÌfŠf, □[fg fRf"fsf...□[f^, Ö, Ìfof<□[fv-¼ff□[f^fof%of€, Ìf}f<f' flfffXfg%o» , ð□\$CEä, μ, Ü, · □Bfof<□[fv-  
¼, ÉŠÖ, μ, Á'—□M, ³, è, éff□[f^fof%of€, í□A, ±, Ìfpf%of□□[f^, Ážw'è, μ, ½ŠÖŠu, Á"']—, ³, è, é, ±  
, Æ, É, æ, è□AftfBf<f^ , ², ©, · , ç, è, Ü, · □B

Šù'è'ì□F 5

'ì, ð - 1 , È□Y'è, · , é, Æ□A"']—<@" \, ²-³CEø, É, È, è, Ü, · □B'ì, ð 0 , È□Y'è, · , é, Æ□AfOf<□[fv-¼ff□[f^fof%of€  
, Ì"z□M, ²·Ü□ø, ³, è, Ü, · □B'ì, ð n , È□Y'è, · , é, Æ□Aff□[f^fof%of€, Ì n · b, ², Æ, É"']—, ³, è, Ü, · □B, ±, Ìè□#□A1 □...  
n □...32,767 , Á, · □B

**EnableBroadcast** fpf%of□□[f^, ð 0 , È□Y'è, · , é, Æ□A**MultiCastForwardRate** fpf



MultiCastForwardRate, EnableBroadcast

REG\_DWORD

**NumRecvQueryIndications**      **REG\_DWORD**

32

**RcvDgSubmittedPerGroupName**      **REG\_DWORD**

32

**RemoteListen**      **REG\_DWORD**

2

Index	Name	Value
0	RemoteListen	1
1	Server Messenger	1

—p,Å,«,é,æ,»	Ç) ,ð LAN
,É,μ,Û,·□B	fT□[fU□[ ,É'í,μ,Ä~—p %oÅ"\ ,É,Å,«,Û,·□BMessenge r fT□[fX,ðŽÀ□s,·,éfŠf,□ [fg fNf %ofCfAf"fg,í□ALAN fT□[fU□[□AfvfŠf"fg^,É, Ç,©,çf□fbfZ□[fW,ðŽó□ M,Å,«,Û,·□B
2 ,·,×,Ä,ìfŠf,□[f	,±,ì□Ý'è,É,æ,è□AfNf
g fNf	%ofCfAf"fg□ã,ÅŽÀ□s't
%ofCfAf"fg,ì	,ì NetBIOS
NetBIOS -	fAfvfŠfP□[fVf}f",í□ALA
¼,É,Å,ç	N
,Ä□ANCB.LIST	fAfvfŠfP□[fVf}f",É,æ,è
EN ,ð—	ŽÀ□s,³,è,½ NCB.CALL
LCEø,É,μ,Û,·□	fRf}f"fh,É
B	%ož"š,Å,«,é,æ,» ,É,È,è,Û,·□B

'□ **RemoteListen** fpf%of□□[f^ ,í□AŠù'è'l,ì 1 (f□fbfZ□[fW) ,É□Ý'è,·,é,ì,²□Á'P,ì•û-@,Å,·□B

fŠf,□[fg fNf%ofCfAf"fg□ã,Å NCB.LISTEN <@"\,ð—LCEø,É,·,é,Æ□AfVfXfef€ fŠf\  
□[fX,²'å•□,É□Á"i,³,è,é,±,Æ,², ,é,ì,Å□A,±,ì<@"\,ð—LCEø,É,·,é,ì,í,"Š©,β,Å,«,Û,¹,ñ□B**RemoteListen**  
fpf%of□□[f^ ,ð 2 ,É□Ý'è,·,é,Æ□AfŠf,□[fg fAfNfZfX,ìfŠf,□[fg fAfNfZfX fNf%ofCfAf"fg,ì,·,×,Ä,ì  
NetBIOS -¼,É NCB.LISTEN ,ð'É'm,μ,Û,·□B•½<í"l,È Windows NT fNf%ofCfAf"fg,É,í,·,æ,» 7  
CEÅ,Û,½,í 8 CEÅ,ì NetBIOS -¼,²Š,,è"—,Ä,ç,è,Ä,ç,é,±,Æ,ð□l,ì,é,Æ□ANCB.LISTEN ,É,Å,ç  
,Ä'É'm,³,è,é NetBIOS -¼,ì□±CEv□",í 7 ,Û,½,í 8 □~ 256 (fŠf,□[fg fAfNfZfX fT□[fo□["-,½,è,ì□Á'åfNf  
%ofCfAf"fg□") ,Æ,È,è,Û,·□B

**SizWorkBufs REG\_DWORD**

"í'í□F 1024 □` 65536

□i<Æfobftf@,ìTfCfY,ð□Ý'è,μ,Û,·□BŠù'è'l,í□AfT□[fo□[ f□fbfZ□[fW fuf□fbfN (SMB)  
fvf□fgfRf<,É□±,í,¹,Ä□Ä"K%o»,³,è,Ä,ç,Û,·□BSMB fvf□fgfRf<,í□AfNf%ofCfAf"fg,Æ Windows NT Server  
,ðŽÀ□s,·,éfT□[fo□[ ,ìŠÔ,ìfvf□fgfRf<,Å,·□B  
Šù'è'l□F 4500

**IP fpf%of[]f^**

, ±, ê, ç, ì, j, p, f, %, o, f, [], f, ^, Á, Å, Ž, Ÿ, É, Ž, Ì, Ñ, Ç, F, W, f, X, f, g, f, Š, f, p, f, X, É, , è, Û, ·, □, B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RemoteAccess\Parameters\IP

**WINNameServer REG\_SZ**

'I[]F IP fAfhf[][]fX

RAS fT[]f[]f[][, á'®, , , , é WINS fT[]f[]f[][, É, æ, é RAS fNf%ofCfAf"fg, Ö, Ì IP fAfhf[][]fX, Ì Ž © " ® " I, È Š, , , è " -, Ä, ð-  
³Çø, É, , , é, É, Í, □, ARAS fT[]f[]f[][, Ì, Ç, F, W, f, X, f, g, f, Š, Å, □, A, ±, Ì, j, p, f, %, o, f, [], f, ^, ð, ·, Ì, □, X, μ, Û, ·, □, B

, ±, Ì, j, p, f, %, o, f, [], f, ^, Ñ, Ç, F, W, f, X, f, g, f, Š, É, ·, Ž, Ì, , , , é, é, Ì, Í, □, ARAS fT[]f[]f[][, Ö, Ì, □, Ú, ±, Ñ, f, A, f, N, f, e, f, B, f, u, È, Æ, <, , , ¾, , , Å, ·, □, B

**WINNameServerBackup REG\_SZ**

'I[]F IP fAfhf[][]fX

RAS fT[]f[]f[][, á'®, , , , é, f, o, f, b, f, N, f, A, f, b, f, v WINS fT[]f[]f[][, É, æ, é RAS fNf%ofCfAf"fg, Ö, Ì IP  
fAfhf[][]fX, Ì Ž © " ® " I, È Š, , , è " -, Ä, ð-³Çø, É, , , é, É, Í, □, A, ±, Ì, j, p, f, %, o, f, [], f, ^, ð RAS fT[]f[]f[][, Ì, Ç, F, W, f, X, f, g, f, Š, É, Ç  
%oÁ, μ, Û, ·, □, B

, ±, Ì, j, p, f, %, o, f, [], f, ^, Ñ, Ç, F, W, f, X, f, g, f, Š, É, ·, Ž, Ì, , , , é, é, Ì, Í, □, ARAS fT[]f[]f[][, Ö, Ì, □, Ú, ±, Ñ, f, A, f, N, f, e, f, B, f, u, È, Æ, <, , , ¾, , , Å, ·, □, B

**DNSNameServers REG\_MULTI\_SZ**

'I[]F IP fAfhf[][]fX

RAS fT[]f[]f[][, á'®, , , , é DNS fT[]f[]f[][, É, æ, é RAS fNf%ofCfAf"fg, Ö, Ì IP fAfhf[][]fX, Ì Ž © " ® " I, È Š, , , è " -, Ä, ð-  
³Çø, É, , , é, É, Í, □, A, ±, Ì, j, p, f, %, o, f, [], f, ^, ð RAS fT[]f[]f[][, Ì, Ç, F, W, f, X, f, g, f, Š, É, Ç, %oÁ, μ, Û, ·, □, B

, ±, Ì, j, p, f, %, o, f, [], f, ^, Ñ, Ç, F, W, f, X, f, g, f, Š, É, ·, Ž, Ì, , , , é, é, Ì, Í, □, ARAS fT[]f[]f[][, Ö, Ì, □, Ú, ±, Ñ, f, A, f, N, f, e, f, B, f, u, È, Æ, <, , , ¾, , , Å, ·, □, B

**AsyncMac fpf%of[]f^**

,±,ê,ç,lfpf%of[]f^,íAZÿ,ÉŽ!,.fCFWfXfgfŠ fpfX,É, ,è,Ü,·B  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\AsyncMac\Parameters

**MaxFrameSize**                      **REG\_DWORD**

"í'í[]F 576 []` 1514

Å'âftfCF[]f€ ftfcfY,ðCE^'è,μ,Ü,·BfmfCfY,ð"º,xfŠf"fN,É,í[]-,³,çftfCF[]f€,ðŽg,Á,Ä,-  
,¾,³,ç[]B[]Ý'è,ð[]-,³,,.é,Æ[]AftfCF[]f€,²,Æ,É'—[]M,³,ê,éff[]f^[]",ª[].,È,è[]AfpftfH[]f}f"X,ª'á  
%ºº,μ,Ü,·B^È'O,lf[]fWf#f",lfŠf,[]fg fAfNfZfX ft[]fxfX,É,Ä,ç,Ä,í[]A,±,lfpf%of[]f^,ð'í[]X,μ,È,ç,Á,-  
,¾,³,ç[]B,±,ì'l,í[]AfT[]fo[][,Æ Windows NT ,lfNf%ofCfAf"fg,Æ,ìŠÔ,ÅflfSfVfG[]fVf#f",ª[]s,í,è,Ü,·B  
Šù'è'í[]F 1514.

**TimeoutBase**                      **REG\_DWORD**

"í'í[]F 500 []` 1000

Ú'±,ª[]Ø'f,³,ê,é'O,É[]ANetBIOS fQ[]fjgfEjFfC[]ã,ÅCEº%ºB,.,éŽžŠÔ,ðCE^'è,μ,Ü,·BNetBIOS  
fQ[]fjgfEjFfC,ìŽg—p,Å^ù[]í,É'½,,lf^fCf€fAfEfg fGf%º[][,ª[]¶,¶,éèè[]#,É (100KB ,ìŽó[]M,Å 10  
%ºñ^È[]ã,lf^fCf€fAfEfg)[]AZg—p,μ,Ä,ç,éRf"fsf...[]f^,ÉfZfLf...fŠfefB fffofCfX,ª, ,é,©[]A,Ü,½,lf,fff€  
,lfn[]fhfEjFfA^³[]k,Ü,½,lfGf%º[][]\$CEä<@"\,ª—LCEø,É,É,Ä,Ä,ç,é,Æ,«,í[]A**TimeoutBase** ,ì'l,ð 500 ,©,ç  
1000 ,É'[],â,μ,Ü,·B  
**TimeoutBase** ,ð 1000 ,É'[],â,.,Æ[]A,²,,Ü,ê,Éflfbfgf[][]fN,ì<@"\,ª^ù[]í,È"®[]ì,ð,.,é,±  
,Æ,ª, ,è,Ü,·B,½,Æ,ì,í[]A1 %ºñ"ü—í,μ,½flfbfgf[][]fN,lfRf}f"fh,ð[]A,³,ç,É,à,ª 1 %ºñ^È[]ã"ü—  
í,μ,È,¯,é,î,È,ç,È,©,Á,½,è[]A,Ü,½,í<@"\,ªŽüŠú"l,É'x,,É,é,±,Æ,ª, ,è,Ü,·B  
Šù'è'í[]F 500

## NdisWan fpf%of[]f^

,±,lfpf%of[]f^,íAŽŸ,ÉŽ,·fCFWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\NdisWan\Parameters

**NetworkAddress="xxxxxx"            REG\_SZ**

'lF flfbfgf[]fN fAfhfCFX

6 fofCfg,ì IEEE fAfhfCFX,ìA%o,ì 4 fofCfg,ðÄŠ,,è“-,Ä,·,é,É,íA,±,lfpf%of[]f^,ð'Ç

%oÁ,μ,Ü,·B,½,Æ,ì,íAfhfCFX,ð "03-1F-2C-81-92-34" ,ÉY'è,·,é,ÆAÁ%o,ì 4

fofCfg,¾,~,ªY'è,³,è,Ü,·BÁÆä,ì 2 fofCfg,íAfl[]fg,ð^ê^Ó,ÉŽ·Ê,·,é,½,ß,É—\-ñ,³,è,Ä,ç,Ü,·B,±,lfpf

%of[]f^,íAfff[]f^Æ^,ª REG\_SZ ,ì **NdisWanParameters** fl[][,ÉY'è,μ,Ä,,¾,¾,çB

## NwlnkRip fpf%of[]f^

,±,lfpf%of[]f^,íAŽŸ,ÉŽ!,fCefWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\NwlnkRip\Parameters

### NetbiosRouting

### REG\_DWORD

"í^íF 0A2A4A,Ü,½,í 6

LAN ,Æ,ìŠÔ,ì IPX NetBIOS fuf[]fLfffXfg fpfPfbfg,ì"']—,ð\$CEä,μ,Ü,·BRAS fT[]fo[],íARAS fNf  
%ofCfAf"fg,Æf[]fj< flfbfgf[]fN,ìŠÔ,Å NetBIOS fuf[]fLfffXfg fpfPfbfg (IPX f^fCfv 20) ,ð"']—  
,Å,«,Ü,·B

,±,lfpf%of[]f^,ð 2 ,ÉŸ'è,·,é,ÆAfŠf,[]fg fNf%ofCfAf"fg,©,ç LAN ,Ö,ì NetBIOS fuf[]fLfffXfg  
fpfPfbfg,ì"']—,ª—LCEø,É,È,è,Ü,·B

4 ,ÉŸ'è,·,é,ÆALAN ,©,çŠf,[]fg fNf%ofCfAf"fg,Ö,ì NetBIOS fuf[]fLfffXfg fpfPfbfg,ì"']—,ª—  
LCEø,É,È,è,Ü,·B

6 ,ÉŸ'è,·,é,ÆAfŠf,[]fg fNf%ofCfAf"fg,Æ LAN ,ìŠÔ,Å—¼•ûCEü,ì NetBIOS fpfPfbfg,ì"']—,ª—  
LCEø,É,È,è,Ü,·B

IPX NetBIOS fAfvfŠfP[]fVf#f",)[]\—,É,æ,Á,Ä,íA**DisableDialinNetbios** fCefWfXfgfŠ  
fGf"fgfŠ,ðŸ'è,·,é•K—v,ª, ,éè[]#,à, ,è,Ü,·B[]Ú×,É,Ä,ç,Ä,íA[]uNwlnklpx fpf  
%of[]f^[]v,ðŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

Šù'è'íF 2

## NwlnkIpx fpf%o[f^

,±,lfpf%o[f^,íAŽŸ,ÉŽ, fCfWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\NwlnkIpx\Parameters

### DisableDialinNetbios

### REG\_DWORD

"í^íF 0 3

fŠf, [fg RAS fNf%oCfAf"fg, ",æ,Ñ LAN (RAS IPX f^f^ [ ,đŽg,Á,Ä) ,ÆAIPX NetBIOS fAfvfŠfP [fVf#f"  
("à•", lfjfbfg) ,đŽÀs, ,é RAS fT [fo [ ,Æ,İŠÖ, İ IPX f^fCfv 20 fpfPfbfg, İ"J'—, đ [CEä, µ, Ü, ·B, ±, lfpf  
%oCfAf"fg, íARAS fT [fo [ [ä, lf\_fCf, ,f^fCf" %oñü, ¾, , đ [CEä, µ, Ü, ·B

,±, lfpf%o[f^, đ 0 , ÉŸ'è, , ,é,ÆAIPX f^fCfv 20 fpfPfbfg, íARAS fT [fo [ , ©, çŠf, [fg fNf  
%oCfAf"fg, ÉA, ",æ,ÑfŠf, [fg fNf%oCfAf"fg, ©, ç RAS fT [fo [ , Éfuf [fhfLfffXfg, ¾, è, Ü, ·B, ±  
, İê#AIPX f^fCfv 20 fpfPfbfg, íALAN ä, Åfuf [fhfLfffXfg, , ,é, ½, İ IPX f^f^ [ ( , ±  
, lf^ [f^ [ , íAIPX NetBIOS fpfPfbfg, đ"J'—, , ,é,æ, x, É [ , ¾, è, Ä, ç, éê#) , đ  
%oi, µ, Åfuf [fhfLfffXfg, ¾, è, Ü, ·B

1 (Šù'è'l) , ÉŸ'è, , ,é,ÆAIPX f^fCfv 20 fpfPfbfg, íAfŠf, [fg fNf%oCfAf"fg, ©, ç"à•", lfjfbfg, ",æ,Ñ RAS  
IPX f^f^ [ , Éfuf [fhfLfffXfg, ¾, è, é, ¾, , ,Ä, ·B, ±, İŸ'è, íA"à•", lfjfbfg, ©, çŠf, [fg fNf  
%oCfAf"fg, Ö, lfuf [fhfLfffXfg, đ-³CEø, É, µ, Ü, ·B

2 , ÉŸ'è, , ,é,ÆAIPX f^fCfv 20 fpfPfbfg, íA"à•", lfjfbfg, ©, çŠf, [fg fNf  
%oCfAf"fg, Éfuf [fhfLfffXfg, ¾, è, Ü, ·B

3 , ÉŸ'è, , ,é,ÆAIPX f^fCfv 20 fpfPfbfg, lfuf [fhfLfffXfg, íA-³CEø, É, È, è, Ü, ·B

Žg—p, µ, Ä, ç, é IPX NetBIOS fAfvfŠfP [fVf#f" , İ [ , ,É,æ,Á,Ä, íANetbiosRouting fCfWfXfgfŠ  
fGf"fgfŠ, đŸ'è, , ,é•K—v, a, , ,éê#, à, , ,è, Ü, ·B [Ú×, É, Ä, ç, Ä, íA [uNwlnkRip fpf%o[f^  
 [v, đŽQ [Æ, µ, Ä, , ¾, ¾, ç [B

Šù'è'l [F 1

**RasMan fpf%of[]f^**

,±,ê,ç,lfpf%of[]f^,íAŽŸ,ÉŽ!,fCfWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RasMan\Parameters

**NumberOfRings REG\_DWORD**

"ííF 1 20 (,±,ì"ííŠO,ìl,ðŽw'è,·,é,ÆAŠù'è'l,žg,í,è,Ü,·)

RAS ,æĀ,Ńo,μ,É%ž"š,·,é,Ü,Ā,É·,f,fff€,©,ç,ì RING f[]bfZ[]fW,ì%ň" ,ðŽw'è,μ,Ü,·B,±,lfpf  
%of[]f^,íAUNIMODEM fffofCfX,Ā,ì,Ÿ<@"\,μ,Ü,·B

Šù'è'íF 1

**Logging REG\_DWORD**

"ííF 0 1

fRf}f"fh f,[]fh,Ās,í,è,évfšfAf< f[]fg,©,çvfšfAf< f[]fg,ÉÚ'±,μ,½ffofCfX,Ö,ì,·,x,Ā,ì'ÉM,É,Ā,ç  
,Ā,lf[]fO,ðŽú[]W,·,é,æ,xŸ'è,μ,Ü,·B,±,lfpf%of[]f^,íAfVfšfAf< fffofCfX,ÉŠÖ,·,é-â'è,ì%ðĀ^,Æ  
Modem.Inf ftf@fCf<,Ü,½,Í Pad.Inf ftf@fCf<,É'Ç%Ā,μ,½V,μ,çfGf"fgfŠ,ðfefXfg,·,é,ì,É·Ö-~ ,Ā,·B

,ç,,Ā,©,ìî•ň,í'óü%Ā"\,È•Ÿš,Ā,í,È,ç,ì,ĀA•Ÿš[]o-í,Æ 16 []o-í,ì-¼•ù,ð•Ž!,·,é,±  
,Æ,â,Ā,«,éfefLfXfg fGfffBf^,ĀADevice.log ftf@fCf<,ð•Ž!,·,é,±,Æ,ð, "Š©,ß,μ,Ü,·BDevice.log  
ftf@fCf<,É,íAŠe[]s--,ÉfLfffšfbfW fšf^[]f",·,æ,Ńf%ofCf" ftfB[]fh,à, ,è,Ü,·BfLfffšfbfW  
fšf^[]f",·,æ,Ńf%ofCf" ftfB[]fh,íADevice.log ftf@fCf<,ð[]-·,·,évf[]Of%of€,â'Ç  
%Ā,μ,½,à,ì,Ā, ,èAfffofCfX,Æ,ìŠÖ,Ā[]s,í,è,½'ÉM,ìî•ň,ð•\,μ,Ā,ç,é,í,·,Ā,í, ,è,Ü,¹,ňB

,±,lfpf%of[]f^,ð 1 ,ÉŸ'è,·,é,ÆAfVfšfAf< f[]fg,©,çvfšfAf< f[]fg,ÉÚ'±  
,μ,½ffofCfX,Ö,ì'ÉM,lf[]fO,â[]Asystemrootssystem32rasdevice.log ftf@fCf<,ÉŽú[]W,³,è,Ü,·B

f[]fO,ìŽú[]W,íAfšf,[]fg fffofCfX,Ö,ìÚ'±,â[]-Ā÷,μAfff[]f^,ì" ' - ,â[]-¹,μ,ĀÚ'±  
,â[]Ø'f,³,è,½Āă[]A'èŽž'âž~ ,³,è,Ü,·Bf[]fO,ìŽú[]W,íV,μ,çÚ'±,âŠm-š,³,è,é,Æ,«,É[]ĀšJ,³,è[]Aftf@fCf<  
fTfCfY,â,·,æ,» 100K ,ð' ,ì,é,Ü,Ā Device.log ftf@fCf<,É'Ç%Ā,³,è,Ü,·Bf[]fO,lf tf@fCf< fTfCfY,â 100K  
,ð' ,ì,é,ÆADevice.log ftf@fCf<,lf[]fO,â[]Áž,³,è,½Āă[]Af[]fO,ìŽú[]W,â[]ĀšJ,³,è,Ü,·BDevice.log  
ftf@fCf<,lf[]fO,íA,·,x,Ā,ì RAS ,ì[]-v'f,ì'âž~Āă[]A'âž~,μ,½ RAS ,ì[]-v'f,ì,ç  
,,è,©,â<N" @ ,·,é,Æ,«,É,à[]Áž,³,è,Ü,·B

Šù'è'íF 0



**PPP fpf%of[]f^**

,±,ê,ç,lfpf%of[]f^,í[]AZÿ,ÉŽ!,.fçfWfXfgfŠ fpfX,É, ,è,Ü,·[]B  
HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RasMan\PPP

**MaxTerminate REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
fsfA,ª%ž"š,·,é,±,Æ,ª,Å,«,È,ç,Æ%¼'è,·,é'O,É[]ATerminate-Ack ,ìžó[]M,È,μ,É'—[]M,³,ê,é Terminate-Request fpfPfbfg,ì[]",ð[]Ý'è,μ,Ü,·[]B  
Šù'è'í[]F 2

**MaxConfigure REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
fsfA,ª%ž"š,·,é,±,Æ,ª,Å,«,È,ç,Æ%¼'è,·,é'O,É[]A—LCEø,È Configure-Ack[]AConfigure-Nak[]A,Ü,½,Í Configure-Reject ,ìžó[]M,È,μ,É'—[]M,³,ê,é Configure-Request fpfPfbfg,ì[]",ð[]Ý'è,μ,Ü,·[]B  
Šù'è'í[]F 10

**MaxFailure REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
[][]-,ªŽù'©,μ,Å,ç,È,ç,Æ%¼'è,·,é'O,É[]AConfigure-Ack ,ì'—[]M,È,μ,É'—[]M,³,ê,é Configure-Nak fpfPfbfg,ì[]",ð[]Ý'è,μ,Ü,·[]B  
Šù'è'í[]F 10

**MaxReject REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
PPP flfSfvfG[]lfvf#f",ªŽù'©,μ,È,ç,Æ%¼'è,·,é'O,É'—[]M,³,ê,é Config-Rejects ,ì[]",ð[]Ý'è,μ,Ü,·[]B  
Šù'è'í[]F 5

**RestartTimer REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
Configure-Request fpfPfbfg,·,æ,Ñ Terminate-Request fpfPfbfg,ì""—,É—LCEø,ÈŽžŠÔ (•b) ,ð[]Ý'è,μ,Ü,·[]BRestart f^fCf},ì—LCEøŽžŠÔ,ª[]ø,ê,é,Æ[]Af^fCfEfAfEfg fCxf"fg[]A,·,æ,Ñ'í%ž,·,é Configure-Request fpfPfbfg,Ü,½,Í Terminate-Request fpfPfbfg,ì[]Ä""—,ìCE'^ö,É,È,è,Ü,·[]B  
Šù'è'í[]F 3

**NegotiateTime REG\_DWORD**

"í^í[]F 0 []`-³[]\$[]EÀ  
%ñ[]ü,ª[]ø'f,³,ê,é'O,É PPP flfSfvfG[]lfvf#f",ªŽù'©,ð[]—CE±,·,é,½,β,É" F,β,ç,ê,½ŽžŠÔ (•b) ,ð[]Ý'è,μ,Ü,·[]B0 ,É[]Ý'è,·,é,Æ%ñ[]ü,í[]ø'f,³,ê,Ü,¹,ñ[]B  
Šù'è'í[]F 150

**ForceEncryptedData REG\_DWORD**

"í^í[]F 0 []` 1  
RAS fT[]fo[][]ä,Å,¾,~Žg,ç,Ü,·[]BfŠf,[]lfg fNf%ofCfAf"fg,Éff[]f^,ì^Ã[]+%»»,ðŽg,±,±,Æ,ð— v<[],μ,Ü,·[]BfNf%ofCfAf"fg,í[]AMS-CHAP fvf[]fgfRf< (Windows NT Version 3.5 ,æ,è"±"ü) ,ðfTfj []lfg,μ,Ä,ç,È,·,é,ì,È,è,Ü,¹,ñ[]BfNf%ofCfAf"fg,ª MS-CHAP fvf[]fgfRf<,ðfTfj[]lfg,μ,Ä,ç,È,ç,è[]±,í[]A[]Ú'± ,íŽ©"@"I,É[]ø'f,³,ê,Ü,·[]B,±,lfpf%of[]f^,ð 1 ,É[]Ý'è,·,é,Æ[]AfT[]fo[][,lff[]f^,ì^Ã[]+%»»,ð—v<[],μ,Ü,¹,ñ[]B ,É[]Ý'è,·,é,Æff[]f^,ì^Ã[]+%»»,ð—v<[],μ,Ü,¹,ñ[]B

Šù'è'I□F 0

**ForceEncryptedPassword REG\_DWORD**

"í'í□F 0 □` 2

RAS fT□[fo□[□ã,Å,¾,~Žg,ç,Ü,·□BfNf%ofCfAf"fg,l" F□□Ø,ð□s,æ,«,É CHAP (Challenge-Handshake Authentication Protocol□F Challenge fnf"fhfVfFfCfN" F□□Øfvf□fgfRf<) ,ðŽg,æ,±,Æ,ð□Y'è,µ,Ü,·□B,±,lfpf %of□□[f^,ð 0 ,É□Y'è,·,é,Æ□AfT□[fo□[,í□AfNfŠfA fefLfxfg,ðŠÜ,ß,Ä,Ç,lf□[f^,í^ Å□+%o»•úŽ®,Å,à<- %oÅ,µ,Ü,·□B1 ,É□Y'è,·,é,Æ□AfT□[fo□[,í□AfNfŠfA fefLfxfg^ÈŠÖ,ì,Ç,lf□[f^,í^ Å□+%o»•úŽ®,Å,à<- %oÅ,µ,Ü,·□B2 ,É□Y'è,·,é,Æ□AfT□[fo□[,í□AMS-CHAP ,ð—v<□,µ,Ü,·□B

Šù'è'I□F 2

**Logging REG\_DWORD**

"í'í□F 0 □` 1

PPP fCxf"fg,l□fo,lžû□W,ð□Y'è,µ,Ü,·□B1 ,ð□Y'è,·,é,Æ□A,·,x,Ä,l PPP fCxf"fg,í systemrootssystem32rasppp.log ftf@fCf<,Éf□fO,ªžû□W,ª,è,Ü,·□B,±,lfpf%of□□[f^,í PPP □Ú'±,ÉŠÖ,·,é- à'è,l%oðœ^,É•Ö—~ ,Å,·□B

Šù'è'I□F 0

**DisableSoftwareCompression REG\_DWORD**

"í'í□F 0 □` 1

f\ftfgfEjFfA^³□k,ð—LCEø,Ü,½,í-³CEø,É,µ,Ü,·□B1 ,ð□Y'è,·,é,Æ□A\ftfgfEjFfA^³□k,ª-³CEø,É,È,è,Ü,·□B0 ,ð□Y'è,·,é,Æ□A\ftfgfEjFfA^³□k,ª—LCEø,É,È,è,Ü,·□B

Šù'è'I□F 0

**DefaultCallbackDelay REG\_DWORD**

"í'í□F 0 □` 255

RAS fNf%ofCfAf"fg□ã,ÅŽg,Á,Ä□ARAS fT□[fo□[,lf,fff€,ÉfR□[f<fofbfN,·,é,Ü,Å,É'Ò,Å•b□",ðŽw'è,µ,Ü,·□B Šù'è'I□F 12 (fpf%of□□[f^,ªfCEfWfXfgfŠ,É'¶□Y,µ,È,ç□ê□#)

**PPP ftfufL□□**

,±,è,ç,lfpf%of□□[f^,í□APPP fL□[,lfTfufL□[,Å,·□B

**CBCP REG\_EXPAND\_SZ**

'I□F DLL fpfX

CBCP (Callback Control Protocol□F fR□[f<fofbfN□\$CEäfvf□fgfRf<) DLL ,ì□é□Š,ðŽw'è,µ,Ü,·□BCBCP ,lfŠf,□[fg fNf%ofCfAf"fg,ÆfR□[f<fofbfN□í•ñ,lfSfVfG□[fvf#",ð□s,ç,Ü,·□B□í,É•VŽ!,ª,è,Ü,·□B

**CHAP REG\_EXPAND\_SZ**

'I□F DLL fpfX

CHAP (Crypto-Handshake Authentication Protocol□F Crypto fnf"fhfVfFfCfN" F□□Øfvf□fgfRf<) DLL ,ì□é□Š,ðŽw'è,µ,Ü,·□B□í,É•VŽ!,ª,è,Ü,·□B

**COMPCP REG\_EXPAND\_SZ**

'I□F DLL fpfX

CCP (Compression Control Protocol□F ^³□k□\$CEäfvf□fgfRf<) DLL ,ì□é□Š,ðŽw'è,µ,Ü,·□BCCP ,lfŠf,□[fg fNf%ofCfAf"fg,Æ^³□k,lfSfVfG□[fvf#",ð□s,ç,Ü,·□B□í,É•VŽ!,ª,è,Ü,·□B

**IPCP REG\_EXPAND\_SZ**

'I□F DLL fpfX

IPCP (Internet Protocol Control Protocol□F fCf" f^□[f\fbfg fvf□fgfRf<□\$CEäfvf□fgfRf<) DLL

,ìèŠ,žw'è,μ,Û,·BRAS ,<sup>a</sup> TCP/IP ,žg,κ,æ,κ,É\~-,<sup>3</sup>,èATCP/IP ,<sup>a</sup>fCf"fxfg[f<,<sup>3</sup>,è,Ä,ç,éè±,É•\ Žì,<sup>3</sup>,è,Û,·B

,±,è,ç,ìpf%of[f^,ž IPCP fTfufL[<sup>a</sup>,É'Ç%Á,Ä,«,Û,·B

**AcceptVJCompression** **REG\_DWORD**

"í'íF 0 1

IPCP ,<sup>a</sup> IPCP •W€fìfvfVf#f" 0x02 (Van Jacobson fwfbf\_[]<sup>a</sup>žó,~•t,~,È,ç,æ,κ,É,·,é,É,íA,±,ìpf %of[f^,ž'Ç%Á,μ,Û,·B,±,ìpf%of[f^,ž'Ç%Á,<sup>3</sup>,è,Ä,ç,È,çèè±A,Û,½,í 1 ,ÉÝ'è,<sup>3</sup>,è,Ä,ç ,éèè±ARAS fNf%ofCfAf"fg,í Van Jacobson ^<sup>a</sup>žk,žó,~•t,~,Û,·B

Šù'è'íF fCfWfXfgfŠ,É,í,È,ç

**PriorityBasedOnSubNetwork** **REG\_DWORD**

"í'íF 0 1

fRf"fsf...[f^,íAflfbfgf[]fN f[]fh,Æ RAS 0'±,žg,Ä,ÄALAN ,É0'±,Ä,«,Û,·BRAS 0'±,Æ LAN flfbfgf[]fN fAf\_fvf^ f[]fh,É"~,ìflfbfgf[]fN"Ôt,ÅAfhfCfX,<sup>a</sup>Š,,è"-,Ä,ç,èA[fŠf,[]fg flfbfgf[]fNä,ìffftHf-fg fQ[]fgfEfc,žg,κ) f'fFbfNf{fbfNfX,<sup>a</sup>ìf"~,ìèè±A,±,ì 2 ,Ä,ìAfhfCfX,<sup>a</sup>"~,ìflfbfgf[]fN"à,ì^Û,È,éfTfufìfbfgf[]fN,É, ,Ä,Ä,àA,·,x,Ä,ìpfPfbfg,í RAS 0'±,ž %òì,μ,Ä'-M,<sup>3</sup>,è,Û,·B

,±,ìpf%of[f^,ž 1 ,ÉÝ'è,·,é,ÆAflfbfgf[]fN f[]fh,žCo-R,μ,ÄpfPfbfg,ž'-M,μ,Û,·B ,½,Æ,ì,íAflfbfgf[]fN fAf\_fvf^ f[]fh,ì IP fAfhfCfX,<sup>a</sup> 10.1.1.1 (fTfufìfbfg f}fXfN,<sup>a</sup> 255.255.0.0), ÄARAS 0'±,ÉŠ,,è"-,Ä,ç,è,Ä,ç,éfAfhfCfX,<sup>a</sup> 10.2.1.1 ,ìèè±ARAS ,íARAS 0'±,žg,Ä,Ä,·,x,Ä,ì 10.x.x.x fpfPfbfg,ž'-M,μ,Û,·B,±,ìpf%of[f^,ž 1 ,ÉÝ'è,·,é,ÆARAS ,í 10.2.x.x fpfPfbfg,ž RAS 0'±,ÉA10.1.x.x fpfPfbfg,žflfbfgf[]fN fAf\_fvf^ f[]fh,É'-M,μ,Û,·B

Šù'è'íF fCfWfXfgfŠ,É,í,È,ç

**RequestNameServerAddresses** **REG\_DWORD**

"í'íF 0 1

IPCP ,<sup>a</sup>AWINS fT[]fo[],",æ,Ñ DNS fT[]fo[],ìAfhfCfX,ìfìSfvfG[]fvf#f",ì,½,ß,ì Microsoft Šg'£fìfvfVf#f" (IPCP fìfvfVf#f" 0x81[]A0x82[]A0x83[]A,~,æ,Ñ 0x84),ž-v,μ,È,ç,æ,κ,É,·,é,É,íARAS fNf%ofCfAf"fg,Ä,±,ìpf%of[f^,ž'Ç%Á,μ,Û,·B,±,ìpf%of[f^,ž'Ç%Á,<sup>3</sup>,è,Ä,ç,È,çèè±A,Û,½,í 1 ,ÉÝ'è,<sup>3</sup>,è,Ä,ç,éèè±AfNf%ofCfAf"fg'κ,ìAfhfCfX,ž-v,μ,Û,·B

Šù'è'íF fCfWfXfgfŠ,É,í,È,ç

**RequestVJCompression** **REG\_DWORD**

"í'íF 0 1

IPCP ,<sup>a</sup> IPCP •W€fìfvfVf#f" 0x02 (Van Jacobson fwfbf\_[]<sup>a</sup>žó,~•t,~,È,ç,æ,κ,É,·,é,É,íARAS fNf %ofCfAf"fg,Ä,±,ìpf%of[f^,ž'Ç%Á,μ,Û,·B,±,ìpf%of[f^,ž'Ç%Á,<sup>3</sup>,è,Ä,ç,È,çèè±A,Û,½,í 1 ,ÉÝ'è,<sup>3</sup>,è,Ä,ç,éèè±ARAS fNf%ofCfAf"fg,í Van Jacobson ^<sup>a</sup>žk,žó,~•t,~,Û,·B

Šù'è'íF fCfWfXfgfŠ,É,í,È,ç

**IPXCP** **REG\_EXPAND\_SZ**

'íF DLL fpfX

IPXCP (Internetwork Packet Exchange Control Protocol[]fCf"f^[]flfbfg fpfPfbfgCèŠ-[]\$Cèäfv[]fgfRf<) DLL ,ìèèŠ,žw'è,μ,Û,·BRAS ,<sup>a</sup> IPX ,žg,κ,æ,κ,É\~-,<sup>3</sup>,èANetWare fNf%ofCfAf"fg fT[]fRfX,Û,½,í NetWare fQ[]fgfEfc fT[]fRfX,<sup>a</sup>fCf"fxfg[f<,<sup>3</sup>,è,Ä,ç,éè±,É•\ Žì,<sup>3</sup>,è,Û,·B

**NBFCP** **REG\_EXPAND\_SZ**

'íF DLL fpfX



**Rdr fpf%of[]f^**

,±,lfpf%of[]f^,íAZÿ,ÉŽ!,fCFWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\Rdr\Parameters

**RawloTimeLimit                    REG\_DWORD**

"í^íF %o<LŽQÆ

,±,lfpf%of[]f^,í NetBIOS fQ[]fgfEfFfC,ðŽg,æÜ,ì[]- ,É,¼, -Žg,ç,Ü,·B

ff[]f^,ð 64KB ,lfuf[]bfN^P^Ê,Á'—M, ,é,æ,æ,ÉfŠf\_fCfNf^,ðY'è,µ,Ü,·B **RawloTimeLimit**  
,ðf" ,É, ,é,Æ[]AfXf[]fvbfg,í 10 ,©,ç 15 []"µ,Ü,·B" -Žž,É¶Y,µ,Ä,ç,é,Ü, ©,ì, ,x,Ä,lf[]f^" ]—  
,íA,±,ì'—"x,Á'ÊM, ,é,Æfuf[]bfN,³,è,Ü,·B

,±,lfpf  
%of[]f^,íASù'è,ìY'è,Ä,íA'á' -fŠf"fn,Ä,ífift,É,È,è[]A, ' -fŠf"fn,Ä,ífift",É,È,è,Ü,·B,½,Æ,ì,íA14,400  
bps ,Ü,½,í,»,è^È%o,ì'—"x,Á'ÊM,µ,Ä,ç,éê[]+[]A,±,ì<@"\,ífift,É,È,è,Ü,·BISDN %oñü,ì,æ,æ  
,Ê, ' -'ÊM,ìê[]+,íA,±,ì<@"\,ífift",É,È,è,Ü,·B

Žÿ,ìè—,í ISDN []Ú'±,É'í,µ,Ä Raw I/O ,æf" ,Ü,½,ífift, ,é,ì,ª,Ç,ì,æ,æ,É'l, ©,ðŽ!,µ,Ü,·B

**RawloTimeLimit ,ð 9 ,ÉY'è**

Raw I/O ,í 64K ,lf`fffff< 1 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éf" ,É,È,è,Ü,·B  
Raw I/O ,í 64K ,lf`fffff< 2 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éf" ,É,È,è,Ü,·B

**RawloTimeLimit ,ð 5 ,ÉY'è (Šù'è'l)**

Raw I/O ,í 64K ,lf`fffff< 1 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éfift,É,È,è,Ü,·B  
Raw I/O ,í 64K ,lf`fffff< 2 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éf" ,É,È,è,Ü,·B

**RawloTimeLimit ,ð 0 ,ÉY'è**

Raw I/O ,í 64K ,lf`fffff< 1 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éfift,É,È,è,Ü,·B  
Raw I/O ,í 64K ,lf`fffff< 2 ,Ä,ðCo—R,µ,Ä[]Ú'±,µ,½,Æ,«,Éfift,É,È,è,Ü,·B

## RasArp fpf%of[]f^

,±,lfpf%of[]f^,íAŽŸ,ÉŽ!,fCfWfXfgfŠ fpfX,É, ,è,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\RasArp\Parameters

### FilterBroadcasts

### REG\_DWORD

"í^í[]F 0 []` 1

RAS ,Éfuf[][]fhfLfffXfg fpfPfbfg (,½,Æ,í,í[]A, ,Ä[]æfAfhfCfX,ª 255.255.255.255) ,",æ,Ñftfuflfbbfg  
f}f·f`fLfffXfg (,½,Æ,í,í[]A, ,Ä[]æfAfhfCfX,ª 11.101.255.255) ,ð""´—,³,¹,é,É,í[]A,±,lfpf%of[]f^,ð'Ç  
%oÁ,µ,Ü,·BfRf"fsf...[]f^,ª[]Afuf[][]fhfLfffXfg/f}f·f`fLfffXfg"J'—,ðTf|[]fg,·,éT[]fh  
fp[]fefB»»,lfŠf,[]fg fAfNfZfX f<[]f^[] (Windows NT fŠf,[]fg fAfNfZfX  
fT[]fo[],í[]Afuf[][]fhfLfffXfg,Ü,½,í}f·f`fLfffXfg,ð""´—,µ,Ü,¹,ñ) ,ðCÉÄ,Ñ[]o,·è[]‡,í[]AfNf%ofCfAf"fg,Á,±  
,lfpf%of[]f^,ð 0 ,É[]Ÿ'è,µ,Ü,·B

Šù'è'[]F 1.

**Nbf fpf%of[]f^**

,±,lfpf%of[]f^,í[]AZŸ,ÉŽ!,.fCefWfXfgfŠ fpfX,É, ,è,Ü,·[]B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services  
\Nbf\Parameters

**InitUIFrames            REG\_DWORD**

"í^í[]F 0 []`-³[]§CEÀ

RAS fNf%ofCfAf"fg,©,çf[]f[]f[]fN,É"~Žž,É'Ç%oÁ,Á,«,é NetBIOS -¼,ì[]",ð[]Ý'è,·,é,É,í[]A,±,lfpf  
%of[]f^,ð'Ç%oÁ,μ,Ü,·[]B

Šù'è'í[]F 5.

**fCf“f^[]flfbfg fZfbvfjf“ ,l—á**

Windows NT f\_fCf,,f<fAfbfv flfbfgf[]fN,ð[]ATCP/IP[]Af,fff€,Ü,½,Í,»,ì¼,ì WAN  
[]Ú'±[]A,“,æ,Ñ^è”Ê,É“üŽè,Å,«,éfCf“f^[]flfbfg fuf%oEfU,âfCf“f^[]flfbfg fc[]f<,Æ[]±,í,¹,ÄŽg,α  
,Æ[]AfCf“f^[]flfbfg fT[]fo[]l,É[]Ú'±,μ,ÄfCf“f^[]flfbfg[]ă,ì,³,Ü,´,Ü,È[]î•ñ,âfT[]lfrfX,ðfuf%oEfY,Å,«,Ü,·[]B  
,Ü,½[]AWindows NT Server ,ðŽÀ[]s,·,éfRf“fsf...[]f^,í[]AfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,ð—~—p,·,é,±  
,Æ,É,æ,è[]A[]À`â 256 ,ìfŠf,[]fjg fNf%oCfAf“fg,ÉfCf“f^[]flfbfg,Ö,ìfAfNfZfX,ð`ñ<ÿ,Å,«,Ü,·[]B

fCf“f^[]flfbfg,É,í[]Af\_fCf,,f<fAfbfv flfbfgf[]fN,ðŽg,Å,ÄfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,ð%î,μ,Ä[]Ú'±  
,μ,Ü,·[]B[]Ú'±,³,è,½,ç[]AfCf“f^[]flfbfg fuf%oEfU,ðŽg,Å,Ä[]î•ñ,ðCEÿ[]ð,Å,«,Ü,·[]B,±,±,Å,í[]AWindows  
NT[]ATCP/IP[]Af\_fCf,,f<fAfbfv flfbfgf[]fN[]A,“,æ,Ñ”C^Ó,ìfCf“f^[]flfbfg fuf%oEfU,ðfCf“fXfg[]f<,μ[]A\  
[]¬,μ,Ä, ,é,±,Æ,ð`O`ñ,Æ,μ,Ä,ç,Ü,·[]B

fZfbvfjfj“ ,ðŠŽn,·,é,É,í[]Af}fC fRf“fsf...[]f^,©,çf\_fCf,,f<fAfbfv flfbfgf[]fN,ð<N”®,μ,Ü,·[]BŽg—  
p,·,éfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,ì“d~b`fGf“fgjŠ,ð`l`ð,μ[]A[f\_fCf,,f<] ,ðfNfŠfbfN,μ,Ü,·[]B

f\_fCf,,f<fAfbfv flfbfgf[]fN,É,æ,Å,Ä[]AfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,Éf\_fCf,,f<,³,è[]Afvf[]fofCf\_ ,ìfVfXfef€  
,Éf[]fofif“ ,³,è,Ü,·[]BŽÀ[]Ú,ìf[]fofif“Žè[]±,í[]A[]Ú'±[]æ,ìfT[]lfrfX fvf[]fofCf\_ ,l—  
v[]E[],É,æ,Å,Ä^Ü,È,è,Ü,·[]B`É[]í[]APPP []Ú'±,íŠ`S,ÉŽ`@“®“l,É[]s,í,è,Ü,·[]BSLIP []Ú'±,Å,ìf^[]f~fif<  
f[]fofif“ ,²•K—v,É,È,é[]è[]±,à, ,è,Ü,·[]Bf^[]f~fif< f[]fofif“ ,í[]ASWITCH.INF ftj@fCf<,ìfXfNfŠfjfg,É,æ,èŽ`@“®  
%o»,Å,«,é[]è[]±,ÆŽ`@“®%o»,Å,«,È,ç[]è[]±,², ,è,Ü,·[]BfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,Ö,ì[]Ú'±  
,“,æ,Ñf[]fofif“ ,²³[]í,ÉŠ`@—¹,μ,½,ç[]Af\_fCf,,f<fAfbfv flfbfgf[]fN,ìfEfBf“fhfE,ð[]Å[]¬%o»,Å,«,Ü,·[]B

fCf“f^[]flfbfg,É[]Ú'±,³,è,é,Æ[]A”C^Ó,ìfCf“f^[]flfbfg fc[]f<,ðŽg—p,Å,«,Ü,·[]BfCf“f^[]flfbfg,ì—~—p,ð[]l—  
¹,μ,½,ç[]A•s—v,È—~—p—z<à,²,©,©,ç,È,ç,æ,α,É[]A,·,®,ÉfCf“f^[]flfbfg fT[]lfrfX fvf[]fofCf\_ ,Æ,ì[]Ú'±  
,ð[]Ø`f,μ,Ä,,¾,³,ç[]B



**fCf“f^[]flfbfg fNf%ofCfAf“fg,Æ,μ,Ä Windows NT ,đŽg,α**

- f\_fCf,,f:fAfbfv flfbfgf[][]fN,đŽg,α,Æ[]AŠÈ'P,ÉfCf“f^[]flfbfg,É[]Ú'± ,Ä,«,Ü,·[]BfCf“f^[]flfbfg,ÖfAfNfZfX,·,é,½,β,É•K—v,È[][]—v'f,ÍŽÿ,Ì,Æ,“,è,Ä,·[]B
- f\_fCf,,f:fAfbfv flfbfgf[][]fN,lfCf“f^[]flfbfg—p“d~b' fGf“fgfŠ,ÄŽg—p,Ä,«,é,æ,α,ÉfCf“fXfg[]f<,³,é,½ TCP/IP fv[]fgfRf<[]B
- fRf“fsf...[]f^,ÉfCf“fXfg[]f<,³,é,½f\_fCf,,f:fAfbfv flfbfgf[][]fN[]BŠé<Æ“à,lfhf[]fCf“,É'®,μ,Ä,ç ,é[]è[]±,Í[]AfŠf,[]fg fAfNfZfX,ì<-%oÄ,đŽ[],Áft[]fU[][ fAf]fEj“fg,à•K—v,Ä,·[]B
- f,fff€,Ü,½,ì,»,ì¼,ì WAN ,É,æ,éfcf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,Ö,ì[]Ú'±[]B
- fCf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,©,çŽæ“¾,μ,½fAf]fEj“fg[]B
- fuf%ofEfU[]AFTP[]ATelnet ,É,Ç,lfCf“f^[]flfbfg fc[]f<[]B

**TCP/IP ,Æf\_fCf,,f:fAfbfv flfbfgf[][]fN**

TCP/IP ,Í[]AfCf“f^[]flfbfg,ì,·,x,Ä,lfgf%oftfBfbfN,ÄŽg,í,é,évf[]fgfRf<ÆQ,Ä,·[]BWindows NT ,ì TCP/IP ,Í[]AfCf“f^[]flfbfg,ÄŽg,α,½,β,ìCEÝŠ-[]«,đŠ@'S,É“ö,ì,Ä,ç,Ü,·[]Bf\_fCf,,f:fAfbfv flfbfgf[][]fN fNf %ofCfAf“fg,Í[]APPP fv[]fgfRf<,Æ SLIP fv[]fgfRf<,ì—¼•Ü,đTf[]f[]fg,μ,Ä,ç,Ü,·[]B,± ,é,ç,lfv[]fgfRf<,Í[]A,Ü,Æ,ñ,Ç,lfCf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,É,æ,Ä,ÄŽg,í,é,Ä,“,è[]AWindows NT fNf %ofCfAf“fg,Í[]AZÄŽž“l,É,·,x,Ä,lfCf“f^[]flfbfg fv[]fofCf\_,Æ[]Ú'±,Ä,«,Ü,·[]B

**f,fff€,Æ WAN []Ú'±**

fCf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,Æ,ì[]Ú'±,É,Í[]Af,fff€,Æ“d~b%oñ[]ü[]AISDN fj[]f[]h,Æ ISDN %oñ[]ü[]AX.25 flfbfgf[][]fN[]A,Ü,½,Í PPTP (Point-to-Point Tunneling Protocol[]f lfCf“fg fc[][ lfCf“fg fg]fŠf“fO fv[]fgfRf<),ì,ç,·,è,©,ªŽg,í,é,Ü,·[]B

f,fff€,đŽg,α[]è[]±,Í[]Af\_fEj“f[][]f[]h,ìŽžŠÖ,đ'Z[]k,·,é,½,β,É[]A,Ä,«,é,¾,“,ç'É[]M'—“x,đ'ì'ð,μ,Ä,- ,¾,³,ç[]B9600bps ^É[]ä,lf,fff€,đŽg,α,±,Æ,ð,“Š©,β,μ,Ü,·[]Bf,fff€,â,»,ì¼,ì WAN []Ú'±,ì[]Ü×,É,Ä,ç ,Ä,Í[]A[]uWAN flfv[]fv[]f[]v,đŽQ[]Æ,μ,Ä,,¾,³,ç[]B

**fT[]fRfX fv[]fofCf\_,©.cfCf“f^[]flfbfg fAf]fEj“fg,đŽæ“¾,·,é**

fCf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,Í[]A[]çŠE't,É'¶[]Ý,μ,Ü,·[]B,Ü,©,lfif“f%ofCf“ fT[]fRfX,âCEfŽ'Ä,ì[]è[]±,Æ“~ ,¶,æ,α,É[]AfT[]fRfX“Ö[]t,Éf\_fCf,,f,μ[]AfŠf,[]fg fv[]XfefÉ ,Éf[]fofCf“ ,μ,Ü,·[]B[]Ú'±,³,é,½,ç[]AfCf“f^[]flfbfg,“,æ,Ñ,»,ì¼,lfT[]fRfX (fT[]fRfX fv[]fofCf\_,ª'ñ·ÿ,·,é“dŽq[][]f<,É,Ç) ,ÉfAfNfZfX,Ä,«,é,æ,α,É,É,è,Ü,·[]B'É[]í,Í[]A,Ç,ì[]±—pfCf“f^[]flfbfg fT[]fRfX fv[]fofCf\_,à—~—p—z<à,ª,©,©,è,Ü,·[]B

**fCf“f^[]flfbfg fc[]f<**

fCf“f^[]flfbfg[]ä,ì[]í•ñ,âfT[]fRfX,Ö,lfAfNfZfX,É—~—p,Ä,«,éfc[]f<,ì¼[]“, ,è,Ü,·[]BŽg—p,·,éfc[]f<,Í[]A•K— v,Æ,·,é[]í•ñ,ìŽí—b,â[]A,»,ì[]í•ñ,lfCf“f^[]flfbfg[]ä,Ä,ì•Ü'¶•ü—@,É,æ,Ä,Ä^Ü,É,è,Ü,·[]B

