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Nortel Networks Communication Server 2100

Mediatrix 1124, 1004 and 1102

Installation and Setup Guide

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Contents

About this document	ix
Overview	11
Description	11
Hardware and software requirements	15
References	15
Installation and configuration procedures	17
Installing a Mediatrix Analog Station Gateway	17
Configuring a Mediatrix Analog Station Gateway	19
Application	19
Prerequisites	19
Steps of procedure	19



About this document

Purpose and audience

This document describes how to install and configure a Mediatrix Analog Station Gateway in a Communication Server 2100 network.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers (for example, 01.01).

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the next software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but re-released in the same software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

FOR MORE INFORMATION



To determine whether you have the latest version of this document and how documentation for your product is organized, check the release information in the *Meridian SL-100 Master Index of Publications*.

References in this document

Refer to the following documents for further information relevant to the topics discussed in this document:

- *Meridian SL-100/Communication Server 2100 Product Guide*, 555-4001-806
- *Meridian SL-100/Communication Server 2100 Application Planning Guide*, 555-4001-108



Overview

Description

The Communication Server 2100 supports both the Mediatrix 1124 and 1104 units, with Mediatrix being the supporting owner of these products. The 1124 and the 1104 both use the same internal four-port cards, with the only difference being the amount of cards used and the box in which they reside. In this section, the 1124 is described in detail.

The Mediatrix 1124 (24 analog ports) unit is a telecommunications device that provides full duplex communications for audio/fax/modems over IP-based networks for the 2500-type analog telephone set or G3-type fax machines. Each of the ports on the Mediatrix has its own number. The Mediatrix unit automatically connects its Foreign Exchange Service (FXS) port 1 to the PSTN in occurrences of power failures, LAN faults or for maintenance purposes. You can install the Mediatrix unit in either wiring closets where existing wiring is terminated or in office space.

The Mediatrix unit supports G.711 (A-law and Mu-Law), G.723.1 and G.729 Annex A and B. It uses standard silence suppression algorithms and Silence ID (SID) packet transport over RTP/RTCP on G.729A. Annex B of G.729 refers to this standard. Silence suppression cannot be activated with G.711.

The Mediatrix 1124 Analog Station Gateway (ASGW)

- is a standalone analog line gateway that connects up to 24 analog phones, Group 3 fax machines, modems, and answering machines to a LAN through a single 10/100BaseT Ethernet port to deliver a wide range of Meridian SL-100 features.
- uses the Media Gateway Control Protocol (MGCP) to communicate with the Gateway Controller located in the Communication Server 2100.
- operates on both hybrid and pure IP Communication Server 2100 platforms.

12 Overview

- uses the Mediatrix Unit Manager Network (UMN) GUI for provisioning and configuration using the SNMP protocol. Unit Manager Network installs on a PC connected to the same network that hosts the Mediatrix unit. Unit Manager Network does not interface with any Nortel Networks Communication Server 2100 OAM&P components.
- automatically connects the FXS port 1 to the PSTN using a RJ-11 bypass connection for emergency fail-safe if the IP connection to the LAN fails (for example, power failure, LAN faults or maintenance).
- uses an RJ-45 connector for 10/100 Base-T to connect to the LAN, an RJ-21 connector to a maximum of 24 analog lines, and an RJ-11 bypass connection to the PSTN.

