



Implementation Guide for N3 Hosted Voice Services (HVS)

This guide outlines the preparations sites should undertake ahead of delivery of the N3 Hosted Voice Services (HVS).

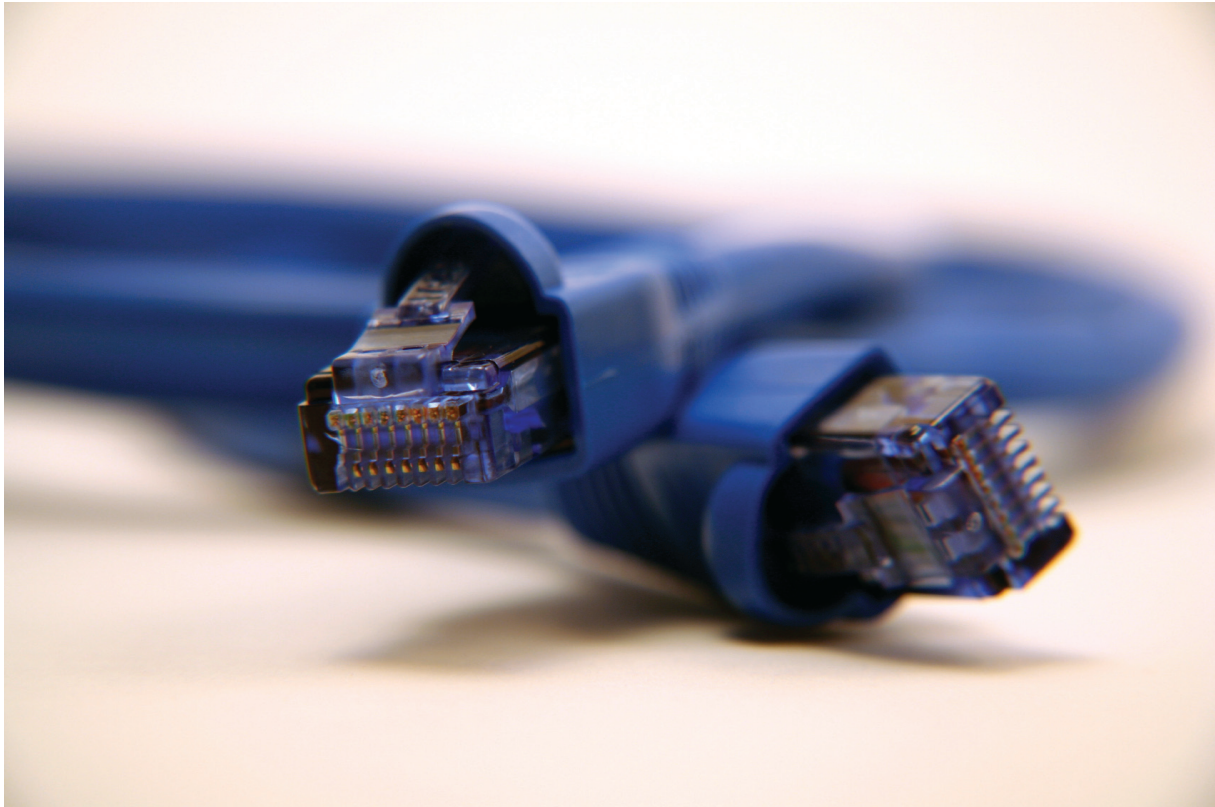
It also provides N3 Voice Services' customers with technical information relating to the deployment of the N3 HVS.

1. Introduction

What is included?

The N3 Hosted Voice Services (HVS) comprise the following elements:

- Provision
- Maintenance support
- Management



Preparing for the N3 Hosted Voice Services

Throughout the ordering and delivery process of the N3 HVS there are a number of activities you will need to undertake to ensure success. The following sections outline things you need to consider.

2. Customer responsibilities

There are a number of customer responsibilities before, during and after installation of the N3 HVS, outlined in this section.

2.1 Before ordering














2.1.1 Contact information

- Ensure the customer contact information on the N3 CRM (Customer Relationship Management) system www.n3crm.nhs.uk is correct and valid
- Ensure site contact details, including email and telephone number, have been added to the CRM
- Please also have the following contact information available:

Role	Name	Contact Number	Email address
Voice contact (ordering)			
Voice contact (technical)			
Data contact (ordering) if different from the voice contact			
Data contact (technical) if different from the voice contact			




2.1.2 High Level Data Capture Form (HLDCF)

Before ordering the N3 HVS, you will need to fill in a High Level Data Capture Form (a copy of the form can be found on the CRM). Below are a number of things you need to consider before filling in this form.