Windows NT ,ì TCP/IP ,É,Í[]AfCf“f^[]flfbfg fT[]fo[][,ÖfAfNfZfX,·,é,½,β,ì•W[]éfc[]f<,Æ,μ,Ä[]AFTP ,Æ TELNET ,ì 2 ,Ä,ª•t'®,μ,Ä,ç,Ü,·[]BFTP ,Í[]AFTP fT[]fo[][,É[]Ú'±,μ,Äftf@fCf<,đ'j'—,Ä,«,éfcf]f“fhf%ofCf“ ft[]f[]efBšf[]efB,Ä,·[]BTELNET ,Í[]AfŠf,[]fg fRf“fsf...[]f^,Éf[]fofCf“ ,μ[]A,»,lfRf“fsf...[]f^,lfL[]f[]f[]f[]h,©,ç“ü —í,·,é,ì,Æ“~ ,¶,æ,α,ÉfRf]f“fh,đ“ü—í,Ä,«,éfof%oftfBf]f< fAfvfŠfP[]fVf#“ ,Ä,·[]B

,±,ì,Ü,©,É,à[]AfCf“f^[]flfbfg

fc[]f<,É,Í[]AfCf“f^[]flfbfg,©,ç“üŽè,Ä,«,éfc[]f<,â'É[]í,lf<[]fg,Ä[]w“ü,Ä,«,éŽs“lf<[]f<,ª¼[]“, ,è,Ü,·[]BFTP ,â TELNET ,ì<Kšì,ª[][]—,³,é,½CEä,à[]AfCf“f^[]flfbfg,ì<Z[]p,Í[]í•à,μ,Ä,ç,Ü,·[]BfCf“f^[]flfbfg,đ,,Ü,É,- 'T[]ö,μ[]A[]Ä[]V,ì<@“\,ð—~—p,·,é,É,Í[]A[]V,μ,·É,lfCf“f^[]flfbfg fuf%ofEfU,đ“üŽè,·,é•K— v,ª,è,Ü,·[]BpfufŠf[]fN fhf[]fCf“,lfCf“f^[]flfbfg fuf%ofEfU (,“,æ,Ñ,»,ì¼,ì Windows Sockets fAfvfŠfP[]fVf#“) ,đ“üŽè,Ä,«,é FTP fTfCf,Æ,μ,Ä,Í[]Asunsite.unc.edu ,Æ ftp.cica.indiana.edu ,ì 2 ,Ä,ª—L¼,Ä,·[]B

**fCf“f^[]flfbfg fAfNfZfX—p,ì Windows NT f\ftfgEjFfA,ðfCf“fXfg[]f<,·,é**

,±,±,Ä,íAfCf“f^[]flfbfg,ÉfAfNfZfX,·,é,½,ß,ì TCP/IP ,Æf\_fCf,,f<fAfbfv flfbfgf[]fN (RAS) ,lfCf“fXfg[]f<·ú-  
@,·,æ,Ñ[]-·ú-@,É,Ä,ç,Äà-¾,µ,Ü,·BfCf“f^[]flfbfg,ÉfAfNfZfX,·,é,É,íATCP/IP  
,í·K,·fCf“fXfg[]f<,µ,É,·,é,í,È,è,Ü,¹,ñBfCf“f^[]flfbfg,Ö,lfAfNfZfX,ð'ñ<ÿ,·,éRf“fsf...[]f^,²f[]ffj< fGfSfA  
flfbfgf[]fNä,É,È,çê±,íAf\_fCf,,f<fAfbfv flfbfgf[]fN,àfCf“fXfg[]f<,µ,É,·,é,í,È,è,Ü,¹,ñ (,±  
,lfwf<fv,lf\_fCf,,f<fAfbfv flfbfgf[]fN,ðfCf“fXfg[]f<,µ,É,·,é,lfCf“fXfg[]f<,³,é,È,ç,ì,ÄA,±,lfRf“fsf...  
[]f^,É,íSù,Éf\_fCf,,f<fAfbfv flfbfgf[]fN,lfCf“fXfg[]f<,³,é,Ä,ç,é,í,·,Ä,·)[]B

TCP/IP ,Æf\_fCf,,f<fAfbfv flfbfgf[]fN,lfCf“fXfg[]f<,·,æ,Ñ[]-¹,²S@-¹,µ,½,çAWindows NT fGfNfXfv[]f  
%,ðŽg,Ä,ÄfRf“fsf...[]f^ä,ì,ç,iffBfCfNfgfS,²<α-LffBfCfNfgfS,É,È,Ä,Ä,ç  
,é,©,ð²,×,Ü,·BfCf“f^[]flfbfg fT[]frfX fvf[]ofCf\_,É,æ,Ä,Ä,íAfCf“f^[]flfbfg,ÆU±  
,µ,½,Æ,«,ÉAfRf“fsf...[]f^ä,ì<α-LŽ¹,²,Ü,©,lfSf,[]fg fRf“fsf...[]f^,©,ç-~  
p,Ä,«,éê±,à,·,è,Ü,·BfSf,[]fg fRf“fsf...[]f^,©,çŽg,í,é,Ä,í,ç,éŽ¹,íA<α-L,ð'ž-·,·,é,©A<α-L,í[]  
[]-·,ð·íX,µ,Ä,·,¾,¾,ç[]B

**TCP/IP**

TCP/IP ,íAfCf“f^[]flfbfg,ðŽg,α,·,×,Ä,lfRf“fsf...[]f^ä,ÄŽg,í,é,éfv[]fgfRf< fZfbfg,Ä,·BTCP/IP  
,ðfCf“fXfg[]f<,É,íAfRf“fgf[]f< fpflf<,ì [flfbfgf[]fN] ,ðŽg,ç,Ü,·B[fv[]fgfRf<] f^fu,ì [‘Ç%Á]  
,ðNfSfbfN,µAZŽ,É [TCP/IP fvf[]fgfRf<] ,ð'íð,µ,Ü,·B%æ-É,É·Žì,³,é,éŽwŽì,É[]],Ä,ÄATCP/IP  
,ðfCf“fXfg[]f<,µ,Ä,·,¾,¾,ç[]B

TCP/IP ,lfCf“fXfg[]f<S@-¹Cæ[]AfCf“f^[]flfbfg,Ä,ì€[]],ð³[]í,É[]s,α,É,íAZŽ,lfpf%[]f^,ì[]-¹,²·K-  
v,Æ,É,éê±,²,·,è,Ü,·[]B

**IP fAfhfCfX**

flfbfgf[]fN,Ä DHCP (Dynamic Host Configuration Protocol[]F “@“lfzfXfg[]-fvf[]fgfRf<) ,²Žg,í,é,Ä,ç  
,éê±,íAf[]fj< flfbfgf[]fN^ÈŠO,ÄŽg,α,½,ß,ì-LCø,É IP fAfhfCfX,ÆfTfufjfbfg  
f}fXfN,ðAfjfbfgf[]fN,ì DHCP fT[]fo[], ©,çŽæ“¾,·,é,©,ç,α,©,ðŽw'è,µ,É,·,é,í,È,è,Ü,¹,ñBDHCP  
fT[]fo[], ©,çŽæ“¾,µ,É,çê±,íADHCP ,ðŽg,α[]-¹,ð-³Cø,É,µA'Á'è,ì IP fAfhfCfX,ÆfTfufjfbfg  
f}fXfN,ðŽg,í,È,·,é,í,È,è,Ü,¹,ñ[]B

**ffftfHf<fg fQ[]fgfEjFfC**

RAS ,ð%oi,µ,ÄfCf“f^[]flfbfg fT[]fo[],ÉU±,µ,Ä,ç,éê±,íARAS ,ð%oi,µ,Ä[]-¹,³,é,½ffftfHf<fg  
fQ[]fgfEjFfC,²Žg,í,é,Ü,·[]B

**DNS**

Žg—p,µ,Ä,ç,éRf“fsf...[]f^,Ä,ì DNS (Domain Name System[]F fh[]fCf“ f[]f€ fVXfef€) ,ì[]  
[]-¹,²Af[]ffj< flfbfgf[]fN,É'í,µ,Ä,ì,Ý-LCø,É,È,Ä,Ä,ç,éê±,²,·,è,Ü,·BCEø-ì,æ,-  
fCf“f^[]flfbfg,ÉfAfNfZfX,·,é,É,íADNS fAfhfCfX,ì'Ç%Á,²·K-v,Éê±,à,·,è,Ü,·[]B

**HOSTS ftf@fCf<,Ü,½,í LMHOSTS ftf@fCf<**

HOST ftf@fCf<,Ü,½,í LMHOST ftf@fCf<,ÉGf“fgfS,ð'Ç%Á,·,é,±  
,Æ,É,æ,èAfCf“f^[]flfbfgä,ì·p”É,ÉfAfNfZfX,·,éT[]fo[],Æ,íU±,ìCø-ì,ðä,°,é,±  
,Æ,²,Ä,«,·,·BWindows NT ,ì-¾'O%ðC^,Ä,íAfCf“f^[]flfbfgä,ì DNS fT[]fo[],É-à,ç±,í,¹,é'O,ÉA,±  
,é,ç,lf[]ffj< ftf@fCf<,²²,×,ç,è,Ü,·[]B

**f\_fCf,,f<fAfbfv flfbfgf[]fN (RAS)**

f\_fCf,,f<fAfbfv flfbfgf[]fN,íAfSf,[]fg,lfCf“f^[]flfbfg fT[]frfX fvf[]ofCf\_,ð~—p,·,é,½,ß,lf  
ftfgEjFfA,Ä,·Bf\_fCf,,f<fAfbfv flfbfgf[]fN,ðfCf“fXfg[]f<,·,é,É,íAfRf“fgf[]f< fpflf<,ì [flfbfgf[]fN] ,ðŽg,ç  
,Ü,·B[fT[]frfX] f^fu,ì [‘Ç%Á] ,ðNfSfbfN,µAZŽ,É [fSf,[]fg fAfNfZfX fT[]frfX] ,ð'íð,µ,Ü,·B%æ-É,É·  
Žì,³,é,éŽwŽì,É[]],Ä,ÄAf\_fCf,,f<fAfbfv flfbfgf[]fN,ðfCf“fXfg[]f<,µ,Ä,·,¾,¾,ç[]Bf\_fCf,,f<fAfbfv  
flfbfgf[]fN,ðfCf“fXfg[]f<,·,éŽè±,ìU×,É,Ä,ç,Ä,íA[]uf\_fCf,,f<fAfbfv flfbfgf[]fN (RAS)

.đfCf“fXfg□[f<.,.é□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,¾□B

fRf“fgf□□[f< fpf|f<,ì [flfbfgf□□[fN] ,đŽg,Á,Ä□Af\_fCf,,f<fAfbfv  
flfbfgf□□[fN,đfCf“fXfg□[f<.,.é,Æ,«□A,Ü,½,½,fCf“fXfg□[f<Š®—<sup>1</sup>CEă,É□AZŸ,ìfpf%□□□[f^,ì□□□,ª•K—  
v,Æ,È,é□é□‡,ª, ,è,Ü,·□B,Ü,½□A□ufCf“f^□[flfbfg\_fAfNfZfX.ÉŽg,xfŠf.□[fg\_fAfNfZfX\_fGf“fgfŠ,đ□  
□□.,.é□v,ì□à~¾,É□],Á,Ä□Af\_fCf,,f<fAfbfv flfbfgf□□[fN,ìCEÁ•É,ìfGf“fgfŠ,đ□□□□,μ,È, ,è,ì,È,è,Ü,<sup>1</sup>,ñ□B

**f|□[fg,ì□□□**

fCf“f^□[flfbfg fT□[fxfX fv□□f□fCf\_Æ,ì□Ú'±,ÉŽg,xf□□[fg,í□A[f\_fCf,,f<fAfEfg,ì,Ý] ,Ü,½,í [f\_fCf,,f<fAfEfg,Æ'...  
□M] ,É□□□□,¾,é,Ä,ç,È, ,è,ì,È,è,Ü,<sup>1</sup>,ñ□B

**flfbfgf□□[fN,ì□□□**

[flfbfgf□□[fN,ì□□□] f\_fCfAf□fO f{fbfNfX,ì [f\_fCf,,f< fAfEfg fv□□fgfRf<] ,ì [TCP/IP] f`fFfbfN  
f{fbfNfX,í□Af|f“É,μ,Ä,, ,©,È, ,è,ì,È,è,Ü,<sup>1</sup>,ñ□B



fT[f]o[. ©,ç^³k,³,ê,Ä,ç,È,çCE`Ž®,Ä“üŽè,Ä,«,Ü,·B

“üŽè,μ,½fvf[fOf%of€,ìtf@fCf<,ð^³k%øðœ,μ,½,çAreadme ftj@fCf<,ðŠJ,ç,ÄAfvf[fOf%of€  
,ìfCf“fXfg[f<,â\[-,ÉŠÖ,·,éî•ñ,ð“Ç,ÝA,»,ìŽwŽ!,É],.Ä,Ä,,¾,¾,çBWindows 3.1 —  
p,ÉÝEv,³,ê,½pfufŠfbfN fhf[fCf“ ftfgfEfffA,ì,Ü,Æ,ñ,Ç,íA%½,à•ïX,ð%Á,!,É,,Ä,à Windows NT  
ä,Ä³í,ÉŽÄ[s,Ä,«,Ü,·B

fCf“fXfg[f<,Æ[-,ð,!,,½,çAWindows NT ,ìffXfNfgfbfv,©,çCf“f^ [flfbfg fc[f<,ð<N“®,Ä,«,é,æ,π  
,É,È,è,Ü,·B

Windows NT ,Ä,ìfCf“f^ [flfbfg fc[f<,ìŽg—p—á,É,Ä,ç,Ä,íAufCf“f^ [flfbfg fZfbfVf#f“,ì—  
áv,ðŽQÆ,μ,Ä,,¾,¾,çB



fCf" f^ [flfbfg fT [frfX fvf ofCf\_ ,i' ½, ,Á, í AfNfŠfA fefLfXfg, đŽg, í, È, ¯, ê, î, È, è, Û, ¹, ñ B" F Ø • û-  
@, ², í, ©, ç, È, ç, ê, í, í AfNfŠfA fefLfXfg, đŠÛ, Þ" C^ Ó, ì" F Ø, đŽó, ¯ • t, ¯, é] , đ' ð, µ, Ä, , ¾, ³, ç B

4 fzLj... fŠfefB, ì Ý' è, đ' ð, µ, ½, ç A [OK] , đfNfŠfbfN, µ, Û, · B

' [fNfŠfA fefLfXfg, đŠÛ, Þ" C^ Ó, ì" F Ø, đŽó, ¯ • t, ¯, é] , đfNfŠfbfN, , é ê, í AfT [frfX  
fvf ofCf\_ , Ò, ì f ofOf" Ž è, ¯, æ, Ñ • K—v, ÈfRf} f" fh, à, í, ©, Á, Ä, ç, È, ¯, ê, î, È, è, Û, ¹, ñ B  
fCf" f^ [flfbfg fT [frfX fvf ofCf\_ , ì f ofOf" Ž è, ¯, æ" K Ø, É' è < ` , ³, ê, ½, à, ì, Á, , ê, í A • K—  
v, ÈfRf} f" fh, đf ofOf" Žž, Éž © " ® " I, Éž A s, , éfXfNfŠfvg, đ Switch.inf ftj@fCf<, É ì ñ, Á, «, Û, · B\  
systemroot\System32\RAS\Switch.inf ftj@fCf<, ÉfXfNfŠfvg  
fZfNfVf}f", đ ì ñ, , é, Æ A ì ñ, µ, ½ fXfNfŠfvg, đ [fXfNfŠfvg] f^ fu, Á' ð, Á, «, Û, · B f ofOf"  
fXfNfŠfvg, ì ñ ñ • û - @, ì Ú ×, É, Á, ç, Ä, í A u, » , ì' ¼, ì f f ofCfX frf} f" fh ftj@fCf< (.INF)  
, đŽg, ² v, đŽQ Æ, µ, Ä, , ¾, ³, ç B







,Æ,É,æ,è□A,Ü,Á,½,“¬,¶□Ý'è,ð•j□»,·,é,±,Æ,ª,Å,«,Ü,·□B

**RAS flfbfgf□□[fN,ì□□¬**

[flfbfgf□□[fN,ì□□¬] f\_fCfAf□fO f{fbfNfX,ì [fT□[fo□[,ì□Ý'è] ,ì [TCP/IP] f`fFfbfN  
f{fbfNfX,ì□AfIf“ ,É,µ,Ä,“ ,©,È,¬,ê,Î,È,è,Ü,<sup>1</sup>,ñ□B,Ü,½□AfZfLf...fŠfefB,ì—vCE□,ð-ž,½,·,Æ“¬Žž,ÉfŠf,□[fg fNf  
%ofCfAf“fg,ìŽ□,Á<@“\,à”½%of,·,é,æ,α,È^Ã□+%o»,ì□Ý'è,ð'!ð,µ,È,¬,ê,Î,È,è,Ü,<sup>1</sup>,ñ□BŠe^Ã□+%o»,ì□Ý'è,É,Á,ç  
,Ä,ì□A[flfbfgf□□[fN,ì□□¬] f\_fCfAf□fO f{fbfNfX,ìfwf<fv,ðŽQ□Æ,µ,Ä,,¾,¾,ç□B

**RAS —p,ì TCP/IP ,ì□□¬**

fCf“f^□[flfbfg,Æ□Ú'±,<sup>3</sup>,ê,½f<□f^□[ ,ìflfbfgf□□[fNã,É'u,©,ê,Ä,ç,é,í,, ,È,ì,Å□ATCP/IP fNf  
%ofCfAf“fg,ìflfbfgf□□[fN'S'ì,ÉfAfNfZfX,Å,« ,é,æ,α,É,µ,È,¬,ê,Î,È,è,Ü,<sup>1</sup>,ñ□BfZfLf...fŠfefBã,ì—□—R,Å□A,±  
,ìflfbfgf□□[fN,ì□Af□fCf“ ,ìflfbfgf□□[fN,©,ç•ª—£,<sup>3</sup>,ê,Ä,ç,é□ê□‡,ª , ,é,±,Æ,É'□^Ó,µ,Ä,,¾,¾,ç□BTCP/IP  
fAfhfCEfX,ð'ñ<ÿ,Ä,« ,é,±,Æ,ðŠm“F,µ,È,¬,ê,Î,È,è,Ü,<sup>1</sup>,ñ□B,Ä,« ,È,ç□ê□‡,ì□AfCf“f^□[flfbfg□ã,Ä—LCEø,È IP  
fAfhfCEfX,ðŽ□,Ä□Ä“ì,ÉfAfhfCEfX fv□[f<,ð'ñ<ÿ,µ,È,¬,ê,Î,È,è,Ü,<sup>1</sup>,ñ□B,Ü,½□AfŠf,□[fg fNf%ofCfAf“fg,ª“ÆŽ©,ì  
IP fAfhfCEfX,ðŽ□,Ä,æ,α,É,·,é,±,Æ,à,Ä,« ,Ü,·□B,±,ì•û-@,ì□Aft□[fU□[ ,ª“Á'è,ìfAfhfCEfX,ðŽ□,Ä,±  
,Æ,ð'z'è,µ,Ä,ç,éfAfvfŠfP□[fvf‡f“ ,ð□ARAS □Ú'±,ð%oî,µ,ÄfNf%ofCfAf“fg'α,© ,çŽÅ□s,·,é□ê□‡,È,Ç,É•Ö—  
~,Å,·□B

## PPP ,ÆfŠf,□[fg fAfNfZfX

PPP (Point-to-Point Protocol□F flfCf“fg fc□[ flfCf“fg fvf□fgfRf<) ,í□A^Ù,È,éxf“f\_□[,ª'ñ<ÿ,·,éŠf,□[fg fAfNfZfX flftfgfEjFfA,ì'ŠCEY%o^—p,ð%oÅ“\,É,·,é•W□€,lfvf□fgfRf< fZfbfg,Å,·□BWindows NT ,lf\_fCf,,f<fAfbfv flfbfgf□□[fN,í□A<ÆŠE•W□€,ì PPP fT□[fo□[,ð%oî,μ,ÄfŠf,□[fg flfbfgf□□[fN,Éf\_fCf,,f<fCf“ ,Ä,«,Ü,·□B,Ü,½□APPP ,É,æ,è□AWindows NT Server RAS ,ðŽÀ□s,·,éRf“fsf... □[f^,à□APPP <KŠi,É□€<',μ,½,Ù,©,lfxf“f\_□[,lfŠf,□[fg fAfNfZfX flftfgfEjFfA,©,ç,ìCEÄ,Ñ□o,μ,ðŽó□M,μ□A,± ,è,ç,Éflfbfgf□□[fN fAfNfZfX,ð'ñ<ÿ,Ä,«,Ü,·□B

,Ü,½□APPP <KŠi,É,æ,Á,Ä□A^È'O,ì<KŠi (SLIP ,È,Ç) ,Ä,íŽg—p,Ä,«,È,ç□□V,ì<@“\,àŽg—p,Ä,«,Ü,·□BPPP ,Ä,í□A^F□Ø,ì^Ä□+%o»,ªTfj□[fg,³,è,Ä,“ ,è□A,Ü,Æ,ñ,Ç,ì PPP ,ìŽA'•,Ä,lf□fOfj“Žè□‡,ð,·,×,ÄŽ©“®%o»,·,é,± ,Æ,ª,Ä,«,Ü,·□B^È'O,ì<KŠi,Ä,í□AfZfLf...fŠfefB<@“\,í,Ü,Æ,ñ,Ç,È,□Af□fOfj“ ,lf^□[f~fj< f,□[fh,Ä□s,í,È,“ ,è,î,È,è,Ü,¹,ñ□B

,Ü,½□APPP ,í•i□“ ,ì LAN fvf□fgfRf<,ðTfj□[fg,μ,Ä,ç,Ü,·□Bf\_fCf,,f<fAfbfv flfbfgf□□[fN,Ä,í□AfŠf,□[fg fNf %ofCfAf“fg,Æ RAS fT□[fo□[,ì,Ç,ì,ç,É,à□Afifbfgf□□[fN fvf□fgfRf<,Æ,μ,Ä TCP/IP□AIPX□ANetBEUI ,ì,ç ,·,è,àŽg—p,Ä,«,Ü,·□B

PPP ,í□A,Ü,Æ,ñ,Ç,lfŠf,□[fg fAfNfZfX fRf“fsf...□[fefBf“fo,ìŽã—v,È<KŠi,É,È,Á,Ä,ç,·,Æ—\z,³,è,Ä,ç,Ü,·□B ŠÖ~A□€—Ú

PPP ,ì'€□[,Æfvf□fgfRf<

PPP ,ÄfTfj□[fg,³,è,Ä,ç,é RFC

fCf“f^□[flfbfg□Ú'±,É PPP ,ðŽg,ª

**fCf“f^[]f]fbfg[]Ú'±,É PPP ,đŽg,ꜛ**

PPP []Ú'±,í[]AWindows NT ,ìŠù'è,ì[]Ú'±•û-@,Á,·[]B

Windows NT ,ìf\_fCf,,f<fAfbfv f]fbfgf[][]fN,Ã,í[]AfŠf,[]f]g,©,ç,ì PPP Ā,Ñ[]o,μ,đfTf][]f]g,·,é,½,β,É[]A“Á,É•K  
—v,Æ,È,é[]\[]-[]ì<Æ,Í, ,è,Û,<sup>1</sup>,ñ[]Bf\_fCf,,f<fAfbfv f]fbfgf[][]fN,<sup>3</sup>μ,[]\[]-<sup>3</sup>,ê,Ä,ç,ê,í[]APPP []Ú'±  
,ìf]fSfVfG[]f]Vf†f“,íŽ©“@“I,É[]s,í,ê,Û,·[]B

fŠf,[]f]g,ì PPP fT[]fo[][,Ö,ìf\_fCf,,f<,É Windows NT

,đŽg,ꜛ[]ê[]‡,í[]A'É[]í,í[]ASù'è,ì[]Ý'è,<sup>3</sup>[]Á“K,È[]Ý'è,Á, ,è[]A[]\[]-<sup>1</sup>,đ[]s,ꜛ•K—v,Í, ,è,Û,<sup>1</sup>,ñ[]B,½,¾,μ[]APPP  
fT[]fo[][,Éf\_fCf,,f<,·,éŠef\_fCf,,f<fAfbfv f]fbfgf[][]fN fGf“fgfŠ,ÉŽg,ꜛ LAN fvf[]fgfRf<,đĀ•É,É[]\[]-<sup>1</sup>,·,é,±  
,Æ,<sup>3</sup>,Á,«,Û,·[]B

**f\_fCf,,f<fAfEfg[]Ú'±—p,É PPP ,đ[]\[]-<sup>1</sup>,·,é,É,Í**

- 1 f\_fCf,,f<fAfbfv f]fbfgf[][]fN,Á[]A“d~b' fGf“fgfŠ,đ'í'đ,μ[]AZŸ,É [,»,ì'¼) ,đfNfŠfbfN,μ,Û,·[]B
- 2 [fGf“fgfŠ,Æf,fff€,ìfvf[]pfefB,ì•Ò[]W] ,Û,½,Í [fGf“fgfŠ,Æf,fff€,ìfvf[]pfefB,ì•i[]>] ,đfNfŠfbfN,μ,Û,·[]B
- 3 [fT[]fo[][] f^fu,Á[]AfT[]fo[][,ìŽí—p,Æ,μ,Ä [PPP] ,đ'í'đ,μ,Û,·[]B
- 4 [f]fbfgf[][]fN fvf[]fgfRf<] ,ì [TCP/IP] f`fFbfN f{fbfNfX,đf]f“,É,μ,Û,·[]B
- 5 TCP/IP ,ì[]Ý'è,đ[]\[]-<sup>1</sup>,·,é,É,í[]A[TCP/IP ,ì[]Ý'è] ,đfNfŠfbfN,μ,Û,·[]B
- 6 [fT[]fo[][] f^fu,ì [PPP LCP Šg'£,đŽg,ꜛ] f`fFbfN f{fbfNfX,đf]f“,É,μ,Û,·[]BPPP []Ú'±,ÁĀep'±,μ,Ä-â'è,<sup>3</sup>-  
[]¶,·,é[]ê[]‡,É,<sup>3</sup>/<sub>4</sub>,[]Af]gf%ofuf<fVf...[]f]efBf“fO,ìŽè'i,Æ,μ,Ä[]Ý'è,đ•İ,!,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B
- 7 PPP ,ÉŽg,ꜛ LAN fvf[]fgfRf<,đ'í'đ,μ,½,ç[]A[OK] ,đfNfŠfbfN,μ,Û,·[]B  
,±,è,Á[]A,±,ìfGf“fgfŠ,đŽg,Á,Ä PPP fT[]fo[][,Éf\_fCf,,f<,·,é[]€“đ,<sup>3</sup>,Á,«,Û,μ,½[]B

**PPP ,i'€□i,Æfvf□fgfRf<**

PPP □Ú'±,í□APPP ,Äftf□□fg,³,ê,Ä,ç,é RFC ,Á'è,ß,ç,ê,½<KŠi,É□€<',μ,Ä,ç,È,¯,ê,Î,È,è,Ü,¹,ñ□B,±,±,Ä,í□APPP ,i'€□i•ù-@,Æ□APPP □Ú'±,ÄŽg,í,è,éfvf□fgfRf<,ìŠT-v,ðà-¾,μ,Ü,·□B

**PPP ,lf\_fCf,,f<fAfbfvŽè□‡**

fŠf,□□fg PPP ft□□fo□□[,Æ,ì□%oSú□Ú'±,ªŠm—š,³,ê,½,ç□APPP □Ú'±,ðŠm—š,·,é,½,ß,ÉŽŸ,ì,æ,κ ,ÉfJfSfVfG□□[fvf#“ ,ª□s,í,è,Ü,·□B

- **LCP (Link Control Protocols□F fŠf“fN□§CEäfvf□fgfRf<)** ,lfJfSfVfG□□[fvf#“□□BLCP ,í□AfŠf“fN fpf%of□□[f^ , ,æ,ÑftfCE□□[f~f“fo fpf%of□□[f^ (□Á'äftfCE□□[f€ ftfCfY,È,Ç) ,ìŠm—š,Æ□□~ ,ÉŽg,í,è,Ü,·□B
- **F□Øfvf□fgfRf<,lfJfSfVfG□□[fvf#“□□B** F□Øfvf□fgfRf<,í□AfŠf,□□fg fAfNfZfX ft□□fo□□[ ,ª□^— □,Ä,«,éZfLf...fŠfefBCEŸ□ ,lfCEfxf<□A, , ,æ,Ñft□□fo□□[ ,ª•K— v,Æ,·,éCEfxf<,ìCE^è,ÉŽg,í,è,Ü,·□BfJfSfVfG□□[fvf#“ ,ª%oÄ^ ,ÉfZfLf...fŠfefB fCEfxf<,í□AfNfŠfA fefLfXfg fpfXf□□[fh,É,æ,é“F□Ø,©,ç^Ä□+%o» ,³,ê,½“F□Ø,âR□□[f<fofbfN fZfLf...fŠfefB,Ü,Ä□A'½Šò,É“n,è,Ü,·□B
- **NCP (Network Control Protocols□F flfbfgf□□[fN□§CEäfvf□fgfRf<)** ,lfJfSfVfG□□[fvf#“□□BNCP ,í□AIP□AIPX□A, , ,æ,Ñ NetBEUI ,É'í,μ,Ä□A,»,ê,¼,ê^Ü,È,éflfbfgf□□[fN fvf□fgfRf<fpf%of□□[f^ ,ðŠm—š,μ□ □~ ,·,é,½,ß,ÉŽg,í,è,Ü,·□B,±,lfJfSfVfG□□[fvf#“ ,É,í□AfVf□fgfRf< fwfbf\_□[ ^³□k,lfJfSfVfG□□[fvf#“□A, , ,æ,Ñ^³□k□§CEäfvf□fgfRf<,lfJfSfVfG□□[fvf#“ ,ªŠÜ,Ü,è,Ü,·□B

flfSfVfG□□[fvf#“ ,ªŠ@—¹,μ,½□Ú'±,í□Aft□□[fU□□[ ,É,æ,é%oñ□ü ,ì□Ø'f□AfAfCfhf<ŽŽŠÖ,ìf^fCf€fAfEfG,É,æ,é %oñ□ü,ì□Ø'f□AŠÇ—□ŽÖ,É,æ,é%oñ□ü,ì□Ø'f□A□C•œ•s%oÄ^ ,ÉfŠf“fN fGf%o□□[ ,ì“□□l,È,Ç,ì—□—R,Ä %oñ□ü,ì□Ú'±,ª%oð□œ,³,ê,é,Ü,Ä,í□AfAfNfefBfu,È,Ü,Ü•ÜŽ□,³,ê,Ü,·□B

**PPP ftfCE□□[f~f“fo**

PPP ,lfJfCE□□[f~f“fo,í□Aft□□[f^ ,ª□fCfh fGfŠfA flfbfgf□□[fN□ä,ð“^— ,³,ê,é'O,lf□□[f^ ,lfJfVfZf<%o» ,ì•ù- @,ð'è< ,μ,Ü,·□BPPP •W□€ ,lfJfCE□□[f~f“foCE`Ž®,ðŽg,κ,Æ□A,Ç,lf□□[f□□[ ,lfŠf,□□fg fAfNfZfX fl ftfgfEfFfA,à□APPP <KŠi,É□€<',μ,½'¼,ì ,ç,ä,éŠf,□□fg fAfNfZfX flftfgfEfFfA,Æ'É□M,μ,Ä□Aft□□[f^ fpfPfbfg,ð“FŽ` ,·,é,±,Æ,ª,Ä,«,Ü,·□B

PPP ,Ä,í□AfVfŠfAf<%oñ□ü□AISDN %oñ□ü□A, , ,æ,Ñ X.25 ,É,í HDLC ftfCE□□[f~f“fo,ªŽg,í,è,Ü,·□BWindows NT ,Ä,í□AfVfŠfAf<%oñ□ü□AISDN %oñ□ü□A, , ,æ,Ñ X.25 ,lf□□[f^“`j'— ,É,í HDLC ftfCE□□[f~f“fo,ªŽg,í,è,Ü,·□B

**flfbfgf□□[fN□§CEäfvf□fgfRf<**

flfbfgf□□[fN□§CEäfvf□fgfRf<,í□AIP□AIPX□A, , ,æ,Ñ NetBEUI ,É'í,μ,Ä□A,»,ê,¼,ê^Ü,È,éflfbfgf□□[fN fvf□fgfRf< fpf%of□□[f^ ,ðŠm—š,μ□□~ ,μ,Ü,·□B

IPCP (Internet Protocol Control Protocol□F fCf“f^□□[flfbfg fvf□fgfRf<□§CEäfvf□fgfRf<)	IPCP ,í□AfŠf“fN,ì—¼'[,Ä IP fvf□fgfRf<,ì□□~□A—LCEø %o»□A, , ,æ,Ñ-³CEø %o» ,ð□s,κ ,½,ß,ÉŽg,í,è,Ü,·□B
IPXCP (Internet Packet Exchange Control Protocol□F fCf“f^□□[flfbfg fpfPfbfgCEðŠ-□§ CEäfvf□fgfRf<)	IPXCP ,í□A□Ú'±,ì—¼'[,Ä IPX fvf□fgfRf< f,fWf... □[f<,ì□□~□A—LCEø %o»□A, , ,æ,Ñ-³CEø %o» ,ð□s,κ ,½,ß,ÉŽg,í,è,Ü,·□BIPXCP ,í□APPP ,ìŠef□□[f□□[ ,É,æ,è□L,- ŽÄ'• ,³,ê,Ä,ç,Ü,·□B
	IPX WAN fvf□fgfRf<,í□ANovell ,ì IPXCP 'ä'Öfvf□fgfRf<,Ä,·□BIPX

WAN ,íAIPXCP  
 ,Æ,ÍCEYŠ·□«,<sup>a</sup>, ,è,Ü,<sup>1</sup>,ñ□B,  
 ç,.,ê□AIPX WAN ,Æ IPXCP  
 ,<sup>a</sup>CEY,ç  
 ,É•à,ÝŠñ,Á,Ä□A□fCfh  
 fGfŠfA flfbfgf□□[fN,Á,Ì IPX  
 flfbfgf□□[fN□□→,Ì 1  
 ,Á,ì<KŠi,ð'ñ<Ý,·,é%oÁ"\  
 □«,<sup>a</sup>, ,è,Ü,·□B

Windows NT  
 ,íA□A□»□Ý,lfŠf,□[fg  
 fA□NfZfX f\  
 ftfgfE□fA,ì'â"•<sup>a</sup>,ÉŽÀ'•,<sup>3</sup>  
 ê,Ä,ç,é IPXCP ,ðfTf|  
 □[fg,μ,Ä,ç,Ü,·□BIPX WAN  
 ,ÍfTf|□[fg,μ,Ä,ç,Ü,<sup>1</sup>,ñ□B

NBF CP  
 (NetBIOS  
 Frames Control  
 Protocol□F  
 NetBIOS  
 ftjCE□[f€□\$CEäfv  
 f□fgfRf<)

NBF CP ,íA□Ú'±,ì—¼'[,Á  
 NetBEUI fvf□fgfRf< f,fWf...  
 □[f<,ì□□→□A—LCEø  
 %o»□A, ",æ,Ñ-<sup>3</sup>CEø  
 %o»»,ð□s,±  
 ,½,ß,ÉŽg,í,è,Ü,·□BNBF CP  
 ,í□AMicrosoft ,<sup>a</sup>ñ□¥,·,é  
 NetBEUI □□→—  
 pfvf□fgfRf<,Á,·□BNBF CP  
 ,í□AIETF (Internet  
 Engineering Task Force)  
 ,É,æ,Á,Äfhf  
 %oftfg,<sup>a</sup>□ì□→,<sup>3</sup>,è,Ä,ç,Ü,·□B

**"F□Øfvf□fgfRf<**

"F□Øfvf□fgfRf<,lfSfVfG□[fVf#f",í□AfŠf"fN,ì•iŽ¿,<sup>a</sup>CE^è,<sup>3</sup>,è,½'¼CEã□Aflfbfgf□□[fN'w,lfSfVfG□[fVf#f",ì'O,  
 É□s,í,è,Ü,·□B

PAP  
 (Password  
 Authentica-  
 tion Protocol□F  
 fpfXf□□[fh"□F□  
 Øfvf□fgfRf<)

PAP ,í□AfNfŠfA fefLfXfg  
 fpfXf□□[fh,ðŽg,±□Á,à'P□f,È"  
 F□Øfvf□fgfRf<,Á,·□B'É□í□A,±  
 ,lfvf□fgfRf<,lfSfVfG□[fVf#f",  
 í□AfŠf,□[fg  
 f□□[fNfXfe□[fVf#f",ÆfT□[fo□[  
 ,<sup>a</sup>□A,æ,è^À'S,ÈCE`Ž®,Á,ìŠm  
 "F,lfSfVfG□[fVf#f",ð□s,±  
 ,Æ,<sup>a</sup>,Á,«,<sup>3</sup>,É,ç□è□#f,É□s,í,è,Ü,·  
 □BWindows NT RAS  
 fT□[fo□[.í□AfNfŠfA fefLfXfg  
 fpfXf□□[fh,ðŽg,í,·□A□,fCEfxf<  
 ,lfZfLf...fŠfefB,ð—  
 LCEø,É,·,é,æ,±  
 ,É□Ý'è,Á,«,<sup>3</sup>,Ü,·□B

CHAP

CHAP ,í□A^Ä□+%o»,<sup>3</sup>,è,½

(Challenge-Handshake Authentication Protocol) "ü—Í— v<□fnf"fhfVfFf CfN" F□Øfvf□f gfRf<)

%ž“š,Æ,Æ,à,É□A“ü—Í—v<□  
 %ž“š,žg,ç,Ü,·□B  
 CHAP ,žg,æ,Æ□A^Ù,È,éŽí—  
 p,ì^Ä□+%»fAf<fSfSfYf€ ,žg  
 —p,Ä,«,Ü,·□BMicrosoft RAS  
 ,Ä,Í□AfNf  
 %fCfAf“fg,ÆfT□[fo□[ ,ì—  
 ¼•û,ª Windows NT RAS  
 ,žg,Ä,Ä,ç,é□é□#,Í□ADES  
 ^Ä□+%» ,ªŽg,í,è,Ü,·□BRAS  
 fNf  
 %fCfAf“fg,Í□A¼,ìf□□[fj□[ ,ìf  
 Šf,□[fg fAfNfZfX  
 fT□[fo□[ ,É□Ú'±,·,é,Æ,«,É,Í  
 MD5 ^Ä□+  
 %» ,ðfSfVfG□[fVf#f“ ,·,é,±  
 ,Æ,à,Ä,«,Ü,·□BWindows NT  
 RAS fT□[fo□[ ,Í□ADES ^Ä□+  
 %» ,¾, ¯ ,ð'ñ<Ÿ,µ□A¼,ìf□□[fj  
 □[ ,ìfŠf,□[fg fAfNfZfX fNf  
 %fCfAf“fg fVfGfEfffA,Æ  
 MD5 ,ìfSfVfG□[fVf#f“ ,Í□s,ç  
 ,Ü,¹,ñ□BMD5 ,Í□AŠeŽí PPP  
 f□□[fj□[ ,ª^Ä□+  
 %» "F□Ø,ÉŽg,Ä,Ä,ç,é^Ä□+  
 %» •ûŽ®,Ä,·□B  
 Windows NT ,Í□A,Ù,©,ì  
 Windows NT fRf“fsf...  
 □[f^ ,Æ'É□M,·,é,Æ,«,É,Í•K, ,^  
 Ä□+  
 %» "F□Ø,ìfSfVfG□[fVf#f“ ,ð  
 □s,ç,Ü,·□BfT□[fh  
 fp□[fefB□» ,ìfŠf,□[fg fAfNfZfX  
 fT□[fo□[ f\  
 ftfgefFfA,Ü,½,ìfŠf,□[fg  
 fAfNfZfX fNf%fCfAf“fg f\  
 ftfgefFfA,Æ□Ú'±  
 ,·,é□é□#□AfT□[fh  
 fp□[fefB,ì□» •i,ª^Ä□+  
 %» "F□Ø,ðfTf|□[fg,µ,Ä,ç  
 ,È, ¯ ,è,Í□ARAS ,Í□AfNfŠfA  
 fefLfXfg,ì" F□Ø,ìfSfVfG□[fVf  
 #f“ ,ð□s,æ□é□#,ª ,è,Ü,·□B

**PPP ,ÄfTf|□[fg,ª,è,Ä,ç,é RFC**

fŠf,□[fg fAfNfZfX fvf□fgfRf<,ì<KŠi,Í□AIETF , ,æ,Ñ,»,ì¼,ìf□□[fLf“fo fOf<□[fv,ªCEö•z,µ,Ä,ç,é RFC (Requests For Comments) ,Ä'è< ,ª,è,Ä,ç,Ü,·□BWindows NT RAS ,ìCE>Ÿ,ìfo□[fWf#f“ ,Ä,Í□AZŸ,ì RFC ,ðfTf|□[fg,µ,Ä,ç ,Ü,·□B

- RFC 1549 HDLC ftfCE□[f€“à,ì PPP

- RFC 1552 PPP IPXCP (Internetwork Packet Exchange Control Protocol) fCf“f^[]flfbfg[]fN fpfPfbfgCEđŠ·[]\$CEäfvf[]fgfRf<)
- RFC 1334 PPP “F[]Øfvf[]fgfRf<
- RFC 1332 PPP IPCP (Internet Protocol Control Protocol) fCf“f^[]flfbfg fvf[]fgfRf<[]\$CEäfvf[]fgfRf<)
- RFC 1661 LCP (Link Control Protocol) fŠf“fN[]\$CEäfvf[]fgfRf<)
- RFC 1717 PPP f}f`fŠf“fN fvf[]fgfRf<



**PPP Ú'±,lfgf%ofuf:fvf...[fefBf"fo**

**PPP fT[fof[ÉÚ'±,Á,«,Ü,¹,ñB**

PPP ,ðŽg,Á,ÄfT[fof[ÉÚ'±,Á,«,È,çê#A,Ü,½,Íšf,[fg fRf"fsf...[f^,ªÚ'± ,ðØ'f,·,éê#Í,ÍAÚ'±æ,lfT[fof[ª LCP ,ÌŠg'£<@"\,ðfTf[fg,µ,Ä,ç,È,ç%Å"\«ª, ,è,Ü,·B[PPP LCP Šg'£,ðŽg,»] f`fFbfN f{fbfNfX,ðfift,É,µ,Ä,,¾,¾,çB

**LCP Šg'£<@"\,Ì—v<[ð'tŽ~·,·,é,É,Í**

- 1 fšf,[fg,Ì PPP fT[fof[Æ,ÌÚ'±,ðØ'f,µ,Ü,·B
- 2 f\_fCf,,f:fAfbfv flfbfgf[fN,ÅA[»,Ì¼] ,ðNfšfbfN,µAZŽ,É [fGf"fgfŠ,Æf,fff€,lfvf]fpfefB,Ì•ÒW] ,ðNfšfbfN,µ,Ü,·B
- 3 [fT[fof[ f^fu,Ì [PPP LCP Šg'£,ðŽg,»] f`fFbfN f{fbfNfX,ðfift,É,µ,Ü,·B
- 4 [OK] ,ðNfšfbfN,µ,Ü,·B

**TCP/IP fT[fefBfšfefB,ª"®Ì,µ,Ü,¹,ñB**

fšf,[fg,Ì PPP fT[fof[É³í,ÉÚ'±,Á,«,é,Ì,ÉATCP/IP fT[fefBfšfefB,ª"®Ì,µ,È,çê#Í,ÍAIP fwfbf\_[]^³k,ª-â'è,Æ,È,Á,Ä,ç,é%Å"\«ª, ,è,Ü,·BIP fwfbf\_[]^³k,ðfift,É,µ,Ä,©,çA,à,ª^è"xÚ'± ,µ,Ä,Ý,Ä,,¾,¾,çB

**IP fwfbf\_[]^³k,ðfift,É,·,·,é,É,Í**

- 1 fšf,[fg,Ì PPP fT[fof[Æ,ÌÚ'±,ðØ'f,µ,Ü,·B
- 2 f\_fCf,,f:fAfbfv flfbfgf[fN,ÅA[»,Ì¼] ,ðNfšfbfN,µAZŽ,É [fGf"fgfŠ,Æf,fff€,lfvf]fpfefB,Ì•ÒW] ,ðNfšfbfN,µ,Ü,·B
- 3 [fT[fof[ f^fu,Ì [TCP/IP ,]Ý'è] ,ðNfšfbfN,µ,Ü,·B
- 4 [PPP TCP/IP ,]Ý'è] f\_fCfAf[]fO f{fbfNfX,Ì [IP fwfbf\_[]^³k,ðŽg,»] f`fFbfN f{fbfNfX,ðfift,É,µ,Ü,·B
- 5 [OK] ,ðNfšfbfN,µ,Ü,·B

**,» ,ì¼, ÌfffofCfX fRf}f“fh ftf@fCf< (.INF) ,đŽg,»**

RAS ,íASWITCH.INF AMODEM.INF A, ,æ, Ñ PAD.INF ,đŽg,Á,Ä AfT [fo [ ,Ö, Ìí~bCE ^ ,lf fOfCf“ ,đŽ © “ ® %» ,µ, ½, è Af, fff€ ,Æ X.25 PAD ,đ %Šú %» ,µ, ½, è, µ, Ü, · B, ±, è, ç, Ìftf@fCf< ,í, ·, x, Ä AfffofCfX, âfRf“ fsf... [f ^ ,Æ, ÌŽ © “ ® Ê M, Ê A “ , ,fRf}f“fh,Æ [· ¶, đŽg, ç, Ü, · B

, ±, è, ç, Ìftf@fCf< ,É, í A ^ è “ I, È ‘ ‘ u, âfTf [fg, ³, è, Ä, ç, é ‘ ‘ u, Ì—á,Æ ^ è “ A, ÌfRf}f“fh (fXfNfŠfvfg) , ŠÜ, Ü, è, Ä, ç, Ü, · B Žg—p, ·, é ‘ ‘ u—p, Ì<L [q, âftf@fCf< “à, É, È, ç ê ¶, í A, Ü, ©, ÌfXfNfŠfvfg, đ— á,Æ, µ, Ä Žg, Á, ½, è A ‘ À, Ì ‘ ‘ u, È “ K Ø, ÈfRf}f“fh, đ ‘ Ç %Á, µ, ½, è, µ, Ä A, ± , Ìftf@fCf< ,É “Æ Ž © , ÌfXfNfŠfvfg, đ [ · , ·, é, ±,Æ, ², Á, «, Ü, · B

, Ç, Ìftf@fCf< ,Á, à “ , ¶ [· ¶,Æ < æ ‘ ÈfRf}f“fh, ² Žg, í, è, é, Ì, Á A ŽŸ, Ì MODEM.INF ,É ŠÖ, ·, é wf< fv fgfsfbfN, í A, » , Ì¼, Ì .INF ftf@fCf< ,É, à “ K—p, Á, «, Ü, · B

f, fff€, ÌfXfNfŠfvfg ftf@fCf< , Ì Š T—v

MODEM.INF ,đ [ C ³, ·, é

MODEM.INF , Ì [ · ¶

ŽŸ, Ìftf@fCf< , í A \systemroot\System32\RAS fffBfCefNfgfŠ, É, , è, Ü, · B

**MODEM.INF**

, ±, Ìftf@fCf< ,É<L [q, ³, è, ½fRf}f“fh, í A Ž © “ ® “ I, Èf, fff€, É ‘ — M, ³, è, Ü, · Bf, fff€, ² “ [ , µ, È, ç ê ¶, á A ^ è — , É, È, ç ê ¶, È ŠÖ, í A, ±, Ìftf@fCf< ,đ [ C ³, ·, é • K—v, í, , è, Ü, ¹, ñ B [ Ú [ x, É, Á, ç, Ä, í A [ uf, fff€, ÌfXfNfŠfvfg ftf@fCf< , Ì Š T—v [ v, đ Ž Q [Æ, µ, Á, , ¾, ³, ç [ B

**SWITCH.INF**

, ±, Ìftf@fCf< ,É<L [q, ³, è, ½fRf}f“fh, í A AfZfLf...fŠfefB fzfXfg [ A, Ü, ½, Ìí~bCE ^ ,lf fOfCf“ ,đ • K—v,Æ, ·, é Šf, [fg fT [fo [ (UNIX fT [fo [ ,È, Ç) ,đ %î, µ, Ä [ Ú ±, ·, é ê ¶, È Žg, í, è, Ü, · BfXfNfŠfvfg, Ì [ · , Á, í A ‘ ‘ u- ¼, đ Šp, ©, Á, ±, Á ‘ Ì, ñ, Á “ ü—í, µ [ A ‘ ‘ u-¼, É ‘ ±, , Á 1 , Á, Ü, ½, í · [ , ÌfRf}f“fh, đ “ ü— í, µ, Ü, · BfXfNfŠfvfg, đ [ [ · , µ, ½, ç [ A, » , ÌfXfNfŠfvfg, đ Žg, ² ŠefŠf, [fg fAfNfZfX fGf“fgfŠ, ÁfXfNfŠfvfg, đ fAfNfefBfu %» , µ, Ü, · BfXfNfŠfvfg, Ìf fCf, ,f ‘ O, È Žg, ² (f, fff€ fv [f< , È, Ç, Ì [ ê ¶) , ± ,Æ, à [ Af fCf, ,f< C ä, È Žg, ² (fZfLf...fŠfefB fzfXfg [ AfŠf, [fg fT [fo [ , Ö, Ì Ž A [ Ü, Ìf fOfif“ , È, Ç, Ì [ ê ¶) , ± ,Æ, à, Á, «, Ü, · B [ Ú [ x, É, Á, ç, Ä, í A [ u SWITCH.INF fXfNfŠfvfg, đ Žg, Á, Ä Šf, [fg f [ Ofif“ , đ Ž © “ ® %» , ·, é [ v, đ Ž Q [Æ, µ, Á, , ¾, ³, ç [ B

**PAD.INF**

, ±, Ìftf@fCf< ,É<L [q, ³, è, ½fRf}f“fh, í A X.25 PAD ,đ %î, µ, Ä [ Ú ±, ·, é ê ¶, È Žg, í, è, Ü, · BfTf [fg, ³, è, Ä, ç, é PAD , Ì, Ü,Æ, ñ, Ç, É, Á, ç, Ä, í A PAD.INF , ÈfXfNfŠfvfg, ²<L [q, ³, è, Ä, ç, Ü, · B • K—v, Á, , è, í A ‘ ‘ u-¼, đ Šp, ©, Á, ± , Á ‘ Ì, ñ, Á “ ü—í, µ [ A ‘ ‘ u-¼, Ì C ä, è, É 1 , Á, Ü, ½, í · [ , ÌfRf}f“fh, đ “ ü—í, ·, é, ± ,Æ, É, æ, èfXfNfŠfvfg, đ [ [ · , µ, Ü, · BfXfNfŠfvfg, đ [ [ · , µ, ½, ç [ A, » , ÌfXfNfŠfvfg, đ Žg, ² ŠefŠf, [fg fAfNfZfX fGf“fgfŠ, É, Á, ç, Ä [ A [ X.25] f ^ fu, ©, çfXfNfŠfvfg, đ fAfNfefBfu %» , µ, Ü, · B [ Ú [ x, É, Á, ç, Ä, í A [ wflfbfg [ [ fN fKfCfh [ x, đ Ž Q [Æ, µ, Á, , ¾, ³, ç [ B

**MSN ,Æ,ìÚ'±,É Windows NT ,ðŽg,α**

The Microsoft Network (MSN) ,ðfCf“f^[]fifbfg fT[]fxfX fvf[]fofCf\_ ,Æ,μ,Ä~—p,Å,«,é,ì,í[]AŠù,É Windows 95 ,ðŽg,Á,Ä MSN fAfjJfEf“fg,ð[][]—,μ,Ä,ç,é[]ê[]‡,¾, ,Ä,·[]B

Windows NT , ©,ç MSN ,ðŽg,Á,ÄfCf“f^[]fifbfg,É[]Ú'±,·,é[]ê[]‡,í[]Af[][]f<,âCfŽì”Ä,È,Ç,ì[]EÄ—L,ìfif“f%ofCf“ fT[]fxfX,í~—p,Å,«,Ü,¹,ñ[]B

