

555-4001-127

Meridian SuperNode

# **Meridian SL-100**

## Simplified Message Desk Interface Description and Implementation

MSL04 Preliminary 02.01 July 1995

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## Simplified Message Desk Interface Description and Implementation

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# About this document

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## When to use this document

Use this document to obtain a description of the Simplified Message Desk Interface (SMDI) feature on the Meridian SL-100 system. The SMDI feature provides an interface between the SL-100 system and a message desk where calls can be forwarded. SMDI routes two types of calls to the message desk: direct and indirect. Direct calls can be requests for messages currently stored in the message desk or forwarded messages to other parties. Indirect calls can be incoming calls to the message desk that are forwarded.

This publication uses the following special terms:

- Requestee-The station that forwards calls to the Message Desk Uniform Call Distribution (UCD) Directory Number (DN) and against which the Message Desk queues the message from the Requestor.
- Requestor-The station that leaves a message at the Message Desk for a called DN.

## 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 rereleased in the *same* software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

To determine which version of this document applies to the software in your office and how documentation for your product is organized, check the release information in the *Meridian SL-100 Master Index of Publications*, 555-4031-001, or the *DSN Meridian SL-100 Master Index of Publications*, 555-4021-001.

This document is written for all SL-100 Family offices. More than one version of this document may exist.

## References in this document

The following list shows related publications to which this document refers in appropriate places in the text.

- 555-4031-814, *Commercial Systems Operational Measurements Reference Manual*
- 555-4021-814, *DSN Operational Measurements Reference Manual*
- 555-4031-840, *Commercial Systems Log Report Manual*
- 555-4021-840, *DSN Log Report Manual*
- 297-2071-119, *Automatic Message Accounting-Northern Telecom Format*
- 555-4031-808, *Commercial Systems Service Order Query and System Reference Manual*
- 555-4021-808, *DSN Service Order Query and System Reference Manual*
- 555-4031-851, *Commercial Systems Customer Data Schema*
- 555-4021-851, *DSN Customer Data Schema*

**Note:** More than one version of these documents may exist. To determine which version of a document applies to the Batch Change Supplement (BCS) or Communications System Platform (CSP) in your office, check the release information in the *Meridian SL-100 Master Index of Publications*, 555-4031-001, or the *DSN Meridian SL-100 Master Index of Publications*, 555-4021-001.

## Applicability of this document

This document applies to Meridian SL-100 offices that have MSL03 or later software releases.

## Organization of this package

This document belongs to the Meridian SL-100 documentation package that supports the Northern Telecom line of Meridian SL-100 products. The Meridian SL-100 documentation package is a subset of the DMS-100 Family library.

## What precautionary messages mean

The types of precautionary messages used in NT documents include attention boxes and danger, warning, and caution messages.

An attention box identifies information that is necessary for the proper performance of a procedure or task or the correct interpretation of information or data. Danger, warning, and caution messages indicate possible risks.

## Examples of precautionary messages

**ATTENTION** Information needed to perform a task

### **ATTENTION**

If the unused DS-3 ports are not deprovisioned before a DS-1/VT Mapper is installed, the DS-1 traffic will not be carried through the DS-1/VT Mapper, even though the DS-1/VT Mapper is properly provisioned.

**DANGER** Possibility of personal injury



### **DANGER**

#### **Risk of electrocution**

Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed. The inverter contains high-voltage lines. Until the fuses are removed, the high-voltage lines are active, and you risk being electrocuted.

**WARNING** Possibility of equipment damage



### **WARNING**

#### **Damage to the backplane connector pins**

Align the card before seating it, to avoid bending the backplane connector pins. Use light thumb pressure to align the card with the connectors. Next, use the levers on the card to seat the card into the connectors.

**CAUTION** Possibility of service interruption or degradation



**CAUTION**

**Possible loss of service**

Before continuing, confirm that you are removing the card from the inactive unit of the peripheral module. Subscriber service will be lost if you remove a card from the active unit.

## How commands, parameters, and responses are represented

Commands, parameters, and responses in this document conform to the following conventions.

### Input prompt (>)

An input prompt (>) indicates that the information that follows is a command:

**>BSY**

### Commands and fixed parameters

Commands and fixed parameters that are entered at a MAP terminal are shown in uppercase letters:

**>BSY CTRL**

### Variables

Variables are shown in lowercase letters:

**>BSY CTRL ctrl\_no**

The letters or numbers that the variable represents must be entered. Each variable is explained in a list that follows the command string.

### Responses

Responses correspond to the MAP display and are shown in a different type:

```
FP 3 Busy CTRL 0: Command request has been submitted.  
FP 3 Busy CTRL 0: Command passed.
```

The following excerpt from a procedure shows the command syntax used in this document:

- 1 Manually busy the CTRL on the inactive plane by typing

**>BSY CTRL ctrl\_no**

and pressing the Enter key.

*where*

ctrl\_no is the number of the CTRL (0 or 1)

*Example of a MAP response:*

```
FP 3 Busy CTRL 0: Command request has been submitted.
```

```
FP 3 Busy CTRL 0: Command passed.
```

### **Other format conventions**

The following are additional format conventions that appear in this document.

- Brackets enclose optional parameters
- Words connected by underscore (for example, pm\_type) indicate words treated as a one-word item
- Lowercase n indicates a number from 0-9
- Lowercase a indicates a letter from A-Z
- Lowercase h indicates a hexadecimal number from 0-F



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## SMDI description

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The Simplified Message Desk Interface (SMDI) is implemented as described in Bell Communications Research Technical Reference TSR-TSY-000283, Interface Description-Interface Between Customer Premises Equipment; Simplified Message Desk and Switching System: 1AESS.

*Note:* Any function not described in TSR-TSY-000283 is not provided.

### Message desk

The message desk is identified with a Uniform Call Distribution (UCD) Directory Number (DN). The message desk can be a Text Messaging System (TMS) or a Voice Messaging System (VMS). Either system answers forwarded calls and records messages. The agents within a UCD group must have the UCD line option on their lines and the SMDI option to indicate that their UCD lines have the SMDI feature.

*Note:* It is recommended that the agents within a UCD group have the Cutoff On Disconnect option on their lines.

To receive UCD calls, the agent must enter the feature activation code, followed by the UCD DN of the group, if the AUTOLOG option in table IBNFEAT is datafilled as N (no autolog). See the Data Schema Tables section of this practice for more information on table IBNFEAT. The agent must enter the feature deactivation code to remove the position from UCD operation.

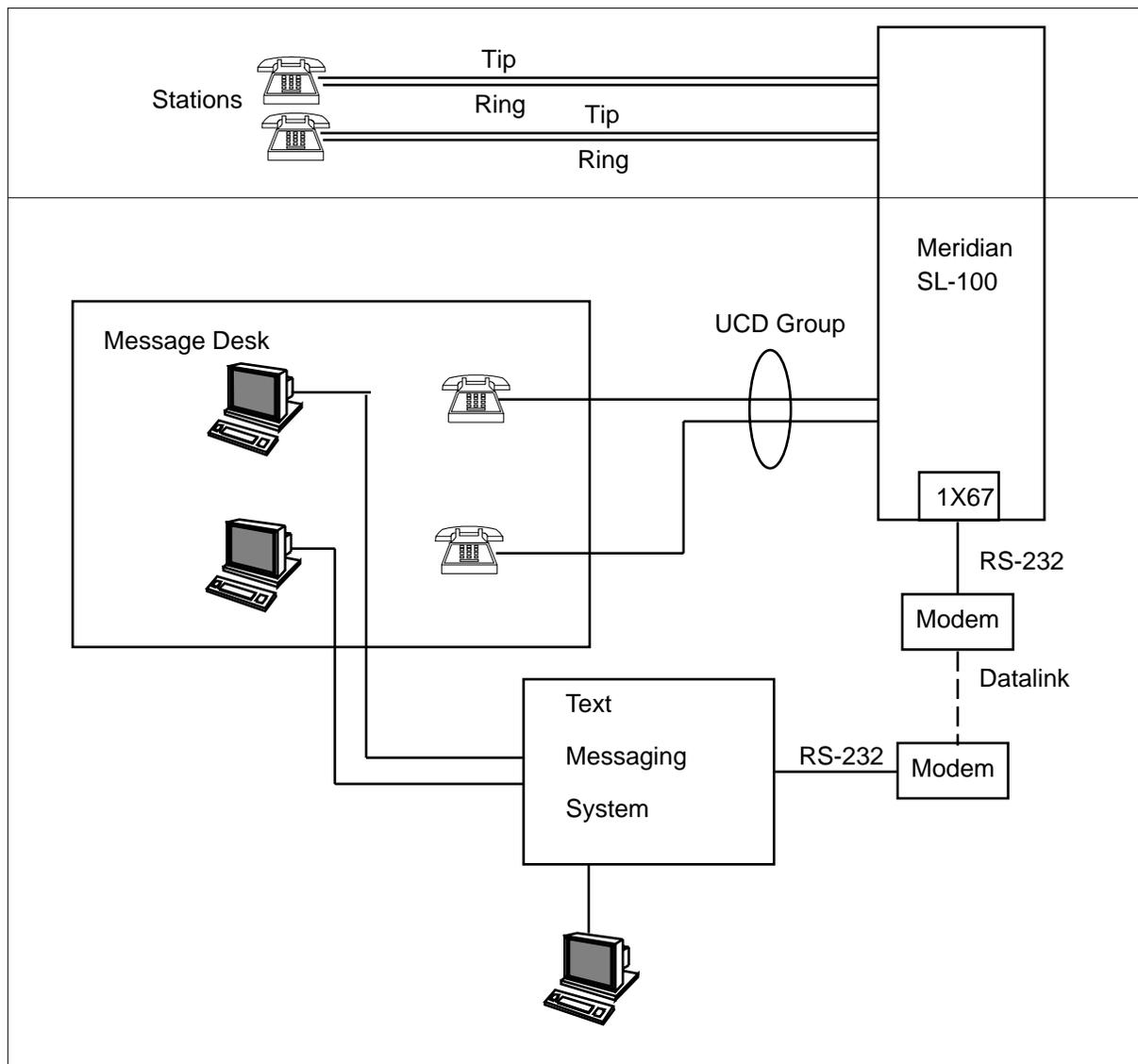
One datalink can serve a maximum of 63 desk numbers in a message desk. When there are multiple desk numbers on one datalink, one desk number (desk 63) must be dedicated to handling call retrievals. This allows the message desk to store and deliver messages more effectively.

SMDI supports a maximum of 59 datalinks for transferring messages between the Meridian SL-100 system and the message desk.

