



SMDI Voice Mail Integration

Simplified Message Desk Interface (SMDI) defines a way for a phone system to provide voice-messaging systems with the information that the system needs to intelligently process incoming calls. Each time that the phone system routes a call, it sends an SMDI message through an EIA/TIA-232 connection to the voice-messaging system that tells it the line that it is using, the type of call that it is forwarding, and information about the source and destination of the call.

The SMDI-compliant voice-messaging system connects to Cisco CallManager in two ways:

- Using a standard serial connection to the Cisco CallManager
- Using POTS line connections to a Cisco analog FXS gateway

This section covers the following topics:

- [SMDI Voice Mail Integration Requirements, page 26-1](#)
- [Port Configuration for SMDI, page 26-2](#)
- [Cisco Messaging Interface Redundancy, page 26-3](#)
- [SMDI Configuration Checklist, page 26-6](#)
- [Where to Find More Information, page 26-7](#)

SMDI Voice Mail Integration Requirements

The Cisco Messaging Interface service allows you to use an external voice-messaging system with Cisco CallManager Release 3.0 and later.

The voice-messaging system must meet the following requirements:

- The voice-messaging system must have a simplified message desk interface (SMDI) that is accessible with a null-modem EIA/TIA-232 cable (and an available serial port).
- The voice-messaging system must use analog ports for connecting voice lines.
- The Cisco CallManager server must have an available serial port for the SMDI connection.
- A Cisco Access Analog Station Gateway, Cisco Catalyst 6000 24-port FXS gateway, Cisco VG200 gateway, or Cisco Catalyst 6000 8-port T1 gateway that is configured with FXS ports must be installed and configured.
- You must ensure that gateways are configured in a route pattern. Refer to the [“Route Pattern/Hunt Pilot Configuration”](#) chapter in the *Cisco CallManager Administration Guide* for more information.

Port Configuration for SMDI

Previous releases of Cisco CallManager required a specific configuration for voice-messaging integration using the SMDI and the Cisco Messaging Interface. This older configuration method for FXS ports required each individual port of an analog access gateway (Cisco AS-2, Cisco AS-4, Cisco AS-8, or Cisco Catalyst 6000 24 Port FXS gateway) to be explicitly configured as a separate entry in a route group. The relative position within the route list/route group of each analog access port determined the SMDI port number that the Cisco Messaging Interface reported.

For Cisco CallManager Release 3.0(5) and later releases, you can configure the SMDI port number through Cisco CallManager Administration.

If you use the Cisco Catalyst 6000 8-port T1 gateway (6608) to interface with voice-messaging system, you must configure the SMDI base port for each T1 span.

To use the new SMDIPortNumber configuration, perform the following steps:

1. Modify each analog access port that connects to the voice-messaging system and set the SMDIPortNumber equal to the actual port number on the voice-messaging system to which the analog access port connects.

With this first step, you do not need to change any route lists/route groups. The newly configured SMDIPortNumber(s) override any existing route list/route group configuration that was set up for the devices that connect to the voice-messaging system.

2. To take advantage of reduced Cisco CallManager signaling requirements with this new configuration, change each analog access device that is in a route group that was set up for the older method of configuration from multiple entries that identify individual ports on the device to a single entry in the route group that identifies “All Ports” as the port selection.

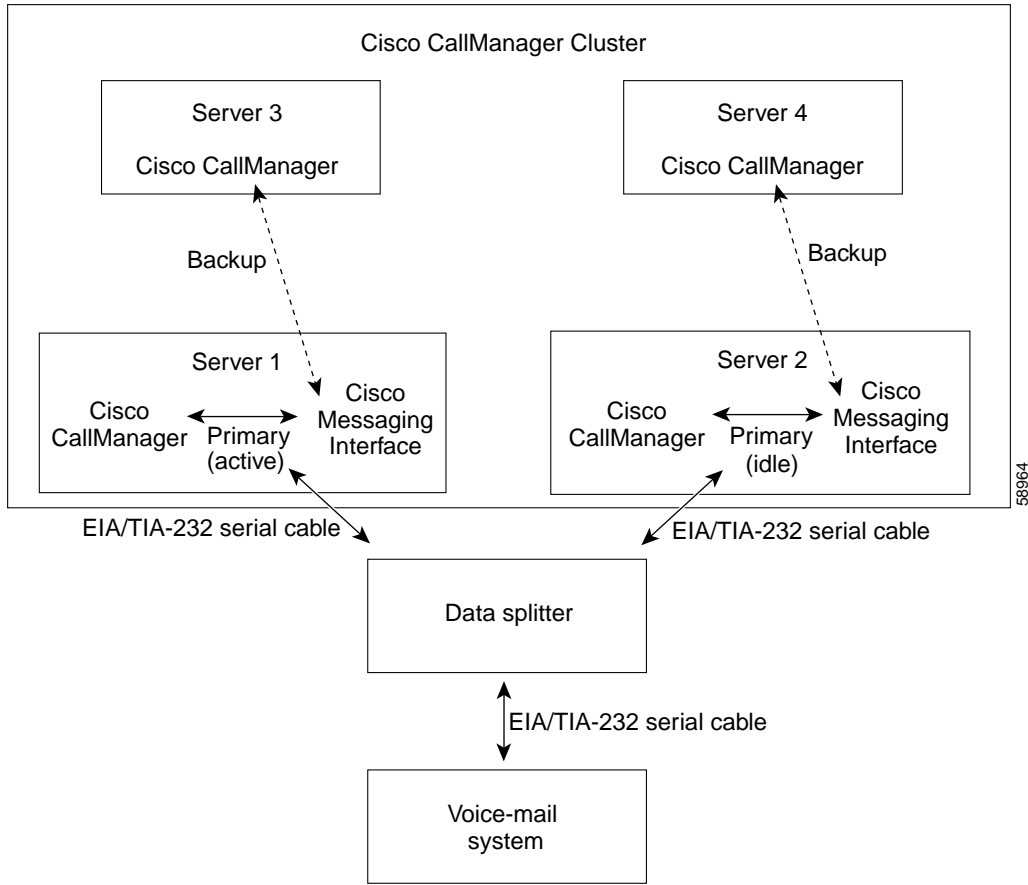
The selection order of each of these device entries differs or does not differ.

