
Support Notes for the Octel 200/300 Platform

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To: D.I.A.L.PRO Distributor Principals and Technical Contacts
Authorized Distributor Principals and Technical Contacts
Octel Technical Contacts
Channel Business Managers

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**Subject: Serenade 3.0 Software Overview (S.3.0.0)
For the VMX 200/300 and Octel 200/300**

PURPOSE

This document provides an overview of Serenade software Release S.3.0 for the Octel 200/300 and VMX 200/300 message servers. It describes new features, capabilities and changes introduced since Release S.2.0. Note that one change is that what was formerly referred to as the Overture 200/300 is now known as the Octel 200/300.

INTRODUCTION

Serenade S.3.0 is available effective **July 24, 1998**

Release 3.0 of Serenade software for the Octel 200/300 and VMX 200/300 includes several new capabilities and changes. Some of the significant new features in Serenade 3.0 include:

New European Integrations

- DPNSS Integration for Siemens GPT iSDX
- DPNSS Integration for Siemens HiCom 300E (European version only)
- Enhanced In-Band Integration for Matra Series MC65XX
- Enhanced In-Band Integration for the following Alcatel switches:
 - 4100, 4210, 4200, 44x0, 5200
- Euro-ISDN for Bosch I33xe

Networking Enhancements

- Network Outcall Delivery Schedules

'0' as the leading digit of a Numbering Plan Table entry

Administrative Features

Block MWI/MWN for selected SDL and Broadcast Messages
Increased number of COS and Information Tables
Increased PEG count and Report Modification

Serviceability Enhancements

Enhanced Disk Utilities
Automated Software Upgrade
MAC log at Maintenance level
List Network Failure at Admin level
New Traffic Pegs

UPGRADE PATH

Existing 200/300 systems running L7.0.X, L.7.1.X, L8.1.1, S.1.X, S.2.X software are able to upgrade directly to S.3.0. The **average** time to perform the upgrade is:

L7.X.X	to	S.3.0	5 ½ hours
L8.1.1	to	S.3.0	4 ½ hours
S.1.X.X	to	S.3.0	1 ½ hours
S.2.X.X	to	S.3.0	1 hour

- These times will vary based on the size and number of drives in the system being upgraded.
- There is NO conversion program for a D.I.A.L. configuration to Release S.3.0.
- Storage used for system files in Release S.3.0 is the same as that used in S.2.0.
- Prompt diskettes used for Release S.2.0 are also applicable to Release S.3.0.
- Serenade 3.0 supports *Works* without Visual Mailbox at release W.3.1.3 and above.
- Serenade 3.0 supports Visual Mailbox at Release 1.5; the *Works* release must then be W.3.2.

KNOWN PROBLEMS/FIXES TO RELEASE 2

- Known Problems
- A problem may be experienced if the receiving host server becomes disabled for some reason while a LAN backup is in progress. If the back-up is done in the foreground, the symptom of the problem is that the procedure itself stops mid-stream, and the terminal screen (which had been displaying backup messages) is frozen. To abort the process and return the terminal to service, hot-plug the LAN card. If the backup is done in background mode, and the @BACKUP ABORT command is issued, the terminal screen also becomes locked up. Again, to abort the process and return the terminal to service, hot-plug the LAN card. However, if you suspect that the backup process has stopped, it is better not to issue the @BACKUP ABORT command, but instead, to use the Courtesy Down/Courtesy Up commands. Using these commands aborts the backup and returns the Command Line Interface to the @ prompt.
- Slot/Channel listings for the Hardware Error Table in servers that use the DTIC-EI card show data that will appear to be incorrect. (For example, an error that appears related to Slot 3 may actually

be logging against Slot 2.) Consult with Technical Support for an understanding of how to interpret Line Card or Integration errors that show data by Slot and Channel.

Note: this issue does NOT exist with any card except the DTIC. The problem is related to the fact that the DTIC is a 30-port card

Fixes to Release 2

Following is a list of S.2.0.X problems that were found and fixed through the testing process. These were not issues identified in the field, and are therefore not related to specific Release 2 patches.

User/Caller Functionality

- It was discovered that there was a documentation error regarding the functionality of the immediate call (14) option. In most integrated environments, the user's mailbox is configured with Attributes 6 (Call Extension First Before Playing Greeting) and Attribute 15 (Transfer to a Ringing Extension). In such an environment, when the called party presses 14 for an immediate call within the same system, if the extension is not answered, the call ends up in the original sender's mailbox. The person who made the immediate call is NOT returned to his own mailbox. For non-integrated mailboxes (where the COS does not have Attribute 15), the person who makes the immediate call is returned to the mailbox and prompted to press 17 to send a reply.
- Lab activity uncovered the fact that callers who dialed the "auto-attendant" to leave a series of quick messages were being disconnected after they sent a number of messages (typically, the server would allow 4 quick messages). In Release 3, this limitation has been removed.

