Contents

List of Figures iii

List of Tables v

Important Information I
Safety Considerations I
- High Voltage and Energy I
- Wiring for National Power Plug I
- Ventilation I
- Certification I
- Note II

Chapter 1 — Quick Start 1
Installing the Cable Manager 1
Installing the Depth-Adjusting Plates 1
Decorative Edge Panels 2

Chapter 2 — Introduction 3
Architecture 4
- The Avaya M770 Multiswitching Backplane 4
- DomainX Budget Calculation 5
- Avaya M770 Management Architecture 7

Chapter 3 — Avaya M770 Hub Components 9
The Control Panel 9
Avaya M770 Hub - Rear Panel Components 11
The M-SPV/M-SPX Supervisor Module 12
- Communication with the M-SPV/M-SPX 12
- Communication with Internal Management 12
- M-SPV/M-SPX Front Panel 13
- New M-SPX Functionality 13
- Resetting the M-SPV/M-SPX 13
- M-SPV/M-SPX Front Panel Port 14

The M-PS Power Supply Unit 14
- M-PS Indicator 14
- Power Budget Considerations 14

Chapter 4 — Replacing Components 15
Replacing an M-PS 16

Inserting an M-PS 16
Removing an M-PS 16
Replacing a Supervisor Module (M-SPV/M-SPX) 17
Inserting the M-SPV/M-SPX in the Hub 17
Connecting the Console Terminal 17
Removing an M-SPV/M-SPX 18
Replacing a Fan 18
Replacing a Backplane 19

Chapter 5 Using Avaya M440 Gate Switch 6U Modules 21
Permissible 6U Modules and their Location 21
Using the 6U Module Adapter 21

Index 23

How to Contact Us 25
In the United States 25
In the EMEA (Europe, Middle East and Africa) Region 25
In the AP (Asia Pacific) Region 27
In the CALA (Caribbean and Latin America) Region 27

List of Figures

Attaching the Depth Adjusting Plate 2
The Avaya M770 Multifunction Switch 3
Avaya M770 Backplane Architecture 4
Control Panel Components 9
Avaya M770 Rear Panel 11
M-SPX Front Panel 13
Replacing an M-PS, M-SPV/M-SPX or a Fan 15
Avaya M770 Backplanes 19
Inserting the 6U Module 22

List of Tables

DRU Budget of DomainX Modules 5

Avaya M770 Control Panel LEDs 9

Avaya M770 Control Panel Ports 10

Avaya M770 Control Panel Buttons 10

M-SPV/M-SPX Front Panel LEDs 13

M-PS Status LED 14

Important Information

Safety Considerations

These instructions are to be performed by qualified personnel only. To avoid shock, do not perform any servicing other than that contained in the opening instructions unless you are qualified to do so.

High Voltage and Energy

Warning: This unit contains high voltage and energies. Disconnect all Power Supply units from the power line before removing, replacing or adjusting any component of the backplane.

Disconnect the Power Supply units from the power lines before servicing the backplane. Any adjustment, maintenance, or repair of the opened instrument under voltage should be avoided as much as possible. When this is inevitable, the repair should be carried out only by a skilled person who is aware of the hazard involved. Capacitors inside the instrument may still be charged even if the instrument has been disconnected from its source of electricity.

Wiring for National Power Plug

A main power cord with molded IEC socket is supplied with each Power Supply unit. The specific national standard mains power plug should be wired as follows:

- Brown lead - Live (phase)
- Blue lead - Neutral
- Green/yellow lead - Earth ground

Ventilation

The Avaya M770 hub has air vents on the rear and sides. In order to ensure proper ventilation and cooling, leave a space of at least 6 cm (2.5 inches) on all sides.

Certification

Avaya certifies that this product met its public specifications at the time of shipment from the factory.

Note

This equipment generates and uses radio frequency energy. If it is not installed and used in strict accordance with the instruction manual, it may cause interference to radio communication. The equipment is designed to provide reasonable protection against such interference when operated in a commercial environment. If this equipment does cause interference to radio or television reception (this may be determined by turning the equipment off and on), the user is encouraged to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment in to a different outlet so that the equipment and receiver are on different branch circuits.
- Check that cover screws, connector screws, blanking panels, and ground connections are well secured.

The manufacturer is not responsible for the interference caused by unauthorized modifications to the equipment.

Quick Start

To start using the Avaya M770, plug in at least one Power Supply unit and at least one M-SPV/M-SPX (Avaya M770 supervisor) module into the rear of the chassis, and switch the Power Supply ON. The Avaya M770 requires at least one 500W PSU (M-PS500) and one M-SPV/M-SPX module. To use it as is, simply connect the PSU to a suitable power source.

Note: The Cable Manager panel is packed separately in order to protect the cable manager. Please refer to Installing the Cable Manager below for details.

If you are installing the Avaya M770 in a rack, you can adjust the depth by fixing the enclosed Rack Mount plates (refer to Installing the Depth-Adjusting Plates below). You must install the plates **before** inserting modules since the installation requires work inside the hub.

Installing the Cable Manager

The Avaya M770 hub is packaged with a blank panel affixed to the base of the front of the hub. You can pull off the blank panel (unclip it) and replace it with the Cable Manager (packaged separately from the hub) if required. Perform the following steps:

1 Remove the blank panel by unclipping it.
2 Carefully align one side of the Cable Manager and clip it into position.
3 Bend the Cable Manager outwards slightly and clip the other end into the hub.
4 Press the Cable Manager along its length onto the hub to fasten the remaining clips.

To remove the Cable Manager gently unclip the side fasteners first from behind using a screwdriver and then pull it off the hub.

