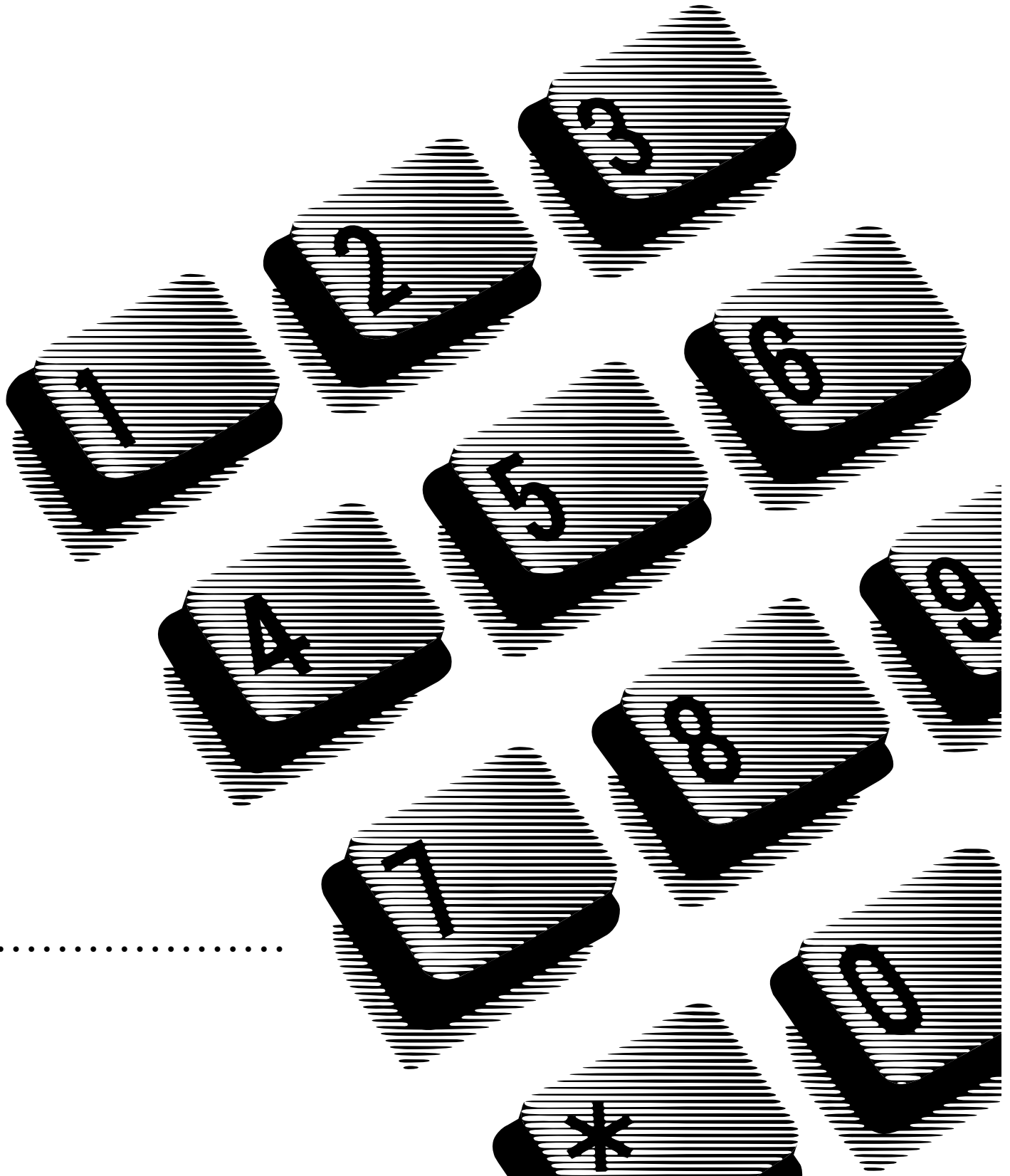

NORTEL NORSTAR

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Norstar Voice Mail

Voice Channel Upgrade Guide



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Norstar Voice Mail Voice Channel Upgrade

Each Norstar Voice Mail system is equipped with a minimum of two Voice Channels and can be expanded to 16 Voice Channels. Voice Channels are added in multiples of two. A maximum of eight Voice Channels can be added per Voice Channel Upgrade Security Key Code. For example, to add 10 Voice Channels you need an eight Voice Channel Upgrade Security Key Code, plus a two Voice Channel Upgrade Security Key Code.

