

# Dial Plan Expansion Job Aid for Avaya MultiVantage™ Software



Converting from a 4/5-digit dial plan to a 6/7-digit dial plan is a complicated process that involves your entire Avaya MultiVantage™ Solutions system, not just your software and translations. The complexity of this project depends upon the complexity of your network and on the adjuncts you are using with your system. The expansion of your dial plan can take as much as several months.

This job aid provides an overview for converting your Avaya MultiVantage™ Solutions system from a 4/5-digit dial plan to a 6/7-digit dial plan. It includes:

- Checking your current system to make sure all aspects of it are compatible with the conversion
- Performing the conversion
- Verifying the conversion

Avaya organizations can perform some of the steps for you. This job aid explains:

- Which parts of the conversion can be performed by Avaya
- Which Avaya groups to contact for the tasks that Avaya will perform
- Which parts of the conversion you will perform
- The order in which the conversion tasks should be performed

For the steps that you will perform, this document provides either:

- A high-level description of the task appropriate for the experienced personnel that normally performs such tasks for your system
- or
- The name of the document that provides the needed information

You can find all referenced documents at [www.avaya.com/support](http://www.avaya.com/support).

## Evaluating your system for conversion

Before you can expand to a 6/7-digit dial plan, you must check your system to see if it is compatible with the expanded dial plan. You may have to make changes to your hardware and/or software. This list will help you determine how complex the conversion will be for your system.

This list is for your consideration. The actual steps you follow to migrate to the expanded dial plan are presented in [“Performing the conversion” on page 5](#).

- You must consider all nodes in the network when deciding to convert to the new dial plan. Do you need to replace any equipment (for example, other-vendor systems, key systems, stand-alone ACD, turrets)?
- Many adjuncts do not support 6/7-digit extensions. See [“Adjunct compatibility with expanded dial plan” on page 3](#) for a high-level description of the various adjuncts and adjunct types and their compatibility with 6/7-digit dial plans. For more specific information about adjuncts and software versions that support 6-7 digit extensions, see [“Big Switch Adjunct Interaction”](#).

Make sure that you know which of your adjuncts do not support the 6/7-digit dial plan. You will replace or upgrade these adjuncts in [“Performing the conversion” on page 5](#).

- IDS+ will not work with a 6/7-digit dial plan.
- You cannot migrate to a 6/7-digit dialing plan under these circumstances:
  - If you use the Property Management System (PMS) Interface  
The PMS protocol has not been enhanced to support the expanded dial plan.
  - If you use MSA  
MSA is not supported in MultiVantage.
  - If any of your networks are DCS or DCS+  
See the next item in this list.
- If you have any DCS or DCS+ networks, you will need to convert to QSIG.

 **NOTE:**

This assumes that you wish to convert your entire network to 6/7-digit dialing. If you wish, you can subdivide your network into 6/7-digit and 4/5-digit clusters. In that case, the 4/5-digit subnetwork can keep using DCS or DCS+.

Examine your system for any of the following four situations. You will migrate from DCS/DCS+ to QSIG in [“Performing the conversion” on page 5](#).

- DCS/DCS+ networks do not support 6/7-digit extensions. These networks must be converted to QSIG to use the expanded dial plan. Centralized Attendant Services and Centralized Voice Mail need to be updated as well.

 **NOTE:**

QSIG does not support priority calls, so customers who make this switch lose the ability to make priority calls across the network.

- None of the public network carriers that currently support DCS/DCS+ are capable of supporting the QSIG signaling protocol. Therefore, if you convert from DCS to QSIG, you must also convert your network to private facilities (dedicated tie trunks, which can be IP trunks).
- If your network interworks DCS and QSIG, you need to convert to an all-QSIG environment.
- If you already use QSIG in your private network, you may need to modify your routing translations, but your network should not need major modifications.
- If you are using DID trunks (either ISDN or not) you must determine the number of digits that the service provider supplies to you. You may need to insert additional digits to create an extension when you convert to 6/7-digit dialing. The same is true for intra-network tie trunks over which the extension digits are passed.
- With 6-7 digit dialing, every call will require up to two more digits worth of time. Contact Avaya to determine whether your system will need additional touch-tone receivers.

### Adjunct compatibility with expanded dial plan

The following is a high-level description of the various adjuncts/adjunct types and their compatibility with 6/7-digit dial plans. For more information, see “Big Switch Adjunct Interaction.”

The section “4/5-digit dial plan to 6/7-digit dial plan Migration Issues” in *Recommendations for Migration from DCS to QSIG In Preparation for 4/5-Digit Dial Plans to 6/7-Digit Dial Plans* also discusses migration issues for many of these adjuncts.

- BCMS Vu
  - BCMS Vu has been enhanced in Release 3/V1 to support the expanded dial plan.
- CDR units/Call Accounting System (CAS)
  - For the expanded, unformatted and customized record formats, Avaya MultiVantage™ software will send the entire 6- or 7-digit extension in the Calling Number field. For all other formats, the extension will be reformatted and only the last 5 digits will be sent. This is because the record formats cannot hold more than 5 digits in the Calling Number field.
- CentreVu Call Management System
  - CentreVu applications will be updated in Version 11 to support the expanded dial plan. See Avaya Contact Center R11 and R3V11 CMS Change Description for more information.
- Call Visor Adjunct Switch Applications Interface (ASAI)
  - The ASAI protocol was enhanced in R11 to support the expanded dial plan. See R11 CallVisor ASAI Protocol Reference, Issue 12 (555-230-221) Chapter 4, “Information Elements” and Chapter 5, “Byte Level Messages.”
- Property Management Systems (PMS)
  - The PMS protocol has not been enhanced to support the expanded dial plan.
- System Management applications, the Avaya VisAbility Suite
  - The suite of Avaya System Management applications will be updated to support the expanded dial plan.

