Panasonic
DBS
Digital Business System

DBS Beta Testing Release Notes

CPC-EX Version 2.30

Document Number: RNB-CPCV2.30
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Table of Contents

Scope and Purpose

This document contains Release Notes for Version 2.30 of the Panasonic DBS Digital Business System.

This document provides a description of each of the changes made to the Panasonic DBS Digital Business System software and hardware included in Version 2.30 of the system.

Affected Items

Hardware

All existing MCUSA and BTSD inventory must be reworked.

Software

All existing MCUSA and BTSD inventory must be reworked.

Specifications

These release notes affect the following Specifications:

- Voice Mail Project
- Feature Enhancement Project
- ISDN Project

Summary of Changes

CPC-EX Version 2.30 includes the following changes:

Voice Mail Project

- Sixteen port voice mail/API enhancement
- Off Hook Voice Announce (OHVA) feature/API enhancement
- DBS small LCD phone soft key support/API enhancement
- Call Record activation/API enhancement

Feature Enhancement Project

- Universal Night Answer (UNA) Transfer
- Universal Night Answer (UNA) Call Reversion
- Call Forward to UNA for CO Held Calls
- Private Passwords
- Additional RAI Access

ISDN Project

- Unusual first ring on an ISDN call
- Wrong default ISDN values in book and/or system
- ISDN transferring calls
- ISDN call disconnected when the DBS receives a "user busy" signal
- CPC-EX ISDN caller receives another dial tone after placing a call
- Primary Rate (ISDN) not functioning in CPC-EX 2.xx

Summary of Changes (cont.)

ISDN Project (cont.)

- Primary Rate (ISDN) not functioning in CPC-EX 2.01 and 2.02
- Giving "pseudo CO busy" tone instead of "DBS busy" tone
- ISDN Enhancement Project - enhance program settings/fix bugs
- CPC-EX -- Bus monitor does not work in Version 2.0x
- CPC-EX ISDN Red Alarm settings

Change Details

Voice Mail Project

Sixteen Port Voice Mail/API Enhancement

This software change allows the DBS to support up to a sixteen port API. This allows the system to integrate with high-end applications such as Automatic Call Distribution (ACD) and Voice Mail (VM).

Off Hook Voice Announce (OHVA) Feature/API Enhancement

This change allows the Voice Mail (VM) to make use of the Off Hook Voice Announce (OHVA) feature. This allows VM to notify users that a message is waiting or a scheduled alarm (e.g from e-mail).

VM calls an extension and, if it is busy, sends a packet over the PAPI to access the OHVA feature.

The operation of OHVA is consistent with the current operation in the DBS

DBS Small Liquid Crystal Display (LCD) Telephone Soft Key Support/API Enhancement

This enhancement allows the small Liquid Crystal Display (LCD) K-TEL to use the soft-keys when accessing the Voice Mail application. The large LCD K-TEL can currently use soft-keys when connected to the Voice Mail application. These soft-keys are used to access menu items shown on the LCD.