**Text messaging system**

The TMS electronically automates the recording, filing, and retrieval of messages. The requestee is the station that forwards calls to the message desk UCD directory number. The requestor is the station that leaves a message at the message desk for a called DN. If the requestee has forwarded calls to the message desk, and the requestor calls the requestee, the requestor's call goes to the message desk. The Meridian SL-100 system sends the call information to the TMS by way of the datalink. Figure 1-1 illustrates the configuration of a TMS.

**Figure 1-1xxx**  
**Text messaging system**



The call information consists of the following items:

- requestee's Directory Number (DN)
- requestor's DN (if available)
- call forward type (Busy, No Answer, All)
- message desk number and line termination

The TMS displays the pertinent call information on the message desk attendant's terminal. The TMS can also display the requestee's whereabouts, or schedule, or both, if known.

The requestor can leave a message for the requestee. The attendant enters the message through the terminal keyboard. The TMS then signals the Meridian SL-100 system to activate message waiting indication for the requestee.

When the TMS notifies the requestee of a message at the message desk by an active message waiting indication, the requestee can retrieve messages from the message desk either by calling the message desk or by using a TMS terminal.

### **Calling the message desk**

The requestee dials the message desk DN or uses the Call Request Retrieval (CRR) code. The Meridian SL-100 system notifies the TMS of the incoming call and transmits the call information. The call information is the same as given above except that the call type is message-retrieval or direct. An attendant whose terminal displays the messages for the requestee answers the call. The attendant delivers the messages and the TMS notifies the Meridian SL-100 system to deactivate the message waiting indication for the requestee.

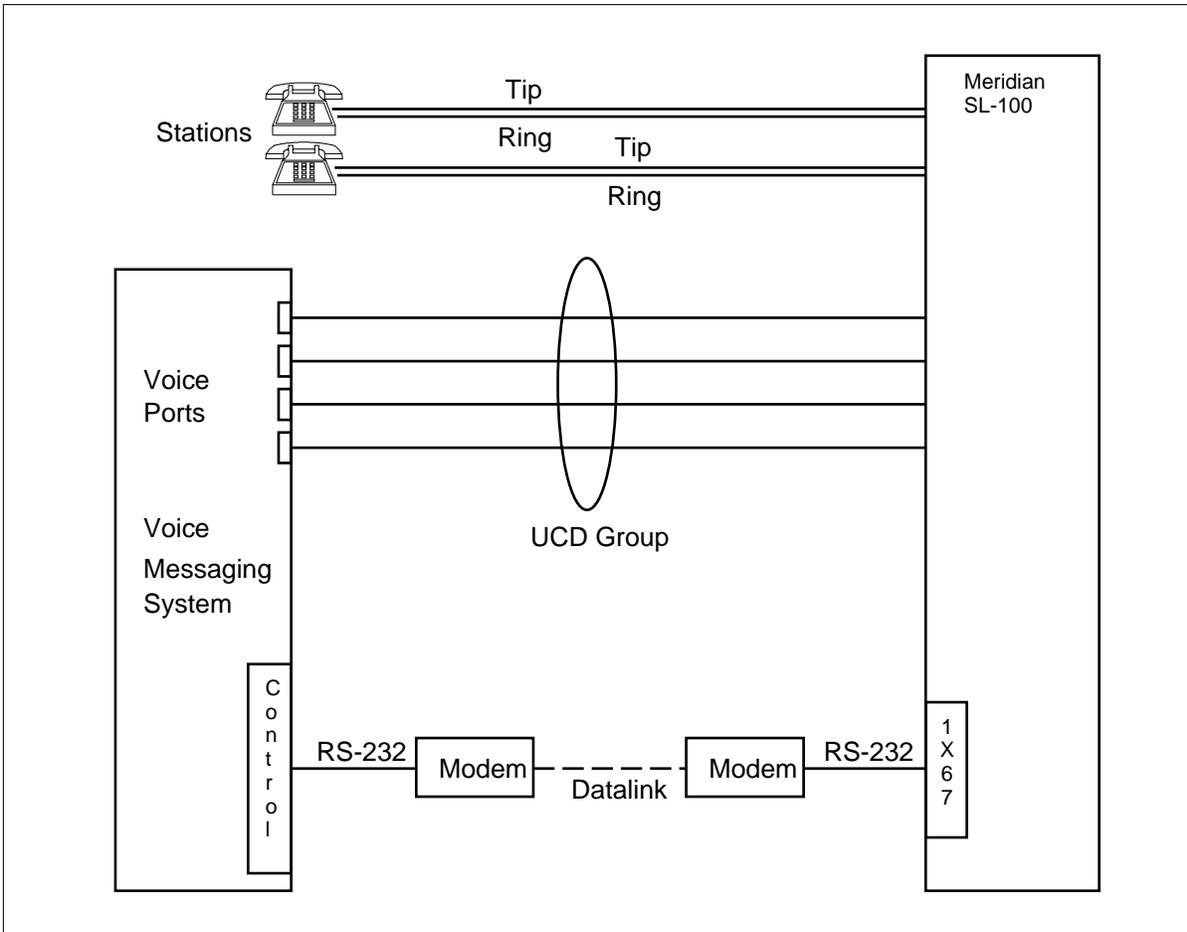
### **Using a TMS terminal**

The requestee enters the DN and any other information required by TMS on a TMS terminal. The messages display and the TMS notifies the Meridian SL-100 system to deactivate the message waiting indication.

### **Voice messaging system**

The VMS automatically stores and plays back the requestor's actual voice message. The message transmits as it is delivered, thus eliminating the need for an attendant message desk. Figure 1-2 shows the configuration of a VMS.

**Figure 1-2xxx**  
**Voice messaging system**



The message desk UCD group consists of voice lines that function to carry voice transmissions to and from the requestee's mailbox within the VMS. The mailbox is a unique address within the VMS for each requestee.

If the requestee forwards calls to the message desk, and the requestor calls the requestee, the requestor's call goes to the message desk. The Meridian SL-100 system sends the call information to the VMS over the datalink. The call information consists of the same information as for the TMS. The VMS uses the call information to ensure the requestor's call terminates in the correct mailbox and that the appropriate answering message plays.

The requestor leaves a voice message recorded by the VMS and releases the call. The VMS notifies the Meridian SL-100 system over the datalink to activate the message waiting indication for the requestee.

When an active message waiting indication notifies the requestee of messages at the message desk, the requestee can retrieve messages by dialing the message desk DN or the Call Request Retrieval code. The Meridian SL-100 system notifies the VMS of the incoming call and call information. The call information is the same as for the TMS, except that the call type is message-retrieval or direct. The VMS terminates the call on the correct mailbox so the requestee can retrieve the messages. The VMS then notifies the Meridian SL-100 system to deactivate the message waiting indication for the requestee.

### **SMDI datalink**

When a call goes to the message desk, the call information goes to the outgoing message queue for the SMDI data link interface to process. The multilink ASCII device driver dequeues the message and directs it to the message desk over the datalink.

If the call is a message for the requestee, the message desk takes the message and instructs the SL-100 by way of the datalink to queue a message against the requestee's station and activate message waiting indication if the requestee has the MWT feature. The multilink ASCII device driver to be dequeued places this instruction on the incoming queue.

*Note:* Another means of message waiting indication other than the MWT that is lamp or stuttered dial tone can be defined. In this case, it is not necessary for the station to have the MWT option. However, an error results if the message desk attempts to activate or deactivate message waiting through the datalink for a station without the MWT option. As a result, log SMDI100 generates.

If the call is the requestee retrieving messages, the message desk delivers the messages and instructs the SL-100 by way of datalink to deactivate message waiting indications for the requestee's station. The multilink ASCII device driver to be dequeued places this instruction.

An active message waiting indication notifies the station with messages at the SMDI message desk. The station can retrieve the message by dialing the message desk UCD DN or the Call Request Retrieve feature access code, if the station has the Call Request feature assigned. The Call Request Retrieve method of retrieval is recommended to maximize the effectiveness of the SMDI capability.

### **Differences between message waiting and SMDI message waiting**

With Message Waiting (MWT), the SL-100 system activates the Call Request. With SMDI message waiting, the datalink activates the Call Request by the datalink instruction. With SMDI, the message desk is a UCD DN. If the SL-100 system does not forward the requestee's calls to the

message desk UCD DN, then the requestor activates or deactivates the call requests against the requestee using the Call Request feature.

The requestee can not differentiate whether the MWT feature (another station) or the SMDI MWT feature (message desk) activates or deactivates the message waiting indication. The message waiting indication method remains the same for the requestee; it is either stuttered dial tone or Message Waiting Lamp, depending on this station's option. In addition, the requestor or requestee activates or deactivates message waiting through SMDI.

Procedures 1-1, 1-2, 1-3, and 1-4 compare and contrast the differences between Message Waiting and SMDI. In these procedures, Station B is the requestee, and Station A is the requestor.

**Procedure 1-1**

**Message waiting activation by the requestor**

- 1 Station A calls Station B and receives busy signal or the call is unanswered.
- 2 Station A flashes or presses the 3WC (Three-way calling) key to get special dial tone.
- 3 Station A dials the Call Request Activate access code and gets confirmation tone.
- 4 Station A goes on-hook.
- 5 Station A's message queues against Station B, and the message waiting indication activates for Station B.

**Procedure 1-2**

**SMDI activation by the message desk**

- 1 Station B forwards calls to the message desk UCD DN.
- 2 Station A calls Station B.
- 3 An output message transmits across the datalink to provide the message desk with information about the call.
- 4 The Meridian SL-100 system routes Station A to an appropriate member of the message desk, which answers and records the message for Station B.
- 5 Station A goes on-hook.
- 6 The message desk causes an input message to transmit across the datalink to the Meridian SL-100 system with instructions to activate the message waiting indication for Station B.
- 7 The Meridian SL-100 system queues the message against Station B and activates message waiting indication for Station B.

**Procedure 1-3****Message waiting deactivation by the requestee**

- 1 An active message waiting indication notifies Station B that a message is queued against the station.
- 2 Station B dials the Call Request Retrieve access code. If Station B is an Electronic Telephone Set with display, then Station A's directory number displays on the top line of Station B's set.
- 3 Station A rings. Station A answers and talks to Station B.
- 4 When the call completes, Station B goes on-hook.
- 5 Station A's message dequeues from Station B, and the message waiting indication deactivates for Station B.

**Procedure 1-4****SMDI deactivation by the message desk**

- 1 An active message waiting indication notifies Station B that a message is queued against the station.
- 2 Station B dials the Call Request Retrieve access code. If Station B is an electronic telephone set with display, then the message desk UCD group name (up to 16 characters) displays on the top line of Station B's set.
- 3 An output message transmits across the datalink to provide the message desk with information about the call.
- 4 The Meridian SL-100 system routes Station B to an appropriate member of the message desk, which answers and delivers the message to Station B.
- 5 Station B goes on-hook.
- 6 The message desk message transmits an input message across the datalink to the Meridian SL-100 system with instructions to deactivate the message waiting indication for Station B.
- 7 The message desk request dequeues and message waiting indication deactivates for Station B.

