

Title: ommet o D-10747 (*DRP*)

Source:

over the following ommet o D-10747 (*DRP*). They refer to the following: = more than, E = more than, m = more than, e = more than.

1. *re g Te ()*

The method or re g te e re lue 8.17.1 o t e t w t h t h e u e o t h e U T - E X T _ D S t t r u t e : e t h e m e t h o o 8.17.1 o e o t e p e u p o t h e U T - E X T _ D S t t r u t e , t e e t l y r e e r t h t t t r u t e u e l e .

Furthermore, the ee to re te re two e p r t e t e :

- o r g t o l u e 8.1.1 (t e r l U p t e) , S m u t m e e l e t o m o g r o u t e r e e v e r e t l y r o m S l o t e o t h e r r o u t e g o m , o t h t t t h e v e r t e t h e h o e r o u t e t o l l o t h e r S l o t e t o w r o u t e g o m
- o r g t o l u e 8.17 (D e o P r o e) , S m u t m e e l e t o r o m m o g l l r o u t e t - R - , r e g r l e o t h e l o t o o t h e S r o m w h h t h e y r e l e r e .

The text o 8.17.1 houl e exp e to re o t h o t h e e t u t o e p r t e l y , o e r t h e t e x t o t e p p e x , " S u g g e t e R e p l e m e t T e x t o r l u e 8.17.1 " o p g e : t o m p r e h e t h e u e o U T - E X T _ D S t t l o e x p l t l y r e e t h e t w o t u t o w h h t e e e t o e r o e .

2. *put to the Degree o Pre ere e u t o (m)*

E r l y u o S o t h e E r o u t e g p r o t o l o t e t h t t h e e l t y o g v e r o u t e h o u l o t e p e o p r o p e r t e o o t h e r r o u t e , u t o l y o t o w p r o p e r t e . T h p r e m e l r e y o m m o t e ' D R P ' l u e 8.17, w h e r e t t t e t h t " T h e e l e t o p r o e o r m l z e y e g u t o t h t t e t h e t t r u t e o g v e p t h r g u m e t r e t u r o - e g t v e t e g e r e o t g t h e e g r e e o p r e e r e e o r t h e p t h " .

t u g g e t e t h t t h t o u l e m e l e r e r y g t h e o l l o w g t t e m e t t o t e r t h e e o e t e e o t h e e o p r g r p h : " T h e e g r e e o p r e e r e e u t o o r g v e p t h h l l o t u e t p u t y o t h e o l l o w g : t h e e x t e e o o t h e r r o u t e , t h e o - e x t e e o o t h e r r o u t e , o r t h e p t h t t r u t e o o t h e r r o u t e " .

T h e , t h e e x t e t e e h o u l e h g e o l l o w : " P t h e l e t o t h e o t o v u l p p l t o o t h e e g r e e o p r e e r e e u t o t o e h e l e p t h , o l l o w e y t h e h o e o t h e o e w t h t h e h g h e t e g r e e o p r e e r e e . "

3. *put to the Degree o Pre ere e u t o (m)*

E r l y u o S o t h e E r o u t e g p r o t o l o t e t h t t h e e l t y o g v e r o u t e h o u l o t e p e o p r o p e r t e o o t h e r r o u t e , u t o l y o t o w p r o p e r t e . T h p r e m e l r e y o m m o t e ' D R P ' l u e 8.17, w h e r e t t t e t h t " T h e e l e t o p r o e o r m l z e y e g u t o t h t t e t h e t t r u t e o g v e p t h r g u m e t r e t u r o - e g t v e t e g e r e o t g t h e e g r e e o p r e e r e e o r t h e p t h " .

t ugge te th t th t oul e m e le r e y g the ollow g t t e m e t t o t e r the e o e t e e o the e o p r g r p h: "The e g r e e o p r e e r e e u t o o r g v e p t h h l l o t u e t p u t y o the ollow g: the e x t e e o o t h e r r o u t e , the o - e x t e e o o t h e r r o u t e , or the p t h t t r u t e o o t h e r r o u t e ".