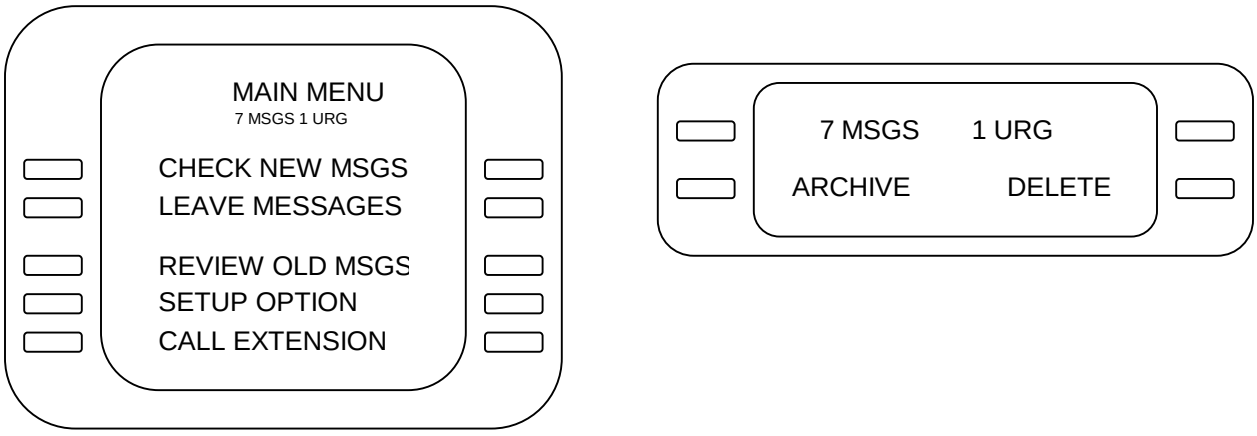

Figure 1. Examples of Large LCD and Small LCD Telephone Displays

Feature Operation

The four soft keys are transferred to the application via PAPI when in transparent mode. The application controls the display and the functionality of the keys.

DBS Change Details

This change allows the small LCD K-TEL to send Soft Key information to the application. While in transparent mode, the DBS does not perform any action when the soft keys are pressed other than sending the key information to the application.

Currently when accessing VM, the DBS sends information to the application that the extension has entered transparent mode. The application responds to the DBS with the Key Transfer Level for the extension. The application determines the Key Transfer Level.

Program Setting

There are no additional program settings for this feature.

Call Record Activation/API Enhancement

The Call Record feature enables an application to record the telephone conversation currently taking place and store the recording in the mailbox of the activating user. This feature is activated by pressing a pre-programmed Call Record key on a digital telephone.

When you press the Call Record key, a conference is established between the outside party, the activating extension and a voice port. The conversation is recorded until the Call Record key is pressed again, or until the activating party goes on-hook.

If the Call Record key is pressed to disable recording and is then pressed again to re-enable it, the mailbox of the activating party stores them as two separate recordings. There is no way to append one recording to another.

As far as the application is concerned, once the recording is complete, the recording is treated like any other saved message (i.e. you can forward a recording to another mailbox).

The Call Record feature currently uses a Dialogic D-42/PA digital board, located on a PC, to communicate with the Voice Mail application. This enhancement allows the Call Record feature to be initiated through the PAPI link. The feature operation and restrictions that currently exist with the Call Record feature remain the same.

Feature Operation

This feature is activated.

DBS Change Details

The following new commands, added to the Application Interface (PAPI), start and stop the Call Record feature.

CALL RECORD (11H)	
START/STOP	
DESTINATION VALUE	
NUMBER OF DESTINATION DIGITS	
D01	D02
D03	D04
D05	D06
DESTINATION PORT NUMBER	
VT-ID for VM to use	

DESTINATION is defined as the extension that activated the call record feature.

Figure 2. New PAPI Commands

Call Record Start (request) – the initial message that is sent from the DBS when you start recording the call by pressing the Call Record key.

Call Record Start (established) – the message sent from the DBS when the connection is established (indicating that the system has started recording the call).

Call Record Stop – the message sent from the DBS when you stop recording the call by pressing the Call Record key a second time.

Program Setting

There are no additional program settings. The DBS and the PAPI allow access to the Call Record feature in the existing manner.

Feature Enhancement Project

Universal Night Answer (UNA) Transfer

Feature Outline

The enhancement is to create an addressable UNA. A user must be able to manually or automatically direct a CO Trunk call to UNA.

Feature Detail

1. Dial ✱78 to call UNA. When you place a CO trunk on hold and call UNA, UNA rings immediately and the held CO trunk is assigned to UNA.
2. Listen for the dial tone.
3. Listen for the selected hold tone.
4. Transfer a CO trunk call to UNA. UNA continues to ring until the call is retrieved or the caller hangs up.
5. When UNA is ringing, you can pick up the call by dialing 78 or by accessing the trunk directly. When the call is retrieved, UNA stops ringing.
6. Each SLT (AEC/4 and OPX), and each K-TEL, is able to send a CO trunk to UNA.
7. Each non-integrated voice mail (DEC) is able to send a CO trunk to UNA.
8. Each DISA/VAU can send a CO trunk to UNA.

   NOTE: *This Feature Detail is NOT supported by EX v2.20G.*

9. If you try to access UNA without a CO trunk call on hold, you will hear a busy tone similar to the one you hear when dialing an invalid extension.

UNA is addressable to an All Ring Group (ARG), but is not addressable to a Hunt Group. (UNA cannot be a member of a Hunt Group.)

If multiple callers ring UNA, UNA pickup handles the calls on a First In, First Out (FIFO) basis.

