

Title: Integration Notes for Nortel Meridian with Dv2000-U**Document:** IN000024**Date:** November 11, 2005

Overview

DuVoice DV2000-U provides complete integration with Nortel Meridian telephone systems. This is accomplished by using digital extensions emulating Meridian 2616 sets. This file gives needed information on integrating the DuVoice VM with the Meridian systems.

The Nortel Meridian 1 is a full-featured PBX that can provide a large amount of ports and many PBX voice features. The Meridian 1 uses digital signaling to control its station sets and digitized voice.

Features Supported

Message Lights	Yes
Fwd to a personal greeting RNA	Yes
Fwd to a personal greeting Busy	Yes
Fwd to a personal greeting DND	
Different Busy Greeting	Yes
Auto Login to a mailbox	Yes
Trunk ID Multiple Tenant	
Voice Mail Transfer Button to a mailbox	
Record a call	
DID fax	
Caller ID with message	Yes
Trunk to trunk transfer (unsupervised)	Yes
LS Disconnect	Yes
Tone Disconnect	Yes
Supervised Transfers	
Call Screening	
Caller Queuing	

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Meridian Digital

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Theory of Operation

In the digital integration, digital extensions—configured as station type 2616—are connected to the VMS voice ports. The VMS then interprets the display information to determine the call type (direct to voice mail, forward on busy/RNA/all calls, trunk call, etc.). For more on the physical connection to the Dialogic Dx2JCT-U cards, refer to section 4-VMS/Dialogic on this document.

Critical Considerations

References:

- DuVoice Technical document
[TB000006 - Using the Dialogic D/x2JCT-U PBX Integration Boards](#)

1. Requirements:

DuVoice DV2000-U with release 3.05.27 or higher with Dialogic Dx2jct-u card

- Nortel Meridian with station card QPC578 or NT8D02
- Dialogic software release 5.1.1 with SP1 and FP1
- One Digital Extension per DuVoice Digital VM port
- One Analog Extension for the DuVoice VM modem, or IP address for remote administration and support.

Step 2 PBX programming - Nortel Meridian 1 configuration for DuVoice digital ports

Below lists the menu structure used when configuring a Nortel Meridian 1.
For details about programming a Meridian 1, refer to the appropriate Meridian 1 manual.

Nortel Meridian 1 Configuration for DuVoice digital Ports

The M-1 ports should be configured as a M2616 telephone with a display as follows. For this example the VMS port's extension number is 5501.

CLS CTD FBD WTA MTD FNA HTA ADD HFD

MWA CNDA

TYPE 2616

HUNT (5502) IS NEXT PHONE IN GROUP

LHK 1

KEY 0 SCR 5501 (Ringing Call Appearance)

KEY 1

KEY 2 MSB (Make Set Busy)

KEY 3 TRN (TRANSFER)

KEY 4 MCK (MESSAGE CANCEL)

KEY 5 MIK (MESSAGE INDICATION)