The , the e x t e t e e h o u l e h g e ollow: "P t h e l e t o the o t o v u l p p l t o o the e g r e e o p r e e r e e u t o t o e h e l e p t h, ollow e y the h o e o the o e w t h the h g h e t e g r e e o p r e e r e e."

4. **St I ty o Route (m)**

The metho outl e l u e 8.11 l m t e to the e t e t o o t u t o w h h S r e e v e r o u t e r o m e t S, t h r o u t o t o e o the R D o t e w t h the l o l S the R D _ P T H o the U P D T E P D U. S u h o t o r e w h e the v e r t g S o p e r t g w t h o u t t e r o u t e g o r m t o , u t the t u t o w l l r e t y t e l o o the u r r e t r o u t e g o r m t o r e e v e. W e o t e t h t p e r m e t o l l t o o t p e r t u l e t w o o t o o u r:

- The r e e v g S e e t o v e r t e e w r o u t e
- The o t h e r S e e t o h g e t e l e t e r o u t e e o r e the e w U P D T E P D U r r v e

u t the e o t o o t p e r t e t e l y u l e t h e r e p e r e t y h r o m e t w e e the U P D T E P D U e x h g e y the t w o S --t h t , the U P D T E P D U l w y r o t r t.

H o w e v e r, the D - t e x t o r D R P o w p e e the t o o " t t e r" to the t m e r u e t o o t r o l the p r o p g t o o U P D T E P D U S, t h u m g p e r e t y h r o z t o e x t r e m e l y u l e l y t u t o. T h u , l t h o u g h o t h r m u l, the metho o l u e 8.11 e e m t o e l r g e l y u p e r l u o u.

H e e, e e o e e t r e t g l u e 8.11, r e o m m e t h t t e e l e t e t e t r e t y r o m D R P. y p r o u t o t e l e t o, e x o l o g e r p e r t e t, h o u l t h e r e o r e e e l e t e w e l l.

5. **Exter I Up te (m)**

o t e t h t l u e 8.1.2 (Exter I Up te) the p r o e u r e o l u e 8.1.1 (t e r I Up te) m u t e o e e o r e p r o p g t g U P D T E P D U o u t o g v e r o u t e g o m. H o w e v e r, w e e e o r e o o r the u r t h e r r e t r t o m p o e 8.1.2 t h t t e r l v e r t e m e t m u t e o w l - e g e e o r e the e x t e r l v e r t e m e t t e p l e. The e o p r g r p h o 8.1.2 y t h t t h e e e "t o u r e t h t o t e t o r m t o w l l e p r o p g t e e x t e r l l y". H o w e v e r, o r g t o 8.15.2, the p r o t o l p e e o o r r e t v e t o t o e t e e v e o t e y e t e t e: t m e r e l y r e p o r t e t o y t e m m g e m e t. o t h e r w o r , r e e p t o o w l e g e - m e t (o r l t h e r e o) o e o t g u r t e e o t e y. T h u , the r e q u r e m e t t o w t o r o w l - e g e m e t u p e r l u o u, r e o m m e t h t the e o p r g r p h o l u e 8.1.2 h o u l e e l e t e t e t r e t y.

. **De t t o w t h the RD (m)**

g v e S r u g t D e o P r o e o r e r t o e l e t r o u t e t e t t o t h t r e l o t e w t h t o w r o u t e g o m, t h e r e l e r l y o e e t e l e t g p t h t h l e v e t r o u t e g o m the l t e r o m e t o t:

- The D R P S o r w r g P r o e w l l o t p e r m t P D U t o ollow u h p t h y w y-- e the e t t o w t h the R D, D R P w l l h the P D U o v e r t o the t r - o m p r o t o l o r o r w r g.

- u h pth vert e exte r lly, S othe r RD woul ete t SPDU loop g error e the RD o the vert g S' om woul ppe r t w e, there ore the vert e route w ll e re error w ll e ote (RD_Route g_ oop).

lthough e et lly u ele , u h ho e woul ot ue the DRP proto ol to re . However, eel tht there houl e re tr to DRP th t pre lue S rom ele t g route to et to w th t ow RD th t route h pth egme t th t le out e the lo l RD. We ugge t th t toul e pl e 8.17 (De o Pro e), ollow :

- the t l ze wor to the r t e t e e o the e o p r g r ph:

The ele to pro e or route to et to th t le out e the lo l route g om orm l ze ...