	Does your site currently have an N3 connection? If not, when will it be installed?
	Does your site currently have telephony services? If so, please ensure that the N3 Voice Service you are ordering will meet all your current requirements in line with your legacy equipment
	Is there an existing N3 connection at site? If so, what is your N3 catalogue number (eg N3 – 2-xx)? If you don't know this, our Helpdesk will be able to assist you in finding it – please call 0800 085 0503 (Option 3)
	Check that the N3 existing or new connection will meet your site requirements. You should take into consideration the potential future growth of your sites and any locally funded items you may wish to purchase
	When will your site be ready for the N3 Hosted Voice Services? After orders have been placed and internal N3SP ordering processes have been completed, installation and commissioning take approx 35 working days
	How are telephony services currently provided at your site? (e.g. PABX, Centrex – what type?) If you have a network diagram or topology it would be useful to attach this to the order
	Is your site part of an existing voice network or stand alone (i.e. not networked to another site or sites)?
	What form of networking do you currently have? Please detail its numbering. N3SP will do their best to incorporate your current dialling plan into the N3SP numbering scheme, but cannot guarantee it
	How many handsets are currently installed and will the new handsets be located in the same position? Are LAN ports available at these points?
	What is the total number of HVS extensions required?
	Is there an existing fax service/back-up PSTN line?
	Do you want Calling Line Identity (CLI) to be withheld on a site-wide basis?
	Is your site part of a Voice CoIN or an existing HVS rollout?

2.1.2.2 Transferring centralised geographical numbers to the N3 Hosted Voice Service

If existing local PSTN numbers need to be transferred to the N3 centralised IP platform, please answer the following questions:

	Do you have an existing number range that needs to be transferred to N3?
	Which Other Licensed Operator (OLO) owns the numbers at present (BT, C&W, Virgin Media etc)?
	What are the number ranges that need to be transferred to N3?




2.1.2.3 Using a local PSTN option

There are three PSTN options available to customers taking up the N3 HVS. The PSTN options are site specific and sites are not able to mix the options, i.e. all extensions on the site need to be allocated to the same PSTN option. The options are:



- Centralised non geographical numbers e.g. 033, 055, 0800
- Centralised geographical numbers
- Local PSTN numbers

2.1.2.4 LAN

N3SP will normally provide the Power over Ethernet (PoE) LAN switch unless a bespoke design is agreed. You need to consider:

	Will the PCs be connected to the new Cisco IP handsets? The technical design will need to consider interconnect and firewalls
	Are there any Uninterrupted Power Supply (UPS) services available?
	Is the N3 router co-located with the LAN patch panels?

2.1.2.5 LAN wiring

	What is the current status of the LAN cabling on the site (e.g. structured cabling with patch panel, cat 5, none)?
	Is the patch panel located in the same physical location as the N3 equipment?

2.1.2.6 The N3 HVS Voice Services templates

The N3 HVS can be provided on a template design and the maximum number of handsets for each N3 data connection is outlined in the following table. If your current or future requirements don't fall into one of the templates given you will still be required to fill in a High Level Data Capture Form which will become the basis of a separate bespoke design.

Existing N3 Catalogue Service	Available N3 Voice Channels	Site Handsets	Local PSTN Lines Supported
N3-2-24	10	up to 40	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels
N3-2-25	10	up to 40	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels
N3-2-26	30	up to 120	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels
N3-2-27	30	up to 120	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels
N3-2-28	60	up to 240	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels
N3-2-29	90	up to 360	1-2 BRI – 1 to 4 voice channels 3-4 BRI – 5 to 8 voice channels 1 x PRI – 8 to 30 voice channels

2.2 After ordering

2.2.1 Detailed N3 HVS Data Capture Form

After you have placed an order for the N3 HVS, accepted your quote and are ready to proceed to delivery, you will need to complete a detailed Data Capture Form.

