NOKIA

Nokia M11 and M111

ADSL and ADSL over ISDN Routers

Release Note

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1 About this document

This document describes the features which have been added to the M11 software version 5.4.5 R2 and M111 software version 5.4.0 R2.

2 New features

The following features have been added:

- OAM default VPI/VCI 0/16
- PPP over Ethernet encapsulations on WAN link
- H.323 support for outgoing calls
- PPP over Ethernet only bridging

2.1 OAM default VPI/VCI 0/16

By default, M11 answers ATM pings (OAM loopbacks) when they are sent on the ATM channel VPI/VCI 0/16 without any configuration in M11. If you want to use this feature to test your ATM connection with ATM ping, make sure that the PVC 0/16 has been configured in your DSLAM towards M11.

2.2 PPP over Ethernet encapsulations on WAN link

Two new encapsulations have been added:

- pppoe-vcmux
- pppoe-llc

RFC 2516 defines the PPP over Ethernet. It describes the building of PPP sessions and encapsulating of PPP packets over Ethernet.

This feature affects the *Set payload encapsulation* command.

Command	Set payload encapsulation for specific ATM channel
Description	Defines how the payload is encapsulated to the specified logical ATM channel.
Syntax	set atm vcc [1 | 2 | 3 | 4 | 5 | 6 | 7 | 8] encap [ip-llc | ip-vcmux | ether-llc | ether-vcmux | ppp-vcmux | ppp-llc | pppoe-vcmux | pppoe-llc]
Arguments	The first argument `1|2|3|4|5|6|7|8` specifies the channel and the second argument sets the encapsulation. The `ip-llc` and `ether-llc` encapsulations are according to RFC 1483 with LLC/SNAP encapsulation for IP and Ethernet frames, respectively. The `ip-vcmux` and `ether-vcmux` encapsulation are vc-multiplexed according to RFC 1483 for IP and Ethernet frames, respectively. In `ppp-vcmux` encapsulation both bridged and routed protocols are first encapsulated to point-to-point protocol (PPP) which is, in turn, encapsulated to ATM according to RFC 1483 vc-multiplexing. `ppp-llc` is PPP over ATM, LLC/NLPID encapsulation. `pppoe-vcmux` and `pppoe-llc` are PPP over Ethernet encapsulations.
Example	`M11 (top)>> set atm vcc 1 encap pppoe-vcmux` `M11 (top)>>`

2.3 H.323 support for outgoing calls

H.323 functionality has been added to NAT. H.323 messages will go through NAT to outbound direction. This feature enables, for example, outgoing NetMeeting calls without any additional configuration in your M11.

2.4 PPP over Ethernet only bridging

When bridging and eth-llc encapsulation are enabled, only PPP over Ethernet packets can be allowed to go from the LAN to the WAN. This is done with the following commands in the *Bridge* node:

Command	Switch on PPP over Ethernet filter on Ethernet port
Description	When this filter is on, only PPP over Ehernet packets will be bridged from LAN to WAN.
Syntax	set ethernet filter pppoe-only [on | off]
Arguments	`on` | `off` argument switches filter on and off.
Example	`M11 (bridge)>> set ethernet filter pppoe-only on` `M11 (bridge)>>`

Command	Switch on PPP over Ethernet filter on WAN port
Description	When this filter is on, only PPP over Ehernet packets will be bridged from LAN to WAN through the specified ATM channel.
Syntax	set dsl vcc[1 | 2 | 3 | 4 | 5 | 6 | 7 | 8] filter pppoe-only [on | off]
Arguments	The first argument `1|2|3|4|5|6|7|8` specifies the channel and `on` | `off` argument switches filter on and off.
Example	`M11 (bridge)>> set dsl vcc1 filter pppoe-only on` `M11 (bridge)>>`

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