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Meridian SL-100

Commercial Systems

Office Parameters Reference Manual

MSL14 Standard 11.02 June 2002

NORTEL NETWORKS

Meridian SL-100

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Office Parameters Reference Manual

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Version 11.02, MSL14 Standard release. This version represents an upissue of the standard release of this document to include color.

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Version 11.01, MSL14 Standard release.

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Version 10.01, MSL12 Standard release. This version represents the standard release of this document and includes some minor pagination and graphics differences from the previous version.

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Version 09.01, MSL11 Standard release.

- The following office parameters are added to table OFCENG:
  - AR_WITH NAME_ENABLED
  - CCW_ORIGINATION_CONFIRM_TONE
  - POLL_SCHEDULER_DATA
  - POLL_SCHEDULER_DEVICE
  - SO_MAX_OPTIONS_ALLOWED
  - TCW_OFFERED_ON_SCWID_DSCWID
- The following office parameters are changed in table OFCENG:
  - XLAPLAN_RATEAREA_SERVORD_ENABLED
  - NO_OF_CLONE_TIDS
- The following office parameters is added to table OFCVAR:
  - HPC_EGRESS_QUEUING

Contents

About this document

Purpose and audience

This document provides office parameter (OPARM) descriptions for Commercial Systems offices and provides guidelines for personnel responsible for administering office parameters for these offices.

The MSL12 software delivery is part of an on-going evolution. This document is one of several transitional documents that must be used with the NA DMS-100 Office Parameter Reference Manual for the full complement of DMS-100 and XPM documentation.

Disregard the signaling point (SP), Traffic Operator Position System (TOPS), and SuperNode Data Manager (SDM) information in the DMS-100 Office Parameter Reference Manual as it does not apply to the MSL-100 switch.

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 *Master Index of Publications.*

References in this document

The following documents are referred to in this document:

- *DMS-100 Provisioning Manual*
- *Feature Description Manual*
- *Log Report Reference Manual*
- *DMS-100 Integrated Services Digital Network Service Orders for ISDN Terminal Reference Manual*
- *NORESTARTSWACT User's Guide*
- *One Night Process Software Delivery Process*
- *Office Parameters Reference Manual*
- *Operational Measurements Reference Manual*
- *Translations Guide*
- *Bellcore Format Automatic Accounting Reference Guide*

What precautionary messages mean

The types of precautionary messages used in Nortel Networks 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 the precautionary messages follow.

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:

Procedure 1

At your location

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

OFCENG

Purpose

This chapter provides Office Parameter (OPARM) descriptions for Table OFCENG. Each OPARM description contains the following information:

- Full parameter name
- Functional description
- Provisioning rules
- Range information (minimum, maximum, and default)
- Activation requirements
- Dependencies
- Consequences
- Verification
- Memory requirements
- Dump and restore rules, including when the parameter was introduced and updated

LOWSPR_ALARM_ON_CARD_SPR_BASIS

Parameter name

Lowspare Alarm On Card Spare Basis

Functional description

This parameter controls the activation of the memory low spare minor and memory low spare major alarms (LowSpr and LOWSpr respectively) and their associated logs.

Provisioning rules

For MSL-100 offices with the BRISC processor, block sparing is allowed.

BRISC70 is required for MSL07 and higher.

For SuperNode (SN) and SuperNode System Enhanced (SNSE), this parameter must be set to N.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

With this parameter set to N, there are no low spare alarms generated until there are no spare blocks left (for each memory module size that is equipped on the switch). This implies that memory faults that affect more than one module or an entire memory card may not be able to have the entire memory card spared out.

LOWSPR_ALARM_ON_CARD_SPR_BASIS (end)

Verification

If the switch is equipped with insufficient spare memory blocks to spare out an entire card, the low spare alarm and corresponding log should be present with this parameter set to Y.

With this parameter set to N, the alarms and logs are generated only when there are no spare memory blocks left (for each memory module size that is equipped on the switch).

Memory requirements

Each unit requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

BCS33

This parameter was introduced.