**Note:** Message waiting indication can remain ON momentarily until the Meridian SL-100 system receives and acts upon the above message.

**SMDI interaction with other features**

The SMDI interacts with other features as follows:

- A station can have both MWT and SMDI Message Waiting activated against it.
- A call forward validation termination call is a direct call to the message desk.

- For an attendant console-extended call to the message desk, the source of the call is the calling party presented to the message desk.
- If the requestor is a trunk or attendant console, the calling DN presented to the SMDI message desk is blank.
- In the event of call forward chaining to a message desk, the called station information presented to the message desk is the first call forward base station in the chain.
- In 3WC circuit with Call Forward Don't Answer, if the controller goes on-hook before the CFD time-out, then the other station on the first leg is the calling station. Otherwise, the controller is the calling station.
- A three-way call can not go to a UCD line. When two parties are talking and the call extends to a third party using three-way calling, the controller receives busy treatment if the third party's calls forward to the message desk.

### **Effect of restarts**

After a restart, the message desk agents within an active UCD group automatically log in that group again. Active datalinks in the transferring state automatically come up ready for use. The system preserves both MWT messages and the state of the message waiting indication on the requestee's station through warm restarts only.

The system also preserves the message waiting indication state on the requestee's station during cold restarts, even though the MWT messages queued against the requestee are lost. The state resets during a directory number audit.

---

# Datalink characteristics

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## Multilink ASCII device driver

The datalink used for the communication between the Meridian SL-100 and the message desk is provided by a multilink ASCII device driver. It consists of a 1200-baud, dedicated, full duplex line that transmits ASCII characters. It is an RS-232-C datalink, that uses an NT1X67BC terminal controller card. This datalink does not provide end-to-end protocol or integrity. It also does not provide retransmission of data that the datalink receives incorrectly.

The datalink is in full duplex, full echo mode, meaning each printable character that it receives echoes to the screen to enable validation of transmitted messages. This feature cannot be disabled.

A maximum of 59 datalinks can handle SMDI messages. Each datalink supports up to 63 desk numbers.

A datalink device must have datafill in table TERMDEV before the Management Reports Command Interpreter (CI) interface references it. A datalink device must also have datafill in table SLLNKDEV before it can connect in the CI increment LNKUTIL. This device must have datafill in table TERMDEV before it can be datafilled in table SLLNKDEV.

However, an entry in table TERMDEV can be manipulated independently of any corresponding entry in table SLLNKDEV. The only restriction is that the datalink device must have datafill in table TERMDEV before it can have datafill in table SLLNKDEV; and the device must have datafill in table SLLNKDEV before LNKUTIL can access it.

No device can transfer SMDI communication and any other existing report type. Therefore, SMDI must have exclusive use of any datalink it uses in the multilink ASCII device driver.

A set of Command Interpreter (CI) commands allows basic maintenance and manipulation of the datalinks. The user can start, stop, and query SMDI communication. See chapter 3 of this document, "Human-machine Interface," for a detailed description.

## Logs

Logs provide a printed-copy history of activities on each datalink including database initialization of the Down Stream Processor (DSP).

The logs also record the information on the start, stop, or start and stop of the following events:

- data transfer
- call event message generation
- call event error conditions

See chapter 6, “Log Reports” for more information.

If the SMDI Call Retrieval Billing option is active in the Meridian SL-100 system, the AMAB150 log report titled SMDR\_CALL\_DATA generates for each SMDI call retrieval. This information can also be recorded on the Station Message Detail Recording (SMDR) tape. The SMDI Call Retrieval Billing option also provides additional information within the AMAB150 report to distinguish a call retrieval using the Call Request feature from a direct call.

If the SMDR option is not working, then SMDR reports do not generate. For more information on SMDR, refer to the *Automatic Message Accounting - Northern Telecom Format*, 297-2071-119.

## Datalink failure

The Meridian SL-100 system performs activation or deactivation of SMDI MWT as instructed only by the input datalink message. If the datalink is down during activation, then the requestor’s message does not transmit and MWT does not activate. If the datalink is down during deactivation, then the message does not transmit and the Meridian SL-100 system does not deactivate MWT, even if the message is already retrieved. In this case, the Meridian SL-100 system depends on the message desk to inform the requestee when the system retrieves all messages and should deactivate the message waiting indication on the station. In both cases, appropriate logs generate that relate to the datalink status for hardware, software, or failure of both.

If the Meridian SL-100 system is momentarily unable to execute the message desk request, or the input datalink message contains invalid data, then the message does not transmit and the Meridian SL-100 system sends a message denoting negative acknowledgment to the message desk. In either case, it is a function of the message desk to recheck the data and try the transmission again.

## Message protocol

The system checks messages that it receives from the message desk for adherence to the following message protocols.

### Incoming messages

There are two kinds of incoming messages the Meridian SL-100 system can accept from the message desk:

- OP:MWI(SP)nnnnnnn!(D)
- RMV:MWI(SP)nnnnnnn!(D) where: nnnnnnnnnn = station number (can be 7 or 10 digits) (D) = control-D (End Of Transmission), nnnnnnnnnn = station number (can be 7 or 10 digits), and (SP) = space

The first message activates the message waiting indication. The second deactivates the message waiting indication.

For example, if Station B (DN 787-2000) forwards calls to the message desk and receives a message, the message desk activates message waiting indication for Station B with the following message:

```
OP:MWI 7872000!(D)
```

After Station B retrieves the messages from the message desk, the message desk deactivates message waiting indication for Station B with the following message:

```
RMV:MWI 7872000!(D)
```

### Outgoing messages

There are two groups of messages from the Meridian SL-100 system to the message desk:

- Call details - These message types give items of information concerning calls which the message desk received:
  - (CR)(LF)MDgggmmmmannnnnnn(SP)yyyyyy(SP)(CR)(LF)(Y)
  - (CR)(LF)MDgggmmmmannnnnnn(SP)(SP)(CR)(LF)(Y)
  - (CR)(LF)MDgggmma(SP)yyyyyy(SP)(CR)(LF)(Y)
- MWI change failure - The request to change Message Waiting Indication failed because it was either invalid (INV) or unable to perform the change when requested (BLK).
  - (CR)(LF)MWInnnnnn(SP)INV(CR)(LF)(DL)(DL)(Y)
  - (CR)(LF)MWInnnnnn(SP)BLK(CR)(LF)(DL)(DL)(Y)
 where:

## 2-4 Datalink characteristics

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- (SP) = space
- (CR) = carriage return
- (LF) = line feed
- (DL) = delete character (ASCII value FF)
- (Y) = control-Y
- ggg = message desk number (001-063)
- mmmm = message desk terminal (0001-2047)
- nnnnnnnnnn = forwarding from station number (can be 7 or 10 digits)
- yyyyyyyyyy = calling station number (can be 7 or 10 digits)
- a = type of call where D = Direct Calls, A = Forward All Calls, B = Forward Busy Calls, N = Forward No Answer Calls

For example, Station B (DN 787-2000) forwards all calls to the message desk. Station A (DN 361-1234) calls Station B and forwards to message desk number 002, terminal 009. The Meridian SL-100 system sends the following message to the message desk:

```
(CR)(LF)MD0020009A7872000 3611234 (CR)(LF)(Y)
```

---

# Human-machine interface

---

## CI commands

The Management Reports Application layer provides a generic datalink interface. A small set of Command Interpreter (CI) commands can manipulate the datalinks.

Using these CI commands, the user can start, stop, or query information on all data transfers on a specific datalink. Switch personnel must datafill all datalinks in Table SLLNKDEV before they can connect in the CI increment.

These commands are on two levels of CI: LNKUTIL and SMDILNK.

To access LNKUTIL, log on to a Maintenance and Administration Position (MAP) workstation and enter the CI level. Type the following at the CI prompt:

### **LNKUTIL**

A set of commands provided over a CI increment called SMDILNK allows the user to perform simple maintenance on the datalinks.

To access SMDILNK, the switch personnel types the following on a MAP workstation at the CI level:

To access SMDILNK, type the following at the CI prompt:

### **SMDILNK**

## **LNKUTIL commands**

In LNKUTIL, the following commands are available to the user:

- QUIT
- DEVCON
- DEVDISC
- DEVSTART

- DEVSTOP
- POOLSTART
- POOLSTOP
- LNKSTAT

## QUIT

The QUIT command causes the system to respond by leaving the LNKUTIL CI increment. The switch personnel no longer have access to LNKUTIL commands. There are no parameters, range, or defaults associated with the QUIT command.

## DEVCON

The DEVCON command enables a transfer session on a specific datalink. The format of the DEVCON command is as follows:

**DEVCON [devnme] plnme**

*where:*

devnme is the device name

plnme is the pool name. If not specified, it defaults to the device name.

*Examples of the DEVCON command:*

**DEVCON SMDI5 FIRST  
DEVCON SMDI6**

### System Responses

A message displays to indicate the success or failure of the request. If the request fails, the reason for failure displays:

- If no problems are encountered, the response is:  
Device SMDI5 has been started.
- If the datalink is not datafilled in table SLLNKDEV, the response is:  
Specified datalink is not datafilled in table SLLNKDEV. No action taken.
- If the maximum number of links has been assigned to the specified pool, the response is:  
The number of datalinks assigned to the pool FIRST is 4.  
No more datalinks may be assigned.  
No action taken.
- If the maximum number of datalinks has been reached, the response is:  
Unable to allocate device SMDI5.

- If the maximum number of pools has been reached, the response is:  
Unable to allocate pool FIRST.
- If the current device status is not DISCONNECTED or DEAD, the response is:  
Device SMDI5 has already been started.
- If the system is unable to send a Meridian SL-100 system (MSL) connect Remote Operation to the DSP, the response is:  
Unable to start device SMDI5.  
No action taken.

## DEVDISC

The DEVDISC command disables a transfer session on the specified datalink or delete information about the datalink from the system. If the switch personnel specifies the KILL parameter, the system performs the same two actions: the system deletes the device information and it removes the device from its assigned pool. If the device is the only device that the system assigns to the pool and it references no other applications, it deletes the pool information.

The format of the DEVDISC command is as follows:

### DEVDISC [devnme] KILL

*where:*

devnme is the device name

*Example of the DEVDISC command:*

The following are examples of the DEVDISC command.

**DEVDISC SMDI5**  
**DEVDISC SMDI5 KILL**

### System Responses

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays.

- If no problems are encountered, the response is:  
Device SMDI5 has been stopped.
- If the KILL parameter is entered, the response is:  
Device SMDI5 has been stopped.  
Device SMDI5 has been deleted from pool FIRST.