Installing the Depth-Adjusting Plates

If you wish to install the Avaya M770 in a rack which is shallower than the hub itself you can add two plates on the side panels to reduce the effective rack-mounting depth.

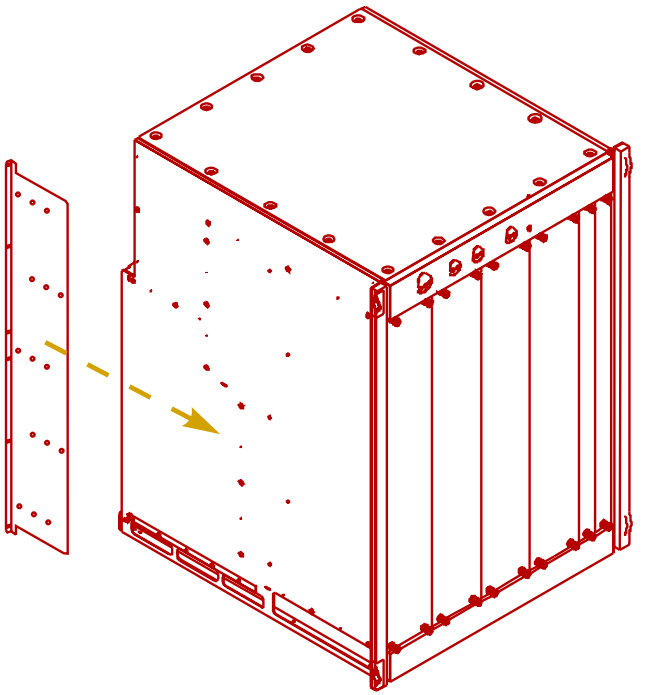
Note: You must install the depth-adjusting plates **before** installing any modules.

To install the plates perform the following steps:

1 When facing the hub, align each plate so that the narrow flange is toward the rear of the hub, facing out. See Figure 1.1.

2 From inside the hub, screw on the 4 flat-headed screws to secure the plate to the side of the hub.

Figure 1.1 Attaching the Depth Adjusting Plate



Decorative Edge Panels

The two plastic side-panels can be removed to allow access to the screw holes. Simply unclip the panels and replace them. The panels are interchangeable.

Chapter 2

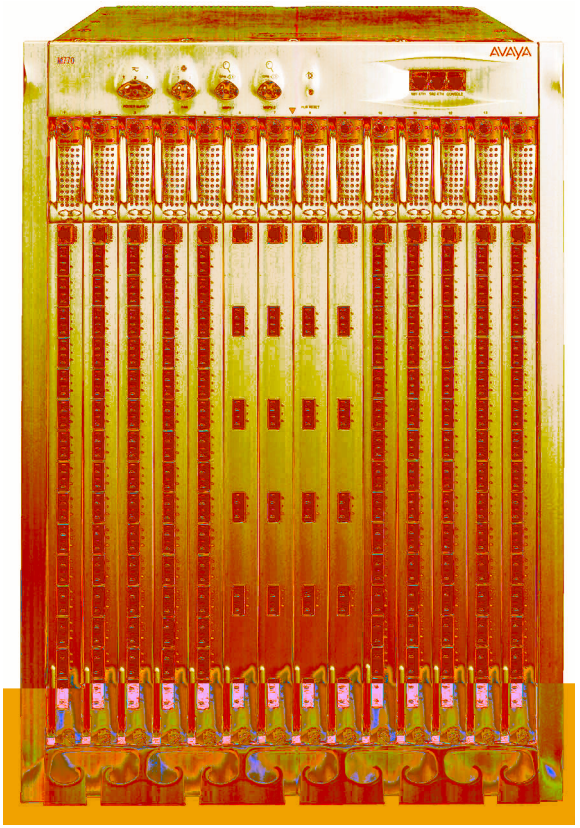
Introduction

The Avaya M770 Multifunction Switch is a completely modular, integrated switch which seamlessly integrates all switching protocols in a single hub.

The combination of Cell Switching and Frame Switching provides switching for ATM, Ethernet, Fast Ethernet, and Gigabit Ethernet.

Note: The ATM functionality of the Avaya M770 is detailed in the M770 ATM Switch User's Guide.

Figure 2.1 The Avaya M770 Multifunction Switch



Architecture

The Avaya M770 hub features distributed processing on each of the modules, so there is no single point of failure. Most of the switching takes place on the module itself; only when a packet must travel from one module to another does it traverse the backplane. It is this combination of module and backplane switching that enables the Avaya M770 to deliver aggregate bandwidth of over 80 Gbps.

The Avaya M770 Multiswitching Backplane

The Avaya M770 architecture enables you to use whichever mix of switching technologies you require.

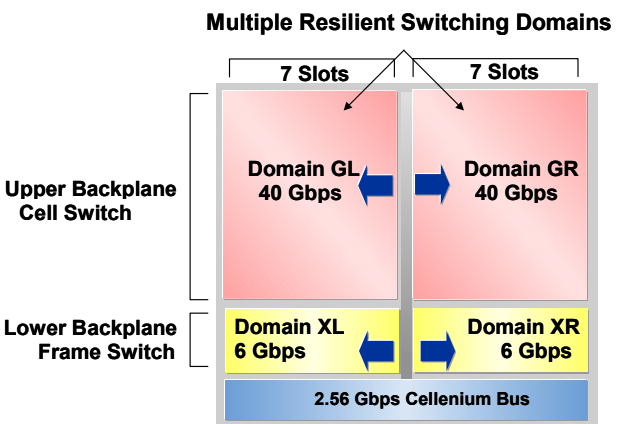
The Avaya M770 hub has multiple modular backplanes, allowing connection of Frame switch, Cell switch, and Avaya M440 Gate Switch modules.