KEY 6

KEY 7

KEY 8

KEY 9

KEY 10

KEY 11

KEY 12

KEY 13

KEY 14

KEY 15

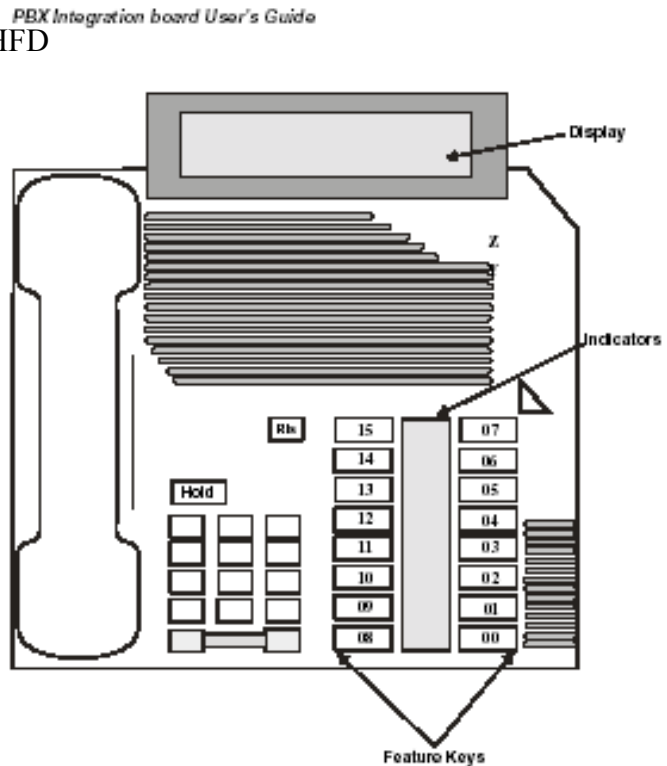


Figure 14. Nortel M2616 Telephone

Setting up a user's analog set

A users Analog set should be setup like the example below.

```
>LD 10
REQ CHG
TYPE 500
TN 0024
C DEN
DES
CUST
DIG
DN
HUNT 2000
TGAR
NCOS
RNPG
CLS HTA FNA MWA LPA CFTA SFA
FTR FDN 2000
    EFD 2000
    EHT 2000
```

Setting up a user's digital set

A digital set should be setup like the example below. note: using extension 2008 for demonstration.

```
>LD 11
REQ CHG
TYPE 2008
TN 0043
E CHG
DES
FDN 2000
TGAR
NCOS
RNPG
SSU
CLS HTA FNA MWA CFTA
EFD 2000
HUNT 2000
EHT 2000
LHK
```

4a. Connecting the Meridian to the Dialogic JCT card

This section describes the necessary pin outs to connect the Meridian and configuring the Dialogic program DCM for a Meridian. The DV20xx-U comes in 4 ports or 8 ports per card configuration.

The Dialogic JCT card requires the dialogic D82 cable that connects to the back of the JCT card and terminates to an amphenol connector. Use the below chart to connect the amphenol cable to your cross connect field.

Color pair		Pairs #	2 Wire Set
White	Blue	1 & 26	NA
White	Orange	2 & 27	VM Port 1
White	Green	3 & 28	NA
White	Brown	4 & 29	VM Port 2
White	Slate	5 & 30	NA
Red	Blue	6 & 31	VM Port 3
Red	Orange	7 & 32	NA
Red	Green	8 & 33	VM Port 4
Red	Brown	9 & 34	NA
Red	Slate	10 & 35	VM Port 5
Black	Blue	11 & 36	NA
Black	Orange	12 & 37	VM Port 6
Black	Green	13 & 38	NA
Black	Brown	14 & 39	VM Port 7
Black	Slate	15 & 40	NA
Yellow	Blue	16 & 41	VM Port 8

4b. Configuring the Dialogic JCT board

STOP!

Reference duvoice manual chapter 2 – changing the integration

The Duvoice Server control program must be stopped before proceeding!

This section details the steps to configure the Dialogic program DCM to be used on the meridian. This step has two parts, the first is to configure the card for the phone emulation and the second is to assign a tone file for the card to use for recognition of busy tones, ring tones etc...

Step 1. The DCM program is located by choosing Start/Programs/Intel Dialogic System Software/Configuration manager-DCM. When the program opens you will receive a popup stating that the dialogic system service is running, simply select the OK button.

Step 2. The JCT card will be shown with a green dot on it, indicating that the dialog service is running. Again you will need to confirm that the Duvoice Server Control program (stoplight) is not running before continuing. To begin, press the stop button. It may take a few moments for this action to be completed. Once the card is stopped a red light will now be on the Cards Icon.

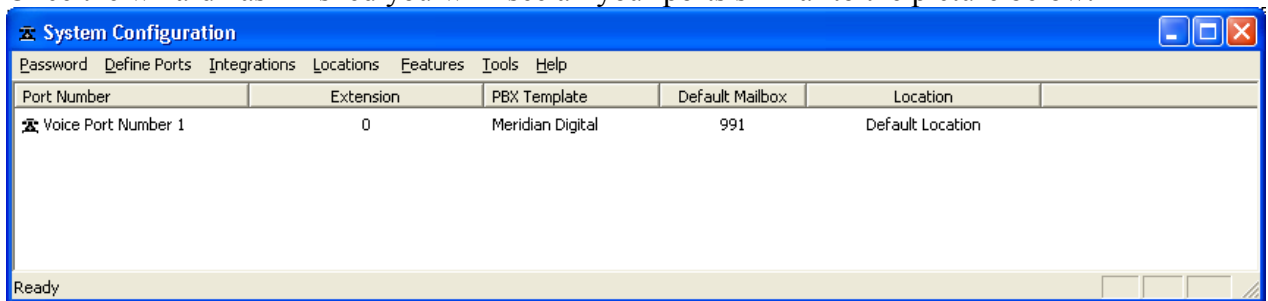
DuVoice Dv2000 Programming setup.