Feature Operation

To send a call to UNA, the user places the caller on hold, inputs the dial plan to ring UNA, and then hangs up the phone.

The display on a K-TEL phone appears in Table 1:

Action	Display	Result tone
Place the call on hold:	Hold trk *xx	Dial tone is heard
Call UNA:	*78 Hold trk *xx	No tone is heard
Call completed:	Transfer to UNA	Dial tone is heard

Table 1. K-TEL Phone Displays for Universal Night Answer (UNA) Transfer

To pick up a call sent to UNA, the user must enter the UNA pick up code of 78.
To set a KTEL phone to call forward to UNA, carry out the following:

1. Create an All Ring Group (ARG) with Universal Night Answer (UNA) as the only member.
2. Set the call forwarding to the ARG pilot number.

Program Setting

No new program setting is needed for this feature.

Universal Night Answer (UNA) Call Reversion

Feature Outline

Previously, the following CO Trunk calls revert to the Attendant phone if they are not answered:

- Calls placed on hold
- Calls unanswered after a transfer
- Parked calls

These enhancements allow calls that are reverted to the Attendant phone to revert to Universal Night Answer (UNA) after they are not answered.

Feature Detail

To activate this feature, set the desired time on the UNA Reversion Timer, which ranges from **0** to **120** seconds.

A call reverts to the Attendant and then to UNA after the UNA Reversion Timer expires. Then, the call is retrieved from any telephone using the UNA pickup procedure.

Feature Operation

If one of the following timers expires, the Reversion Timer is set:

- Extension Hold Recall Timer for CO calls
- Extension Transfer Recall Timer for CO calls
- Extension Hunt Group Recall Timer for CO calls
- Extension Park Hold Recall Timer for CO calls

When the Reversion Timer expires, the call reverts to the Attendant phone. When the call reverts to the Attendant phone, the UNA Reversion Timer is set. If the UNA Reversion Timer expires, the call stops ringing on the Attendant phone and rings UNA until the call is retrieved or the caller hangs up.

If one of the following timers expires, the call stops ringing on the Attendant phone and rings UNA until the call is retrieved or the caller hangs up:

- Attendant Hold Recall Timer for CO calls
- Attendant Transfer Recall Timer for CO calls
- Attendant Hunt Group Recall Timer for CO calls
- Attendant Park Hold Recall Timer for CO calls

Program Setting

UNA Call Reversion Timer - FF1 3# 3 1 # (see Table 2)

Setting	Value
0	**No reversion** (default)
1	10 seconds
2	20 seconds
3	30 seconds
4	40 seconds
5	50 seconds
6	60 seconds
7	70 seconds
8	80 seconds
9	90 seconds
10	100 seconds
11	110 seconds
12	120 seconds

Table 2. Universal Night Answer (UNA) Revision Timer Presets

Call Forward to UNA for CO Held Calls

Feature Outline

The enhancement is to create capability to Call Forward a held CO call to UNA.

Feature Detail

Definitions:
Called extension = the extension which sets Call forward to UNA.
Calling extension = the extension which calls the called extension

1. In order to Call Forward to UNA, calling extension places the CO call on hold.

NOTE: *The calling extension can be any type except DISA.*

2. If calling extension doesn't have a hold CO call, called extension rings (voice call or tone call).
3. If a direct CO call (including DID/DNIS) or a call via T-1 network arrives at the called extension, called extension rings.
4. The calling extension detects the dial tone after successfully Call Forwarding to UNA.
   - After the call is Call Forwarded to UNA, it rings until either someone picks up the UNA call, or the DBS detects that the original CO call is disconnected.
5. The caller (CO original call) continues to hear the selected hold tone until someone picks up the call.
6. Even if Permanent Call Forward is also set on the called extension, Call Forward to UNA still operates. However, if the calling extension does not have Hold CO Call, Permanent Call Forward is used.
7. Pick-up condition is the same as UNA ringing.
8. You can only one type of extension call forward or DND.

> ***Example:*** *If the called extension is set to Do Not Disturb (DND), Call Forward to UNA is cleared.*

To cancel Call Forward to UNA, dial 72 during the dial tone stage.