The lower section of the backplane is dedicated to frame switching and supports two frame switches, called DomainXs. Frame Switch modules can be inserted into either of the DomainXs - DomainXL in the left half of the hub (slots 1-7), DomainXR in the right half of the hub (slots 8-14).

The upper backplane supports two switches called DomainGs, currently used for cell switching. Cell switch modules can be inserted into either of the DomainGs - DomainGL in the left half of the hub, DomainGR in the right half of the hub. Although the upper backplane is currently utilized for ATM cell transfer, its bus architecture is open, and can be easily adapted to support new technologies as they emerge.

The lower section of the backplane also includes the High Speed bus for Avaya M440 modules and their agent modules. Since these modules are 6U high, an adapter bracket is required for their insertion (see Chapter 5).

Figure 2.2 Avaya M770 Backplane Architecture



DomainX Budget Calculation

The maximum number of DomainX modules you can insert in the hub is determined by domain usage considerations, as follows (M-SPV refers to either the M-SPV or the M-SPX in the following examples):

The Avaya M770 allows a maximum of 100 Domain Resource Units (DRUs) for DomainXL (Left DomainX - slots 1-7) and the M-SPV, and 100 DRUs for DomainXR (Right DomainX - slots 8-14) and the M-SPV. Each of the DomainX modules, as well as the M-SPV module, has a DRU budget, as shown in the table below. When planning your hub configuration, calculate whether it fits the Avaya M770 DRU budget.

Table 2.1 DRU Budget of DomainX Modules

Module Name	DRU Budget
M-SPV/M-SPX	10 DRUs
M12-100T	18 DRUs
M12-100F	18 DRUs
M2-1000	15 DRUs
M-MLS	6 DRUs
M14-10F	6 DRUs
M24-10T	9 DRUs

Budget Calculation Examples

1 If you have six M14-10F modules, an M2-1000 module and the M-SPV you get: 6*6+15+10 = 61 DRUs. Assuming that you have the same configuration on the DomainXL and Domain XR switches you get a total of 168 Ethernet, 12 Fast Ethernet and 4 Gigabit ports.

2 If you have five M12-100 modules and the M-SPV you get: 5*18+10 = 100 DRUs. Assuming that there are five modules on both the DomainXL and Domain XR switches you get a total of 120 ports.

3 If you have six M2-1000 modules and the M-SPV you get: 6*15+10=100 DRUs. Assuming that there are six modules on both the DomainXL and Domain XR switches you get a total of 24 Gigabit Ethernet ports and 72 Fast Ethernet ports.

4 If you have four M12-100 modules, one M2-1000 and the M-SPV/M-SPX you get: 4*18+15+10=97 DRUs. This is less than 100 DRUs and is therefore another possible configuration.

include the active M-SPV twice, once for DomainXL and once for DomainXR.

DRU Overload

Warning: Always verify that the DRU calculation *never* exceeds 100 DRUs.
A DRU overload can be identified by:

- Blinking OPR LED of each module (can also indicate a module fault).
- Via the Avaya M770 CajunView Manager NMS application. Check the DRU report window (in the Configuration drop-down Menu).
- Using the "Set Show" command in the Zoom view of the Avaya M770 CajunView Manager.

DRU Budget Information Window

You can check the DRU budget information for your Avaya M770 hub via the CajunView™ Network Management System (NMS). The following window shows an example of a hub with 1 M-SPV/M-SPX, two M12-100T and one M12-100F module.

Figure 2 DRU Budget Information Window

Avaya M770 Management Architecture

The back of the Avaya M770 hub has two slots which house the main and backup Avaya M770 Supervisor modules, called M-SPV/M-SPX. The Supervisor module, together with the CajunView network management system, provides a zoom view of the Avaya M770 hub and all resident modules, regardless of technology. A graphical display shows the position of each module in the hub and its status in real-time. The Supervisor module also handles basic configuration functions such as enabling and disabling settings. To perform more advanced configuration and monitoring functions, the Avaya M770 Supervisor launches distributed management sub-agents, located on the modules themselves. The distributed management architecture allows no single point of failure for hub management; it is implemented as follows:

- DomainX Avaya M770 modules are managed by an on-board CPU, which is responsible for module management. The frame switch modules are managed as SNMP sub-agents, with the main M-SPV serving as their SNMP agent.
- Avaya M770 ATM modules are managed as sub-agents by a single ATM module which is designated as the SNMP agent for all other ATM modules in the hub. Each Avaya M770 ATM module has an on-board agent CPU.
- Modules based on any future technology will also be managed independently, by a member of that technology family (as with the ATM modules).
- All Avaya M440 modules are managed by NMA-RS or NMA-RE agents.

Note: For proper management of Avaya M440 modules in the Avaya M770 hub, the NMA-RS/NMA-RE modules should be upgraded to S/W version 8.1.6.

Avaya M770 Hub Components

This chapter describes the key components of the Avaya M770 hub, including the control panel, M-SPV/M-SPX management modules, M-PS power supplies and fans. Field replacement of components is described in Chapter 4.

The Control Panel

The control panel is located at the top of the front of the Avaya M770. It contains eight LEDs, three reset switches and three ports.