The DV2000 system should be configured as follows, Please refer to the Duvoice DV4/DV2000 manual for further information. Also confirm that the duvoice server control is stopped before proceeding.

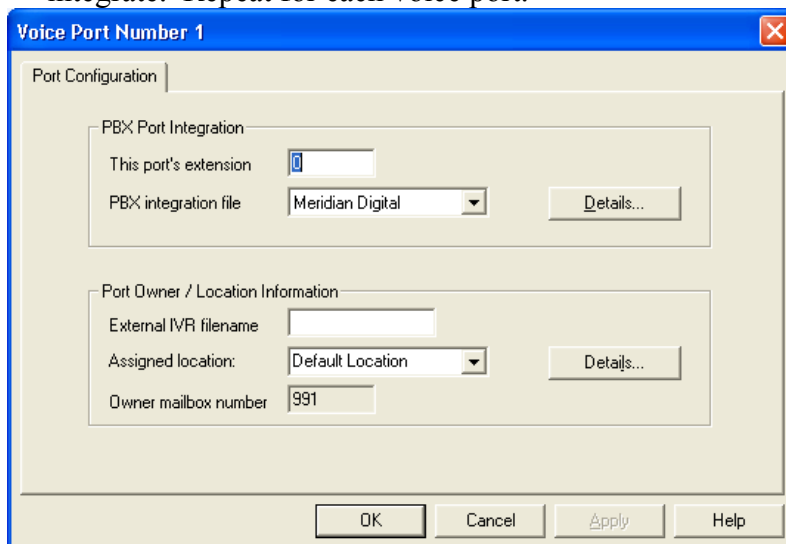
Setup the Systems integration for Meridian Digital integration by opening the System Configuration program. If the ports are set as another integration type you will need to delete the ports to delete ports, highlight the voice ports to be deleted (do not delete the fax port) and press [delete] on the keyboard. Once all ports are gone you can select **Define Ports** and choose to **define a range** of ports. This will start the Port Creation Wizard that will lead you through: setting the number of ports to add, selecting the PBX template to assign (Meridian Digital), and selecting the location to assign. Make sure you assign the Meridian Digital through the setup process.

Please refer to Chapter 4, of the duvoice manual for more explicit instructions on using the Port Creation Wizard.

1. Once the wizard has finished you will see all your ports similar to the picture below.



2. Next double click a port to open the ports properties. Next you will need to enter the extension number that is connected to that specific port, this must be exact as miss matched ports will not integrate. Repeat for each voice port.



Once you have completed setting all of the ports, close all Duvoice programs. Open the Duvoice Server control program to start the Duvoice services. Once the system is system is running you need

to reboot the entire PC to allow the Dialogic system drivers to start up from a power up while connected to the Meridian ports.

Testing and Troubleshooting

Test the RNA, BNA User-Logins and disconnect under all possible parameters from inside calls and outside calls.

If calls the VM ports directly one at a time while testing do not Get picked up on the first ring you will need to confirm you connectivity to the Dialog card and refer back to the connection chart in this document. Also note that on the back of the dialogic card there is a display that indicates the current status of each of the ports, E1 E2 E3 E4 etc will be displayed if there are any errors of configuration or connectivity between the either the dialogic card or the Meridian Ports that are connected. If the errors continue to show up and your using Dialogic version 5.1.1 SP1 without FP1 they you will need to power down the Voicemail system and power backup after 20sec this will force the dialogic card to reset its integration settings.

Conclusion

If you need further assistance please contact DuVoice Technical Support Monday - Friday 8am - 5pm Pacific Time, (425)250-2393.