**MSN ,É[]Ú'±,·,é,É,í**

- 1 [f\_fCf,,f<fAfbfv fifbfgf[][]fN] fEfBf“fhfE,Å[]A[[]V<K[][]—] ,ðfNfŠfbfN,μ,Ü,·[]B
- 2 %œ—É,É•\Žì,³,é,éŽwŽì,É[]],Á,Ä'€[]i,μ,Ü,·[]B,Ü,½,í[]A“d~b' ,ð'¼[]Ú•Ò[]W,·,é,æ,α,Éf`fFfbfN f{fbfNfX,ðfif“ ,É,μ,Ä [Š@—¹] ,ðfNfŠfbfN,μ[]AŽÿ,ìŽè[]‡,É[]],ç,Ü,·[]B
- 3 [Šì--{] f^fu,Å[]AfGf“fgfŠ,ì-¼'° (—á[]F **MSN**) ,ð“ü—í,μ,Ü,·[]B
- 4 fCf“f^[]fifbfg,ÉfAfNfZfX,Å,«,é<ß,,ì MSN fT[]fxfX“d~b”Ô[]t,ð“ü—í,μ,Ü,·[]B
- 5 f,fff€,ð'ì'ð,μ[]AŠù'è,ìf,fff€[][]—,ðŽg,ç,Ü,·[]B
- 6 [fT[]fo[][] f^fu,ì [f\_fCf,,f<fAfbfv fT[]fo[][],ìŽì—P] f{fbfNfX,Å[]A[PPP] ,ð'ì'ð,μ,Ü,·[]B [fifbfgf[][]fN fvf[]fgfRf<] ,Å[]A[TCP/IP] f`fFfbfN f{fbfNfX,¾, ,ðfif“ ,É,μ,Ü,·[]B [PPP LCP Šg'£,ðŽg,α] f`fFfbfN f{fbfNfX,ðfift,É,μ,Ü,·[]B
- 7 [fzfLj...fŠfefB] f^fu,ì [fNfŠfA fefLjxfg,ðŠÜ,þ”C^Ó,ì”F[]Ø,ðŽó, ,t, ,é] ,ðfNfŠfbfN,μ[]AŽÿ,É [OK] ,ðfNfŠfbfN,μ,Ü,·[]B
- 8 [f\_fCf,,f<] ,ðfNfŠfbfN,μ,Ü,·[]B
- 9 [ [],Ö,ìÚ'±] f\_fCfAf[]fo f{fbfNfX,Å[]AMS N ,Ä,ìft[]fU[][-¼,ð **MSN**/ft[]fU[][-¼ ,Æ,ç,αC` ,Ä“ü— í,μ,Ü,·[]B
- 10 ,»,ìft[]fU[][-¼,ì MSN ,ìpfXf[][]fh,ð“ü—í,μ[]A[OK] ,ðfNfŠfbfN,μ,Ü,·[]B

## fŠf, [fg] fT [fo] [ÉÚ'±, ., é

- É [AfŠf, [fg, ÅÚ'±, ., é] fT [fo] [É, Í AŽŸ, Ì 3 Ží—p, a, , è, Ü, ·B
- Microsoft RAS fT [fo] [ (LAN Manager Version 2.1 [Windows NT Version 3.1 ^É ~A, " , æ, Ń Windows 95)
- Microsoft »·i ^ÈŠO, Ì PPP fT [fo] [
- SLIP fT [fo] [

Microsoft RAS fT [fo] [ÉÚ'±, ., é] v fZfX, ÍŠÈ'P, Å, ·B, ±, Ì v fZfX, Å, Í [Windows NT , É] fOf" , ., é, Æ, «, ÉŽw'è, μ, ½ fAfJfEf "fg [i·ñ, aŽg, í, ê, Ü, ·B Windows NT RAS , ðŽÅ s, μ, Å, ç, È, ç fRf "fsf... [f^, É Windows NT RAS , ðŽg, Á, ÅÚ'±, ., é] ê [Í AfŠf, [fg] v fXfef€ , É] fOf" , ., é, Æ, «, É Af^ [f~fj fEfBf "fhfE, Å "Á'è, Ì] fRf} f "fh, Æ%ž "š, ð, â, è, Æ, è, μ, È, , ê, Í, È, ç, È, ç, ±, Æ, a, , è, Ü, ·B

## Microsoft RAS fT[fO]

Microsoft RAS fT[fO],ÉÚ±,·,évfZfX,ÍŠÈ'P,Å,·B,±,ìvfZfX,Å,íAWindows NT  
,ÉfOf"·,·,é,Æ,«,ÉŽw'è,μ,½fAfJfEj"fgî•ñ,Žg,í,è,Û,·BWindows NT RAS ,ðŽÀs,μ,Ä,ç,È,çfRf"fsf...  
[f^,É Windows NT RAS ,ðŽg,Á,ÄÚ±,·,éè,í,íAfŠf,[fg fVfXfe€ÉfOf"·,·,é,Æ,«,ÉAf^~fif<  
fEfBf"fhfE,Å"Á'è,ìfRf}f"fh,Æ%ž"š,ð,â,è,Æ,è,μ,È,·,è,í,È,ç,È,ç,±,Æ,ª, ,è,Û,·B

fNf%ofCfAf"fg,ª Windows NT fRf"fsf...[f^,ÅAfŠf,[fg fT[fO],ª Microsoft RAS  
fT[fO],ìè,íAWindows NT ,ìfZfLf...fŠfefB,ðŽg,Á,ÄfOf" ,ðŠ®'S,ÉŽ©"®%»»,Å,«,Û,·B

ŠÖ~A€-Ú

fŠf,[fg fT[fO],ÉÚ±,·,é

PPP fT[fO]

SLIP fT[fO]

## PPP fT[fO]

PPP (Point-to-Point Protocol fJfCf"fg fc[fJfCf"fg fvf[fJfCf"fg fRf"fsf...[f^ŠÖ,ìÚ'± ,ìfJfSfVfG[fVf#f",ÉŽg,í,è,é"äŠr"lV,μ,čfVf[fJfCf"fg fRf",Á,·BPPP ,l" f[fVf[fJfCf"fg fRf",đfTf[fJfCf"fg ,éNf%ofCfAf"fg fJ fTfgEfJfA,ÆfŠf, [fg fT[fO]. íAflfbfgf[fN,Æ" f[fO,ìY'è,ìfJfSfVfG[fVf#f",đŽ©"®"l,És,č,Ü,·BPPP fT[fO[.ÉÚ'±,·,é,É,íAŽY,ì,æ,ɣ,ÈŽè[f,ªK—v,Á,·B

- f\_fCf,,fAfbfv flfbfgf[fN,ÁA"d~b' fGf"fgfŠ,đ•ÒW,μA[fT[fO[ f^fu,đfNfSfbfN,μ,Ü,·BŽY,ÉA[f\_fCf,,fAfbfv fT[fO[.ìZí—p] f{fbfNfX,ì [PPP],đ'l'đ,μ,Ü,·BSù'è,ìY'è,Á,íA,±,ì€-Ü,ª'l'đ,ª,è,Á,č,Ü,·B
- CEÁ,Ño,μæ,ìT[fO[,ÆfefLfxfg fx[fX,ÁfOfif"í•ñ,đCEđŠ,·,é•K—v,ª, ,éê[f,íA[fXfNfSfVfg] f^fu,đfNfSfbfN,μA[f^ [f~fif< fEfBf"fhfE,đŠ], ,đ'l'đ,μ,Ü,·B,±,è,É,æ,èAÚ'±,ìŽè'±,«'t,Éf^ [f~fif< f\_fCfAfO,ª•Z!,ª,èAfefLfxfg fx[fX,ÁfOfif"í•ñ,đCEđŠ,Á,«,é,æ,ɣ,É,È,è,Ü,·B

PPP <KŠi,Á,íA^Á+%%>,Ü,½,ìfNfSfA fefLfxfg,ì" f[fVf[fJfCf"fg fRf",đŽg,Á,Ä" f[fO,đŠ®'S,ÉŽ©"® %>>,Á,«,Ü,·B,μ,©,μA^è•",ì PPP fvf[fO[fCf\_ ,ìAPPP ,l" f[fVf[fJfCf"fg fRf",đŽÀ'•,μ,Á,č,Ü,¹,ñB,±,ì,½,βAPPP ,đ<N"® ,·,é'O,ÉAfefLfxfg fx[fX,Áí•ñ,đCEđŠ,·,é•K—v,ª, ,è,Ü,·B

fefLfxfg fx[fX,ìí•ñCEđŠ,đŽ©"®%>>,·,é,É,íAfnfSfA fefLfxfg,ìfOfif" f\_fCfAfO,ì'ä,í,è,É SWITCH.INF fXfNfSfVfg,đŽg,č,Ü,·BÚx,É,Á,č,Ä,íA[uSWITCH.INF fXfNfSfVfg,đŽg,Á,ÄŠf, [fg fOfif" ,đŽ©"® %>>,·,éA[uSWITCH.INF ,đŽÀs,·,évA, ,æ,ÑuDEVICE.LOG ,É,æ,éfXfNfSfVfg,ìfgf%uf<fVf... [fefBf"fov,đŽQAE,μ,Ä,,³/4,³,čB

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fŠf, [fg fT[fO[.ÉÚ'±,·,é

Microsoft RAS fT[fO

SLIP fT[fO

## SLIP fT[fO]

SLIP (Serial Line Internet Protocol) fVfŠfAf<%ñüfCf“f^□[flfbfg fvf□fgfRf<) ,í□A“F□Ø<@□\,đfTf] □[fg,μ,Ä,ç,È,ç<CEŽ@,lfvf□fgfRf<,Å,·□B’Ê□í□ASLIP □Ú’±,Å,í□AfefLfXfg fX□[fX,lf□fOfif“ fZfbfVf#f“,ª•K— v,Å,·□B^Ã□+%»„Æfifbfgf□□[fN fpf%□f□□[f^,lŽ©“@fifSfVfG□[fVf#f“,í□Aftf]□[fg,³,è,Ä,ç,Ü,¹,ñ□BSLIP fT□[fo□[.É□Ú’±,·,é,É,í□AZŽY,ì,æ,π,ÈŽè□‡,ª•K—v,Å,·□B

- f\_fCf„f<fAfbfv flfbfgf□□[fN,Å□A“d~b’ fGf“fgfŠ,đ•Ò□W,μ□A[fT□[fo□[ ] f^fu,đfNfŠfbfN,μ,Ü,·□BŽY,É□A[f\_fCf„f<fAfbfv fT□[fo□[.lŽí—p] f{fbfNfX,ì [SLIP] ,đ’l’đ,μ,Ü,·□B
- CEÄ,Ñ□o,μ□æ,lfT□[fo□[.ÆfefLfXfg fX□[fX,Åf□fOfif“□î•ñ,đCEđŠ,·,é•K—v,ª, ,é□è□‡,í□A[fXfNfŠfVfg] f^fu,đfNfŠfbfN,μ□A[f^□[f~fif< fEfBf“fhfE,đŠJ,] ,đ’l’đ,μ,Ü,·□B□Ú’±,lŽè’±,«’t,Éf^□[f~fif< f\_fCfAf□fo,ª•\ Ž!,³,è□AfefLfXfg fX□[fX,Åf□fOfif“□î•ñ,đCEđŠ,Å,«,é,æ,π,É,È,è,Ü,·□B

fefLfXfg fX□[fX,ì□î•ñCEđŠ,·,é,É,í□AfnfŠfA fefLfXfg,lf□fOfif“ f\_fCfAf□fo,ì’ã,í,è,É SWITCH.INF fXfNfŠfVfg,đŽg,ç,Ü,·□B□Ú□x,É,Ä,ç,Ä,í□A□uSWITCH.INF fXfNfŠfVfg,đŽg,Ä,ÅfŠf„□[fg f□fOfif“ ,đŽ©“@ %»„·,é□v□A□uSWITCH.INF ,đŽÀ□s,·,é□v□A,“,æ,Ñ□uDEVICE.LOG ,É,æ,éfXfNfŠfVfg,lfgf%□fuf<fVf... □[fefBf“fO□v,đŽQ□Æ,μ,Ä,³/4,³,ç□B

ŠÖ~A□€-Ú

fŠf„□[fg fT□[fo□[.É□Ú’±,·,é

Microsoft RAS fT□[fo□[

PPP fT□[fo□[

**fŠf, [fg fOfif“ ,É RAS f^ [f~fif<, đŽg, x**

PPP fT [fo [Ü, ½, í SLIP fT [fo [Éf\_fCf, f<fCf“ , .éêê# Af^ [f~fif<%æ-É, đŽg, Á, ĀfŠf, [fg fRf“ fsf...  
 [f^, ÉfOfif“ , .é•K-v, a, , é, AE, <, íA, » , Ì RAS fGf“ fgfŠ, Ì [“d~b” , ÌfGf“ fgfŠ, Ì•ÖW] f\_fCfAfO f {fbfNfX, Ì  
 [fXfNfŠfvfg] f^fu, ĀA“RAS f^ [f~fif< fOfif““ , đŽg, x, æ, x, ÉY’è, µ, È, , é, í, È, è, Ü, ¹, ñB, ±, Ì, æ, x  
 , ÉY’è, µ, Ā, , , AE ARAS , ĀfŠf, [fg fVfXfefÉ, ÉÚ±, µ, ½CEã AfŠf, [fg fRf“ fsf... [f^, ©, ç’—  
 , ç, è, éfOfif“ Žè# , a•Ÿšfx [fX, ÌfEfBf“ fhfE, É•Ÿ!, ³, è, Ü, .B, ±, ÌfEfBf“ fhfE, đŽg, Á, Ā’b“l, ÉfŠf, [fg fRf“ fsf...  
 [f^, ÉfOfif“ , µ, Ü, .B, Ü, ½A, ±, Ì, æ, x, ÈŽè“ @fOfif“ , đŽ©“ @%» , ., é, ±, AE, à, Ā, «, Ü, .BÚ×, É, Ā, ç  
 , Ā, íA uSWITCH.INF fXfNfŠfvfg, đŽg, Á, ĀfŠf, [fg fOfif“ , đŽ©“ @%» , ., év, đŽQAE, µ, Ā, , ¾, ³, çB  
 B—pflfbfg [fN, Ì’t, É, í AfOfif“ , Ì’O, ÉA—~p%Ā“\, ÈfT [frfX, Ìfjf... [Ÿ, a•Ÿ!, ³, è, é, à, Ì, a, , è, Ü, .B, Ü, ½  
 A<ÉŽ @, Ì SLIP fT [fo [Ì’t, É, í AfOfif“ fvf [fZfX, ÌŠÖ, ÉfRf}f“fh fV [fPf“fX, đŽĀs, ., é, ±  
 , AE, É, æ, è AfTf@fCf<, ÌXV A•K—v, Èff [f^, ÌžúW ASLIP Ú±, ÌV—, É, Ç, đs, x, à, Ì, à, , è, Ü, .B V, µ, ç  
 PPP fT [fo [Ì’t, É, í AÚ±, Ì’O, Éf [fU [—¼, AEfpfX [fh, ¾, , đ-à, ç# , í, ¹, é, à, Ì, à, , è, Ü, .B  
 ‘ [ fŠf, [fg fRf“ fsf... [f^, a Microsoft RAS fT [fo [Ì, Ìê# , í Af^ [f~fif< fOfif“ , đŽg, x•K—  
 v, Ì, , è, Ü, ¹, ñBfOfif“ , íAŠ@’S, ÈŽ©“ @%» , ³, è, Ü, .B

**f\_fCf, f<CEã, É RAS f^ [f~fif<, đŽg, x, æ, x, É Windows NT RAS fGf“ fgfŠ, đV—, ., é, É, í**

- 1 f\_fCf, f<fAfbfv flfbfg [fN, ĀAÚ±æ, ÌfGf“ fgfŠ, đ’l’đ, µ, Ü, .B
  - 2 [, » , ¼] , đNfŠfbfN, µA [fGf“ fgfŠ, Aef, fffÉ, Ìfvf [fpfefB, Ì•ÖW] , đNfŠfbfN, µ, Ü, .B
  - 3 [fXfNfŠfvfg] f^fu, ĀA [f^ [f~fif< fEfBf“ fhfE, đŠ], Ì , đNfŠfbfN, µ, Ü, .B
  - 4 [OK] , đNfŠfbfN, µA ŽŸ, É [f\_fCf, f<] , đNfŠfbfN, µ, Ü, .B
- , ±, ÌfGf“ fgfŠ, Éf\_fCf, f<, µAÚ±, ., é, AE A [f\_fCf, f<CEã^ [f~fif<] fEfBf“ fhfE, a•Ÿ!, ³, è AfŠf, [fg fRf“ fsf...  
 [f^, Ìfvf [f“ fvf, a•Ÿ!, ³, è, Ü, .B, ±, Ì [f\_fCf, f<CEã^ [f~fif<] fEfBf“ fhfE, đŽg, Á, ĀfŠf, [fg fRf“ fsf...  
 [f^, ÉfOfif“ , µ, Ü, .BfŠf, [fg fRf“ fsf... [f^, AE, Ì’b, a, , x, Ā—¹, µ, ½, çA [Š@—¹] , đNfŠfbfN, µ, Ü, .B  
 fOfif“ Žè# , a•Ÿ!, É“ , Ì, ĀA•Ī, í, é, ±, AE, a, È, çê# , í AfOfif“ Žè# , ÌžĀs’t, ÉfŠf, [fg fRf“ fsf...  
 [f^, ÈŽ©“ @’l, ÉĪ•ñ, đ“n, fXfNfŠfvfg, đV—, µAÚ±, đŠ@’S, ÈŽ©“ @%» , ., é, ±, AE, a, Ā, «, Ü, .B  
 Ú×, É, Ā, ç, Ā, íA uSWITCH.INF fXfNfŠfvfg, đŽg, Á, ĀfŠf, [fg fOfif“ , đŽ©“ @%» , ., év A uSWITCH.INF  
 , đŽĀs, ., év A, , æ, Ñ uDEVICE.LOG , É, æ, éfXfNfŠfvfg, Ìfgf%ofuf<fvf... [fefBf“ fO v, đŽQAE, µ, Ā, , ¾, ³, çB



**SWITCH.INF fXfNfŠfVfg,đŽg,Á,ÄfŠf, [fg fOfOfif“ ,đŽ©“ @%» ,.é**

fOfOfif“ fvfFzfx,đŽ©“ @%» ,.é,É,íASWITCH.INF ftj@fCf< (X.25 flfbfgf [fN,Á,íAPAD.INF) ,đŽg,č  
,Ü,·B,±,é,É,æ,èAufŠf, [fg fOfOfif“ ,É RAS f^ [f~fif<,đŽg,ᄁv,Áà-¾,μ,½,æ,ᄁ,ÉARAS f^ [f~fif<  
fEfBf“fhfE,đŽè“ @,Á'€i,.,é•K—v,ª,È,,È,è,Ü,·B

fXfNfŠfVfg,É,æ,éŽ©“ @%» ,íAfŠf, [fg fRf“fsf... [f^ ,É'èŠú“l,ÉÚ'±,.,é•K—v,ª, ,éèè±,É“Á,É-đ—  
š,ž,Ü,·BfXfNfŠfVfg,đŽg,ᄁ,æ,ᄁ,É RAS fGf“fgfŠ,ª [v,³,è,Ä,č,é,íAfŠf, [fgÚ'±  
,ÉŽ,“s,μ,½èè±,Á,àARAS ,ÍŽ©“ @“l,ÉfŠf\_fCf, f<,μAÚ'±,đÄŠm—š,μ,Ü,·B,Ü,½AfŠf, [fg fVfXfef€  
,É•p“É,Éf [fOfif“ ,.,éèè±,íA-^%ñžè“ @,Äf [fOfif“ ,.,é•K—v,ª,È,,È,é,ì,ÁAZžŠÔ,đβ-ñ,Ä,«,Ü,·B

SWITCH.INF ftj@fCf<,É,íA“Ä—p,lfXfNfŠfVfg,ªL [q,³,è,Ä,č,Ü,·B,±  
,lfXfNfŠfVfg,íA,Ü,Æ,ñ,Ç,Ü,½,í,Ü,Á,½,•iX,¹, ,ÉŽg—p,Ä,«,Ü,·B,Ü,·A“Ä—p,lfXfNfŠfVfg,đŽg,Á,ÄÚ'±  
,μ,Ä,Ý,Ä,,¾,¾,čB“Ä—p,lfXfNfŠfVfg,Á³,μ,Ú'±,Ä,«,È,čèè±,íA,±  
,lfXfNfŠfVfg,đfRfs [l,μAÚ'±æ,lfŠf, [fg fRf“fsf... [f^ ,lfOfOfif“ Žèè±,Éè±,í,¹,ÄC³,μ,Ü,·B

' [ ,±,±,Áà-¾,μ,Ä,č,éfXfNfŠfVfgCE¾CEè,íAf,fff€,đŠÜ,b,Ü,©,ì'•u,Æ,à'ÉM,Ä,«,é,æ,ᄁ  
,ÉYCEv,³,è,Ä,č,Ü,·Bf,fff€,lfXfNfŠfVfg,ÉŠÖ, ,é'mž~ ,ª,È,č,ÆAfXfNfŠfVfg,í—%đ,μ,É,,čèè±,ª, ,è  
,Ü,·B [uRAS —p,lfXfNfŠfVfg,đ [v,Á,íAfXfNfŠfVfg,ì [v-ú-@,đà-¾,μ,Ü,·ªA“Ä—  
p,lfTf“fvf< fXfNfŠfVfg,ì,č, ,è,©,đfRfs [l,μA•íX, ,é•ú-@,ªÄ,àŠÈ'P,Ä,·B

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RAS —p,lfXfNfŠfVfg,đ [v,·.é

SWITCH.INF ,đŽÄ [s,·.é

DEVICE.LOG ,É,æ,éfXfNfŠfVfg,lfqf%uf<fVf... [fefBf“fO

**RAS —p,lfXfNfŠfVfg,đ□ì□—,·,é**

SWITCH.INF ftf@fCf<,í□Asystemroot\SYSTEM32\RAS fffBfCefNfgfŠ,É, ,è□A,ç,,Â,©,ì□—,³,Èfofbf` ftf@fCf<  
(fXfNfŠfVfg) ,đ'g,Ý□‡,í,¹,½,æ,x,È□\□—,É,È,Á,Ä,ç,Ü,·□BSWITCH.INF ftf@fCf<,É,í□ARAS  
ft□[fU□[,ªCEÄ,Ñ□o,·'‡%oi'·'u,âfjf"ƒ%ofCf" fT□[frfX,²,Æ,É□A^Ù,È,éfXfNfŠfVfg,đ<L□q,Å,«,Ü,·□B

SWITCH.INF ,lfXfNfŠfVfg,í□AfZfNfVf‡f" fwfbf □[□AfRf□f"fg□s□AfRf}f"fh□A%ož"š□A  
%ož"šfL□[f□□[fh□A,·,æ,Ñf}fNf□,ì 6 ,Â,ì—v'f,©,ç□\□—,³,è,Ä,ç,Ü,·□B

ŠÖ~A□€-Ú

SWITCH.INF ,đŽÀ□s,·,é

DEVICE.LOG ,É,æ,éfXfNfŠfVfg,lfqf%ofuf<fVf...□[fefBf"fo

fXfNfŠfVfg,ì<L□q—á

2 ·bŠÔ,lfMfffbfv,đŠÜ,P',ç·¶Žš—ñ,lfuf□fbfN,đ□^—□,·,é

fRf}f"fh,ÆfLfffŠfbfW fŠf^□[f"

**fZfNfVf#f“ fwfbf\_[]**

fZfNfVf#f“ fwfbf\_[][,í[]ASWITCH.INF ftf@fCf<,ì“à—e,ðĈĀ•Ē,ìfXfNfŠfVfg,É<æ[]Ø,è[]A‘Á’è,ìfŠf,[]fg fRf“fsf...  
[][f^,É‘í%ž,.,éfXfNfŠfVfg,ìŽn,Ü,è,ðŽì,μ,Ü,·[]BfZfNfVf#f“ fwfbf\_[][,ì•¶Žš[]“,í[]A31 •¶Žš^È  
%°°,Å,È,~,é,î,È,è,Ü,¹,ñ[]BfXfNfŠfVfg,³ŽÀ[]s,³,è,é,Æ[]AfZfNfVf#f“ fwfbf\_[][,ì•¶Žš—ñ,³\  
Žì,³,è,Ü,·[]BfZfNfVf#f“ fwfbf\_[][,í[]AZÿ,ì,æ,æ,ÉŠp,©,Á,±,Å^í,Ý,Ü,·[]B

[Route 66 Logon]

ŠÖ~A[]€-Ú

RAS —p,ìfXfNfŠfVfg,ð[]i[]-,:é

**fRf“fgs**

fRf“fgs,É,íA1 Ć...-Ú,ÉfZf~fRf“ ( ; ) ,đ<Lq,μ,È,̄,ê,Î,È,è,Û,<sup>1</sup>,ňBfRf“fgs,íAftf@fCf<“à,ì,Ç,±  
,É, ,Á,Ä,à,©,Ü,ç,Û,<sup>1</sup>,ňBfRf“fgs,É,íAZÿ,ì,æ,κ,ÉASWITCH.INF  
ftf@fCf<,ì•ÚŽç,ì,½,β,ìí•ň,đ<Lq,μ,Û,·B

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ŠÖ~A€-Ú

RAS —p.ìfXfNfŠfvg,đìí-,:é



%ož“š

%ož“š, í AfŠf, [fg fffofCfX, Ü, ½, í Šf, [fg fRf“fsf... [f^, ©, ç' — M, ³, è, Ü, · BŽ © “ ®  
%o»», ì, ½, ß, ì XfNfŠfvfg, ð ì ñ, ·, é, É, í AfŠf, [fg fffofCfX, ©, ç Ž ó M, ·, é %ož“š, ì “ à — e, ð ' m, Á, Ä, ç  
, È, ·, è, î, È, è, Ü, ¹, ñ BŽ ó M, µ, ½, · ¶ Ž š, Ì Š Ô, É 2 · b ^ È ã, ì M f f f b f v, º, , é ê ð ð, í A, » , ì · ¶ Ž š — ñ, º 1 , Â, ì  
%ož“š, Æ, µ, Ä ' — M, ³, è, ½, à, ì, Æ © ©, È, ³, è, Ü, · B, ±, ì M f f f b f v, í A %ož“š, ì ñ — ¹, ð Ž ì, · — B ^ è, ì Ž è Š ì  
, ©, è, Ä, · B ð Ú ð ×, É, Á, ç, Ä, í A ð u 2 · b Š Ô, ì M f f f b f v, ð Š Ü, p ' ·, ç · ¶ Ž š — ñ, ì f u f ð f b f N, ð ð ^ — ð, ·, é ð v, ð Ž Q ð Æ, µ, Ä, -  
, ¾, ³, ç ð B

ŠÖ ~ A ð € - Ú

RAS — p. ì XfNfŠfvfg. ð ñ ñ, ·, é

%ož“šfL□[f□□[fh

%ož“šs,lfL□[f□□[fh,Ā,í□AfŠf,□[fg fRf“fsf...□[f^,©,çŽó□M,μ,½%ož“š,É'í,μ,Ā□s,κ□^—□,ðŽw'è,μ,Ü,·□B

**OK=remote computer response<macro>**

Žw'è,μ,½%ož“š,Ü,½,lf}fNf□,ðŽó□M,·,é,Æ□AfXfNfŠfVfg,íŽŸ,ì□s,É□i,Ÿ,Ü,·□B

**LOOP=remote computer response<macro>**

Žw'è,μ,½%ož“š,Ü,½,lf}fNf□,ðŽó□M,·,é,Æ□AfXfNfŠfVfg,í'O,ì□s,É-β,è,Ü,·□B

**CONNECT=remote computer response <macro>**

□³□í,Èf,fff€ fXfNfŠfVfg,ì□ĀCEă,ĀŽg,ç,Ü,·□B^è"É,É□ASWITCH.INF ftf@fCf<,Ā,íŽg,ç,Ü,¹,ñ□B

**ERROR= remote computer response <macro>**

Žw'è,μ,½%ož“š,ðŽó□M,·,é,Æ□A"Ā—p,lfGf%□□[ f□fbfZ□[fW,ð•\Ž!,μ,Ü,·□BfŠf,□[fg fRf“fsf...  
□[f^,©,ç"Á'è,lfGf%□□[,ª•ñ□□,³,è,½□ê□‡,É□ARAS ft□[fU□□[,É'É'm,·,é,½,β,É-ð—š,¿,Ü,·□B

**ERROR\_DIAGNOSTICS= remote computer response <diagnostics>**

fffofCfX,©,ç•Ö,³,è,½"Á'è,lfGf%□□[,ìCE'ö,ð•\Ž!,μ,Ü,·□B,·,×,Ā,fffofCfX,©,ç"Á'è,lfGf  
%□□[,ª•ñ□□,³,è,é,í,-,Ā,Í, ,è,Ü,¹,ñ□BMicrosoft RAS ,Ā,íŽ-•É,Ā,«,É,ç"Á'è,lfGf  
%□□[,ªfffofCfX,©,ç•Ö,³,è,é□ê□‡,í□AERROR= ,ðŽg,ç,Ü,·□B

**NoResponse**

fŠf,□[fg fffofCfX,©,ç%ož“š,ª'—□M,³,è,È,ç□ê□‡,ÉŽg,ç,Ü,·□B

f□□[fjf< fRf“fsf...□[f^□ă,ì RAS ,í□AfŠf,□[fg fffofCfX,©,ç%ož“š,ª ,é,±,Æ,ðí,É'z'è,μ,Ā,ç,Ü,·□B,±

,ì,½,β□**ACOMMAND=** □s,ìŽŸ,É **NoResponse** fXfe□[fgf□f“fg,ª,È,çCEĀ,è□A

%ož“š,ðŽó□M,·,é,Ü,Ā'Ö,¿,Ü,·□B%ož“š,ÉŠÖ,·,éfXfe□[fgf□f“fg,ª **COMMAND=**

□s,ìŽŸ,É,È,ç□ê□‡,í□**ACOMMAND=** □s,ªŽĀ□s,³,è□AfXfNfŠfVfg,í,» ,±,Ā'âŽ~ ,μ,Ü,·□B

ŠÖ~A□€-Ú

RAS —p.ìfXfNfŠfVfg.ð□i□→,·,é

**f}fNf**

f}fNf, íA•s“™ □+ (< >) ,Á^í,Ý,Ü,·□Bf}fNf, íAZÿ,ì,æ,æ,È“ÁŽê,È<@“\,ðŽÀ□s,μ,Ü,·□B

**<cr>**

f\fffŠfbfW fŠf^□[f“ ,ð’}“ü,μ,Ü,·□B

**<lf>**

f%ofCf“ ftfB□[fh,ð’}“ü,μ,Ü,·□B

**<match> "string"**

^ø—p•,,,Á^í,Ü,é,½•¶Žš—ñ,æfffofCfX,ì%ž“š,ì†,ÉCE©,Á,©,é,Æ□A^è’v,μ,½,±,Æ,ð•ñ□□,μ,Ü,·□B,±  
,ìf}fNf,Á,íA’â•¶Žš,Æ□→•¶Žš,æ<æ•È,³,é,Ü,·□B,½,Æ,ì,íA**<match>** "Smith" ,Á,íAJane Smith ,Æ  
John Smith III ,í^è’v,μ,Ü,·,æ□ASMITH ,í^è’v,μ,Ü,¹,ñ□B

**<?>**

f□fCf<fhfj□[fh•¶Žš,ð’}“ü,μ,Ü,·□B,½,Æ,ì,íA**CO<?><?>2** ,íA**COOL2** ,Ü,½,í **COAT2**  
,Æ,í^è’v,μ,Ü,·,æ□**ACOOL3** ,Æ,í^è’v,μ,Ü,¹,ñ□B

**<hXX> (XX ,í 16 □i□)**

"C^Ó,ì16 □i□",ðŽw’è,Á,«.,Ü,·□Bf[f□ fofCfG,íA**<h00>** ,É,È,è,Ü,·□B

**<ignore>**

%ž“š,ì,æ,ì,Á□A,±,ìf}fNf,æ,èCEă,ì•"•æ,ð-³Ž<,μ,Ü,·□B

**<diagnostics>**

"Á’è,ìfGf%□□[í•ñ,ðfffofCfX,©,ç RAS ,É“n,μ,Ü,·□B,±,ìf}fNf,ðŽg,æ,Æ□A“Á’è,ìfGf%□□[ð RAS  
ft□[fU□[ ,É’È’m,Á,«.,Ü,·□B“Á’è,ìfGf%□□[ ,ð’È’m,μ,È,ç□é□‡,íA“Á—p,ìfGf%□□[ f□fbfZ□[fW,æ•\Ž!,³,é,Ü,·□B

ŠÖ~A□€-Ú

"F□Øf}fNf

RAS —p,ìfXfNfŠfvg,ð□i□→,·,é



**"F[]f}fNf[]**

ŽŸ,lf}fNf[],đŽg,æ,Æ[]Aft[]fU[][-¼,ÆfpfXf[]fh,lf[]Ofif" fAfffEf"fg[]•ñ,đfŠf,[]fg fRf"fsf...  
[]f^,ÉŽ©"®"l,É"n,·,±,Æ,ª,À,«,Ü,·[]B

**<username>**

RAS ,ì [] ,Ö,ì[]Ú'±] fEfBf"fhfE,É"ü—í,³,ê,½ft[]fU[][-¼,đfŠf,[]fg fRf"fsf...[]f^,É'—[]M,µ,Ü,·[]B,±  
,lf}fNf[],í[]ASLIP []Ú'±,À,lfTf[]fg,³,ê,À,ç,Ü,¹,ñ[]B

**<password>**

RAS ,ì [] ,Ö,ì[]Ú'±] fEfBf"fhfE,É"ü—í,³,ê,½fpfXf[]fh,đfŠf,[]fg fRf"fsf...[]f^,É'—[]M,µ,Ü,·[]B,±  
,lf}fNf[],í[]ASLIP []Ú'±,À,lfTf[]fg,³,ê,À,ç,Ü,¹,ñ[]B

**ŽŸ,ì—¼•û,ì[]đCE[],ª[]—š,·,é[]ê[]í,í[]Af[]fofif"**

**fAfffEf"fg[]•ñ,ì"[]F[]Ø,ªŽ, "s,µ[]Aft[]fU[],ì[]Ä"[]F[]Ø't] f\_fcAf[]fo f{fbfNfX,ª•\Ž!,³,ê,Ü,·[]B**

- '±%oi,lfZfLf...fŠfefB fffofCfX,đ%oi,µ,ÄfVfXfef€,đCEÄ,Ñ[]o,·[]ê[]#[]B(RAS ,đŽg,À,ÄfCf"f^[]f[]fbfLf...fvf[]fofCf\_,đCEÄ,Ñ[]o,·[]ê[]#,í[]A'É[]í[]A,±,ì[]ó<µ,É,í"—,À,í,Ü,è,Ü,¹,ñ[]B)
- fZfLf...fŠfefB fffofCfX,Éf[]Ofif",µ,½CEã,É[]AWindows NT RAS fT[]fo[],Éf[]Ofif",µ,æ,æ,Æ,·,é[]ê[]#[]B  
[ft[]fU[],ì[]Ä"[]F[]Ø't] f\_fcAf[]fo f{fbfNfX,ª•\Ž!,³,ê,é,ì,í[]ARAS ,ì [] ,Ö,ì[]Ú'±] f\_fcAf[]fo f{fbfNfX,ì  
[ft[]fU[][-¼] f{fbfNfX,Æ [fpfXf[]fh] f{fbfNfX,ª[]AWindows NT RAS fT[]fo[],ÀŽg,í,è,é,¾,·,À,È,-  
[]Aft[]fU[][-¼,ÆfpfXf[]fh,ÉŠÖ,·,é 2 ,À,lf}fNf[],À,àŽg,í,è,é,½,ß,À,·[]B  
,½,Æ,ì,ì[]AWindows NT RAS fT[]fo[],Æf,fff€,ìŠÖ,É'±%oi,lfZfLf...fŠfefB fffofCfX,ª, ,é,Æ,µ,Ü,·[]BfZfLf...  
fŠfefB fffofCfX,lf[]Ofif"[]•ñ,À,í[]Aft[]fU[][-¼,ª "BB318" ,À[]AfpfXf[]fh,ª "34554377"  
,À, ,è[]AWindows NT RAS fT[]fo[],lf[]Ofif"[]•ñ,À,í[]Aft[]fU[][-¼,ª "BB318" ,À[]AfpfXf[]fh,ª  
"treehouse" ,À, ,é,Æ,µ,Ü,·[]B,±,ì[]ê[]#[]A'±%oi,lfZfLf...fŠfefB  
fffofCfX,Ö,lf[]Ofif",í[]—CE+,µ,Ü,·,ª[]AWindows NT RAS fT[]fo[],Ö,lf[]Ofif",íŽ, "s,µ,Ü,·[]B  
f[]Ofif",ªŽ, "s,·,é,ì,í[]AfZfLf...fŠfefB fffofCfX,lfpfXf[]fh,ì "34554377" ,ª[]AWindows NT  
fhf[]Cf",lfpfXf[]fh,Æ,í^Ü,È,é,½,ß,À,·[]B,±,ì,½,ß[]AWindows NT ,í[]Aft[]fU[],ì[]Ä"[]F[]Ø't] f\_fcAf[]fo  
f{fbfNfX,đ•\Ž!,µ[]AWindows NT ,ì[]³,µ,çf[]Ofif" fAfffEf"fg[]•ñ (,±,ì[]ê[]#,í[]AfpfXf[]fh) ,đ-  
â,ç[]#,í,¹,Ü,·[]B

**[ft[]fU[],ì[]Ä"[]F[]Ø't] f\_fcAf[]fo f{fbfNfX,đ•\Ž!,µ,È,ç,æ,æ,É,·,é,É,í**

- fVfXfef€ŠÇ—[]ŽÖ,É^È—š,µ[]A—¼•û,lfVfXfef€,lf[]fU[][-¼,ÆfpfXf[]fh,đ"·,¶,É,µ,Ü,·[]B(,½,¾,µ[]A,±,è,À,lfZfLf...fŠfefB fffofCfX,đ[]Y'u,µ,½^Ó—j,ª,È,-  
,É,é,ì,À[]A[],¶s,À,«,é•û—@,À,í, ,è,Ü,¹,ñ[]B)
- '±%oi'•u,lf[]Ofif" fAfffEf"fg[]•ñ,É<æ—p,lf\_fcAf[]fo f{fbfNfX,đŽg,í,È,ç,À,-  
,¾,³,ç[]B,» ,ì'â,í,è,É[]ASWITCH.INF ftf@fCf<,ì [Generic login] fXfNfŠfvfg,É[]],À,À[]Aft[]fU[][-¼,ÆfpfXf[]fh,đfNfŠfA fefLfXfg,À SWITCH.INF ftf@fCf<,É<L[]q,µ,Ü,·[]BfNfŠfA fefLfXfg fpfXf[]fh,ì<@-  
s,đ•ÜŽ,·,é,É,í[]AWindows NT ftf@fCf< fVfXfef€ (NTFS) ,lfTf@fCf< fAfNfZfXCE ,đ[]Y'è,µ[]A,Ü,©,lf[]fU[],ª,±  
,lfTf@fCf<,ÉfAfNfZfX,À,« ,È,ç,æ,æ,É,µ,È,·,è,ì,È,è,Ü,¹,ñ[]B

**fXfNfŠfVfg,ì<Lq—á**

,±,±,Á,ÍARAS ,É•t'® ,.é SWITCH.INF ftf@fCf<,Á'ñ<ÿ,³,ê,éA"Ä—p,ìfXfNfŠfVfg,ìŠe•"•ª,É,Á,ç,Äà-  
¾,µ,Û,·B

ŠefXfNfŠfVfg,É,ÍAæª,ÉfŠf,[]fg fRf"fsf...[]f^,Ö,ìfRf}f"fh,ð<Lq,µAZÿ,É 1 []s^Èã,ì  
%ž"š[]s,ð<Lq,µ,Û,·B½,,ìê[]A,±,ìæª,ìfRf}f"fh,ÍAfŠf,[]fg fRf"fsf...[]f^,ª[]%Šú%»»,³,êAf[]fOfIf"  
fvf[]f"fvfg,ð'—M,.,é,Û,Á'Ò,Á,æ,ª,ÉAfNf%ofCfAf"fg,ÉŽwŽ!,.,é,¾,¯,Á,·BSù'è,ìÿ'è,Á,ÍA2 •bŠÔf[]fOfIf"  
fvf[]f"fvfg,ð'Ò,¿,Û,·BSWITCH.INF ftf@fCf<,É,ÍAZÿ,ì,æ,ª,É<Lq,µ,Û,·B

**COMMAND=**

%ž"š (fŠf,[]fg fRf"fsf...[]f^,©,ç'—M,³,ê,é[]fOfIf" fvf[]f"fvfg) ,ªŽÿ,ì,æ,ª,Èê[]A

Welcome to Gibraltar Net. Please enter your login:

SWITCH.INF ftf@fCf<,ì'í%ž,.,é%ž"š[]s,É,ÍAZÿ,ì,æ,ª,É<Lq,µ,Û,·B

**OK=<match>"Please enter your login:"**

"Please enter your login:" ,Æ,ç,ª•¶Žš—ñ,ªfŠf,[]fg fRf"fsf...[]f^,©,ç'—M,³,ê,½ê[]#,ÍA—à'è,È,ç  
,Æ">'f,µAZÿ,ì^—,É,í,ÿ,Û,·Bft[]fU[][-¼,ÉfLfffŠfbfW fŠf^[]f",ð•t,¯%Á,ì,½•¶Žš—  
ñ,ðfRf}f"fh,Æ,µ,Ä'—M,µAfŠf,[]fg fRf"fsf...[]f^,É%ž"š,µ,Û,·B

**COMMAND=MariaG<cr>**

fŠf,[]fg fRf"fsf...[]f^,©,ç,ì%ž"š,ªŽÿ,ì,æ,ª,Èê[]A

Please enter your password:

SWITCH.INF ftf@fCf<,ì'í%ž,.,é%ž"š[]s,É,ÍAZÿ,ì,æ,ª,É<Lq,µ,Û,·B

**OK=<match>"Please enter your password:"**

fpfXf[]f[]fh,ð'—M,.,é,É,ÍAZÿ,ì,æ,ª,ÈfRf}f"fh,ð'—M,µ,Û,·B

**COMMAND=mUs3naB<cr>**

,±,ì,æ,ª,ÈfXfNfŠfVfg,ðŽg,ª,ÆA'½,,ì PPP fRf"fsf...[]f^,ÉŽ©"®"I,Éf[]fOfIf",Á,«,Û,·B

ŠÖ~A[]€-Ú

SLIP fRf"fsf...[]f^,Ö,ìf[]fOfIf",ðŽ©"®%»»,.,é

RAS —p.ìfXfNfŠfVfg.ð[]-.,.é

**SLIP fRf“fsf...[]f^,Ö,lf[]fOfif“,đŽ©“®%»,.·,é**

Ā, Ñ, μ, ž, é, ASLIP fvf[]fofCf\_, ©, ç- ^%ñ“ ~, ¶ IP fAfhfCEfX, Š,, è“- , Ā, ç, ê, é[]ê[]‡, í[]A[SLIP TCP/IP , ì[]Ý‘è]  
f\_fCfAf[]fO f{fbfNfX, ÉfAfhfCEfX, đ“ ü— í, ·, é, ±, Æ, É, æ, è[]ASLIP []Ú‘±, đŠ®‘S, ÉŽ©“®%» , Ā, «, Ü, ·[]B

Ā, Ñ, μ, ž, é, A- ^%ñ^ Û, È, é IP fAfhfCEfX, Š,, è“- , Ā, ç, ê, é[]ê[]‡, í[]Af[]fOfif“ Žè[]‡, ì‘á·” ·ª, đŽ©“®  
%» , Ā, «, ½, Æ, μ, Ā, à[]ASLIP , ìf^[]f~fif< fEfBf“ fhfE, Ā IP fAfhfCEfX, đŽè“® , Ā“ü— í, μ, È, ~, ê, Î, È, è, Ü, ¹, ñ[]B



**fRf}f“fh,ÆfLfffŠfbfW fŠf^[]f“**

'Ê[]AfRf}f“fh,[]ÅCEä,É,[]AfLfffŠfbfW fŠf^[]f“,ð•\,· <cr> ,ð' }“ü,µ,Ü,·[]BfLfffŠfbfW fŠf^[]f“,ðŽg,⌘  
,Æ[]A,»,)fRf}f“fh,í'¼,¿,ÉfŠf,[]fg fRf“fsf...[]f^,É^—[],è,³,ê,Ü,·[]B<cr> ,ðŽg,í,È,ç,Æ[]AfŠf,[]fg fRf“fsf...  
[]f^,ÅfRf}f“fh,ª”FŽ~ ,³,è,È,ç,±,Æ,ª, ,è,Ü,·[]B

^ê•û[]AfŠf,[]fg fRf“fsf...[]f^,ª[]AfLfffŠfbfW fŠf^[]f“,ð”º,í,È,çfRf}f“fh,ðŽó,~Žæ,è[]AfRf}f“fh,ð^—  
[],·,éŽžŠÖ,ð•K—v,Æ,·,éê[]‡,í[]A<cr> ,ðŽg—p,Å,«,Ü,¹,ñ[]B,±,è,í[]AZž,É[]A  
%ž“š,ð'z'è,¹,,É^ê~A,)fRf}f“fh,ð'—[]M,·,éê[]‡,È,Ç,É—,Ä,Í,Ü,è,Ü,·[]B

ŠÖ~A[]€-Ú

RAS —p,ífXfNfŠfvg,ð[]i[]-,·,é

**SWITCH.INF ,đŽÀ□s,·,é**

SWITCH.INF ,ÉfXfNfŠfvg,đ□i□-,μ,½CEă,Ā□AfXfNfŠfvg,đŽÀ□s,·,é,æ,π,É RAS ,İfGf“fgfŠ,đ□\□-,μ,Ü,·□B

**Windows NT ,ĀfXfNfŠfvg,đŽÀ□s,·,é,É,Í**

- 1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,Ā□A□Ú'±□æ,İfGf“fgfŠ,đ'ı'đ,μ,Ü,·□B
- 2 [,»,'¼] ,đfNfŠfbfN,μ□A[fGf“fgfŠ,Æf,ff€,İvf□pfefB,İ•Ö□W] ,đfNfŠfbfN,Ü,·□B
- 3 [fXfNfŠfvg] f^fu,Ā□A[ŽŸ,İfXfNfŠfvg,đŽÀ□s,·,é] ,đ'ı'đ,μ□AfXfNfŠfvg-¼,đ'ı'đ,μ,Ü,·□BSWITCH.INF ,İfZfNfVf†f“ fwfbf\_□[ ,əfXfNfŠfvg-¼,Æ,μ,Ā•\Ž!,³,è,Ü,·□B  
[fXfNfŠfvg,İ•Ö□W] ,đfNfŠfbfN,·,é,Æ□AfXfNfŠfvg,đ•Ö□W,·,é,±,Æ,à,Ā,«,Ü,·□B
- 4 [OK] ,đfNfŠfbfN,μ□AŽŸ,É [f\_fCf,,f<] ,đfNfŠfbfN,μ,Ü,·□B

,±,İfGf“fgfŠ,Éf\_fCf,,f<,·,é,Æ□A'ı'đ,μ,½fXfNfŠfvg,É,æ,è□AfŠf,□[fg  
fzfXfg,Éf\_fCf,,f<,·,é'Ö,Ü,½,İf\_fCf,,f<,μ,½CEă,É□AfŠf,□[fg fffofCfX,Æ,İ,·,x,Ā,ı'Ê□M,əŽÀ□s,³,è,Ü,·□B  
ŠÖ~A□€-Ú

RAS —p,İfXfNfŠfvg,đ□i□-,·,é

DEVICE.LOG ,É,æ,éfXfNfŠfvg,İfgf%øfuf<fVf...□[fefBf“fO

**DEVICE.LOG ,É,æ,éfXfNfŠfVfvg,lfvgf%ofuf·fVf...[fEfBf“fo**

Windows NT ,Á,ÍARAS Af,fff€A, ,æ,ÑfŠf, [fg fffofCfX,ÌŠÖ,ÁCEđŠ·,³,è,Ä,ç  
,é,·, x,Ä,ìÉM fñ,lf fO,đŽúW,Á,«,Ü,·Bf fO,É,Í AfŠf, [fg fffofCfX, ©,ç·ñ,³,è,éfGf  
%o[ ,àŠÜ,Ü,è,Ü,·B,±,lf fO,É,æ,è AfXfNfŠfVfvg,ì“ @ì,đ-W,°,é áŠQ,đCE @,Á, ,é,±,Æ,ª,Á,«,Ü,·B  
DEVICE.LOG ftf@fCf<,đì- ,·,é,É,Í AfCEfWfXfgfŠ,Áf fO,ìŽúW,đ—LCEø,É,µ,Ü,·Bf fO,ìŽúW,đ—  
LCEø,É,·,é,Æ ASystemroot\SYSTEM32\RAS fffBfCEfNfgfŠ,É DEVICE.LOG ftf@fCf<,ªì- ,³,è,Ü,·B

**DEVICE.LOG ftf@fCf<,đì- ,·,é,É,Í**

- 1 ,·, x,Ä,ìÚ'±,đø'f,µAŽY,Éf\_fCf,,f·fAfbfv flfbfgf [fN,đì—¹,µ,Ü,·B
- 2 REGEDT32.EXE ,đŽÁs,µ AfCEfWfXfgfŠ fGfffBf^ ,đ·N“ @,µ,Ü,·B
- 3 fCEfWfXfgfŠ,Á AŽY,lfL [ ,ÉfAfNfzfx,µ,Ü,·B

HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\RasMan\Parameters

- 4 ŽY,ì,æ,µ,É ALogging fpf%of [f^ ,l'1,đ 1 ,É·ìX,µ,Ü,·B

Logging:REG\_DWORD:0x1

- 5 fCEfWfXfgfŠ fGfffBf^ ,đì—¹,µ,Ü,·B

fŠf, [fg fAfNfzfx,đÄ“xŠJŽn,·,é, ©A,Ü,½,í Remote Access Server fT [frfX,đŠJŽn,·,é,Æ (fRf“fsf...  
 [f^ ,æÄ,Ño,µ,đŽó, ,é'æ,ìèè#) Af fO,ìŽúW,ªŠJŽn,³,è,Ü,·B Windows NT  
,đVfffbfgf\_fEf“ ,µ,ÄÄ·N“ @,·,é·K—v,í, ,è,Ü,¹,ñ B

f\_fCf,,f,µ,ÄÚ'±,·,é,Æ AfXfNfŠfVfvg,ªŽÁs,³,è,Ü,·B fXfNfŠfVfvg,ìŽÁs't,ÉfGf%o [ ,ª”-  
 [l,·,é,Æ AfXfNfŠfVfvg,ìŽÁs,ì'tŽ~ ,³,è,Ü,·B,±,ì,æ,µ,Éèè# ,íARAS ,đì—¹,µ AfefLfxfg fGfffBf^ ,đŽg,Á,Ä  
DEVICE.LOG ,đ·Žì,µ A-â'è,ì%ÓŠ,đ'T,µ,Ä,¾,¾,ç B u·sŠ@'S,È SWITCH.INF fXfNfŠfVfvg,ì—  
 áv,Á,í A·sŠ@'S,ÉfXfNfŠfVfvg,Æ AÚ'±,ªŽ,“s,µ,½,Æ,«,Éì- ,³,è,é DEVICE.LOG ,É,Á,ç,Äà-¾,µ,Ä,ç  
,Ü,·B

- ' B RAS ,Ü,½,í Remote Access Server  
 fT [frfX,đ'âŽ~ ,µ,ÄÄ“xŠJŽn,µ,È,çÄÄ,èA,·, x,Ä,ìÄÄ,Ño,µ,ì·L~ ^ ,ª DEVICE.LOG ,É'Ç  
 %oÄ,³,è,Ü,·B,±,ì,½,ß ACEä,Á² [ ,µ,½,è A-â'è,đ%đCE^ ,µ,½,è,·,é,½,ß,ìd—v,Èí·ñ,ª  
 DEVICE.LOG ftf@fCf<,ÉŠÜ,Ü,è,éèè# ,íA,±,lf tf@fCf<,lfRfs [ ,đì- ,µA,Ü, ©,ì-  
 ¼'0,đ·t, ,Ä·Ü'¶,µ,½CEä,ÁARAS ,Ü,½,í Remote Access Server fT [frfX,đÄ“xŠJŽn,µ,Ü,·B

ŠÖ~A [€-Ú

·sŠ@'S,È SWITCH.INF fXfNfŠfVfvg,ì—á

DEVICE.LOG ,ì—á

RAS —p,lfXfNfŠfVfvg,đì- ,·,é

SWITCH.INF ,đŽÁs,·,é

**•sŠ®'S,È SWITCH.INF fXfNfŠfVfg,ì—á**

ŽŸ,ìfXfNfŠfVfg,íAÚ±,μ,æ,π,Æ,μ,½fT[fXf,É'í,μ,Ä³í,É"®ì,μ,È,ç•sŠ®'S,È—á,Å,·BDEVICE.LOG  
,ÉfO,ðŽûW,·,é,æ,π,ÉÝ'è,μ,Ä,±,ìfXfNfŠfVfg,ðŽÀs,μ,½Æ<%oÉAfŠf,ìfg fRf"fsf...