Figure 3.1 Control Panel Components

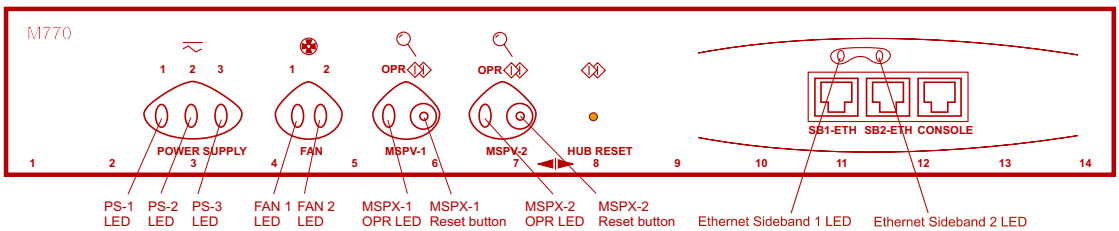


Table 3.1 Avaya M770 Control Panel LEDs

LED Name	Represents	State	Function
PS (1, 2, 3)	Power supply status (for PS1, PS2, PS3)	On	Power supply is functioning normally
		Blinking	Power supply is faulty
		Off	No power supply
Fan (1, 2)	Fan status (for Fan 1, Fan 2)	On	Fan is functioning normally
		Blinking	Fan is faulty
		Off	No fan

* See M-SPX Additional Options Section below

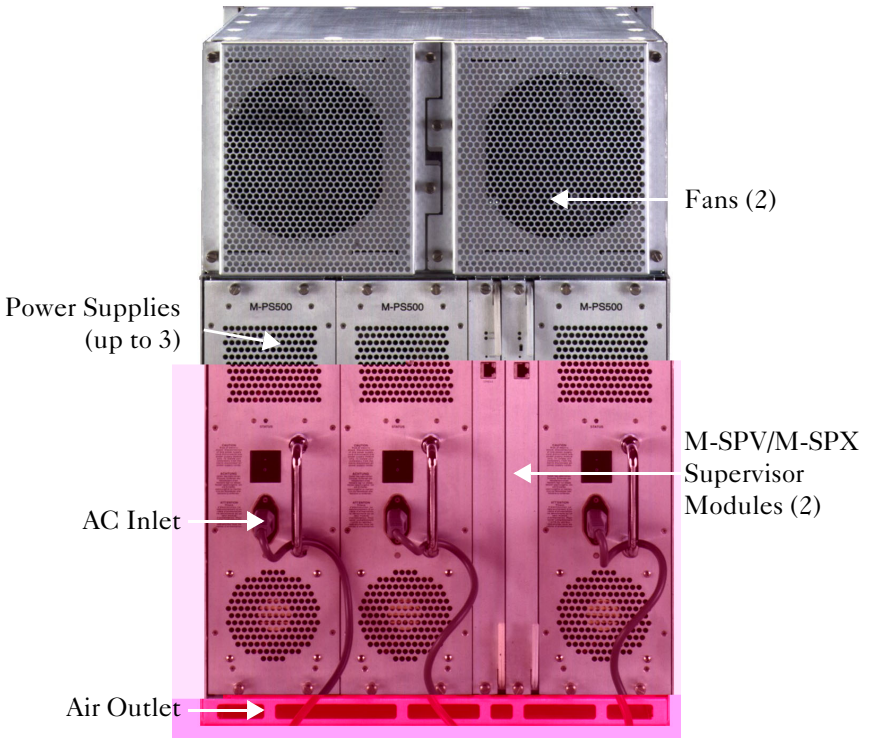
* See M-SPX Additional Options Section below

** Use an opened paper clip or other pointed object to press the Reset button.

Avaya M770 Hub - Rear Panel Components

The M-SPV/M-SPX Supervisor Module, power supplies and fans are located on the rear of the Avaya M770. Figure 3.2 shows a schematic illustration of the component locations:

Figure 3.2 Avaya M770 Rear Panel



The M-SPV/M-SPX Supervisor Module

This 9U module is essential for the correct functioning of the Avaya M770. The module is located in the rear of the Avaya M770 (see Figure 3.2). Although the hub has full functionality with only one agent, it is recommended to install an additional module as a backup. The agent has the following key functions:

- The M-SPX supports Inter-Domain Switching (IDS) for combining the two Avaya M770 X-Domains (not available in the M-SPV). Connecting the domains doubles the available port count in a single switch. The M-SPX module can operate in two modes with IDS on or IDS off.
- SNMP management
- Frame Switch arbitration
- Monitoring of Avaya M770 sub-systems, including:
  - Power supplies
  - Fans and temperature
  - Informing the user and hub's front panel LEDs of sub-system status
- Clock generation.

For more detailed information about the M-SPV/M-SPX please refer to the M-SPV and M-SPX Installation Guides.

Caution: Do not mix M-SPV and M-SPX modules in the same hub.

Communication with the M-SPV/M-SPX

The M-SPX enables the SNMP agent entity of the Meritage 1400 to be accessed by the Network Management Station (NMS) through its two sideband management interfaces. Sideband communication is carried out through one of the auto-negotiation 10/100M Ethernet sideband ports on the front panel of the hub, to which you can connect the NMS. An additional interface for setup purposes is the RS-232 Console connector on the hub's front panel, to which a terminal or modem can be connected.

Communication with Internal Management

The M-SPX has two additional SNMP communication links, used for internal management communication:

- An Ethernet Management Bus (EMB) to communicate with all DomainX (12U) modules (agents and sub-agents) in the hub.
- An Ethernet bus which communicates with NMA-R* agents, to support Legacy hub (6U) modules.

M-SPV/M-SPX Front Panel

Figure 3.3M-SPX Front Panel

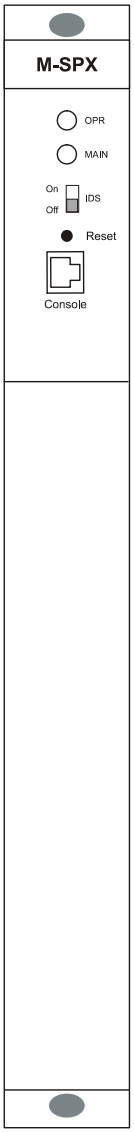


Table 3.4 M-SPV/M-SPX Front Panel LEDs

LED Name	Represents	State	Function
OPR	Module Operational Status	On	Module is functioning normally
		Blinking	Module is faulty
MAIN	Main/ Backup	On	Main/active M-SPV/M-SPX
		Off	Backup/ dormant M-SPV/M-SPX

New M-SPX Functionality

IDS Switch (M-SPX only)

The M-SPX front-panel Inter-Domain Switch (IDS) enables you to combine the two Avaya M770 X-Domains, effectively doubling the available port count. Set the switch ON or OFF as required.