Networking

- Release 3 corrects a problem where modifying system parameters can result in a change of the setting for the Subnet Mask for SELF, where the new value is 00.00.00.00.
- Prior to Release 3, if there were Aria systems networked with Serenades, there was a requirement to set System Parameter 270 - Minimum Number of Free Ports for Outcall - to 1. The reason was that this parameter is also used when a decision is made regarding whether to accept an incoming network call sent via Protocols 1, 3, or 5. For Protocols 1 or 3, the value could be set higher than 1, because if the call was rejected, the sending system would try again. However, when Aria is the sending system, if the call is rejected there is no retry. Therefore, in Release 3, the incoming check for Protocol 5 is removed. When a Protocol 5 call is presented, if there is an available port, the call will be accepted. This in turn frees the system administrator to set the value for System Parameter 270 to a somewhat higher level if the desire is to give preference in a high traffic period to live calls over network calls.
- When the .L LOC command to list all entries in the Location Table was issued in Release 2, use of the Escape key did not work until all listings were completed for the protocol showing when ESC was pressed. This is fixed in Release 3.

Configuration

- There were differences introduced in the Install program with Release S.2.0 which have been restored back to prior functionality. Specific fixes:
 - when an exit was made from Install to Update to add an Information Table so that it could then be configured in the Schedule Table, the prompting to indicate that the schedule table was not saved on exit to Update was missing.
 - Other prompts which should have been displayed during the Update mode were also missing.
 - when the exit from Update back to Install is made, the server no longer starts again with COS 0.
 - it is now impossible to complete an Install process without configuring at least one mailbox. (A problem had been seen in restarting a system where an install was done with no mailboxes.)
- When the final Schedule Table is deleted from a Class of Service, the related CSTAT Table is now initialized.
- The problem that existed in the Release 2 upgrade with regard to bogus entries in the Holiday Table has been fixed. It is no longer necessary to delete the Holiday Table in preparation for an upgrade – but it is always a good idea to review table entries. Remember that Holiday Table entries are not automatically deleted when the date has passed.
- In Release 2, the Translation Table for MWI in Enhanced In-band Integration did not work. It was not possible to address the problem through a patch, but a fix has been incorporated within Release 3.
- The LANHOST Table was omitted from the .L ALL output, and is now included.
- There was an error, now corrected, that permitted configuration in the SLOTS Table of more ports than were actually authorized.
- The following is reprinted from the weekly technical message issued in August, 1997: Prior to Release S.2.0, schedule tables could be configured such that the times associated with one day could overlap into the next day. For example, a day of Monday could be specified, with a time from 20:00 (or 8 p.m.) until 06:00 (or 6 a.m.). This resulted in the possibility of creating overlapping time periods across days within a class-of-service profile. Starting with release S.2.0, the configuration was intentionally changed to prevent this. Therefore, to cover the time period in our example, two schedule table entries would be needed: the first would go from 20:00 until 23:59 on Monday, and the second from 00:00 to 06:00 on Tuesday.

This configuration note is still applicable in Release 3. In addition, there is now an appropriate error message if the SCHEDULE Table is configured incorrectly.

- A problem was fixed based on lab experience where the trunk definition entry in Index 35 (Override Trunk Group Number) had been deleted from the TRUNK GROUP Table before it was

deleted from the INFORMATION Table, and it was subsequently impossible to list that INFORMATION Table.

- In Release 2, to clear the field for the PNN or TNN in the LOCATION Table, an entry of '0' was required. This has been changed such that NONE is now the effective entry.
- During an operation to add mailboxes within range beyond the number authorized, the server returns the prompt "Operation failed; not enough PURCHASED Voice Mailboxes." However, mailboxes are actually added until the authorized limit is reached. In general, be aware that the status of individual commands is not reflected when range commands are used.

Maintenance

- A fix was incorporated for a problem where the Location Activity trace (choice 4 in the @ L T command) was not showing complete data.
- The List All now includes just the LSP Table entries that are referenced in the Slots Table (rather than all possible entries).
- Output of the @L M xxxx command has been enhanced to indicate whether the greeting is standard or extended absence.