- If the current device status is disconnected or dead, the response is:  
Device SMDI5 is not in a connected state.  
No action taken.
- If the system is unable to send an MSL-disconnect Remote Operation to the Down Stream Processor, the response is:  
Unable to stop device SMDI5.

## **DEVSTART**

The DEVSTART command starts data transfers on the specified datalink. The device must start before the transfer begins. As long as the link status is CONNECTED, the FORCE option can overrule any system objections to the start of data transfer.

The format of the DEVSTART command is as follows:

**DEVSTART devnme SMDIDATA [FORCE]**

*where:*

devnme is the device name

*Example of the DEVSTART command:*

**DEVSTART SMDI5 SMDIDATA**

### **System Responses**

A message displays to indicate the success or failure of the request. If the request fails, the reason for failure displays.

- If no problems are encountered, the response is:  
SMDIDATA transfer has been started on device SMDI5.
- If the device is not been datafilled in table SLLNKDEV, the response is:  
SMDIDATA is not datafilled in table SLLNKDEV for SMDI5.  
It can not be used for SMDI I/O communication.  
No action taken.
- If the current device status is disconnected or dead, the response is:  
Device SMDI5 has not been started.  
No action taken.
- If the system is unable to send an MSL-start-transfer Remote Operation to the Down Stream Processor, the response is:  
Unable to start SMDIDATA transfer on device SMDI5.  
No action taken.

## DEVSTOP

The DEVSTOP command stops data transfers on the specified datalink. The device must be known to the system. Transfer must start before it can stop.

The format of the DEVSTOP command is as follows:

**DEVSTOP devnme SMDIDATA**

*where:*

devnme is the device name

*Example of the DEVSTOP command:*

The following is an example of the DEVSTOP command:

**DEVSTOP SMDI5 SMDIDATA**

### System Responses

A message displays to indicate the success or failure of the request. If the request fails, the reason for failure displays.

- If no problems are encountered, the response is:  
SMDIDATA transfer has been stopped on device SMDI5.
- If the current device status is not TRANSFERRING, the response is:  
SMDIDATA transfer has not been started on device SMDI5.  
No action taken.
- If the system is unable to send an MSL-stop-transfer Remote Operation to the Down Stream Processor the response is:  
Unable to stop SMDIDATA transfer on device SMDI5.

## POOLSTART

The POOLSTART command starts data transfer on all devices in the specified pool for the specified transfer type. It is equivalent to doing a DEVSTART on each device in the pool for the report type specified. If any device is not in a state that allows data transfer, no data transfer occurs.

The format of the POOLSTART command is as follows:

**POOLSTART plnme SMDIDATA**

*where:*

plnme is the pool name

*Example of the POOLSTART command:*

### **POOLSTART SMDIP1 SMDIDATA**

#### **System Responses**

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays:

- If there is an allowable number of links in pool SMDIP1, the following response is given:  

```
SMDIDATA transfer has been started on device SMDI5.
```
- If one or more links in the pool is currently transferring SMDIDATA, the following response is given:  

```
Transfer on SMDI5 in pool SMDIP1 has already been started.  
Transferring on pool SMDIP1 can not be started.  
No action taken.
```
- If device SMDI5 in pool SMDIP1 has not been datafilled in table SLLNKDEV, the response is:  

```
SMDIDATA is not datafilled in table SLLKNDEV for SMDI5.  
It can not be used for SMDI I/O communication.  
No action taken.
```
- If pool SMDIP1 has more than one datalink, the following response is given:  

```
The number of datalinks assigned to pool SMDIP1 is 2.  
It can not be used for SMDI I/O communication.  
No action taken.
```
- If device SMDI5 in pool SMDIP1 has not been datafilled in table SLLNKDEV, the response is:  

```
SMDIDATA is not datafilled in table SLLKNDEV for SMDI5.  
It can not be used for SMDI I/O communication. No action  
taken.
```
- If pool SMDIP1 has more than one datalink, the following response is given:  

```
The number of datalinks assigned to pool SMDIP1 is 2.  
It can not be used for SMDI I/O communication.  
No action taken.
```

### **POOLSTOP**

The POOLSTOP command stops data transfer on all devices in the specified pool for the specified transfer type. It is equivalent to doing a DEVSTOP on each device in the pool for the report type specified. If a device is not transferring, nothing happens.

The format of the POOLSTOP command is as follows:

**POOLSTOP plnme SMDIDATA**

*where:*

plnme is the pool name

*Example of the POOLSTOP command:*

**POOLSTOP SMDIPOOL SMDIDATA**

#### **System Responses**

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays.

- If all of the datalinks are currently transferring SMDIDATA, the following response is given:

SMDIDATA transfer has been stopped on device SMDI5.

*Note:* There is only one datalink per pool for SMDIDATA.

- If one or more links in the pool are not currently transferring SMDIDATA, the following response is given:

SMDIDATA transfer has not been started on device SMDI5.  
Transferring on pool SMDIPOOL can not be stopped.  
No action taken.

#### **LNKSTAT**

The LNKSTAT command displays information on all the datalinks in the Operational Measurement (OM) system. The device or pool must be known to the system. The following is the format of the LNKSTAT command:

**LNKSTAT DEVICE devnme  
POOL plnme  
ALL**

*where:*

devnme is the pool name

plnme is the pool name

*Examples of the LNKSTAT command:*

**LNKSTAT DEVICE MAP  
LNKSTAT POOL FIRST  
LNKSTAT ALL**

**System Responses**

The following is a sample response for the LNKSTAT DEVICE MAP command.

POOL	DEVICE	STATUS	DATA STREAM
SMDIP	SMDI5	Transferring	SMDI I/O communication

The following is a sample response for the LNKSTAT POOL FIRST command:

POOL	DEVICE	STATUS	DATA STREAM
SMDIP	SMDI5	Disconnected	-----

The following is a sample response for the LNKSTAT ALL command:

POOL	DEVICE	STATUS	DATA STREAM
FIRST	MAPA	Dead	-----
SECOND	SMDI5	Transferring	SMDI I/O communication
THIRD	MAPC	Connected	-----

**SMDILNK commands**

With SMDILNK, the following commands are available to the user:

- QUIT
- SMDICON
- SMDIDISC
- SMDISTAT

**QUIT**

The QUIT command enables the system to leave the SMDILNK increment.

**SMDICON**

The SMDICON command connects SMDI I/O communication from the Meridian SL-100 system to the datalink.

The format of the SMDICON command is as follows:

**SMDICON plnme**

*where:*

devnme is the pool name  
plnme is the pool name

*Example of the SMDICON command:*

### **SMDICON FIRST**

#### **System Responses**

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays.

- If the SMDICON FIRST command is entered and the device is known to the system, the response is:

```
SMDI I/O communication has been routed on pool FIRST.
```

- If the device is unknown to the system, then the response is:

```
Pool FIRST does not exist.  
No action taken.
```

### **SMDIDISC**

The SMDIDISC command disables the transmission of SMDI data that was previously assigned to a certain pool. Therefore, it requires a pool parameter to identify which pool to stop. The format of the SMDIDISC command:

#### **SMDIDISC plnme**

*where:*

plnme is the pool name

*Example of the SMDIDISC command:*

### **SMDIDISC FIRST**

#### **System Responses**

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays.

- If no problems are encountered and SMDI I/O communication is successfully stopped on pool FIRST, the response is:

```
SMDI I/O communication for pool FIRST has been stopped.
```

- If no SMDI I/O communication has been previously routed on any pool, the response is:

```
SMDI I/O communication has not been routed on any pool.  
No action taken.
```

- If SMDI I/O communication is not routed on the specified pool, the response is:

```
SMDI I/O communication has not been routed on pool FIRST.  
No action taken.
```

## SMDISTAT

The SMDISTAT command obtains information about SMDI I/O communication.

The format of the SMDISTAT command is as follows:

```
SMDISTAT POOL plnme
          ALL
```

*where:*

plnme = Pool name

*Examples of the SMDISTAT command:*

```
SMDISTAT POOL SECOND
SMDISTAT ALL
```

### System Responses

A message displays to indicate the success or failure of the request. If the request failed, the reason for failure displays:

- If SMDISTAT POOL SECOND is entered and a previous SMDICON command was entered successfully, then the response is:  
SMDI I/O communication is routed on a pool SECOND on device SMDI5.
- If no SMDI I/O communication has been routed on pool SECOND, the response is:  
No SMDI I/O communication has been routed on pool SECOND.
- If SMDISTAT ALL is entered and several previous SMDICON commands were entered successfully, then the response is:  
SMDI I/O communication is routed on the following pools and their associated devices:  

POOL	DEVICE
BOTTOM	SMDI3
TOP	SMDI6
SECOND	SMDI5
- If SMDISTAT ALL is entered and no previous SMDICON command was entered, then the response is:  
SMDI I/O communication has been routed.

The new state of the datalink depends on the previous state and the CI command used. Tables 3-1 through 3-3 describe the results of CI commands

when the datalink was previously in the disconnected, connected, or transferring states.

All commands belonging to the SMDILNK CI level have no effect while the datalink state is disconnected, since neither the pool nor the device is yet assigned.

**Table 3-1xxx**  
**Datalink state is disconnected**

Command	New State	Description
DEVCON	Connected	Defines a device as member of a pool, generates log SLNK100, creates related OM tuple.
DEVDISC	Disconnected	Disconnects the device link from a pool. The system still knows of the device (by way of LNKSTAT). No action is taken because the device has not been started (by way of DEVCON).
DEVDISC KILL	---	Deletes the device from a pool. To reuse, the device needs to be redefined to system (by way of DEVCON). Deletes the OM tuples from OM groups SLLNK and SLLNKINC.
DEVSTART	Disconnected	Prepares a device to handle SMDI I/O. No action is taken because the device has not been started (using DEVCON).
DEVSTOP	Disconnected	Stops a device from taking SMDI I/O. No action is taken because the device has not been started or is transferring (by way of DEVCON, DEVSTART).
POOLSTART	Disconnected	Prepares all devices in a pool to handle SMDI I/O. No action is taken because a datalink in the pool has not been connected.
POOLSTOP	Disconnected	Stops a device from taking SMDI I/O. No action is taken because a device in the pool is not started or is not transferring.
-end-		