- ert ew th r p r g r ph:

The ele to pro e or route to et to th t le w th the route g om h ll o er o ly lo lly ge e r te route —th t , o route h ll e ele te who e RD_P TH ttr ute ot RD wh h ot o te w th the lo l RD or o e o the o e e r to to wh h t el o g .

7. **x mum PDU S ze (m)**

le rly, whe t r t e OPE PDU to t te o e to to e gh or g S, the lo l S oe ot ow the m x mum PDU ze th t t pro pe t ve p r t e r w ll e pt, oul u ow gly e OPE PDU th t l r g e r th the peer S' m x mum. Th houl ot e o ere error. There ore, ugge t re wor g the or re po g e r p t o lue 7.2 ollow : "...u g e te g e r th t re p e e t the m x mum um e r o o t e t th t th S le to h le y om g SPDU, othe r th OPE PDU."

8. **Retr m o (m)**

lue 8.5.3 e e t ot e g the o to upo wh h retr m o houl e toppe the S- S o e to houl e o r t e . ugge t g the ollow g text:

However, o owle g e m e t re e ve w th the t me p e e the Hol T me el o the et S' OPE PDU, the the lo l S h ll ue Stop Eve t, e E SE PDU, e te r the OSE-W T t te."

9. **RouteSele t o terv l (m)**

lthough the o t t v lue o 30 m ute or the RouteSele t o terv l how T le 4 w ll ot ue the proto ol to l, t w ll re ult low o verge e--o the verge, there w ll e 15 m ute "e t me" e ore ewly ele te route vert e. S e t ot t p t e th t route w ll h ge v e r e q u e t l y, the e e to vert e ewly ele te route w ll o u r re l t v e r e q u e t l y w e ll. However, whe ew route ele te, t e r le to vert e th t to t m e l y . There ore, t re omme e th t th o t t e h ge to l e o .

10. **om g Route (e)**

The l t p r g r ph o lue . omewh t e t h y oe ot e q u e l y p o r t r y the more et le m t e r lo g g e r g to th t p r e e t e lue 8.17.5 t u lue. S e th lue o r m t v e, t e e ot p r e e t y t e h l e t l. te , t ugge t e th t t woul e more help ul to e le t e t t e t r e t y, to the ollow g m t e r l to the e o the prev ou p r g r ph:

or example, t po le u er ert o tr t to ggreg te p th ttr ute , R , or
etre route , e r e more ully lue 8.17.5 t u lue .

11. *er o egot t o (e)*

or l rty, lue 8.7 houl me to th t the h ghe t ver o um er upporte y the lo l S
ot e m ge o et ver o .

12. *H l g o SSSE DSSE (e)*

The m ter l lue 8.12.3, tem " " " pe o o tr t o the SSQOS DSQOS
ttr ute . However, the text oe ot prov e equ v le t o tr t or SS SE UR TY DS
SE UR TY, wh h re tre te ex tly the me wy *DRP*. There ore, re omme th t two
ew tem e e to the l t, u g the text o ex t g " " , w th SE UR TY u t tute or
QOS.

13. *ex : ommo Su etwor (e)*

e o the u o t the erl meet g, tw gree th t *DRP* w ll e P ter-om
route g proto ol, w ll ot ter e retly to OS erv e. S e *DRP* ter e retly oly
to SO 8473, u g t S P, the m ter l ex o lo ger relev t to the oper t o o
DRP. There ore, re omme th t th orm tve ex houl e elete .

However, elev g t worthwh le to e r e how o e m ght ert th t pro S re lo te
o the me u etwor , ugget th t the ollow g ote e e to lue .9.2:

ote: the e e o mplemetto pe metho or ert g th t S l te
m ge o et **EXTER - S-E HORS** lo te o ommo u etwor w th tel ,
g ve S et the l et me el o the SO 8473 PDU wh h e pul te t SPDU
to v lue o 1. S e the l et me el w ll e ereme te (to 0) y the r t etwor etty
th t re e ve the e pul t g PDU, the SPDU w ll ot e el vere to S th t
lo te more th gle u etwor hop wy.

