



HiPath DX

# DX – the facts about HiPath DX, HiPath DXR, iSDX and Realitis DX upgrades

This publication explains the practical processes to be considered by the customer prior to Siemens upgrading the HiPath DX, HiPath DXR, iSDX, and Realitis DX.

Customers are strongly recommended to read this publication to familiarise themselves with the processes involved and Siemens prerequisites in an upgrade situation. For the purposes of this publication, the terminology 'DX' refers to HiPath DX, HiPath DXR, iSDX and Realitis DX systems.

## Why upgrade?

An upgrade will protect a company's investment and provide access to improved DX communications functionality and flexible working practices without changing existing infrastructures.

In addition the assurance of a clear and established development path for the emerging broadband and multimedia technological advances is secured. The Siemens design team can only fully support a limited number of previous software revisions. To ensure we commit the resources necessary for ongoing development in line with current information and communications practices we are progressively reducing the number of software revisions we actively support. As part of our policy of protecting our customers' investment in DX systems all software faults irrespective of software revision are investigated and where appropriate current certified software fixes will be applied.

With over six million lines and over 17,000 systems installed, a reputation for quality, reliability, excellence in engineering and a sound investment has been established. Siemens will continue to support their customers with systems that offer voice, data, text and video.

## Which systems can be upgraded?

The iSDX Micro II, iSDX S, iSDX L, iSDX T, Realitis DX (single and dual processor), DX150, DX150E, DXR, HiPath DXR, HiPath DX, (single and dual processor) systems can all be upgraded to the latest Revision 8 software and application pack. An upgrade may not only include additional features and functionality, but may also include additional hardware to allow for expansion of the system.

For systems already at Revision 8 the upgrade process to later application packs has been substantially simplified. Only a single site visit is required by an installation engineer who fits the new application pack upgrades via a PC tool.

Operational performance and functionality of peripheral and third party equipment connected to the DX maybe affected by the upgrade and it is strongly recommended that the customer discusses the impacts of this with Siemens.

For example, where a call logger is installed the Call Information Logging (CIL) format may change between software revisions due to the additional DX functionality offered.

## The accommodation

The upgrade may necessitate the requirement for supplementary system control and/or telephony cards.

This may entail the provision of:

- additional shelf/stack (cabinet)
- additional Test Jack Frame (TJF)
- additional UPS Power
- additional LAN connections
- an increase in power amperage
- an increase in room ventilation
- an increase in 19 inch rack space for cables and switch expansions

Sufficient wall/floor space must be made available to accommodate any additional equipment. Floor and wall loading, together with environmental considerations must be taken into account before agreement is reached on the location of equipment.

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### How does the upgrade work?

There are five key stages to an upgrade:

- 1 Siemens sales consultant discusses requirements with the customer
- 2 Establish existing hardware and software specification, including any customer specific patches
- 3 Obtain a copy of the existing configuration
- 4 For pre-revision 8 software the new customised DX software configuration is generated. For post revision 8 software no new customised DX software configuration is required
- 5 Upgrade implemented

management interface, integral music on hold, the modem for system access and most of the common equipment requirements of a system are contained on this card. Also, this card controls all the internal communications of the system. As a result of condensing several functions from separate cards onto one card, the DX systems gain extra telephony capacity within the same physical space and this is particularly useful for the smaller DXR and single module HiPath DX systems. The HiPath DXR gains three slots for telephony in its base unit and a HiPath DX 'A' side processor module gains four slots. There is no increase in telephone slot capacity for the older iSDX systems at Revision 8.

## Stage 1 – the requirements

The Siemens sales consultant will initially discuss with the customer their requirements and provide details on what features and facilities are available in relation to the level of software offered. The sales consultant can agree a provisional date for the upgrade to take place, however, this will be subject to confirmation from Siemens product control. For systems covered by a Siemens maintenance contract, the sales consultant will obtain the customer's maintenance contract number and remote diagnostics modem number. This will enable Siemens support personnel to remotely access the system and download a copy of the cabinet map (system layout) detailing the programmed (in service) control and telephony cards. For those systems that are not maintained by Siemens but are in a transitory period where maintenance is being contracted to Siemens, a site visit will be arranged to conduct an inventory of the system.