Calling Extension → / Called Extension ↓	Extension with CO hold call	Extension without CO hold call	Direct CO call, DID/DNIS call	Extension call via T-1 network
CF to UNA only	CF to UNA	Ring	Ring	Ring
CF to UNA and permanent CF	CF to UNA	Follow the permanent CF	Follow the permanent CF	Follow the permanent CF

Feature Operation

To send a call to UNA, place the caller on hold, input the dial plan to ring UNA, and then hang up the phone.

The K-TEL phone display the following:

Action	Display	Result
** Called extension		
[DT] – [7][2][5]-OnHook	(Extension No. etc.) FWD UNA	No tone is heard

* There is no capability to assign the new dial-plan (DT – 725) in FF-Key.
* To cancel Call Forward to UNA, press [DT] – [7][2] - OnHook

** Calling extension		
Place the call on hold:	Hold CO *xx	Dial tone is heard
Call the phone which set "CF to UNA":	FWD UNA Hold CO *xx	Dial tone is heard UNA start ringing

To pick up a call sent to UNA, the user must enter the UNA pick up code of 78.

Program Setting

No new program setting is needed for this feature.

Private Passwords

A unique and personal password is needed to enter system programming. The rights given to this password is at a higher level password than the current System and Remote passwords. When you enter the programming mode, the password determines whether you have System or Private password rights:

- If you use the private password to enter programming, you must have the rights to modify all program settings including the system and remote passwords.
- If you use the system or remote password to enter programming, you must be able to modify all program settings except the private password.

If you are logged in to the system using the System password, you cannot see the Private password.

A remote user accesses the DBS through Remote Maintenance using either the Remote or Private password. If you enter programming using the System password, you only have the capability to change the System password. If you enter programming using the Private password, you have the capability to change both the System and the Private passwords through Remote Maintenance.

Main Features

- The private password is four digits long with a range from **0000** to **9999**. The default value for this password is **6789**.
- Use of the private password is available from any key telephone or remote connection.
- If you enter programming at port one using PROG##, you cannot access the private password.
- If the Private password and the System/Remote passwords are the same, the Private password will not function correctly.
- You cannot see the Private password or the address.
- If you do not enter programming using the Private password, you cannot see either the Private password value or option during programming. This includes using the * and # keys to step through the program settings.

Programming

Private Password - FF1 6# 3#

Installation

1. The dealer installs the DBS at the customer site.
2. The installer changes the system and remote passwords as needed.
3. After the DBS is completely installed, the installer calls the representative at the customer to notify them that the system is installed.
4. The customer calls into the DBS and uses the default private password of **6789** to enter System programming.
5. Once in the administrative mode, the customer changes the Private password to a new value. Only the customer knows the new private password.

NOTE: *If the Private password and the System or Remote passwords are the same, the DBS operates as if the System/Remote password was entered. When the System/Remote password is changed to a different value, the Private password functions normally.*

Additional Remote Administration Interface (RAI) Access

You can access the Remote Administration Interface (RAI) without a password. After the connection is made, the DBS prompts you for a password. Dial in the Remote or Private password at this prompt to enter the Remote mode.

Main Features

- The Automated Attendant sends a dial string to the DBS to access the RAI card.
- All the K-Tel and SLT phones (AEC/4 and OPX) transfer using this feature.
- All non-integrated Voice Mail (DEC) systems can transfer using this feature.
- The caller has a maximum of four tries to enter a valid password before being disconnected.

