

System Software Version 1.7.3 Release Note

(Sep 13, 2010)

Applied Products

N500, N560 Series

Feature improved

□ G.SHDSL F/W upgraded

G.SHDSL F/W has been upgraded with the latest version. The newer G.SHDSL F/W supports Power Measurement Modulation Session (PMMS, also known as “Line Probe” in adaptive mode) in TCPAM-64 also. Therefore, “**probe mode**” (which has been introduced in the earlier version) is no longer required. Instead, “**standard mode**” is extended to TCPAM-64 and is the only mode in the newer version.

Feature added

□ Controlling “finetune” in G.SHDSL training

In the newer version, user can control “finetune” which adjusts the link rate depending on loop performance. Finetune is enabled by default. If finetune is enabled in adaptive mode, G.SHDSL F/W adjusts link rate until SNR is greater than 90% of target noise margin which can be set by “set pme” command. Once it has reached qualified SNR (90% of target noise margin), then it checks the line quality periodically. If it drops under 80% of target noise margin then it lowers link rate and restart training again. If loop quality is greater than 160% of target noise margin, it raises the link rate until the above condition meets. For example, if you set target noise margin as 5 dB, F/W adjusts link rate until the SNR is greater than 4.5 dB (90%). Once qualified, F/W checks the loop quality whether it drops under 4 dB (80%) and if it does, F/W lowers the link rate until it qualifies 4.5 dB (90%). If the loop quality is higher than 8 dB (160%), F/W raises the link rate and checks the quality again.

```
N564FDW> (enable) show config
...
#
# pme
set pme p0 annex b
set pme p0 maxrate 11392
set pme p0 minrate 192
set pme p0 powerbackoff auto
set pme p0 targetmargin 5
set pme p0 worstmargin -10
set pme p0 margintype default
set pme p0 finetune enable
restart pme p0
...
N564FDW> (enable) set pme p0 finetune disable
```

```
N564FDW> (enable) show config
```

```
...  
#  
# pme  
set pme p0 annex b  
set pme p0 maxrate 11392  
set pme p0 minrate 192  
set pme p0 powerbackoff auto  
set pme p0 targetmargin 5  
set pme p0 worstmargin -10  
set pme p0 margintype default  
set pme p0 finetune disable  
restart pme p0  
...
```

If finetune is disabled, F/W doesn't adjust link rate regardless of the link quality. It just holds link rate obtained by the first G.SHDSL training. Finetune finds the best link rate depending on target noise margin and loop quality, but it may take more time to get final link rate.