DOCUMENTATION

Serenade 3.0 documentation is available from the Octel Company Store in two forms: two three-volume hard copy manuals or a CD-ROM. The CD-ROM is Windows '95-compatible. The System Administrator's Manual is shipped with each new Serenade system. The Installation & Maintenance manual must be available to technical contacts who support the Octel 200/300 product. The CD-ROM contains all six volumes (release S.3.0 version only).

Existing S.2.0 manuals can be updated to S.3.0 by replacing affected pages. Here are the part numbers for both update documentation and the full manuals.

System Administrators Manual (SAM)	Part Number: PB60012-01
(Product Description, Feature Description, Configuration)	
SAM - Update only	Part Number: PB60013-01
Installation and Maintenance Manual (I&M)	Part Number: PB60014-01
(Installation & Maintenance, Integration, Networking)	
I&M - Update only	Part Number: PB60015-01
CD-ROM	Part Number: PG10010-01

HARDWARE REQUIREMENTS

• CPU

Release 3 requires the same CPU as that used for Release 2. The CPU currently used for Release L.8 and S.1.X systems (300-6039-002, 12 MB) can be upgraded to 16 MB (300-6039-003) by adding more memory via a 4 MB SIMM chip. For systems upgrading from Release L.7, an entirely new CPU must be ordered. The CPU shipped with new systems and with the Release L.7.x to S.3.0 Upgrade Package contains 16 MB memory. An S.3.0 Upgrade Package can be ordered for each supportable release, and contains the following items: S.3.0 software diskettes, US English prompt diskettes (Version 2G), upgrade procedure documents, a 4 MB SIMM chip or a new 16 MB CPU, and the Electromagnetic Interference Upgrade Kit. The part numbers for the 200/300 respectively are:

<u>Release</u>	<u>200</u>	<u>300</u>
Release S.2	FK90193*	FK90194*
Release S.1	FK90195	FK90196
Release L.8	FK90197	FK90198
Release L.7	FK90199	FK90200

* SIMM chip not required

Individual Part Numbers are:

EMI Upgrade Kit	FK90164
4 MB SIMM + EMI Kit	23-UPG-CPUEMI (includes CPU upgrade procedure)
16 MB CPU	300-6039-003

• VCU

Release S.3.0 requires the VCU to contain 4 MB voice and 2 MB control. This has not changed since Release L.8.1.1.

Part Number: 300-6001-004

• Electromagnetic Interference Upgrade Kit

This kit contains “ferrite beads” and other hardware, plus the procedures needed to make minor adjustments to the 200/300 cabinets. This will insure that the message servers meet current requirements for protection against electromagnetic interference in all environments.

• Languages Prompt Diskettes

S.3.0. uses the prompts first issued for S.2.0. For the most current listing of languages available, refer to Appendix A or consult your Customer Administration representative.

The process for ordering languages was changed starting with S.2.0. The changes are explained in the Serenade price list. As a reminder:

- Every order must now specify a “primary” language (even those shipped within the U.S.).
- If more than one language is ordered, all languages specified will be loaded at the factory, with the “primary” language installed first. One copy of each set of language prompt diskettes (except US English, which is part of the S.3.0 Upgrade Package) will be included when the system is shipped.

(Note that pre-loading languages applies only to the 200/300 product. VMX 100 systems will continue to ship with US English prompts; additional languages must be ordered and loaded on-site.)

- The Multilingual Prompt feature, FP91001-01, must be ordered once for each language ordered in addition to the “primary.”
- Certain languages, including those for Canadian bilingual installations, TDD/TTY, and 5000 User Interface, are available as “kits” that include two languages as well as the Multilingual Prompt Feature. For the 5000 UI, “quick” or “standard” prompts must be specified.
- For systems that already have multilingual configurations and are being upgraded, except for upgrades from Release 2 to Release 3, individual prompt sets must be ordered.
- Prompt diskettes for S.3.0 are no-charge items until another release is issued. There is a charge for prompts diskettes at earlier releases.

NEW EUROPEAN INTEGRATIONS

Release 3 provides significant new functionality for integration with the following switches. Details regarding these integrations can be found in the Configuration Notes for each.

- **DPNSS Integration for GPT iSDX**
Configuration Note 6102
- **DPNSS Integration for Siemens HiCom 300E (European version only)**
Configuration Note 6106
- **Enhanced In-Band Integration for Matra Series MC65XX**
Configuration Note 6109
- **Enhanced In-Band Integration for the following Alcatel switches:
4100, 4210, 4200, 44x0, 5200**
Configuration Note 6108
- **Euro-ISDN for Bosch I33xe switch**
Configuration Note 6105

NETWORKING ENHANCEMENTS

- **Network Outcall Delivery Schedules**

NETWORK SCHEDULE Table

The NETWORK SCHEDULE Table enhances the existing message delivery features for networking. You can batch messages for delivery and schedule that delivery on a per-location basis to minimize long-distance telephone charges incurred during message transmission and avoid tying up telephone lines during busy office hours.