**Table 3-2xxx**  
**Datalink state is connected**

Command	New State	Description
DEVCON	Connected	Defines a device as member of a pool. Log SLNK100 generates. No action is taken because the device is already started.
DEVDISC	Disconnected	Disconnects the device link from a pool. The system still knows of the device (by way of LNKSTAT). Log SLNK101 generates.
DEVDISC KILL	---	Deletes the device from a pool. To reuse, the device needs to be redefined to system (by way of DEVCON). Deletes the OM tuples from OM groups SLLNK and SLLNKINC.
DEVSTART	Disconnected	Prepares a device to handle SMDI I/O. No action is taken because the device has not been started (using DEVCON).
DEVSTOP	Disconnected	Stops a device from taking SMDI I/O. No action is taken because the device has not been started or is transferring (by way of DEVCON, DEVSTART).
POOLSTART	Disconnected	Prepares all devices in a pool to handle SMDI I/O. No action is taken because a datalink in the pool has not been connected.
POOLSTOP	Disconnected	Stops a device from taking SMDI I/O. No action is taken because a device in the pool is not started or is not transferring.
SMDICON	Connected	Assigns SMDI I/O into a specified pool. No physical data transfers take place. The related display of the OM tuple does not occur until DEVSTART is completed.
SMDIDISC	Connected	SMDI reports no longer sent to a specified pool. No action is taken if SMDICON has not been completed.
SMDISTAT	Connected	Queries the status of SMDI I/O and related datalinks. This command does not affect datalink status.
-end-		

**Table 3-3xxx**  
**Datalink state is transferring**

Command	New State	Description
DEVCON	Transferring	Defines a device as a member of a pool. No action is taken because the device has started.
DEVDISC	Transferring	Disconnects the device link to a pool. Cannot do DEVDISC directly while SMDI is communicating. Needs DEVSTOP before this command.
DEVDISC KILL	Transferring	Deletes the device from a pool. Cannot kill link while it is still transferring data. Needs DEVSTOP first.
DEVSTART	Transferring	No action is taken because the device is in a transferring state.
DEVSTOP	Connected	Stops device from handling SMDI I/O. Log SLNK103 generates. Suppresses the display of related OM tuples.
POOLSTART	Transferring	Nothing is completed if any datalink in the pool is in a TRANSFERRING state.
POOLSTOP	Connected	Stops all devices in a pool from accepting SMDI I/O. Log SLNK103 generates for each datalink in the pool. No action is taken if any datalink is not in a TRANSFERRING state. Suppresses the display of related OM tuples.
SMDICON	Transferring	Assigns SMDI I/O to a specified pool. Starts physical data transfer until SMDIDISC or DEVSTOP is completed.
SMDIDISC	Transferring	SMDI reports no longer sent to a specified pool. No action is taken if SMDICON has not been completed.
SMDISTAT	Transferring	Queries the status of SMDI I/O communication on the links. This command does not affect SMDI or datalink status.
LNKSTAT	Transferring	Queries the status of datalinks and related SMDI I/O communication. This command does not affect datalink status.
QUIT	Transferring	Leaves the current CI level. This command does not affect datalink or SMDI status. They remain in the same state upon entering the level again.
-end-		



---

# Data schema tables

---

## Datafill requirements

The Message Desk UCD Group must have the following datafill:

- UCD\_SMDI option in table UCDGRP designates this UCD group as the SMDI Message Desk.
- The agents within this UCD group must have the line option UCD in table IBNLINES to become UCD agents, and the SMDI option in table IBNFEAT to indicate that their UCD lines have the SMDI feature.
- It is recommended that the agents within the UCD group have the Cutoff on Disconnect (COD) option in table IBNLINES.
- The SMDI option cannot be added to a UCD group if any agents in the UCD group are active.
- The SMDI option cannot be modified for a UCD group if any agents in the UCD group are active.
- Each datalink may have up to 63 desk numbers assigned to it, with a maximum of 59 datalinks transferring SMDI information. Each UCD group is identified as a desk number. Two UCD groups cannot be on the same datalink without one being desk number 63. The first or second UCD group on each datalink must be datafilled as desk number 63. UCD groups datafilled after the first two can be assigned any unused desk number. The UCD group assigned desk number 63 is the desk number dedicated to handling call retrievals. However, direct dial access to desk number 63 is not restricted. The UCD group assigned desk number 63 is the desk number dedicated to handling call retrievals.
- The UCD group with desk number 63 cannot be deleted if there are two or more UCD groups on that datalink.
- The datalink of a UCD group with desk number 63 cannot be changed if there are more than two desk numbers on that datalink.
- The UCD feature must be assigned in table DNROUTE where the primary and secondary directory numbers of the Message Desk are defined.

- The UCD DN in table DNROUTE cannot be deleted if it is referenced by the UCD group with desk number 63, and more than two desk numbers exist on that datalink.
- It is recommended that the assignment of multiple desk numbers per datalink take place during off-hours so that any UCD group handling call retrievals is not abruptly affected by this change. Changing from multiple desk numbers to a single desk number should take place in off-hours as well.

The Requestee station must have the following datafill:

- Call Forward Busy, Call Forward Don't Answer, or Call Forward All to forward calls to the Message Desk
- MWT option to enable the message waiting indication on the station to be activated or deactivated. If the station does not have MWT datafilled, then other means of message waiting indication can be used. However, if the Message Desk requests MWT activation or deactivation through the datalink and the requestee's station does not have the MWT option datafilled, this causes an error and an appropriate log generates.

### **Datafill errors**

If the datafill is not correct, SMDI does not function properly. The following situations demonstrate some errors that result from incorrect datafill.

#### **No SMDI option in table UCD and table DNROUTE has no datafill**

If the UCD\_SMDI option does not contain an assignment to the UCD group in table UCD, and table DNROUTE has no datafill, then a direct call to the Message Desk receives the defined treatment and a Call Request Retrieval (CRR) call goes to the Night Service Route.

#### **No SMDI option in table UCD but table DNROUTE contains datafill**

If the UCD\_SMDI option does not contain assignment to the UCD group in table UCD, but table DNROUTE contains datafill with the UCD group DN, then a direct call to the Message Desk goes to the Night Service route and a CRR call terminates on an active UCD group member. However, no SMDI messages transmit across the datalink. If there are no active UCD group members, a CRR call goes to the Night Service route.

#### **No SMDI option in table UCD, tables DNROUTE and UCDGRP have no datafill**

If there is no UCD group in table UCDGRP, a direct call and a CRR call route to the defined treatment. The requestee should activate Call Request Delete Specific (CRDS) or Call Request Delete All (CRDA) to reset the message waiting indication.

**Table SLLNKDEV**

Table SLLNKDEV specifies characteristics of datalinks used by the CI increment LNKUTIL.

Table SLLNKDEV must contain datafill for all devices before they connect in LNKUTIL. These devices must be in table TERMDEV before they are datafilled in table SLLNKDEV.

There is no linkage between the table control software and the SLLNK software. An entry in table TERMDEV can be manipulated independently of any corresponding entry in table SLLNKDEV. The only restriction imposed is that the datalink device must be datafilled in table TERMDEV before it can be datafilled in table SLLNKDEV, and the device must be datafilled in table SLLNKDEV before LNKUTIL can access it.

Table 4-1 is an example of the datafill for table SLLNKDEV. Table 4-2 describes the fields to be entered.

**Table 4-1xxx**  
**Table SLLNKDEV datafill example**

Prompt	Response
>>	<b>table sllnkdev</b>
TABLESLLNKDEV	
>>	<b>add</b>
DEVNAME	
>>	<b>smdi5</b>
DEVTYPE	
>>	<b>rs232</b>
XLATION	
>>	<b>none</b>
PROTOCOL	
>>	<b>none</b>
DIRECTION	
>>	<b>inoutlk</b>
XFERS	
-continued-	

**Table 4-1xxx**  
**Table SLLNKDEV datafill example** (continued)

Prompt	Response
>>	smdidata \$
	-end-

For more information on table SLLNKDEV, refer to *Commercial Systems Customer Data Schema, 555-4031-851*, or *Defense Switched Network Customer Data Schema, 555-4021-851*.

**Table 4-2xxx**  
**Field descriptions for table SLLNKDEV**

Field Name	Value	Description	Explanation or action to take
DEVNAME	1-16 characters	Device name	Device name used in LNKUTIL
DEVTYPE	(See subfields.)	Device type	This field consists of subfield DEVICE, MPCNO and LINKNO.
DEVICE	1X67, 1X89, or HS1X6	Device	Enter the device type.  <b>Note:</b> If the entry in field DEVICE is 1X89, datafill subfield MPCNO and LINKNO.
MPCNO	0-255	Multiprotocol controller number	Enter the number of the 1X89 card (multiprotocol controller).
LINKNO	2-3	Multiprotocol controller link	Enter the Multiprotocol Controller (MPC) card link number.
XLATION	NONE or BCDTOASCII	Translation	Enter the Meridian SL-100 system link translation used for outgoing and incoming datalinks.
-continued-			

**Table 4-2xxx**  
**Field descriptions for table SLLNKDEV (continued)**

Field Name	Value	Description	Explanation or action to take
PROTOCOL	NONE or X400	Protocol	Enter the protocol that is expected by the datalink and the Meridian SL-100 system concerning the connection and starting messages, as well as any leading byte information required.
DIRECTION	INLK, OUTLK, or INOUTLK	Direction	Enter the direction in which data travels through the datalink. The Direction for Simplified Message Desk Interface (SMDI) must be INOUTLK.
CONTMARK	+ or \$	Continuation mark	Enter + to indicate that additional information for this tuple is contained in the next record. Otherwise, enter \$ to indicate the end of the tuple
XFERS	ACDRTD, MGTRPT, SMDIDATA, SMDRRPT, or XSMDATA	Transfers	Enter the report types currently allowed on the datalink. If ACDRTD or SMDIDATA reports are entered, no other types are allowed on the datalink. MGTRPT and SMDRRPT reports can be on the same datalink. This field accepts a vector with up to five entries. Enter \$ to terminate the vector.  <b>Note:</b> If the entry in field XFERS is SMDIDATA, datafill subfield OPTION.
-continued-			

**Table 4-2xxx**  
**Field descriptions for table SLLNKDEV (continued)**

Field Name	Value	Description	Explanation or action to take
OPTION	NUMOFDIGS, DNSUPPR, LASTFWDN, or NONMS	Option	<p>Enter <b>NUMOFDIGS</b> for number of digits, <b>DNSUPPR</b> for DN suppression, <b>LASTFWDN</b> for last forwarding Directory Number (DN), or <b>NONMS</b> for no network message service.</p> <p><b>Note:</b> If the entry in field OPTION is DNSUPPR, datafill subfield prompts CALLING and FWDING appear. If the entry is NUMOFDIGS, datafill subfield prompt NUMDIGS appears.</p>
NUMDIGS	7 or 10	Number of digits	<p>Enter the number of digits in the DN that goes to the Voice Message System (VMS).</p> <p><b>Note:</b> Before changing the number of digits in the SMDI stream, the link must be taken down.</p>
-continued-			

**Table 4-2xxx**  
**Field descriptions for table SLLNKDEV (continued)**

Field Name	Value	Description	Explanation or action to take
CALLING	CONDITNL, INDIRECT, NEVER	Calling DN suppression	<p>This group of subfields indicates whether the calling DN is suppressed when presented to the SMDI.</p> <p>Entering CONDITNL in both the CALLING and FWDING fields results in neither number being shown and the calling DN being supplied for all trunk types. Enter <b>INDIRECT</b> if all indirect calls are suppressed. The value INDIRECT also means that all direct calls are unsuppressed, as no suppression checking is performed.</p>
-continued-			

**Table 4-2xxx**  
**Field descriptions for table SLLNKDEV (continued)**

Field Name	Value	Description	Explanation or action to take
FWDING	NEVER, CONDITNL	Forwarding DN suppression	This refinement indicates whether the forwarding DN is suppressed when presented to the SMDI. Enter <b>CONDITNL</b> if the forwarding DN is conditionally suppressed, that is, if the forwarding DN is restricted.  <i>Note:</i> Entering CONDITNL in both the CALLING and FWDING fields results in neither number being shown and the calling DN being supplied for all trunk types.
CONTMARK	\$	Continuation mark	Enter a \$ to terminate the entry.
-end-			

**Table UCDGRP**

Table UCDGRP defines the directory numbers in a Uniform Call Distribution (UCD) Group. Each member of the Message Desk must be defined in this table. When adding the second UCD group to a datalink, the desk number must be 63. Table 4-3 is an example of datafill for table UCDGRP.