[f^,ìfXfNfŠfVfg,©,ç,³,ç,ÉfRf}f"fh,ðŽó, Žæ,é,±,Æ,ð'z'è,μ,Ä,ç,é,±

,Æ,ª,í,©,è,Ü,μ,½B¶¶¬,³,è,½fO,ì'So—í,É,Ä,ç,Ä,íA[uDEVICE.LOG,ì—áv,ðŽQÆ,μ,Ä,,¾,¾,çB

[Gibraltar Net Login for MariaG]

; fŠf,ìfg fRf"fsf...[f^,ð%Šú%o»,·,éÅ%o,ìfRf}f"fhB

COMMAND=

; fOfIf" fVf"fvfg,Ü,ÄfXfLfbfv,·,éB

; ,Ä,Ü,èAfOfIf" fVf"fvfg,ðŽæ"¾,·,é,Ü,ÄA

; 2 •bŠÖ,ìfMfffbfv,Ä•š,,³,è,½•¶Žš—ñ,ìfufbN,ðCEJ,è•Ö,μŽóM,·,éB

OK=<match>"Login:"

LOOP=<ignore>

; fŠf,ìfg fRf"fsf...[f^,Éft[fU[-¼,ð'—M,·,éB

COMMAND=MariaG<cr>

; 2 •bŠÖ,ìfMfffbfv,ª,È,ç,ì,ÄA'¼,¿,É "Password:" ,Æ"äŠr,·,éB

OK=<match>"Password:"

; fŠf,ìfg fRf"fsf...[f^,ÉfpfXf[fh,ð'—M,·,éB

COMMAND=mUs3naB

ŠÖ~A€-Ú

DEVICE.LOG,ì—á



**DEVICE.LOG ,ì—á**

ŽŸ,ÉŽ!,.,ì,íA•sŠ@‘S,ÉfXfNfŠfvfg,ðŽÀ□s,μ,½,Æ,«,É□□—,³,ê,½ DEVICE.LOG  
ftf@fCf<,Á,·BfRf□f“fg□s,í□Aftf@fCf<,ì“à—e,ð,í,©,è,â,.,.,é,½,ß,É□Aftf@fCf<,ì□¶□—CEã,É‘Ç  
%oÁ,μ,½fRf□f“fg,Á, ,é,±,Æ,É‘□^Ó,μ,Ä,,¾,³,ç□B

Remote Access Service Device Log 08/23/1996 13:52:21

-----  
; ,±,ìfZfNfVf+“f“,í□ARAS ,Æf,fff€,ìŠÒ,ì‘É□M“à—e□B

Port:COM1 Command to Device:AT&F&C1&D2 W2\G0\J0\V1 S0=0 S2=128 S7=55

Port:COM1 Echo from Device :AT&F&C1&D2 W2\G0\J0\V1 S0=0 S2=128 S7=55

Port:COM1 Response from Device:

OK

Port:COM1 Command to Device:AT\Q3\N7%COM1

Port:COM1 Echo from Device :AT\Q3\N7%COM1

Port:COM1 Response from Device:

OK

; fŠf,□[fg fRf“fsf...□[f^,Éf\_fCf,,f<.,éfRf}f“fh,ðŽÀ□s,μ□A□Ú‘±,É□—CE÷,.,é□B

Port:COM1 Command to Device:ATDT1 206 555 5500

Port:COM1 Echo from Device :ATDT1 206 555 5500

Port:COM1 Response from Device:

CONNECT 14400/REL

Port:COM1 Connect BPS:19200

Port:COM1 Carrier BPS:14400

; □Á□%o,ì null fRf}f“fh,ðfffofCfX,É‘—□M,.,é□B

Port:COM1 Command to Device:

Port:COM1 Response from Device:

\_ [2J\_ [H

Welcome to Gibraltar Net, a service of: Trey Computing, Inc.

Problems logging in? Call us at 555-5500 between 8:00am and 8:00pm Mon-Sat.

NOTE: Your software must support VT100 (or higher) terminal emulation!

Port:COM1 Response from Device:P

; □ã,ì□s,í□A"Please" ,Æ,ç,æ‘PCEê,ì“r’t,É

; 2 •bŠÒ,ìfMffffbfv,â, ,é,±,Æ,ðŽ!,μ,Ä,ç,Ü,·□B

; fXfNfŠfvfg,âŽ,."s,μ□A□ã,ì□s,ì%ož“šCEã,É DEVICE.LOG ,â□|—¹,μ,Ä,ç,é□é□‡,í□A

; ,±,ì 2 •bŠÒ,ìfMffffbfv,ðfXfNfŠfvfg,Á□|—¶,μ,È, ,é,ì,È,è,Ü,¹,ñ□B

; null ,ì COMMAND= □s□A

; Ü,½,í OK=response ,Æ LOOP=<match> ,ì’g,Ý□‡,í,¹,ðŽg,ç,Ü,·□BOK=response AND LOOP=<match>  
COMBINATION.

Port:COM1 Response from Device:lease turn OFF your Caps Lock if it is on now.

Please enter your login name and password at the prompts below.

- Log in as "guest" to take a look around the system.
- Log in as "new" to create an account for yourself.

Login:

; ft[fU[-¼,ðfRf}]f“fh,Å’—M,·,éB  
Port:COM1 Command to Device: MariaG  
Port:COM1 Echo from Device : MariaG  
Port:COM1 Response from Device:  
Password:

; fpfXf[fh,ðfRf}]f“fh,Å’—M,·,éB  
Port:COM1 Command to Device: mUs3naB  
Port:COM1 Echo from Device : mUs3naB

; fšf,[fg fRf“fsf...[f^,Å,íAf[]OfCf“Žè±,ªE±,³,è,Ü,·,ªA  
; fXfNfšfvfg,í,±,è^Éã’±s,³,è,Ü,¹,ñB  
; Ž“@f[]OfCf“,íA,±,ìŽž“\_,ÅŽ,“s,µ,Ä,ç,Ü,·B  
Port:COM1 Response from Device:

,±,ífXfNfšfvfg,íA½,,ífšf,[fg fRf“fsf...[f^,Å,í³í,É“@i,µ,Ü,·B,µ,©,µA,±,ífšf,[fg fRf“fsf...  
[f^,ìè±,íA,æ,è¹²,,ì%ž“š,ð’—M,µAfT[]fRfX,ðšŽn,·,éfRf}]f“fh,ìŽóM,ð’z’è,µ,Ä,ç,Ü,·B,±  
,ífXfNfšfvfg,ðš@-³,¹,é,É,íAfšf,[fg fRf“fsf...[f^,©,ç,ì%ž“š,ì±,«,ð’m,Á,Ä,ç,È,¯,è,Î,È,è,Ü,¹,ñBRAS  
f^[]f~fif<,ðžg,Á,Äžè“@,Åf[]Ofif“,·,é,ÆAf[]Ofif“Žè±,ì±,«,íAZÿ,ì,æ,æ,É,È,è,Ü,·B

Gibraltar Net offers you several network services:

Service

- 
- SHell
- UPload
- DOwnload
- PAssword
- PPP
- SLIP

Please enter a service:

,µ,½,ª,Á,ÄAZÿ,ìs,ð’Ç%Á,µ,ÄfXfNfšfvfg,ðš@-³,¹,Ü,·B

**COMMAND=<cr>**

**OK=<match>"Please enter a service:"**

**LOOP=<ignore>**

ã,ìs,ðfXfNfšfvfg,É’Ç%Á,µ,½EãARAS ,ðÄ“xšŽn,µ,Äfšf\_fCf,,f<,·,é,ÆAÚ’±,ª-CE÷,µ,Ü,·B  
RAS ,ì”Ä—p,ífXfNfšfvfg,ª³í,É“@i,µ,È,çè±,íA,±,è,ç,ífKfCfhf%ofCf“,É%o^,Á,ÄAÚ’±  
,ª-CE÷,·,é,æ,æ,ÉfXfNfšfvfg,ðC³,µ,Ä,,¾,¾,çB,Ü,·A”Ä—p,ífXfNfšfvfg,ð SWITCH.INF  
,ì--“ö,ÉfRfs[],µAZÿ,ÉÚ’±óµ,É±,í,¹,ÄfRfs[],ðC³,µ,Ü,·B

ŠÖ~A[]€-Ú

•sŠ@’S,È SWITCH.INF fXfNfšfvfg,ì—á

**,Ù, ©, Ì Microsoft RAS fNf%ofCfAf“fg,ÁfXfNfŠfvg,ðŽg,æ**

Microsoft RAS Version 1.0 (LAN Manager □ã,ÁŽÀ□s,<sup>3</sup>,ê,Û,·) ,Á,Í□ARAS f^□[f~fif<,ð<N“ © ,μ,½,è□A.INF  
ftf@fCf<,ìfXfNfŠfvg,ðŽg,Á,½,è,·,é,±,Æ,Í,Á,«,Û,<sup>1</sup>,ñ□B

Microsoft RAS Version 1.1a (LAN Manager □ã,ÁŽÀ□s,<sup>3</sup>,ê,Û,·) ,Á,Í□APAD.INF ,ì,Ý,ðfTf|□[fg,μ,Ä,ç,Û,·□B,±  
, Ì PAD.INF ftf@fCf<,ì□\•¶,Í□AMicrosoft RAS ,ìÆã,ìfo□[fWf†f“,Æ,Í,í,·,©,É^Û,È,é,±,Æ,É'□^Ó,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

Windows NT Version 3.1 ^È□~ ,ì Microsoft RAS ,Á,Í□ARAS f^□[f~fif<,Æ□ASWITCH.INF ,” ,æ,Ñ PAD.INF  
,ìfXfNfŠfvg,ðfTf|□[fg,μ,Ä,ç,Û,·□B

### 3/4f,fff€,iŠT—v

,±,±,Å,í□AfŠf,□[fg fAfNfZfX fT□[frfX,ÅfTf]□[fg,<sup>3</sup>,é,Ä,ç,È,çf,fff€,ÉŠÖ,·,é□î•ň,đ'ň<Ÿ,μ□Af,fff€,ìfXfNfŠfVfg  
ftf@fCf< MODEM.INF ,ì□C□<sup>3</sup>•û-@,đ□à-<sup>3</sup>/<sub>4</sub>,μ,Ü,·□B,±,ìfXfNfŠfVfg ftf@fCf<,É,í□AfŠf,□[fg fAfNfZfX  
fT□[frfX,ÅfTf]□[fg,<sup>3</sup>,é,Ä,ç,éŠeŽif,fff€,ì□î•ň,<sup>a</sup><L□q,<sup>3</sup>,é,Ä,ç,Û,·□B,±,ìftf@fCf<,đŽŸ,ì□é□†^ÉŠÖ,ì—□—  
R,Å□C□<sup>3</sup>,μ,È,ç,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

- fTf]□[fg,<sup>3</sup>,é,Ä,ç,È,çf,fff€—p,ìfZfNfVf†f“,ì'Ç%oÁ,·,é□é□†
- f,fff€,ì□Å'â'É□M'—“x,đ 57600bps (frfbfg/•b) ,É□ã,°,é,È,Ç□AŠù'¶,ìfGf“fgfŠ,đŠg'£,·,é□é□†

fTf]□[fg,<sup>3</sup>,é,Ä,ç,È,çf,fff€,đŽg,π,<sup>1</sup>/<sub>2</sub>,β,É MODEM.INF ,đ□C□<sup>3</sup>,·,é•û-@,É,Ä,ç,Ä,í□A□uf,fff€,ìfXfNfŠfVfg  
ftf@fCf<,iŠT—v□v,đŽQ□Æ,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

□Å'â,ì<sup>3</sup>□kÆø—!,đ<sup>3</sup>/<sub>4</sub>,é,<sup>1</sup>/<sub>2</sub>,β,É□,„□§,·,éŽ—□€,É,Ä,ç,Ä,í□A□u<sup>^3</sup>□k,ÉŠÖ,·,éŽw□j□v,đŽQ□Æ,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

**f,fff€,lfzfbfgfAfbfv,İŠT—v**

f\_fCf,,f<fAfbfv flfbfgf□□[fN,Å,Í□Af,fff€,í□«”\,ð□\•ª,ÉŠ^—p,Å,«<é,æ,æ,É□AZÏ,ì,æ,æ,È,³,Ü,´,Ü,È<@”\,ªfTf] □[fg,³,è,Ä,ç,Ü,·□B

- fn□[fhfEfFfA.ftf□□□□\$CEä
- f,fff€,É,æ,éfGf%□□□\$CEä
- f,fff€,É,æ,éff□[f^³□k
- f,fff€ fRf}f“fh,İŽè”@“ü—Í
- 14,400bps□A19,200bps□A28,800bps□A,“,æ,Ñ 38,400bps (,³,ç,É□A□é□‡,É,æ,Ä,Ä,Í 57,600bps ,à) ,ì,´—É□M

Žg—p,·,éf,fff€,í□A□wWindows NT fn□[fhfEfFfACEÝŠ·□«fŠfXfg□x,ðŽQ□Æ,μ□A,Å,«<é,¾,³, Windows NT ,ÅfTf]□[fg,³,è,Ä,ç,é<@Ží,©,ç‘l,Ô,æ,æ,É,μ,Ä,,¾,³,ç□B,±,lfŠfXfg,É<“°,ç,è,Ä,ç,éf,fff€,í□AMicrosoft ŽĐ“à,lfefXfg,É,“,ç,ÅfŠf,□[fg fAfNfZfX f\ftfgfEfFfA,ÅŽg,!,é,±,Æ,ªŠm”F,³,è,Ä,ç,Ü,·□B

‘□ CEÝŠ·□«<ðŠmŽÀ,É,·,é,É,Í□AfŠf,□[fg fAfNfZfX fT□[fo□[É□Ú´±,³,è,Ä,ç,éf,fff€,Æ““,¶Ží—p,lf,fff€,ðŽg,ç□A““,¶%Šú´É□M´—“x,ð‘l’ð,μ□A““,¶<@”\,ð—LCEø,É,μ,Ä,- ,¾,³,ç□B““,¶f,fff€,ð‘l,Í,É,ç□é□‡,í□A□,È,,Æ,àfT□[fo□[lf,fff€,Æ CCITT <KŠi,ª““,¶f,fff€,ð‘l,ñ,Ä,- ,¾,³,ç□B

fTf]□[fg,³,è,Ä,ç,È,çf,fff€,Åf\_fCf,,f<fCf“,·,é•ù-@,É,Ä,ç,Ä,í□A□uf,fff€,lfXfNfŠfVfg.ftf@fCf<,İŠT— v□v,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

**f,fff€,ð•İ□X,μ,¾,è□A□V,μ,çf,fff€,ðfCf“fXfg□[f<,μ,¾,è,·,é,É,Í**

- 1 fRf“fgf□□[f< fpf]f<,ì [flfbfgf□□[fN] fAfCfRf“,ðf\_fuf<fNfŠfbfN,μ,Ü,·□B
- 2 [fT□[frfX] f^fu,Å□A[fŠf,□[fg fAfNfZfX fT□[frfX] ,ðfNfŠfbfN,μ□AZÏ,É [fvf□fpfefB] ,ðfNfŠfbfN,μ,Ü,·□B
- 3 □Ú□x,É,Ä,ç,Ä,í□A[fwf<fv] ,ðfNfŠfbfN,μ□A□à-¾,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

ŠÖ~A□€-Ü

f,fff€,ðfefXfg,·,é  
f,fff€,ì<@”\,ð□Ý’è,·,é

**fn□[fhfEjFfA ftj□□[□sCEä**

fn□[fhfEjFfA,É,æ,éfnf“fhfVfFfCfN,ð—LCEø,É,μ,Û,·□B,±,ì<@“\,É,æ,è□Afff□[f^,ª,ç,Á,Ï,ç,É,È,Á,Ä  
%oñ□ü,Éff□[f^,ð’—□M,Å,«,È,,È,Á,½,Æ,«,â□A<t,É’—□M%oÅ“\,É,È,Á,½,Æ,«,É□Af,fff€,ªfŠf,□[fg fAfNfZfX f\  
ftfgfEjFfA,É“` ,ì,é,±,Æ,ª,Å,«,é,æ,π,É,È,è,Û,·□B,±,è,É,æ,è□AfŠf,□[fg fAfNfZfX f\ftfgfEjFfA,Í□A•K—v,É  
%ož,¶,Ä^èŽž“ì,Éff□[f^,ì“]’—,ð’+Ž~ ,Å,«,Û,·□Bfnf“fhfVfFfCfN,Í□Afff□[f^,ì“`’—,ð□#—□%o»,μ□Afì□[fo□[f%of“  
fGf%o□[,ì”□¶,ð-h,®,½,ß□ACE<%oÊ“ì,Éff□[f^“]’—,ì’S’ì“ì,ÈfXf<□[fvfbfg,ªCEü□ä,μ,Û,·□B

**f,fff€,É,æ,éfGf%o[]\$€ä**

ff[]f^ fuf[]fbfN,ìfGf%o[][,ð[],%oñ[]ç'·€Ÿ[]. (CRC) ,É,æ,Á,Ä'²,×,Ü,·[]Bf,fff€,É,æ,éfGf%o[][]\$€ä,ð—  
L€ø,É,·,é,Æ[]Af,fff€,í[]³,μ,"]—,³,ê,È,©,Á,½ff[]f^,ð[]Ä" ]—,μ,Ü,·[]B,μ,½,³,Á,Ä[]Af,fff€ŠÔ,Å,ìfGf%o[][,í"-  
[]¶,μ,Ü,¹,ñ[]B[]Ú[]×,É,Â,ç,Ä,Í[]A[]uMNP4[]v, ",æ,Ñ[]uV.42[]v,ðŽQ[]Æ,μ,Ä,,³/4,³,ç[]B

**f,fff€É,æ,éff[]f^³k**

f,fff€ŠŌ,Ā'—ŽóM,³,ê,éff[]f^,ð³k,μ□A"']'—,³,ê,éff[]f^,ìfofCfgy",ðŒ, ,ç,μ,Û,·□B,±,ìŒ<%ŌÉ□A"']'—  
ŽžŠŌ,ð'Z□k,μ,Û,·□B,ç,ì'ö"x'Z□k,³,ê,é,©,í□A"']'—,³,ê,éff[]f^,ìçç'·"x,É,æ,Ā,ĀŒ^,Û,è,Û,·□B

'□ f,fff€æ,è,àfRf"fsf...[]f^,ì•û,ª—~—p%ŌĀ"\,Èfpf^[]f" fofbftf@,ª,í,é,©,É'â,«,ç  
,½,ß□Afn[]fhfEjFfA^³k,æ,è,àfvtfgfEjFfA^³k,ì•û,ªŒø—! "l,Ā,·□B,Û,½□Af,fff€,ì^³k<@"\,ðŽg,ª  
,Æ□Af,fff€,í□A"à•",ìfpf^[]f" fofbftf@,ð-,„,ß,é,¾, ,ì—È,ìff[]f^,ªfRf"fsf...[]f^,©,çf,fff€,Ö"']'—  
,³,ê,é,Û,Ā□Ā□%Ō,ì"']'—,ð□s,í,„□A'x%Ō,,ª"□¶,μ,Û,·□BfvtfgfEjFfA^³k,Ā,í□A^³k,ì,½,ß,ìff[]f^"']'—  
,ìfRf"fsf...[]f^,Æf[]f,š,šŌ,Ā□s,í,è,Û,·ª□A,±,ì'—"x,ìfRf"fsf...[]f^,Æf,fff€  
,ìšŌ,Ā,ì"']'—'—"x,æ,è, ,Ā,Æ□, '¬,Ā,·□B,³,ç,É□AfvtfgyEjFfA^³k,Ā,í□Af,fff€,Æf,fff€  
,ìšŌ,ìfZfOf[]"fg,¾, ,Ā,í,È,□Afvtf"fsf...[]f^šŌ,ìfšf"fn'S'ì,ð³k,³,è,½ff[]f^,ª"']'—,³,ê,é,±  
,Æ,É,È,è,Û,·□B

^è"É,É□AšŪ,É^³k,³,è,Ā,ç,éff[]f^,ð³k,μ,Ā,à□A^³k—! ,ª□,Û,é,±,Æ,í, ,è,Û,¹,ñ□B,μ,½,ª,Ā,Ā□Af,fff€  
,ì^³k<@"\,ÆfvtfgyEjFfA^³k,ð"~Žž,ÉŽg—p,·,x,«,Ā,í, ,è,Û,¹,ñ□BŽĀ□Û,É□Af,fff€,ªŽg,ªfAf<fSfšfYf€  
,É,æ,Ā,Ā,í□A—¼•û,ì^³k,ð□s,ª,Æ□A"']'—,³,ê,éff[]f^,ìTfCfY,ª'â,«,,È,é□è□‡,à, ,è,Û,·□B



**f,fff€ fRf}f“fh,ìžè“®“ü—í**

f\_fCf,,f<.,é,Æ,«,É□AfXfNfŠfvg%»»,<sup>3</sup>,ê,½fRf}f“fh,đŽÀ□s.,é’ă,í,è,É□AŽè“®,Åf,fff€,É AT fRf}f“fh,đ“ü—  
Í,.,é,±,Æ,<sup>a</sup>,Å,«,Ü,·□B,±,ì<@“\,Í□Af,fff€,ìfXfNfŠfvg ftf@fCf< (MODEM.INF)  
,É□V,μ,¢fGf“fgfŠ,đ□□□□,.,é,Æ,«,É□AfXfNfŠfvg,É<L□q,.,é•¶Žš—ñ,đfefXfg,.,é□ê□#,É—~—  
p,Å,«,Ü,·□B,Ü,½□A□Ú’±□^—□,ì“r’t,Åft□[fU□[“ü—í,<sup>a</sup>•K—v,Æ,È,é,æ,α,È—áŠO“l,È□ê□#,É,à□A,±,ì<@“\,đ—~  
—p,Å,«,Ü,·□B  
^ê”Ê,É□A□İŌ,ìfìfyfCE□[f^,²í%ž,.,éCEđŠ,đ’Ê,¶,Ä□Ú’±,.,é,Æ,«,È,Ç,ì,æ,α  
,É□A“d~b<@,đŽg,Å,Ä\_fCf,,f<.,é□ê□#,Í□A,±,ì<@“\,đŽg,í,È,¢,Å,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,¢□B

**f,fff€,ì<@”\,ðŸ’è,.,é**

**f,fff€,ì<@”\,ðŸ’è,.,é,É,í**

- 1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,Å□A“d~b’ fGf“fgfŠ,ð’I’ð,μ□AZÿ,É [,»,ì’¼4] ,ðfNfŠfbfN,μ,Ü,·□B
  - 2 [fGf“fgfŠ,Æf,fff€,ìfvf□fpfefB,ì•Ò□W] ,Ü,½,í [fGf“fgfŠ,Æf,fff€,ìfvf□fpfefB,ì•;□»] ,ðfNfŠfbfN,μ,Ü,·□B
  - 3 [Šî-{} f^fu,ì [f\_fCf,,f<•ù-@] f{fbfNfX,Åf,fff€,ð’I’ð,μ□AZÿ,É [□□-] ,ðfNfŠfbfN,μ,Ü,·□B
  - 4 [f,fff€,ì□□-] f\_fCfAf□fO f{fbfNfX,Å□Af,fff€,ì’É□M’-“x,ðŸ’è,μ□Af,fff€^³□k,È,Ç,ìfn□[fhfEJfAŠÖ~A,ì<@”\ ,ð’I’ð,μ,Ü,·□B
- ’□ Žg—p,μ,Ä,ç,éf,fff€,ÅfTf□[fg,³,ê,Ä,ç,È,ç<@”\,ð’I’ð,μ,Ä,à□Af,fff€,ì□«”\,É,í%½,à%œ<¿,í, ,è,Ü,¹,ñ□B

**f,fff€,ð•ï□X,μ,½,è□A□V,μ,çf,fff€,ðfCf“fXfg□[f<,μ,½,è,.,é,É,í**

► fRf“fgf□□[f< fpf|f<,ì [flfbfgf□□[fN] fAfCfRf“,ðf\_fuf<fNfŠfbfN,μ,Ü,·□B[fT□[frfX] f^fu,Å□A[fŠf,□[fg fAfNfZfX fT□[frfX] ,ð’I’ð,μ□AZÿ,É [fvf□fpfefB] ,ðfNfŠfbfN,μ,Ü,·□B□Ü□x,É,Ä,ç,Ä,í□A,±,ìf\_fCfAf□fO f{fbfNfX,ì [fwf<fv] ,ðfNfŠfbfN,μ□A□à-¾,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

^3k,ÉŠÖ,·,éŽw

f,fff€,É,æ,é^3k

f,fff€,ì^3k<@“\,ð—LCEø,É,·,éèè±,íAfl[f]g,ì'ÉM'—“x,ð 38400bps ,Ü,½,í 57600bps ,Éÿ'è,µ,Ä,-  
,¾,¾,çB,¾,ç,ÉAfl[f]o[f%of“ fGf%o[,ð“fl,¾,¾,É,ç,Á,·,·,ÈŠ,,èž,Ý,ð^—,Á,«,é,æ,æ,É,·,é,É,íA16550  
CEÝŠ·,ìVfŠfAf< f[f]g,Æ 386/33 ^èä,ì CPU ,ª•K—v,Ä,·BÁ“l,ÈXf<[fvfbfg,íff[f^,ì^3k—  
,ÁCE^,Ü,é,ì,ÁAfl[f]g,ì'ÉM'—“x,ð 57600bps ,Éÿ'è,µ,Ä,àAfl[f]g,ª 57600bps ,É<ß,Ä,-  
,Æ,íCEÀ,è,Ü,¹,ñB

,½,Æ,ì,íAfl,fff€ŠÖ,ì“]—“x,ð 14400bps ,Éÿ'è,µ,½ V.32bis f,fff€,ðŽg,Á,ÄAfl,fff€,ì^3k<@“\  
,ðflf“ ,É,µ,Áf[f]g,ì'—“x,ð 57600bpx ,Éÿ'è,µ,ÄÚ±,µ,½,Æ%¾è,µ,Ü,·B,±,ìèè±A“]—,¾,è,éff[f^ ,ª 2  
•ª,ì 1 ,É^3k,¾,è,½,Æ,«,ÉAZÀÜ,ìXf<[fvfbfg,ì½<í 28800bps ,É,È,è,Ü,·BfXf<[fvfbfg,ð,±,è,æ,è,à  
57600bps ,É<ß,Ä,·,é,±,Æ,ª,Ä,«,é,ì,íA,æ,è,·,ç“ä—! ,Á^3k%Ä“\,Èff[f^ (,½,Æ,ì,íAfl[f^ ,ª 0  
,ì,©,è,ìftf@fCf<A,Ü,½,ì^è-É·F,ìfxfbf}fbfv ftf@fCf<,È,Ç) ,ð“]—,·,éèè±,¾,·,Ä,·B'ÉíA,±,ì,æ,æ  
,É^3k—! ,ªŽÀCE»,¾,è,é,±,Æ,í, ,è,Ü,¹,ñB

'Éí,ìfn[f]fhfEfffA,Á,íAfl[f]g,ì'—“x,ð , Ü,è,·,ÿ'è,·,é,ÆAfl[f]o[f%of“ fGf%o[,ì”-  
fl,·,éŠèCE“« ,ª,Ü,é,½,ßAMODEM.INF ,Ä,íAÁ'á'ÉM'—“x,í 38400bps  
,Éÿ'è,µ,Ä, ,è,Ü,·B,·,·,ÉM,É'í%ž,Ä,«,éfn[f]fhfEfffA,ðŽg,Á,Ä,ç,éèè±,íA57600bps ,Éÿ'è,µ,ÄÚ±  
,µ,Ä,à,©,Ü,ç,Ü,¹,ñ,ªAŠù,Éà-¾,µ,½,æ,æ,È—R,© ,çA57600bps ,É·íX,µ,½,© ,ç,Æ,ç  
,Á,Ä•K, ,µ,àfXf<[fvfbfg,ªCEüã,·,é,Æ,íCEÀ,è,Ü,¹,ñB,Ü,½AMicrosoft ,Ä,íA,Ç,ìf,fff€,É,Ä,ç,Ä,à  
57600bps ,Ä,ì'ÉM,ìfefXfg,µ,Ä,ç,Ü,¹,ñB

f\ftfgEfffA^3k

fŠf, [f]g fAfNfzfx f[f]rX,É,ì\ftfgEfffA,É,æ,éff[f^3k<@“\,à—p^Ó,¾,è,Ä,ç,Ü,·B,±  
,ì,½,ßAflXf<[fvfbfg,ðCEüã,¾,¾,é—U“l,Áf,fff€,ì^3k<@“\,ðflf“ ,É,·,é•K—v,í, ,è,Ü,¹,ñBV.32bis f,fff€  
,ðŽg,Á,Ä,ç,éèè±,íAfl\ftfgEfffA^3k,ð—LCEø,É,µ,Ä 14400bps ,Á'ÉM,·,è,íA•½<í 28800bps  
,ìXf<[fvfbfg,ð“¾,é,±,Æ,ª,Ä,«,Ü,·BfefXfg,ìCE%É,© ,ç,íAfl,fff€,É,æ,é^3k,æ,è,à\  
ftfgEfffA^3k,ðŽg,Á,½•ù,àfXf<[fvfbfg,ªCEüã,·,é,±,Æ,ª,í,© ,Ä,Ä,ç,Ü,·B,Ü,½Afl\ftfgEfffA^3k,ðŽg,æ  
,ÆAŠ,,èž,Ý,ì“fl•p“x,ªá%º,µAfl[f]o[f%of“ fGf%o[,ì”fl,·,éŠèCE“« ,ª,È,·,è,è,Ü,·B  
A—Ç,ìCE%É,ð“¾,é,É,íAfl,fff€,É,æ,éGf%o[[CEà,ð—LCEø,É,µAfl,fff€^3k,ðflf,É,µ,ÄAfl  
ftfgEfffA^3k,ð—LCEø,É,µ,Ä,,¾,¾,çB

**H<Æ<KŠi,É,Â,č,Ä**

f,fff€,í,č,ì<@Ží,à,;,x,Ä^Ù,È,é'~“x,ÅM+;đ'~M,;,é,½,βAf,fff€,ì»'č€³,ì'â•”•ª,ª CCIIT <KŠi,đì—  
p,μ,Ä,č,Û,·BCCITT <KŠi,ì^è•” (Žâ,É•í²•”•ª) ,É,íA,č€xf<,ì'w (fJfSfVfG[fVfJf”,É,č) ,đ'è<` ,; ,é<KŠi,à,č,-  
,Ä,©ŠÛ,Û,é,Ä,č,Û,·B•;ì”,ì'ÉM'~“x,đfTf|f|fg,·,éf,fff€,É,íAZÿ,É<”,°,é<KŠi,ì,ž,·;ì”,ì<KŠi,đì—p,μ,Ä,č  
,é,à,ì,à, ,è,Û,·B

V.21

V.22

V.22bis

V.23

V.29

V.32

V.32bis

MNP4

MNP5

V.42

V.42bis

Žÿ,ì•\,ÉŽì,·H<Æ<KŠi,ì,č,, ,é,©,É€<',μ,½f,fff€,đ'l,ñ,Ä,,¾,¾,¾,čB

'ÉM'~“x (bps)	<KŠi
1200	V.22 ,Û,½,í Bell 212A
2400	V.22bis
9600	V.32
14400	V.32bis

**fGf%o[f[š€ä,Æff[f^³k**

fGf%o[f[ù³fvf[fGfRf<,Æff[f[f^³kfVf[fGfRf<,đ<@”\,³,¹,é,É,íAÚ'±,ì—¼'[ ,ìf,fff€,ª—  
¼•ù,Æ,à” ,ìfvf[fGfRf<,đfTf|f|fg,μ,Ä,č,È, ,é,î,È,è,Û,¹,ñBf,fff€ŠÛ,ìÚ'±,ªŠm—š,³,é,½,çA,»,ì 2 'ä,ìf,fff€  
,íŽ©“@“l,ÉfJfSfVfG[fVfJf”,đs,čAÅ“K,ìŠ€ÿfvf[fGfRf<,đ€^è,μ,Û,·B

**fvf[fGfRf<**

MNP4

MNP5

**Ú<KŠi**

V.42

V.42bis

**DEVICE.LOG ,ì<L~^,ðŠJŽn,.,é**

DEVICE.LOG ftj@fCf<,É,íA\fff€,ÉŠÖ,.,é'ÇÖi•ñ,â<L~^,³,ê,Ü,·Bj,fff€,É%½,©-à'è,ª"¶,μAuf,fff€  
\_j'Á«v,É<Lq,³,ê,Á,ç,éŽwŽ!,É],Á,Á,à-à'è,ð%ðCE^,Á,«,É,çêê¶,íADEVICE.LOG ftj@fCf<,ð²,x,Á,-  
,¾,³,çB,±,ìftj@fCf<,É<L~^,³,ê,½i•ñ,íAftU[,âfvXfef€ŠÇ-ŽÖ,ª-à'è,ð%ðCE^,.,é,Æ,«,É-~  
p,Á,«,Ü,·B

DEVICE.LOG ftj@fCf<,íA\systemroot\System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·B

**DEVICE.LOG ,ðì¶-,.,é,É,í**

1 ,±,ìfwf<fv,ìžè¶,ì"à-e,ðfNfŠfbfvf{¶fh,ÉfRfs[.,μARAS ,ðI-¹,μ,½CEã,àžQ¶Æ,Á,«,é,æ,π,É,μ,Ü,·B

2 ,.,x,Á,ìÚ'±,ðØ'f,μARAS ,ðI-¹,μ,Ü,·B

3 REGEDT32.EXE ,ðžÀ¶s,μ,ÄfCEfwfXfgfŠ,ðŠJ,«,Ü,·B

4 fCEfwfXfgfŠ,ÁAŽÿ,ìfL[.,ÉfAfNfZfX,μ,Ü,·B

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\RasMan\Parameters

5 Logging fpf%of¶[f^,ì'l,ð 1 ,É•íX,μ,Ü,·B•íX,.,é,ÆAfpf%of¶[f^,ìžÿ,ì,æ,π,É,È,è,Ü,·B

Logging:REG\_DWORD:0x1

'¶ RAS ,ðÄ<N"®,.,é,©A,Ü,½,í fŠf,¶fg fAfNfZfX fT¶[rfX (CEÄ,Ño,μ,ðžóM,.,é'π,ìfRf"fsf...  
¶[f^,ìêê¶),ðŠJŽn,.,é,ÆAfpfO<L~^,ªŠJŽn,³,ê,Ü,·BWindows NT  
,ðVfffbfgf\_fEf",μ,ÄÄ<N"®,.,é•K-v,í, ,è,Ü,¹,ñB

**f,fff€,ì"Á□«**

,±,±,Á,í□AfŠf,□[fg fAfNfZfX fT□[frfX,ÁfTf]□[fg,³,è,Ä,ç,éf,fff€,ì"Á□«,É,Á,ç,Ä□à-¾,μ,Û,·□BfTf]□[fg,³,è,Ä,ç,éf,fff€,ì^è—,É,Á,ç,Ä,í□A□wWindows NT fn□[fhfEjFfAÇEYŠ-□«fŠfXfg□x (HCL) ,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

**fTf]□[fg,³,è,Ä,ç,éf,fff€,lfgf%ofuf<fvf...□[fefBf"FO,ðs,æ,É,í**

- 1 fP□[fuf<,³□³,μ,□Ú'±,³,è,Ä,ç,é,±,Æ,ðŠm" F,μ,Û,·□B□ufP□[fuf<,ì—vCE□□v,ðŽQ□Æ,μ,Ä,,¾,³,ç□B
  - 2 fP□[fuf<,³fŠf,□[fg fAfNfZfX fT□[frfX,ì—vCE□,ð-ž,½,μ,Ä,ç,é,ì,É□Ú'±,Á,«,É,ç□è□±,í□Af,fff€,ìf}fjf... fAf<,ðŽQ□Æ,μ□Af,fff€,³□³,μ,fCf"fxfg□[f<,³,è,Ä,ç,é,©,Ç,æ,©,ðŠm" F,μ,Û,·□B
  - 3 f,fff€,³□³,μ,fCf"fxfg□[f<,³,è,Ä,ç,é□è□±,í□A'[-fGf~f...fCE□[f^ fvf□fOf%of€ (Windows NT ,ì fnfCfp□[f^□[f~fif<,É,Ç) ,ðŽg,Á,Ä□Af,fff€,É³□í,ÉfRf}f"fh,ð—□M,Á,«,é,©,Ç,æ,©,ð'²,x,Û,·□B□uf,fff€ ,ðfefXfg,·,é□v,ðŽQ□Æ,μ,Ä,,¾,³,ç□B
  - 4 ^è□ä,ì'€□ì,ðs,Á,Ä,à□Af,fff€,³fŠf,□[fg fAfNfZfX fT□[frfX,Á<@"\\,μ,È,ç□è□±,í□AfVfXfef€ŠÇ—□ŽÒ,É-â,ç□±,í,¹,Ä,,¾,³,ç□B
- '□ f,fff€,É%½,ç,©,ì-â'è,³, ,é□è□±,í□AfVfXfef€ŠÇ—□ŽÒ,É•ñ□□,μ,Ä,,¾,³,ç□B,±,ì•ñ□□,ðs,æ ,Æ,«,É,í□A\systemroot\System32\RAS fffBfÇfNfgfŠ,É, ,éDEVICE.LOG ftf@fCf<,ì□o—í,àŠÇ— □ŽÒ,É"n,μ,Ä,,¾,³,ç□BDEVICE.LOG ftf@fCf<,ð□□¬,·,é•û-@,É,Á,ç,Ä,í□A□uDEVICE.LOG ,ì<L~^,ðŠJžn,·,é□v,ðŽQ□Æ,μ,Ä,,¾,³,ç□B

ŠÖ~A□€-Ú

^è"É"ì,È"Á□«

Codex 326x fVfŠ□[fY,ì"Á□«

DataRace ,ì"Á□«

Datatrek ,ì"Á□«

Hayes ,ì"Á□«

MicroCom ,ì"Á□«

MicroGate ,ì"Á□«

MultiTech ,ì"Á□«

Octocom ,ì"Á□«

PDI ,ì"Á□«

Practical Peripherals ,ì"Á□«

Racal-Milgo ,ì"Á□«

Supra ,ì"Á□«

Telebit ,ì"Á□«

UDS Motorola ,ì"Á□«

US Robotics ,ì"Á□«

VenTel ,ì"Á□«

Western Datacom ,ì"Á□«

**^è"É"İ,È"Á«**

fŠf.[]fg fAfNfZfX,ÅfTf[]fg,³,è,Ä,ç,é,fffe,ðŽg,Á,Ä,ç,Ä,à[]wWindows NT fn[]fhfEjFfACEÝŠ.[]«fŠfXfg[]x (HCL) ,É^è—•Ž!,³,è,Ä,ç,é,Ü,©,İf,fffe,Æ[]A, ,ç,ä,éf,[]fh,ÅŠmŽÀ,É'É[]M,Á,«,é,Æ,í[]EÀ,è,Ü,¹,ñ[]B

**—á**

^è" ,ì V.32bis f,fffe,í[]Af,fffeŠÖ,ì'É[]M'—"x,ª 14,400bps ,ì[]è[]±,Á,à[]A'—"x,ª 14,400bps ,É[]Ý'è,³,è,½f[] []fg,Á,í[]³[]í,É<@" \,µ,Ü,¹,ñ[]BŽg—p,µ,Ä,ç,é V.32bis f,fffe,ª[]%Šú'—"x 14,400bps ,Á<@" \,µ,È,ç[]è[]±,í[]A[] %Šú'—"x,ð 19,200bps ,É•ì[]X,µ,Ä,,¾,³,ç[]Bf,fffe,ì[]%Šú'—"x,ð•ì[]X,·,é•ù-@,É,Á,ç,Ä,í[]A[]uf,fffe,ì<@" \ ,ð[]Ý'è,·,é[]v,ðŽQ[]Æ,µ,Ä,,¾,³,ç[]B

**"à' f,fffe**

Digicom Scout Plus ,È,Ç,ì^è" ,ì"à' f,fffe,í[]AWindows NT ,ìŽ©" @CEÝ[]o,Á,í[]CEÝ[]o,³,è,Ü,¹,ñ[]B,±,ì,æ,ª ,É[]è[]±,í[]AWindows NT ,ìRf"fgf[]f< fpf[]f<,©,ç,» ,ìf,fffe,ðŽè" @,Á'Ç%Å,µ,È,·,è,Ì,È,è,Ü,¹,ñ[]B,Ü,½[]Af,fffe ,ÁŽg,ª'É[]Mf[]fg,ª—~—p%Å" \,Á,È,ç[]è[]±,í[]Af[]fg,à'Ç%Å,µ,È,·,è,Ì,È,ç,È,ç%Å" \« ,ª ,è,Ü,·[]Bf[] []fg,í[]Af,fffe,ð'Ç%Å,·,é'Ó,É'Ç%Å,µ,È,·,è,Ì,È,è,Ü,¹,ñ[]B[COM[],ì[]Ý'è] f\_fCfAf[]fO f\_{fbfNfX,ðŠ},,É,í[]A,± ,ìf\_{f^f" [ ] ,ðfNfŠfbfN,µ,Ä,,¾,³,ç[]B[]V,µ,çf,fffe,ì[]Cf"fxfg[]f<] f\_fCfAf[]fO f\_{fbfNfX,ðŠ},,É,í[]A,±,ìf\_{f^f" [ ] ,ðfNfŠfbfN,µ,Ä,,¾,³,ç[]B

**fR[]f<fofbfN**

fT[]fo[][ f,fffe,Æ,µ,ÄfTf[]fg,³,è,Ä,ç,é,fffe,í[]AfNf%[]CfAf"fg f,fffe,Æ,µ,ÄŽg,Á,½,Æ,« ,ÉfR[]f<fofbfN<@" \ ,ðfTf[]fg,µ,È,ç[]è[]±,ª ,è,Ü,·[]B

**Žè" @f\_fCf,,f<**

ŽÝ,ì•\,í[]AŽè" @f\_fCf,,f<,µ,½,Æ,« ,ìŠef,fffe,ì"Á[]« ,ðŽ!,µ,Ä,ç,Ü,·[]B

<b>f,fffe</b>	<b>"Á[]«</b>
Bocamodem M1440	f,fffe,ìfvf[]fgfRf< f[]fSfvfG[]fVf[]f" ,ÁŽ , "s ,µ,Ü,·[]B
Gateway 2000 Telepath Internal	f[]fSfvfG[]fVf[]f" []— ¹[]Eã[]A•K, ,fT[]fo[][, ,ç[]Ø'f,³,è,Ü,·[]B
Intel SatisFaction 100	"F[]Ø,ÉŽ , "s,µ,Ü,·[]B
PDI-1000	Žè" @f_fCf,,f<,ìfTf[] []fg,³,è,Ä,ç,Ü,¹,ñ[]B
Racal-Milgo 2412	[]Ú'±[]Eã,àŽó~bŠí,ð-ß,·,±,Æ,ª,Á,« ,Ü,¹,ñ[]B
Ven-Tel 9600 Plus II	"F[]Ø,ÉŽ , "s,µ,Ü,·[]B

**Codex 326x fVfŠ[]fY,ì"Á[]«**

Codex 3260[]A3261[]A3262[]A3263[]A3264[]A,Ü,½,ì 3265 ,ðŽg,Á,ÄŽÝ,ì,æ,ª,É[]ð[]CE[],Á[]Ú'± ,·,é[]è[]±,í[]Aftf[][]\$[]Eä<@" \,ðf[]ft,É,µ,Ä,,¾,³,ç[]B

- 2400 bps ,Ü,½,ì 9600bps ,Á[]Ú'±,·,é[]è[]±
- []%Šú'—"x,ð 19,200bps ,Ü,½,ì 38,400bps ,É[]Ý'è,µ,Ä,ç,Ä,í[]Af[]fSfvfG[]fVf[]f" ,Á'É[]M'—"x,ª 9600bps ,Ü,½,ì 2400bps ,É—Ž,ì,é[]è[]±

Codex V.FAST (3260□A3261□A3262□A3263□A3264□A,Ü,½,Í 3265) f,fff€,đŽg,Á,ĂfŠf,□[fg fAfNfZfX  
fT□[fo□[.É□Ú'±,μ□AfT□[fo□[.Ì•û,à Codex V.FAST f,fff€,đŽg,Á,Ă,č,é□ê□#,Í□A•K, ,fn□[fhfEfFfA  
ftf□□[□\$Ěä,<sup>2</sup>—LĚø,É,È,Á,Ă,č,é,±,Æ,đŠm" F,μ,Ă,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,č□Bfn□[fhfEfFfA ftf□□[□\$Ěä,<sup>2</sup>—<sup>3</sup>Ěø,É,È,Á,Ă,č  
,é,Æ□A□Ú'±,Ă,«, ,□A"fffofCfX,ÍTf|□[fg,<sup>3</sup>,ê,Ă,č,È,čf{□[ fĚ□[fg,É□ø,è'Ö,í,è,Ü,μ,½" ,Æ,č,xf□fbfZ□[fW,<sup>2</sup>•\  
Ž,<sup>3</sup>,è,Ü,·□B



**DataRace ,ì“Á□«**

**RediModem V.32bis**

fGf%o□□\$CEä,“,æ,Ñftf□□□\$CEä,ª□A<□\$“l,Éfjf“,É,È,è,Ü,·□B

**Datatrek ,ì“Á□«**

**Elite 624D**

Šg'£<@“\,ã-³Œø,É,È,è,Û,·□B

**Datatrek V.32**

fNf%ofCfAf“fg f,fff€,Æ,μ,Ä,ì,ÝfTf|□[fg,³,ê,Û,·□B

Hayes ,i"Á□«

**V-Series 9600**

Hayes V-Series 9600 f,fff€,í□A□Ú'±□æ,lf,fff€,à Hayes V-Series 9600 f,fff€,ì□ê□‡,ì,Ý 9600bps ,Á□Ú'± ,Á,«,Ü,·□B

,±,lf,fff€,đfRf"fsf...□[f^,ÉfCf"fXfg□[f<,·,é'O,É□AfŠf,□[fg fAfNfZfX fT□[fo□[,à Hayes V-Series 9600 ,đŽg,Á,Ä,ç,é,©,Ç,¤,©,đŠm" F,μ,Ä,,¾,¾,ç□B•Ê,lf,fff€,đŽg,í,ê,Ä,ç,é□ê□‡,í□A2400bps ,Á□Ú'±,¾,ê,é%oÁ" \ □«,¾, ,è,Ü,·□B

**Hayes Optima 14.4**

US Robotics Sportster f,fff€,©,ç Hayes Optima 14.4 f,fff€,É□Ú'±,·,é,Æ□A,±,ì 2 ,Á,lf,fff€,í□Ú'± ,lfSfVfG□[Vf‡f",đ□s,¤,±,Æ,¾,Á,«,Ü,¹,ñ□B Hayes Optima 14.4 f,fff€,©,ç US Robotics Sportster 14.4 f,fff€,É□Ú'±,μ,½□ê□‡,í□A□³□í,É□Ú'±,¾,ê,Ü,·□B

**MicroCom ,i"Á□«**

**QX 4232bis**

Šg'£<@"\,ª-³Œø,É,È,è,Û,·□B

**MicroGate ,l"Á«**

**MicroGate MG96**

fGf%o[]\$Eä, ",æ,Ñftf[]\$Eä,ªA<[]\$“l,Éf|f“,É,È,è,Ü,·B

**MicroGate MG144**

fGf%o[]\$Eä, ",æ,Ñftf[]\$Eä,ªA<[]\$“l,Éf|f“,É,È,è,Ü,·B

**MultiTech ,ì“Á**

**MultiModem 224**

ftf[][\$æä,ªA<S“l,Éfj“,É,È,è,Ü,·B

**Octocom ,i"Á«**

**8324**

fGf%o[]\$Eä," ,æ,Ñftf[]\$Eä,ªA<[]\$"l,Éfjf",É,È,è,Ü,·B





**Practical Peripherals ,ì“Á□«**

**Practical Peripherals 2400SA**

fNf%ofCfAf“fg f,fff€,Æ,μ,Ä,ì,ÝfTf|□[fg,³,ê,Û,·□B

**Practical Peripherals 2400MNP**

Šg'£<@“\,ª-³Œø,É,È,è,Û,·□B

**Racal-Milgo ,i“Á«**

**2412/2**

DCE ,iÅ,‘-“x,íA2400bps ,ÉÝ’è,<sup>3</sup>,ê,Ü,·B

**Supra ,ì“Á□«**

**Supra COM Card PCMCIA 144**

fNf%ofCfAf“fg f,fff€,Æ,μ,Ä,ì,ÝfTf|□[fg,³,ê,Ü,·□B

**Telebit ,l"Á□«**

**Telebit T1500**

fNf%ofCfAf"fg f,fff€,Æ,μ,Ä,ì,ÝfTf|□[fg,³,ê,Û,·□B

**Telebit T1600**

Šg'£<@"\,ª-³Eø,É,È,è,Û,·□B

**UDS Motorola ,i"Á«**

**UDS Motorola V.3225**

Šg'£<@"\,ã-³Œø,É,È,è,Û,·B

**UDS Motorola V.3227**

DCE ,i"Á, '¬"x, í 9600bps ,É"Ý'è,³,ê,Û,·B

**UDS Motorola FasTalk V.32/42bis**

DCE ,i"Á, '¬"x, í 9600bps ,Á,·B

## US Robotics ,ì"Á□«

### HST

US Robotics HST f,fff€,í□ACEÁ—L,ìfvf□fgfRf<,đŽg,Á,Ä," ,è□A,» ,ìfvf□fgfRf<,đfTf□[fg,μ,Ä,ç,È,çf,fff€,Æ,í 2400bps ,æ,è'â,«,ç'É□M'—"x,Á,ì□Ú'±,đfìSfVfG□[fVf†",Á,«,Ü,¹,ñ□B

fŠf,□[fg fNf%ofCfAf"fg,ÆfT□[fo□[,ì—¼•ù,Á HST CEÝŠ-f,fff€,đŽg,Á,Ä,ç,é□è□±,Á,à□A,±,é,ç,ìf,fff€,Á 14,400bps ,ì□Ú'±,đŠm—š,·,é,±,Æ,í, Š©,β,Á,«,Ü,¹,ñ□BHST fvf□fgfRf<,í□A'S"ñ□d,ì 14,400bps fvf□fgfRf<,Á,í, ,è,Ü,¹,ñ□B,Á,Ü,è□A^ê•ùCEü,É"']—,³,é,éff□[f^,ì'É□M'—"x,í 14,400bps ,É,È,è,Ü,·,ª□A<t•ùCEü,Ö,ìff□[f^,ì"']—,ì,±,ê,æ,è, ,Á,Æ'á'—,É,È,è,Ü,·□B,±,ì,½,β□AfŠf,□[fg fAfNfZfX fT□[fxfX,ì—¼•ùCEü,Ö,ìff□[f^,ì"']—'—"x,ª" ,¶,Á, ,é,±,Æ,đ'O'ñ,É,μ,Ä,ç,é,ì,Á□AfXf<□[fvfbfg,ª'á%º,μ,Ü,·□B

### ,·,x,Ä,ì 14400bps f,fff€

US Robotics ,ì 14400bps f,fff€,í,·,x,Ä□A□%Šú'—"x,đ 14,400bps ,Á,í,È, 19,200bps ,É□Ý'è,μ,È, ,è,î,È,è,Ü,¹,ñ□B,±,é,í□A^ê•",ì Gateway 2000 fRf"fsf...□[f^,ÉfCf"fxfg□[f<,³,è,Ä,ç,é US Robotics Sportster f,fff€,É,à"—,Ä,í,Ü,è,Ü,·□B

US Robotics Sportster f,fff€,©,ç Hayes Optima 14.4 f,fff€,É□Ú'±,·,é,Æ□A,±,ì 2 ,Á,ìf,fff€,í□Ú'± ,ìfìSfVfG□[fVf†",đ□s,±,±,Æ,ª,Á,«,Ü,¹,ñ□B Hayes Optima 14.4 f,fff€,©,ç US Robotics Sportster 14.4 f,fff€,É□Ú'±,μ,½□è□±,í□A□³□í,É□Ú'±,³,è,Ü,·□B

## VenTel ,ì“Á□«

### VenTel 14400

VenTel 14400 ftj@fbfNfX f,fff€,í□AfNf%ofCfAf“fg,ª%oñ□ü,ð□Ø\*f,μ,Ä,à,»,ì,±,Æ,ðEÿ□o,Å,«,È,ç  
,ì,Å□Af^fCfEfAfEfgŽžŠÔ,ªEo%oß,·,é,Ü,Å,í%oñ□ü,ª□è—L,³,è,½,Ü,Ü,Æ,È,è,Ü,·□B,±,ì,½,ß□A%oñ□ü,ª  
—]•ª,ÈŽžŠÔ□è—L,³,è,Ä,ç,Ä,à,©,Ü,í,È,ç□è□±^ÈŠO,í□A,±,ì,f,fff€,ðfT□[fo□[ f,fff€,Æ,μ,ÄŽg,í,È,ç,Ä,,¾,³,ç□B  
fNf%ofCfAf“fg,Æ,μ,Ä,í□A□³í,É<@“\,μ,Ü,·□B