Caution: When installing two M-SPX modules, the IDS switch must be set to the same position on both modules.

Sideband Port SB2-ETH

Two RJ-45 Sideband ports, SB1-ETH and SB2-ETH, on the Avaya M770 hub front panel are supported by the M-SPX (see Figure 3.1). The M-SPV supports only the SB1-ETH port.

Resetting the M-SPV/M-SPX

Each M-SPV/M-SPX can be reset individually via a reset button on the Control Panel (see page 10) or using the reset button on the M-SPV/M-SPX module itself. Resetting the M-SPV/M-SPX does not reset the entire hub (for details on resetting the hub, see page 10).

M-SPV/M-SPX Front Panel Port

The RJ-45 Console port on the M-SPV/M-SPX is used for terminal setup.

The M-PS Power Supply Unit

At least one M-PS Power Supply unit is necessary for the operation of the Avaya M770 but up to three M-PSs can be installed in the hub.

For more detailed information about the Power Supply please refer to the M-PS Installation Guide.

M-PS Indicator

In addition to the PS status LEDs on the control panel of the Avaya M770 hub, each M-PS has a LED indicator on its rear panel for viewing its status at a glance during insertion and replacement of M-PSs.

Table 3.5 M-PS Status LED

LED Name	Represents	State	Function
STATUS	Power Status	Green	Module is functioning normally
		Amber	Module is faulty

Power Budget Considerations

The recommended Avaya M770 configuration is two M-PS units, plus a third unit for redundancy. Such a configuration supports any number of DomainX and Avaya M440 modules in the hub.

If there is only one M-PS unit available, the maximum number of modules in the hub is based on the following guidelines[1]:

- 5 or less DomainX modules, or
- 4 or less DomainX modules with 2 or less Avaya M440 modules,
- 3 or less DomainX modules with 5 or less Avaya M440 modules.

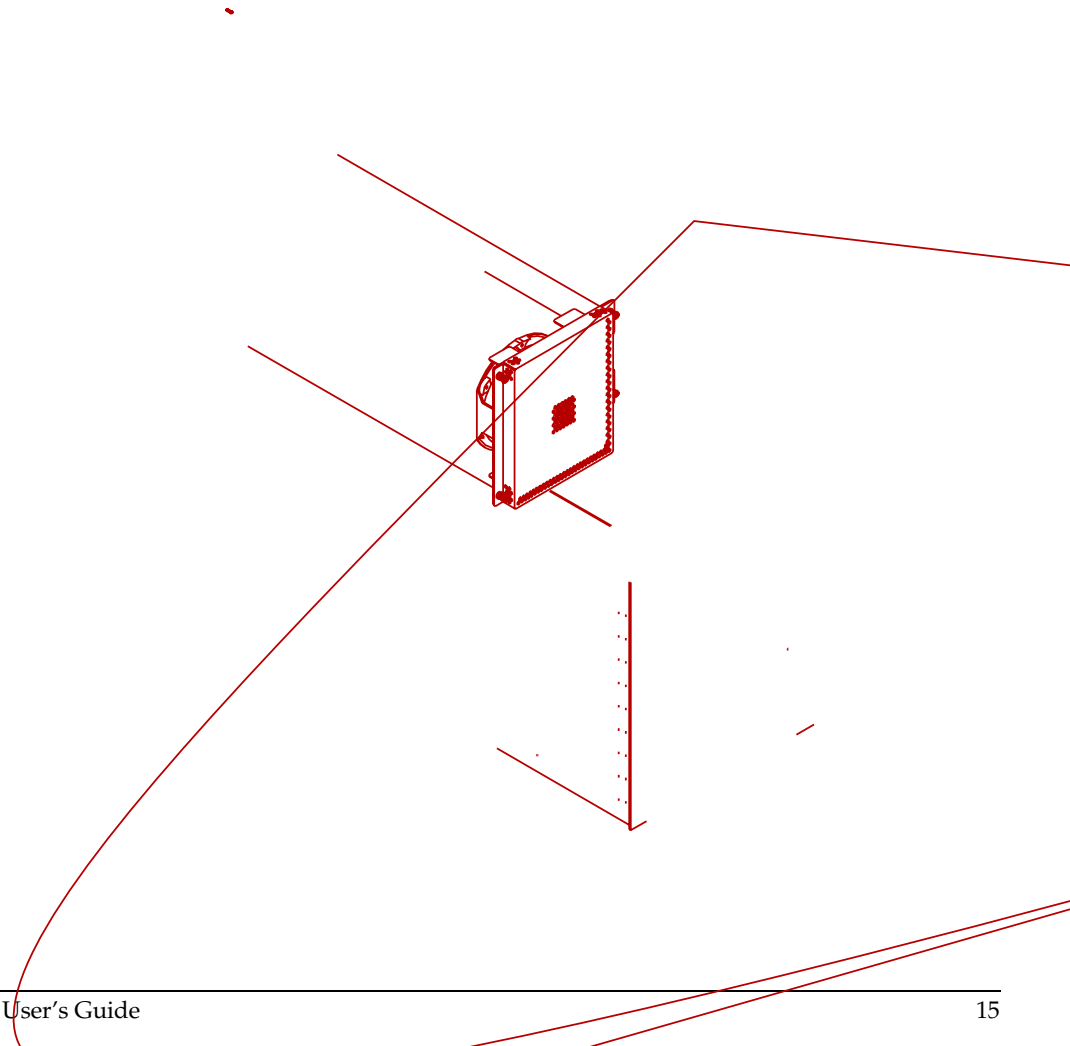
Two M-PS power supplies support any combination of Avaya M440 and DomainX modules. For redundancy it is recommended to install the third M-PS as well.