The LOCATION Table can be configured with a network delivery schedule for each analog network location entry , with the exception of servers defined as collocated (either analog or digital DOMAIN). If necessary, the schedule designated for the analog network can also be enabled for digital networking.

Here's an example:

Network Protocol 3:

LOCATION NAME	ROUTE CHOICES	HAS SYSTEM	SAME LOC.	AUTH LEN	PRIMARY LOC.	PUBLIC / TIE NETWORK NUMBERS
TEST2	1. 7200 2. 3.	YES	NO	0		PNN: TNN:

DELIVERY SCHEDULE : 7200B7

** DIGITAL NETWORK **

DIGITAL LOCATION NAME :

IP ADDRESS : 155.156.70.3 HIGH SPEED

ANALOG STANDBY: PROTOCOL 3

HIGH SPEED LINK MONITOR: DISABLED

NAMESEND: ENABLED

DELIVERY SCHEDULE : 7200B7

The NETWORK SCHEDULE Table defines the message delivery window, priority of messages that are sent during that window, and the message delivery interval within that scheduled time. You can define a maximum of 100 network message schedule entries. Multiple locations can point to the same NETWORK SCHEDULE Table entry. Here's an example:

NET SCHEDULE NAME	WINDOW#	START TIME	STOP TIME	INTERVAL (MINUTES)	PRIORITY LEVEL
7200B7	1	00:00	23:59	0	4
	2	08:00	17:00	15	3
	DEFAULT	17:01	07:59	60	0

The message delivery priority level is based on the mailbox configuration and the type of message delivery the mailbox holder selects. There are five message priority levels: P4, P3, P2, P1 and P0. P4 is the highest and P0 is the lowest.

Mailboxes are defined as Priority or Standard when using network schedule tables. A Priority mailbox is configured with COS Attribute 17 - May Send Network Messages Immediately. A Standard mailbox is configured with COS Attribute 18 - May Send Network Messages Only at Night. If neither COS Attribute 17 nor COS Attribute 18 are in the COS, System Parameter 70 - NET: Message Delivery Mode Default is used to determine if a mailbox is defined as Priority or Standard. If System Parameter 70 is set to 1 (immediate), the mailbox is a Priority

mailbox. If System Parameter 70 is set to 2 (overnight), the mailbox is a Standard mailbox. The mailbox attribute overrides the setting of the system parameter.

The type of message delivery can either be normal or urgent (if the mailbox has COS Attribute 93 - Allow User to Send an Urgent Message).

From the definitions of “priority” versus “standard” and “urgent” versus “normal,” four priority levels are assigned to messages created within the mailbox. The setting of System Parameter 294 can be used to assign one of these priority levels to network name retrieval, or that retrieval can be associated with priority level 0. Every NETWORK SCHEDULE Table entry has a default defined, and that default is always associated with priority level 0, ensuring that all messages not sent within a defined period are sent within the Default window.

User Type	Message Type	Message Priority Level
Priority	Urgent	4
Priority	Normal	3
Standard	Urgent	2
Standard	Normal	1
Default		0

Note: If you configure System Parameter 70 to be 2, all users who do not have Attribute 17 in their COS are defined as “standard.” Messages from those users directed to locations that do not reference a NETWORK SCHEDULE Table entry will only be sent during the period defined as “night,” using System Parameters 62 and 63 to set the “night” start and end times. Therefore, the recommendation is that all LOCATION Table entries should reference an appropriate network schedule if System Parameter 70 is set to 2 and the NETWORK SCHEDULE Table is being used to batch messages.

The more common configuration would be to set System Parameter 70 to 1, which defines all users who do not have Attribute 18 in their COS as “priority”. If the desire is to divert a portion of the network traffic to off-hours, messages from “standard” users (those whose COS includes Attribute 18) can be sent during the off-hour periods through use of the appropriate network schedule. Again, in general, if network schedules are being used, all LOCATION Table entries should reference an appropriate network schedule. The exception would be where it is acceptable that messages from “standard” users are sent only at “night” to locations that do not specify a network schedule.

Each NETWORK SCHEDULE Table can consist of eight delivery windows (numbered 1 through 7 and default), configured to define the:

- Message-delivery window start and end time.