14. *lue 8.17.3 lue 8.17. (e)*

The e lue re log lly out o or er w th re pe t to the rem er o lue 8.17. lue 8.1.3
(P th Sele to) houl e move orw r , o th t to ur mme tely ter urret lue 8.17; or
o te y, the wor "p th ele to " houl e h ge to "route ele to "; lly, lue
8.17. (ter to w th Up te Pro e) houl e move mme tely ter urret 8.17.2, "Up t g
the o -R ". The , the lue w ll e more log l or er o pre etto : De o Pro e ,
Route Sele to , re g Te , Up t g the o -R , ter to w th Up te Pro e .

15. *lue 8.17.4 to 8.17.5. (e)*

og lly, the m ter l pre ete the e lue ot p r to the De o Pro e . t u e
e et wy to org ze route g orm to ter th ee elete . There ore, re omme
th t the e lue e re um ere u er ew 2 level lue , to e ettle "E et Org z to
o Route g orm to ".

1. *o t e t o orm to e (e)*

lthough re er er the o t e t o *DRP*' route g orw r g orm to e rom the
text, th m ter l ot pre ete gle pl e w th the t r . t ugge te th t text
houl e e to ex t g lue .8 (Sele t g the orm to e), th t t houl pre et
the t le how T le 1 o p ge 5, wh h olle t umm r ze orm to out the R

17. **D4 Re ere e (e)**

The re ere e to "D4" gure 7 ppropr te e the term "D4" ot e e or me to e ywhere the DRP text. To orre t th , the ollow g h ge houl e m e:

- h ge "D4 lgor thm" to "DRP he um lgor thm" gure 7
- ert logr ph re ere e to R 118 lue 3 ("orm t ve Re ere e")
- Prov e re ere e ex to the lgor thm e rpt o rpt o R 118.

T le 1. The DRP orm to e. The ex gvr le otet o the R re how .		
orm to e	exe y...	ot ...
-R -	<ul style="list-style-type: none"> • ET o et S • R -tt 	<ul style="list-style-type: none"> • P th ttr ute • R
o -R	<ul style="list-style-type: none"> • R -tt 	<ul style="list-style-type: none"> • P th ttr ute • R
-R -Out	<ul style="list-style-type: none"> • ET o et S • R -tt 	<ul style="list-style-type: none"> • P th ttr ute • R
	<ul style="list-style-type: none"> • R -tt • R 	<ul style="list-style-type: none"> • ET o ext hop S • Output SP o lo l S • put SP o ext hop S
<p>ote :</p> <ol style="list-style-type: none"> 1. lo l opt o , S m y elet to pply orm to re u to te h que to p th ttr ute R orm to . 2. ore h et S, g ve S m t -R - ore h R -tt (lu g the Empty R -tt) th t t upport . 3. S m t epr te o-R ore h R -tt (lu g the Empty R -tt) th t t upport . 4. ore h et S, g ve S m t -R -Out ore h et o R -tt (lu g the Empty R -tt) th t t vert e to th t e gh or. 5. g ve S m t epr te ore h et o R -tt (lu g the Empty R -tt) th t t h vert e to t e gh or S—th t , e h orre po to -R -Out. <p>To l tte the orwr g pro e , S org ze e h o t S to two o eptu l prt : oe ot g orm to or R lo te with t ow RD, other or R lo te other RD (ee lue 9). or exte l R , S urther org ze the orm to e o whether the ext-hop- S lo te with t ow RD or other RD (ee lue 9.4, tem " " " "). lly, or thoe ext-hop S lo te t ow RD, the lo l S org ze the orm to or g to pe orwr g me h m (ee lue 9.4, tem " 1", " 2", " 3").</p>		

ppex . Sugge te Repl eme t Text or lue 8.17.1

8.17.1 re g Te mo g Route w th Equ l Degree o Pre ere e

Whe there re ever l route to the me et to tht ll hve the me egree o pre ere e, S
hll hoo e gle route rom mo g them eterm t ho. Su hte my re two tu-
to :

1. W th the ter l up te pro e , S mut elet gle route rom mo g tho e wh h th
ree ve retly rom S lo te et route g om .
2. W th the De o Pro e , S mut elet gle route rom mo g ll tho e ot e t
-R - , regre o the lo to o the S tht vert e them to the lo l S.

