1 About this document

This document describes the features which have been added to the M10 software version 5.1.3 R2.

2 New features introduced in 5.1.3 R2

The following features have been added to the software version 5.1.3 R2:

- changed admin-disable command
- dedicated management channel
- improved PPP connection handshake procedure.

2.1 Changed admin-disable command

A new Admin Restrictions command has been added. It replaces the commands which were used to control the management of the M10. You can allow management only through the desired ports only. With this command you can, for example, disable management through the Ethernet port. The restrictions can be configured through the following CLI commands:
## Command: Enable/disable the management through Ethernet port

<table>
<thead>
<tr>
<th>Command</th>
<th>Enable/disable the management through Ethernet port</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Enables/disables the management of Nokia M10 through the Ethernet port.</td>
</tr>
<tr>
<td><strong>Syntax</strong></td>
<td>`set ip ethernet restrictions [none</td>
</tr>
<tr>
<td><strong>Arguments</strong></td>
<td>The <code>restrictions</code> argument is used to enable/disable management through the Ethernet port. None means that M10 can be managed through the Ethernet port and <code>admin-disabled</code> disables the possibility to manage M10 through the Ethernet port.</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td><code>m10&gt; set ip ethernet restrictions admin-disabled</code></td>
</tr>
</tbody>
</table>

You can also disable management through the Ethernet port with your Web browser (see Figure 1) by clicking the **Admin-Disabled** radio button.

**Note**

If you disable management through the Ethernet port and reboot M10 you can no longer manage M10 with your local Web browser.
Router Configuration

System Name: M10

Ethernet Port
Local Address: 192.168.1.254
Net Mask: 255.255.255.0
Broadcast Address: 192.168.1.255
Admin Restrictions: C None C Admin-Disabled
Rip-send: C off C vl C v2 C vl-compat
Rip-receive: C off C vl C v2 C vl-compat

Routing Policy (ATM only)
VC-to-VC Routing: C on C off

Default Gateway
Gateway: C on C off
Interface: popp
Default Address

DNS Setup
Domain Name
Primary Name server Address: 0.0.0.0
(Optional) Secondary Name server Address: 0.0.0.0

DHCP Settings

Mode: C off C server C relay-agent
Start Address: 192.168.1.1
End Address: 192.168.1.254
Lease Time: 00:01:00:00
Server Address

Server Port Setup
Web-HTTP Port 80
Telnet Port 23

Network Address Translation (NAT) Setup
Go to NAT Setup

Static Routes
Add Destination Netmask Gateway

Figure 1 Disabling management through the Ethernet port
<table>
<thead>
<tr>
<th>Command</th>
<th>Enable/disable the management through PPP link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Enables/disables the management of Nokia M10 through the specified ATM link using ppp-vcmux encapsulation.</td>
</tr>
<tr>
<td>Syntax</td>
<td>set ip ip-ppp (vccx) restrictions [none</td>
</tr>
<tr>
<td>Arguments</td>
<td>The first argument identifies the ATM channel (vccx, x = 1 \ldots 8). If there is only one ATM channel using ppp-vcmux encapsulation you can leave the argument (vccx) out. The second argument is used to configure restrictions. None means that there are no management restrictions, admin-disabled disables the possibility to manage M10 through this link, admin-only makes this link the dedicated management channel which can only be used for management purposes.</td>
</tr>
<tr>
<td>Example</td>
<td>m10&gt; set ip ip-ppp vcc2 restrictions admin-disabled</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Command</th>
<th>Enable/disable the management through channels using IP over ATM or bridged encapsulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Enables/disables the management of Nokia M10 through the specified ATM link using ip-llc, ip-vcmux, ether-llc, or ether-vcmux encapsulation. This command can also be used to configure a dedicated management channel.</td>
</tr>
<tr>
<td>Syntax</td>
<td>set ip dsl (vccx) restrictions [none</td>
</tr>
<tr>
<td>Arguments</td>
<td>The first argument identifies the ATM channel (vccx, x = 1 \ldots 8). If there is only one ATM channel using one of these encapsulations you can leave the argument (vccx) out. The second argument is used to configure restrictions. None means that there are no restrictions, admin-disabled disables the possibility to manage M10 through this port, admin-only makes this channel the dedicated management channel which can only be used for management purposes.</td>
</tr>
<tr>
<td>Example</td>
<td>m10&gt; set ip dsl vcc2 restrictions admin-only</td>
</tr>
</tbody>
</table>

The same commands are also available in the step mode.
2.2 Dedicated management channel

The operator or Internet service provider can establish a dedicated management channel to the M10. This channel provides access to the same management possibilities as the local CLI. When the management channel is enabled it cannot be used for other data transmission. Figure 2 shows the principle of the dedicated management channel.

In Figure 2 VCC1 is used for customers data transmission. Administration through this channel has been disabled. The operator or the service provider uses the VCC2 for management purposes only.

![Diagram of dedicated management channel]

**Figure 2** Dedicated management channel

2.2.1 Enabling the dedicated management channel

You can enable the dedicated management channel by configuring Admin restrictions as **admin-only** for the desired ATM channel. This can be done through CLI or with a Web browser. The corresponding CLI command is:
Enable/disable the management through channels using IP over ATM or bridged encapsulations

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
<th>Syntax</th>
<th>Arguments</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enables/disables the management of Nokia M10 through the specified ATM link using ip-llc, ip-vcmux, ether-llc, or ether-vcmux encapsulation. This command can be also used to configure a dedicated management channel.</td>
<td>set ip dsl {vccx} restrictions [none</td>
<td>admin-disabled</td>
<td>admin-only]</td>
</tr>
</tbody>
</table>

The same command is available in the step mode:

```
restrictions (none) [none|admin-disabled|admin-only]
```

You can also enable the dedicated management channel with a Web browser through the VCCx configuration page by clicking the Admin-Only radio button (see Figure 3).
2.3 Improved PPP connection handshake procedure

The PPP connection handshake procedure has been improved. In earlier versions, during congestion in the Remote access node, the PPP connections handshake sometimes failed. This has now been fixed.