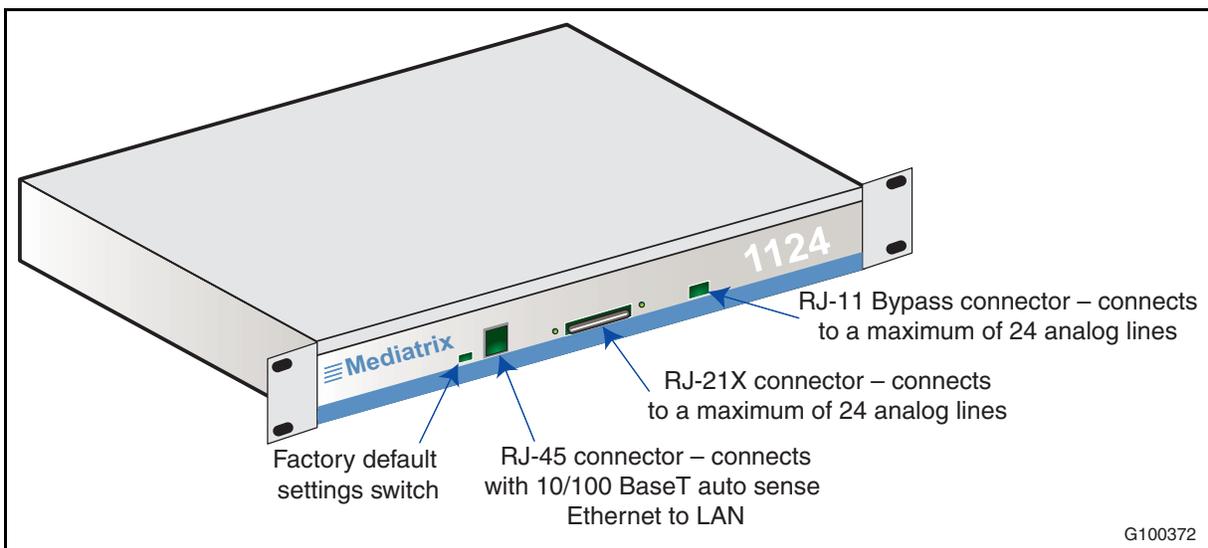


FOR MORE INFORMATION

Refer to the user documentation for Mediatrix the 1104/1124.

Figure 1 illustrates the Mediatrix 1124 Analog Station Gateway (front view). On the back of the Mediatrix unit, there is a power receptacle connector and a fan. There are also three LED indicators: one for POWER, one for LAN, and one for READY. Refer to the Mediatrix 1104/1124 Hardware and Software Product Specifications documentation for more information.

Figure 1
Mediatrix 1124 Analog Station Gateway (front view)



G100372

Figure 2 illustrates a sample Mediatrix 1124 Analog Station Gateway configuration supporting various analog devices. Add the supported devices in any configuration to a maximum of 24 devices per Mediatrix 1124 unit.

Figure 2
Mediatrix 1124 Analog Station Gateway configuration supporting analog devices