1The guidelines take into consideration a maximum power consumption of 60W@48V for each DomainX module and 20W@5V for each Avaya M440 module. The sub-systems' power consumption (M-SPV/M-SPX, redundant M-SPV/M-SPX, fans, backplanes) was also already taken into consideration.

Replacing Components

The power supply units, supervisor modules, fans and backplanes are field replaceable. All those components except the backplanes are hot-swappable, so that the hub can remain operational while you are replacing them. You will need to disassemble the Avaya M770 completely to replace the backplanes.

Figure 4.1 Replacing an M-PS, M-SPV/M-SPX or a Fan



Replacing an M-PS

Any one of the power supplies can be hot-swapped without powering down the hub. If not all three M-PS slots are occupied, insert the new M-PS into an empty slot before removing the M-PS you wish to replace.

For more detailed information about the M-PS please refer to the M-PS Installation Guide.

Inserting an M-PS

To insert a new M-PS, perform the following steps at the back of the Avaya M770 hub (see Figure 4.1):

1 If you are inserting an M-PS unit into an empty slot, remove the blank panel covering the slot by unscrewing its four retaining screws.
If you are inserting an M-PS unit into an occupied slot, remove the M-PS unit you wish to replace by following the directions in section *Removing an M-PS* below.
2 Slide in the new M-PS, ensuring that it is positioned properly.
3 Tighten the four retaining screws.
4 Fold the handle.
5 Plug the AC power connector plug into the AC inlet on the M-PS.
6 Plug the AC power supply plug into the wall socket.
7 Turn the M-PS on using its ON switch.
8 Verify that the STATUS LED adjacent to the M-PS ON/OFF switch is green.

Removing an M-PS

To remove an M-PS, perform the following steps at the back of the Avaya M770 hub:

1 Using the M-PS ON/OFF switch, turn off the M-PS which you wish to replace.
2 Unplug the AC power supply plug from its wall socket.
3 Unplug the AC power connector plug from the AC inlet on the M-PS.
4 Unscrew the four retaining screws.
5 Pull the handle to remove the M-PS.
6 Slide out the unit.

Replacing a Supervisor Module (M-SPV/M-SPX)

Caution: The M-SPV/M-SPX is essential to the correct functioning of the Avaya M770. It is therefore recommended to have two modules installed at all times. However, you cannot install both an M-SPV and an M-SPX module in the same hub.

Either of the two M-SPV/M-SPX modules can be replaced without powering down the Avaya M770 hub. If one slot is empty, insert the new module into the empty slot and wait one minute before removing the module you wish to replace. The new M-SPV/M-SPX automatically inherits the configuration of the main M-SPV/M-SPX within one minute.

For more detailed information about the M-SPV/M-SPX please refer to the M-SPV and M-SPX Installation Guides.

Inserting the M-SPV/M-SPX in the Hub

At the back of the Avaya M770 hub there are two slots for two M-SPX modules.

The M-SPX can be installed or removed while power is applied to the enclosure.

1 Insert the M-SPX into an available slot in the back of the hub. Plug in the module by pressing firmly on the mid-section of the front panel.
2 Secure the module by folding the modules handles, and fastening the two retaining screws. *Do not over-tighten the screws.*
3 If you intend to install two M-SPX modules into the hub, first insert one of them and configure it completely as detailed in Chapter 3 of the M-SPX Installation Guide. Next insert the second M-SPX, and it will auto-configure itself identically to the first M-SPX (within 5 minutes).

Connecting the Console Terminal

Initial software configuration of the M-SPX is done using a console terminal connected to the Console connector on the front of the Avaya M770 hub. Refer to the Appendix for connector pin assignments.

To connect the Avaya M770 to a console terminal:

1 Turn on the VT100 terminal (or PC terminal emulator in VT100 or VT52 mode) and set its communication parameters to:
Baud rate: 9600 bps
Start bit: 1
Data bits: 8
Stop bit: 1
Parity: None

Refer to your terminal's user manual for instructions on how to set these parameters.

1 Insert the RJ-45 connector of the cable into the Console port at the top of the Avaya M770 front panel.
2 Insert the other end of the cable into the terminal's RS-232 port.
3 Press <Enter> to verify that the cabling process was successful. The main menu appears.

Removing an M-SPV/M-SPX

To remove an M-SPV/M-SPX perform the following steps:

1 Release the two retaining screws, one at the top and one at the bottom of the module.
2 Unfold the levers and gently slide the module out.

Replacing a Fan

Caution: The fan may rotate for a short while after it is removed from the Avaya M770.

Note: Although one fan is sufficient to cool the Avaya M770, it is recommended to use two fans to ensure maximum resiliance.

The fans are hot-swappable and interchangeable. One fan will fit on either the left or right side: turn the fan upside down if necessary.