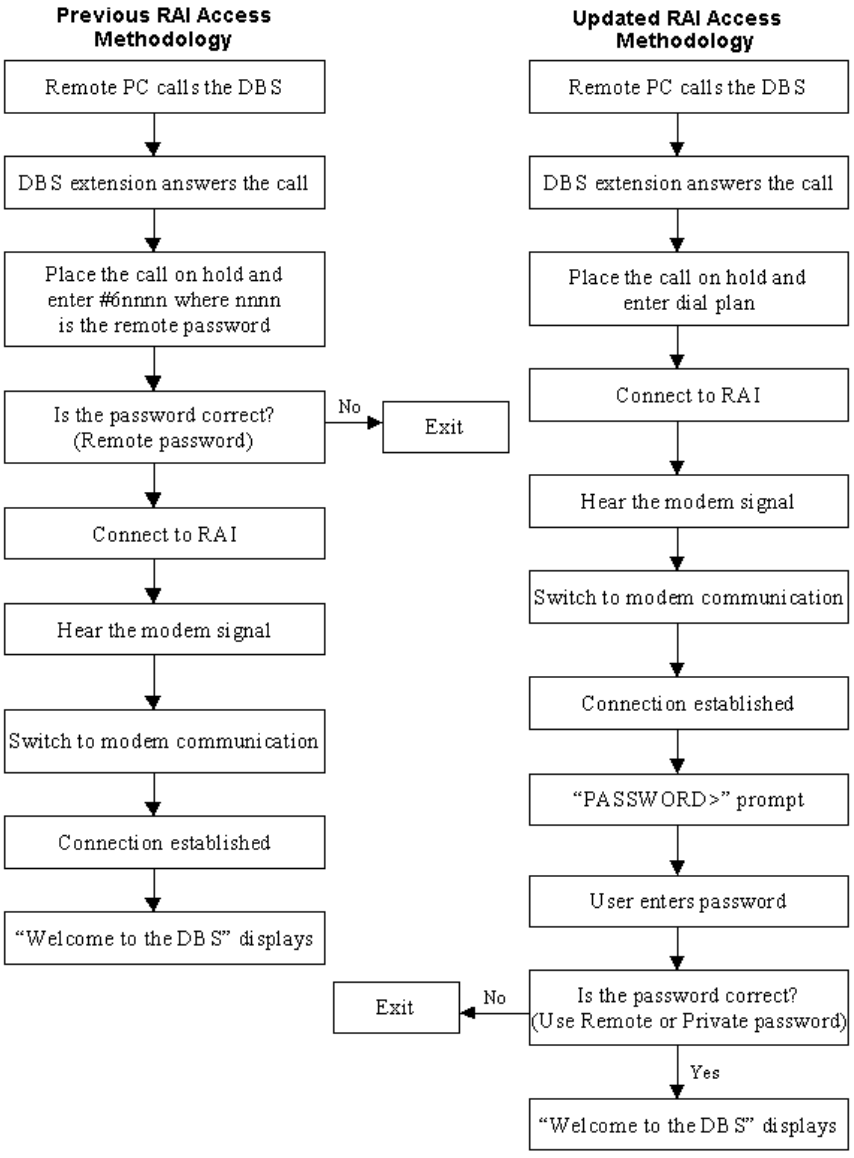

Figure 3. RAI Access Methodologies

Feature Operation

1. The Automated Attendant answers all calls for customer and narrates a list of menu options to the caller.
2. After the menu, the caller enters a digit to indicate to the Automated Attendant that they want to transfer to the RAI card.
3. The Automated Attendant sends a predetermined string of digits (#9 7 * * * * *) to the DBS, which recognizes the dialed digits as a request for connection to the RAI card.
4. The DBS displays a new prompt for a password.
5. The caller dials in the Remote password or the new Private password. If the password is valid, the user receives the current Remote Menu system.

Figure 3 describes the previous method used to access RAI and the updated RAI access methodology described in this section.

Program Setting

No new program settings are needed for this feature. The Remote programming ID current setting is FF1 4#

ISDN Project

The current DBS ISDN Reference Manual, Section 530 (dated 10/28/98) reflects the Version 2.3 changes.

Programming addresses that are no longer valid include:

- ISDN CO Type FF1 9# 4# 1# 5# (0-3)#
- Net-work Type FF1 9# 4# 6# (1-64)# 3# (0-1)#
- Auto Progress FF1 9# 4# 6# (1-64)# 4# (0-1)#
- SDN/MEGACOM FF1 9# 4# 6# (1-64)# 5# (0-1)#

***Note**: Use DBS Manager to back-up existing CPC-EX. DBS Manager does not support this release.*

ISDN Upgrade Procedure

1. New COP 1.07A is required on Primary Rate card(s).
2. Set system for ISDN function FF1 2# 1# 4 4# (1)#.
3. Perform ISDN reset function FF1 9# 1# (1)#.
   ***Note**: DID settings are not maintained after reset function.*
4. Set system configuration. FF1 9# 4# 1# 1# (0-8)#.
   ***Note**: Refer to DBS ISDN reference manual, page 3-4 for examples.*
5. Set the clock synchronization sources:
   - Sync source 1 FF1 9# 4# 1# 2# (1-3)#.
   - Sync source 2 FF1 9# 4# 1# 3# (1-3)#.
   - Sync source 3 FF1 9# 4# 1# 4# (1-3)#.

