

Title: ommet o D-10747 (DRP)

Source:

o er the ollow g ommet o D-10747 (DRP). They re l e ollow : = m or te h-
l, E = m or e tor l, m=m or te h l, e = m or e tor l.

1. *re g Te ()*

The metho or re g te e re lue 8.17.1 o tetwth the ue o the
UT-EXT_DS ttr ute: e the metho o 8.17.1 oe ot epe upo the UT-EXT_DS
ttr ute, te et lly re er tht ttr ute uele .

urthermore, the ee to re te re two eprte te :

- or g to lue 8.1.1 (ter l Up te), S mut me ele to mog route
reeve retly rom Slo te other route gom , o tht t the vert e the
hoe route to ll other Slo te t ow route gom
- or g to lue 8.17 (De o Pro e), S mut me ele to rom mog ll route
t -R -, reg rle o the lo to o the S rom wh h they re le re .

The text o 8.17.1 houl e exp e to re oth o the e tuto eprte ly, o er
the text o te ppe x , "Sugge te Repl emet Text or lue 8.17.1" o pge : t om-
prehe the ue o UT-EXT_DS t lo expl tly re e the two tuto wh h te
ee to e ro e .

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

Erly u o S o the E route g proto l ote tht the e l ty o g ve route
houl ot epe o properte o other route , ut o ly o t ow properte . Th prem e
lre y ommo te 'DRP' lue 8.17, where t tte tht "The ele to pro e orm lze
ye g u to tht tte the ttr ute o g ve pth rgume t retur o -
eg tve te ger e ot g the egree o pre ere e or the p th".

t ugge te tht th toul e m e le rer y g the ollow g ttemet to ter the
e o e te e o the e o prgrph: "The egree o pre ere e u to or g ve pth h ll
ot ue t put yo the ollow g: the ex te e o other route , the o-ex te e o other
route , or the p th ttr ute o other route".

The , the ext e te e houl e h ge ollow : "P th ele to the o t o v ul
ppl to o the egree o pre ere e u to to e h e le pth, ollowe y the hoe o the
o e w th the h ghet egree o pre ere e."

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

Erly u o S o the E route g proto l ote tht the e l ty o g ve route
houl ot epe o properte o other route , ut o ly o t ow properte . Th prem e
lre y ommo te 'DRP' lue 8.17, where t tte tht "The ele to pro e orm lze
ye g u to tht tte the ttr ute o g ve pth rgume t retur o -
eg tve te ger e ot g the egree o pre ere e or the p th".

- u h pth vert e exte rly, S othe r RD woul ete t SPDU loop g error e the RD o the vert g S' om woul ppe rtw e, there ore the vert e route wll e re error wll 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 tht pre lue S rom ele t g route to et to wth t ow RD tht route h pth egmet tht le out e the lo l RD. We ugget tht toul e pl e 8.17 (De o Pro e), ollow :

- the tl ze wor to the rt e te e o the e o p rgr ph:

The ele to pro e or route to et to tht le out e the lo l route g om orm lze ...

- ert ew th r p rgr ph:

The ele to pro e or route to et to tht le wth the route g om hll o er o ly lo lly ge er te route —tht , o route hll e ele te who e RD_P TH ttr ute ot RD wh h ot o te wth the lo l RD or o e o the o e er to to wh h t elog .

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

le rly, whe t r t e OPE PDU to t te o eto to e gh or g S, the lo l S oe ot ow the m x mum PDU ze tht t pro pe t ve p r t e r wll e pt, oul u ow gly e OPE PDU tht l rger th the peer S' m x mum. Th houl ot e o ere error. There ore, ugget re wor g the orre po g e r p t o l ue 7.2 ollow : "...u g e te ger th t repre t the m x mum um er o o tet tht th S le to h le y om g SPDU, othe th OPE PDU."

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

l ue 8.5.3 e et ot e g the o to upo wh h retr m o houl e toppe the S- S o eto houl e or te . ugget g the ollow g text:

However, o owle gemet re e ve wth the t me pe e the Hol T me el o the et S' OPE PDU, the the lo l S hll ue Stop E ve t, e E SE PDU, e ter 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 wll ot ue the proto ol to l, t wll re ult low o verge e--o the verge, there wll e 15 m ute "e t me" e ore ewly ele te route vert e. S e t ot t p te tht route wll h ge very re que tly, the ee to vert e ewly ele te route wll o ur rel t vely re- que tly well. However, whe ew route ele te, t e r le to vert e tht to t mely . There ore, t re omme e tht th o t t e h ge to 1 e o .

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

The l t p rgr ph o lue . omewh t e t hy oe ot equ tely por t ry the more et le m ter lo g greg to tht pre e te l ue 8.17.5 t u lue. S e th lue orm t ve, t ee ot pre e t y te h l et l. te , t ugge te tht t woul e more help ul to elete t t e t rety, to the ollow g m ter l to the e o the prev ou p rgr ph:

or example, the pole user error to aggregate path trute, R, or
 etroute, are more fully lue 8.17.5 t ulue.

11. *error to (e)*

or lity, lue 8.7 houl meto tht the hghet ver o um er upporte y the lo l S
 ot e m ge o et **ver o**.

12. *H lgo SSSE DSSE (e)*

The mter 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 let 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 wll e P ter-om
 route g proto ol, wll ot ter e re tly to OS erv e. S e DRP ter e re tly o ly
 to SO 8473, u g t S P, the mter 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 mght 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 wll e ereme te (to 0) y the r t etwor et ty
 th t re e ve the e pul t g PDU, the SPDU wll 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 orwr, o th t to ur mme tely ter urret lue 8.17; or
 o te y, the wor "p th elete" houl e h ge to "route elete"; 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 wll e more log l or 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 mter l pre ete the e lue ot prt o 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. *oteto ormto e (e)*

lthough re er er the oteto DRP' route g orwr g orm to e rom the
 text, th mter 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 ollet ummrze orm to out the R

17. *D4 Re ere e (e)*

The re ere e to "D4" gure 7 ppropo 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 r pt o R 118.

T le 1. The <i>DRP</i> orm to e. The ex gvr le otet o the R re how .		
<i>orm to e</i>	<i>exe y...</i>	<i>ot ...</i>
-R -	<ul style="list-style-type: none"> • ETo 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"> • ETo 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"> • ETo ext hop S • Output SP o lo l S • put SP o ext hop S

ote :

1. lo l opt o , S m y ele t 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 h vert e to t e gh or S—th t , e h orre po to -R -Out.

To l tte the orwr g pro e , S org ze e h o t S to two o eptu l pr t : 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 r 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").

Appendix . Suggeste Repl ement Text or I ue 8.17.1

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

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

1. With the ter l up te pro e , S mut elet gle route rom mo g tho e wh h th re e ve re tly rom S lo te e t route g om .
2. With the De o Pro e , S mut elet gle route rom mo g ll tho e ot e t -R - , regle 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 e t route g om , o ly o e o the te route tht th vert e . Se o , the lo l S w ll elet gle route rom mo g tho e ho e tep 1.

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

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

- . the te route hve et lpth 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 **ult ext** TRUE, elet the route tht h the lowe t v lue o the UT-EXT_DS ttr ute. the m ge o et **ult ext** 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 ement:

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 e t RD. rom th et, the lo l S h ll 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 e t route g

om . Se o , the lo l S w ll 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 my 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 te ger. 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 te ger. 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 te ger.

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

t the omplet o o th r t tep, the lo l S h e t l he e t 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 te ger.