- Message delivery interval within the message delivery window (the minimum time within the delivery window messages must wait before an outcall is made). The delivery interval is from 0-240 minutes, with intervals rounded to the nearest 15 minutes. A delivery interval of 0 means that the message is sent immediately.
- Message priority level.

A default period must be defined for each network schedule entry to ensure that all time periods and message priority levels are covered.

Two types of delivery windows can be configured.

- Non-overlapping window. This is network schedule for which the start and end times for a delivery window and message priority level do not overlap in the NETWORK SCHEDULE Table.
- Overlapping windows. This is a network schedule that contains multiple windows for which the start and end times may overlap for different priority levels.

Following are considerations to be reviewed when configuring the NETWORK SCHEDULE Table:

- A network schedule is completed for analog and digital locations that are not collocated. Collocated systems deliver messages immediately.
- The network schedule entry is optional. If a location does not have a network schedule entry, the message server sends messages according to the mailbox configuration (immediate or overnight).
- The network schedule is configured for primary locations. Secondary locations automatically inherit the schedule for the primary location.
- Messages scheduled for delivery when an outcall is initiated are delivered before the outcall is terminated, even if the window closes for that priority or below.
- Return receipt, auto-copy over the network, and messages sent via the gateway are delivered immediately. Reply, future delivery, and messages forwarded over the network follow the network schedule defined for that location.
- After a schedule window is added, modified, or deleted in a NETWORK SCHEDULE Table, the traffic report must be cleared or the data collected is incorrect.

Entries to the NETWORK SCHEDULE Table can be listed, added, modified, or deleted in Update using the following command format:

```
. L NSCH [x]
. A NSCH [x]
. M NSCH [x]
. D NSCH [x]
```

Names Transmission

Name propagation over OctelNet or a digital networking connection using the NameSend feature can be defined for immediate or for overnight (using System Parameters 250 - OCTELNET: RETRIEVE NAMES ONLY AT NIGHT or System Parameter 276 - NAMESEND: DELIVERY MODE). For locations that reference a network delivery schedule, the window used for the propagation of names is controlled by System Parameter 294 - MIN. PRIORITY LEVEL FOR NAMES PROPAGATION. If the general practice is to send or retrieve names immediately, System Parameter 294 should be set for 4, to give name transmission the highest priority. If the standard is to send names overnight, setting System Parameter 294 to '0' will limit name transmission to the window defined for the Default period.

Reporting

Introduction of the Network Schedule Table brings with it several changes in system reporting:

- Both the Analog and Digital Network Traffic Reports now contain fields for voice messages and fax messages sent within each of the eight windows defined in the Network Schedule Table. If overlapping windows are configured, peg values will be pegged in the window which initiates the call.

For Protocol 5 locations, there is also an enhancement to reflect the windows in which spoken and ASCII names are received.

- The Call Detail Record for network traffic reflects 8 new transaction types (NTMW1-NTMW7 and NTMWD) to indicate the window within which messages were sent. Where applicable, this replaces the current NTMSGD (network message: sent day) and NTMSGN (network message: sent night).
- The Call Processing trace now has a new event, END_SESS, to reflect termination of a networking call. The AUX field indicates:
 - * WINDOW for an end-of-session due to the closing of a Network Schedule window.
 - * MAXMSG for an end-of-session triggered because the number of messages sent in a digital connection has reached the value specified in System Parameter 232 (DNET: CONNECTION MESSAGES XFER LIMIT).
 - * NOMSGS for an end-of-session reached because all messages defined to be sent within the current window have been sent.
- **Zero As Network First Digit**
Zero was configurable as the first digit of a mailbox in the USER Table starting in Release S.1.1.0. It was not, however, possible to configure mailboxes starting with '0' in the DOMAIN, since the NUMBERING PLAN Table could not accept such an entry. Beginning with Release S.3.0.0, '0' can be configured as a digit within the DOMAIN, or it can define the leading digit of an remote networking entry.

Leading '0' entries, except for DOMAIN, should define at least three digits ('0' is used for intercept; '00' is used for Dial-by-Name). Note, however, that when such an entry is configured in the NUMBERING PLAN Table, there is an additional delay of approximately five seconds when callers dial '0' for the operator.

NEW ADMINISTRATIVE FEATURES

- **Block MWI/MWN on System Distribution List & Broadcast Messages**

Attribute 145 - BLOCK MWI/MWN TO ALL MEMBERS OF THIS SDL:

This attribute has an effect only when it is assigned to system distributions list pilot mailboxes. When so assigned, messages to that distribution list will not result in message waiting notification or message waiting indication to member mailboxes. This includes messages marked "Urgent". This attribute has no effect on extended mailbox pilots.