An additional benefit of Revision 8 for existing iSDX-L and iSDX-S users is the support of mixed single and dual slot analogue extension working. There is a chargeable service to allow the conversion of existing single slot cards from dual slot mode to single slot mode, thus allowing the adjacent empty slots to be used as flexible slots.

Dual slot fixed analogue extensions can be reconfigured to single flexible slots if they are actually single slot cards in dual slot mode. There is a charge for this via service, as there will be many instances where a dual slot backplane needs to be replaced by a single slot backplane. The two slots become flexible, with one slot occupied by the extension card. One of these slots is added to the flexible slots pool. The other can be purchased as an additional activated slot.

### Software

There is a new, standard smart configuration for all Revision 8 systems, which sets all the commonly used tables and group numbers to their maximum size. This is done to eliminate, as far as possible, any need to reconfigure for growth in future. This new configuration also allows us to upgrade your system with later application pack releases, speedily and to your exact requirements.

### Supplementary telephony services

Should supplementary internal and/or external telephony services be required, a site inspection will be required.

## Stage 2 – hardware & software application

### Hardware

The new system card combines all the functions previously provided over three or more cards into one card. It provides a superior performance capability for high traffic switches and a 10/100 MHz Ethernet interface for external applications and maintenance activity. All the serial ports to the outside world, the SNMP

### Networks

If the system is being integrated into a network, a check will be made to ascertain if full Least Cost Routing (LCR) is required together with other networking requirements including alternate routing, digit translation, route optimisation and specific access codes. Where integration into a network is required, additional hours for planning and engineering work for the programming of other Siemens systems within the network will be taken into consideration.

If HiPath Xpress IP trunking or HiPath Xpress IP Desktop is being added during the upgrade then the completion of checklist(s) for LAN/WAN performance is required and if necessary, a survey by the Siemens IP service team.

### Siemens Managed Network Services (SMNS)

Where Siemens Managed Network Services are offered, planning personnel are appointed to ensure that the system/network set-up is configured to comply with SMNS requirements.

## Stage 3 – existing configuration

After the initial sales enquiry a system audit will be conducted. A system planner will then contact the customer to discuss any required system changes and to determine if a stock or tailored configuration is required. Once this information has been collated, the sales consultant will provide a cost for the upgrade.

### For an upgrade to Revision 8

Upon receipt of an order, an engineer will attend the site and take a software data dump of the system. A copy of the software together with the information collated by the system planner is sent to the Siemens factory at Nottingham for reconfiguration. To avoid loss of data in the interim period from the time of the data dump to when the upgrade is completed it is recommended that the following precautions be taken:

- printed copies detailing moves and changes are compiled
- changes are manually recorded under the following headings:
  - date
  - command
  - description of move/change
  - name of person recording details

All moves and changes performed are automatically stored in the system history log file. However, should this file be accidentally deleted, records of the moves and changes made are irrevocably lost. The customer should have available a record of bypass circuits and their corresponding trunk and associated extension numbers.

### For a Revision 8 upgrade to latest application pack

Upon receipt of an order, an appointment will be made for an engineer to attend site to fit the latest application pack.

## Stage 4 – software configuration generated

### For an upgrade to Revision 8

A copy of the current system database is regenerated in the Siemens factory. Changes that the customer has agreed with the system planner are sent to the factory for inclusion in the database.

When completed the new database, along with any hardware required, will be despatched directly to the customer's premises in readiness for installation.

### For a Revision 8 upgrade to latest application pack

This stage is not required as any configuration changes are applied locally by the PC upgrade tool.