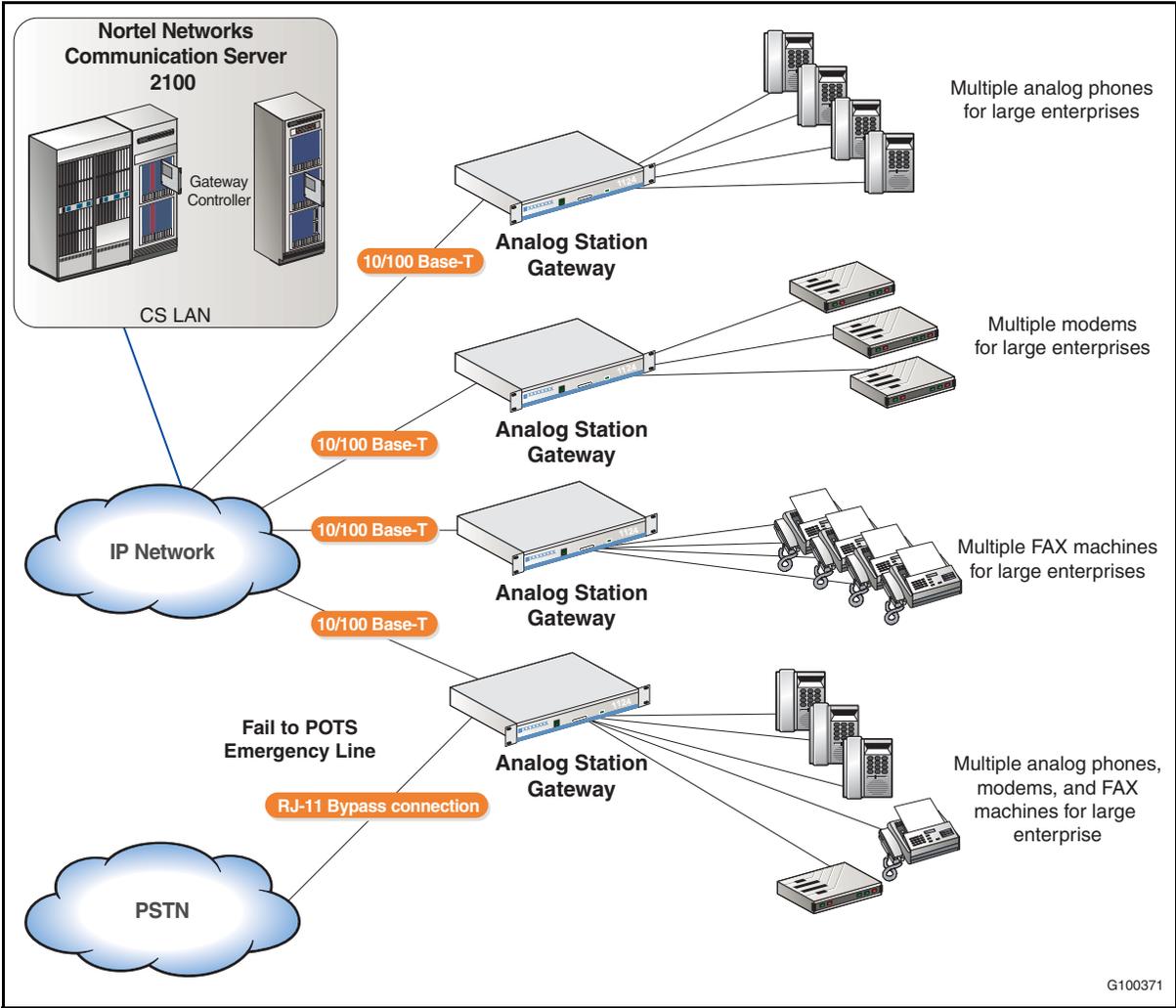
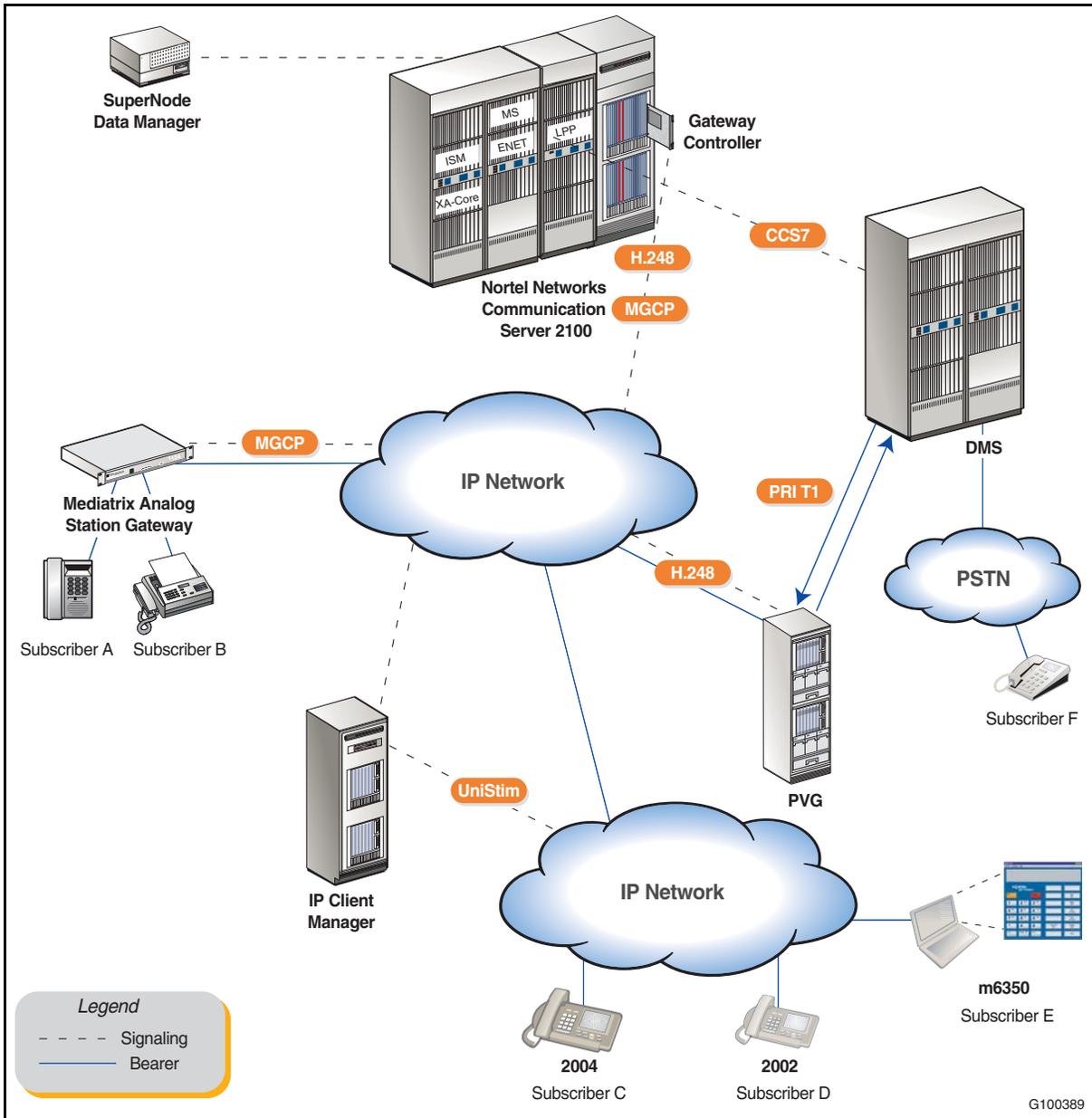