The Norstar Voice Mail system can either be equipped with Digital Voice Cards (DVCs) or with a Media Services Base Interface Card (BIC). Although the hardware requirements for a DVC based system and a BIC based system are different, the instructions for enabling additional Voice Channels is the same.

This document provides instructions for enabling the spare Voice Channels on a DVC or a BIC based system. Refer to the *Norstar Applications Module II Installation and Maintenance Manual* for instructions on adding a DVC. For information on adding a Media Services Processor Expansion Card (PEC) to the BIC, refer to the *Norstar Applications Module Installation and Maintenance Manual*.

This guide provides the requirements and procedures for enabling additional Voice Channels for the Norstar Voice Mail application. Voice Channels for other applications running on your system must be enabled separately.

Upgrading Voice Channels on a system equipped with DVCs

A Norstar Voice Mail DVC based system can have a maximum of 16 Voice Channels. Each DVC can have a maximum of four Voice Channels. You can have up to four DVCs in a Norstar Applications Module (NAM). Upgrades are done by entering a Voice Channel Upgrade Security Key Code. In some cases, you will have to add one or more DVC to the system. After a DVC is purchased, you must enable the Voice Channels by using a Voice Channel Upgrade Security Key Code.

For more information about upgrading the Voice Channels on a DVC based system, refer to [Table 1](#) on page 3.

Upgrading Voice Channels on a system equipped with a BIC

A Norstar Voice Mail BIC based system can have a maximum of 16 Voice Channels. The Voice Channels are enabled using a Voice Channel Upgrade Security Key Code. To configure the Norstar Voice Mail system with more than eight Voice Channels, you must add a Media Services Processor Expansion Card (PEC) Type A to the BIC. The PEC allows the capacity for eight more Voice Channels. For example, a BIC (without PEC) can have a maximum of 8 Voice Channels and a BIC with one PEC can have a maximum of 16 Voice Channels.

For more information about upgrading the Voice Channels on a BIC based system, refer to [Table 2](#) on page 4.

Installation overview

To use this manual, you should be familiar with Norstar and Norstar Voice Mail terminology.

The installer is responsible for:

- reading this guide
- checking how many Voice Channels are currently installed
- completing the Upgrade Information Sheet at the end of this guide
- calling the Norstar Key Code Access Line for your Voice Channel Upgrade Security Key Code
- enabling the Voice Channel Upgrade Security Key Code
- backing up the capabilities file
- rebooting the NAM

Note: After you enable the Security Key Code, you must back up the Norstar Voice Mail capabilities file. If this file is lost and your hard disk drive fails, all upgrades made to your Norstar Voice Mail system will be lost.

All procedures for enabling the Voice Channel Upgrade Security Key Code can be done from a Norstar two-line display telephone.