If a pilot SDL mailbox contains an embedded SDL as a member, MWN/MWI will also be disabled for members of the embedded SDL.

Attribute 147 - OVERRIDE MWI/MWN BLOCKING TO THIS MAILBOX:

This attribute can be used with Attribute 145. If a message is sent to an SDL pilot in a COS that includes Attribute 145, MWI and MWN are blocked for members of that pilot. Attribute 147 can be assigned to the COS used by specific member mailboxes to override the block. Attribute 147 has no effect when assigned to SDL pilot mailboxes, but does work as described for extended mailbox pilots.

System Parameter 295 - BLOCK MWI/MWN ON BROADCAST MESSAGES:

is used to block Message Waiting Notification/Message Waiting Indication for a broadcast message. For multiple cabinets in a collocated configuration, the parameter must be set for each cabinet to block MWN/MWI across the collocated configuration. Assigning Attribute 147 to individual mailbox also overrides this block.

- **Increased Number of Classes of Services (COS)**

Prior to release S.3.0, 255 COS (0-254) identifiers were available for assignment to ports and mailboxes. Beginning with release S.3.0, this number increases to 512 COS (0-511).

- **Increased Number of Information Tables**

Prior to release S.3.0, 255 Information Tables (1-255) could be defined. Beginning with release S.3.0, that number increases to 512.

- **Increased PEG count and Report Modification**

Beginning with release S.3.0, each field in the Traffic Peg Table can log a value up to 999,999.

That change carries over to the following reports:

System Performance

Digital Network Performance

Network Traffic

Digital Network Traffic

Disk Usage

Port Statistics

Integration Calling Statistics

System Performance by COS

SERVICEABILITY ENHANCEMENTS

- **Enhanced Disk Utilities**

- Enabling/Disabling Write protect on a drive

This new feature provides the ability to mark a hard drive as write protected to prevent new messages (voice, greetings, and names) from being recorded in preparation for drive replacement.

The format of the write protect command is:

@WPDISK </E> <SLOT> to enable Write Protect

@WPDISK </D> <SLOT> to disable Write Protect

where <SLOT> is the drive slot number.

For Octel 200 or VMX 200 slot values are B2, B3 and B4. For Octel 300 or VMX 300 slots values are B3, B4, C1, C2, C3 and C4. The *Works* drive cannot be write-protected.

When the drive is write protected, no messages can be created on that drive. Existing messages can still be accessed and deleted by users. The idea here is to protect against message loss when a drive is scheduled for replacement (either because it is logging hard disk errors or because you want to increase the physical capacity). A system restart is not required for write protect to take effect on a hard disk drive.

Note: If the drive that has been write protected is a system drive, configuration changes are still allowed, and the server will process message delete requests.. Disabling/Enabling the write protect cannot be performed while the server is booted from floppy.

- Disk Copy

This new maintenance-level feature allows the ability to copy any system or voice drive onto another drive. *Works* drives cannot be copied.

A new DISKO option will be provided to copy the entire contents of a source disk to a designated target disk in the system. Disk Copy can be used for direct replacement of a drive in the same slot, but it cannot be used to create a copy of a drive for use in another slot or system.

The DISKO utility is only available when the message server is booted from the floppy drive, so the server must be taken out of service to perform the copy operation.

Some caveats:

- Copying is not allowed from a bigger disk to a smaller one
- Copying is not allowed from a COD disk to non-COD disk
- There are no built-in protections against message loss or corruption if a copy of a disk is used in another system or re-inserted into a system after new messages have been recorded.
- Since Disk Copy is a simple block copy operation, any data on the target drive is overwritten.
- When a non-COD disk is replaced by a COD disk, the OCC will have to be updated to authorize hours of storage on that disk equal to those used by the non-COD disk. If the hours are not authorized, messages on the newly copied COD drive will not be accessible until the authorization is complete. Since the message server must be restarted after the authorization, it is best to complete the authorization before the disk copy process begins, since a restart is part of the process.

Access to Additional Disk Information

The **L DMAP** command is used after a connection has been made to the VCU (@VCUCON). The command is used to display characteristics of each drive installed in the system. From the command output, you can determine the drive status, the drive manufacturer, the physical and logical size of each drive, and how the drive is defined (e.g. Octel or OEM; non-COD or COD).

- **Automated Software Upgrade**

This new feature is an enhancement that provides a degree of automation to software upgrades on Octel 200/300 and VMX 200/300 platforms.