Figure 3 on page 14 illustrates a sample Mediatrix 1124 Analog Station Gateway configuration in the CS 2100 configuration.

14 Overview

Figure 3
Mediatix 1124 Analog Station Gateway in a Communication Server 2100 configuration



Hardware and software requirements

The following hardware components are required to implement this solution:

- Mediatrix 1124/1104 Analog Station Gateway
- Cabling per Mediatrix unit:
 - 1 RJ-45 10/100 BaseT Ethernet cable
 - 1 RJ-11 telephone cord
 - 1 RJ-21X cable
- A PC client/server using Microsoft Windows 9x/NT/2000/XP operating system containing the Mediatrix Unit Manager Network (UMN) software.
- For the Mediatrix 1124, up to 24 analog devices: analog phones, G3 fax machines, modems, and answering machines.
- A LAN (with access to an Intranet or Internet) that connects to the Mediatrix unit, Gateway Controller and client/server PC containing the Unit Manager Network.

The following software components are required to implement this solution:

- Mediatrix Unit Manager Network (UMN) – a Web-based GUI accessed from a PC client/server that connects to the Mediatrix Analog Station Gateway and provides configuration and provisioning functions.
- The PC server running the UMN software must use Microsoft Windows 9x/NT/2000 operating system.
- Management Information Base (MIB) files – included on the Mediatrix installation disk.

References

Consult the Mediatrix 1104/1124 user documentation for detailed information about the Mediatrix 1104/1124 Analog Station Gateway. The Mediatrix Web site is at www.mediatrix.com



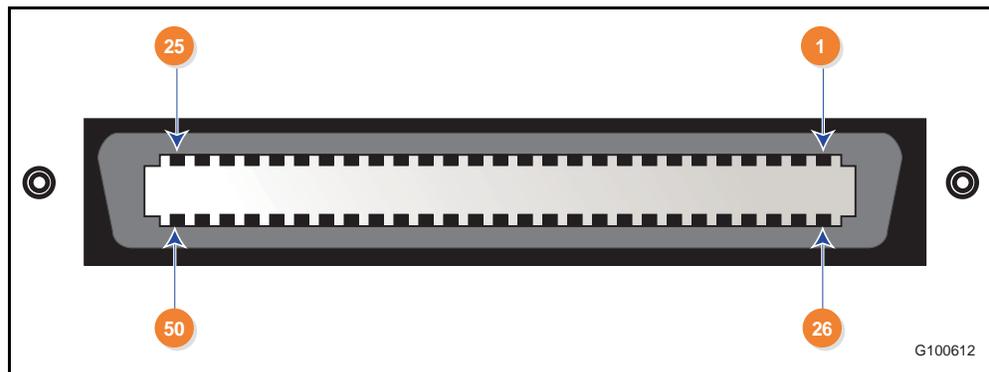
Installation and configuration procedures

This chapter describes the procedures for installing and configuring a Mediatrix Analog Station Gateway in a Communication Server 2100 network.

Installing a Mediatrix Analog Station Gateway

Before configuring a Mediatrix Analog Station Gateway, you must first make the physical connections. [Figure 1 on page 12](#) shows a front view of a Mediatrix 1124 and its connectors. [Figure 4](#) shows the pinouts that are used to connect the analog lines (second arrow from right on [Figure 1 on page 12](#)).