Table 1 Voice Channel Upgrades for DVC based systems

Number of Voice Channels Desired	Upgrading from 2 Channels	Upgrading from 4 Channels	Upgrading from 6 Channels	Upgrading from 8 Channels	Upgrading from 10 Channels	Upgrading from 12 Channels	Upgrading from 14 Channels
2							
4	2 Channel Key						
6	DVC*, 4 Channel Key	DVC*, 2 Channel Key					
8	DVC*, 6 Channel Key	DVC*, 4 Channel Key	2 Channel Key				
10	2 DVCs*, 8 Channel Key, 8MB of memory*	2 DVCs*, 6 Channel Key, 8MB of memory*	DVC*, 4 Channel Key	DVC*, 2 Channel Key			
12	2 DVCs*, 8 Channel Key + 2 Channel Key, 8MB of memory*	2 DVCs*, 8 Channel Key, 8MB of memory*	DVC*, 6 Channel Key	DVC*, 4 Channel Key	2 Channel Key		
14	3 DVCs*, 8 Channel Key + 4 Channel Key, 8MB of memory*	3 DVCs*, 8 Channel Key + 2 Channel Key, 8MB of memory*	2 DVCs*, 8 Channel Key	2 DVCs*, 6 Channel Key*	DVC*, 4 Channel Key	DVC*, 2 Channel Key	
16	3 DVCs*, 8 Channel Key + 6 Channel Key, 8MB of memory*	3 DVCs*, 8 Channel Key + 4 Channel Key, 8MB of memory*	2 DVCs*, 8 Channel Key + 2 Channel Key	2 DVCs*, 8 Channel Key	DVC*, 6 Channel Key	DVC*, 4 Channel Key	2 Channel Key

*Must be ordered separately

Note: Tables 1 and 2 provide the minimum requirements for enabling additional Voice Channels. If your system is running multiple applications, such as MINUET, and/or multiple Norstar Voice Mail options, such as Digital Networking, Desktop Messaging, you may require additional hardware to ensure optimum performance.

Table 2 Voice Channel Upgrades for BIC based systems

Number of Voice Channels Desired	Upgrading from 2 Channels	Upgrading from 4 Channels	Upgrading from 6 Channels	Upgrading from 8 Channels	Upgrading from 10 Channels	Upgrading from 12 Channels	Upgrading from 14 Channels
2							
4	2 Channel Key						
6	4 Channel Key	2 Channel Key					
8	6 Channel Key	4 Channel Key	2 Channel Key				
10	PEC*, 8 Channel Key,	PEC*, 6 Channel Key	PEC*, 4 Channel Key	PEC*, 2 Channel Key			
12	PEC*, 8 Channel Key + 2 Channel Key	PEC*, 8 Channel Key	PEC*, 6 Channel Key	PEC*, 4 Channel Key	2 Channel Key		
14	PEC*, 8 Channel Key + 4 Channel Key,	PEC*, 8 Channel Key + 2 Channel Key	PEC*, 8 Channel Key	PEC*, 6 Channel Key	4 Channel Key	2 Channel Key	
16	PEC*, 8 Channel Key + 6 Channel Key,	PEC*, 8 Channel Key + 4 Channel Key	PEC*, 8 Channel Key + 2 Channel Key	PEC*, 8 Channel Key	6 Channel Key	4 Channel Key	2 Channel Key

*Must be ordered separately

Note: Tables 1 and 2 provide the minimum requirements for enabling additional Voice Channels. If your system is running multiple applications, such as MINUET, and/or multiple Norstar Voice Mail options, such as Digital Networking, Desktop Messaging, you may require additional hardware to ensure optimum performance.

Checking the number of Voice Channels currently installed

Before you perform a Voice Channel Upgrade you must check the number of Voice Channels currently installed on your system. Checking the Voice Channels ensures you request the correct Voice Channel Upgrade Security Key Code when you call the Norstar Key Code Access Line. Checking the number of Voice Channels allows you to verify the number of Voice Channels installed

Note: The Voice Channel status is shown for all Voice and Fax Channels. The Channels are not be identified as Voice or Fax.

To check the Voice Channel Status:

1. Press .

Password:

2. Enter the default password (ACCESS2) and press .

ACCESS Server
BACK NEXT ADMIN

3. Press NEXT until the display shows:

Channel Status
BACK NEXT SHOW

4. Press SHOW.

Chan Status Menu
QUIT ALL SHOW

5. Press ALL to view the number of Voice Channels currently installed on your system.

ccr.*****

6. In this display there are four Voice Channels installed on the system. Refer to [Table 3](#) on page 5 for an explanation of the symbols presented on the display.