- Telephones and telephone displays

Some telephone displays have been truncated to accommodate longer extensions. Otherwise, all display-equipped telephone types are compatible with the expanded dial plan.

You may need to download new IP telephone firmware and IP softphone software from the Avaya support website.

- Voice Mail adjuncts

INTUITY Audix must be updated to R5.1.33 or later to be compatible with the expanded dial plan. For INTUITY Audix, you must use uniform extension lengths for mailboxes and hunt groups and ports.

Embedded Definity Audix supports only 3-5 digit mailboxes and must use uniform extension lengths for mailboxes and hunt groups and ports, so it cannot be used as a server with a 6/7-digit dial plan.

- Voice Response systems

The protocol between the DEFINITY and CONVERSANT does not need to be updated to support the expanded dial plan. However, scripts on the voice response unit may need to be updated.

- X-station Mobility adjuncts

X-station Mobility adjuncts (for example, DECT and PHS) do not need to be changed to support 6/7-digit extensions. MultiVantage software can map 6/7-digit extensions to the extension length administered on the adjunct.

## Performing the conversion

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This section contains a high-level view of the conversion steps. Many of the steps refer you to other documents or to more detailed sections later in this document.

1. A couple of months before the date you want the conversion to be complete, contact your account team. They will help you contact the appropriate Avaya service organizations that can help you with your conversion. You can arrange for services from the following Avaya service organizations:

- Avaya Software Technical Support (STS) can convert your translations to a 6/7-digit dial plan. This organization can also advise you about creating new button labels.

Your account team can contact STS.

- The Avaya Network Integration Center (NIC) can provide services for converting from DCS/DCS+ networks to QSIG.

Your account team can also contact STS. The NIC telephone number is 1-800-551-3361.

2. Remove the features that need to be removed. These features are discussed in the list in [“Evaluating your system for conversion” on page 2](#).
3. Identify all switches and adjuncts in the network. Determine release of each, and compatibility with expanded dial plan. All Avaya switches that will be using 6/7-digit dial plans must be running MultiVantage software.
4. Replace or upgrade adjuncts as necessary to support 6/7-digit extensions.
  - To see which adjuncts require upgrades, see “Recommendations for Migration from DCS to QSIG In Preparation for 4/5-Digit Dial Plans to 6/7-Digit Dial Plans.”
  - To see which adjuncts are not compatible with 6/7-digit dialing, see *Big Switch Adjunct Interaction*.
5. Identify all links in the network, including DCS, DCS+, QSIG, and X.25.
6. Identify announcements that need to change and record new ones.

For example, if you had a message that said, “To transfer, enter the 5-digit extension,” you might need to change it to “To transfer, enter the 7-digit extension.”

7. If Avaya is upgrading your translations, send translation snapshots to the Avaya TSO for conversion to new dial plan.
8. Freeze translations while Avaya is performing the conversion.

For a simple, one-switch network, the conversion may take as little as two weeks, but a complex network may take a couple of months

### NOTE:

Any modifications made after the freeze date will have to be re-entered after the conversion.

9. Upgrade all switches and adjuncts to the minimum release, if necessary.

10. Convert all DCS and DCS+ links to QSIG.

See *Recommendations for Migration from DCS to QSIG In Preparation for 4/5-Digit Dial Plans to 6/7-Digit Dial Plans*.

There are Avaya service organizations that can help you with this step.

11. Notify users of upcoming changes

- Dialing changes

- Voice mail login changes

- Abbreviated dial lists

- Autodial buttons

12. Check incoming digits for conflicts with new dial plan (digits sent on DID, DIOD, or ISDN trunk groups by service providers).

13. When Avaya sends you the media with the converted translations, install the converted translations on all switches.

14. Install new announcements.

15. Apply new button labels that can display 6 or 7-digit numbers. Avaya STS can advise you on creating the new button labels.

16. Set up a transitional dialing plan support if desired for an interim period. (Probably should plan this out ahead of time.) For more information, see [“Setting up a transitional dialing plan” on page 7](#).

17. Modify digit conversion and routing.

For more information about using the new screens and the new capabilities, see the “Dial Plan” and “Uniform Dial Plan” sections of Chapter 20, “Features and Technical Reference,” in the *Administrator’s Guide for Avaya MultiVantage™ Software*. To see both the old and the new dial plan screens, see the *Avaya MultiVantage Solution’s Little Instruction Book for basic administration*.

18. Verify networking and routing.

Make as many different types of calls as possible, to make sure the networking and routing are working correctly.

19. Modify adjuncts translations for 6/7 digit support.

20. Update security extensions. See [“Security issues” on page 7](#).

## **Setting up a transitional dialing plan**

Here is one way to introduce 7-digit extensions in a network of Avaya Media Servers that currently use a 5-digit uniform dialing plan:

1. Find a "hole" in the existing 5-digit plan. If all the first digits 0-9 are in use, find or create a 2-digit combination that is not in use.
2. Convert all the dialable extensions on one Avaya Media Server to the new 7-digit format. (You can, but you do not have to, convert extensions not typically dialed by end users, such as those belonging to data modules, vectors or announcements.)
3. For each 5-digit extension converted to 7 digits, create a VDN with the old extension. The VDN points to a vector that plays an announcement reminding the caller of the dialing change, but then routes the call to the desired destination anyway.
4. Convert your Avaya Media Servers one at a time to this scheme over a period of weeks.
5. Over a period of months, change the vector on each media server to deny the call and force the caller to redial using the longer number.

## **Security issues**

Security adjuncts may need to be updated to support the new dial plan. Also, if you are using Security Violation Notification, you may need to update the notification extension.