   ***Note**: Refer to DBS ISDN Reference Manual, page 3-5, for examples.*
6. Recycle the unit's power switch
7. Configure number of “B” channels per cabinet
   - Master:
     FF1 9# 4# 4# 1# 2# (0-23)#.
   - Slave:
     FF1 9# 4# 5# 1# 2# (0-23)#.
8. Set trunk type per channel for ISDN
   FF2 (trunk number)# 2 1# (5)# (5 is ISDN trunk type)

Master Cabinet Set-Up

Refer to page 13, “Typical Central Office Configurations" for setting the following options. Default setting are **bold**.

Set up master span:

FF1 9# 4# 4# 5# 1# (0-1)# Network Type

0-Public
1-Private

FF1 9# 4# 4# 5# 2# (0-1)# Auto Progress

0-Disable
1-Enable

FF1 9# 4# 4# 5# 3# (0-2)# NSF

0-None
1-SDN
2-MegaCom

FF1 9# 4# 4# 5# 4# (0-3)# ISDN CO Type

0-4ESS
1-5ESS
2- Reserved
3- DMS100

FF1 9# 4# 4# 5# 5# (0-1)# ISDN International Dial Code Deduction

0-Send as is
1-Deduct 011 from the code

FF1 9# 4# 4# 5# 6# (0-1)# ISDN Long Distance Code 1 Deduction

0-Send as is
1-Deduct 1 from the code

FF1 9# 4# 4# 5# 7# (0-1)# ISDN Type and Plan Option

0-Determine Type and Plan
1-Type and Plan always set to Unknown/Unknown

Slave Cabinet Set-Up

Refer to page 13, “Typical Central Office Configurations" for setting the following options. Default setting are **bold**.

Special Installation Note for adding second cabinet.

If you are adding a second cabinet (slave) to an existing installation that has a Primary Rate span configured, you must re-database the number of ISDN channels in the Master cabinet. The re-dimensioning of the system to the new double cabinet (master/slave) configuration causes FF1 9# 4# 4# 1# 2# (0-23) to be reset to the default value of zero (0).

Set up Slave Span

FF1 9# 4# 5# 5# 1# (0-1)# Network Type

0-Public
1-Private

FF1 9# 4# 5# 5# 2# (0-1)# Auto Progress

0-Disable
1-Enable

FF1 9# 4# 5# 5# 3# (0-2)# NSF

0-None
1-SDN
2-MegaCom

Set Up Slave Span (cont.)

FF1 9# 4# 5# 5# 4# (0-3)# - ISDN CO Type

0- 4ESS
1- 5ESS
2- Reserved
3- DMS-100

FF1 9# 4# 5# 5# 5# (0-1)# ISDN International Dial Code Deduction

0-Send as is
1-Deduct 011 from the code

FF1 9# 4# 5# 5# 6# (0-1)# ISDN Long Distance 1 Code Deduction

0-Send as is
1-Deduct 1 from the code

FF1 9# 4# 5# 5# 7# (0-1)# ISDN Type and Plan Option

0-Determine Type and Plan
1-Type and Plan always set to Unknown/Unknown

Alarm Transmission Options

Two Red Alarm parameters must be manually reset to the default values.

CPC-EX ISDN Red Alarm Settings

Two Red Alarm parameters must be manually reset to their default values:

Programming

1. Red Alarm Detection:
   - Master
     FF1 9# 4# 4# 2# 1# (2) # (where 2=8)
   - Slave
     FF1 9# 4# 5# 2# 1# (2) # (where 2=8)

2. Red Alarm Recovery
   - Master
     FF1 9# 4# 4# 2# 2# (1) # (where 1=10mS)
   - Slave
     FF1 9# 4# 5# 2# 2# (1) # (where 1=10mS)

3. Verify that all other timers are at their default values. Do not change them from their default values.
4. Reprogram the DIDs
   FF1 9# 4# 6# (1-64) # 1# (0000-9999) #

5. Turn the power switch off, and then back on again.

Typical Central Office Configurations

***Note**: Unless stated all other default values are correct.*

Lucent (AT&T) 4ESS

- **CO Type** (0) 4ESS
- **NSF**- None(0) or MegaCom(2) – Depends on service requested from CO.
- ISDN International Code Deduct 011
  - Set to (1) to deduct 011 from the CO Setup message.
- ISDN Long Distance 1 Code Deduction
  - Set to (1) to deduct 1 from the CO Setup message.