**Table 4-3xxx**  
**Datafill example for table UCDGROUP**

Prompt	Response
>	tableucdgrp
TABLE : UCDGRP	
-continued-	

**Table 4-3xxx**  
**Datafill example for table UCDDGROUP (continued)**

Prompt	Response
>	<b>add</b>
UCDNAME :	
>	<b>ucdgrp1</b>
ACD :	
>	<b>n</b>
CUSTGRP :	
>	<b>cust1</b>
UCDDRNGTH :	
>	<b>5</b>
TABID :	
>	<b>ofrt</b>
INDEX :	
>	<b>4</b>
TABID :	
>	<b>ibnrte</b>
INDEX :	
>	<b>7</b>
PRIOPRO :	
>	<b>99</b>
MAXPOS :	
>	<b>10</b>
DBG :	
>	<b>Y</b>
DEFPRIO :	
>	<b>1</b>
<b>-continued-</b>	

**Table 4-3xxx**  
**Datafill example for table UCDGROUP**

Prompt	Response
RLSCNT :	
>	<b>0</b>
MAXCQSIZ :	
>	<b>90</b>
OPTIONS :	
>	<b>ucd_smdi</b>
TERMDES :	
>	<b>smdi5</b>
DSKNO :	
>	<b>4</b>
>	<b>\$</b>
	<b>-end-</b>

For more information on table UCDGRP, refer to *Commercial Systems Customer Data Schema, 555-4031-851*, or *Defense Switched Network Customer Data Schema, 555-4021-851*. Table 4-4 gives the field descriptions for table UCDGRP.

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP**

Field name	Value	Description	Meaning or action to take
UCDNAME	1-16 characters	Uniform call distribution name	Enter the name assigned to UCD group.
ACD	N	Automatic call distribution	Enter <b>N</b> because Automatic Call Distribution is not supported.
		<b>-end-</b>	

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP (continued)**

Field name	Value	Description	Meaning or action to take
CUSTGRP	1 -16 characters	Customer group name	Enter the name of the customer group to which the UCD group belongs.
UCDRNGTH	0 - 63	UCD ringing threshold	Enter the ringing threshold, in 1-second intervals, after which an unanswered call to a UCD agent forwards to the route specified in field THROUTE. An entry of 0 (zero) means infinite time.
THROUTE	See subfields.	Threshold route	Consists of subfields TABNAME and INDEX. Specifies the route in table IBNRTE or OFRT to which the translation system routes any overflows, timeouts, or both.
TABNAME	IBNRTE or OFRT	Table name	Enter <b>IBNRTE</b> or <b>OFRT</b> as the table name to which the translations system routes.
INDEX	1-1023	Index	Enter the number assigned to the route list in table IBNRTE or OFRT to which the translation system routes.
CONTMARK	+ or \$	Continuation mark	Enter <b>+</b> to indicate that additional information for this tuple is contained in the next record. Otherwise, enter <b>\$</b> to indicate the end of the tuple.
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP** (continued)

Field name	Value	Description	Meaning or action to take
NSROUTE	Alphanumeric See subfields.	Night service route	Consists of subfields TABNAME and INDEX. Specifies the Night Service route in table IBNRTE or OFRT to which all incoming calls route if there are no active agents in the UDC group.
TABNAME	IBNRTE or OFRT	Table name	Enter <b>IBNRTE</b> or <b>OFRT</b> to specify the table to which the translations system routes.
INDEX	1 -1023	Index	Enter the number assigned to the route list in table IBNRTE or OFRT to which the translations system routes.
PRIOPRO	0 - 255	Priority promotion time-out	Enter the maximum time, in seconds, a call can wait in a queue.
MAXPOS	0 -1023	Maximum number of positions	Enter the maximum number of UCD agent positions in this group that can be active at one time. A value of 0 (zero) disallows agents from activating into the UCD group.
DBG	Y or N	Delayed billing	Enter <b>Y</b> if billing starts when the call is answered by a UCD agent. Enter <b>N</b> if billing starts when the caller receives a recorded announcement.
DEFPRIO	0- 3	Default priority	Enter the default priority number applicable to local calls terminating on the primary UCD number.
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP (continued)**

Field name	Value	Description	Meaning or action to take
RLSCNT	0 -31	Release count	Enter the maximum number of calls that terminate on a UCD station, but are not answered. An entry of 0 (zero) means infinite time.
MAXWAIT	0 -1800	Maximum wait time	Enter the maximum time, in seconds, that a call waits in the incoming call queue before being answered. A value of 0 (zero) means that all calls that cannot immediately terminate on an available agent position reroute to the overflow route specified in field THROUTE. Until the wait time of the call at the head of the incoming call queue for the UCD group is less than the value datafilled in this field, subsequent calls continue to reroute to the route specified in field THROUTE.
MAXCQSIZ	0 - 511	Maximum call queue size	Enter the maximum number of calls that can be in the incoming call queue at one time. A value of 0 (zero) means that all calls that cannot immediately terminate on an available agent position reroute to the overflow route specified in field THROUTE.
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP** (continued)

Field name	Value	Description	Meaning or action to take
OPTIONS	UCD_SMDI	Options	Enter the list of options and associated subfields assigned to the UDC group. Each option entry and its subfields must be separated by a blank space.
CONTMARK	+ or \$	Continuation mark	Enter <b>+</b> to indicate that additional information for this tuple is contained in the next record. Otherwise, enter <b>\$</b> to indicate the end of the tuple.
OPTION	AUDIO	Option	Enter <b>AUDIO</b> .  <b>Note:</b> If a recorded announcement or music is present, datafill field OPTION and subfields RANTH, ANNMUSIC, and AUDIOGRP.
RANTH	0 or 6 - 60	Recorded announcement threshold	Enter the time, in seconds, that an incoming call waits before a recorded announcement plays.
ANNMUSIC	Y or N	Announcement/music	Enter <b>Y</b> if announcement or music play for calls that cannot be answered immediately. Otherwise, enter <b>N</b> .
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP (continued)**

Field name	Value	Description	Meaning or action to take
AUDIOGRP	AUDIO1 to AUDIO15	Audio group	If field ANNMUSIC is <b>Y</b> , enter the audio group datafilled in table AUDIO whose option UCDQ specifies the announcement or music that the system applies to calls that cannot be answered immediately.
OPTION	QSL	Option	Enter <b>QSL</b> .  <b>Note:</b> If the Queue-Status Lamps (QSL) option is a virtual indication of waiting times for calls in the incoming call queue, datafill field OPTION and subfields SDGRPN01, SDPOINT1, SDGRPN02, SDPOINT2, SDGRPN03 and SDPOINT3.
SDGRPN01	0 to 511	Signal distribution group no. 1	Enter the number of the Signal Distribution (SD) group identifying the tuple in table SDGRP that defines the hardware location of the SD card.
SDPOINT1	0-6	Signal distribution point 1	Enter the SD point number on the SD card. This point is assigned to the currently named UCD group for the QSL option.
SDGRPN02	0-511	Signal distribution group no. 2	Enter the number of the SD group identifying the tuple in table SDGRP that defines the hardware location of the SD card.
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP** (continued)

Field name	Value	Description	Meaning or action to take
SDPOINT2	0-6	Signal distribution point 2	Enter the SD point number on the SD card. This point is assigned to the currently named UCD group for the QSL option.
SDGRPNO3	0-511	Signal distribution group no. 3	Enter the number of the SD group identifying the tuple in table SDGRP that defines the hardware location of the SD card.
SDPOINT3	0-6	Signal distribution point 3	Enter the SD point number on the SD card. This point is assigned to the currently named UCD group for the QSL option.
			<b>Note:</b> To enable the SMDI option, datafill subfields SMDILINK, SMDIDESK, and MCOSLIST. If the SMDI option exists, each member of the UCD group acting as the message desk must have the SMDI option.
OPTION	UCD_SMDI	Option	Enter <b>UCD_SMDI</b> .
SMDILINK	alphanumeric	Terminal designation	Enter the terminal designation defined in field TERMDIS in table TERMDEV.
SMDIDESKNO	1-63	SMDI desk number	Enter the message desk number. If no agents are assigned to the UCD group, enter a number between 1 and 63.
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP** (continued)

Field name	Value	Description	Meaning or action to take
MCOSLIST	CLASSA to CLASSP (vector of up to 4 entries or \$)	Message class of service list	Enter up to four Message Class Of Service (MCOS) entries from which the UCD group SMDI can receive messages. If you enter less than four MCOS entries, enter \$ to terminate the vector.  <b>Note:</b> If the UCD group has the Bulk Calling Line Identification (BCLID) option, datafill field OPTION and subfield BCGRPNUM, option BCLID enables information on calls terminating at the UCD group to go to the Customer Premises Equipment (CPE) along a dedicated BCLID data link. The UCD group belongs to the BCLID group associated with the data link.
OPTION	BCLID	Option	Enter <b>AUDIO</b> .
-continued-			

**Table 4-4xxx**  
**Field descriptions for Table UCDGRP** (continued)

Field name	Value	Description	Meaning or action to take
BCGRPNUM	0 -2047	Bulk calling group number	Enter the group number of the BCLID group to which the UCD group belongs, as defined in table BCLIDGRP.  <b>Note:</b> The Terminating Billing Option (TBO) allows the switch to generate Automatic Message Accounting (AMA) records from calls terminating at a line. If a call terminates at a line assigned to the TBO, an AMA record with a call code between 800 and 900 generates for each call terminating at that line. If the customer uses TBO, datafill field OPTION and subfields CALLCODE, SFORSBTM, and SPVAL (if required).
OPTION	TBO	Option	Enter <b>TBO</b> .
CALLCODE	800-999	Call code	This field identifies the call code for the AMA record.
-end-			

### Table DNROUTE

The primary and secondary directory numbers are assigned to a UCD group in table DNROUTE.