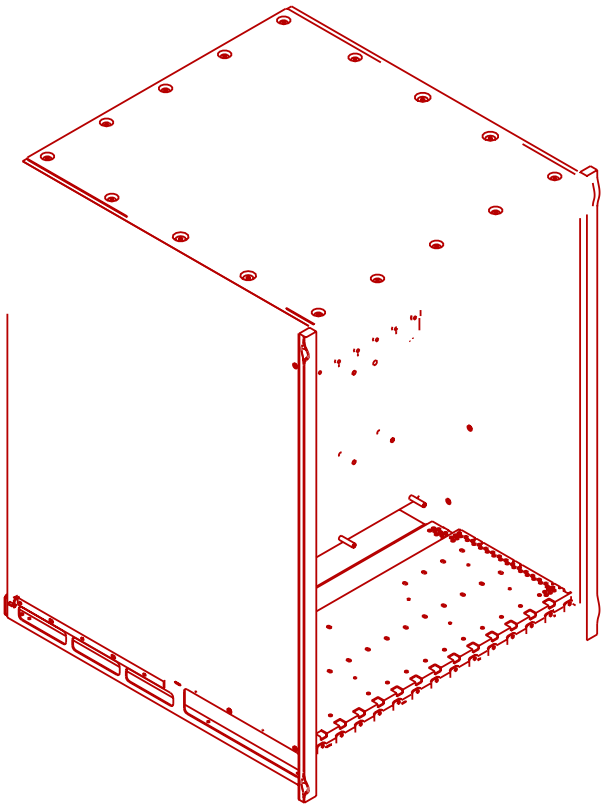
To replace a fan perform the following steps (see Figure 4.1):

1 Release the fan's four screws and gently pull the unit out half way.
2 Wait until the fan stops rotating, then pull it out all the way.
3 Insert the replacement fan, ensuring that it is correctly aligned, and fasten the four screws.

Replacing a Backplane

The Avaya M770 has two backplanes. The lower backplane serves the X-switch and Avaya M440 Gate Switch modules, while the upper backplane connects the Avaya M770 ATM modules. Each backplane is sent with a detailed Installation Guide. The location of each backplane in the hub is shown in Figure 4.2 below.

Figure 4.2 Avaya M770 Backplanes



Using Avaya M440 Gate Switch 6U Modules

Permissible 6U Modules and their Location

The Avaya M770 supports all switching modules (LSA+, LSE-108, LSE-208, LSE-404, LSE-404S, LSE-808, LSF-100, LFE-100, LFE-1008, LFE-4004, LFE-4004S, LBT-155, LHB, LEB-200 and 3LS) but not shared Ethernet modules. All Avaya M440 modules can be inserted into the hub, using a module adapter (see following section). There are several considerations to keep in mind when using Avaya M440 modules:

1 The NMA-RS agent module should be inserted into slot 13 and 14 of the hub.
2 The NMA-RE agent module should be inserted into slot 14 of the hub.
3 You can use the LSE-MON module only if you set its internal jumper to Clock Disable (applicable only to C/S version D and up).

Using the 6U Module Adapter

This section explains how to insert 6U Avaya M440 modules in the Avaya M770 hub using the optional adapters.

Two types of adapters are available:

1 M-LS1 single-slot 6U module
2 M-LS2 dual-slot 6U module.

Use the type appropriate for the 6U module you are inserting.

Caution: The 6U modules contain components which are sensitive to electrostatic discharge (ESD). To prevent ESD damage handle the module by its edges and do not touch the circuit board components unless instructed to do so.
Before handling the module, touch the Avaya M770 chassis to discharge any electrostatic charge on your body.

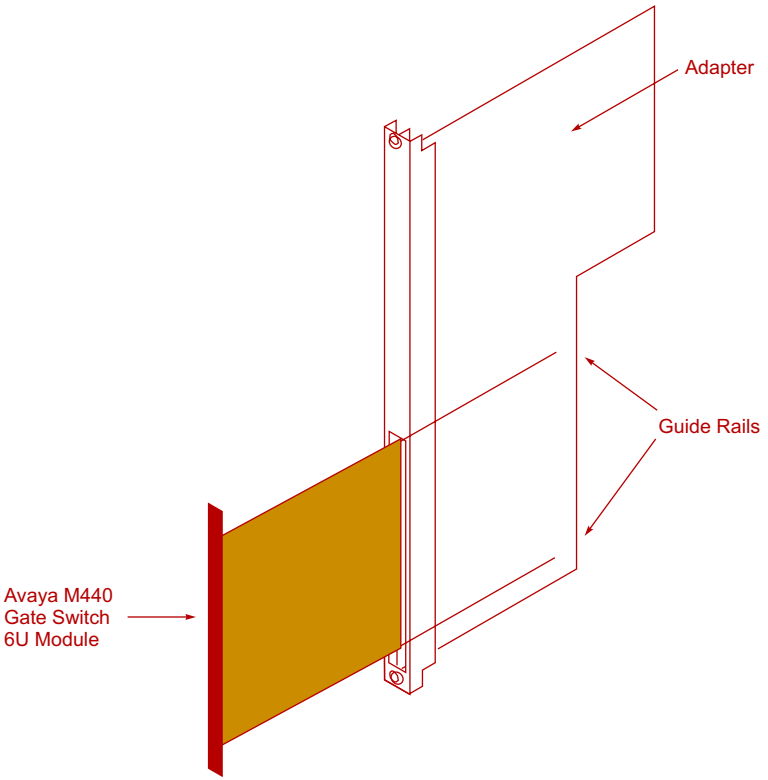
In order to use the adapter perform the following steps:

1 Insert the adapter into the Avaya M770 until the adapter is correctly sited, and tighten the adapter screws.
2 Insert the 6U module gently into the adapter as shown in Figure 5.1.
3 Gently tighten the module's retaining screws.

To remove an adapter:

1 Release the module's retaining screws, and pull the module out by its handle.
2 Release the adapter's screws, and pull the adapter out.

Figure 5.1 Inserting the 6U Module



Note: It is also possible to insert and remove modules in an adapter which is already in the hub.