## Stage 5 – upgrade installed

### For an upgrade to Revision 8

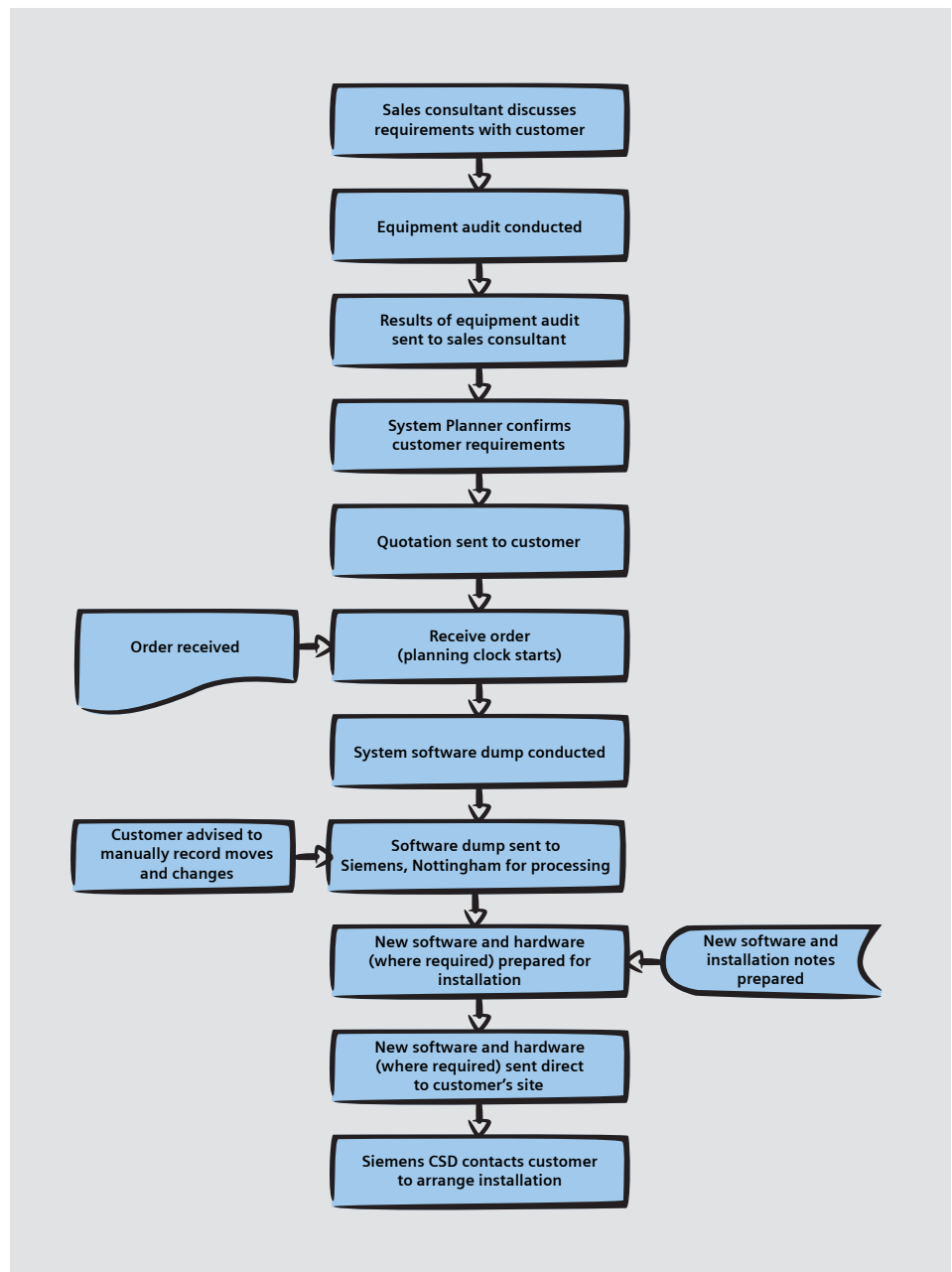
Prior to the upgrade the installer will take a number of listings in order that verification checks can be run on the new software. The upgrade, dependent upon the size of the database and number of cards to be changed, takes between four to six hours to achieve a fully operational system. Each processor on a dual processor system is upgraded in isolation. In most cases there is no impact on the customer's voice communications services. However,

dependant upon the existing software and hardware level some system down time may be experienced, for example:

- 1 upgrade from Revision level 3.6 to Revision 8
- 2 single processor systems, whilst new software is being loaded

During this period there will be no voice communications services, for example: the customer will be notified of this down time and requested to advise all relevant system users. Where telephony card firmware is updated as part of the upgrade process, these individual cards will be removed from service one at a time in order that the firmware can be updated. This will result in a temporary loss of service to the users associated with each of the individual cards. A system back up will be conducted following the upgrade. The back-up disks will be handed to the customer for safekeeping.