**Note:** Table DNROUTE exists as table WRDN prior to BCS33.

Table 4-5 is an example of the datafill for table DNROUTE:

**Table 4-5xxx**  
**Datafill example for table DNROUTE**

Prompt	Response
>	<b>table dnroute</b>
TABLE DNROUTE	
>	<b>add</b>
AREACODE	
>	<b>201</b>
OFCCODE	
>	<b>786</b>
STNCODE	
>	<b>1112</b>
DNSEL	
>	<b>ucd</b>
FEAT	
>	<b>messdesk</b>
UCDGRP	
>	
DNTYPE	
>	<b>0</b>
TOLLPRIO	
<b>Note:</b> The AREACODE and OFCCODE fields must be datafilled in table TOFCNAME before being datafilled in table DNROUTE.	
-end-	

The following is a list of selectors that are valid for subfield DNSSEL in table DNROUTE. The value of DNSSEL determines the subsequent subfields for which the system prompts.

Table 4-6 is a list of selectors that are valid for subfield DNSSEL in table DNROUTE. The value of DNSSEL determines the subsequent subfields for which the system prompts.

**Table 4-6xxx**  
**Valid DNSEL selectors**

DN selector	Use
D	Treatment
M	Direct routing to trunk member
MEM	"Meet me" conference
MM	Synonym directory number
SYN	Route list
T	Advanced Services Protocol Call Control (ASPCC)
FEAT	Automatic Call Distribution (ACD)
FEAT	Automatic Set Relocation (ASR)
FEAT	Direct Inward System Access (DISA)
FEAT	Directory Number Trigger (DNTRIG)
FEAT	Meridian OffNet Access (MONA)
FEAT	Message Center DN (MCDN)
FEAT	Preset Conference (PC)
FEAT	Uniform Call Distribution (UCD)
-end-	

For more information on table DNROUTE, refer to *Commercial Systems Customer Data Schema, 555-4031-851*, or *Defense Switched Networks Customer Data Schema, 555-4021-851*. Table 4-7 describes the table DNROUTE fields to be entered for a DNSEL of FEAT.

**Table 4-7xxx**  
**Table DNROUTE field descriptions**

Field name	Value	Description
AREACODE	0-9999999 (1 to 7 digits)	Enter the NPA (area code) of the DN.
OFCCODE	0-999999 (0 to 7 digits)	Enter the NXX code (office code) of the DN.
-continued-		

**Table 4-7xxx**  
**Table DNROUTE field descriptions** (continued)

Field name	Value	Description
STNCODE	0-99999999 (up to 8 digits)	Enter one or more digits of the DEFG digits (station code) of the DN.
DNSEL	FEAT	Enter the directory number selector <b>FEAT</b> .  <b>Note:</b> The fields and subsequent prompts after DNSEL vary based on the value in the DNSEL field.
FEAT	UCD	Enter the feature <b>UCD</b> .
UCDGRP	1-16 characters	Enter the one to sixteen character name as entered in table UCDGRP, field UCDNAME, for this UCD directory number.
DNTYPE	PRIM or SUPP	Enter <b>PRIM</b> , where the DN is the primary UCD DN for this UCD group, and complete field TOLLPRIO. Enter <b>SUPP</b> , where the DN is one of the supplementary DN for this UCD group, and complete fields MEMNO and DNPRIO.
TOLLPRIO	0-3	Enter the priority of toll calls terminating on the primary UCD DN. The highest priority is zero.
MEMNO	1-4	Enter the UCD member number of this DN in this UCD group.
DNPRIO	0-3	Enter the priority of calls terminating on this UCD DN.
-end-		

### Table IBNFEAT

Features are assigned to lines in table IBNFEAT.

Table UCDGRP must be datafilled before table IBNFEAT for SMDI. This is because the field UCDGRP must be the same name assigned in table UCDGRP to the field UCDNAME.

Table 4-8 is an example of datafill for table IBNFEAT:

**Table 4-8xxx**  
**Datafill example for table IBNFEAT**

Prompt	Response
>	<b>tableibnfeat</b>
TABLE: IBNFEAT	
>	<b>add</b>
LEM:	
>	<b>host 02 1 00 06</b>
DF	
>	<b>smdi</b>
LINENO	
>	<b>2</b>
UCDGRP	
>	<b>messdesk</b>
<b>Note:</b> Must be same name as assigned in UCDGRP.	
AUTOLOG	
>	<b>Y</b>
>	<b>\$</b>
	<b>-end-</b>

For more information on table IBNFEAT, refer to the *Commercial Systems Customer Data Schema*, 555-4031-851, or *Defense Switched Network Customer Data Schema*, 555-402 1-851.

Table 4-9 shows the field values for table IBNFEAT.

**Table 4-9xxx**  
**Field values for table IBNFEAT**

Field name	Value	Description	Meaning or action to take
LEN	Alphanumeric	Line equipment number	This field is comprised of subfields SITE, FRAME, UNIT, DRAWER, and CIRCUIT.
SITE	Alphabetic	Site	The site name of the remote location. If left blank, the default value is "host".
FRAME	0-99	Frame number	The line module frame number.
UNIT	0-1	Unit number of the module	The unit number of the line module to which the line is assigned.
DRAWER	0-19	Line drawer or line subgroup number	The number of the line drawer or line subgroup to which the line is assigned.
CIRCUIT	0-31	Line circuit number	The line card circuit number.
DATA	Alphanumeric	Uniform call distribution line information	This field is comprised of subfields DF, LINENO, UCDGRP, and AUTOLOG.
DF	SMDI	Simplified Message Desk Interface data	Enter the data feature <b>SMDI</b> .
LINENO	1 -1 024	Line number	The line number in the SMDI UCD group.
UCDGRP	1 -16 characters	UCD group name	The UCD group name assigned in table UCDGRP.
AUTOLOG	Y or N	Automatic Uniform Call Distribution	Enter <b>Y</b> if the line is to automatically log into the UCD group. Enter <b>N</b> if the line is to manually log into the UCD group.
-end-			



## Service orders

Switch personnel use Service Orders (SO) to add, change, or delete features. Service Orders use Table Editor to fill the customer tables as if entries were made directly into the tables.

To open a Service Order, log on to the Maintenance and Administration Position (MAP) workstation and enter the SERVORD system. For instructions on how to log on to the MAP workstation and begin a Service Order, and for an explanation of Service Order commands, refer to the *Commercial Systems Service Order Query and System Reference Manual*, 555-4031-808, or *DSN Service Order Query and System Reference Manual*, 555-4021-808.

Switch personnel can add SMDI to a UCD line using the ADO command. This action includes the line in a SMDI UCD group and enables that UCD line to be a part of the Message Desk. Figure 5-1 is a datafill example of a service order entry.

**Table 5-1xxx**  
**Datafill example of a SERVORD entry**

Prompt	Response
>	<b>servord</b>
SO:	
>	<b>ado</b>
SO_NUMBER:12 69 69>	
>	Press Return
LEN_DN:	
>	<b>7224111</b>
-continued-	

**Table 5-1xxx**  
**Datafill example of a SERVORD entry (continued)**

Prompt	Response
OPTION:	
>	<b>smdi</b>
SMDI_LINE_NO:	
>	<b>25</b>
UCDGRP:	
>	<b>messdesk</b>
AUTOLOG:	
>	<b>Y</b>
	<b>-end-</b>

Switch personnel can remove the SMDI option from a UCD line through the DEO command.

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## Log reports

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The following logs contain information pertaining specifically to SMDI Input/Output (I/O) communication:

- SLNK102
- SLNK103
- SLNK106
- SLNK107
- AMAB150
- SMDI100

For more information on these logs, refer to the *Commercial Systems Log Report Manual*, 555-4031-840, or *Defense Switched Network Log Report Manual*, 555-4021-840.

Log report SLNK102 occurs when the DEVSTART command in the SMDILNK CI starts a session on a datalink. This log also occurs for each datalink in the pool on which the POOLSTART command starts data transfer.

*Example report format:*

```
SLNK102 APR22 06:45:22 1999 INFO SESSION
      SMDI I/O communication transfer startedon device SMDI5.
```

### **SLNK103**

Log report SLNK103 occurs when the DEVSTOP command in the SMDILNK CI stops data transfer. This log also occurs for each datalink in the pool on which the POOLSTOP command stops data transfer.

If a user at the MAP workstation stops the transfer, the user takes no action. If the user takes no manual action, software terminates the transfer. Accompanying SWERR, TRAP, or LOG provides further information.

*Example report format:*

```
SLNK103 APR22 06:45:22 1999 INFO SESSION
      SMDI I/O communication transfer stopped on device SMDI5.
```

### **SLNK106**

Log report SLNK106 occurs when an operation fails to queue for a datalink device in the previous 2 minutes because of a full queue. The system discards new messages or overwrites previous messages reducing the message volume.

This message reduction occurs due to the switch personnel assigning additional devices to the pool to provide load-sharing or rerouting some of the message traffic assigned to the overburdened pool.

*Example report format:*

```
SLNK106 APR22 06:45:22 1999 INFO SESSION
      Last occurrence   = 1986/01/02 02:19:20.940 SAT
      Total number of overflow msgs = 46
```

### **SLNK107**

Log report SLNK107 occurs when the Meridian SL-100 system Link Wakeup (SLLNKWKP) fails to restart the datalink for any reason after a restart or link failure.

The following manual intervention repairs the indicated problem. If the datalink is in not service, maintenance personnel must return it to service. If the link is not in a connected state, maintenance personnel must return it to a connected state.

*Example report format:*

```
SLNK107 JUN12 01:45:56 1181 INFO SESSION
      Device SMDI5 has failed to restart.
      It will require manual intervention.
```

### **AMAB150**

Log report AMAB150 monitors the generation of Station Message Detail Records (SMDR). The information in the log is the same as the information that the system writes to the file (on tape or disk). Refer to the *Automatic Message Accounting-Northern Telecom Format, 297-2071-119*, for more information on SMDR.

The number 10 in the TERM\_FC field of AMAB10 indicates the type of call as a Call Request Retrieval. To demonstrate the position of the TERM\_FC field, quotes enclose the example.