Supported upgrade paths (to Release S.3.0.0) are: L.8.1.1, S.1.x, and S.2.0.x. Upgrades from Release 7 are handled as they have historically been. (Note that the problem in Release S.2.0.x which generated a re-issue of the upgrade procedure is fixed in Release 3. It is possible to go directly from L.7.0.x or L.7.1.x to S.3.0.0, whereas with Release 2 there was an interim step to S.1.1.1.)

This upgrade enhancement:

Keeps track of the progress of the upgrade.

Allows the support technician to re-run the upgrade to finish interrupted work.

Prevents executing critical steps multiple times, which can lead to file corruption.
Creates a log file of the upgrade for use by Technical Support in the event of a problem.
Automatically determines the correct upgrade file to run.
Provides an terminal indication to the technician when a time consuming command is in progress.

- **MAC Log at the Maintenance Level**

Many configuration changes that are made in the UPDATE program and all of the changes made from within the mailbox are recorded in the Moves, Adds and Changes log. Prior to Release 3, this log information was only available to Technical Support.

With the MAC log, you can use the following commands:

@LOG PR MAC to display all activities in the MAC log or to set filters for specific records to be displayed.

@LOG BE MAC to set the beginning time for the MAC log. Once the begin time is set, records collected before this date are no longer accessible.

@LOG ST MAC to show the beginning time and the time of the first record presently in the log.

The configuration changes captured in the MAC log include some or all terminal activity associated with the following tables:

COS, CSTAT, CUSTOM PROMPT, DIST (System Distribution List), INFO, NAMES, NUMBERING PLAN, SCHEDULE, SLOT, and USER.

Notes:

Modifications to CSTAT indexes 7 and 8 are not recorded.

Changes to the First Digit Table are recorded with a record name of SYS.

For the Schedule Table, modifications to the start and end times of a schedule are not logged.

When a specific schedule is added or deleted, the activity is recorded, but the schedule is not noted by number.

For the System Parameter Table, only the following changes are logged:

145 - Application Processor Error Mailbox

147 - Names Directory Mailbox

156 - Application Processor Message Pool EMB List

199 - Net: Creator Mailbox for Returned Messages

Modification of the User ID in the User Table is not captured.

- **List Network Failure at the Administrative Level**

It is now possible to list Network Failures (@ L NF) when the terminal is logged on at the Administrative level. Prior to Release 3, the command was only accessible at the Maintenance level.

- **New Traffic Pegs**

304 - Number of Virtual Calls Established

305 - Number of Times Voice Mailbox Outcall Could Not Get a Channel

306 - Message Build Request

307 - Integration Attempt to Transfer to an Extension Forwarded

An attempt was made by a user to transfer a caller to an extension forwarded to the message server.

308 - Integration Check Mailbox

Received a query from the PBX in response to check if there is a mailbox associated with an extension.

309 - Integration Mailbox Exists Reply

Replied “Yes” to the PBX in response to the query to check the existence of the mailbox associated with an extension.

310 - Integration Mailbox Does Not Exist Reply

Replied “No” to the PBX in response to the query to check the existence of the mailbox associated with an extension.

311 - Integration Link Supervision Request

Received a query from the PBX to check if the message server is an authorized one.

312 - Integration Link Supervision Reply

Replied “Yes” to the PBX in response to the query to check if the message server is an authorized one.

- **INTEGRATION-RELATED COS ATTRIBUTE**

Attribute 143 - This PORT receives DTMF Call Progress Tone:

With the new Matra and Alcatel integrations, call progress is reported to the message server not through tone cadences that indicate ring/busy/etc., but instead through the use of DTMF tones (e.g., B7 or A6 to indicate a busy condition). This attribute enables or disables the detection of these DTMF tones on assigned ports.

- **INTEGRATION-RELATED SYSTEM PARAMETERS**

Euro-ISDN integration with Bosch switch:

System Parameter 288 - Delimiter String for ISDN pager outcalls

Specifies the delimiter string that distinguishes between the outcall digits used to dial the pager service and the pager digits to be dialed out after the call has been answered.

System Parameter 307 - MWI Control Extension for ISDN

Specifies the extension used to activate/de-activate message waiting indication for ISDN.

Matra/Alcatel Enhanced In-Band integrations:

Note: System Parameters 289 and 292 are used in conjunction with COS Attribute 143 - This PORT receives DTMF Call Progress Tone.

Note: Use of System Parameters 309 through 312 override any values defined for System Parameters 79 through 82. The enhancement offered by 309-312 is that the “fourth column” DTMF tones (A-D) can be used in addition to digits 0-9, * and #.