Cisco Messaging Interface Redundancy

Most voice-messaging systems that rely on an EIA/TIA-232 serial cable (previously known as a RS-232 cable) to communicate with phone systems only have one serial port. You can achieve Cisco Messaging Interface redundancy by running two or more copies of the Cisco Messaging Interface service on different servers in a Cisco CallManager cluster and using additional hardware including a data splitter that is described later in this section.

Each copy of Cisco Messaging Interface connects to a primary and backup Cisco CallManager and registers to the Cisco CallManager by using the same VoiceMailDn and VoiceMailPartition service parameter values. The Cisco Messaging Interface with the higher service priority (the active Cisco Messaging Interface service) handles the SMDI responsibilities. If this Cisco Messaging Interface encounters problems, another one can take over. [Figure 26-1](#) illustrates one of many layouts that provide Cisco Messaging Interface redundancy.

Figure 26-1 Cisco Messaging Interface Redundancy



Note

To achieve Cisco Messaging Interface redundancy, you must have a device such as the data splitter as shown in [Figure 26-1](#) to isolate the SMDI messaging from the various Cisco Messaging Interface services. You cannot use an ordinary Y-shaped serial cable to combine the EIA/TIA-232 streams together.

The data splitter that you connect to your voice-messaging system, such as the B&B Electronics modem data splitter (models 232MDS and 9PMDS), must have the following characteristics:

- High reliability
- Bidirectional communication
- Minimal transmission delay
- No external software support (desired)
- No extra EIA/TIA-232 control line operations (desired)

The 232MDS includes two DB25 male ports and one DB25 female port. The 9PMDS represents a DB9 version of this modem data splitter. These switches enable Cisco Messaging Interface redundancy with the following limitations when you set the `ValidateDNs Cisco Messaging Interface` service parameter to *Off*:

- SMDI messages (MWI messages) from voice-messaging systems get broadcast to both Cisco Messaging Interfaces. Both Cisco Messaging Interfaces send MWI messages to the Cisco CallManager to which they are connected. This produces an extra load on the database and network traffic (if the Cisco Messaging Interface and Cisco CallManager are on different servers).
- Two Cisco Messaging Interfaces cannot transmit SMDI messages simultaneously. Under extreme circumstances, you may experience network failures that break your Cisco CallManager cluster into two unconnected pieces. In the unlikely event that this occurs, both copies of Cisco Messaging Interface may become active, which leads to the possibility that they may simultaneously transmit SMDI messages to the voice-messaging system. If this happens, the collision could result in an erroneous message to the voice-messaging system, which may cause a call to be mishandled.

SMDI Configuration Checklist

Table 26-1 provides an overview of the steps that are required to integrate voice-messaging systems that are using SMDI.

Table 26-1 SMDI Configuration Checklist

Configuration Steps		Related Procedures and Topics
Step 1	Add and configure gateway ports. If you are configuring an Octel system and you are using a Cisco Catalyst 6000 24 Port FXS Analog Interface Module or AST ports, make sure to set the Call Restart Timer field on each port to 1234.	Adding Gateways to Cisco CallManager , <i>Cisco CallManager Administration Guide</i>
Step 2	Create a route group and add the gateway ports that you configured in Step 1 to the route group.	Adding a Route Group , <i>Cisco CallManager Administration Guide</i>
Step 3	Create a route list that contains the route group that was configured in Step 2 .	Adding a Route/Hunt List , <i>Cisco CallManager Administration Guide</i>
Step 4	Create a route pattern.	Adding a Route Pattern/Hunt Pilot , <i>Cisco CallManager Administration Guide</i>
Step 5	Activate, configure, and run the Cisco Messaging Interface service.	<i>Cisco CallManager Serviceability Administration Guide</i> Service Parameters Configuration , <i>Cisco CallManager Administration Guide</i>

Table 26-1 SMDI Configuration Checklist (continued)

Configuration Steps		Related Procedures and Topics
Step 6	Configure Cisco Messaging Interface trace parameters.	<i>Cisco CallManager Serviceability Administration Guide</i> <i>Cisco CallManager Serviceability System Guide</i>
Step 7	Configure your voice-messaging system and connect the voice-messaging system to Cisco CallManager with an EIA/TIA-232 cable.	Refer to the documentation provided with your system.

Where to Find More Information

Additional Cisco Documentation

- [Service Parameters Configuration](#), *Cisco CallManager Administration Guide*
- *Cisco CallManager Serviceability Administration Guide*
- *Cisco CallManager Serviceability System Guide*
- *Cisco IP Telephony Network Design Guide*

Where to Find More Information