NSS_RDD_REPLDIGS_LENGTH_A

Parameter name

Network Services Software REPLDIGS Template Length A

Functional description

To minimize the real time requirement for sending a transaction capabilities application part (TCAP) response message from the network services software (NSS) database control point (DBCP) to the NSS service switching point (SSP), templates of the REPLDIGS response message are built when the REPLDIGS subsystem is initially brought into service. These templates are of a fixed length. However, the length of a return result response message can be from 1 to 18 digits long as specified in the REPLDIGS field in table REPLDATA at the DBCP. Because it is not practical to create templates for each possible length, the office parameters NSS_RDD_REPLDIGS_LENGTH_A and NSS_RDD_REPLDIGS_LENGTH_B allow the operating company to choose the two most popular return result message length templates. If these templates are not created ahead of time, this real-time intensive task must be performed by the DBCP when the query is processed.

When a query is successfully processed at the DBCP and the number of digits to be returned is equal to the value specified by NSS_RSS_REPLDIGS_LENGTH_A or NSS_RSS_REPLDIGS_LENGTH_B, a template is used to send the response. Otherwise, the response TCAP message is assembled without a template, consuming a considerable amount of real-time.

Provisioning rules

This office parameter must be provisioned based on the value datafilled in table REPLDATA and the network dialing plan. For example, if the majority of the tuples in table REPLDATA have the REPLDIGS field datafilled to specify four digits, NSS_RDD_REPLDIGS_LENGTH_A must be set to 4. The next most frequent value found must be datafilled in office parameter NSS_RDD_REPLDIGS_LENGTH_B.

Range information

Minimum	Maximum	Default
1	18	7

NSS_RDD_REPLDIGS_LENGTH_A (end)

Activation

Busy (BSY) and return to service (RTS) the REPLDIGS subsystem in the SCCPLOC level of MAPCI. This map level can be accessed by entering the following:

```
>MAPCI;MTC;CCS;CCS7;SCCPLOC
```

Dependencies

Not applicable

Consequences

Incorrectly provisioning this parameter results in the majority of TCAP messages being built without a template and consuming real-time.

Verification

Check the datafill in table REPLDATA to confirm that this office parm is set properly.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

Copy the existing value of the parameter when doing a dump and restore.

Parameter history

This parameter was introduced with software release BCS33.

NSS_RDD_REPLDIGS_LENGTH_B

Parameter name

Network Services Software REPLDIGS Template Length B

Functional description

To minimize the real-time requirement for sending a transaction capabilities application part (TCAP) response message from the network services software (NSS) database control point (DBCP) to the NSS service switching point (SSP), templates of the REPLDIGS response message are built when the REPLDIGS subsystem is initially brought into service. These templates are of a fixed length. However, the length of a return result response message can be from 1 to 18 digits long as specified in the REPLDIGS field in table REPLDATA at the DBCP.

Because it is not practical to create templates for each possible length, the office parameters NSS_RDD_REPLDIGS_LENGTH_A and NSS_RDD_REPLDIGS_LENGTH_B allow the operating company to choose the two most popular return result message length templates. If these templates are not created ahead of time, this real-time intensive task must be performed by the DBCP when the query is processed.

When a query is successfully processed at the DBCP, and the number of digits to be returned is equal to the value specified by NSS_RSS_REPLDIGS_LENGTH_A or NSS_RSS_REPLDIGS_LENGTH_B, a template is used to send the response. Otherwise, the response TCAP message will be assembled without a template, consuming a considerable amount of real-time.

Provisioning rules

This office parameter must be provisioned based on the values datafilled in table REPLDATA and the network dialing plan. For example, if the majority of the tuples in table REPLDATA have the REPLDIGS field datafilled to specify four digits, NSS_RDD_REPLDIGS_LENGTH_A must be set to 4. The next most frequent value found must be datafilled in office parameter NSS_RDD_REPLDIGS_LENGTH_B.

NSS_RDD_REPLDIGS_LENGTH_B (end)

Range information

Minimum	Maximum	Default
1	18	10

Activation

Busy (BSY) and return to service (RTS) the REPLDIGS subsystem in the SCCPLOC level of the CI level at the MAP display. This MAP display level can be accessed by entering the following:

```
>MAP CI;MTC;CCS;CCS7;SCCPLOC
```

Dependencies

Not applicable

Consequences

Incorrectly provisioning this parameter results in the majority of TCAP messages being built without a template and consuming considerable amounts of real-time.