2.3 During delivery

During the delivery process of the N3 Hosted Voice Services, you will be required to carry out the following:

- Set-up and configure the Voice VLAN (N3SP will carry out the configuration of any LAN switches that they provide)
- Assist the engineer in patching the ports and PCs at the relevant stage of the installation
- Assist the engineer in terminating the PCs and IP phones at the relevant stage of the installation
- Assist the engineer in checking features and facilities
- Assist the engineer in checking data VLAN, firewall and interconnect at the relevant stage of the installation

- Ensure the new site dial plan is mapped into the existing Voice Local Network
- If the service is provided over an existing LAN ensure that the LAN is set-up and configured to meet the minimum N3SP LAN specification. The N3SP LAN specification can be viewed on the CRM system on the Hosted Voice Catalogue Service page
- Ensure the new site dial plan is mapped into the existing Voice Local Network
- Agree appointment dates for engineer visits and ensure the appropriate staff at the site are aware of these (e.g. receptionist)
- Ensure N3 engineers are able to gain access to the site either with you or other identified individuals
- Ensure the point in the building where N3 equipment is to be installed is clearly identified and understood
- Co-operate in completing service readiness testing to confirm service has been correctly delivered
- Ensure compliance with any N3 or NHS CFH security requirements such as up-to-date anti-virus protection. You should also ensure compliance with DH Digital Policy Guidance and DH Confidentiality: Code of Practice. You can find all of this information at www.connectingforhealth.nhs.uk

2.4 After installation

After the installation of the N3 Hosted Voice Services, you will be required to carry out the following:

- Provide support services after installation is completed
- Manage data services on the LAN at the site
- Note the contact details for the N3SP Helpdesk so that support issues can be raised to N3SP (see N3 Customer Handbook for details)
- Maintain customer and site information on the N3 CRM

3. Customer considerations

3.1 Equipment noise

N3 equipment generates some low-level noise associated with cooling fans and is not designed to be placed un-racked in an area near where staff work. N3SP advise in all cases that the equipment should be in a cabinet or a separate machine room where available. If this does not exist for small sites, you are advised to procure a vertical cabinet for the equipment. At the time of ordering, questions will be asked about this so you should gather relevant information before ordering.

3.2 Power

To avoid any possible network interruptions should the local building power fail, we recommend that your N3 site equipment (e.g. routers and LAN switches) is power fed from an UPS. Where network equipment is designed to be sited within a purpose built cabinet (a rack), the cabinet must be connected to the site protective earth using green/yellow cable with not less than a 4 mm cross section (using BS7671 regulations and Telecommunications Industry Association (TIA) information note TIN 016).

Any convenient earth stud on either the top or bottom of the cabinet can be used for this purpose. If the agents fitting the cabinets are not qualified to fit the power then arrangements should be made for the work to be completed by the appropriate personnel.

3.3 Space

The equipment we provide varies according to the service requested. It is important that the equipment is housed suitably and has sufficient space to accommodate both the equipment and associated cabling. We will supply you with cables that are 2m long, so the distance between your network equipment and incoming network connections must not exceed this.

IT Managers can avoid the charges associated with spending additional time installing the service by reviewing the summary of environmental requirements for each N3 catalogue service prior to delivery.

3.4 Temperature and humidity

You should place the equipment in a dry environment with good ventilation. The environmental temperature for the device is 0 °C to 40 °C, operating humidity 10% to 85%, non-condensing. If you are using rack-mounted equipment, it must be attached using an approved rack-mounting kit. The racks need to have side panels, doors and fans installed to ensure that airflow follows the rack manufacturer's recommendations.

For those of you dealing with non rack-mounted network equipment, please make sure that it's located in a well ventilated area and left uncovered, and keep it away from dust and moisture (including water pipes and coffee cups!). You also need to make sure the equipment won't be switched off accidentally, so a suitable UPS device would be ideal.

As the end user of rack-mounted or non rack-mounted equipment, it's your responsibility to carry out a safety test of the network devices. The frequently asked questions listed on the N3 website (www.n3.nhs.uk) should provide answers to most of your HVS enquiries. If you still can't find the answer you are looking for, please contact your N3SP Account Manager or e-mail the N3SP technical team at: bt.n3.pdo.techteam@bt.com

For more information please call the N3 Helpdesk on
[0800 085 0503](tel:08000850503) or see the website www.n3.nhs.uk

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