7. To end this session, press .

If new Voice Channels are added, a DVC card is added or a Media Services Processor Expansion Card (PEC) is added to the BIC, you must quit the Channel Status session and re-enter Channel Status to view the changes.

Table 3 Voice Channel Symbols

Voice Channel Symbol	Definition of symbol
.	The Channel is installed and functioning, but is currently idle.
r	The Channel is ringing. The Channel is either receiving a call or is attempting to make a call.
c	The Channel is connected and is on an active call.
a	The Channel is connected to the KSU, but is not activated for Norstar Voice Mail.
x	A Channel is detected, but there is a connection problem.
*	No Channel detected.

Enabling the Voice Channel Upgrade Security Key Code

Before you enable the Voice Channel Upgrade Security Key Code, you must:

- verify the number of Voice Channels you requested
- determine your internal Norstar Voice Mail system serial number
- complete the "[Upgrade Information Sheet](#)" on page 11
- call the Norstar Key Code Access Line for your Security Key Code
- record the Security Key Code on the Upgrade Information Sheet

Verifying the number of Voice Channels requested

Before you call the Norstar Key Code Access Line, verify the number of Voice Channels you are enabling. For example, the Authorization Number on [page 11](#) will look like:

Authorization
Number
SAMPLE



In the example above, 00000000 is the Authorization Number and Channels/Voies téléphonique 4 is the number of additional Voice Channels to be enabled. In this example, you would be enabling four additional Voice Channels.

Determining your internal Norstar Voice Mail system serial number

Each Norstar Voice Mail system is identified by a unique internal serial number. You must have this number written down on the Upgrade Information Sheet before you call for your Security Key Code.

To view the internal serial number:

1. Press .

Password:
RETRY

2. Enter the default password (ACCESS2) and press .

ACCESS Server
BACK NEXT ADMIN

3. Press ADMIN .

A. Prt queue mgr
QUIT NEXT SHOW

4. Press NEXT until the display shows:

I. Serial Number
QUIT NEXT SHOW

5. Press SHOW to view the internal Norstar Voice Mail system serial number.

S#: XXXXXXXXXXXXXXXX
OK

6. After you have recorded the internal serial number, press **OK** .

7. To end this session, press **Rls** .

Completing the Upgrade Information Sheet

The Upgrade Information Sheet outlines your Norstar Voice Mail system configuration. This page must be completed before you call the Norstar Key Code Access Line for your upgrade Security Key Code.

The Upgrade Information Sheet includes information about:

- Current number of Voice Channels installed on the Norstar Voice Mail system
- Number of Voice Channels to be added
- Internal Norstar Voice Mail serial number

Getting your Security Key Code

After you have completed the Upgrade Information Sheet at the end of this guide, you are ready to phone the Norstar Key Code Access Line. Keep the Upgrade Information Sheet in front of you and dial 1-800-684-5825.

When you are given the Security Key Code, ensure you write it down in the space provided on the Upgrade Information Sheet.

Enabling the Voice Channel Upgrade Security Key Code

To enable the Voice Channel Upgrade Security Key Code:

1. Press .

```
Log:
QUIT  RETRY  OK
```

2. Enter the System Coordinator Mailbox number and password and press OK.

```
Admin
MBOX  AA    OTHR
```

3. Press .

```
Options admin
ADD    VIEW
```

4. Press ADD.

```
Key:
RETRY  OK
```

5. Enter your Voice Channel Upgrade Security Key Code and press OK.

```
Ports increased
```

6. After the additional Voice Channels are enabled, you should back up the Norstar Voice Mail module's capabilities file.

7. Press to end this programming session.

Backing up the capabilities file

After you have increased the number of Voice Channels, you must back up the Norstar Voice Mail capabilities file. This file contains all upgrade and capability information about your Norstar Voice Mail system and must be restored along with Norstar Voice Mail programming if a hard disk failure occurs.