### Ven-Tel 9600 Plus II

f,fff€^³□k,ª<□\$“I,Éfjf“,É,È,è,Ü,·□B

**Western Datacom ,ì“Á□«**

**Worldcom V32bis**

fNf%oofCfAf“fg f,fff€,Æ,μ,Ä,ì,ÝfTf|□[fg,³,ê,Ü,·□B



**fP[fuf<,i-vCE**

fŠf, [fg fAfNfZfX fT[frfX,É,íAfp[fuf<,É'í,μ,Ä'[-'ÉMfvfOf%of€,æ,è,àCEμ,μ,φ-vCE,ª, ,è,Ü,·BŽg—  
p,μ,Ä,ç,éfvfŠfAf< fP[fuf<,ª Windows NT fnfCfp[ f^ [f~fif<,Ä,í³í,É<@"\\,·,é,ì,É RAS ,Ä,í<@"\  
,μ,È,çêþ,íAfp[fuf<,ªŽŸ,ì\,ì,·,x,Ä,ìMþ,ð'É,·,©,Ç,κ,©,ðSm" F,μ,Ä,,¾,¾,çB

fŠf, [fg fAfNfZfX fT[frfX,Ä,íARS-232C fP[fuf<,ìŽŸ,ìfsf",ªÚ'±,¾,è,Ä,ç,È,·,é,ì,È,è,Ü,¹,ñB

- Rx ŽóMff[f^
- Tx '—Mff[f^
- CTS '—M%oÄ
- RTS '—M—v<
- DTR '[-fCEffB
- DSR ff[f^ fZfbfg fCEffB
- DCD fLfffŠfACEÿo

**CEx**

ä,ì\,ÉŽ,μ,½,·,x,Ä,ìfsf",ªÚ'±,¾,è,Ä,ç,È,·,é,ì,È,è,Ü,¹,ñB7 ,Ä,ìfsf",ì,κ,ζ,Ç,é,ªCEþ,·,Ä,àAfŠf, [fg  
fAfNfZfX fT[frfX,í<@"\,μ,Ü,¹,ñBfsf",ª'«,è,È,ç,©A,Ü,½,í<@"\,μ,È,·,é,ìAfŠf, [fg fAfNfZfX  
fT[frfX,É,æ,èfn[fhfEfffA fGf%o[ ,ªfCEf[fg,¾,è,Ü,·B

'½,ì ISA fRf"fsf... [f^ , ,æ,ñ EISA fRf"fsf... [f^ ,É,íAZŸ,ìfvfŠfAf< f [fg fRfIfNf^ ,ì,ç, ,é,©,ª•t,ç,Ä,ç  
,Ü,·B

- 25 fsf" f[XCE^ "D-SUB" fRfIfNf^
- 9 fsf" f[XCE^fRfIfNf^

,Ü,Æ,ñ,Ç,ìŠù»•i,ìP[fuf<,ªŽg—p,Ä,«,Ü,·,ªA,·,x,Ä,ª³,μ,<@"\,·,é,í,·,Ä,í, ,è,Ü,¹,ñBfP[fuf<,É,æ,Ä,Ä,íA  
u25 fsf" fP[fuf<vA u9 fsf" fP[fuf<vA, ,æ,ñuNULL f,fff€.ìP[fuf<v,ì\,ÄŽ,μ,½fsf",ª,·,x,ÄÚ'±  
,¾,è,Ä,ç,È,çêþ,ª, ,è,Ü,·BfP[fuf<,ðw"ü,·,é,Æ,«,íA—Ú"l,ìP[fuf<,ª¾,ç,è,é,æ,κ,ÉA%½,ª•K—  
v,©,ðfffB[f%o[ ,É³Šm,ÉŽwŽ,μA,±,è,ç,ì\,ìî•ñ,ð'ñ<Ÿ,μ,Ä,,¾,¾,çB

' f,fff€Mþ,ð" '—,μ,È,çêþ,ª, ,é,ì,ÄAf}fEfX fn[fhfEfffA,É•t,ç,Ä,ç,é 9-to-25-pin  
fRf"fo [f^ ,ìŽg,í,È,ç,Ä,,¾,¾,çB

Šö~A€-Ú

25 fsf" fP[fuf<

9 fsf" fP[fuf<

NULL f,fff€,ìP[fuf<

**25 fsf“ fP□lfuf<**

ŽŸ,ì•\,ì,æ,α,É□AfVfŠfAf< f|□lfg fRfIfNf^□ä,ì 1 ,©,ç 8 ,Ü,Å,lfsf“,í□Af,fff€ fRfIfNf^□ä,ì,»è,¼,è,ì'í,É□Ú'±  
 ,³,è,Ä,ç,Ü,·□B^è”É,É□AfŠf{f“ fP□lfuf<,ì□è□±,í 25 CEÄ,lfsf“,²,·,×,Ä•½□s,É□Ú'±,³,è,Ä,ç  
 ,Ü,·□B,¼,¾,μ□AfŠf{f“ fP□lfuf<,ðŽg,α,Æ□AfefCEfr□Af%ofWfI□A,“,æ,Ñfrfffi fffbJL,É□ásSQ,ð<y,Ú,·,±  
 ,Æ,², ,è,Ü,·□B,±,ì-â`è,ð%øCE^,·,é,É,í□AfV□lf<fh,³,è,¼ RS-232C fP□lfuf<,ðŽg,ç,Ü,·□B

25 fsf“ fVfŠfAf< f  □lfg fRfIfNf^	25 fsf“ f,fff€ fRfIfNf^	□M□t
1	1	fOf%ofEf“fh
2	2	'—□Mff□lf^
3	3	Žó□Mff□lf^
4	4	'—□M—v<□
5	5	'—□M%oÄ
6	6	ff□lf^ fZfbfg fCEffB
7	7	□M□t—pfOf %ofEf“fh
8	8	fLfffŠfACEŸ□o
20	20	'[—fCEffB

**9 fsf“ fP□lfuf<**

ŽŸ,ì•\,ì□AfRf“fsf...□lf^,ì 9 fsf“ fVfŠfAf< f|□lfg fRfIfNf^,ð□Af,fff€,ì 25 fsf“ fRfIfNf^,É□Ú'±,·,é•û-  
 @,ðŽ!,μ,Ä,ç,Ü,·□B,Ü,½□ASù□»•i,lfP□lfuf<,ð□w“ü,·,é□è□±,í□AZŸ,ì•\,ÉŽ!,·,·,×,Ä,lfsf“,²□Ú'±,³,è,Ä,ç,é,±  
 ,Æ,ðŠm”F,μ,Ä,¾,¾,ç□B

f,fff€,É,æ,Ä,Ä,í□Afff□lf^ fZfbfg fCEffB (DSR) □M□t,²fLfffŠfACEŸ□o (DCD) □M□t,É•” —□l,ÉCE<□±,³,è,Ä,ç  
 ,Ü,·□B,Ü,½□A^è•”,ì 1200bps f,fff€,â 2400bps f,fff€,Ä,í□AfffBfbfv fXfCfbf^,É,æ,è•W□€,Ä,±  
 ,ì□Y`è,É,É,Ä,Ä,ç,Ü,·□B,μ,½,²,Ä,Ä□ACEÄ,Ñ□o,μ,ì listen 't,Éf,fff€,ì“dCE¹,²□Ø'f,³,è,é,Æ□A,Ü,©,lf,fff€,ì,æ,α,É  
 DSR ,²•ì%o»,μ,È,ç,ì,Ä□AfŠf,□lfg fAfNfZfX fT□lfo□l,í□ó'Ö,ðCEŸ□o,Ä,«,Ü,¹,ñ□B

9 fsf“ fVfŠfAf< f  □lfg fRfIfNf^	25 fsf“ f,fff€ fRfIfNf^	□M□t
1	8	fLfffŠfACEŸ□o
2	3	Žó□Mff□lf^
3	2	'—□Mff□lf^
4	20	'[—fCEffB
5	7	□M□t—pfOf %ofEf“fh
6	6	ff□lf^ fZfbfg fCEffB
7	4	'—□M—v<□

8	5	'—□M%oÅ
9	22	fŠf“fO fCf“fWfP□[fVf#f“ (fIfvVf#f“)

**NULL f,fff€ ,İfP□[fuf<**

NULL f,fff€ ,đŽg,Ä,Ä 2 ‘à,İfRf“fsf...□[f^ ,İŠÖ,Å¼□ÚfVfŠfAf<□Ú‘±,đ□s,κ□ē□‡,İ□AfP□[fuf<,đŽŸ,İ•\,İ,æ,κ ,É□Ú‘±,μ,È,˘,ê,Î,È,è,Û,¹,ñ□B

Šù□»•i,İ NULL f,fff€ fP□[fuf<,İ□³,μ,□Ú‘±,³,ê,Ä,ç,È,ç,±,Æ,ª, ,è,Û,·□B NULL f,fff€ ,İfP□[fuf<,ª 25 fsf“ NULL f,fff€ ,İfP□[fuf<,İ•\,İ,æ,κ,É□Ú‘±,³,ê,Ä,ç,é,±,Æ,đŠm“F,μ,Ä,,¾,¾,³,ç□B

**9 fsf“ NULL f,fff€ ,İfP□[fuf<**

fŠf,□[fg fzfXfg,İfVfŠfA f< f □[fg fRfIfNf^	CEÄ,Ñ□o,μ‘κ ,İfVfXfef€ ,İfVfŠfAf< f  □[fg fRfIfNf^	□M□t
3	2	'—□Mff□[f^
2	3	Žó□Mff□[f^
7	8	'—□M—v<□
8	7	'—□M%oÅ
6, 1	4	ff□[f^ fZfbfg fCEffB,ÆfLfffŠ fACEŸ□o
5	5	□M□t—pfOf %ofEf“fh
4	6, 1	'[—fCEffB

**25 fsf“ NULL f,fff€ ,İfP□[fuf<**

fŠf,□[fg fzfXfg,İfVfŠfA f< f □[fg fRfIfNf^	CEÄ,Ñ□o,μ‘κ ,İfVfXfef€ ,İfVfŠfAf< f  □[fg fRfIfNf^	□M□t
2	3	'—□Mff□[f^
3	2	Žó□Mff□[f^
4	5	'—□M—v<□
5	4	'—□M%oÅ
6, 8	20	ff□[f^ fZfbfg fCEffB,ÆfLfffŠ fACEŸ□o
7	7	□M□t—pfOf %ofEf“fh
20	6, 8	'[—fCEffB

**f,fff€,lfXfNfŠfvg ftf@fCf<,lŠT—v**

RAS ,Á,í□A"Ä—pf,fff€ fhf%oCfo (Unimodem) ,ð'É,μ,Äf,fff€,ðfTf|□[fg,·,é,æ,α,É,È,è,Ü,μ,½□B□]—  
^,lfVfXfef€,É,Ä,ç,Ä,à□A,±,±,Á<L□q,<sup>3</sup>,é,éf,fff€,ð'ø,«'±,«fTf|□[fg,μ,Ü,·□B, ,ç,©,¶,βfCf"fxfg□[f<,³,é,Ä,ç  
,éfTf|□[fg'í□ÚŠO,lf,fff€,ð□AŠf,□[fg fAfNfZfX fT□[fX,Á<@"\\,·,é,æ,α,É□□—,·,é,É,í□A,»,lf,fff€—  
p,lfGf"fgfŠ,ð MODEM.INF ftf@fCf<,É'Ç%oÁ,μ,Ä,,¾,¾,¾,ç□B

Unimodem ,í□Ú□×,É,Ä,ç,Ä,í□Aftp://ftp.microsoft.com/developr/drg/modem/modemdev.exe  
,É, ,éfTf@fCf< Mdk.doc ,Æ Reg.doc ,ðŽQ□Æ,μ,Ä,,¾,¾,¾,ç□B

Modemdev.exe ,íŽ©œÈ"WSJCE^,ì³□kftf@fCf<,Á,·□BŽÄ□s,·,é,Æ□AMdk.doc ,Æ Reg.doc ,ª"WŠJ,<sup>3</sup>,é,Ü,·□B  
'□ ,±,é,ç,lfTf@fCf<,í Windows 95 —p,lfhfLf..f□f"fg,Ä,·,ª□AZŸ,ÉŽì,·—ì^æ^ÉŠO,ì"à—e,í□AWindows  
NT ,É,à"—,Ä,í,Ü,è,Ü,·□B

- PnP (Plug and Play□Ffvf%oOfAf"fhfvfCEfC)
- %o¹□² INF □\ 'ç
- VoiceView ,lfTf|□[fg
- fpf%oofCEf< f|□[fg f,fff€

**MODEM.INF ftf@fCf<**

MODEM.INF ftf@fCf<,É,í□ARAS ,ÁfTf|□[fg,<sup>3</sup>,é,é,·,×,Ä,lf,fff€□A, ",æ,Ń□AŠef,fff€,ª³□í,É" @□ì,·,é,½,β,É•K—  
v,ÉfRf}f"fh•¶Žš—ñ,Æ%ož"š•¶Žš—ñ,ªŸ'è,<sup>3</sup>,é,Ä,ç,Ü,·□BfŠf,□[fg fAfNfZfX,lfCf"fxfg□[f<Žž,Éf,fff€  
,ð'ìð,·,é,Æ□AfZfbfgfAfbfv fv□fOf%oof€,É,æ,è□A'ìð,μ,½f,fff€,ªŽw'è,μ,½'É□Mf|  
□[fg,ªŠÖ~A•t,·,ç,é,Ü,·□BfŠf,□[fg fAfNfZfX,ì□Ú'±ft□[fefBfŠfefB,í MODEM.INF ,ð"Ç,ÝŽæ,è□AŠe'É□Mf|  
□[fg,ÉŠÖ~A•t,·,ç,é,½f,fff€—p,lfRf}f"fh•¶Žš—ñ,ðŽæ,è□o,μ,Ü,·□BMODEM.INF ,í□A\systemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

**Ši- {□\ 'ç**

MODEM.INF ftf@fCf<,í□AZš,ÉŽŸ,ì 2 ,Ä,ì"•ª,Á□□—,³,é,Ä,ç,Ü,·□B

- fOf□□[fof<,É [Responses] fZfNfVf#f"□B□ufOf□□[fof<,É%ož"š,ì—á□v,ðŽQ□Æ,μ,Ä,,¾,¾,¾,ç□B  
,±,lfZfNfVf#f",É,í□AŠeŽif,fff€,ª•Ö,·<α'É,ì%ož"š•¶Žš—ñ,ª<L□q,<sup>3</sup>,é,Ä,ç,Ü,·□B
- fTf|□[fg'í□Ú,lf,fff€,²,Æ,lfZfNfVf#f" (—á□F [AT&T Comsphere 3820].)□B□uf,fff€ fZfNfVf#f",ì—  
á□v,ðŽQ□Æ,μ,Ä,,¾,¾,¾,ç□B  
f,fff€ fZfNfVf#f",É,í□AZŸ,ì,æ,α,ÉfRf}f"fh•¶Žš—ñ,ª<L□q,<sup>3</sup>,é,Ä,ç,Ü,·□B
- □%oŠú%o»
- f\_fCf,,f<
- %ož"š

fTf|□[fg,<sup>3</sup>,é,Ä,ç,É,çf,fff€,ðŽg,Á,Ä□Ú'±,·,é,É,í□AMODEM.INF ftf@fCf<,ð□C□³,·,é•K—  
v,ª, ,è,Ü,·□B□Ú□×,É,Ä,ç,Ä,í□A□uMODEM.INF ,ð□C□³,·,é□v,ðŽQ□Æ,μ,Ä,,¾,¾,¾,ç□B

ŠÖ~A□€—Ú

f,fff€,lŠg'£:<@"\\,ðŽg,α,½,β,ì—vCE□

MODEM.INF ,ì□\•¶

## fof [fof<,È%ž“š,ì—á

ŽŸ,ÉŽ!,.,ì, [AMODEM.INF ftf@fCf<,ìfOf [fof<,È%ž“šfZfNfVf+f“,É<Lq,³,è,é“TÉ^“i,ÈfGf“fgfš,ì—á,Å,·B

[Responses]

OK=<cr><lf>**OK**<cr><lf>  
**OK**=<hFF><cr><lf>**OK**<cr><lf>  
LOOP=<cr><lf>RING<cr><lf>  
LOOP=<cr><lf>RRING<cr><lf>  
LOOP=<cr><lf>RINGING<cr><lf>  
LOOP=<cr><lf>DIALING<cr><lf>  
ERROR=<cr><lf>ERROR<cr><lf>  
ERROR=<cr><lf>ABORTED<cr><lf>  
ERROR\_NO\_CARRIER=<cr><lf>NO CARRIER<cr><lf>  
ERROR\_VOICE=<cr><lf>VOICE<cr><lf>  
ERROR\_NO\_DIALTONE=<cr><lf>NO DIALTONE<cr><lf>  
ERROR\_NO\_DIALTONE=<cr><lf>NO DIAL TONE<cr><lf>  
ERROR\_BUSY=<cr><lf>BUSY<cr><lf>  
ERROR\_NO\_ANSWER=<cr><lf>NO ANSWER<cr><lf>  
ERROR\_NO\_PROMPTTONE=<cr><lf>NO PROMPTTONE<cr><lf>  
CONNECT\_EC=\  
<cr><lf>CARRIER <carrierbps><cr><lf><append>\  
<cr><lf>PROTOCOL: V.42/LAPM<cr><lf>\  
<cr><lf>COMPRESSION: V.42BIS<cr><lf>\  
<cr><lf>CONNECT <connectbps><cr><lf>

## LOOP

LOOP ,ÉŠÜ,Ü,ê,éî•ñ,í□AZŸ,É,Ù,©,ì%ž“š,â—,ç,ê,Ä,,é,Æ,ç,±,Æ,¾,¯,Å,·□BfŠf,□[fg fAfNfZfX,í□A,»,ì  
%ž“š,â—,ç,ê,Ä,,é,Ü,Å,í□AZŸ,ì“@□ì,É“ü,ç,,É‘Ò,¿,Ü,·□BLOOP ,Ü,½,í LOOP\_ ,ÅŽn,Ü,é  
%ž“šfL□[f□□[fh,í,·,×,Ä□A,±,ê,Æ“¯,¶,æ,±,É<@“\,μ,Ü,·□B

**ERROR**

f,fff€,ÉfRf}}f“fh,â—M,³,ê,½¼¼CĚă,ÉAf,fff€,âfGf%oo[,ð•Ô,μ,½,±,Æ,ðŽ!,μ,Û,·B,±,ì%ž“š,ÍA,½,ç,Ä,ç  
,ìêê#Af,fff€,É—M,³,ê,½fRf}}f“fh•ŕŽš—ñ,â³,μ,,È,ç,±,Æ,ð^Ó-ì,μ,Û,·BWindows NT  
fnfCfp[[f^[[f~fif<,ðŽg,Á,Äf,fff€,ðfefXfg,μA,Ç,ìfRf}}f“fh,âfGf%oo[,ìCĚ  
^^ö,É,È,Á,½,©,ð²,x,ÄA³,μ,çfRf}}f“fh•ŕŽš—ñ,ðŠm”F,μ,Ä,,¾,¾,çBfefXfg•û-@,É,Á,ç,Ä,ÍAuf,fff€  
.ðfefXfg,·:éiv,ðŽQAE,μ,Ä,,¾,¾,çB  
,Û,©,ìfRf}}f“fh,ð•t, , ,ÉuATv,Æ,ç,xfRf}}f“fh,¾,~“ü—Í,μ,Ä,,¾,¾,çB,±,ìC<%oÊfGf  
%oo[,â•Ô,³,ê,éêê#,ÍAf,fff€,ìfn[[fhfEfFfA,É-â`è,â ,é,ÆŽv,í,ê,Û,·Bf,fff€,ì“dCĚ¹,ðØ,Á,Ä,©,ç-ñ 20  
•bŠÔ`Ò,ìA“dCĚ¹,ð“ü,ê¼,μ,Ä-â`è,â%ooðCĚ^,³,ê,é,©,Ç,æ,©,ð²,x,Ä,,¾,¾,çB,±,ê,Ä-â`è,â  
%ooðCĚ^,³,ê,É,çêê#,ÍAf,fff€,ì»‘çCĚ³,É-â,çê#,í¹,Ä,,¾,¾,çB

## CONNECT

□Ú±,ªŠm—š,³,ê,½,±,Æ,ðŽ|,μ,Ü,·□B



**OK**

f, fff€, @fRf}f“fh, đŽóM, μA³í, É^—, μ, ½, ±, Æ, đŽ!, μ, Û, ·B

**CONNECT\_EC**

f,fff€,lfGf%□□\$€ä<@"\,Ü,½,í^³□k<@"\,ªfjf“,É,È,Á,½□ó‘Ô,Å□Ú‘±,³,ê,½,±,Æ,ðŽ¡,μ,Ü,·□B

**f,fff€ fzjNfvfjf“,i—á**

ŽŸ,ÉŽ!,.,i,í□AMODEM.INF ftj@fCf<,i“TCE^“i,Èf,fff€ fzjNfvfjf“,i—á,Á,·□B

[AT&T Comsphere 3820]

<speaker\_on>=M1

<speaker\_off>=M0

<hwflowcontrol\_on>=\\Q3

<hwflowcontrol\_off>=\\Q0

<compression\_on>=%C1"H3

<compression\_off>=%C0"H0

<protocol\_on>=\\N5

<protocol\_off>=\\N0

CALLBACKTIME=10

DEFAULTOFF=compression

MAXCARRIERBPS=14400

MAXCONNECTBPS=38400

COMMAND\_INIT=AT&F&C1&D2 V1 X7 S0=0 S2=128 S7=55<cr>

COMMAND\_INIT=AT<hwflowcontrol><compression><protocol><speaker><cr>

COMMAND\_LISTEN=ATS0=1<cr>

COMMAND\_DIAL=ATDT<phonenumber><cr>

## CALLBACKTIME

fT[fO[,afNf%ofCfAf"fg,ÉfR[f·fjofbfN,·,é,Ü,Å,É'Ò<@,·,é•b",ðŽw'è,μ,Û,·B,±,ìŽžŠÔ,íAfNf  
%ofCfAf"fg,lf,fff€,afŠfZfbfg,Å,«,é,æ,α,É,·,é,½,ß,ÉY,·,é'x%o,,ŽžŠÔ,Å,·BÅ%o,í 10 •b,ðŽw'è,μA-  
â'è,â, ,é,î'l,ð'â,μ,Ä,,¾,¾,çB

## DEFAULTOFF

fjf", ©fift,ÉŸ'è,Å,«,éf}fNf□,ì,κ,ζ□AŠù'è,ìŸ'è,Åfift,É,μ,Ä,"}f}fNf□,ð—ñ<" ,μ,ÄŽw'è,μ,Ü,·□B,±,±  
,ÉŽw'è,μ,½f}fNf□,í□ARasphone.exe ,Åfjf",É•ï□X,³,ê,È,†ÆÀ,è□Afift,ì,Ü,Ü,É,È,è,Ü,·□B

## MAXCARRIERBPS

fNf%oCfAf"fg,lf,fff€,ÆfŠf,[]fg fAfNfZfX fT[]fo[],lf,fff€,³ff[]f^,ðCEðŠ.,,é,Æ,«,ìÅ'â'¬"x ("d~b%ñü,Å,ì  
bps 'P^Ê,ì'ÊM'¬"x) ,ðŽw'è,μ,Û,·B,±,ì'¬"x,É,íAí,É MAXCONNECTBPS ,ÉŽw'è,μ,½'l^È  
%º,ì'l,ðŽw'è,μ,Ä,,¾,¾,¾,¾B

## MAXCONNECTBPS

f,fff€,©,çfRf“fsf...[]f^,Ö’—[]M,·,é,Æ,«,ì[]Å’â’-“x (DCE ,©,ç DTE ,Ö,ì bps ‘P^Ê,Å,ì’Ê[]M’-“x)  
,đŽw’è,μ,Û,·[]B,±,ì’l,É,í[]A,»,ìf,fff€,ÅfTf|[]fg,Å,«,é[]Å’â,ìfVfŠfAf< f|[]fg’Ê[]M’-“x,đ[]Ý’è,μ,Ä,³/4,³,ç[]B

## speaker

f,fff€,ìfXfs□[fj□[,ðfìf“,Ü,½,íft,É,μ,Ü,·□B



## protocol

fGf%°[]\$Eä<@"\,øf|f",Ü,½,Í|ft,É,μ,Ü,·B

**compression**

f,fff€,i^3k<@"\,ðflf",Ü,½,Íflft,É,μ,Ü,·B

**hwflowcontrol**

COM f[]fg,Æj,fff€,Æ,ìŠÔ,Åfn[]fhfEjFfA ftf[][]\$CEä,ðŽg,¸,©,Ç,¸,©,ð[]Af,fff€,ÉŽwŽ!,μ,Û,·[]B

**cr**

fLfffŠfbfW fŠf^[f“,ð’“ü,μ,Ü,·B

**If**

f%ofCf“ ftfB[h,δ’}“ü,μ,Ü,·B

**match**

fffofCfX, ©, ç, ì%ž"š, ì't, É□A^ø—p•,, Å^í, ñ, ¾•¶Žš—ñ, æ©, Â, ©, é, Æ□A^ê'v, μ, ½, ±  
, Æ, ð•ñ□□, μ, Ü, ·□B, ½, Æ, ¡, î□A<match>"Smith" , ÆŽw'è, ·, é, Æ□A"Jane Smith" , â "John Smith III" , È, Ç, ì  
%ž"š, ðŽó, -Žæ, Á, ½, Æ, «, É□A%ž"š, æ^ê'v, μ, ½, Æ©, È, ³, ê, Ü, ·□B

?

f[]fCf<fhfj[]fh•¶žš,đ'}“ü,μ,Û,·[]B,½,Æ,¡,Î[]ACO<?><?>2 ,Í COOL2 ,â COAT2 ,Æ^è'v,μ,Û,·,ª[]ACool3  
,Æ,Í^è'v,μ,Û,¹,ñ[]B

**phonenummer**

f\_fCf,,f<fAfbfv flfbfgf□□[fN,ì“d~b’ ,É“ü—í,<sup>3</sup>,ê,Ä,ç,é“d~b”Ô□†,öf\_fCf,,f<,μ,Ü,·□B



**carrierbps**

fNf%oCfAf"fg,lf,fff€,ÆfŠf,□[fg fAfNfZfX fT□[fo□[,lf,fff€,iŠÔ,iff□[f^"J'—'—"x ("d~b%oñ□ü,Å,i bps  
'P^Ê,i'Ê□M'—"x)□B

**connectbps**

f,fff€,©,çfRf“fsf...[]f^,Ö’—[]M,·,é,Æ,«,ì’-“x (DCE ,©,ç DTE ,Ö,ì bps ‘P^Ê,Å,ì’Ê[]M’-“x)[]B

## append

í•ň,đ•i” ,lfZfOf“fg,É•š,,μAf,fff€,©,ç’—,ç,ê,Ä,«,½fZfOf“fg,íA1 “x,É 1 ,Ä,,ÄžóM,³,é,Ü,·BfNf  
%ofCfAf“fg,íAfZfOf“fgšÔ,É’x%o,,žžšÔ,š”¶,·,é,±,Æ,đ’z’è,μA,·,x,Ä,ìí•ň,đžóM,·,é,Ü,Å’Ò,¿,Ü,·B

**ignore**

f}fNf, ©,ç,ì%ž“š,ìŽc,è,ì•”•ª,ð-³Ž<,μ,Û,·B,½,Æ,ì,îA<cr><lf>CONNECT<ignore>  
,Æ<Lq,·,é,ÆA"crIfCONNECTV-1.1" ,Æ "crIfCONNECTV-2.3" ,Æ,ç,æ%ž“š,ð“”,¶,à,ì,Æ,μ,Ä“Ç,Ýž,Ý,Û,·B

**hXX (XX ,í 16 □i□”)**

•ŕŽš—ň,É 16 □i□”,Å□”’l,đ’}“ü,Å,«,Ü,·□Bfjf<•ŕŽš,í□A<h00> ,É,È,è,Ü,·□B



**facilities**

'Ê~b—¿<à,ð'...Mæ,ª•%oS,·,é,æ,κ,ÉŽw'è,·,é /R ,È,Ç,lfpf%of[]f^,ðŽw'è,μ,Û,·B

## x25address

fŠf.[]fg fAfNfZfX fT[]fo[][,đĀÄ,Ñ[]o.,½,ß,ì X.121 fAfhfĀfX (X.25 ,Å[]A'Ê[]í,ì“d~b”Ô[]t,É'î%ž,.,é[]î•ň)  
,đŽw'è,μ,Û,·[]B



## x25pad

Žg—p,·,é X.25 Packet Assembler/Disassembler (PAD) ,ìŽí—p,đŽw'è,μ,Ü,·□Bf\_fCf,,f<fAfbfv PAD  
,ì□ê□†,í□AX.25 ,ìfvf□fofCf\_—¼,Æ,È,è,Ü,·□B

**userdata**

X.25 fzfxfg fRf"fsf...[]f^, ©,ç—v□,³,ê,é,»,ì¼,i□ú'±□î•ñ,ðžw'è,μ,Û,·□B

**message**

f,fff€,È,Ç,lfjfofCfX,©,çŽóM,μ,½-¢^—□□î•ñ□BfGf%□□l,â"□□,μ,½,Æ,«,É□A,±,ì□î•ñ,â%□□æ-Ê,É•\Ž!,³,ê□A-â'è,ð%□□đĈ^,·,é,½,B,ìŽè,â,©,è,Æ,È,è,Ü,·□B,±,ì—\-ñĈê,Í□A.INI ftf@fCf<,Å,ÍŽg,í,è,Ü,¹,ñ□B

**MODEM.INF ,đC³,·,é**

fšf,[]fg fAfNfZfX fT[]fjfX,ÁfTf[]fg,³,è,Ä,ç,È,çf,fff€,đŽg,Á,ÄÚ±,·,é,É,í[]AMODEM.INF  
ftf@fCf<,đC³,μ,È,·,é,î,È,è,Û,¹,ñ[]B

**MODEM.INF ,đC³,·,é,É,í**

1 Šù'¶,ì MODEM.INF ftf@fCf<,đfofbfNfAfbfv,μ,Û,·[]B

2 Šù'¶,ìfZfNfVfjff“,đftf@fCf<,ì[]AÉä,ÉfRfs[],μ[]AZÿ,É[]AfRfs[],μ,½fZfNfVfjff“,ìfZfNfVfjff“ fwfbf\_[][,đf,fff€  
,ì-¼'°O,É·ì[]X,μ,Û,·[]B

fZfNfVfjff“ fwfbf\_[][,í 31 ·¶Žš^È“à,É,μ,Ä,,¾,¾,ç[]B,±  
,ìfRfs[],.đ.Ö[]W,μ,Ä[]A[]V,μ,çfGf“fgfš,đ[]i[]-,μ,Û,·[]B

3 Žÿ,ì·¶Žš—ñ,đ“ü—í,μ,Û,·[]B

- []%Šú%»·¶Žš—ñ
- f\_fCf,,f<·¶Žš—ñ
- %ž“š·¶Žš—ñ
- []%Šú%»·¶Žš—ñ,ì[]AZÿ,ì—v[]E[],đ-ž,½,¾,³,È,·,é,î,È,è,Û,¹,ñ[]B
- []H[]ê[]o%×Žž,ì[]Y'è,đfšfR[][f<,μ,Û,·[]B
- fLfffšfACEÿ[]o (DCD) ,ì%ž“š (fLfffšfA,đCEÿ[]o,·,é,Æ HIGH ,É,È,è,Û,·) ,đ'Ç[]Ö,μ,Û,·[]B
- '[-f[]CfffB (DTR) ,ª ON (HIGH) ,©,ç OFF (LOW) ,É·í,í,Á,½,ç[]A%ň[]ü,đ[]Ø'f,μ[]AZ©“®%ž“š<@“\  
,đ-³CEø,É,μ,Û,·[]B
- CE<%ÉfR[][fh,đ·Ö,μ,Û,·[]B
- []Ú[]×fR[][fh,đ·Ö,μ,Û,·[]B
- fRf}f“fh f,[][fh,Á,ì·¶ŽšfGfR[][,đ—LCEø,É,μ,Û,·[]B
- -ñ 55 ·bšÖfLfffšfA,đ'Ö,¿,Û,·[]B
- +++ fGfXfP[][fv fV[][fPf“fX,đ-³CEø,É,μ,Û,·[]B

f\_fCf,,f<·¶Žš—ñ,ì[]AZÿ,ì—v[]E[],đ-ž,½,¾,³,È,·,é,î,È,è,Û,¹,ñ[]B  
%ň[]ü,đfift ftfbfN,É,μ,Äf\_fCf,,f<,μ,Û,·[]B

- %ž“š·¶Žš—ñ,ì[]AZÿ,ì—v[]E[],đ-ž,½,¾,³,È,·,é,î,È,è,Û,¹,ñ[]B
- CEÄ,Ñ[]o,μ%¹,ª 1 %ň,É,Á,½CEä,É%ž“š,μ,Û,·[]B

fRf}f“fh·¶Žš—ñ,ì[]Ú[]×,É,Á,ç,Ä,ì[]A[]uf,fff€ fRf}f“fh[]v,đŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

4 f,fff€,ìf}fj...fAf<,Ä[]A,»,ìf,fff€,ì%ž“š (CE<%É·¶Žš—ñ) ,ªŠù,É MODEM.INF ,ìfOf[][]fof<  
fZfNfVfjff“,ÉŠÜ,Û,è,Ä,ç,é,©,Ç,¤,©,đ'²,×,Û,·[]BŠÜ,Û,è,Ä,ç,é[]ê[]±,ì[]A,»,ì%ž“š,É·ì[]X,đ%Á,ì,é·K—v,í, ,  
è,Û,¹,ñ[]BŠÜ,Û,è,Ä,ç,É,ç[]ê[]±,ì[]Af,fff€ fZfNfVfjff“,É,»,ìf,fff€[]ê—p,ì%ž“š,đ[]i[]-,Á,<,Û,·[]B  
%ž“š,ì[]Ú[]×,É,Á,ç,Ä,ì[]u%ž“š[]v,đŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

'[] —Šú,μ,È,çCE<%É,đ“đ,·,é,½,β,É[]AMODEM.INF ,ìfOf[][]fof<,È%ž“šfZfNfVfjff“,É%ž“š,đ'Ç  
%Á,μ,½,è[]A,±,ìfZfNfVfjff“,©,ç%ž“š,đ[]í[]œ,μ,½,è,μ,È,ç,Ä,,¾,¾,ç[]B

ŠÖ~A[]€-Û

f,fff€,ìšg'£<@“\,đŽg,¤,½,β,ì—v[]E[]

**f,fff€,ìŠg'£<@"\,ðŽg,¼,½,B,ì—vCE**

fTf|[]fg,³,è,Ä,ç,È,çf,fff€—p,ìf,fff€ fZfNfVf#f“,ðV,μ,[]□—,μ,Ä,ç,é[]ê[]#,í[]AZÿ,ì—vCE,ðÿ'è,μ,Ä[]Af,fff€ ,ìŠg'£<@"\,ð—LCEø,É,μ,Ä,,¾,³,ç[]B

- fn[][fhfEfFfA (CTS/RTS) ftf[][]\$CEäflf“
- fn[][fhfEfFfA (CTS/RTS) ftf[][]\$CEäflft
- fGf%[][]\$CEäfvf[]fgfRf< flf“

Ž©“@“l,É[]AfIfSfVfG[]fVf#f“,É[]—CE÷,μ,½[]Å,à[]M—Š[]«,ì[],,çfvf[]fgfRf<,ª'l'ð,³,è,Ü,·[]B,Ü,,[]AV.42 (LAP-M) ,©,çfIfSfVfG[]fVf#f“,ªŠJŽn,³,è[]A[]#,É[]AMNP4[]AfGf%[][]\$CEà,È,μ,ÆfCEfxf<,ª%°°,°,ç,è,Ü,·[]BŽg—p,μ,Ä,ç,éf,fff€,ª V.42 ,ðTf|[]fg,μ,Ä,ç,È,ç[]ê[]#,í[]AfIfSfVfG[]fVf#f“,í[]AMNP4 ,©,çŠJŽn,³,è,Ü,·[]B

- fGf%[][]\$CEäfvf[]fgfRf< flft
- ^³[]kflf“

Ž©“@“l,É[]AfIfSfVfG[]fVf#f“,É[]—CE÷,μ,½[]Å,à[]CEø—!,ì,æ,çfvf[]fgfRf<,ª'l'ð,³,è,Ü,·[]B,Ü,,[]AV.42bis ,©,çfIfSfVfG[]fVf#f“,ªŠJŽn,³,è[]A[]#,É[]AMNP5[]A^³[]k,È,μ,ÆfCEfxf<,ª%°°,°,ç,è,Ü,·[]BŽg—p,μ,Ä,ç,éf,fff€,ª V.42bis ,ðTf|[]fg,μ,Ä,ç,È,ç[]ê[]#,í[]AfIfSfVfG[]fVf#f“,í[]AMNP5 ,©,çŠJŽn,³,è,Ü,·[]B

- ^³[]kflft

ŠÖ~A[]€-Ú

f,fff€,ì<@"\,ðÿ'è,·,é

## MODEM.INF ,\•¶

MODEM.INF ftf@fCf<,ì“TCE^“I,Èf,fff€ fGf“fgfŠ,É,íAŽŸ,ì\□¬—v‘f,ŠÜ,Ü,è,Ü,·□B□Å□%o,ì 4 ,Â,Í□A,±,±  
,ÉŽ!,·,Æ,“,è,ì□#□~ ,Å<L□q,μ,Ü,·□BfRf□f“fg□s,Í,Ç,±,É“ü,è,Ä,à,©,Ü,ç,Ü,<sup>1</sup>,ñ□B

- fZfNfVf#f“ fwfbf\_□□
- □\□¬fpf%of□□[f^
- ‘â“üf}fNf□‘è<`
- fRf}f“fh
- fRf□f“fg□s

ŠÖ~A□€-Ú

%oŽ“Š

□s,ìCEp‘±

fGfCfŠfAfX,öŠ,,è“- ,Ä,é

**fZfNfVfjf“ fwfbf\_[]**

,±,ìfZfNfVfjf“,ª“K—p,³,ê,é“Á’è,ìfffofCfX,ðŽ-•Ê,μ,Û,·[]B’Êí[]AMODEM.INF ,ìfZfNfVfjf“  
fwfbf\_[][,É,í[]Af,fff€,ì[]»’çCE³-¼,Æ<@Ží-¼,ª<L[]q,³,ê,Û,·[]BfZfNfVfjf“ fwfbf\_[][,í[]AŠp,©,Á,±,Å^í,Û,ê,½ 32  
•¶Žš^È“à,ì•¶Žš—ñ,Å, ,è[]AŠefZfNfVfjf“,ì 1 []s-Ú,É’u,©,ê,Û,·[]B,½,Æ,¡,î[]A[AT&T Comsphere] ,ì,æ,ª  
,É,È,è,Û,·[]B

□\□-fpf%of□□[f^

fŠf,□[fg fAfNfZfX,í□A□\□-fpf%of□□[f^,đŽg,Á,Äf,fff€,đ'€□ì,μ,Ü,·□B□\□-fpf  
%of□□[f^,ì□Ž®,í□AZŽŸ,ì,Æ,¨,è,Å,·□B

*parameter\_name=value\_string*

ŽŸ,É-á,đŽì,μ,Ü,·□B

MAXCARRIERBPS=9600

CALLBACKTIME=8



'ã"űf}fNf'è<`

'ã"űf}fNf,Æ,ÍAfrf}f"fh•¶Žš—ñ,ì't,ÅAŽÀÜ,ì'l,É'uŠ·<sup>3</sup>,ê,évfCE[fXfzf<f\_Å,·Bf}fNf,ÍAZŽÿ,ì<K'¥,É],  
,ç,Ü,·B

- MODEM.INF ftf@fCf<,ÅAf}fNf,ÍÅ%,ìfrf}f"fh,ì'O,É,È,~,ê,Î,È,è,Ü,<sup>1</sup>ñB,Ü,½A^è"É,ÉA□□~fpf  
%of□□[f^,ìCEã,É<L□q,μ,Ü,·B
- f}fNf-¼,ÍA·s"™ □t (< > ),Å^Í,Ü,È,~,ê,Î,È,è,Ü,<sup>1</sup>ñB

Žÿ,É—á,ðŽ!,μ,Ü,·B

<reset>=&F

<speaker\_on>=M1

<speaker\_off>=M0

□Ú□x,É,Â,ç,Ä,ÍA□u'ã"űf}fNf□□v,ðŽQ□Æ,μ,Ä,,¾,<sup>3</sup>,ç□B

**fRf}f“fh**

fRf}f“fh,Æ,í□Af,fff€,É'—□M,³,ê,é•¶Žš—ň,Å,·□B,±,ì•¶Žš—ň,É,í□Af}fNf□,ð“ü,ê,é,±,Æ,²,Å,«,Ü,·□BfRf}f“fh•¶Žš—ň,ì'Ž®,íŽŸ,ì,Æ,“,è,Å,·□B

*command\_keyword=value\_string*

□Ú□x,É,Å,ç,Ä,í□A□uf,fff€ fRf}f“fh□v,ðŽQ□Æ,μ,Ä,,³/₄,³,ç□B

## frf"fgs

frf"fgs,lfzf~frf" ( ; ) ,ÅŽn,Ü,èAftf@fCf<"à,"C^Ó,ì%ÓŠ,É'u,,±  
,Æ,ª,Å,«,Ü,·Bfrf"fgs,É,íA.INF ftf@fCf<,ð•ÚŽç,·,éft[fU[,É,Æ,Á,Äd—v,Èî•ñ,ªŠÜ,Ü,ê,Ä,ç  
,Ü,·BŽŸ,É—á,ðŽ!,μ,Ü,·B

- ; Explanation of modem commands
- ; &F Reset modem to factory default settings
- ; &C1 DCD tracks presence of modem carrier
- ; &D2 Hangup & disable autoanswer when DTR goes from ON TO OFF

## 'ã"üf}fNf

ŽŸ,ì·\,ÉŽì,·,æ,æ,ÉA'ã"üf}fNf,í 2 Ží—p, ,è,Ü,·B

f}fNf,ílfXfg,Á,«,Ü,<sup>1</sup>,ñB~A'±,·,é 2 ,Á,ìQ·s"™Qt,í 1 ,Á,ìQ·s"™Qt,Æ,μ,Ä%øŽŽ<sup>3</sup>,éA~A'±,·,é 2 ,Á,ì%øE·s"™Qt,í 1 ,Á,ì%øE·s"™Qt,Æ,μ,Ä%øŽŽ<sup>3</sup>,é,Ü,·B,±,ì·ù-@,Á·s"™Qt,ðŽw'è,·,é,±,Æ,É,æ,èA·K—v,É%øž,¶,ÄfRf}f"fh·¶Žš—ñ,ÉQ·s"™Qt,Æ%øE·s"™Qt,ðŽg—p,Á,«,Ü,·B

<b>f}fNf,ìŽí</b>	<b>Q'Ž®</b>
<b>—p</b>	
'PQ€	<macro_name>=value_string
"ñQ€	<macro_name_ON>=value_string
	<macro_name_OFF>=value_string

## "ñQ€f}fNf

fRf}f"fh AT<reset><cr> ,íAAT&F<cr> ,Æ,μ,Ä'—M,<sup>3</sup>,é,Ü,·B"ñQ€f}fNf,ívfC[fXfzf\_f\_,íAft[fU[ ,©,ç,ìŽwŽì,É,Á,Ä'uš,<sup>3</sup>,é,Ü,·B,½,Æ,ì,íAft[fU[ ,¶Xfs[f][ ,ð—<sup>3</sup>CEø,É,μ,½Qè¶AfRf}f"fh AT<speaker><cr> ,í ATM0<cr> ,Æ,μ,Ä'—M,<sup>3</sup>,é,Ü,·Bft[fU[ ,¶Xfs[f][ ,ð—LCEø,É,μ,½Qè¶AfRf}f"fh AT<speaker><cr> ,í ATM1<cr> ,Æ,μ,Ä'—M,<sup>3</sup>,é,Ü,·B

**speaker** A**protocol** A**compression** A**hwflowcontrol** ,È,Ç,ì"ñQ€f}fNf,íAŽŸ,ì,æ,æ,É'è<` ,μ,Ü,·B

<speaker\_on>=M1  
<speaker\_off>=M0

'l,Æ,μ,ÄŽg,æ,Æ,«,íAŽŸ,ì—á,ì,æ,æ,ÉŽg,ç,Ü,·B

COMMAND\_INIT=AT<speaker><cr>

## %øž"š,Á,ìf}fNf

^ê·",ì%øž"š,É,àf}fNf,ðŽg—p,Á,«,Ü,·B%øž"š·¶Žš—ñ"à,ì,Ü,Æ,ñ,Ç,ìf}fNf,íAfRf}f"fh"à,ìf}fNf,Æ" ,¶,æ,æ,É" @i,μ,Ü,·B,½,¾,μA**carrierbps** A**x25address** ,È,Ç,ì^ê·",ìf}fNf,íA'ÉM'—"x,È,Ç,ìî·ñ,ðffofCfX,ì%øž"š·¶Žš—ñ,©,çŽæ"<sup>¾</sup>,μ,Ü,·B

fŠf,ífg fAfNzfX ftífrfX,Á,íA%øž"š·¶Žš—ñ,ì't,Á **match** A? A**append** A**hXX** A**ignore** ,È,Ç,ðŽg,Á,Äf,ff€E,Ü,½,í,»,ì<sup>¼</sup>,íffofCfX,©,ç,ì%øž"š,ð" FŽ ,Á,«,Ü,·B

## —\—ñCEè

ŽŸ,ì^è—,ìf}fNf,í—\—ñCEè,Á,·B[V,μ,çf}fNf,ðìQ·,·,é,Æ,«,ÉA,±,é,ç,ìf}fNf,í MODEM.INF ,É'è<` ,Á,«,Ü,<sup>1</sup>,ñB—\—ñCEè,Á,íA'ã·¶Žš,ÆQ·¶Žš,æ<æ·É,<sup>3</sup>,é,Ü,<sup>1</sup>,ñB

- carrierbps
- connectbps
- message
- phonenummer
- cr
- lf
- match
- ?
- append
- ignore

- hXX

PAD.INF ftj@fCf<,Å,í[AŽŸ,ì—\-ñĈĕ,ªŽg,í,ê,Ä,č,Ü,·□B

- diagnostics
- facilities
- x25address
- x25pad
- userdata

'□ —\-ñĈĕ,đf}fNf□-¼,Æ,μ,Ä'è<` ,μ,½□ê□‡,lfŠf,□[fg fAfNfZfX f\ftfgfEfFfA,ì“®□ì,í—\ª,Ä,«,Ü,¹,ñ□B



## COMMAND\_INIT

f,fff€,đ□%Šú%»μ,Û,·□B

## COMMAND\_DIAL

"d~b"Ô□†,öf\_fCf,,f<,μ□A□Ú'±,μ,Û,·□B



## COMMAND\_LISTEN

f,fff€,đŽ©“®%ž“šf,[]fh,É[]Ý'è,μ,Û,·[]Bf,fff€,đCEÄ,Ń[]o,μ%°¹,ª-Â,Á,½,ç%°ž“š,·,é,æ,x  
,É[]Ý'è,·,éfR[]fh,É,Â,ç,Ä,Í[]AŠef,fff€,[]f}fjf...fAf<,đŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

%ož“š

fRf}f“fh%ož“šfZfbfg,íA1 CEÂ,lfRf}f“fh,ÆA,»è,É±,ff[CEÂ^Èä,ì%ož“š,©,ç□□□,³,è,Ü,·□B  
%ož“š,í□AfffofCfX,©,çŽóM,·,é,Æ—\z,³,è,é•¶Žš—ñ,Å□Af}fNf□,ðŠÜ,β,é,±,Æ,ª,Å,«,Ü,·□B  
%ož“š,ì□Ž@,ìŽÿ,ì,Æ,¨,è,Å,·□B

keyword=value\_string

MODEM.INF ftf@fCf<,É,í□AZŸ,ì 2 Ží—p,ì%ož“š,ªŠÜ,Ü,è,Å,ç,Ü,·□B

<b>%ož“š,ìŽí—p</b>	<b>&lt;L□q□è□Š</b>
fOf□□[fof<	[Responses] fZfNfVf#f““à
fvf%ofCfx□[fg	%ož“š,ð□¶□□,·,é,Æ —\z,³,è,é¶Rf}f“fh f %ofCf“,ì'¼CEã□A,¨,æ,ÑŽÿ, lfRf}f“fh f%ofCf“,ì'O

**fOf□□[fof<,È%ož“š**

,Ü,Æ,ñ,ç,lf,fff€,ÉŽg,í,è,é%ož“š,í□AMODEM.INF ,lfOf□□[fof<,È [Responses] fZfNfVf#f“ ,É“ü,Á,Ä,ç  
,Ü,·□B□ufOf□□[fof<,È%ož“š,ì—á□v,É—á,ª, ,é,ì,Å□AZQ□Æ,μ,Å,,¾,¾,¾,ç□B

**fvf%ofCfx□[fg,È%ož“š**

MODEM.INF ,ìŠef,fff€—p,lfZfNfVf#f“,É□Afvf%ofCfx□[fg,È%ož“š•¶Žš—ñ,ð“ü,è,é,±,Æ,ª,Å,«,Ü,·□BŠf,□[fg  
fAfNfZfX,í□A□Å□%o,Éfvf%ofCfx□[fg,È%ož“š,ð²,x,Ü,·□Bf,fff€,©,ç•Ô,³,è,éŽÀ□Ü,ì•¶Žš—ñ,Æ^è'v,·,é  
%ož“š•¶Žš—ñ,ªCE©,Á,©,ç,È,¨,è,ì□A^ø,«±,«fOf□□[fof<,È [Responses] fZfNfVf#f“,ð²,x,Ü,·□B,½,¾,μ□A—  
áŠO,Æ,μ,Å□A<append> f}fNf□,ªŠÜ,Ü,è,Å,ç,é•¶Žš—ñ,ì□Å□%o,ì•”•ª,ªfvf%ofCfx□[fg  
fZfNfVf#f“,Å^è'v,μ,½□è□#,í□AfOf□□[fof< fZfNfVf#f“,íCEŸ□ð,³,è,Ü,¹,ñ□B'ä,í,è,É□AfŠf,□[fg fAfNfZfX,ì•¶Žš—  
ñ,ìŽc,è,ì•”•ª,ªf,fff€,©,ç“ž'...·,é,ì,ð□”•bŠÖ'Ö,ž,Ü,·□B  
□ufvf%ofCfx□[fg,È%ož“š,ì—á□v,É—á,ª, ,é,ì,Å□AZQ□Æ,μ,Å,,¾,¾,¾,ç□B

**fvf%ofCfx[]fg,È%ž“š,ì—á**

ŽŸ,ÉŽ!,.,ì[]Afvf%ofCfx[]fg,È%ž“š,à“ü,Á,Ä,č,éfZfNfVf†f“,ì—á,Å,·[]B'Ç%Á,μ,½fZfNfVf†f“,É,í[]A,±,ì•û-  
@,Å%ž“š,đ'“ü,.,é,±,Æ,đ,“Š©,ß,μ,Ü,·[]B

```
COMMAND_LISTEN=ATS0=1<cr>  
CONNECT=<cr><lf>CONNECT <carrierbps><cr><lf>  
CONNECT_EC=<cr><lf>CONNECT <carrierbps>/MNP<cr><lf>  
CONNECT_EC=<cr><lf>CONNECT <carrierbps>/MNP/COMPRESSED<cr><lf>  
CONNECT_EC=<cr><lf>CONNECT <carrierbps>/MNP COMPRESSED<cr><lf>  
CONNECT_EC=<cr><lf>CONNECT <carrierbps>/V42<cr><lf>  
CONNECT_EC=<cr><lf>CONNECT <carrierbps>/V42BIS<cr><lf>
```

□s,ìĀp'±

%~<L□t (\) ,í□AfRf}f"fh,Ü,½,í%ž"š,žŸ,ì□s,É'±,,±,Æ,ðŽ!,μ,Ü,·□B□s,ìĀp'±,ðŽg,æ  
,Æ□Aftf@fCf<,"Ç,Ý,â,,,: ,é,±,Æ,ž,Ä,«,Ü,·□B

ŽŸ,É—á,ðŽ!,μ,Ü,·□B

CONNECT\_v42=\

<cr><lf>CARRIER <carrierbps><cr><lf><append>\

<cr><lf>PROTOCOL: V.42/LAPM<cr><lf>\

<cr><lf>COMPRESSION: NONE<cr><lf>\

<cr><lf>CONNECT <connectbps><cr><lf>

%~<L□t,í□A'P"Æ,Á<L□q,·,é,Æ□A•K, ,□sĀp'±<L□t,Æ,μ,Ä%ðŽß,ž,é,é,±,Æ,É'□^Ó,μ,Ä,,¾,¾,č□B

%~<L□t,ðŠÜ,þfRf}f"fh,ðf,ff€,ÄŽg,æé□ž,í□AfRf}f"fh,ð"ü—í,·,é,Æ,«,É□A"ň□d,ì%~<L□t (\) ,ðŽg,Á,Ä,-  
,¾,¾,č□B

,½,Æ,í,î□AAT&T Comsphere 3820 f,ff€,í□AN5 ,Æ,č,æfRf}f"fh,ðŽg,Á,ÄfGf%□[□§Āä<@"\,ð—