System Parameter 289

DTMF CPT DIGITS FOR INTERNAL BUSY If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the internal called extension is busy?

DTMF CPT DIGITS FOR INTERNAL FASTBUSY

If the PBX send Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the internal called extension is fast busy?

DTMF CPT DIGITS FOR INTERNAL RING

If the PBX sends Call Process Tone (CPT), what DTMF sequence is sent by the PBX when the internal called extension is ringing? (Duration of one ring cycle is defined in Application Delay 141.)

DTMF CPT DIGITS FOR INTERNAL ANS

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the internal called extension answers (goes off-hook)?

System Parameter 290

DTMF CPT DIGITS FOR EXTERNAL BUSY

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the called external number is busy?

DTMF CPT DIGITS FOR EXTERNAL RING

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the called external number is ringing?

DTMF CPT DIGITS FOR EXTERNAL ANS

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX when the external called extension answers (goes off-hook)?

System Parameter 291 - DTMF CPT DIGITS FOR DIAL TONE INDICATION

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX to provide the equivalent to dial tone when a port initiates or transfers a call?

System Parameter 292 - DTMF CPT DIGITS FOR HANG-UP NOTIFICATION

If the PBX sends Call Process Tones (CPT), what DTMF sequence is sent by the PBX to provide a disconnect signal? (Note that System Parameter 77 should be set to YES when there is a value in this parameter.)

System Parameter 309 - ENHANCED LAMP MWI: "ON" PRE-EXTN DIGITS

For PBXs that send DTMF digits A-D as part of the MWI commands, enter the digits to be dialed before the extension number to light the message waiting lamp.

System Parameter 310 - ENHANCED LAMP MWI: "ON" POST-EXTN DIGITS

For PBXs that send DTMF digits A-D as part of the MWI commands, enter the digits to be dialed after the extension number to light the message waiting lamp.

System Parameter 311 - ENHANCED LAMP MWI: "OFF" PRE-EXTN DIGITS

For PBXs that send DTMF digits A-D as part of the MWI commands, enter the digits to be dialed before the extension number to turn off the message waiting lamp.

System Parameter 312 - ENHANCED LAMP MWI: "OFF" POST-EXTN DIGITS

For PBXs that send DTMF digits A-D as part of the MWI commands, enter the digits to be dialed after the extension number to turn off the message waiting lamp.

Appendix A.

Language prompts available for Release S.2.0.X/S.3.0.0

LANGUAGE	ABBREVIATION	REVISION	PART NUMBER	FOR USE IN:
DUTCH	DUTC NE--E	2A	600-6391-002	The Netherlands
ENGLISH	ENGL AU--V	2A	600-6388-002	Australia
ENGLISH	ENGL BR--V	2A	600-6370-002	British Standard
ENGLISH	ENGL CA--V	2B	600-6360-002	Canada
ENGLISH	ENGL IR--E	2A	600-6400-002	
ENGLISH	ENGL SI--V	2B	600-6361-002	Singapore
ENGLISH	ENGL US--V	2G	600-6349-002	U.S.
ENGLISH	ENGL US5-V	2A	600-6376-002	U.S. - 5000 UI - Standard
ENGLISH	ENGL US5QV	2A	600-6377-002	5000 U.S. - 5000 UI Quick
ENGLISH	ENGL USTTV	2F	600-6355-002	TDD/TTY
FRENCH	FREN CA--V	2A	600-6372-002	Canada
FRENCH	FREN FR--V	2A	600-6366-002	France (Parisian)
GERMAN	GERM GE--V	2A	600-6367-002	
ITALIAN	ITAL IT--E	2A	600-6396-002	Ericsson
ITALIAN	ITAL IT--I	2A	600-6365-002	ItalTel
JAPANESE	JAPA JA--V	2B	600-6378-002	
KOREAN	KORE KO--V	2A	600-6397-002	
MANDARIN	MAND CH--V	2A	600-6399-003	
MANDARIN	MAND TA--V	2A	600-6398-002	Taiwan
PORTUGUESE	PORT BR--T	2A	600-6375-002	
SPANISH	SPAN AR--L	2A	600-6384-002	Argentina
SPANISH	SPAN CH--X	2A	600-6394-002	Chile (Sixbell)
SPANISH	SPAN LA--V	2A	600-6362-002	Latin America
SPANISH	SPAN SP--E	2A	600-6368-002	Spain (Castillian)
SWEDISH	SWED SW--E	2A	600-6385-002	Sweden
THAI	THAI TH--Y	2A	600-6395-002	Thailand (UCOM)