Note: If this file is lost and your hard disk drive fails, all upgrades made to your Norstar Voice Mail system will be lost. Ensure you store this backup in a safe place.

Before you begin, ensure you have a blank IBM formatted 1.44 MB 3.5" floppy disk. Label the Diskette **SEKUR/Capabilities File**.

To back up the capabilities file:

1. Press .

2. Enter the default password (ACCESS2) and press .

3. Press ADMIN.

ACCESS Server
 BACK NEXT ADMIN

4. Press NEXT until the display shows:

A. Prt queue mgr
 QUIT NEXT SHOW

5. Press SHOW.

E. Bckp/Rstr
 QUIT NEXT SHOW

6. Press BCKP.

Backup & Restore
 QUIT BCKP RSTR

7. Insert the IBM formatted floppy diskette into the floppy disk drive on the NAM and press OK.

Insert floppy
 QUIT OK

8. Press OK.

Backup complete
 OK

9. To end this session, press .

After you have completed backing up the capabilities file, make sure you store the floppy diskette in a safe place.

Rebooting the NAM

After you have completed the upgrade and backed up the capabilities file, you must reboot the Norstar Voice Mail system. When you reboot the system, the new Voice Channels are automatically allocated to Norstar Voice Mail.

The reboot option offers four choices: Graceful, Quick, Immediate and Scheduled. The Graceful option allows an application to terminate all existing calls before shutting down and restarting. The Quick option only allows 45 seconds for an application to terminate before the reboot, the Immediate option allows 15 seconds and the Scheduled option allows you to choose a time when the system will automatically reboot.

When you are rebooting Norstar Voice Mail, you should use the Graceful option. However, if the system is not responding to the command, you can speed up the process by changing the option to a Quick reboot.

1. Press .

```

Password:
RETRY
  
```

2. Enter the default password (ACCESS2) and press .

```

ACCESS Server
BACK  NEXT  ADMIN
  
```

3. Press NEXT until the display shows:

```

System reboot
BACK  NEXT  SHOW
  
```

4. Press SHOW .

```

Reboot type
QUIT  NEXT  GRACE
  
```

5. Press GRACE to perform a Graceful reboot. Press NEXT to reach the Quick reboot display.

```

Reboot Graceful?
YES      NO
  
```

6. Press YES .
The display changes to show:

```

Rebooting...
  
```


7. To end this session, press .

Upgrade Information Sheet

**Authorization
Number**

Norstar Voice Mail system	
Number of Voice Channels currently installed	<input type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> 14
Voice Channel Upgrade requested	<input type="checkbox"/> 2 Additional Voice Channels <input type="checkbox"/> 4 Additional Voice Channels <input type="checkbox"/> 6 Additional Voice Channels <input type="checkbox"/> 8 Additional Voice Channels
Internal Norstar Voice Mail Serial Number	

KSU information	
Norstar KSU Type	<input type="checkbox"/> 3X8 <input type="checkbox"/> 6X16 <input type="checkbox"/> 8X24 <input type="checkbox"/> Modular ICS <input type="checkbox"/> Compact ICS
Norstar KSU Software version	<input type="checkbox"/> Centrex <input type="checkbox"/> Not Centrex
Total number of incoming lines to the Norstar KSU Note: You must enter the exact number	
Total number of sets attached to the Norstar KSU Note: You must enter the exact number	



You must have the **internal** Norstar Voice Mail Serial Number. The internal Serial Number differs from the serial number located on the front of the NAM. Refer to "Determining your internal Norstar Voice Mail system serial number" on page 6.

You are now ready to call the Norstar Key Code Access Line at 1-800-684-5825 and receive the Voice Channel Upgrade Security Key Code.

Keep this information sheet with you when you call.

Write the Voice Channel Upgrade Security Key Code in the space provided below.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

1-800-4 NORTEL
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