LĀø,É,μ,Ü,·□B,±,lf,ff€,ì□%Šú%»•¶Žš—ň,É,í□AN5 ,Ä,í,È, \N5 ,Æ"ü—í,μ,Ä,,¾,¾,č□B<L□q,ðŠÔ^á,æ

,Æ□Af\_fCf,f<,μ,æ,æ,Æ,μ,½,Æ,«,ÉfŠf,□[fg fAfNfZfX, ©,çfn□[fhfEfFfA fGf%□[,ž•Ô,ž,é,Ü,·□B

**fGfCfŠfAfX,đŠ,,è“-,Ä,é**

“Á'è,ìf,fff€,ìfRf}}f“fh•¶Žš—ñ,ª□AŠù,É•Ê,ìf,fff€,É□Ý'è,³,è,Ä,ç,éfRf}}f“fh•¶Žš—ñ,Æ“- ,¶,Ä, ,é□ê□‡,í□ACEäŽ  
Ò,ìf,fff€-¼,đ'OŽÒ,ìf,fff€,ìfGfCfŠfAfX,Æ,μ,ÄŽg—p,Ä,«,Ü,·□B

ŽŸ,É—á,đŽ!,μ,Ü,·□B

**[AT&T Comsphere 3810]**

**ALIAS=AT&T Comsphere 3820**

,±,ì—á,Ä,í□AAT&T Comsphere 3810 ,í□AAT&T Comsphere 3820 ,ìfRf}}f“fh•¶Žš—ñ,đŽg,ç,Ü,·□B

'□ fGfCfŠfAfX,É'í,μ,ÄfGfCfŠfAfX,đŽg,±,±

,Æ,í,Ä,«,Ü,¹,ñ□B,Ä,Ü,è□AfGfCfŠfAfX,ìfìXfg,Ä,«,Ü,¹,ñ□B,½,Æ,!,í□A, ,éf,fff€,ìfGfCfŠfAfX,đ 2  
,Ä,ìf,fff€,ÉŽg,±□ê□‡,í□A,»,è,¼,è,ìf,fff€,ìfGf“fgfŠ,Ä'¼□ÚfGfCfŠfAfX,É,μ,È,¯,è,í,È,è,Ü,¹,ñ□B

**[AT&T Comsphere 3811]**

**ALIAS=AT&T Comsphere 3820**

ŽŸ,ì,æ,±,ÈŽw'è,í,Ä,«,Ü,¹,ñ□B

**[AT&T Comsphere 3811]**

**ALIAS=AT&T Comsphere 3810**

**f,fff€,ðfefXfg,·,é**

f,fff€,ðŽg,Á,Ä,x,Ü,□Ú±,Á,«,È,ç□ê□‡,í□AWindows NT fnfCfp□[f^□[f~fif<,ðŽg,Á,Äf,fff€  
,ìŒYŠ·□«,ðfefXfg,μ,Ä,,¾,¾,ç□B

**Windows NT fnfCfp□[f^□[f~fif<,ðŽg,Á,Äf,fff€,ðfefXfg,·,é,É,í**

- 1 [fAfNfZfTfŠ] ftfHf<f\_ì [fnfCfp□[f^□[f~fif<] ftfHf<f\_,ðfNfŠfbfN,μ,Ä□A[fnfCfp□[f^□[f~fif<]  
,ðfNfŠfbfN,μ,Ü,·□B
- 2 [□Ú±,ì□Ý'è] f\_fCfAf□fO f{fbfNfX,ì [-¼'O] f{fbfNfX,É-¼'O,ð"ü—í,μ□AZÿ,É [OK] ,ðfNfŠfbfN,μ,Ü,·□B
- 3 [□Ú±,ì□Ý'è] f\_fCfAf□fO f{fbfNfX,ì [fLfff"fZf<] ,ðfNfŠfbfN,μ,Ü,·□B  
fnfCfp□[f^□[f~fif<,Á,í□A[□Ú±·ú-@] f{fbfNfX,É^ê—•Žì,¾,é,Ä,ç,é□Å□%o,ìf,fff€,ðfefXfg,¾,é,é,±  
,Æ,É'□^Ó,μ,Ä,,¾,¾,ç□B
- 4 [fnfCfp□[f^□[f~fif<] fEfBf"fhfE,Á□A□uat□v,Æ"ü—í,μ,Ü,·□B  
f,fff€,©,ç OK ,Æ,ç,x•ŒŽš—ñ,ª•Ô,¾,é□A%œ-Ê,É•Žì,¾,é,é,í,,Ä,·□Bf,fff€  
,É,æ,Á,Ä,í□ACE<%ÊfR□[fh,ì□Ý'è,É%ž,Œ,Ä 0 ,ª•Ô,¾,é,é□ê□‡,à, ,è,Ü,·□B
- 5 fnfCfp□[f^□[f~fif<,ðŽg,Á,Ä,àf,fff€,ª<@"\,μ,È,ç□ê□‡,í□Af,fff€,ì□»'çŒ³,É-â,ç□‡,í,¹,Ä,,¾,¾,ç□B

,±,İfGf%o[]l,İA'Êí,İó<µ,Ä,Í"[]µ,Ü,<sup>1</sup>,ñ[]BfRf"fsf...[]f^,ðÄ<N"®µ,Ä[]AfGf%o[][,<sup>a</sup>"[]µ,·,é'O,É[]s,Á,½[]\  
[]¬,İ•İ[]X,<sup>a</sup>,·,x,Ä—LÆø,É,È,Ä,Ä,ç,é,±,Æ,ðŠm" F,µ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]BfGf%o[][,<sup>a</sup>%øðÆ^,<sup>3</sup>,ê,È,ç[]ê[]‡,İ[]AWindows  
NT ,İfCfxf"fg f[]fO,ðŽQ[]Æ,µ,ÄÆx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'<sup>2</sup>,x,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

,±,İfGf%o[]l,İ[]AfŠf,[]lfg fRf"fsf...[]f^,İfNf%o[]CfAf"fg f%o[]CfZf"fx,<sup>a</sup>'«,è,È,,È,Á,½,½,ß,ÉfŠf,[]lfg fRf"fsf...  
[]f^,Ö,İ[]Ú'±,<sup>a</sup>'"Ü,<sup>3</sup>,ê,Ä"[]µ,½,Æ[]l,ç,ê,Ü,·[]Bfvfxfef€ŠÇ—[]ŽÒ,É~A—[]µ,Ä[]AfNf%o[]CfAf"fg f  
%o[]CfZf"fx,ð'Ç%Á[]w"ü,µ,Ä,à,ç,¤,©[]A,Ü,½,Í,Ü,©,İfŠf,[]lfg fRf"fsf...[]f^,ðŽw'è,µ,Ä,à,ç,Á,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

**fGf%o[] f[]fbfZ[]fW**

- 600 '€[]•Ü—~'t,Å,·[]B
- 601 f[]f[]fg fnf"fhf<,<sup>a-3</sup>CEø,Å,·[]B
- 602 f[]f[]fg,ÍŠù,ÉŠJ,©,ê,Ä,ç,Ü,·[]B
- 603 "[]MŽÒ,Ìfofbftf@,<sup>a</sup>[]-<sup>3</sup>,·-<sup>3</sup>,Ü,·[]B
- 604 CEè,Á,½>[]î•ñ,<sup>a</sup>Žw'è,<sup>3</sup>,ê,Ü,μ,½>[]B
- 605 f[]f[]fg>[]î•ñ,ð[]Ý'è,Å,«,<sup>3</sup>,Ü,<sup>1</sup>,ñ,Å,μ,½>[]B
- 606 f[]f[]fg,<sup>a</sup>[]Ú'±,<sup>3</sup>,ê,Ä,ç,Ü,<sup>1</sup>,ñ>[]B
- 607 -<sup>3</sup>CEø,ÉfCfxf"fg,Å,·[]B
- 608 fffofCfX,<sup>a</sup>'[][]Ý,μ,Ü,<sup>1</sup>,ñ>[]B
- 609 fffofCfX f^fCfv,<sup>a</sup>'[][]Ý,μ,Ü,<sup>1</sup>,ñ>[]B
- 610 fofbftf@,<sup>a-3</sup>CEø,Å,·[]B
- 611 f<[]f[]g,Í—~—p,Å,«,<sup>3</sup>,Ü,<sup>1</sup>,ñ>[]B
- 612 f<[]f[]g,ÍŠ,,è"-<sup>3</sup>,Ä,ç,ê,Ä,ç,Ü,<sup>1</sup>,ñ>[]B
- 613 -<sup>3</sup>CEø,É^<sup>3</sup>[]k,<sup>a</sup>Žw'è,<sup>3</sup>,ê,Ü,μ,½>[]B
- 614 fofbftf@•s'«<sup>3</sup>,Å,·[]B
- 615 f[]f[]g,<sup>a</sup>CE©,Å,©,è,Ü,<sup>1</sup>,ñ>[]B
- 616 "ñ"—Šú—v<[],<sup>a</sup>•Ü—~'t,Å,·[]B
- 617 f[]f[]g,Ü,½,ÍfffofCfX,ÍŠù,É[]ø'f,<sup>3</sup>,ê,Ä,ç,Ü,·[]B
- 618 f[]f[]g,<sup>a</sup>ŠJ,©,ê,Ä,ç,Ü,<sup>1</sup>,ñ>[]B
- 619 f[]f[]g,<sup>a</sup>[]ø'f,<sup>3</sup>,ê,Ä,ç,Ü,·[]B
- 620 fGf"fhf|fCf"fg,<sup>a</sup>,è,Ü,<sup>1</sup>,ñ>[]B
- 621 "d~b' ftf@fCf<,ðŠJ,·,Ü,<sup>1</sup>,ñ>[]B
- 622 "d~b' ftf@fCf<,ð"Ç,Ý[]ž,ß,Ü,<sup>1</sup>,ñ>[]B
- 623 "d~b' ,ÌfGf"fgfŠ,<sup>a</sup>CE©,Å,©,è,Ü,<sup>1</sup>,ñ>[]B
- 624 "d~b' ftf@fCf<,É[]',«[]ž,ß,Ü,<sup>1</sup>,ñ>[]B
- 625 "d~b' ftf@fCf<,Ì't,É-<sup>3</sup>CEø,É>[]î•ñ,<sup>a</sup>CE©,Å,©,è,Ü,μ,½>[]B
- 626 •[]Žš—ñ,ð"Ç,Ý[]ž,ß,Ü,<sup>1</sup>,ñ>[]B
- 627 fL[],<sup>a</sup>CE©,Å,©,è,Ü,<sup>1</sup>,ñ>[]B
- 628 f[]f[]g,<sup>a</sup>[]ø'f,<sup>3</sup>,ê,Ü,μ,½>[]B
- 629 fŠf,[]f[]g fRf"fsf...[]f^,É,æ,Á,Äf[]f[]g,<sup>a</sup>[]ø'f,<sup>3</sup>,ê,Ü,μ,½>[]B
- 630 fn[]f[]hfE[]f[]A[]áŠQ,Ì,½,ß,Éf[]f[]g,<sup>a</sup>[]ø'f,<sup>3</sup>,ê,Ü,μ,½>[]B
- 631 f[]f[]g,Íft[]f[]U[]f[]f,É,æ,Á,Ä[]ø'f,<sup>3</sup>,ê,Ü,μ,½>[]B
- 632 []\`ç'ì,ÌfTfCfY,<sup>a</sup>CEè,Á,Ä,ç,Ü,·[]B
- 633 f[]f[]g,ÍŠù,ÉŽg—p't,©[]AfŠf,[]f[]g fAfNfZfX f\_fCf,,f<fAfEfg,É'Í,μ,Ä[]-<sup>3</sup>,ê,Ä,ç,Ü,<sup>1</sup>,ñ>[]B
- 634 ,±,ÌfRf"fsf...[]f^,ðfŠf,[]f[]g f[]fbf[]g[]f[]N,É"o~^,Å,«<sup>3</sup>,Ü,<sup>1</sup>,ñ,Å,μ,½>[]B
- 635 •s-¾,ÉfGf%o[]
- 636 f[]f[]g,ÉCEè,Á,½,fffofCfX,<sup>a</sup>'•',...<sup>3</sup>,ê,Ä,ç,Ü,·[]B



- 637 •ŕŽš—ň,đ•İŠ.,.é,±,Æ,ª,Å,«,Ü,¹,ň,Å,µ,½ΠB
- 638 —v<Π,İf^fCf€fAfEfg,µ,Ü,µ,½ΠB
- 639 "ň"~ŠúflfbfgfΠΠfN,ª, ,è,Ü,¹,ňΠB
- 640 NetBIOS fGf%ΠΠ[,ª"Πŕ,µ,Ü,µ,½ΠB
- 641 fΠΠ[foΠ[,İfNf%ofCfAf"fg,đfTfΠ[fg.,.é,½,β,É•K—v,È NetBIOS Ž'CE¹,đŠ,,è"—,Ä,é,±,Æ,ª,Å,«,Ü,¹,ň,Å,µ,½ΠB
- 642 NetBIOS -¼,ì 1 ,Ä,İΠAŠù,ÉfŠf,Π[fg flfbfgfΠΠfN,É"o~^,³,è,Ä,ç,Ü,·ΠB
- 643 fΠΠ[foΠ[,İflfbfgfΠΠfN fAf\_fvf^,ÉpášQ,ª, ,è,Ü,·ΠB
- 644 flfbfgfΠΠfN fΠfbfZΠ[fw,đŽóΠM,µ,Ü,¹,ňΠB
- 645 "à•"~FΠØfGf%ΠΠ[
- 646 ,±,İfAfJfEf"fg,İΠA,±,İŽžŠÖ'Ň,ÉfΠfOfİf",.é,±,Æ,đ<-%oÅ,³,è,Ä,ç,Ü,¹,ňΠB
- 647 ,±,İfAfJfEf"fg,İŽg—p,Å,«,Ü,¹,ňΠB
- 648 fpfXfΠΠ[fh,ì—LCEøŠúCEÀ,ªΠØ,è,Ä,ç,Ü,·ΠB
- 649 ,±,İfAfJfEf"fg,İΠAŠf,Π[fg fAfNfZfX,đ<-%oÅ,³,è,Ä,ç,Ü,¹,ňΠB
- 650 fŠf,Π[fg fAfNfZfX fΠΠ[foΠ[,©,ç,ì%oŽ"š,ª, ,è,Ü,¹,ňΠB
- 651 f,fff€ (Ü,½,İΠA,Ü,©,İΠÚ'±fffofCfX) ,©,çfGf%ΠΠ[,ª•Ö,³,è,Ü,µ,½ΠB
- 652 fffofCfX,©,ç,ì%oŽ"š,ª"~FŽ~,Å,«,Ü,¹,ňΠB
- 653 fffofCfX,É,æ,Ä,Ä—v<Π,³,è,½f}fNfΠ,İfffofCfX .INF ftf@fCf<,ÉCE©,Ä,©,è,Ü,¹,ň,Å,µ,½ΠB
- 654 fffofCfX .INF ftf@fCf<"à,İfRf}f"fh,Ü,½,ì%oŽ"š,ì-ç'è<` ,İf}fNfΠ,đŽQΠÆ,µ,Ä,ç,Ü,·ΠB
- 655 fffofCfX .INF ftf@fCf<"à,É <message> f}fNfΠ,ªCE©,Ä,©,è,Ü,¹,ň,Å,µ,½ΠB
- 656 fffofCfX .INF ftf@fCf<,ì <defaultoff> f}fNfΠ,ì-ç'è<` ,İf}fNfΠ,đŠÜ,ň,Å,ç,Ü,·ΠB
- 657 fffofCfX .INF ftf@fCf<,đŠ], ,Ü,¹,ň,Å,µ,½ΠB
- 658 fffofCfX .INF ,Ü,½,İfΠfffBfA .INI ftf@fCf<"à,İfffofCfX-¼,ª',. ,-,Ü,·ΠB
- 659 fΠfffBfA .INI ftf@fCf<,İΠA•s-¾,ÈfffofCfX-¼,đŽQΠÆ,µ,Ä,ç,Ü,·ΠB
- 660 fffofCfX .INF ftf@fCf<,É,Í,»,İfRf}f"fh,É,Í,.,é%oŽ"š,ª, ,è,Ü,¹,ňΠB
- 661 fffofCfX .INF ftf@fCf<"à,ÉfRf}f"fh,ª, ,è,Ü,¹,ňΠB
- 662 fffofCfX .INF ftf@fCf<,É^è—,³,è,Ä,ç,É,çf}fNfΠ,đΠÝ'è,µ,æ,æ,Æ,µ,Ü,µ,½ΠB
- 663 fΠfffBfA .INI ftf@fCf<,İΠA•s-¾,ÈfffofCfX f^fCfv,đŽQΠÆ,µ,Ä,ç,Ü,·ΠB
- 664 fΠf,š,đŠ,,è"—,Ä,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 665 fΠ[fg,ªfŠf,Π[fg fAfNfZfX,É'Í,µ,ÄΠΠ-³,è,Ä,ç,Ü,¹,ňΠB
- 666 f,fff€ (Ü,½,İΠA,Ü,©,İΠÚ'±fffofCfX) ,ª<@"\,µ,Ä,ç,Ü,¹,ňΠB
- 667 fΠfffBfA .INI ftf@fCf<,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 668 ΠÚ'±,ª"jŠü,³,è,Ü,µ,½ΠB
- 669 fΠfffBfA .INI ftf@fCf<"à,İŽg—p-@fpf%ΠΠΠ[f^,ª-³CEø,Ä,·ΠB
- 670 fΠfffBfA .INI ftf@fCf<,©,çZfNfVf#f"-¼,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 671 fΠfffBfA .INI ftf@fCf<,©,çfffofCfX f^fCfv,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 672 fΠfffBfA .INI ftf@fCf<,©,çfffofCfX-¼,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 673 fΠfffBfA .INI ftf@fCf<,©,çŽg—p-@,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB
- 674 fΠfffBfA .INI ftf@fCf<,©,çΠΠ,ΠÚ'±'-x,đ"C,ÝŽæ,é,±,Æ,ª,Å,«,Ü,¹,ňΠB

675 fffffBfA .INI ftf@fCf<, ©, çÅ, 'ÉM' - "x, ð" C, ÝŽæ, é, ±, Æ, a, Å, <, Ü, 1, ñB  
676 %oñü. ífrfW, Å, .B  
677 f, fff€, Å, È, ñ, a%ž"š, µ, Ü, µ, ½B  
678 %ož"š, a, , è, Ü, 1, ñB  
679 fL fffŠfA, ðCEÿo, Å, <, Ü, 1, ñ, Å, µ, ½B  
680 f\_fCf, f< fg[f", a, , è, Ü, 1, ñB  
681 fffofCfX, ©, ç^è"ÉfGf%o, a•Ô, 3, è, Ü, µ, ½B  
682 ERROR WRITING SECTIONNAME  
683 ERROR WRITING DEVICETYPE  
684 ERROR WRITING DEVICENAME  
685 ERROR WRITING MAXCONNECTBPS  
686 ERROR WRITING MAXCARRIERBPS  
687 ERROR WRITING USAGE  
688 ERROR WRITING DEFAULTOFF  
689 ERROR READING DEFAULTOFF  
690 ERROR EMPTY INI FILE  
691 ft[fU[-¼, Ü, ½, ífpfXf[fhA, , é, ç, í, » , ì-¼•û, a-³CEø, È, ½, ßA, ±  
 , ífhf[fCf", É, ífAfNfZfX, Å, <, Ü, 1, ñB  
692 f[f]fg, Ü, ½, í'...³, è, Å, ç, éffofCfX, Åfn[fhfEfffAáŠQ, a"ñ, µ, Ü, µ, ½B  
693 ERROR NOT BINARY MACRO  
694 ERROR DCB NOT FOUND  
695 ERROR STATE MACHINES NOT STARTED  
696 ERROR STATE MACHINES ALREADY STARTED  
697 ERROR PARTIAL RESPONSE LOOPING  
698 fffofCfX, ì .INF ftf@fCf<, ì%ž"šfL[-¼, ìCE`Ž®, a^á, ç, Ü, .B  
699 fffofCfX, ì%ž"š, afofbftf@ f[f]fo[f]ftf[f], ð^ø, <<N, ±, µ, Ü, µ, ½B  
700 fffofCfX .INF ftf@fCf<, í"WŠ]CEã, íRf}f"fh, a', , -, Ü, .B  
701 fffofCfX, í COM fhf%ofCfo, É, æ, Å, ÄfTf[f]fg, 3, è, Å, ç, È, ç'ÉM' - "x, É•í, í, è, Ü, µ, ½B  
702 fffofCfX, ©, ç-Šú, µ, È, ç%ž"š, ðŽóM, µ, Ü, µ, ½B  
703 ERROR INTERACTIVE MODE  
704 ERROR BAD CALLBACK NUMBER  
705 ERROR INVALID AUTH STATE  
706 ERROR WRITING INITBPS  
707 X.25 f'fžwž!  
708 fA]fEf"fg, ì-LCEøŠúCEÀ, añø, è, Å, ç, Ü, .B  
709 fhf[fCf", ífpfXf[f]fh•íXfGf%o, L, Å, .BfpfXf[f]fh, a'Z, ç, ©A, Ü, ½, í^È'O, ÉŽg-p, µ, Å, ç  
 , ½fpfXf[f]fh, ðžw'è, µ, ½%Å"\ñ<, a, , è, Ü, .B  
710 f, fff€, ðŽg-p, µ, Å'ÉM't, ÉfvfŠfAf< f[f]fo[f]f%of" fGf%o, L, a"ñ, µ, Ü, µ, ½B  
711 RasMan , ì%Šú%», ÉŽ, "s, µ, Ü, µ, ½BfCfxf"fg f[f]O, ðŠm"F, µ, Å, ¾, 3, çB

- 712 Bipler f|f|fg,ðp%Šú%»μ,Ä,ç,Ü,·pB,μ,î,ç,μ,Ä,©,çfŠf\_fCf,,f<,μ,Ä,,¾,¾,çpB
- 713 Žg—p,Ä,«,é ISDN %oňpü,ä, ,è,Ü,¹,ňpB
- 714 fR|f<,Ä,«,é ISDN f`fff|f<,ä, ,è,Ü,¹,ňpB
- 715 •iŽ,î,ä^«,ç“d~b%oňpü,É,æ,éfGf%o|f,ä¹½,·,·,·,Ü,·pB
- 716 fŠf,|f|fg fAfNfZfX IP ,ìp|p~.,ÍŽg—p,·,é,±,Æ,ä,Ä,«,Ü,¹,ňpB
- 717 fŠf,|f|fg fAfNfZfX IP fAfhfCfX,ìpÄ“|fv|f<,É—~—p,Ä,«,é IP fAfhfCfX,ä, ,è,Ü,¹,ňpB
- 718 fŠf,|f|fg PPP fsfA,©,ç,ì—LCEø,È%ž“š’Ò,ç,ìŠÔ,ÉpAf^fCfEfAfEfg,μ,Ü,μ,½pB
- 719 fŠf,|f|fg fRf“fsf...|f^,É,æ,è PPP ,ìp|—¹,¾,è,Ü,μ,½pB
- 720 PPP pšCEäfvf|fgfRf<,äp|p~.,¾,è,Ä,ç,Ü,¹,ňpB
- 721 fŠf,|f|fg PPP fsfA,ä%ž“š,μ,Ü,¹,ňpB
- 722 PPP fpfPfbfg,ä-³CEø,Ä,·pB
- 723 pÚ“a”Ôp|t,ÆpÚ“ö”Ôp|t,ðŠÜ,ß,½“d~b”Ôp|t,ä¹,·,·,·,Ü,·pB
- 725 IPX f<|f^p|f,äfCf“fXfg|f<,¾,è,Ä,ç,È,ç,½,ßpA,±,ì|f|fg,Ä IPX fvf|fgfRf<,ìf\_fCf,,f<fCf“,Ä,«,Ü,¹,ňpB
- 726 IPX fvf|fgfRf<,ì“Žž,É•;p|t,ìf|f|fg,Äf\_fCf,,f<fAfEfg,Ä,«,Ü,¹,ňpB
- 727 TCPCFG.DLL ,ÉfAfNfZfX,Ä,«,Ü,¹,ňpB
- 728 fŠf,|f|fg fAfNfZfX,ÉfofCf“fh,¾,è,Ä,ç,é IP fAf\_fvf^,äCE©,Ä,©,è,è,Ü,¹,ňpB
- 729 IP fvf|fgfRf<,äfCf“fXfg|f<,¾,è,Ä,ç,È,ç,½,ßpASLIP ,ÍŽg—p,Ä,«,Ü,¹,ňpB
- 730 fRf“fsf...|f^,ì“o~^,äŠ@—¹,μ,Ä,ç,Ü,¹,ňpB
- 731 fvf|fgfRf<,äp|p~.,¾,è,Ä,ç,Ü,¹,ňpB
- 732 PPP flfSfVfGp|fVfj“,äŽù’©,μ,Ä,ç,Ü,¹,ňpB
- 733 ,±,ìf|fbfgp|fN fvf|fgfRf<,ì PPP pšCEäfvf|fgfRf<,ìpA,±,ìf|f|fo|f,Ä,ì—~—p,Ä,«,Ü,¹,ňpB
- 734 PPP fŠf“fNpšCEäfvf|fgfRf<,äp|—¹,μ,Ü,μ,½pB
- 735 f|f|fo|f,ì—v<p,μ,½fAfhfCfX,ð<“Ü,μ,Ü,μ,½pB
- 736 fŠf,|f|fg fRf“fsf...|f^,ìpšCEäfvf|fgfRf<,ðp|—¹,μ,Ü,μ,½pB
- 737 f<|f|fvfofbfN,ðCEÿpø,μ,Ü,μ,½pB
- 738 f|f|fo|f,ìfAfhfCfX,ðŠ,,è“-.,Ä,Ü,¹,ň,Ä,μ,½pB
- 739 fŠf,|f|fg f|f|fo|f,ä—v<p,·,é“Fpøfvf|fgfRf<,ìpAWindows NT ,ìÄp|t%»¾,¾,½fpfXf|f|fh,ðŽg—p,Ä,«,Ü,¹,ňpBfpfXf|f|fh,ð-¾Ž!“I,É“ü—ì,μ,ÄpÄ“xf\_fCf,,f<,μ,Ä,,¾,¾,çpB
- 740 -³CEø,È TAPI p|p~.,Ä,·pB
- 741 f|f|f|f< fRf“fsf...|f^,ìÄp|t%»»,ðf|f|f|fg,μ,Ü,¹,ňpB
- 742 fŠf,|f|fg f|f|fo|f,ìÄp|t%»»,ðf|f|f|fg,μ,Ü,¹,ňpB
- 743 fŠf,|f|fg f|f|fo|f,ìÄp|t%»»,ð—v<p,μ,Ä,ç,Ü,·pB
- 744 fŠf,|f|fg f|f|fo|f,É,æ,èŠ,,è“-.,Ä,ç,è,½ IPX flf|fbfgp|fN“Ôp|t,ðŽg—p,Ä,«,Ü,¹,ňpBfCfxf“fg f|fO,ðŠm”F,μ,Ä,,¾,¾,çpB
- 752 fxfNfŠfVfg,ìp^—p|t,Ép\•¶fGf%o|f,ðCEÿpø,μ,Ü,μ,½pB

600

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

601

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,Ù, ©, ìfAfvfŠfP□[fVf†f“, ðf|□[fg, ðŽg, Á, Ä, †, Ü, ·□B, »), ìfAfvfŠfP□[fVf†f“, ð□I—<sup>1</sup>, μ□Af\_fCf,, f<, μ'<sup>1</sup>/<sub>4</sub>, μ, Ä,, <sup>3</sup>/<sub>4</sub>, <sup>3</sup>, †□B

603

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

fŠf. [fg fAfNfZfX, ì“d~b’ ftf@fCf<, ÆfŠf, [fg fAfNfZfX, ìE»Ÿ, ìŸŸŸ, â^ê’v, μ, Ä, ç, È, ç%oÂ”\  
Ÿ«, â, , è, Ü, .ŸB’ÊŸM’•’u (fVfŠfAf< f|[fgŸAf, fff€, È, Ç) , ð•ïŸX, μ, ½ŸêŸ†, íŸA•K, , fŠf, [fg fAfNfZfX, ðŸÄŸ\  
ŸŸ, μ, Ä, , ¾, ¾, çŸBŸuf\_fCf,, f<fAfbfv flfbfgfŸŸŸfN, ðŸÄŸŸŸŸ, .: éŸv, ðŽQŸÆ, μ, Ä, , ¾, ¾, çŸB



605

fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf<,ÆfŠf,[]fg fAfNfZfX,ìCE»Ÿ,ì[]v,μ,Ä,ç,È,ç%oÂ”\  
[]«,à, ,è,Û,·[]B’Ê[]M’•’u (fVfŠfAf< f|[]fg[]Af,fff€,È,Ç) ,đ•ì[]X,μ,½[]ê[]‡,í[]A•K, ,fŠf,[]fg fAfNfZfX,đ[]Ä[]\  
[]¬,μ,Ä,,¾,¾,¾,ç[]B[]uf\_fCf,,f<fAbfv flfbfgf[][]fN,đ[]Ä[]\[]¬,·,é[]v,đŽQ[]Æ,μ,Ä,,¾,¾,¾,ç[]B  
fGf%o[][,à%ođCE^,¾,è,È,ç[]ê[]‡,í[]A%oe<¿,đŽó,¬,Ä,ç,é“d~b’ fGf”fgfŠ,đ[]í[]œ,μ,Ä[]ì[]¬,μ’¼,·,©[]A,Û,½,ífŠf,[]  
fg fAfNfZfX fT[]f[]rfX,đfCf”fXfg[]f<,μ’¼,μ,Ä,,¾,¾,¾,ç[]B  
fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf< (RASPHONE.PBK) ,í[]Asystemroot\System32\RAS  
fffBfÇEfNfgfŠ,É, ,è,Û,·[]B

,±,İfGf%o[]l,İA'Ê[]í,İ6<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fsf...[]f^,ð[]Ä<N"® ,μ,Ä[]AfGf%o[]l,ª"[]¶,·,é'O,É[]s,Á,½[]\
[]¬,İ•İ[]X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç[]BfGf%o[]l,ª%oðCE^,³,ê,È,ç[]ê[]‡,Í[]AWindows
NT ,İCfxf"fg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,¾,¾,ç[]B

607

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

608

fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf<,ÆfŠf,[]fg fAfNfZfX,ìCE»Ÿ,ì[]v,μ,Ä,ç,È,ç%oÂ”\  
[]«,à, ,è,Û,·[]B’Ê[]M’•’u (fVfŠfAf< f|[]fg[]Af,fff€,È,Ç) ,đ•ì[]X,μ,½[]ê[]‡,í[]A•K, ,fŠf,[]fg fAfNfZfX,đ[]Ä[]\  
[]¬,μ,Ä,,¾,¾,¾,ç[]B[]uf\_fCf,,f<fAfbfv flfbfgf[][]fN,đ[]Ä[][]¬,·,é[]v,đŽQ[]Æ,μ,Ä,,¾,¾,¾,ç[]B  
fGf%o[][,à%ođCE^,¾,è,È,ç[]ê[]‡,í[]A%o<ç,đŽó,¬,Ä,ç,é“d~b’ fGf”fgfŠ,đ[]í[]œ,μ,Ä[]ì[]¬,μ’¼,·,©[]A,Û,½,ífŠf,[]  
fg fAfNfZfX fT[]f[]rfX,đfCf”fXfg[]f<,μ’¼,μ,Ä,,¾,¾,¾,ç[]B  
fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf< (RASPHONE.PBK) ,í[]Asystemroot\System32\RAS  
fffBfÇfNfgfŠ,É, ,è,Û,·[]B

609

fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf<,ÆfŠf,[]fg fAfNfZfX,ìCE»Ÿ,ì[]v,μ,Ä,ç,È,ç%oÂ”\  
[]«,ª, ,è,Û,·[]B’Ê[]M’•’u (fVfŠfAf< f|[]fg[]Af,fff€,È,Ç) ,ð•ì[]X,μ,½[]ê[]‡,í[]A•K, ,fŠf,[]fg fAfNfZfX,ð[]Ä[]\  
[]¬,μ,Ä,,¾,³,ç[]B[]uf\_fCf,,f<fAbfv flfbfgf[]fN,ð[]Ä[]v,·.é[]v,ðŽQ[]Æ,μ,Ä,,¾,³,ç[]B  
fGf%o[][,ª%oðCE^,³,ê,È,ç[]ê[]‡,í[]A%oe<¿,ðŽó,¯,Ä,ç,é“d~b’ fGf”fgfŠ,ð[]í[]œ,μ,Ä[]v,μ’¼,·,©[]A,Û,½,ífŠf,[]  
fg fAfNfZfX fT[]frfX,ðfCf“fXfg[]f<,μ’¼,μ,Ä,,¾,³,ç[]B  
fŠf.[fg fAfNfZfX,ì“d~b’ ftj@fCf< (RASPHONE.PBK) ,í[]Asystemroot\System32\RAS  
fffBfÇfNfgfŠ,É, ,è,Û,·[]B

,±,İfGf%oo[ ,İA'Ê[í,İó<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B







613

,±,İfGf%oo[ ,íA'Êí,ìó<μ,Å,í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,ì•ì□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,ìÚ□×,ð'<sup>2</sup>,×,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B

615

fŠf. [fg fAfNfZfX, ì“d~b’ ftj@fCf<, ÆfŠf, [fg fAfNfZfX, ìCE»Ÿ, ì□□¬, â^ê’v, μ, Ä, ç, È, ç%oÂ”\  
□«, â, , è, Û, ·□B’ Ê□M’ •’u (fVfŠfAf< f|□[fg□Af, fff€, È, Ç) , ð•ï□X, μ, ½□ê□‡, í□A•K, , fŠf, □[fg fAfNfZfX, ð□Ä□\  
□¬, μ, Ä, , ¾, ¾, ç□B□uf\_fCf, , f<fAfbfv flfbfgf□□[fN, ð□Ä□□□¬, .: é□v, ðŽ□Q□Æ, μ, Ä, , ¾, ¾, ç□B  
fGf%o□[ , â%oðCE^ , ¾, ê, È, ç□ê□‡, í□A%oe<¿, ðŽó, ¯, Ä, ç, é“d~b’ fGf”fgfŠ, ð□í□œ, μ, Ä□ì□¬, μ’¼, , ©□A, Û, ½, ífŠf, □[  
fg fAfNfZfX fT□[frfX, ðfCf“fXfg□[f<, μ’¼, μ, Ä, , ¾, ¾, ç□B  
fŠf. [fg fAfNfZfX, ì“d~b’ ftj@fCf< (RASPHONE.PBK) , í□Asystemroot\System32\RAS  
fffBfÇfNfgfŠ, È, , è, Û, ·□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

fŠf, [fg fAfNfZfX, afGf"fgfŠ, Æ, ÌÚ' ±, ðØ'f, µ, í, é, Ü, Å'Ò, Â, ©A, Ü, ½, ÍŠf, [fg fAfNfZfX fT [frfX, ð—  
¹, µ, Ä, ¾, ³, çB

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

f|f|b|f|g|f|f|f|N, i| | | -, ŠÔ^ á, Á, Ä, ç, é%oÂ" \ | «, ª, , è, Ü, · | B|f|R|f" |f|f|... |f|^, ð | Ä < N " ®, µ, Ä | A|f|G|f%o | | , ª"-  
| | | , ·, é' O, É | s, Á, ½ | | | -, ì • | | X, ª, ·, x, Ä — L | E | ø, É, È, Á, Ä, ç, é, ±, / E, ð Š m " F, µ, Ä, , ¾, ¾, ç | B|f|G|f%o | | | , ª  
%o ð | E ^ , ª, è, È, ç | è | | ‡, Í | A | W | i | n | d | o | w | s | N | T | , | f | C | f | x | f " | f | g | f | f | O, ð Ž Q | | E, µ, Ä | E | x | | | , Ü, ½, | f | G | f % o | | | , | | | Ú | | x, ð ' 2, x, Ä, -  
, ¾, ¾, ç | B



621

fŠf. [fg fAfNfZfX fT [frfX, í\Asystemroot\System32\RAS fffBfĈefNfgfŠ,É, ,é RASPHONE.PBK  
ftf@fCf<,đŽg,č,Ü,·B,±,łftf@fCf<,ª,±,łpfX [ă,É, ,é,±,Æ,đŠm" F,μ AfŠf, [fg fAfNfZfX,đÄ<N" @,μ,Ä,-  
,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,č B

622

fŠf. [fg fAfNfZfX fT [frfX, í systemroot\System32\RAS fffBfCefNfgfŠ, É, , é RASPHONE.PBK  
ftf@fCf<, đŽg, č, Ü, · B, ±, ìftf@fCf<, ¢, ±, ìpfX ã, É, , é, ±, Æ, đŠm" F, μ AfŠf, [fg fAfNfZfX, đ Ä N" ©, μ, Ä, -  
, 3/4, 3, č B

623

fŠf.[]fg fAfNfZfX,íA“d~b’ ,đŠJ,,±,Æ,í,Ā,«,Ü,μ,½,³AŽw’è,³,ê,½fGf“fgfŠ,³Ĉ©,Ā,©,è,Ü,¹,ñB,±,lfGf  
%o[]l,íAf+[]fU[]l,³fŠf.[]fg fAfNfZfX API ,Ā’ ,«ž,Ý,đ[]s,čAŠÔ^á,Á,½fGf“fgfŠ-¼,đŽw’è,μ,½ê[]‡,É,ì,Ý”-  
[]¶,μ,Ü,·BfŠf,[]fg fAfNfZfX fT[]lrfX,íAsystemroot\System32\RAS fffBfĈfNfgfŠ,É, ,é RASPHONE.PBK  
ftf@fCf<,đŽg,č,Ü,·B

624

fŠf. [fg fAfNfZfX fT [frfX, í systemroot\System32\RAS fffBfCefNfgfŠ.É, ,é RASPHONE.PBK  
ftf@fCf<,đŽg,č,Ü,·BfffBfXfN,²,č,Á,İ,č,É,È,Á,Ä,č,È,č,±,ÆA,±,İftf@fCf<,Ö,İ',«ž,ÝfAfNfZfXCE ,đŽ,Á,Ä,  
č,é,±,Æ,đŠm”F,μ,Ä,,¾,¾,čB

625

fŠf. [fg fAfNfZfX fT [frfX, í systemroot\System32\RAS fffBfCEfNfgfŠ.É, ,é RASPHONE.PBK  
ftf@fCf<,đŽg,č,Ü,·B,±,łftf@fCf<,đíœ,μAfŠf, [fg fAfNfZfX,đÄ·N“®,μ,Ä,,¾,³,čB

,±,İfGf%o[]l,İA'Ê[]í,İó<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fsf...[]f^,ð[]Ä<N"® ,μ,Ä[]AfGf%o[]l,ª"[]¶,·,é'O,É[]s,Á,½[]\
[]¬,İ•İ[]X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç[]BfGf%o[]l,ª%oðCE^,³,ê,È,ç[]ê[]‡,Í[]AWindows
NT ,İCfxf"fg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,¾,¾,ç[]B

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \ «, a, , è, Ü, . □B, ±, ì-â'è, ð  
%oðCE^, ., é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, . □B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ, ., é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ., é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, " , æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, . □B

,à,π^è“x”^,¶fGf“fgfŠ,Éf\_fCf,,f<,μ,Ä,,¾,¾,ç□B,».,ê,Å,à,±,ìf□fbfZ□[fW,ª•\Ž|,¾,ê,é□ê□#,í□Af,fff€,ì□  
%Šú'Ê□M'¬“x,ð%ºº°,°,Ä□Af,fff€,ìŠg'£<@“\,ðf!ft,É,μ,Ä,,¾,¾,ç□B□uf,fff€,ì<@“\,ð□Y'è,.,é□v,ðŽQ□Æ,μ,Ä,-  
¾,¾,ç□B,».,ê,Å,à-â'è,ª%ººðCE^,μ,È,ç□ê□#,í□AfVfXfef€ŠÇ—□ŽÒ,É-â,ç□#,í,¹,Ä,,¾,¾,ç□B



ŽŸ, ì, ç, , ê, ©, ì—□—R, Å□AfŠf“fN, a□Ø’f, ³, ê, Ä, ç, Ü, ·□B

- “d~b%ñ□ü, ì%ñ•œ•s”\, ÈfGf%□[
- %ñ□ü, ìfmfCfY
- fVfXfef€ŠÇ—□ŽÒ, É, æ, é□Ú’±, ì□Ø’f

□Ä“xfŠf“fN, đŠm—s, , é, É, í□A, à, x^ê“xf\_fCf,,f<, μ, Ä,, ³/4, ³, ç□B[ft□[fU□[□Ý’è] , ì [f\_fCf,,f<] f^fu, đŽg, x  
 ,Æ□AŽ©“@“l, ÈfŠf\_fCf,,f<, ³, ê, é, æ, x, É□Ý’è, Å, «, Ü, ·□B□ufŠf\_fCf,,f<, ì□Ý’è□v, đŽQ□Æ, μ, Ä,, ³/4, ³, ç□B  
 fGf%□[ , a%đCE^ , ³, ê, È, ç□ê□‡, í□Af, fff€, ì□%Šú’É□M’→“x (bps) , đ%° , °, Ä□A, à, x^ê“xf\_fCf,,f<, μ, Ä, -  
 , ³/4, ³, ç□B□uf, fff€, ì<@“\, đ□Ý’è, , é□v, đŽQ□Æ, μ, Ä,, ³/4, ³, ç□B

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- ŽŸ, ì, ç, , è, ©, ì—□—R, Å□AfŠf“fN, a□Ø’f, ³, ê, Ä, ç, Ü, ·□B
- f,fff€ (,Ü,½,Í,» ,ì’¼,ì’É□M’•’u) ,Å”□¶,μ,½%ñ•œ•s“\,ÈfGf%□□[
- ’É□Mf]□[fg,Å”□¶,μ,½%ñ•œ•s“\,ÈfGf%□□[
- f,fff€ fP□[fuf<, aŠO, è, Ä, ç, é□é□‡
- â’è, ðf’f, μ□A□C□³, ·, é, ½, ß, ÉŽÀ□s, Å, «, é’î□^•û-@, íŽŸ, ì, Æ, ”, è, Å, ·□B
- f,fff€ ,ì“d€¹, a“ü, Ä, Ä, ”, è□AfP□[fuf<, aŠmŽÄ, É□Ú’±, ³, è, Ä, ç, é, ±, Æ, ðŠm”F, μ, Ü, ·□B
- f,fff€ , a³□í, É<@“\, μ, Ä, ç, é, ±, Æ, ðŠm”F, μ, Ü, ·□B Windows NT ,lfnfCfp□[f^□[f~fif<, ðŽg, Á, Äf, fff€ , ðfefXfg, ·, éŽè□‡, È, Ä, ç, Ä, í□A□uf, fff€, ðfefXfg, ·, é□v, ðŽQ□Æ, μ, Ä, , ¾, ³, ç□B

631

,±,lfRf"fsf...[]f^,Å□s,Á,½'€□ì,ªCE'^ö,Å%ñü,ª□Ø'f,³,ê,Ä,ç,Ü,·□Bf\_fCf,,f<,μ'¼,μ,Ä,,³/4,³,ç□B

,±,İfGf%o[]l,İA'Ê[]í,İ6<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fşf...[]f^,ð[]Ä<N"@,μ,Ä[]AfGf%o[]l,³"[]¶,·,é'O,É[]s,Á,½[]\
[]¬,İ•İ[]X,³,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç[]BfGf%o[]l,³%oðCE^,³,ê,È,ç[]ê[]‡,İ[]AWindows
NT ,İfCfxf"fş f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,¾,¾,ç[]B

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Šù,É,Ù,©,ìÚ'±,ì,½,ß,Éf|[]fg,ªŽg,í,ê,Ä,ç,éê±,íA,»ìÚ'±  
,ðØ'f,·,é,©A,Ü,½,ÍGf“fgfŠ,ð•ÒW,μ,ÄA,Ù,©,ì'ÊMf|[]fg,ðŽg,κ,æ,κ,É,μ,Ä,,¾,¾,çB  
f|[]fg,ªŽg,í,ê,Ä,ç,È,çê±,íAfŠf,[]fg fAfNfZfX,ÉŽg,κf|[]fg,ðf\_fCf,,f< fAfEfg—p,ÉÄ\¬,μ,Ä,-  
,¾,¾,çBfAf\_fvf^,Æf,fff€,ªCf“fXfg[]f<,¾,¾,ç,é,±,ÆA,“,æ,Ńf|[]fg,ª'Ç%oÁ,¾,¾,ç,é,±  
,Æ,ðAfRf“fgf[]f< fpf|f<,ì [f|fbfgf[]fN] ,ðŽg,Á,ÄŠm”F,μ,Ä,,¾,¾,çB[]uf\_fCf,,f<fAfbfv flfbfgf[]fN,ðÄ\  
\¬,·,év,ðŽQÆ,μ,Ä,,¾,¾,çB

fŠf, [fg fAfNfZfX fT [fo [ , í [A, ±, ì fRf“ fsf... [f ^, ì -¼ 'O, ð f f b f g f [ [ f N, É “ o ~ ^, Å, «, Ü, ¹, ñ, Å, µ, ½ [B f v f X f e f € Š Ç  
— [Ž Ò, É - â, ç [ †, í, ¹, Ä, , ¾, ³, ç [B

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,±,İfGf%o□l,İ□A'Ê□í,İ□ó<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%o□l,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%o□l,ª%oðCE^,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%o□l,İ□Ú□x,ð'<sup>2</sup>,x,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

fn[fhfEjFfA,ì□□→,ÆfŠf,□[fg fAfNfZfX,ìfZfbfgfAfbfv,ª□ACEÝ,ç,É^è'v,μ,Ä,ç,È,ç%oÂ"\  
 □«,<sup>a</sup>, ,è,Ü,·□B'Ê□M'•'u (fVfŠfAf< f|□[fg□Af,fff€,È,Ç) ,ð•ï□X,μ,½□ê□#,í□A•K, ,□V,μ,ç'•'u,É□#,í,<sup>1</sup>,ÄfŠf,□[fg  
 fAfNfZfX,ð□Ä□□→,μ,Ä,,<sup>¾</sup>,<sup>¾</sup>,ç□B□uf\_fCf,,f<fAfbfv flfbfgf□□[fN,ð□Ä□□→,·,é□v,ðŽQ□Æ,μ,Ä,,<sup>¾</sup>,<sup>¾</sup>,ç□B  
 ,±,ìfGf%o□[,í□AMODEM.INF ftf@fCf<"à,É 32 •¶Žš,ð'´,ì,éfZfNfVf+f" fwfbf\_□[ (Šp,©,Á,± ([ ]),Å^í,Ü,è,Ä,ç  
 ,é•"•<sup>a</sup>) ,<sup>a</sup>, ,é□ê□#,É,à"□¶,μ,Ü,·□B,Ü,,□AMODEM.INF "à,ìfZfNfVf+f" fwfbf\_□[,<sup>a</sup> 32 •¶Žš^È%o<sup>o</sup>,Å, ,é,±  
 ,Æ,ðŠm" F,μ□A,Ü,©,ì'í□^•û-@,ðŽŽ,Ý,Ä,,<sup>¾</sup>,<sup>¾</sup>,ç□B



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,±,İfGf%o[]l,İA'Ê[]í,İó<μ,Å,Í"[]¶,μ,Ü,<sup>1</sup>,ñ[]BfRf"fsf...[]f^,ð[]Ä<N"® ,μ,Ä[]AfGf%o[]l,ª"[]¶,·,é'O,É[]s,Á,½[]\  
[]¬,İ•İ[]X,<sup>2</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]BfGf%o[]l,ª%oðCE^,<sup>3</sup>,ê,È,ç[]ê[]‡,Í[]AWindows  
NT ,İCfxf"fg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

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f\fbf\gf\ff\fn,ì\N\-,³ŠÔ^á,Á,Ä,ç,é%oÂ"\«,ª, ,è,Û,·BfRf"fsf...[f^,ðÄ<N"@,μ,ÄAfGf%o[,"ª"-  
¶,·,é'O,És,Á,½\N\-,ì•ïX,ª,·,×,Ä-LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,çBfGf%o[,"ª  
%oðCE^,¾,è,È,çèè¶,íAWindows NT ,ìCfxf"fg f\fo,ðŽQ\Æ,μ,ÄEx\Ü,½,ìfGf%o[,"ìÚx,ð²,×,Ä,-  
¾,¾,çB

NetBIOS ,ìfGf%o[ fR[fh,ð<L~^,μA"d~b,Å<Z\p\Tf|[f'g'S"-,É-â,ç¶,í,¹,éèè¶,íA,»,ìR[fh,ð'S"-  
ŽÒ,É"`,ì,Ä,,¾,¾,çB

f,fff€,ª□Ú'±,ìfSfVfG□[fVf#f",ð□³□í,É□s,±,±,Æ,ª,Å,«,È,©,Á,½,©□A,Ü,½,í%ñ□ü,ÉfmfCfY,ª"□¶,µ,½%oÁ"\  
□«,ª, ,è,Ü,·□Bf,fff€,ì□%Šú'É□M'¬"x (bps) ,ð%oº,°,Ä□A,à,x^ê"x\_fCf,,f<,µ,Ä,,¾,¾,ç□B□uf,fff€,ì<@"\  
.ð□Ý'è,.,é□v,.,æ,Ñ□uf,fff€,ì"Á□«□v,ðŽQ□Æ,µ,Ä,,¾,¾,ç□BNetBIOS ,ìfGf  
%o□[ fR□[fh,ð<L~^,µ□A"d~b,Å<Z□pfTf|□[fg'S"-É-â,ç□#,í,¹,é□é□#,í□A,»,ìfR□[fh,ð'S"-ŽÒ,É"`,ì,Ä,,¾,¾,ç□B

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fŠf. [fg fAfNfZfX fT [fo [iž'Ā¹,đ'â,·,æ,π,ÉfVfXfef€ŠÇ—žÒ,É^Ě—Š,·,é,©A,Ü,½,ÍRf"fgf [f< fpflf<,i  
[fT [frfX] ,đžg,Á,ĀAŽ©•ª,lfRf"fsf... [f^ [ã,ĀŽÀs,³,ê,Ä,č,é•s•K—v,ĚfT [frfX (f [fbfZ [fW  
fT [frfX [Afbf g [fN DDE fT [frfX,È,Ç) ,đ'âž~ ,μ,Ä,¾,³,č [B

flfbfgf□□fN fA□[fLfefNf`ff,ì□§CEÀ,É,æ,è□Aflfbfgf□□fN□ã,ÌŠefRf“fsf...□[f^,í,»è,¼,ê^ê^Ó,ì-¼'O,Â“o~^,³,ê,Ä,ç,é•K—v,ª, ,è,Ü,·□B,±,ì<K'¥,í□ALAN ,É,àfŠf,□[fg f□□[fNfXfe□[fVf†“,É,à“K—p,³,ê,Ü,·□B

Ž©•ª,ìfRf“fsf...□[f^,ì-¼'O,ªflfbfgf□□fN□ã,ì,Ù,©,ì,Ç,ìfRf“fsf...□[f^ ,Æ,à^Ù,È,é,±,Æ,ðSm”F,μ,Ü,·□B

fRf“fsf...□[f^-¼,ð•ī□X,·,é,É,í□Afrf“fgf□□[f< fpflf<,ì [flfbfgf□□fN] fAfCfRf“,ðf\_fuf<fNfŠfbfN,μ□A□V,μ,çfRf“fsf...□[f^-¼,ð'ìð,μ,Ü,·□B

Ž©•ª,ìfRf“fsf...□[f^,ª^ê^Ó,ì-¼'O,ðŽ□,Â□ê□†,í□A,Ù,©,ìfRf“fsf...□[f^,ª,±,ìfRf“fsf...□[f^,ìhf□fCf“-¼,Æ^ê^v,·,éfrf“fsf...□[f^-¼,ð“o~^,μ,½,©□A,Ü,½,í,±,ìfRf“fsf...□[f^,ÂŽÄ□s,μ,Ä,ç,é NetBIOS fAvfŠfP□[fVf†“,ª<£□†,·,é-¼'O,ð'Ç%oÁ,μ,½%oÁ“\□«ª, ,è,Ü,·□B

- -¼'O,ð•ī□X,μ,Ä,à-à^è,ª%oðCE^,μ,È,ç□ê□†,í□AvfXfef€ŠÇ—□ŽÒ,É-â,ç□†,í,¹,Ä,,¾,³,ç□B

'□

- -¼'O,í^ê^Ó,Â, ,é•K—v,ª, ,é,ì,Â□AfŠf,□[fg fAfNfZfX,Æ'¼□Ú□Ú'± (fC□[fTflfbfgf□Ú'±,È,Ç),ì-¼•ù,Â“Žž,É““,¶flfbfgf□□fN,É□Ú'±,·,é,±,Æ,í,Ä,«,Ü,¹,ñ□B'¼□Ú□Ú'±,³,ê,Ä,ç,éflfbfgf□□fN,Ò,ìfŠf,□[fg fAfNfZfX,ð•]‰o¿,·,é□ê□†,í□AfŠf,□[fg fAfNfZfX,É,æ,é□Ú'±,ðŽŽ,Ý,é'O,É□Aflfbfgf□□fN frflfNf^,ð”²,ç,Ä,¨,•K—v,ª, ,è,Ü,·□B