Verification

Check the datafill in table REPLDATA to confirm that this office parameter is set properly.

Memory requirements

This parameter requires 1 word of memory.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

This parameter was introduced in BCS33.

Parameter name

Remote Line Concentrating Module Emergency Stand Alone Static Data Update Boolean

Functional description

This parameter is used to control the performance of the following features:

- the Remote Line Concentrating Module (RLCM) Emergency Stand Alone (ESA) feature
- the Remote Digital Line Module (RDLM) ESA feature

Provisioning rules

The value of this parameter determines whether ESA static data is downloaded to all ESA equipped RLCMs or RDLMs during the nightly update of ESA static data.

If the value of this parameter is left at the default value of Y (yes), the static data is downloaded during the nightly update.

If the value of this parameter is set to N (no), the static data is not downloaded during the nightly update.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

RLCM_ESASDUPD_BOOL (end)

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

Copy the existing value of this parameter when doing a dump and restore.

Parameter history

This parameter was introduced in BCS21.

OFCVAR

Purpose

This chapter provides Office Parameter (OPARM) descriptions for Table OFCVAR. Each OPARM description contains the following information:

- Full parameter name
- Functional description
- Provisioning rules
- Range information (minimum, maximum, and default)
- Activation requirements
- Dependencies
- Consequences
- Verification
- Memory requirements
- Dump and restore rules, including when the parameter was introduced and updated

NSS_DBCP_ANI_BLOCK_CALL

Parameter name

Network Service System Database Control Point Automatic Number Identifier Block Call

Functional description

This parameter controls whether a call should be blocked or allowed to proceed when certain network problems occur. It is a safeguard mechanism to allow calls to continue to complete if the remote Database Control Point (DBCP) fails or the Signaling System 7 (SS7) network develops a flaw.

Provisioning rules

There are no special rules for setting the value of this parameter. Values are Y or N. The default value is based on the assumption that the customer is more interested in the security of blocking inappropriate calls than in allowing appropriate calls to complete due to a DBCP failure.

Range information

Minimum	Maximum	Default
		Y

Activation

Activation is immediate except when a call is currently in progress at the time the change is made.

Dependencies

None

Consequences

Setting the value of this parameter to N may result in calls with inappropriate Automatic Number Identifications (ANI) completing when they should be blocked. Network problems or busy switch, for example, may cause the DBCP response to be erroneous, or there may be no response from the DBCP. Either of these conditions may be a type of event where the value of NSS_DBCP_ANI_BLOCK_CALL is checked to determine whether the call is allowed to proceed. When considering

NSS_DBCP_ANI_BLOCK_CALL (end)

the desired outcome as the result of DBCP failures, the customer should weigh the advantages of not blocking appropriate calls versus the disadvantages of not blocking an inappropriate call.

Verification

This parameter is accessed directly by the code for this feature. Changes to this parameter are immediate; verify the value datafilled against this parameter by checking table OFCVAR.

Memory requirements

None

Dump and restore rules

Not applicable

Parameter history

MSL06

This parameter was introduced.

NSS_DBCP_ANI_REPLACE_DR

Parameter name

Network Service System Database Control Point Automatic Number Replace Digit Register

Functional description

This parameter controls whether the destination digits register received from the response message of a Database Control Point (DBCP) query replaces the dialed digits register used to translate the call. It is provided as an on/off switch to allow third-party equipment to interact with the Transaction Capabilities Application Part (TCAP) messaging. This feature uses TCAP messaging to provide services such as Automatic Number Identification (ANI)-based routing.

Provisioning rules

There are no special rules for setting the value of this parameter. Values are Y or N. By keeping the default value at N, third-party equipment cannot change the destination digits of a call and, therefore, cannot interfere with the normal operation of the switch.

Range information

Minimum	Maximum	Default
		N

Activation

Activation is immediate except when a call is currently in progress at the time the change is made.

Dependencies

None

Consequences

Setting the value of this parameter to N blocks any attempt to change the destination digits of calls that have had their ANIs remotely screened. Setting the value to Y enables digit replacement. Customers should ensure that any third-party equipment is authorized to used this functionality and that the equipment conforms to the regular operation of this feature.