8.17.1.1 re g Te the ter l Up te Pro e

The elet o pro e te ple two ph e. rt, the lo l S prue the et o route w th equ l
egree o pre ere e y ret g, or e h et route g om , o ly o e o the te route
tht th vert e. Se o , the lo l S wll elet gle route rom mo g tho e ho e tep 1.

1. Sele t g S gle Route rom Tho e Ree ve rom ve et RD:

rom the route re e ve rom S lo te e h et RD, the lo l S hll elet gle
route, ollow :

- . the te route hve et l pth ttr ute or er o ly the EXT_HOP ttr ute,
elet the route tht w vert e y the S who e ET h the lowe t v lue whe t o -
ere to e u ge ry teger.
- . the te route er o ly the r EXT_HOP UT-EXT_DS ttr ute , the
lo l S' m ge o et **ultext** TRUE, elet the route tht h the lowe t v lue o the
UT-EXT_DS ttr ute. the m ge o et **ultext** l e, elet the route vert e
y the S who e ET h the lowe t v lue whe t o ere to e u ge ry
teger.
- . the te route er y pth ttr ute other th EXT_HOP UT-EXT_DS ,
elet the route tht w vert e y the S who e ET h the lowe t v lue whe t o -
ere to e u ge ry teger.

2. Sele t g S gle Route or vert eme t:

t the omplet o o th rt tep, the lo l S h orme et tht ot o e route tht w
vert e y e ho t et RD. rom th et, the lo l S hll elet the route tht w
vert e y the S who e ET h the lowe t v lue whe t o ere to e u ge
ry teger.

8.17.1.2 re g Te the De o Pro e

The elet o pro e te ple two ph e. rt, the lo l S prue the et o route w th equ l
egree o pre ere e y elet g gle route rom mo g tho e vert e y e h et route g

om . Se o , the lo l S wll ele t gle route rom mo g tho e ho e tep 1. Th
ele to pro e ept put ll route reg r le o whether they were vert e y S the
lo l route g om or S e t route g om .

1. Sele t g S gle Route vert e y E h e t RD:

The route th t re to e ex m e m y h ve ee vert e y the lo l S e ther re tly y S
lo te e t RD, or they m y h ve ee re- tr ute to t y other S lo te the
lo l S' ow RD. e ther o the e e , the RD o the e t RD (or RD) e
eterm e y ex m g the l t RD l te the RD_P TH ttr ute o the te route .

rom e h et o te route w th the me v lue or the r l t RD , the lo l S h ll ele t
gle route, ollow :

- . the te route h ve e t l p th ttr ute or er o ly the EXT_HOP ttr ute,
ele t the route th t w vert e y the S e t route g om who e ET h
the lowe t v lue whe t o ere to e u ge ry teger. Otherw e, ele t the
route th t w vert e y the S the lo l route g om who e ET h the lowe t
v lue.
- . the te route er o ly o ly the r EXT_HOP UT-EXT_DS ttr ute ,
the lo l S' m ge o e t **ult ex t** TRUE, ele t the route th t h the lowe t v lue o
the UT-EXT_DS ttr ute.

the m ge o e t **ult ex t** l e, ele t the route vert e y the S e t RD
who e ET h the lowe t v lue whe t o ere to e u ge ry teger. Other-
w e, ele t the route th t w vert e y the S the lo l route g om who e ET h
the lowe t v lue.
- . the te route er y p th ttr ute other th EXT_HOP UT-EXT_DS ,
ele t the route th t w vert e y the S who e ET h the lowe t v lue whe t o -
ere to e u ge ry teger.

2. Sele t g S gle Route or vert emet:

t the omplet o o th r t tep, the lo l S h e t l he et th t o t o e route to e h
o t e t RD . rom th et, the lo l S h ll ele t the route th t w vert e y the S
who e ET h the lowe t v lue whe t o ere to e u ge ry teger.