Figure 4
RJ21X receptacle pin out



18 Installation and configuration procedures

Table 1 describes the Mediatrix 1124 connectors.

Table 1
Mediatrix 1124 connectors

Connector	Description
Ethernet	RJ-45 Teladapt connector to provide the 10/100 Base-T auto sense LAN Connection.
Bypass	RJ-11 Teladapt connector to provide line cord connection to the telephone network.
Port 1 to 24	RJ-21X connector to provide connection to analog phones (pins 49-50 are unused).
Power Connector (AC Version)	Standard power cord receptacle (IEC 320 – C14) for universal AC input internal SMPS.
Power Connector (DC Version)	Barrier terminal strip.
Reset Switch	Reboots the Mediatrix 1124 in recovery mode or factory reset mode.

Configuring a Mediatrix Analog Station Gateway

Application



CAUTION

Possible service interruption

Perform this procedure during a maintenance window or a period of low traffic.

Use this procedure to setup a Mediatrix Analog Station Gateway.

Prerequisites

This procedure has the following prerequisites:

- The Mediatrix Analog Station Gateway must be connected to the network.
- The Unit Manager Network application must be installed.

Note: Unit Manager Express can also be used, but most end user will find Unit Manger Network easier to use.



FOR MORE INFORMATION

Unit Manager Network installation information is contained in the *Unit Manager Express User's Manual* that comes with the Mediatrix software CD.

Steps of procedure

Follow the steps in Procedure 1 to configure a Mediatrix Analog Station Gateway.

Procedure 1

Configure the Mediatrix Analog Station Gateway

With the Unit Manager Network software installed on your PC

- 1 Power off the Mediatrix.
- 2 With a 10/100 base hub: plug a LAN cable from your laptop to the hub and plug a LAN cable from the Mediatrix to the hub.
Note: A cross over cable can be used, instead of the hub – in which case the connection would be from the PC to the Mediatrix.
- 3 Configure your laptop with an IP address of 192.168.0.10 and the subnet of 255.255.255.0.
- 4 You will need a paper clip.
 - a Press the reset button and power on the Mediatrix (refer to [Figure 1 on page 12](#)).

20 Installation and configuration procedures

- b Hold until the LEDs start blinking.
- 5 At this point you can start provisioning the Mediatrix (enter the values that the example in [Table 2 on page 20](#) shows).
- 6 Once completed, unplug the power from the Mediatrix and unplug all temporary LAN cables.

Plug Mediatrix into the network LAN and power the Mediatrix up.

This procedure is now complete

Enter the values that Table 2 shows, in the order they appear, to bring up a Mediatrix Analog Station Gateway.

Table 2
Mediatrix configuration parameters example

Field	Value
mediatrixConfig	
localHostSelectConfigSource	static
localHostFqdnSelectConfigSource	static
ipAddressConfigLocalHostStatic	
localHostStaticAddress	47.104.52.43
localHostStaticPrimaryDns	47.103.120.20
localHostStaticSecondaryDns	47.103.121.21
localHostStaticDefaultRouter	47.104.52.1
localHostStaticSnmpPort	161
localHostStaticFqdn	MTL100.MED4.COM
ipaddressConfigMgcpCallAgent	
mgcpCASelectConfigSource	static
ipAddressConfigMgcpCAstatic	
mgcpCAStaticHost	10.224.2.200 (active address in the Gateway Controller)
mgcpCAStaticPort	2727

Follow the steps in Procedure 2 to perform a soft reset of a Mediatrix Analog Station Gateway.

Procedure 2
Perform a soft reset of the Mediatrix Analog Station Gateway

groupAdminMIB
groupAdminMIBObjects
groupAdminTable
GroupAdminEntry

- 1 From the groupSetAdmin menu perform the following steps:
 - a Click the box (upper right twice) and a pull-down menu will appear.
 - b Click **forcelock**.
 - c On the toolbar click on the “**set**” icon (that is, the box with an arrow pointing downwards).

- 2 From the groupreset menu perform the following steps:
 - a Click the box (upper right twice) and a pull-down menu will appear.
 - b Click **softreset**.
 - c On the toolbar click on the “**set**” icon (that is, the box with an arrow pointing downwards).

- 3 *At this point, the Mediatrix performs a soft reset.*

This procedure is now complete

22 Installation and configuration procedures

Nortel Networks Communication Server 2100

Mediatrix 1124, 1104 and 1102

Installation and Setup Guide

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