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,±,ìfGf%o[],"[]μ,½,ç[]AfvfXfef€ŠÇ—[]ŽÒ,É•ñ[]μ,Ä,,¾,¾,ç[]B

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Šù,ÉfIfbfjgf[]fN,ÉÚ'±,μ,Ä,ç,é,Ù,©,ìfRf"fsf...[]f^,ª"~,¶f[]f<-¼,ðŽg,Á,Ä,ç,Ü,·B,±,ìf[]f<-¼^¶,Ä,ìf[]f<,íA[]æ,ÉÚ'±,³,è,Ä,ç,½fRf"fsf...[]f^,É'—,ç,è,Ü,·B,±,ìfŠf,[]fg f[]fNfXfe[]fVf#f",Åf[]fZ[]fW,ðŽóM,·,é[]è#[],íA[]fIfbfjgf[]fN,É'¼[]Ú[]Ú'±,³,è,Ä,ç,éfRf"fsf... []f^,©,çf[]Ofift,μ,Ä,©,çA,à,ª^è"xIfbfjgf[]fN,Éf\_fCf,,f<fCf",μ'¼,³,È,~,è,î,È,è,Ü,¹,ñB

- '[]
- ,±,ìfGf%[][],íAMicrosoft Mail ,ðŽg,Á,½f[]f<,ì'—ŽóM,É,í%œ<¿,ð—^,!,Ü,¹,ñB



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,±,İfGf%oo[ ,İA'Ê[í,İó<μ,Å,Í"□¶,μ,Ü,¹,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\
□-,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^,³,ê,È,ç□ê□¶,Í□AWindows
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B

NetBIOS ,İfGf%oo[ fR□[fh,ð<L~^ ,μ□A"d~b,Å<Z□pJfTf|□[fg'S"- ,É-â,ç□¶,í,¹,é□ê□¶,Í□A,» ,İfR□[fh,ð'S"-
ŽÒ,É" ,İ,Ä,,¾,¾,ç□B

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,±,lfAjjfEj“fg,íAflfbfgf[]fN,Ö,lfAfNfZfX,ª[]\$CEÀ,<sup>3</sup>,ê,é,æ,π,É[]-,<sup>3</sup>,ê,Ä,ç,Ü,·BCE»[]Ý,ì[]- ,É,æ,è<-  
%oÂ,<sup>3</sup>,ê,Ä,ç,éŽžŠÔ·Ñ^ÈŠO,ìŽžŠÔ,Éf[]fN,ÖfAfNfZfX,·,é•K-v,<sup>a</sup>, ,é[]ê[]#,í[]VfXfef€ŠÇ-[]ŽÒ,É^Ë-  
Š,μ,Ä[]- ,đ•ïX,μ,Ä,à,ç,Á,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

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ſvfXfef€ŠÇ—□ŽÒ,É^Ë—Š,μ,Ä□AŽg—p,·,éfAſſfEſ“fg,đ—LŒø,É,μ,Ä,à,ç,Á,Ä,,¾,³,†□B

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fŠf. [fg fAfNfZfX, ì“d~b’ ,đŽg,Á,ÄÚ’±,μ,Ä,ç,éê±,íAfpfXf [fh,đ•ĩX,·,é,æ,x  
,É< ,ß,éf fbfZ [fW,ž©“@“l,É•\Ž!,³,ê,Ü,·B

**RASDIAL** fRf}f“fh,đŽg,Á,ÄÚ’±,μ,Ä,ç,éê±,íAZŸ,ìŽè±,É,æ,èfpfXf [fh,đ•ĩX,Å,«,Ü,·B

1 **Ctrl + Alt + Del** fL [ ,đ%oŸ,μ,Ü,·B

2 [fpfXf [fh,ì•ĩX] ,đ‘l’đ,μA%oæ-Ê,É•\Ž!,³,ê,éŽwŽ!,É],Á,Ä‘€ì,μ,Ü,·B

,±,lfAjjfEf“fg,í'í'ð,μ,½fhf□fCf““à,Å,Í—LCEø,Å,·,ª□AfŠf,□[fg,©,çflfbfgf□□[fN,ÖfAfNfZfX,·,é,½,ß,lfAfNfZfXCE  
,Í—^,!,ç,ê,Ä,ç,Ü,<sup>1</sup>ñ□BfVfXfef€ŠÇ—□ŽÒ,É^È—Š,μ,Ä□AfŠf,□[fg fAfNfZfX,ì<-‰oÂ,ðŽæ“¾,μ,Ä,,¾,¾,ç□B

,Ù,©,lfhf□fCf““à,ÅfŠf,□[fg fAfNfZfX,ì<-‰oÂ,ð—^,!,ç,ê,½fAjjfEf“fg,ðŽ□,Á,Ä,ç,é□é□±,Í□AZÿ,ìŽè□±,É□]  
,Á,Ä□A,»,lfhf□fCf“,lfAjjfEf“fg,ðŽg,Á,Ä,,¾,¾,ç□B

1 “d~b’ fGf“fgfŠ,ð•Ò□W,μ□A[CE»□Ý,lf□□[fU□[-¼,ÆfpfXf□□[fh,ðŽg,κ] f`fFbfN f{fbfNfX,ðflft,É,μ,Ü,·□B

2 f\_fCf,,f<,μ,Ü,·□B

3 ŠY“-,·,éft□[fU□[-¼□AfpfXf□□[fh□A,“,æ,Ñfhf□fCf“,ðŽw’è,μ,Ü,·□B

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- ŽŸ, ì, ç, , , ê, ©, ìĈĖ´^ö, Å□A□Ú´±, Å, «, Ü, ¹, ñ□B
- fŠf, □[fg fAfNfZfX fT□[fo□[ , ²<N“ ©, ³, ê, Ä, ç, Ü, ¹, ñ□BfVfXfef€ŠÇ—□ŽÒ, É-  
à, ç□‡, í, ¹, Ä□AfT□[fo□[ , ²<N“ ©, ³, ê, Ä, ç, é, ©, Ç, ², ©, ðŠm”F, μ, Ä, , ³/₄, ³, ç□B
- Žg—p, μ, Ä, ç, é%ñü, ÉfmfCfY, ²¹¹/₂, , , ¬, Ü, ·□Bf, fff€, ì□%Šú’É□M’¬“x (bps) , ð  
%°°, °□Af\_fCf, , f<, μ¹¹/₄, μ, Ä, , ³/₄, ³, ç□B□uf, fff€, ì<@“\, ð□Y’è, , , é□v, ðŽQ□Æ, μ, Ä, , ³/₄, ³, ç□B
- Žg—p, μ, Ä, ç, éf, fff€, ÆfŠf, □[fg fAfNfZfX fT□[fo□[ , ìf, fff€  
, Æ, í□A’I’ð, μ, ¹/₂’É□M’¬“x, Ä, í□³□í, ÉfłfSfVfG□[fVf‡“ , ð□s, ², ±, Æ, ², Å, «, Ü, ¹, ñ□Bf, fff€, ì□%Šú’É□M’¬“x (bps) , ð  
%°°, °□Af\_fCf, , f<, μ¹¹/₄, μ, Ä, , ³/₄, ³, ç□B

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Žg—p,μ,Ä,ç,é,fff€ (,Ü,½,Í,»,ì'¼,iÚ'±'•'u) ,afGf%o□[,ð•Ô,μ,Ü,μ,½□BfTf|□[fg,<sup>3</sup>,ê,Ä,ç,é,fff€,ðŽg,Á,Ä,ç  
,éê±,íA1 "xf,fff€,ì"dCE<sup>1</sup>,ð∅,Á,Ä"dCE<sup>1</sup>,ð"ü,ê'¼,μ,Ä,,¾,<sup>3</sup>,ç□BfŠf,□[fg fAfNfZfX  
fT□[fxfX,ðÄ<N" ©,μ,Ä,©,ç□Af\_fCf,,f<,μ'¼,μ,Ä,,¾,<sup>3</sup>,ç□B

fŠf,□[fg fAfNfZfX,ÅfTf|□[fg,<sup>3</sup>,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□Af,fff€,ì»'çCE<sup>3</sup>,É-â,ç±,í,<sup>1</sup>,Ä,-  
,¾,<sup>3</sup>,ç□B,Ç,ìf,fff€,afTf|□[fg,<sup>3</sup>,ê,Ä,ç,é,©,É,Ä,ç,Ä,í□A□wWindows NT  
fn□[fhfEfFfACEÝŠ·□«fŠfXfg□x,ðŽQ□Æ,μ,Ä,,¾,<sup>3</sup>,ç□B

f,fff€,afŠf,□[fg fAfNfZfX—p,É□<sup>3</sup>,μ,□□¬,<sup>3</sup>,ê,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,<sup>3</sup>,ç□B□□¬,ðŠm"F,·,é•û-@,É,Ä,ç  
,Ä,í□A□uf\_fCf,,f<fAfbfv flfbfgf□□[fN,ðÄ□□¬,·,é□v,ðŽQ□Æ,μ,Ä,,¾,<sup>3</sup>,ç□B

Žg—p,μ,Ä,ç,é,fff€ (,Ü,½,Í,»,ì'¼,i□Ú'±'•'u) ,ª□AfŠf,□[fg fAfNfZfX,ìfXfNfŠfVfg ftf@fCf<  
(PAD.INF□AMODEM.INF□A,Ü,½,Í SWITCH.INF) ,ì,ç, ,è,É,à<L□q,³,è,Ä,ç,È,çf□fbfZ□[fW,Å%ž“š,μ,Ü,μ,½□B  
ftf|□[fg,³,è,Ä,ç,é,fff€,ðŽg,Á,Ä□Ú'±,μ,Ä,ç,é□ê□‡,í□A1 “xf,fff€  
,ì“dCE¹,ð□Ø,Á,Ä“dCE¹,ð“ü,è'¼,μ,Ä,©,ç□Af\_fCf,,f<,μ'¼,μ,Ä,,¾,¾,ç□B,»,è,Á,à-â'è,ª%ðCE^,μ,È,ç□ê□‡,í□A□  
%Šú'Ê□M'¬“x,ð%º,°,Ä□Ú'±,μ,Ä,Ý,Ä,,¾,¾,ç□B□uf,fff€,ì<@“\,ð□Ý'è,-,é□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B  
ftf|□[fg,³,è,Ä,ç,È,çf,fff€,ðŽg,Á,Ä□Ú'±,μ,Ä,ç,é□ê□‡,í□A•Ö,³,è,½%ž“š,ª“K□Ø,ÈfXfNfŠfVfg  
ftf@fCf<“à,É<L□q,³,è,Ä,ç,é,©,Ç,κ,©,ðŠm”F,μ,Ä,,¾,¾,ç□B□uf,fff€,ìfXfNfŠfVfg ftf@fCf<,ìŠT—  
v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B  
fŠf,□[fg fAfNfZfX,ìfXfNfŠfVfg ftf@fCf<,í□Asystemroot\System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B



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fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ²ŠÜ, Ü, ê, Ä, ç, é%oÄ" \«, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, i□ÄfCf" fXfg□[f<, Å, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, ê, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, ê, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Å, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, μ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, μ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, ê, Ä, ç, é%oÄ" \ «, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Å, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, ê, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, ê, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Å, <, é, æ, x, Éf, fff€ fXfNfŠfvfg, ð□C□³, μ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfvfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfvfg ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, μ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfvfg ftf@fCf< (PAD.INF□AMODEM.INF□A, " , æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

655

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, ê, Ä, ç, é%oÄ" \ «, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, ê, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, ê, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, ·, B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfvfg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfvfg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfvfg ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfvfg ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ń SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·, B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, ·, B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfVfg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfVfg ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ń SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·, B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ñ, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, . □B, ±, ì-â'è, ð  
%oðCE^, ., é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, i□ÄfCf" fXfg□[f<, Ä, . □B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ., é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ., é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ÌŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, " , æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, . □B

fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,ªŠÜ,Ü,ê,Ä,ç,é%oÂ"\"«,ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•û-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,x,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•û-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A,“,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,ªŠÜ,Ü,ê,Ä,ç,é%oÂ"\«ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•û-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,ª,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•û-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A,“,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B



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fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,³ŠÜ,Ü,ê,Ä,ç,é%oÂ"\«,ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•û-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,π,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•û-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A,“,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, ê, Ä, ç, é%oÄ" \«, a, , è, Ü, ·, B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, ê, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, ê, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfvfg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfvfg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfvfg, ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfvfg, ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ń SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·, B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ñ, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, ·, B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfvg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfvg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfvg, ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfvg, ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ñ SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·, B

∫VfXfef€ ,lf□f,fŠ,ª'« ,è,Ü,¹,ñ□B•s—v,ÈfAfvfŠfP□[fVf†f“,đ□I—¹,μ□A,à,π^ê“xf\_fCf,,f<,μ,Ä,,¾,³,¢□B

Šù,É,Ù,©,ìú'±,ì,½,ß,Éf|[]fg,ªŽg,í,ê,Ä,ç,éê±,íA,»ìú'±  
,ðø'f,·,é,©A,Û,½,ÍGf'fgfŠ,ð•ÒW,µ,ÄA,Ù,©,ì'ÊMf|[]fg,ðŽg,æ,æ,É,µ,Ä,,¾,¾,çB  
f|[]fg,ªŽg,í,ê,Ä,ç,È,çê±,íAfŠf,[]fg fAfNfZfX,ÉŽg,xf|[]fg,ðf\_Cf,,f< fAfEfg—p,ÉÄ\¬,µ,Ä,-  
,¾,¾,çB'€ìŽè±,É,Ä,ç,Ä,íAuf\_fCf,,f<fAfbfv flfbfgf[]fN,ðÄ\¬,·,év,ðŽQÆ,µ,Ä,,¾,¾,çB

- Žg—p,μ,Ä,ç,éf,fff€ (,Ü,½,Í,»,ì'¼,i□Ú'±'•'u) ,ª□AZŽÿ,ì,ç,,é,©,ì—□—R,Å%ž“š,đ•Ô,μ,Ü,<sup>1</sup>,ñ□B
- f,fff€,ì“dCE<sup>1</sup>,ª□Ø,é,Ä,ç,Ü,·□B
- f,fff€,ªfRf“fsf...□[f^,ÉŠmŽÀ,É□Ú'±,<sup>3</sup>,é,Ä,ç,Ü,<sup>1</sup>,ñ□BfP□[fuf<,ªf,fff€,É,àfRf“fsf...□[f^,É,àŠmŽÀ,É□Ú'±,<sup>3</sup>,é,Ä,ç,é,±,Æ,đŠm“F,μ,Ä,,¾,<sup>3</sup>,ç□B
- fVfŠfAf< fP□[fuf<,ª□AfŠf,□[fg fAfNfZfX,ÅŽg,ª,½,ß,É•K—v,ÈŽd—l,đ-ž,½,μ,Ä,ç,Ü,<sup>1</sup>,ñ□B□ufP□[fuf<,ì—  
vCE□□v,đŽQ□Æ,μ,Ä,,¾,<sup>3</sup>,ç□B
- f,fff€,ªCEë“®□ì,μ,Ü,μ,½□B1 “xf,fff€,ì“dCE<sup>1</sup>,đ□Ø,è□A20 •bŠÔ'Ò,Á,Ä,©,ç□Af,fff€
- ,ì“dCE<sup>1</sup>,đ“ü,é'¼,μ,Ä,,¾,<sup>3</sup>,ç□B

fŠf. [fg fAfNfZfX, \-ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

,à,π^è“x”^,¶fGf“fgfŠ,Éf\_fCf,,f<,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B,»,ê,Å,à,±,ìf□fbfZ□[fW,<sup>a</sup>•\Ž|,<sup>3</sup>,é,é□ê□#,í□Af,fff€,ì□  
 %Šú'Ê□M'→“x,ð%°°,°□Af,fff€,ìŠg'£<@“\,ðfjft,É,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B□uf,fff€,ì<@“\,ð□Y'è,-,é□v,ðŽQ□Æ,μ,Ä,-  
<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B,»,ê,Å,à-â'è,<sup>a</sup>%ðCE^,μ,È,ç□ê□#,í□AfVfXfef€ŠÇ—□ŽÒ,É-â,ç□#,í,<sup>1</sup>,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B  
 Žè“®,Åf\_fCf,,f<,μ,Ä,ç,é□ê□#,í□A□Ú'±,<sup>3</sup>,ê,Ä,ç,é,±,Æ,ðŠm”F,μ,Ä,©,ç□A[Š®—<sup>1</sup>],ðfNfŠfbfN,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B



fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,ªŠÜ,Ü,ê,Ä,ç,é%oÂ"\"«,ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•ù-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,x,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•ù-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A," ,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

670

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ñ, ŠÜ, Ü, è, Ä, ç, é%oÄ" \ «, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

671

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, i□ÄfCf" fXfg□[f<, Å, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Å, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ÌŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ñ SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

672

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, ·, B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfvfg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfvfg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfvfg, ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfvfg, ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ń SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·B

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ñ, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, . □B, ±, ì-â'è, ð  
%oðCE^, ., é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, i□ÄfCf" fXfg□[f<, Å, . □B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ, ., é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Å, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ., é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, " , æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, . □B

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \ «, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

675

fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,ªŠÜ,Ü,ê,Ä,ç,é%oÂ"\"«,ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•û-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,ª,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•û-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A,“,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

676

“ , ¶ ” Ô ¢ † , É , à , ¢ ^ è “ x f \_ f C f , , f < , µ , Ä , , ¾ , ¾ , ¢ ¢ B [ f † ¢ [ f U ¢ ¢ [ ¢ ¢ Ý ’ è ] , ì [ f \_ f C f , , f < ] f ^ f u , ð Ž g , ¢  
, Æ ¢ A Ž © “ ® “ † , É f Š f \_ f C f , , f < , · , é , æ , ¢ , É ¢ Ý ’ è , Å , « , Ü , · ¢ B ¢ u f Š f \_ f C f , , f < , ì ¢ ¢ Ý ’ è ¢ v , ð Ž Q ¢ Æ , µ , Ä , , ¾ , ¾ , ¢ ¢ B



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"d~b,đŽó, ¯, ½, ì, í, j, f, f, f, €, Å, í, , è, Ü, ¹, ñ, Å, µ, ½, B" Ô, t, đŠm" F, µ, A, à, π^ê" x, f, C, f, , f, <, µ, Ä, , ¾, ³, ç, B

678

"d~b,đŽó, ¯, ½, ì, í, fff€, Å, í, , è, Ü, ¹, ñ, Å, µ, ½, B" Ô, t, đŠm" F, µ, A, à, π^ê" xf\_fCf,, f<, µ, Ä,, ¾, ¾, ç, B



“d”bü,af,fff€,lfPfbfg,É³,μ,Ú’±,³,ê,Ä,ç,é,±,Æ,đŠm”F,μ,Ä,,¾,¾,çB,Ü,½A“ÁŽê,ÈfAfNfZfX”Ôt,ª•K—  
v,Èê±,íA,»,lfAfNfZfX”Ôt,à’Ç%Á,μ,Ä, ,é,±,Æ,đŠm”F,μ,Ä,,¾,¾,çB,½,Æ,í,íAŠOü”-  
M,.,é,½,ß,ÉÚ“ª”Ôt 9 ,Æff“f},ª•K—v,Èê±,È,Ç,ª, ,è,Ü,· (—áF 9,555-8181)B

681

fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ²ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, · □B, ±, ì-â'è, ð  
%oðCE^, ·, é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, i□ÄfCf" fXfg□[f<, Å, ·□B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Å, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ·, é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, ", æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·□B

,±,İfGf%o[]l,İA'Ê[]í,İ6<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fşf...[]f^,ð[]Ä<N"@,μ,Ä[]AfGf%o[]l,³"[]¶,·,é'O,É[]s,Á,½[]\
[]¬,İ•İ[]X,³,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,³/4,³,ç[]BfGf%o[]l,³%oðCE^,³,ê,È,ç[]ê[]‡,Í[]AWindows
NT ,İfCfxf"fş f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,³/4,³,ç[]B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B



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,±,İfGf%o□l,İ□A'Ê□í,İ□ó<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%o□l,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>2</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%o□l,ª%oðCE^,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%o□l,İ□Ú□×,ð'<sup>2</sup>,×,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'²,x,Ä,,¾,¾,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'<sup>2</sup>,x,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%oo[ ,İA'Ê[í,İó<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□x,ð'<sup>2</sup>,x,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%o[]l,İA'Ê[]í,İó<μ,Å,Í"[]¶,μ,Ü,<sup>1</sup>,ñ[]BfRf"fsf...[]f^,ð[]Ä<N"® ,μ,Ä[]AfGf%o[]l,ª"[]¶,·,é'O,É[]s,Á,½[]\  
[]¬,İ•İ[]X,<sup>2</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]BfGf%o[]l,ª%oðCE^,<sup>3</sup>,ê,È,ç[]ê[]‡,Í[]AWindows  
NT ,İCfxf"fg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç[]B

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□<sup>3</sup>, μ, çf+□[fU□[-¼□AfpfXf□□fh□A, ", Æ, Ñfhf□fCf" -¼, ð"ü—í, μ, Ä,, ¾, <sup>3</sup>, ç□B, ±  
, ê, ç, ì□î•ñ, <sup>3</sup>□Šm, É, í, ©, ç, È, ç□ê□#, í□AfVfXfefe€ŠÇ—□ŽÒ, É-â, ç□#, í, <sup>1</sup>, Ä,, ¾, <sup>3</sup>, ç□B  
fhf□fCf", ðŽw'è, μ, È, ç, Æ□AfŠf, □[fg fAfNfZfX fT□lfo□[í□AfT□lfo□[Ž©□g, <sup>3</sup> @, ., éfhf□fCf"□ă, Åft□[fU□[-  
¼, ÆfpfXf□□fh, ð" F□Ø, μ, æ, x, Æ, μ, Ü, ·□B

- Žg—p,μ,Ä,ç,éf,fff€ (,Ü,½,Í,»,ì'¼,i□Ú'±'•'u) ,ª□AZŽÿ,ì,ç,,é,©,ì—□—R,Å%ž“š,đ•Ô,μ,Ü,<sup>1</sup>,ñ□B
- f,fff€,ì“d€<sup>1</sup>,ª□Ø,é,Ä,ç,Ü,·□B
- f,fff€,ªfRf“fsf...□[f^,ÉŠmŽÀ,É□Ú'±,<sup>3</sup>,é,Ä,ç,Ü,<sup>1</sup>,ñ□BfP□[fuf<,ªf,fff€,É,àfRf“fsf...□[f^,É,àŠmŽÀ,É□Ú'±,<sup>3</sup>,é,Ä,ç,é,±,Æ,đŠm“F,μ,Ä,,¾,<sup>3</sup>,ç□B
- fVfŠfAf< fP□[fuf<,ª□AfŠf,□[fg fAfNfZfX,ÅŽg,ª,½,ß,É•K—v,ÈŽd—l,đ-ž,½,μ,Ä,ç,Ü,<sup>1</sup>,ñ□B□ufP□[fuf<,ì—  
v€□□v,đŽQ□Æ,μ,Ä,,¾,<sup>3</sup>,ç□B
- f,fff€,ª€ë“®□ì,μ,Ü,μ,½□B1 “xf,fff€,ì“d€<sup>1</sup>,đ□Ø,è□A20 •bŠÔ'Ò,Á,Ä,©,ç□Af,fff€
- ,ì“d€<sup>1</sup>,đ“ü,é'¼,μ,Ä,,¾,<sup>3</sup>,ç□B



fŠf. [fg fAfNfZfX, i\ -ftf@fCf<, i 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \«, a, , è, Ü, ·B, ±, ì-â'è, ð  
%oðCE^, ·, éÄ, àŠÈ'P, È•û-@, íAfŠf, [fg fAfNfZfX, iÄfCf" fXfg [f<, Ä, ·B

fŠf. [fg fAfNfZfX, ÄTf [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, íAfTf [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ·, é, ©A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfvfg, ðC³, µ, Ä, , ¾, ¾, çBf, fff€  
fXfNfŠfvfg, ðC³, ·, é•û-@, É, Ä, ç, Ä, íAuf, fff€, ìfXfNfŠfvfg ftf@fCf<, ìŠT—v, ðŽQÆ, µ, Ä, , ¾, ¾, çB

fŠf. [fg fAfNfZfX, ìfXfNfŠfvfg ftf@fCf< (PAD.INF AMODEM.INF A, ", æ, Ń SWITCH.INF) , íAsystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, ·B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□x,ð'², x,Ä,,¾,¾,ç□B

695

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'<sup>2</sup>,×,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

,±,İfGf%o[]l,İA'Ê[]í,İ6<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fsf...[]f^,ð[]Ä<N"® ,μ,Ä[]AfGf%o[]l,ª"[]¶,·,é'O,É[]s,Á,½[]\
[]¬,İ•İ[]X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç[]BfGf%o[]l,ª%oðCE^,³,ê,È,ç[]ê[]‡,Í[]AWindows
NT ,İCfxf"fg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,¾,¾,ç[]B

,±,İfGf%o□l,İ□A'Ê□í,İ□ó<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...□[f^,ð□Ä<N"® ,μ,Ä□AfGf%o□l,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>2</sup>,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%o□l,ª%oðCE^,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%o□l,İ□Ú□x,ð'<sup>2</sup>,x,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

fŠf. [fg fAfNfZfX, \ -ftf@fCf<, ì 1 ,Ä, É-³CEø, Èî•ň, ŠÜ, Ü, è, Ä, ç, é%oÄ" \ «, a, , è, Ü, . □B, ±, ì-â'è, ð  
%oðCE^, ., é□Ä, àŠÈ'P, È•û-@, í□AfŠf, [fg fAfNfZfX, ì□ÄfCf" fXfg□[f<, Ä, . □B

fŠf. [fg fAfNfZfX, ÄfTf| [fg, ³, è, Ä, ç, È, çf, fff€, ðŽg, Ä, Ä, ç, éê±, í□AfTf| [fg, ³, è, Ä, ç, éf, fff€  
, ÉCEðŠ·, ., é, ©□A, Ü, ½, íCE»Ý, ìf, fff€, ðŽg—p, Ä, <, é, æ, x, Éf, fff€ fXfNfŠfVfg, ð□C□³, µ, Ä, , ¾, ¾, ç□Bf, fff€  
fXfNfŠfVfg, ð□C□³, ., é•û-@, É, Ä, ç, Ä, í□A□uf, fff€, ìfXfNfŠfVfg\_ftf@fCf<, ìŠT—v□v, ðŽQ□Æ, µ, Ä, , ¾, ¾, ç□B

fŠf. [fg fAfNfZfX, ìfXfNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A, " , æ, Ń SWITCH.INF) , í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ, É, , è, Ü, . □B

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ðÄ<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□x,ð'², x,Ä,,¾,¾,ç□B

700

fXfNfŠfvg ftf@fCf<,É<L□q,·,éfRf}}f“fh,í□A256 •¶Žš^È%°°É□\$CEÀ,<sup>3</sup>,ê,Ä,ç,Û,·□B,±  
,ìfRf}}f“fh,í□A•i□”,ìfRf}}f“fh,É•°Š,,,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B□uf,fff€\_fRf}}f“fh□v,ðŽQ□Æ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B



**701**

f,fff€,ªAfvfšfAf< f|[]fg,Å,ÍTf|[]fg,³,ê,Ä,ç,È,ç'¬“x,ÅÚ'±,µ,æ,æ,Æ,µ,Ü,µ,½B  
%Šú'ÊM'¬“x,ðA38400A19200A9600A2400  
,ì•W€'ÊM'¬“x,ì't,©,çACE»Ý,ìÝ'è,ìŽŸ,É'á,ç'¬“x,ð'l,ñ,ÅAÝ'è,µ'¼,µ,Ä,,¼,³,çB

702

fŠf.[fg fAfNfZfX,ì\[-ftf@fCf<,ì 1 ,Â,É-³CEø,Èî•ň,ªŠÜ,Ü,ê,Ä,ç,é%oÂ"\«ª, ,è,Ü,·□B,±,ì-â'è,ð  
%oðCE^,·,é□À,àŠÈ'P,È•û-@,í□AfŠf.[fg fAfNfZfX,ì□ÄfCf"fxfg□[f<,Â,·□B

fŠf.[fg fAfNfZfX,ÄfTf|□[fg,³,ê,Ä,ç,È,çf,fff€,ðŽg,Á,Ä,ç,éê±,í□AfTf|□[fg,³,ê,Ä,ç,é,fff€  
,ÉCEðŠ·,·,é,©□A,Ü,½,ÍCE»Ý,ìf,fff€,ðŽg—p,Â,«,é,æ,x,Éf,fff€ fxNfŠfVfg,ð□C□³,μ,Ä,,¾,¾,ç□Bf,fff€  
fxNfŠfVfg,ð□C□³,·,é•û-@,É,Â,ç,Ä,í□A□uf,fff€,ìfxNfŠfVfg\_ftf@fCf<,ìŠT—v□v,ðŽQ□Æ,μ,Ä,,¾,¾,ç□B

fŠf.[fg fAfNfZfX,ìfxNfŠfVfg\_ftf@fCf< (PAD.INF□AMODEM.INF□A,“,æ,Ñ SWITCH.INF) ,í□Asystemroot\  
System32\RAS fffBfCEfNfgfŠ,É, ,è,Ü,·□B

703

f^[]f~fif< f.[]fh,đ•K—v,Æ,.,éfGf“fgfŠ,É[]Ú'±,Å,«,é,ì,í[]AfŠf,[]fg fAfNfZfX,ì“d~b' ,đŽg,«[]ê[]±,¾,¯,Å,·[]B,±  
,ì<@“\,í[]ARASDIAL ,âfŠf,[]fg fAfNfZfX API ,Å,íTfj[]fg,³,ê,Ä,ç,Û,¹,ñ[]B

704

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,×,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□×,ð'<sup>2</sup>,×,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

705

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,³,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,ª,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,¾,¾,ç□BfGf%oo[ ,ª%ooðCE^ ,³,ê,È,ç□ê□‡,Í□AWindows  
NT ,İfCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İ□Ú□x,ð'², x,Ä,,¾,¾,ç□B

,±,İfGf%o[]l,İA'Ê[]í,İó<μ,Å,Í"[]¶,μ,Ü,³,ñ[]BfRf"fşf...[]f^,ð[]Ä<N"@,μ,Ä[]AfGf%o[]l,³"[]¶,·,é'O,É[]s,Á,½[]\  
[]¬,İ•İ[]X,³,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm"F,μ,Ä,,³/4,³,ç[]BfGf%o[]l,³%oðCE^,³,ê,È,ç[]ê[]‡,Í[]AWindows  
NT ,İfCfxf"fşg f[]fO,ðŽQ[]Æ,μ,ÄCEx[]Ü,½,İfGf%o[]l,İÜ[]x,ð'²,x,Ä,,³/4,³,ç[]B

707

X.25  $\pm, \textcircled{c}, \text{cfGf}\% \square [ , \text{a} \bullet \hat{\text{O}}, \textsuperscript{3}, \hat{\text{e}}, \ddot{\text{U}}, \mu, \frac{1}{2} \square \text{BX}.25 \text{fvf}\square \text{f of Cf}_-, \acute{\text{E}} \hat{\square}^{\wedge}, \text{ð}-\hat{\text{a}}, \text{t}\square \text{†}, \text{f}, \textsuperscript{1}, \text{Ä}, \textsuperscript{3}/4, \textsuperscript{3}, \text{t}\square \text{B}$

ſvfxfef€ŠÇ—□ŽÒ,É^Ë—Š,µ,Ä□AfAjfEj“fg,ð□Ä,ŇŽg—p,Å,«,é,æ,π,É,µ,Ä,à,ç,Á,Ä,,¾,³,†□B



709

,à,π^ê“xfpfXf□□[fh,ð•ï□X,μ,Ä,Ý,Ä,,¾,¾,ç□B,»ê,Å,à,±,ìf□fbfz□[fW,ª•\Ž|,¾,ê,é□ê±,í□AfVfXfef€ŠÇ—  
□ŽÒ,É•ñ□□,μ,Ä,,¾,¾,ç□B

710

f,fff€,ì□%Šú'Ê□M'–“x (bps) ,đ%°°,°□A,à,æ^ê“xf\_fCf,,f<,μ,Ä,,¾,¾,¼□B□%Šú'Ê□M'–“x,đ%°°,°,é•û-  
@,É,Â,¼,Ä,Í□AfJf“f%°fCf“ fwf<fv,ì□uf,fff€,ì<@“\,đ□Y'è,·,é□v,đŽQ□Æ,μ,Ä,,¾,¾,¼□B

711

,±,İfGf%oo[ ,İA'Ê[í,İ6<μ,Å,Í"□¶,μ,Ü,<sup>1</sup>,ñ□BfRf"fsf...[f^,ð□Ä<N"® ,μ,Ä□AfGf%oo[ ,ª"□¶,·,é'O,É□s,Á,½□\  
□¬,İ•İ□X,<sup>a</sup>,·,x,Ä—LCEø,É,È,Á,Ä,ç,é,±,Æ,ðŠm" F,μ,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□BfGf%oo[ ,ª%ooðCE^ ,<sup>3</sup>,ê,È,ç□ê□‡,Í□AWindows  
NT ,İCfxf"fg f□fO,ðŽQ□Æ,μ,ÄCEx□□,Ü,½,İfGf%oo[ ,İÚ□x,ð'<sup>2</sup>,x,Ä,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B

712

,±,lfGf%o[ ,í[Af\_fCf,,f< fAfEfg,Æ'...M—p,É[¬—,³,ê,Ä,ç,éf|[fg (biplex f|[fg) ,Å"□¶,·,é%oÅ"\  
□«,ª, ,è,Ü,·□BfT□[fo□[ ,ª'...M—p,Éf|[fg,ð□%oŠú%o»,μ,Ä,ç,é,Æ,«,É□A"~Žž,Éf\_fCf,,f<fAfEfg,·,é,Æ□A,±,lfGf  
%o[ ,ª"□¶,μ,Ü,·□B□"•bCEã,ÉfŠf\_fCf,,f<,·,ê,î□AfŠf,□[fg fAfNfZfX,É,æ,è,±,ì-â'è,í%oðCE^ ,³,ê,Ü,·□B

713

ISDN %ñü,³,µ,ú'±,³,ê,Ä,¨,èA'fWfXf^,³,µ,fCf"Xfg[f<,³,ê,Ä,ç,é,±,Æ,ðŠm"F,µ,Ä,©,ç (ISDN  
f[h,]f}fj...fAf<,ðŽQ(Æ)Af\_fC,,f<,µ'¼,µ,Ä,,¼,³,çB,»ê,Å,à,±,lfGf%[.³"¶,·,éê±,íAISDN  
f[h,ì»'çE³,lfjXf^f} fT[frfX,©A,Ü,½,í ISDN %ñü,ð'ñ<ÿ,·,é'ÊM<ÆŽÒ,É-â,ç±,í,¹,Ä,,¼,³,çB

714

—~—p%oÂ”\,È ISDN f`fffff<,Í,·,×,ÄŽg—p’t,Å,·□B,Ç,ê,© 1 ,Â,ì%oñ□ü,ì□Ú’±  
,ð□Ø’f,μ,Ä,©,ç□A\_f\_Cf,,f<,μ’¼,μ,Ä,,¾,¾,³,ç□B

715

"FØ'†,É"d~b%ñü,É"ñ"~ŠúfGf%[,"½",μ,Ü,μ,½B,à,π^è"x,â,è'¼,μ,Ä,,¾,¾,çB,»,é,Å,à-â'è,ª  
%øðĈ^,μ,È,çêê,ÍA'ÊM'¬"x,ð%º,°,Ä,,¾,¾,çB,Ü,½A—LĈø,É,μ,Ä,ç,éŠg'£<@"\,ª, ,éêê,ÍA,»,é,ð-  
¾Ĉø,É,μ,Ä,,¾,¾,çB"d~b',ĭĭf"f%ofCf" fwf<fv,ìuf,fff€,ì<@"\,ðÝ'è,·,év,¨,æ,Ñuf,fff€  
,ì"Á«v,ðŽQÆ,μ,Ä,,¾,¾,çB

,±,İfGf%o[]l,í[]AfŠf,[]f g fAfNfZfX,İ TCP/IP ,İ[]\[]- ,É-â'è,ª, ,é,±,Æ,ðŽ,ı,μ,Ä,ç,Ü,·[]BfRf“fsf...  
[]f^,ð[]Ä<N“® ,μ,Ä[]A[]\[]- ,É%oÁ,ı,½•İ[]X,ª,·,×,ÄŠmŽÀ,É—LCEø,É,È,é,æ,α,É,μ,Ä,,¾,³,ç[]B



717

fŠf. [fg flfbfgf [fNã, Å<£ [đ<N, ±, ³, È, ç IP fAfhfCEfX, đŽw'è, μ, ĀA, à, α^ê "xŽŽ, μ, Ā, Ý, Ā, ¾, ¾, çB

718

PPP , ìĈøM, íA, ç, Á, ½, ňŠjŽn, ³, ê, Ü, μ, ½, ² AfŠf, [fg fRf“fsf... [f^, ² “KØ, ÈŽžŠÔ“à, É  
%ž“š, ð•Ô, ³, È, ©, Á, ½, ½, ß|—¹, ³, ê, Ü, μ, ½ B, ±, ìfGf%o [, íA%ñü, ì•iž; ² ^ «, çêê, âAfT [fo [, É-â'è, ², ,  
éêê, É“ñ, μ, Ü, ·B

719

PPP ,ìĀēðM,íA,ç,Á,½,ňŠjŽn,<sup>3</sup>,ê,Ü,μ,½,<sup>a</sup>AfŠf, [fg f}fVf“,ì—v< ,Å|—<sup>1,3</sup>,ê,Ü,μ,½BfT [fo [ä,ÅfGf  
%o [,<sup>a</sup> [¶,μ,½,ÆŽv,í,ê,Ü,·B

,±,lfGf“fgfŠ—p,É∅∅¬,³,ê,½ PPP flfbfgf∅∅[fN∅§CEävfvf∅fgfRf<,ª,È,ç, ©∅A,Ü,½,í’í%ž,·,éflfbfgf∅∅[fN  
fvf∅fgfRf<,ªfCf“fXfg∅[f<,³,ê,Ä,ç,Ü,¹,ñ∅B,±,lfGf%∅∅[í∅A∅»•i,lfAfbfvfOfCE∅[fh∅^—∅,É,æ,Á,Äflfbfgf∅∅[fN  
fvf∅fgfRf<,lŽí—p,ª•ï∅X,³,ê,½∅ê∅‡,É”∅¶,μ,Ü,·∅B[“d~b’ ,lfGf“fgfŠ,ì•Ò∅W] f\_fCfAf∅fO f{fbfNfX,ì [fT∅[fo∅∅]  
f^fu,Á∅A[f\_fCf,,f<fAfbfv fT∅[fo∅∅[.lŽí—p] f{fbfNfX, ©,ç [PPP] ,đ’l’đ,μ∅A[flfbfgf∅∅[fN fvf∅fgfRf<] ,Á•K—  
v,Éfvf∅fgfRf<,đ’²,×∅AfGf“fgfŠ,đ∅C∅³,μ,Ä,,¾,³,ç∅B<∅\$“l,Éf\_fEf“fCEfxf<,ì RAS ∅Ú’±,đ∅s,‡  
,½,β,É^Ó∅}“l,É,·,×,Ä,lfvf∅fgfRf<,lf`fFfbfN f{fbfNfX,đflft,É,μ,½∅ê∅‡,í∅A,±,lfGf%∅∅[í∅Af\_fEf“fCEfxf<,ì∅Ú’±  
,ÉŽg,í,ê,é NetBEUI fvf∅fgfRf<,ªfCf“fXfg∅[f<,³,ê,Ä,ç,È,ç,±,Æ,đŽ!,μ,Ü,·∅B

PPP ,É,æ,éÚ'±,ŽŽ,Ý,ç,ê,Û,μ,½, AfŠf, [fg fRf"fsf... [f^, %ž"š, μ, Û, 1, ñ, Å, μ, ½B, ±, ðGf  
% [ , AfT [fo [ , PPP , ðTf [fg, μ, Ä, ç, È, çê ( , ½, Æ, Ì, Af\_fEf" fCEfxf<, ðŠf, [fg fAfNfZfX fT [fo [ , à  
SLIP fT [fo [ , È, Ç, Ìê ( ) , É" , μ, Û, ·B

f\_fEf" fCEfxf<, ðŠf, [fg fAfNfZfX fT [fo [ , Æ'ÊM, ·, é, É, ÍANetBEUI fvf [fgfRf<, ðCf" fXfg [f<, 3, ê, Ä, ç  
, È, ·, ê, Ì, È, è, Û, 1, ñB, Û, ½ASLIP fT [fo [ , Æ'ÊM, ·, é, É, ÍAf\_fCf, f<, ·, éfGf" fgfŠ, É SLIP  
fvf [fgfRf<, ð' ð, μATCP/IP fvf [fgfRf<, ðCf" fXfg [f<, μ, Ä, ç, È, ·, ê, Ì, È, è, Û, 1, ñB Û×, É, Ä, ç  
, Ä, ÍA uflfbfgf [fN fvf [fgfRf<, ÌÝ'èv, ðŽQ Æ, μ, Ä, , ¾, ¾, çB

, ±, ðGf% [ , AfT [fo [ , PPP Ú' ±ŠŽn'O, Éf^ [f~fif<, ðŽg, Á, ½f [fOf" , ð—v< , ·, éê ( , É, à" , ·, é%Å"  
 [«, , è, Û, ·BfT [fo [ , ðf^ [f~fif<, ðŽg, Á, ½f [fOf" , ð—v< , ·, éê ( , Af\_fCf, f< Afbfv flfbfgf [fN, Ì  
 [fXfNfŠfvfg] f^fu, Å Af^ [f~fif< fEfBf" fhfE, ðŽg, x, æ, x, É' Ì, Ò, ±, Æ, , Ä, «, Û, ·B

f^ [f~fif<, ðŽg, Á, ½f [fOf" , É, æ, è-â'è, ð%ðCE^, Å, «, ½ê ( , Af\_fCf, f< Afbfv flfbfgf [fN, Ì [fXfNfŠfvfg]  
 f^fu, Af\_fCf, f< CEä, É<N" ® , ·, éfXfNfŠfvfg, ð' ð, ·, é, ±, Æ, É, æ, èA^ È~ , ÌÚ' ±, Å, Ìf^ [f~fif< f [fOf" , ðŽ © " ®  
% » , ·, é, ±, Æ, , Ä, «, Û, ·B

722

ŽóM,μ,½ PPP fpfPfbfg,ìE`Ž®,ª—LCEø,Å,í, ,è,Ü,<sup>1</sup>,ñ,Å,μ,½B

723

“d~b”Ô□†,ì·,<sup>3</sup>í□A□ú“a”Ô□†,Æ□ú”ö”Ô□†,àšÛ,ß,Ä□A□Å’â 128 •¶žš,Û,Å,Å,·□B

725

,±,İfGf%o[]l,í[]AfŠf,[]fg fAfNfZfX,ì IPX []\[]¬,É-μ[],,ª, ,é,±,Æ,đŽ!,μ,Ä,ç,Û,·[]BfRf“fsf...  
[]f^,đ[]Ä<N“® ,μ,Ä[]A[]\[]¬,É%oÁ,¡,½•İ[]X,ª,·,×,ÄŠmŽÀ,É—LŒø,É,È,é,æ,α,É,μ,Ä,,¾,³,ç[]B



726

IPX fvf□fgfRf<,đŽg,Á,½f\_fCf,,f< fAfEfg,Å,í□Af|□[fg,í 1 ,Â,μ,©Žg—p,Å,«,Ü,<sup>1</sup>,ñ□B

727

TCPCFG.DLL ,íATCP/IP ,i•K{ \ —v'f,Å,·BTCP/IP ,<sup>a</sup>³,μ,fCf“fXfg[f<,³,ê,Ä,ç,é,±,Æ,đŠm”F,μ,Ä,-  
,<sup>3</sup>/<sub>4</sub>,³,çB

,±,İfGf%o[]l,í[]AfŠf,[]f g fAfNfZfX,İ TCP/IP ,İ[]\[]¬,É-â'è,ª, ,é,±,Æ,ðŽ,ı,μ,Ä,ç,Ü,·[]BfRf“fsf...  
[]f^,ð[]Ä<N“® ,μ,Ä[]A[]\[]¬,É%oÁ,ı,½•İ[]X,ª,·,×,ÄŠmŽÀ,É—LŒø,É,È,é,æ,α,É,μ,Ä,,¾,³,ç[]B

fRf“fgf□□lf< fpflf<,đŽg,Á,Ä TCP/IP ,đfCf“fXfg□□lf<,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,¢□B

730

fRf“fsf... [f^, l“o~ ^□ó‘Ô, ÉŠÖ, ., é□î•ñ, a—v<□, ³, ê, Ü, μ, ½, a□A—v<□, ³, ê, ½Žž“\_ , Å, í□A, » , i□î•ñ, í, Ü, ¾Žæ“¾  
%oÅ“\, É, È, Á, Ä, ç, Ü, ¹, ñ, Å, μ, ½□B

731

PPP ¶§Eäfvf¶fgfRf<,ÉŠÖ,·,é“Á'è,ìî•ñ,<sup>a</sup>—v<¶,<sup>3</sup>,ê,Ü,μ,½,<sup>a</sup>¶PPP ¶§Eäfvf¶fgfRf<,Í\¶¬,<sup>3</sup>,ê,Ä,¢  
,Ü,<sup>1</sup>,ñ,Å,μ,½¶B



733

ft[f]o[f],í[APPP ,đftf][fg,μ,Ä,č,Ü,·,ª[AfNf%ofCfAf“fg flfbfgf[fN fv[fgfRf<,đftf][fg,μ,Ä,č,Ü,<sup>1</sup>,ň[B



PPP fŠf“fN□§Eäfvf□fgfRf<, ìEð□M, í□A, ç, Á, ½, ñŠJŽn,<sup>3</sup> ê, Ü, μ, ½, <sup>a</sup>□AfŠf, □[fg fRf“fsf...□[f^, ì—v<□, Å□—  
<sup>1,3</sup> ê, Ü, μ, ½□BfT□[fo□[□ă, ÅfGf%□[. <sup>a</sup>□¶, μ, ½, ÆŽv, í, ê, Ü, ·□B

735

fNf%oCfAf“fg,í“Á'è,ì IP fAfhfCEfX,ð—v<□,·,é,æ,ɹ,É□\□¬,³,ê,Ä,ç,Ü,·,ª□Aft□[fo□[.ªfNf%oCfAf“fg,É“Á'è,ì IP  
fAfhfCEfX,ð—v<□,·,é,±,Æ,ð<-%oÂ,μ,Ä,ç,È,ç,©□A,Ü,½,ÍŽw'è,μ,½ IP fAfhfCEfX,ÍŠù,É,Ù,©,ìfNf  
%oCfAf“fg,ÉŽg,í,ê,Ä,ç,Ü,·□B

736

PPP flfbfgf[] [fN[]\$CEäfvf[]fgfRf<, ìCEð[]M, í[]A, ç, Á, ½, ñŠJŽn, <sup>3</sup>, ê, Ü, μ, ½, <sup>a</sup> AfŠf, [] [fg fRf“ fsf... [] [f^, ì—v<[], Å[]—  
<sup>1,3</sup>, ê, Ü, μ, ½[]BfT[] [fo[] [ä, ÅfGf%[] [," []¶, μ, ½, ÆŽv, í, ê, Ü, ·[]B

737

PPP ĆđM,đs,Á,Ä,ć,éff[fj]f< fRf“fsf...[f^,ÆfŠf, [fg fRf“fsf...[f^,í“^ê, ðRf“fsf...[f^, Å, ·B'ÉíA, ±  
, ðGf% [ , íA fŠf“fN ä, ð'·u (f, fff€, È, Ç) , ð•¶Žš, ðfGfR [ fofbfN, μ, Ä, ć, é, ±, Æ, ðŽ!, μ, Ä, ć, Ü, ·B, ±  
, é, ç, ð'·u, ðfŠfZfbfg, μ, Ä, , ¼, ³, ćB

Microsoft Windows NT fT [fo [ ^ ÈŠO, ðT [fo [ , ðê [ , íA, ±, ðGf% [ , íA fŠf, [fg fRf“fsf...[f^, ðÚ' ±, ðŠm  
—š, ·, é'O, ÉfefĀf^fCfvf%ofCf^ [ (TTY) Ć`Ž@, ðf [OfCf“, ðŽŽ, Ý, Ä, ć, é, ±, Æ, ðŽ!, μ, Ä, ć, é [ê [ , à, , è, Ü, ·B, ±  
, ðGf“fgfŠ, ðAÚ' ±Āä, Éf^ [f~fif< fEfBf“fhfE, ð·\Ž!, ·, é, æ, x, É [ [ , μ, Ä, , ¼, ³, ćB

738

fT[f<sub>o</sub>l, íAŠ,, è“-Ä, ç, ê, Ä, ç, éfAfhfCEfX fv[f<, ©, ç, ì IP fAfhfCEfX, ðfNf%ofCfAf“fg, ÉŠ,, è“-Ä, é, ±  
,Æ, ð, Å, «, Ü, <sup>1</sup>, ñ, Å, μ, ½BfŠf. [fg flfbfgf[fN, Å<£±, ð<N, ±, <sup>3</sup>, È, ç, æ, æ, È IP fAfhfCEfX, ðfNf  
%ofCfAf“fgä, ÅŽw'è, μ, ÄÚ'±, μ, Ä, Ý, Ä, <sup>3</sup>/<sub>4</sub>, <sup>3</sup>, çB

739

,±,İfGf%o[][,í[]AMicrosoft Windows NT fT[]fo[][^ÈŠO,İfT[]fo[][,Ö PPP []Ú'±,đ[]s,Á,½,Æ,«,É,μ,©"-  
[]¶,μ,Ü,<sup>1</sup>,ñ[]BfT[]fh fp[]fB,İfT[]fo[][,Æ,İ'ŠCEY%o^—p,İ,½,ß,ÉŽg,í,ê,é PPP  
,İ•W[]€"F[]øfvf[]fgfRf<,Á,í[]AfNfŠfAfefLjXfgE`Ž®,Á—~—p%oÂ"\,ÈfpfXf[]fh,ª—v<[]<sup>3</sup>,ê,Ü,·,ª[]AWindows  
NT ,Á,İfZfLf...fŠfefB,đ•Ü,Â,½,ß,É^Ã[]+%o»,<sup>3</sup>,ê,½fpfXf[]fh,μ,©•Ü'¶,<sup>3</sup>,ê,Ü,<sup>1</sup>,ñ[]B

740

fŠf. [fg fAfNfZfX—p, É\□—, ³, ê, Ä, ç, é TAPI fffofCfX, ì%Šú  
%»», ÉŽ, "s, μ, ½, ©□A, Ü, ½, Í, »», ìfffofCfX, ²□³□í, ÉfCf“fXfg□[f<, ³, ê, Ä, ç, Ü, ¹, ñ, Å, μ, ½□BfŠf, □[fg fAfNfZfX, " ,æ, Ñ  
TAPI fffofCfX, ð□í□œ, μ□AŽŸ, É□AfŠf, □[fg fAfNfZfX, " ,æ, Ñ TAPI fffofCfX, ð□ÄfCf“fXfg□[f<, μ, Ä, , ¾, ³, ç□B

741

[ff[f^,ð^Ã+%%»,·,é] f`fFfbfN f{fbfNfX,ªfif“,É,È,Á,Ä,ç,Û,·,ªARAS fhf%oofCfo,É^Ã+%%»<@”\ ,ª, ,è,Û,¹,ñB,±,lf`fFfbfN f{fbfNfX,ðfift,É,µ,ÄA^Ã+%%»,ðs,í,È,çÚ’±,ðŽg,Á,Ä,,¾,¾,çB



742

[ff[f^,ð^Ã+%%».,.é] f`fFfbfN f{fbfNfX,ªf|f“,É,È,Á,Ä,ç,Ü,.,ªARAS fT[fó[l,Íff[f^,ì^Ã+%%».,ðfTf|  
[fg,µ,Ä,ç,Ü,<sup>1</sup>,ñB,±,ì`fFfbfN f{fbfNfX,ðf|ft,É,µ,Ä^A^Ã+%%».,ðs,í,È,çÚ'±,ðŽg,ª  
,©A,Ü,½,ÍVfXfef€ŠÇ—ŽÒ,É-â,ç‡,í,<sup>1</sup>,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,çB

743

[f^, ð^Ã+%%».,.é] f`fFfbfN f{fbfNfX,ªfif“,É,È,Á,Ä,ç,Ü,.,ªA f[] [f]f< RAS fNf%ofCfAf“fg,É,Í^Ã+%%»<@“\ ,ª, ,è,Ü,¹,ñB

744

WAN ,Æ, ðfCf“f^□[ftfFfCfX—p,Æ,μ,Ä□ARAS fT□[fo□[ ,©,çfNf%ofCfAf“fg,ÉŠ,,è“- ,Ä,ç,ê,½ IPX  
flfbfgf□□[fN“Ô□†,Í□AŠù,ÉfNf%ofCfAf“fg,ì LAN □ã,ÅŽg,í,ê,Ä,ç,Ü,·□B  
fNf%ofCfAf“fg,ð LAN ,©,ç□Ú‘±%oð□œ,μ□A3 •ªŠÔ‘Ò,Á,Ä,©,ç,â,è‘¼,μ,Ä,,¾,³,ç□B

752

“d~b’ fGf“fgfŠ,ÉŠÖ~A•t, ¯,ç,ê,Ä,ç,éf\_fCf,,f<fAfbfv fXfNfŠfsvfg,É\•¶fGf%°[a, ,è,Ü,·□B  
f\_fCf,,f<fAfbfv flfbfgf□□[fN,Å□A“d~b’ fGf“fgfŠ,ÉŠÖ~A•t, ¯,ç,ê,Ä,ç,éfXfNfŠfsvfg,đ•Ò□W,μ,Ä,-  
,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç□B[fXfNfŠfsvfg] f^fu,Å□A[fXfNfŠfsvfg,ì•Ò□W] ,đfNfŠfsvfgN,μ,Ü,·□B

**RAS fl[]fgf\_fCf,,f<,lŠT—v**

RAS ,lfl[]fgf\_fCf,,f<,í[]Aflfbfgf[]fN fAfhfCEfX,Æ RAS “d~b’ fGf“fgfŠ,ì’í%žŠÖCEW,ðŠÇ—  
[],μ[]A•ŮŽç,μ,Ů,·[]B,±,ì<@“\,É,æ,è[]AfAvfšfP[]fVf}f“,âfRf}f“fh f%ofCf“,©,çflfbfgf[]fN  
fAfhfCEfX,žQ[]Æ,³,è,½,Æ,«,É[]A^í%ž,·,é“d~b’ fGf“fgfŠ,ž©“@“l,Éf\_fCf,,f<,³,è,Ů,·[]Bflfbfgf[]fN  
fAfhfCEfX,É,í[]AfCf“f^[]flfbfg fzXfg-¼[]AIP fAfhfCEfX[]A,Ů,½,í NetBIOS fT[]fo[][-¼,ðŽg—p,Á,«,Ů,·[]B  
,Ů,½[]Af[]fgf\_fCf,,f<,Á,í[]ARAS []Ú’±,ð%ôî,μ,½,·,x,Ä,ì[]Ú’±[]î•ñ,â<L%o~ ,³,è,é,½,ß[]A^ÈCEä,ì[]Ä[]Ú’±  
,ž©“@%o»,³,è,Ů,·[]B

- fl[]fgf\_fCf,,f<,É,æ,é[]Ú’±,É,í[]AZÏ,ì 2 ,Æ,“,è,ì•û-@,â, ,è,Ů,·[]B
- fT[]fU[][,âflfbfgf[]fN,É[]Ú’±,μ,Ä,ç,É,ç[]è[]#,É[]AfAvfšfP[]fVf}f“,âfŠf,[]fg  
fAfhfCEfX,ðŽQ[]Æ,·,é,Æ[]Af[]fgf\_fCf,,f<,lflfbfgf[]fN[]Ú’±,ðSm—š,μ,æ,æ,Æ,μ,Ů,·[]B
- fT[]fU[][,âflfbfgf[]fN,É[]Ú’±,μ,Ä,ç,é[]è[]#[]Af[]fgf\_fCf,,f<,í[]A^È^O,É<L  
%o~ ,μ,½fAfhfCEfX,É’í,μ,Ä,ì,ÿflfbfgf[]fN[]Ú’±,ðSm—š,μ,æ,æ,Æ,μ,Ů,·[]BfT[]fo[][-¼,âfCf“f^[]flfbfg fzXfg-  
¼,ðfT[]fU[][,âŠÖ^á,Á,Ä“ü—í,μ,½[]è[]#,í[]A[]Ú’±,íSm—š,³,è,Ů,¹,ñ[]B

ŠÖ~A[]€-Ú

fl[]fgf\_fCf,,f<,ðflft,É,·,é

fl[]fgf\_fCf,,f<,ÉŠÖ,·,éqf%ofuf<fVf...[]fefBf“fO

**fl[fgf\_fCf,,f<,ðflft,É,·,é**

fl[fgf\_fCf,,f<,íAfrf“fsf...[f^,ìN“®Žž,Éž©“®“l,É—LCEø,É,È,è,Û,·,ªA•K—v,É%ž,¶,Äflft,É,·,é,±,Æ,à,À,«,Û,·(,½,Æ,¡,îA1,Â,ìŠŠÝ’n,lfRf“fsf...[f^,É•i“,lfCf“f^[]flfbfg fvf[]fofCf\_,ªÝ’è,µ,Ä, ,èA•K—v,É%ž,¶,Äfvf[]fofCf\_,ðŽg,ç•ª,·,éèè†,È,Ç)B

**fl[fgf\_fCf,,f<,ðflft,É,·,é,É,í**

1 f\_fCf,,f<fAfbfv flfbfgf[]fN,ÂA[f\_fCf,,f<,·,é“d~b’ fGf“fgfŠ] ^è—,©,çf\_fCf,,f<æ,lfGf“fgfŠ,ð’l’ð,µ,Û,·B

2 [,>,ì¼],ðfNfŠfbfN,µA[ft[]fU[]fÝ’è] ,ð’l’ð,µ,Û,·B

3 [f\_fCf,,f<] f^fu,ÂA[[]ŠŠÝ’n,É,æ,èf[]fgf\_fCf,,f<,ðŽg,µ] ^è—,É•Ž!,³,è,Ä,ç,éŠe[]ŠŠÝ’n,lf`fFfbfN f{fbfNfX,ðflft,É,µ,Û,·B

fl[fgf\_fCf,,f<,ðflf“ ,É,·,é,É,íA[[]ŠŠÝ’n,É,æ,èf[]fgf\_fCf,,f<,ðŽg,µ] ^è—,É•Ž!,³,è,Ä,ç,éŠe[]ŠŠÝ’n,lf`fFfbfN f{fbfNfX,ðflf“ ,É,µ,Û,·B

ŠÖ~A[]€-Ú

RAS fl[fgf\_fCf,,f<,ìŠT—v

fl[fgf\_fCf,,f<,ÉŠÖ,·,éfgf%uf<fVf...[fefBf“fO



,Æ,ª•ñ□□,³,ê,È,¯,ê,Î,È,è,Û,¹,ñ□Bflfbfgf□□[fN,É□Ú'±,μ,Ä,ç  
,é,Æ,«,É□Afl□[fgf\_fCf,,f<,ªŽ©“@“l,Éflfbfgf□□[fN□Ú'±,đŠm—š,·,é,É,Í□Afl□[fgf\_fCf,,f<,É<L%□,³,ê,Ä,ç  
,éfAfhfCfX,ì^è—,É-Ú“l,ÌfAfhfCfX,ª,È,¯,ê,Î,È,è,Û,¹,ñ□BŽŸ,É□Aflfbfgf□□[fN fAf\_fvf^ f□[fh,ÌfofCf“fh,Æ<L  
%□,³,ê,Ä,ç,éfAfhfCfX,ì^è—,ì—á,đŽ!,μ,Û,·□B

Checking netcard bindings...