*Example report format:*

```

AMAB150 JUL03 15:25:29 6707 INFO SMDR_CALL_DATA
  CUSTGRP =          CUSGRP1
  0 0 0 6137227111 ** 00 0 6137227112 ** +
  '10' 0 25112***** 002 12 30 02 000006
  ORIG = LEN HOST 00 1 02 13  DN 7227111 +
  TERM = LEN HOST 00 1 05 13  DN 7227112 +
  ANS=Y 0
  DTO = ***** AUTH = *****
  ACC = *****

```

**Note 1:** The plus sign (+) indicates the next line is a continuation of the text. In the actual log report, all the information appears on the same line. However, because of space limitation, the text lines are split.

**Note 2:** Asterisks indicate the field did not apply to this particular log. Refer to the *Commercial Systems Log Report Manual, 555-4031-840, DSN Log Report Manual, 555-4021-840*, for detailed information on each field.

**SMDI100**

SMDI100 occurs when the Meridian SL-100 system encounters an error in the Simplified Message Desk Interface (SMDI) Message Waiting Indication (MWI). The error report text denotes the reason for the error.

*Example report format:*

```

SMDI100 NOV08 15:26:53 3122 INFO SMDI_ERR_REPORT
REQUESTEE STATION MISSING MWT OPTION
  UCD GROUP INFO = IBNUCDGRP1      DATALINK = SMDILK0
  REQUESTEE INFO = $ LEN HOST 2 0 0 13  DN 7227640

```



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# Operational measurements

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Operational Measurements (OM) control the collection and display of operating data associated with the Meridian SL-100. Refer to the *Commercial Systems Operational Measurements Reference Manual*, 555-4031-814, or the *DSN Operational Measurements Reference Manual*, 555-4021-814, for more detailed information.

SMDI uses two OM groups:

- SLLNK
- SLLNKINC

## SLLNK

SLLNK provides the following measurements for the outgoing datalink utilities pertaining to SMDI Data Communication:

- SLLNKOVF: The number of messages the system overwrites or throws away because of a full outgoing queue.
- SLLNKOK: The number of messages successfully queued for transfer across the outgoing datalinks.
- SLLNKQU: The number of messages in the outgoing queue waiting for processing. This value increments every 100 seconds.

### SLLNKOVF

SLLNKOVF displays the number of messages that the system overwrites or throws away in an attempt to enter a full queue. A full queue is one that has no more available queue item buffers for queuing messages. It increments every time a valid message fails to enter because of a full queue and, as a result, is thrown away or overwrites a previous message.

SLLNKOVF is expected to be very low, if not 0. The chance of message overflow increases as register SLLNKQU increases. It should not exceed the maximum value of the OM register. Log SLNK106 also generates when a queue overflow occurs.

### **SLLNKOK**

SLLNKOK provides the following measurements for the successfully queued messages for transfer to the down stream processor. It increments every time a valid message successfully queues for transfer to the down stream processor.

### **SLLNKQU**

SLLNKQU records the number of messages in the queue waiting to be processed (Queue Usage). Switch personnel perform averaging by dividing this number by the number of times switch personnel take slow samples.

### **SLLNKINC**

SLLNKINC provides the following measurements for the incoming datalink utilities pertaining to SMDI Data Communication:

- SLLNKIOV: the number of messages that the system overwrites or throws away due to encountering a full incoming queue
- SLLNKIOK: the number of messages successfully queued for transfer across the incoming datalinks
- SLLNKIQU: the number of messages in the incoming queue waiting for processing. This value increments every 100 seconds.
- SLLNKBAD: the number of messages that are invalid for the data type input on the datalink. This can serve as a means of identifying datalinks that have input problems such as extraneous, garbled, or deleted characters.

### **SLLNKIOV**

SLLNKIOV records the number of messages that the system overwrites or throws away in an attempt to queue on a full incoming queue. A full queue is one that has no available free queue item buffers with which to queue a message. It increments every time a valid message fails to queue because of a full queue and, as a result, the system discards or overwrites a previous message.

SLLNKIOV is expected to be very low, if not 0. The chance of message overflow increases as register SLLNKIQU increases. It should not exceed the maximum value of the OM register.

Log SLNK106 also generates when a queue overflow occurs. The log alerts the user to this failure so that a reference to the OM can be made for details.

### **SLLNKIOK**

SLLNKIOK logs the number of messages queued successfully for reception from the datalink. This OM increments every time a valid message queues successfully from the datalink.

**SLLNKIQU**

SLLNKOQU records the number of messages in the queue waiting for processing (Queue Usage). Switch personnel perform averaging by dividing this number by the number of times they take slow samples. This OM usage register increments every 100 seconds.

**SLLNKBAD**

SLLNKBAD records the number of messages in an invalid format that the system receives from the datalink. It increments every time an invalid message does not queue due to the incoming processing task.



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# List of terms

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**3WC**

*See* Three-way Calling (3WC).

**AMA**

*See* Automatic Message Accounting (AMA).

**Automatic Message Accounting (AMA)**

An automatic recording system that documents all the necessary billing data of subscriber-dialed long distance calls.

**Call Forwarding Don't Answer**

A Meridian Digital Centrex (MDC) service that allows a subscriber to have incoming calls to a station's directory number (DN) forwarded to a predetermined DN. Call Forwarding Don't Answer (CFD) permits an incoming call not answered within a specified length of time to be forwarded to another designated station.

**Call Forwarding Busy**

A Meridian Digital Centrex (MDC) service that permits all calls to a busy station to be forwarded to a designated station within the customer group.

**Call Request Retrieval (CRR)**

A system request that goes to the Night Service route generates when there is a direct call to the Message Desk that receives a treatment.

**CFB**

*See* Call Forwarding Busy.

**CFD**

*See* Call Forwarding Don't Answer.

**CRR**

*See* Call Request Retrieval.

**Cutoff on disconnect**

A line option that allows a line cutoff by overriding originating software call setup commands on disconnect by the receiving party.

**datalink**

A collection of terminal installations and the interconnecting network operating in a mode that permits information to be exchanged between terminal installations.

**Directory Number (DN)**

The full complement of digits required to designate a subscriber's station within one Numbering Plan Area (NPA)-usually a three-digit Central Office (CO) code followed by a four-digit station number.

**DN**

*See* Directory Number.

**DPS**

*See* Diagnostic and Permanent Signal (DPS) alarms.

**DownStream Processor (DSP)**

A stand-alone computer that receives event messages generated by a DMS-100 Centrex switch. These messages relate to Automatic Call Distribution (ACD), individual calls, and agent positions. The DSP stores and processes the information to generate real-time operation displays and historical reports.

**DRAM**

*See* Digital Recorded Announcement Machine.

**DSN**

*See* Defense Switched Network.

**DSP**

*See* DownStream Processor (DSP).

**full duplex**

Simultaneous communication in both directions between two points.

**HMI**

*See* Human Machine Interface.

**Human Machine Interface (HMI)**

User interface with the switch through a program of commands.

**Maintenance and Administration Position (MAP)**

A group of components, such as a terminal, that provides an interface between the SL-100 switch and the user.

**MAP**

*See* Maintenance and Administration Position.

**message desk**

A combination of Uniform Call Distribution (UCD) groups, a primary UCD direction number (DN), and a duplex data link. A message desk serves as an answering service for stations that have their calls forwarded to it.

**Message Waiting**

A feature that allows the subscriber to receive notification of waiting messages. When MWT activates, the subscriber's directory number (DN) forwards to a message desk. When a message queues against the line, the MWT notification occurs.

**multilink ASCII device driver**

A 1200-baud, dedicated, full duplex line that transmits ASCII characters. It is an RS-232-C datalink, that does not provide end-to-end protocol, integrity or retransmission of data that the datalink receives incorrectly.

**Message Waiting Indication (MWI)**

A change of state of an indicator (such as stuttered dial tone, a steadily lit or flashing message-waiting lamp) that informs the user that a message is queued against the station.

**MWT**

*See* Message Waiting.

**Northern Telecom (NT)**

A leading maker of telecommunications systems.

**NT**

*See* Northern Telecom.

**OM**

*See* Operational Measurement.

**Operational Measurements (OM)**

The hardware and software resources of the DMS-100 Family switches that control the collection and display of measurements taken on an operating system. The OM subsystem organizes the measurement data and manages its

transfer to displays and records. The OM data is used for maintenance, traffic, accounting, and provisioning decisions.

**requestee**

The station that forwards calls to the Message Desk Uniform Call Distribution (UCD) Directory Number (DN) and against which the Message Desk queues the message from the Requestor.

**requestor**

The station that leaves a message at the Message Desk for a called DN.

**Service Order (SO)**

A facility consisting of commands that can be used to change subscriber line service tables.

**Service Order System (SERVORD)**

A user interface consisting of commands used to change, add, or delete subscriber lines. The format used for commands in the SERVORD comply with the standard telephone industry command format: for example, 3WC is three-way calling, ADO is add option, DEL is delete, and CWT is call waiting.

**Simplified Message Desk Interface (SMDI)**

A CLASS feature that allows a DMS-100 switch to communicate with a message desk. SMDI provides the Directory Number (DN) of the called station, the calling station number (if available), and the reason the call was forwarded to a message desk. In addition, SMDI allows the message desk to activate or deactivate the Message Waiting Indication (MWI) for any station able to forward calls to the desk.

**SMDI**

*See* Simplified Message Desk Interface.

**SMDR**

*See* Station Message Detail Recording.

**SO**

*See* Service Order.

**Station Message Detail Recording (SMDR)**

In Meridian Digital Centrex, a system that provides recording facilities for the details of billable and nonbillable calls for each MDC customer group.

**Text Messaging System**

A Message Desk dedicated to handling text messages.

**Three-way Calling (3WC)**

A feature that permits a subscriber to add a third party to an active call without operator assistance.

**TMS**

*See* Text Messaging System.

**UCD**

*See* Uniform Call Distribution.

**Uniform Call Distribution (UCD)**

A service that allows for even distribution of calls to a number of predesignated stations known as UCD stations or UCD positions. This service queues incoming calls to the message desk.

**VMS**

*See* Voice Messaging System.

**Voice Messaging System**

A Message Desk dedicated to handling Voice Messages.





Meridian SuperNode  
**Meridian SL-100**  
Simplified Message Desk Interface  
Description and Implementation

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Allowing this equipment to be operated in such a manner as to not provide for proper answer supervision is a violation of Part 68 of FCC Rules, Docket No. 89-114, 55FR46066

The SL-100 system is certified by the Canadian Standards Association (CSA) with the Nationally Recognized Testing Laboratory (NRTL).

This equipment is capable of providing users with access to interstate providers of operator services through the use of equal access codes. Modifications by aggregators to alter these capabilities is a violation of the Telephone Operator Consumer Service Improvement Act of 1990 and Part 68 of the FCC Rules. DMS, DMS SuperNode, MAP, Meridian, SL-100, SuperNode, and NT are trademarks of Northern Telecom.

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