Index

Numerics
6U modules 21
Adapter 21
Inserting 21
Location 21
Permissible modules 21
Using 21

A
Agent reset 10
Architecture 4

B
Backplane 4
Overview 19
Budget calculation examples 5

C
Cable manager 1
Calculating DomainX budget 5
Certification I
Communication
With the M-SPV 12
Components
Rear panel 11
Replacing 15
Console port 14
Control Panel
Components 9
LEDs 9
Overview 9
Ports 10

D
Decorative edge panels 2
Depth-adjusting plates 1
DomainX budget calculation 5

E
Edge panels 2
Energy I

F
Fan replacement 18

H
High Voltage I
How to
Calculate DomainX budget 5
Install decorative edge panels 2
Install depth-adjusting plates 1
Install the cable manager 1
Replace a backplane 19
Replace a fan 18
Replace a supervisor module 17
Replace an M-PS 16
Reset the M-SPV 13
Use 6U module adapter 21
Use LANswitch 6U modules 21
Hub
Components 9
Resetting 10

I
Important Information I
Inserting 6U modules 21
Installing
Cable manager 1
Depth-adjusting plates 1
Introduction to Meritage 1400 3

L
LANswitch 6U modules 21
Location of 6U modules 21

M
Management architecture 7
Management module replacement 17
Management modules 15
Modules
6U 21
M-PS
Indicator 14

Power supply unit 14
Replacing 16
M-SPV
Front panel 13
Overview 15
Replacing 17
Supervisor module 12
Multiswitching backplane 4

N
National Power Plug I

P
Permissible 6U modules 21
Ports control panel 10
Power budget considerations 14
Power supply unit
Overview 14
Replacing 16

Q
Quick Start 1

R
Rear panel components 11
Replacing
Backplane 19
Components 15
Fan 18
M-SPV 17
PSU 16
Supervisor module 17
Replacing an M-SPV 17
Resetting
Agent 10
Hub 10
M-SPV 13

S
Safety Considerations I

U
Using
6U module adapter 21
LANswitch 6U modules 21

V
Ventilation I

W
Wiring I

How to Contact Us

To contact Avaya's technical support, please call:

In the United States

Dial 1-800-237-0016, press 0, then press 73300.

In the EMEA (Europe, Middle East and Africa) Region

Country	Local Dial-In Number
Albania	+31 70 414 8001
Austria	+43 1 36 0277 1000
Azerbaijan	+31 70 414 8047
Bahrain	+800 610
Belgium	+32 2 626 8420
Belorussia	+31 70 414 8047
Bosnia Herzegovina	+31 70 414 8042
Bulgaria	+31 70 414 8004
Croatia	+31 70 414 8039
Cyprus	+31 70 414 8005
Czech Rep.	+31 70 414 8006
Denmark	+45 8233 2807
Egypt	+31 70 414 8008
Estonia	+372 6604736
Finland	+358 981 710 081

Country	Local Dial-In Number
France	+33 1 4993 9009
Germany	+49 69 95307 680
Ghana	+31 70 414 8044
Gibraltar	+31 70 414 8013
Greece	+00800 3122 1288
Hungary	+06800 13839
Iceland	+0800 8125
Ireland	+353 160 58 479
Israel	+1 800 93 00 900
Italy	+39 02 7541 9636
Jordan	+31 70 414 8045
Kazakhstan	+31 70 414 8020
Kenya	+31 70 414 8049
Kuwait	+31 70 414 8052
Latvia	+371 721 4368

Country	Local Dial-In Number
Lebanon	+31 70 414 8053
Lithuania	+370 2 756 800
Luxemburg	+352 29 6969 5624
Macedonia	+31 70 414 8041
Malta	+31 70 414 8022
Mauritius	+31 70 414 8054
Morocco	+31 70 414 8055
Netherlands	+31 70 414 8023
Nigeria	+31 70 414 8056
Norway	+47 235 001 00
Oman	+31 70 414 8057
Pakistan	+31 70 414 8058
Poland	+0800 311 1273
Portugal	+351 21 318 0047
Qatar	+31 70 414 8059
Romania	+31 70 414 8027
Russia	+7 095 733 9055
Saudi Arabia	+31 70 414 8022

Country	Local Dial-In Number
Slovakia	+31 70 414 8066
Slovania	+31 70 414 8040
South Africa	+0800 995 059
Spain	+34 91 375 3023
Sweden	+46 851 992 080
Switzerland	+41 22 827 8741
Tanzania	+31 70 414 8060
Tunisia	+31 70 414 8069
Turkey	+800 4491 3919
UAE	+31 70 414 8036
Uganda	+31 70 414 8061
UK	+44 0207 5195000
Ukraine	+31 70 414 8035
Uzbekistan	+31 70 414 8046
Yemen	+31 70 414 8062
Yugoslavia	+31 70 414 8038
Zimbabwe	+31 70 414 8063

Email: csctechnical@avaya.com

In the AP (Asia Pacific) Region

Country	Local Dial-In Number
Australia	+1800 255 233
Hong Kong	+2506 5451
Indonesia	+800 1 255 227
Japan	+0 120 766 227
Korea	+0 80 766 2580

Country	Local Dial-In Number
Malaysia	+1800 880 227
New Zealand	+00 800 9828 9828
Philippines	+1800 1888 7798
Singapore	+1800 872 8717
Taiwan	+0 80 025 227

Email: sgcoe@avaya.com

In the CALA (Caribbean and Latin America) Region

Email: caladatasupp@avaya.com

Hot Line:+1 720 4449 998

Fax:+1 720 444 9103

For updated information, visit www.avayanetwork.com, and click “Global Support Organization (GSO)”.