Overview of the upgrade process for pre Revision 8 systems



## For a Revision 8 upgrade to latest application pack

Prior to the upgrade the installer will take a number of listings in order that verification checks can be run on the new software. The upgrade, dependent upon the size of the database and number of cards to be changed, takes between two to four hours to achieve a fully operational system. There will be no downtime on dual processor systems. For single processor systems there will be a short period of downtime whilst new software is being loaded.

During this period there will be no voice communications services. The customer will be notified of this down time and requested to advise all relevant system users. Where telephony card firmware is updated as part of the upgrade process, these individual cards will be removed from service one at a time in order that the firmware can be updated. This will result in a temporary loss of service to the users associated with each of the individual cards. A system back up will be conducted following the upgrade. The back-up disks will be handed to the customer for safekeeping.

## System verification process

- installation configuration notes compiled by planning personnel handed to the installation engineer
- system parameters listed and checked
- patches checked and compared before and after upgrade (does not include customer patches that need regenerating)
- site documents completed for hand-over to maintenance
- system back up taken V24 ports will be reassigned as follows:
  - port one is reserved for maintenance
  - ports two and three for call logging and customer access

### Locally programmed features

For users upgrading from software revisions 6.1.101 and later to 8.0.031 their personal configuration, chosen to aid their day to day use of the telephone, can now be preserved across system upgrades. Any diversions that were set prior to the upgrade will be restored, if do not disturb had been set it will be restored together with any local hot-desking or homeworking status. Remote hot-desking sessions will need to be manually reset or wait for the automatic log off, if set. The restoration of the phone's lock status ensures that the security of phones with a

high class of service is not compromised. For revisions prior to 6.1.101 the upgrade may cause locally programmed features stored on individual telephone handsets to be irrevocably lost. It is important that the customer advises each extension user to keep a record of the feature/features that are programmed on their telephone handset, e.g. the following features will be affected:

- all user invoked diverts, e.g. call forwarding will be lost
- text strings may be changed after reconfiguration
- extension abbreviated numbers will be lost
- locally stored numbers under programmable keys will be lost

**The following text has been compiled to provide the manager of the telephone system with example text that may be put to use, to inform extension users of an impending upgrade.**

Date 00.00.0000

Dear telephone user,  
On **<insert day.date.time>** Siemens Communications will carry out an upgrade to the telephone system to enable users access to the latest developments in communications.

During the upgrade period telephone services could be disrupted and I would request that you please advise your customers that they could experience some communication difficulties.

Locally programmed features, e.g. call forwarding, do not disturb, extension abbreviated dialling, etc. that you may have programmed on your telephone handset may be lost.

Can you please ensure before the upgrade commences that you take a note of any features that you have programmed on your telephone handset. After the upgrade has been completed, please check to ensure that the features are still functioning, if not, please re-program as appropriate.

Should you have any questions, please contact:



Siemens Communications is one of the largest players in the global telecommunications industry. Siemens is the only provider in the market that offers its customers a full-range portfolio, from devices for end users to complex network infrastructures for enterprises and carriers as well as related services. Siemens Communications is the world's innovation leader in convergent technologies, products and services for wireless, fixed and enterprise networks. It is the largest Group within Siemens and operates in more than 160 countries around the world. In fiscal 2003 (year-end September 30), its 60,000-strong workforce posted sales of about 17 billion euros.

[www.siemenscomms.co.uk/hipathdx](http://www.siemenscomms.co.uk/hipathdx)  
**Freephone 0800 512412**

Siemens Communications  
Brickhill Street, Willen Lake, Milton Keynes. MK15 0DJ  
Tel. 01908 855000 • Fax. 01908 855001

Publication No. 1QHA 50594 AAA-YBA • Issue 02



FS 261



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