Lucent (AT&T) 5ESS

- **CO Type** (1) 5ESS
  - ISDN International Code Deduct 011
  - Set to (1) to deduct 011 from the CO Setup message.

Nortel (NT) DMS100

CO Type (3) DMS100 This is the default setting.

The ISDN PRI provides a flexible method of providing access to the Public Switched Telephone Network (PSTN). Because of the many ways that an ISDN span can be configured by the CO, it is essential that the DBS configuration and the provisioning of the CO are compatible. The following tables identify the critical parameters that must be set for proper operation. These tables also provide a list of information that must be gathered on the CO, as well as the type of information that the CO needs to know about the DBS system.

#	**Information Needed from CO**	**Comments (Examples)**
1	Manufacture of CO and software load	5E11 (5ESS with load 11), DMS-100 with NA008
2	Is local dialing 7 digits, 10 digits or a combination?	
3	For long distance dialing, does the CO want to see the leading 1?	1-770-555-1212, or 770-555-1212
4	For international dialing, does the CO want to see the leading 011?	011-(15-digit number) or (15-digit number)

#	**Typical Information for CO**	**Comments (Examples)**
1	Installation Address	
2	Is this a new installation?	
3	Extended wiring beyond phone room?	
4	Main phone number of installation	
5	Contact person for installation	
	Contact for order information	
6	Billing name	
7	Billing address	
8	Long distance Carrier InterLATA (PIC)	Identifies the carrier who will provide long distance access.
9	Long distance Carrier (IntraLATA) (LPIC)	Identifies the carrier who provides access for connections that are not local but are still within the local LATA.
10	Request date of installation	
11	Facility type	ISDN PRI
12	Facility quantity	1 or 2 spans
***NOTE**: The following items must be provided on a per span basis.*		

#	**Typical Information for CO**	**Comments (Examples)**
13	Signaling code	DS-1 (1.544 Mbps)
14	Line coding	B8ZS (Binary 8 Zero Substitution)
15	Framing Format	ESF (Extended Superframe)
16	Bearer configuration	Voice or Voice/Data
17	Quantity of B (bearer) channels	23B + 1D - Max. setting (must have 1 D channel) Or XB + 1D where X is 1-23 for a fractional span
18	Call type	Two Way
19	Quantity of phone numbers	A block of 20 numbers is generally assigned. ***Note**: With DID, the total number of telephones will exceed the total number of B channels.*
20	Number of incoming digits to CPE (Customer Premise Equipment – DBS)	Select 4 digits. Used with DID.
21	ISDN PRI Protocol	5ESS Custom, DMS-100 Custom (NTNAPRI) or 4ESS
22	Glare Resolution	CPE yield to CO
23	Channel selection used by CO	High-to-Low B-channel selection
24	Source of Calling Party Number	Calling Party Number must be sourced by the CO.
25	Service Options	ANI – Automatic Numbering Indication Hunt group - MegaCom –only for 4ESS operation

***NOTE:** If two spans are implemented, each span must have a separate D channel (i.e.: D channel sharing is NOT permitted).*

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CPC-EX Beta Testing Problem Report

To:	MCUSA Systems Support	**From:**	
Fax:	(770)338-6252	**Date:**	
Phone:	(800)435-4327	**Fax:**	
Subject:	CPC-EX Version 2.30 Beta Testing Problem	**Phone:**	

❷Description of Problem

❸Release Notes Reference Page No.	

FOR MCUSA USE ONLY

Problem No.		Assigned to		Date	

Cause	Solution

Corrected by		Date	

● URGENT ● URGENT ● URGENT ● URGENT ● URGENT ●

Instructions for completing a
CPC-EX Version 2.30 Beta Testing Problem Report

Make a copy of the report form (page 17 of this document), then:

1. In the Header Section , fill in:

   a) your name,
   b) the date this report was generated,
   c) a phone number where you can be contacted, and
   d) your fax number.

2. In the **Description of Problem** field ❷, completely describe the problem you experienced with the system. Include all programming steps taken any results displayed or observed.

3. In the **Release Notes Reference Page No.** field ❸, enter the page number(s) of the Release Notes page(s) which discuss the feature with which you are experiencing problems.

Fax the form to MCUSA Systems Support at **(770)338-6252**.