NSS_DBCP_ANI_REPLACE_DR (end)

Verification

This parameter is accessed directly by the code for this feature. Changes to this parameter are immediate; verify the value datafilled against this parameter by checking table OFCVAR.

Memory requirements

None

Dump and restore rules

Not applicable

Parameter history

MSL06

This parameter was introduced.

NSS_DBCP_ANI_RESP_TIMEOUT

Parameter name

Network Service System Database Control Point Automatic Number Identifier Response Timeout

Functional description

This parameter controls the wait time for response messages after remote Database Control Point (DBCP) queries have been sent.

Provisioning rules

The default value should be acceptable for most networks. There are no special rules for setting the value of this parameter.

Range information

Minimum	Maximum	Default
1 (second)	10 (seconds)	3 (seconds)

The default value represents a reasonable assumption that three seconds is enough time for Transaction Capabilities Application Part (TCAP) operations to conclude and that a response that is delayed longer than three seconds has either been lost or was not generated due to an error at the DBCP.

Activation

Activation is immediate except when a call is currently in progress at the time the change is made.

Dependencies

None

Consequences

Setting the value of this parameter too low may result in the Automatic Number Identifications (ANI) of calls not being screened properly. On a busy switch, the DBCP response might not come back in the time allotted, and if the parameter NSS_DBCP_ANI_ BLOCK_CALL is also set to N, this could result in calls being allowed to proceed that were datafilled in the remote ANI database as being blocked calls.

NSS_DBCP_ANI_RESP_TIMEOUT (end)

Setting the value for this parameter too high results in extended call completion times if the remote DBCP server is down or there is network blockage. Also, if too much time is taken performing remote ANI validation, a timeout condition may occur within the outgoing feature group D trunk. If so, it may be necessary to increase the value of the equal access timeout parameters of the outgoing feature group D trunk.

Verification

This parameter is accessed directly by the code for this feature. Changes to this parameter are immediate; verify the value datafilled against this parameter by checking table OFCVAR.

Memory requirements

None

Dump and restore rules

Not applicable

Parameter history

MSL06

This parameter was introduced.

Parameter name

NSS Database Control Point TCN Block Call

Functional description

This parameter specifies whether a call should be routed to treatment (blocked) or allowed to proceed as normal when a problem occurs. If this parameter is set to N (no) the call is allowed to proceed as normal. If this parameter is set to Y (yes) the call is routed to treatment.

Example of problems that affect this parameter are:

- bad connection between the switches
- REJECT is received from the Database Control Point (DBCP) because of a protocol decoding problem
- the wait time for the response expires before the response is received

Provisioning rules

Set the value of this parameter to Y (yes) to block calls.

Set the value of this parameter to N (no) to allow calls to proceed when a problem has occurred.

Range information

Minimum	Maximum	Default
		Y

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

NSS_DBCP_TCN_BLOCK_CALL (end)

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

NSS_DBCP_TCN_RESP_TIMEOUT

Parameter name

NSS Database Control Point Travel Card Number Response Timeout

Functional description

This parameter specifies the wait time (in seconds) for a travel card number (TCN) database control point (DBCP) response message.

Provisioning rules

Set the value of this parameter to the length of time (in seconds) to wait for a TCN DBCP response message.

Range information

Minimum	Maximum	Default
1	10	3

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

Dump and restore rules

This parameter was introduced in BCS31.

Copy the existing value of this parameter when doing a dump and restore.

Parameter name

SL-100 Network Name

Functional description

This parameter is required in an SL-100 switching unit that has parameter SLNETWORK_ENABLED in table OFCVAR set to Y (yes). It specifies the three-character name that is used to identifiy the node of the system.

Provisioning rules

The node name can not be the same as the one datafilled in table SLNWK as the Sub-regional control facility (SRCF) node name.

All of the network control commands originated either from SRCF or SL-100 contain fields that identify the site node name and SRCF node name.

Range information

Minimum	Maximum	Default
		NIL

Activation

Immediate

Dependencies

Not applicable

Consequences

Not applicable

Verification

Not applicable

Memory requirements

This parameter has no memory impact.

SLNETWORK_NAME (end)

Dump and restore rules

This parameter was introduced in BCS23.

Copy the existing value of this parameter when doing a dump and restore.

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