NetworkConnected: network (\Device\Nbf\_IEEPRO1, 0) is up

Enumerating AutoDial addresses...

There are 3 Autodial addresses:

ftp.microsoft.com

198.105.232.1

SCRATCH

ŠÖ~A□€-Ú

f□[fgf\_fCf,,f<,đflft,É,·,é

RAS f□[fgf\_fCf,,f<,ìŠT—v



**f}f<f`fŠf“fN f\_fCf,,f<,İŠT—v**

"f}f<f`fŠf“fN" ,Æ,ÍA•;□",ì•" —□"l,ÈfŠf“fN,đ'g,Ý□‡,í,¹,Ä 1 ,Ä,İ~ —□"l,È "'©" ,É,·,é,±,Æ,Ä,·□B,±,ì,æ,α ,ÉfŠf“fN,đ'© ,È,é,±,Æ,É,æ,è□A'Ñ^æ•□,²□L,²,è,Ü,·□B

RAS ,í□A•;□",ì ISDN□AX.25□A,Ü,½,Íf,fff€%ñ□ü,đ%î,μ,Ä PPP f}f<f`fŠf“fN f\_fCf,,f<,đŽÄ□s,μ,Ü,·□B,± ,ì<@“\,²~ —p,Ä,«,é,ì,í□A•;□",ì WAN fAf\_fvf^,đfRf“fsf...□[f^,²~ —p,Ä,«,é□ê□‡,¾,¯,Ä,·□B

f}f<f`fŠf“fN,đ~ —p,·,é,É,í□AfNf%□fCfAf“fg,ÆfT□[fo□[ ,ì—¼•ù,Äf}f<f`fŠf“fN,đ~ LC∅,É,μ,È,¯,ê,Î,È,è,Ü,¹,ñ□B

'□ fZfLf...fŠfefB□ã,ì—□—R,©,ç□Aft□[fU□[ ,ÉfR□[f<fofbfN,·,é,æ,α,É□□¬,³,ê,Ä,ç,é ("□SfR□[f<fofbfN") fT□[fo□[ ,É□Af}f<f`fŠf“fN,³,è,½“d~b' fGf“fgfŠ,đŽg,Ä,ÄfNf %□fCfAf“fg,©,çf\_fCf,,f<,μ,½□ê□‡□AfR□[f<fofbfN,³,é,é,ì,í□Af}f<f`fŠf“fN,³,è,½fff□fCfX,ì,α,¿,ì 1 ,Ä,¾,¯,Ä,·□B,±,è,í□Aft□[fU□[ fAfJfEf“fg,É'í,μ,Ä<L%¬,³,è,é"Ô□t,² 1 ,Ä,¾,¯,ì,½,ß,Ä,·□B,±,ì,½,ß□A1 ,Ä,ìfff□fCfX,μ,©□Ú'±,Ä,«,□A,Ü,©,ì,·,×,Ä,ìfff□fCfX,í□Ú'±,ÉŽ, "s,·,é,ì,Ä□AfNf %□fCfAf“fg,Íf}f<f`fŠf“fN<@“\,đŽ,·,ç,Ü,·□B

f}f<f`fŠf“fN,³,è,½“d~b' fGf“fgfŠ,²□A“¬,¶“d~b”Ô□t,Ä 2 ,Ä,Íf`fff□f<,đŽg,α ISDN ,ì□ê□‡,í□A□³□í,É“®□ì,μ,Ü,·□B

f}f<f` fŠf“fN,đ—LCEø,É,·,é

**RAS fNf%oƒCfAf“fg,Áf}f<f` fŠf“fN,đ—LCEø,É,·,é,É,Í**

- 1 f\_fCf,,f<fAfbfv flfbfgf□□[fN,Á□A[f\_fCf,,f<,·,é“d~b’ fGf“fgfŠ] ^ê—,©,cf\_fCf,,f<□æ,lfGf“fgfŠ,đ‘l’đ,μ,Û,·□B
- 2 [,>,ì¼] ,đfNfŠfbfN,μ□A[fGf“fgfŠ,Æf,fff€,ìfvf□fpfefB,ì•Ò□W] ,đ‘l’đ,μ,Û,·□B
- 3 [Šî-{} f^fu,ì [f\_fCf,,f<•ù-@] f{fbfNfX,Á□A[•i□“%oň□ü] ,đ‘l’đ,μ,Û,·□B
- 4 [□□-] ,đfNfŠfbfN,μ□A□Ú’±,ÉŽg,xf,fff€,Û,½,lfAf\_fvf^,đ‘l’đ,μ,Û,·□BŽŸ,É□A[OK] ,đfNfŠfbfN,μ,Û,·□B

**RAS fT□[fo□[,Áf}f<f` fŠf“fN,đ—LCEø,É,·,é,É,Í**

- 1 fRf“fgf□□[f< fpfj<,ì [flfbfgf□□[fN] fAfCfRf“ ,đf\_fuf<fNfŠfbfN,μ,Û,·□B
- 2 [fT□[rfX] f^fu,Á□A[flfbfgf□□[fN fT□[rfX] f{fbfNfX,ì [fŠf,□[fg fAfNfZfX fT□[rfX] ,đ‘l’đ,μ□A[fvf□fpfefB] ,đfNfŠfbfN,μ,Û,·□B
- 3 [fŠf,□[fg fAfNfZfX fZfbfgfAfbfv] f\_fCfAf□fO f{fbfNfX,ì [flfbfgf□□[fN] ,đfNfŠfbfN,μ,Û,·□B
- 4 [flfbfgf□□[fN,ì□□-] f\_fCfAf□fO f{fbfNfX,Á□A[f}f<f` fŠf“fN,đŽg,xf] f`fFfbfN f{fbfNfX,đfif“ ,É,μ□A[OK] ,đfNfŠfbfN,μ,Û,·□B

Ú±,ŠŽ,μAóμ,ðñ,é

fRf“fgf[]f< fpfif<, É, ,éf\_fCfAf<fAfbfv flfbfgf[]fN f,fjf^,Í[]AÚ±,ÉŠÖ,·,é[]AZÿ,ì“à—e,ð·\Žì,μ,Û,·[]B

- Ú±‘—“x
- Ú±ŽŽŠÖ
- RAS fT[]fo[],ÉÚ±,μ,Ä,ç,éft[]fU[],ì-¼‘O
- Ú±,ÉŽg,í,è,Ä,ç,évf[]fgfRf<
- Ú±,ÉŽg,í,è,Ä,ç,éfff[]CfX

,Û,½[]Af\_fCf,,f< fAfbfv flfbfgf[]fN f,fjf^,ðŽg,α,Æ[]AfAfNfefBfu,ÈÚ±,ð[]Ø‘f,·,é,±

,Æ,à,Ä,«,Û,·[]Bf}f<f`fŠf“fNÚ±,ð[]s,Ä,Ä,ç

,é[]é[]±,Í[]A“Á‘è,ìfff[]CfX,ð[]Ø‘f,μ[]A,»,ìfff[]CfX,ð,Û,©,ì[]CEÄ,Ñ[]o,μ,ÉŽg,α,±,Æ,ª,Ä,«,Û,·[]B

Šù‘è,ì[]Ý‘è,Ä,Í[]Af\_fCf,,f<fAfEfG,·,é,Æ[]Af\_fCf,,f<fAfbfv flfbfgf[]fN f,fjf^,af^fXfNfo[],É·\

Žì,³,è,Û,·[]BfEfBf“fhfE,Æ,μ,Ä·\Žì,³,è,é,æ,α,É·\Žì[]CE`Ž@,ð·\[]X,·,é,É,Í[]A[[]Ý‘è] f^fu,ðŽg,ç

,Û,·[]Bf\_fCf,,f<fAfbfv flfbfgf[]fN f,fjf^,É,Í[]Af\_fCf,,f<fAfbfv%ñü,ìgf%ftfBfbfN,ðŽì,·f%[]CfG,ª·\

Žì,³,è,Û,·[]Bff[]f^,ì‘—[]M‘t,Û,½,ÍŽó[]M‘t,Í[]Af%[]CfG,ª[]Ä,“\_“”,μ[]AfGf%[][,ª“[]¶,·,é,Æ[]Af%[]CfG,ª[]Ô,-

“\_“”,μ,Û,·[]B

f\_fCf,,f<fAfbfv flfbfgf[]fN f,fjf^,ðfEfBf“fhfE,Æ,μ,Ä·\Žì,·,é[]é[]±,Í[]A·;[]”,ìfff[]CfX,ìf%[]CfG,ð·Ä,x,Ä·\

Žì,Ä,«,Û,·[]B,»,ì,æ,α,É[]\[]-,·,é,É,Í[]A[[]Ý‘è] f^fu,ì [f%[]CfG] ,ðfNfŠfbfN,μ,Û,·[]B

Še[]€-Û,ìfwf<fv,ð·\Žì,·,é,É,Í[]Af\_fCfAf[]fO f{fbfNfX,ì%[]E[]ä,ì ? ,ðfNfŠfbfN,μ[]A-Û“l,ì[]€-Û,ðfNfŠfbfN,μ,Ä,-  
,¾,³,ç[]B

## X.25 ,iŠT—v

X.25 jlfbfjgff[]fN,Á,í[]AfpfPfbfgCEđŠ·fvf[]fgfRf<,đŽg,Á,Äff[]f^,đ“‘—,μ,Ü,·[]B,±  
,lfvf[]fgfRf<,í[]AfpfPfbfg“]’—fm[]fh,Á[]\[]¬,³,è,Ä,ç,é[]çŠE<K-í,í,[]!,Èfjlfbfjgff[]fN,ÄŽg—  
p,Ä,«,Ü,·[]BŠefm[]fh,í[]AŽw’è,³,è,½fAfhfCEfX,É X.25 fpfPfbfg,đ”z[]M,μ,Ü,·[]B

ŠÖ~A[]ε-Ú

X.25 ,đfCf“fXfg[]f<,·,é

X.25 ,lfpf%of[]f^,đ[]Ý’è,·,é

X.25 ,ÉŠÖ,·,éfgf%ofuf<fvf...[]f[]efBf“fo

**X.25 ,đfCf“fXfg□[f< ,.é**

1 X.25 PAD ,Ü,½,í X.25 fXf}□[fg fj□[fh,đfRf“fsf...□[f^,ÉfCf“fXfg□[f<,μ□AfRf“fsf...  
□[f^,đ<N“@,μ,Ü,·□Bfj□[fh,lfCf“fXfg□[f<•û-@,É,Â,č,Ä,í□AX.25 fj□[fh,ì□»‘čĚ³,²‘ň<Ÿ,·,éf}fj...  
fAf<,đŽQ□Æ,μ,Ä,,¾,³,č□B

2 fŠf,□[fg fAfNfZfX fT□[frfX,đ X.25 —p,É□Ä□\□¬,μ,Ü,·□B□uf\_fCf,,f<fAfbfv flfbfgf□□[fN,đ□Ä□\  
□¬,·,é□v,đŽQ□Æ,μ,Ä,,¾,³,č□B

ŠÖ~A□€-Ú

X.25 ,lfpf%of□□[f^,đ□Ÿ‘è,·,é

X.25 ,ÉŠÖ,·,éfgf%ofuf<fVf...□[fefBf“fO

**X.25 ,lfpf%of[f^,ďŸ'è,.,é**

1 f\_fCf,,f:fAfbfv flfbfgf[fN,ÅA“d~b’ fGf“fgfŠ,ď‘l’đ,μAŽŸ,É [.,»,’¼] ,ďNfŠfbfN,μ,Ä [fGf“fgfŠ,Æf,fff€ ,lfvf[fpfefB,ì•Ò[W] ,ďNfŠfbfN,μ,Ü,·B

2. [X.25] f^fu,ÅAX.25 flfbfgf[fN fvfofCf\_,ď‘l’đ,μAfŠf,[fg fT[fo[,ì X.25 fAfhfCfX,ď“ü—í,μ,Ü,·B

3. •K—v,É%ž,¶,ÄA[f+U[ ff[f^] f{fbfNfX,“ ,æ,Ň [ <@“\] f{fbfNfX,É“K∅,Èî•ň,ď“ü—í,μ,Ü,·B

ŠÖ~A€—Ú

X.25 ,lŠT—v

X.25 ,ÉŠÖ.:.éfgf%ofuf<fVf...[fefB“fO

## ISDN ,išT—v

“□□#T□□[frfX fffWf^f< flfbfgf□□[fN (ISDN) ,đŽg,κ,Æ□A“d~b  
%oň□ü,Æ”ä,x,Ä’É□M’—“x,ā,«,í,β,Ä□,‘—,É,È,è,Ü,·□B’É□í,ì“d~b%oň□ü,Ä,í□A^ê”É“l,È’É□M’—“x,í-^•b 9600  
frfbfg (bps) ,Ä,·,ª□AISDN %oň□ü,ì’É□M’—“x,í□A64Kbps ,Ü,½,í 128Kbps ,Ä,·□BŽA-±,Ä,±,ì,æ,κ  
,É□,‘—’É□M,ª•K—v,Æ,È,é—á,Æ,μ,Ä,í□A’½,,ì□Y’íŽĐ^đ,đ•ø,ì,Ä,ç,éŠé<Æ,â□A’â—È,ì’É□M,đ”ª,κŠÇ—  
□□ì<Æ,đfŠf,□[fg,©,ç□s,κ•K—v,ª, ,é□ê□† (,½,Æ,ì,í□A—£,ê,½□ê□Š,É□Y’u,³,ê,Ä,ç,é□□□[fNfXfe□[fVf†f“,Éf  
ftfgfEfFfA,đfCf“fXfg□[f<,·,é□ê□†,È.Ç) ,ª□l,ì,ç,ê,Ü,·□B

ŠÖ~A□€-Ú

ISDN f□□[fh,đfCf“fXfg□[f<,·,é

ISDN ,ì<@“\,đ□Y’è,·,é

ISDN ,ÉŠÖ,·,éfgf%ouf<fVf...□[fefBf“fO

**ISDN f|f|fh,đfCf“fXfg|f<,·,é**

1 ISDN (“|f|T|f|fX fffWf^f< flfbfgf|fN) f|f|fh,đfRf“fsf...|f^,ÉfCf“fXfg|f<,μ|AfRf“fsf...  
|f^,đ<N“@,μ,Ü,·|B

• i|” ,ì ISDN f|f|fh,đfCf“fXfg|f<,·,éê|f,Í|AISDN fhf%ofCfo,đfCf“fXfg|f<,μ,½Æä,ÅfRf“fsf...  
|f^,đ<N“@,μ,È,·,ê,Ì,È,è,Ü,<sup>1</sup>ñ|B|<N“@,μ,È,ç,Æ|AfŠf,|fg fAfNfZfX,đ ISDN —p,É|  
|f,·,é,Æ,«,É|A,·,x,Ä,ì—~—p%oA“\,È ISDN f|f|fg,<sup>a</sup>•\Ž|,<sup>3</sup>ê,È,çê|f,<sup>a</sup>, ,è,Ü,·|B

Šù,É RAS ,Æ ISDN ,<sup>a</sup>|f|—,<sup>3</sup>ê,½fRf“fsf...|f^,Å|ARAS ,đ|í|œ,μ|A|ÄfCf“fXfg|f<,·,éê|f,Í|ARAS  
,ìfzfbfgfAfbfv,Å ISDN f|f|fg,đ'Ç%oA,Å,«,Ü,<sup>1</sup>ñ|B|æ,É ISDN fhf%ofCfo,đ|Ä|f|—,μ,Ä,©,ç|ARAS  
,đ|ÄfCf“fXfg|f<,μ|AISDN f|f|fg,đŽg,π,æ,π,É|Ä|f|—,μ,È,·,ê,Ì,È,è,Ü,<sup>1</sup>ñ|B

'| CEÄ,çf^fCfv,ì DigiBoard f|f|fh,Í|A^ê•” ,ìfRf“fsf...|f^,Á,Í“@|ì,μ,Ü,<sup>1</sup>ñ|B|Å|V,ì PCIMAC-ISA  
DigiBoard f|f|fh (fvfŠfAf<“Ó|f,<sup>a</sup> A14308 ^È|~ ,ì,à,ì) ,<sup>a</sup>È,çê|f,Í|ADigiBoard ,É~A—  
|,μ,ÄÆđŠ·,μ,Ä,à,ç,Á,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç|B

2 fŠf,|fg fAfNfZfX fT|f|fX,đ ISDN —p,É|Ä|f|—,μ,Ü,·|B|uf\_fCf,·f<Afbfv flfbfgf|fN,đ|Ä|  
|f,·,é|v,đŽQ|Æ,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,ç|B

ŠÖ~A|€-Ú

ISDN ,ì<@“\,đ|Ý'è,·,é



**ISDN ,i<@”\,đŸ’è,.,é**

**ISDN ,lfpf%of[]f^,đ\[]-,.,é,É,Í**

1 f\_fCf,,f<fAfbfv flfbfgf[]fN,Å[]A“d~b’ fGf“fgfŠ,đ‘l’đ,μ[]AZŸ,É [,»,’¼4] ,đfNfŠfbfN,μ,Ü,·[]B

2 [fGf“fgfŠ,Æf,fff€,ìfvf[]fpfefB,ì•Ò[]W] ,Ü,½,í [fGf“fgfŠ,Æf,fff€,ìfvf[]fpfefB,ì•;[]»] ,đfNfŠfbfN,μ,Ü,·[]B

3 [Šî-{} f^fu,ì [f\_fCf,,f<•û-@] f{fbfNfX,Å[]AfffofCfX,đ‘l’đ,μ[]AZŸ,É [[]-] ,đfNfŠfbfN,μ,Ü,·[]B

4 [ISDN ,ì[]-] f\_fCfAf[]fO f{fbfNfX,Å[]A%ñü,ìŽí—p,Æ,Ü,©,ìfn[]fhfEfFfA,ì<@”\,đŸ’è,μ,Ü,·[]B

► ISDN fAf\_fvf^,đ[]-[]A,Ü,½,í[]V,μ,ç ISDN fAf\_fvf^,đCf“fXfg[]f<.,é,É,í[]AfRf“fgf[]f< fpflf<,ì [flfbfgf[]fN] fAfCfRf“,đf\_fuf<fNfŠfbfN,μ,Ü,·[]B[fAf\_fvf^] f^fu,Å[]AfAf\_fvf^,đ‘l’đ,μ[]AZŸ,É [‘Ç%oÁ] ,Ü,½,í [fvf[]fpfefB] ,đfNfŠfbfN,μ,Ü,·[]BŠeflfvfVf+f“,ì[]Ú[]x,É,Á,ç,Á,ì[]Af\_fCfAf[]fO f{fbfNfX,ì•Ž‘t,É [fwf<fv] ,đfNfŠfbfN,·,é,©[]A,Ü,½,í F1 fL[][,đ%oŸ,μ,Ä,,¾,¾,ç[]B

ŠÖ~A[]€-Ú

fGf“fgfŠ,ì‘Ç%oÁ[]A•Ò[]W[]A•;[]»,đ[]s,ğ

ISDN ,ìŠT—v

**PPTP ,İŞT—v**

'É□□ARAS fT□[fo□[. ,İ□APSTN□AISDN□A,Ü,½,Í X.25 flfbfgf□□[fN,É□Ú'±,³,ê,Ä,ç,Ü,·□BfŞf,□[fg fT□[fU□[. ,İ□A,±,ê,ç,İflfbfgf□□[fN,ð%oî,µ,ÄfT□[fo□[. ,ÉfAfNfZfX,Ä,«,Ü,·□B,³,ç,É□ARAS ,Ä,İ□AV,µ,çfefNfmf□fW,Ä, ,é PPTP (Point-to-Point Tunneling Protocol□F flfCf"fg fc□[ flfCf"fg fgflfŞf"fo fvf□fgfRfç) ,ðŽg,κ,±,Æ,É,æ,è□AfCf" f^□[flfbfg,ð%oî,µ,ÄfT□[fo□[. ,ÉfAfNfZfX,·,é,±,Æ,à,Ä,«,Ü,·□B

PPTP ,İ□Af}fçf` fvf□fgfRfç,İ VPN (Virtual Private Network□F %o¼'zvf%ofCfx□[fg flfbfgf□□[fN) ,ðfTf] □[fg,·,é□V,µ,çflfbfgf□□[fN fvf□fgfRfç,Ä,·□BfŞf,□[fg fT□[fU□[. ,İ□AISP (Internet Service Provider□F fCf" f^□[flfbfg fT□[fRfX fvf□ofCf\_) ,Éf\_fCf,,fçCf" ,·,é,©□A,Ü,½,İfCf" f^□[flfbfg,É'¼□Ú□Ú'±,·,é,± ,Æ,É,æ,è□AfCf" f^□[flfbfg,ð%oî,µ,ÄŠéçÆ"àflfbfgf□□[fN,É^A'S,ÉfAfNfZfX,Ä,«,Ü,·□BPPTP ,É,İ□AZÿ,ì,æ,κ,È —~"\_,a, ,è,Ü,·□B

"`'—,É—v,·,é"i—p,ì□íCE. PPTP ,Ä,İ□A'·ç—É'É~b,Ü,½,İftfŞ□[f\_fCf,,fç fT□[fRfX,ì'ä,í,è,É□A□Ú'±□æ,Æ,µ,ÄfCf" f^□[flfbfg,ðŽg,ç,Ü,·□B,» ,ì,½,ß□A" `—,É—v,·,é"i— p,ð'ä•□,É□íCE ,Ä,«,Ü,·□B

fñ□[fhfEjfFA,É—v,·,é"i—p,ì□íCE. PPTP ,Ä,İ□Af,fff€ ,Æ ISDN fj□[fh,ð RAS fT□[fo□[. ,ç,çª—É ,µ□Af,fff€ fvf□[fç,Ü,½,Í'É□MfT□[fo□[. ,É□Ý'u,Ä,«,Ü,·□B,» ,ì,½,ß□AŞç—□ŽÖ,ª□w"ü,µ□AŞç— □,·,éfn□[fhfEjfFA,ª□,É,,É,è,Ü,·□B

Şç—□□ä,ì•%o'S,ìCEyCE. PPTP ,ðŽg,κ,Æ□AŞç—□ŽÖ,İ□AfŞf,□[fg fAfNfZfX flfbfgf□□[fN,ð RAS fT□[fo□[. ,Ä□W'+ "I,ÉŞç—□,µ□A•ÚCEì,Ä,«,Ü,·□BŞç—□ŽÖ,İ□Aft□[fU□[ fAf]fEj"fg,¾, ,ðŞç—□,·,é,ì,æ,- □A•; ŽG,Éfn□[fhfEjfFA□□→,ðfTf]□[fg,·,é•K—v,Í, ,è,Ü,¹,ñ□B

fZfLf...fŞfefB,ìCEü□ä □äçL,ì—~"\_,É%oÁ,İ,ÄfCf" f^□[flfbfg,ð%oî,µ,½ PPTP □Ú'±,Ä,İ□A^Ä□t %o» ,É,æ,Ä,ÄfZfLf...fŞfefB,ª•ÚCEì,³,è,Ü,·□B,Ü,½□APPTP ,İ□A, ,ç,ä,éfvf□fgfRfç (TCP/IP□AIPX□ANetBEUI ,É,ç) ,Ä" ©□i,µ,Ü,·□B

ŞÖ~A□€—Ü

PPTP ,İ"K—p

**PPTP ,ì“K—p**

PPTP ,íAIP flfbfgf[]fN,ð%ôî,µ,Ä PPP fpfPfbfg,ðf<[]fefBf“fO,·,é•û-@,ð'ñ<ÿ,µ,Ü,·BPPTP ,Ä,íA}f`fvf[]fgfRf<,lfjfvfZf<%»É,æ,Á,ÄA, ,ç,ä,éŽí—b,lfpfPfbfg,ðflfbfgf[]fN,ð%ôî,µ,Ä'— []M,Ä,«,Ü,·B,½,Æ,í,íAfcf“f^[]flfbfg,ð%ôî,µ,Ä IPX fpfPfbfg,ð'—[]M,Ä,«,Ü,·B

PPTP ,Ä,íAŠù'¶,ìŠé<Æ“àflfbfgf[]fN,ð PSTN[]AISDN[]A,Ü,½,í X.25 flfbfgf[]fN,Æ,µ,Ä^µ,ç,Ü,·B,±,ì,æ,µ ,È%¼'z WAN ,íAfcf“f^[]flfbfg,È,Ç,ìEö<α,ìÊ[]MŽ-<ÆŽÒ,É,æ,Á,ÄTfj[]fg,³,è,Ü,·B

,Ü,©,ì WAN fv[]fgfRf<,Æ PPTP ,ð”äŠr,µ,Ä,ÿ,Ü,µ,ä,µBPSTN[]AISDN[]A,Ü,½,í X.25 ,ðŽg,µê±[]AfŠf,[]fg fAfNfZfX fNf%ofCfAf“fg,íACEðŠ-Ô,ð%ôî,µ,Ä RAS fT[]fo[][,Æ PPP []Ú'±,ðŠm—š,µ,Ü,·B[]Ú'±,ªŠm— š,³,è,é,Æ[]APPP fpfPfbfg,íACEðŠ-Ô,ð%ôî,µ,Ä RAS fT[]fo[][,É'—[]M,³,è[]A'—[]M[]æ,ì LAN ,Éf<[]fefBf“fO,³,è,Ü,·B

,±,è,É'í,µ,ÄACEðŠ-Ô,ì'ä,í,è,É PPTP ,ðŽg,ç[]AWAN ,ð%ôî,µ,ÄfpfPfbfg,ð'—[]M,·,éê±,íATCP/IP ,È,Ç,lfgf %of“fXf[]fg fv[]fgfRf<,ðŽg,ç[]A%¼'z WAN ,ð%ôî,µ,Ä PPP fpfPfbfg,ð RAS fT[]fo[][,É'—[]M,µ,Ü,·B

ft[]fU[][,ÆŠé<Æ,íA'·<—£,lf\_fCf,,f<fAfbfv[]Ú'±,ì'ä,í,è,Éfcf“f^[]flfbfg,ðŽg,µ,±,Æ,É,æ,è[]A“`—,É— v,·,é”i—p,ðß-ñ,Ä,«,Ü,·B

Žÿ,É[]APPTP ,ìŽg,ç•û,É,Ä,ç,Äà-¾,µ,Ü,·BPPTP ,ðŽg,µ,É,íAŠO•” ,lf\_fCf,,f<fAfbfv flfbfgf[]fN,ð—~— p,·,é•û-@[]Afcf“f^[]flfbfg,ð%ôî,µ,ÄfNf%ofCfAf“fg,É'¼[]Ú'±,·,é•û-@[]A,“,æ,Ñ ISP ,ð%ôî,µ,ÄfNf %ofCfAf“fg,É[]Ú'±,·,é•û-@,ª, ,è,Ü,·B

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ŠO•” ,lf\_fCf,,f<fAfbfv flfbfgf[]fN,Æ PPTP

fCf“f^[]flfbfg,ð%ôî,µ,½Šé<Æ“àflfbfgf[]fN,Ö,ì^À'S,ÈfAfNfZfX (%¼'zfvf%ofCfx[]fg flfbfgf[]fN)

**ŠO” ,lf\_fCf,,f-fAfbfv flfbfgf[]fN,Æ PPTP**

f\_fCf,,f-fAfbfv,É•K—v,É'ÉM—pfn[]fhfEfFfA,íA•žG,ÅA“KØ,É“[]ž,è,Ä,ç,È,çê[]ž,è,è,Ü,·B,Ü,½A' åK-Í,ÉŠéÆ,Å Windows NT RAS fT[]fo[][,žg,æ,É,íAf,fff[]AfVšfAf·fRf“fgf[]f %A,“,æ,Ń'½”,)lfP[]fuf<,æ•K—v,Å,·B,ž,ç,ÉAV.34 ,Æ ISDN ,lf\_fCf,,f-fAfbfv%ňü,ðCE—|“I,É— p,·,é,½,ß,ì“^è“I,É•ú-@,đ'ň<Ÿ,·,é,fšf...[]fVfž“,í'½,, ,è,Ü,¹,ňB

'½,,)ŠéÆ,Å,íAfobfNf{[]f“ flfbfgf[]fN,Ö,lf\_fCf,,f-fAfbfv fAfNfZfX,đŠO”<ÆžÖ,É'íđ,·,éCEXü,è,è,è,Ü,·B,»,)è[]žA“i—pCE—|,æ,[]A-â'è,É'í^ ,·,é•K—v,è,è,ç,æ ,,)É[]AfVf[]fgfRf<,É[]SCEÀ,è,È,[]A^À'S[]«,đŠm•Ü,Å,« ,é,Æ,ç,æ“\_[]d—v,Å,·B,Ü,½AŠù'¶,lffbfgf[]fN fAfhfCEfX,ížw'è•ú-@,đ•íX,·,é•K—v,è,è,ç,Æ,ç,æ“\_[]d—v,Å,·BfT[]fRfX fVf[]fofCf\_,íA,±,ì,æ,æ ,ÉŠéÆ,lfj[]fY,ð[]APPTP ,É,æ,é%¼'z WAN ,Å-ž,½,·,±,Æ,è,Å,« ,Ü,·B

PPTP ,Å,íARAS fT[]fo[][,©,çf,fff[]fv[]f<,đ•è—f,·,é,±,Æ,É,æ,èAŠO” ,lf\_fCf,,f-fAfbfv fT[]fRfX,đ—~ p,µ,½,èAŠéÆ“à,lfn[]fhfEfFfA,©,ç•—[]“I,É—f,è,½[]è[]Š,É RAS fT[]fo[][,đŸ' u,µ,½,è,·,é,± ,Æ,è,Å,« ,Ü,·B,½,Æ,è,í,íAf,fff[]Æ“d~b%ňü,đ“d~b%ĩžĐ,èŠÇ—[],·,é,æ,æ,É,µ,Å[]ARAS fT[]fo[][,Å,lf+[]fU[][ fAfjEf“fg,đW'+“I,ÉŠÇ—[],µ,Ü,·BfGf“fh ft[]fU[][,íA[]Åšň,è,ì“d~b %ĩžĐ,ðCEÀ,Ń[]o,µ[]AWAN fšf“fN,đ%î,µ,Å Windows NT RAS fT[]fo[][,É[]Ú'± ,µ[]AŠéÆ“àflfbfgf[]fN,ÉfAfNfZfX,µ,Ü,·B

,±,ì•ú-@,É,æ,é,fšf...[]fVfž“,Å,íAŠù,ÉžA[]Ń,ì ,é PPP ,)“FØA^Å[]+%»[]A,“,æ,Ń^žk,lfefNfmf[]fW,đŠ^ —p,µ,Ü,·B

žŸ,Éž!,·[]},í[]APPTP ,)žg—p—á,đž!,µ,Å,ç,Ü,·B,±,ìè[]ž[]ARAS fnf%ofCfAf“fg,É,í PPTP fVf[]fgfRf<,í•K— v, ,è,Ü,¹,ňBfNf%ofCfAf“fg,íAf,fff[]fv[]f<,Ü,½,í'É[]MfT[]fo[][,É PPP []Ú'± ,·,é,¾, ,Å[]í,Ÿ,Ü,·B'É[]MfT[]fo[][,Ü,½,lf,fff[]fv[]f<,Å,íARAS fT[]fo[][,Æ'ÉM,·,é,½,ß,É PPTP ,đžA'•,µ,È, ,è,í,È,ç,È,ç,±,Æ,É'[]Ó,µ,Å,,¾,¾,ç[]B



ŠÖ~A[]€-Ú

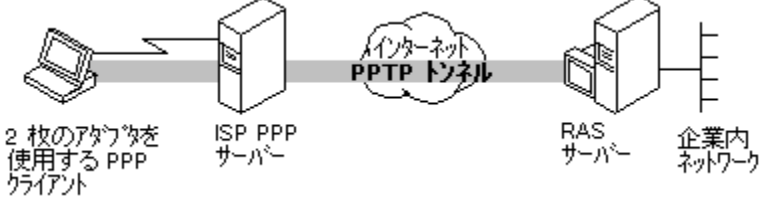
fCf“f^[]flfbfg,đ%î,µ,½ŠéÆ“àflfbfgf[]fN,Ö,ì^À'S,ÉfAfNfZfX (%¼'zfvf%ofCfx[]fg flfbfgf[]fN)

**fcf“f^[]flfbfg,δ%oi,μ,½Šé<Æ“àflfbfgf[]fN,Ö,ì^À’S,ÈfAfNfZfX (%o¼‘zfvf%ofCfx[]fg flfbfgf[]fN)**

WAN fhf%ofCfo,Æ,μ,Ä PPTP ,àŸ’è,³,è,Ä,ç,é RAS fNf%ofCfAf“fg,í[]Afcf“f^[]flfbfg,δ%oi,μ,Ä Windows NT RAS fT[]fo[][,ÉÜ’±,·,é,±,Æ,É,æ,è[]AfŠf,[]fg,ì LAN []ã,ìŽ’CE¹,ÉfAfNfZfX,Å,«,Ü,·[]B,±,ì[]è[]#[]AZÿ,ì— á,ÅŽ!,·,æ,x,É[]Afcf“f^[]flfbfg,É’¼[]Ü[]Ü’±,·,é•û-@,Æ[]AISP ,Éf\_fCf,,f<,·,é•û-@,ì 2 ,Å,ì•û-@,², ,è,Ü,·[]B []Å[]%o,ì•û-@,Å,í[]Afcf“f^[]flfbfg,É’¼[]Ü[]Ü’±,μ,Ä,ç,éNf%ofCfAf“fg,² RAS fT[]fo[][,ì”Ô[]t,ðf\_fCf,,f<,μ,Ü,·[]BfNf%ofCfAf“fg’x,ì PPTP ,í[]Afcf“f^[]flfbfg,ð’È,è”², ,éfgf“flf<,ð[]ì,è[]APPTP ,²—LCEø,ÉŸ’è,³,è,Ä,ç,é RAS fT[]fo[][,ÉÜ’±,μ,Ü,·[]BfT[]fo[][,É”F[]Ø,³,è,é,Æ[]AfNf %ofCfAf“fg,íŠé<Æ“àflfbfgf[]fN,ÉfAfNfZfX,Å,«,Ü,·[]BŽÿ,ì[]},í[]A,±,ì—lŽq,ðŽ!,μ,Ä,ç,Ü,·[]B ’[] fcf“f^[]flfbfg,Ö,ì’¼[]Ü[]Ü’±,Æ,í[]AISP ,δ%oi,³, ,É[]A’¼[]Ü IP fCEfxf<,ÅfAfNfZfX,·,é,±,Æ,ð^Ó- ;,μ,Ü,·[]B(,½,Æ,ì,í[]A^è•”,ìfzfef<,Å,í[]Afc[]fTflfbfg fP[]fuf<,ðŽg,Á,Äfcf“f^[]flfbfg,É’¼[]ÜfAfNfZfX,Å,«,Ü,·[]B)



2 “Ô-Ü,ì•û-@,Å,í[]A“”,¶<@”\,ðŽÀCE»,·,é,½,ß,É[]Afcf“f^[]flfbfg,É’¼[]Ü[]Ü’±,·,é’ã,ì,è,É ISP ,ðCEÄ,Ñ[]o,μ,Ü,·[]BfNf%ofCfAf“fg,í[]A[]Å[]%o,É ISP ,ðCEÄ,Ñ[]o,μ,Ü,·[]BISP ,Æ,ì[]Ü’±,²Šm— š,³,è,é,Æ[]AZÿ,ÉfNf%ofCfAf“fg,í RAS fT[]fo[][,ðCEÄ,Ñ[]o,μ[]APPTP fgf“flf<,ðŠm—š,μ,Ü,·[]B



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ŠÖ•”,ìf\_fCf,,f<fAfbfv flfbfgf[]fN,Æ PPTP

**fZfLf...fŠfefB,ÉŠÖ,.,é'□^Ó“\_**

PPTP fgf“fjf<,đ%oi,μ,Ä'—□M,<sup>3</sup>,ê,éff□[f^,Í□APPP fpfPfbfg,ÉfjfvfZf<%o»,<sup>3</sup>,ê,Ü,·□BRAS ,Á,Í□A^Ä□+%o»,đfTf|  
□[fg,μ,Ä,ç,é,½,ß□Afff□[f^,Í^Ä□+%o»,<sup>3</sup>,ê,Ü,·□BRAS ,Í□ARSA RC4 ,” ,æ,Ñ 40 frfbfg fZfbfVf#f“  
fL□[,É,æ,éfof<fN ff□[f^Ä□+%o»,đfTf|□[fg,μ,Ä,ç,Ü,·□BPPP □Ú'±,ìŽž“\_ ,Á□ARAS fNf%ofCfAf“fg,Æ Windows  
NT RAS fT□[fo□[,ìŠÖ,Á^Ä□+%o»•úŽ®,ìfjSfVfG□[fVf#f“,°□s,í,é,Ü,·□B

PPTP ,Á,Í□AfpfXf□□[fh“F□Øfvf□fgfRf<,Æ“ü—í—v<□nf“fhfVfFfCfN“F□Øfvf□fgfRf<,ì^Ä□+%o»fAf<fSfŠfYf€  
,đŽg,ç,Ü,·□B

PPTP fx□[fX,ìfšf...□[fVf#f“,Á,Í□A^Ä□+%o»,<sup>3</sup>,ê,½ PPP fŠf“fN,đfCf“f^□[fifbfg□ã,ÉŠm—š,Á,«,é,¾,¯,Á,È,-  
□AfCf“f^□[fifbfg,đfifbfgf□□[fN fojbfNf{□[f“,Æ,μ,Ä□AIPX ,Æ NetBEUI ,ìfšf,□[fg fAfNfZfX fgf  
%oftfBfbfN,đ“]—,·,é,±,Æ,à,Á,«,Ü,·□BPPTP ,Á,Í□APPP fpfPfbfg,đfjfvfZf<%o»,μ□A^Ä□+%o»,·,é,±  
,Æ,É,æ,è□ATCP/IP ,Á'—□M,Á,«,é,æ,α,É,·,é,ì,Á□AIPX fgf%oftfBfbfN,đ“]—,·,é,±  
,Æ,à,Á,«,Ü,·□B,μ,½,¾,Á,Ä□APPTP ,É,æ,éfvšf...□[fVf#f“,Á,Í□ALAN fvf□fgfRf<,đ TCP/IP ,ÉCEÀ'è,·,é•K—  
v,í, ,è,Ü,<sup>1</sup>,ñ□B

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PPTP ,đfCf“fXfg□[f<,·,é

fCf“f^□[fifbfg,É,æ,é•s□<sup>3</sup>,ÉfAfNfZfX,©,ç RAS fT□[fo□[,đ•ÚCEì,·,é

**PPTP ,đfCf“fXfg□[f< ,. ,é**

PPTP fgf“fjf<,đŠm—š, .,é,É,í□ARAS fT□[fo□[ (, ,æ,ŃfNf%ofCfAf“fg,Ü,½,Í'Ê□MfT□[fo□[ ) ,É PPTP fhf %ofCfo,đfCf“fXfg□[f<,μ,È, ,é,Í,È,è,Ü,¹,ň□B

**PPTP fhf%ofCfo,đfCf“fXfg□[f< ,. ,é,É,Í**

1 fRf“fgf□□[f< fpfjf<,ì [flfbfgf□□[fN] fAfCfRf“ ,đf\_fuf<fNfŠfbfN,μ□AZÏ,É [fvf□fgfRf<] f^fu,đfNfŠfbfN,μ,Ü,·□B

2 [ 'Ç%oÁ ] ,đfNfŠfbfN,μ□A[Point To Point Tunneling fvf□fgfRf< fAf\_fvf^ ] ,đ'Í,đ,μ,Ü,·□B

”z•zftf@fCf<,ìjpfX,đ“ü—Í, .,é,æ,α,É<□,β,éf□fbfZ□[fW,ª•\Ž!,ª,è,½,ç□AfpfX,đ“ü—Í,μ□A[ '±□s ] ,đfNfŠfbfN,μ,Ü,·□B

3 PPTP ,Å—~—p,Å,« ,é,æ,α,É, .,é□Ú'± (%o¼'zfvf%ofCfx□[fg flfbfgf□□[fN] ) ,ì□” ,đ“ü—Í,μ,Ü,·□B

RAS ,ìfZfbfgfAfbfv,ªŠjŽn,ª,è□APPTP fvf□fgfRf<,ª RAS ,É'Ç%oÁ,ª,è,Ü,·□BPPTP fvf□fgfRf<,đfCf“fXfg□[f<, .,é□[fg,đ'Í,đ,μ□A[OK] ,đfNfŠfbfN,μ,Ü,·□B

4 PPTP ,ì□□¬,đ—LCEø,É, .,é,É,í□AfRf“fsf...□[f^ ,đ□Ä<N“ © ,μ,È, ,é,Í,È,è,Ü,¹,ň□B

ŠÖ~A□€—Ú

fZfLf...fŠfefB,ÉŠÖ, .,é'□^Ó”

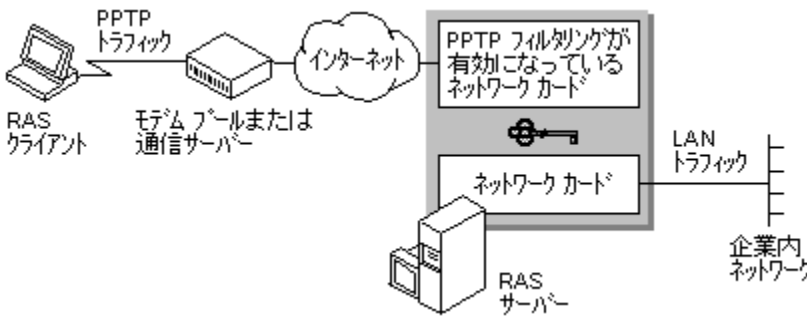
fCf“f^□[flfbfg,É,æ,é•s³,ÈfAfNfZfX,©,ç RAS fT□[fo□[ ,đ•ÛCE), .,é

**fcf" f^ [flfbfg, É, æ, é • s [3, ÈfAfNfZfX, ©, ç RAS fT [fo [L, ð • ÜCEì, ., é**

PPTP ftfbf<f^fšf"fo, ðžg, x, AE [A' 'ð, µ, ½flfbfg [ [fN fAf\_fvf^, ð, Ü, ©, ì, ., x, Ä, lfvf [fgfRf<, Å— —p, Å, <, È, ç, æ, x, É [Y' è, µ [APPTP fpfPfbfg, µ, © 'É%oß, Å, <, È, ç, æ, x, É, ., é, ±, AE, a, Å, <, Ü, . [B

PPTP ftfbf<f^fšf"fo, a-ð—§, Ä, ì, [Af}f<f`fz [f€ fRf"fsf... [f^, ì [è [±, Å, . [B, ½, AE, ì, [A1, Ä, lfvf [fgf [fN fAf\_fvf^ (PPTP ftfbf<f^fšf"fo, a—LCEø, É, È, Ä, Ä, ç, é) , ðfCf" f^ [flfbfg, É [Ü' ±, µ [A • È, lfvf [fgf [fN fAf\_fvf^, ðšé <AE" àflfbfg [ [fN, É [Ü' ±, µ, Ü, . [Bšé <AE" àflfbfg [ [fN, ìŠO' x, lfvf%o fCfAf"fg, ì [APPTP, É, æ, è [AfCf" f^ [flfbfg, ð%oì, µ, Äf}f<f`fz [f€ fRf"fsf... [f^, É [Ü' ±, µ [Ašé <AE" àflfbfg [ [fN, É^A'S, ÈfAfNfZfX, Å, <, Ü, . [B, ±, ì [è [± [Ašé <AE" àflfbfg [ [fN, ÈfAfNfZfX, Å, <, éfgf %o fBfbfN, ì [ARAS "F [ø, É, æ, Ä, Ä" F [ø, ³, è, ½Nf%o fCfAf"fg, ©, ç — [M, ³, è, é PPTP fpfPfbfg, ¾, 7, Å, . [B

' [ RAS fNf%o fCfAf"fg, ì [AfCf" f^ [flfbfg, É'¼ [Ü [Ü' ±, µ, Ä, à [AfT [lrfX fvf [ofCf\_, É [Ü' ±, µ, Ä, à, ©, Ü, ç, Ü, 1, ñ [BPPTP, ðžg, x, ½, B, É [A—¼ • ù, É [Ü' ±, ., é • K—v, ì, , è, Ü, 1, ñ [B



**PPTP ftfbf<f^fšf"fo, ð—LCEø, É, ., é, É, ì**

- 1 fRf"fgf [ [f< fpf [f<, ì [flfbfg [ [fN fAfCfRf" , ðf\_fuf<fNfšfbfN, µ [AZÿ, É [fvf [fgfRf<] f^fu, ðfNfšfbfN, µ, Ü, . [B
- 2 [TCP/IP fvf [fgfRf<] , ð' 'ð, µ [A [fvf [pfefB] , ðfNfšfbfN, µ, Ü, . [B
- 3 [IP fAfhfCEfX] f^fu, ì [ [Ü [x] , ðfNfšfbfN, µ, Ü, . [B
- 4 [fAf\_fvf^] f {fbfNfX, Å [APPTP ftfbf<f^fšf"fo, ð—LCEø, É, ., éflfbfg [ [fN fAf\_fvf^, ð' 'ð, µ, Ü, . [BPPTP ftfbf<f^fšf"fo, ì [Y' è, a"K—p, ³, è, é, ì, [A' 'ð, µ, ½flfbfg [ [fN fAf\_fvf^, ¾, 7, Å, . [B
- 5 PPTP ftfbf<f^fšf"fo, ð—LCEø, É, ., é, É, ì [A [PPTP ftfbf<f^fšf"fo, ð [s, x] f`fffbfN f {fbfNfX, ðflf" , É, µ, Ü, . [B fRf"fsf... [f^, ð [Ä <N" © , ., é, AE [A [Y' è, a—LCEø, É, È, è, Ü, . [B

TCP/IP, ì [ [Ü [x, É, Ä, ç, Ä, ì [ATCP/IP, ìflf" f%o fCf" fvf<fv, ì [uTCP/IP, ì [Ü [xflfvfVf#f" , ð [ [Ü, ., é, É, ì [v, ðžQ [AE, µ, Ä, , ¾, ³, ç [B

ŠÖ~A [€—Ü

PPTP . ðfCf" fXfg [ [f<, ., é  
fZfLf...fšfefB, ÉŠÖ, ., é' [^Ó"



