



# BUSINESS

WHITE PAPER

## HSCN: IMAGINE THE POSSIBILITIES

### GOODBYE N3

After more than 10 years, it is time to say goodbye to N3, the national private network for the NHS, delivered and managed by BT. N3 was awarded back in 2004 as a single-supplier service for NHS providers to communicate with each other and to access national applications.

Since then the landscape has changed dramatically. The needs of a modern and mobile workforce, coupled with the constraints of austerity, means that the current network is no longer fit for purpose. Local Authorities hold responsibility for the provision of adult and social care, requiring them to work closely with health providers. In 2017 these health and social care organisations are being driven to share information and services to meet the evolving needs of their patients, in the most cost effective manner possible – whilst maintaining safety and security.

Key health and social care initiatives such as the National Information Board's 'Paperless 2020', NHS England's Five Year Forward View, and the various Sustainability and Transformation Plans (STPs) require innovative technology solutions. All of which drives the need for a change.

However, it is not just cost savings and faster, better service that health providers need. The emerging market-place will enable a far greater mix of suppliers who will provide services that are carefully tailored to their customer needs.





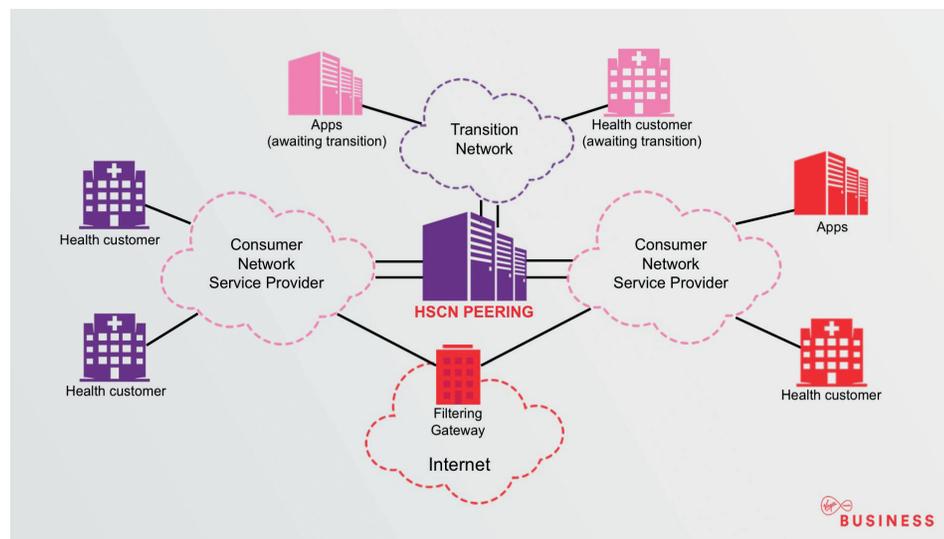
## HSCN: BIGGER, BETTER, FASTER, AND MORE

HSCN (the Health and Social Care Network) is the replacement for N3, and scheduled to go-live through April 2017. HSCN will enable cost effective, safe, reliable, flexible and efficient information sharing between health and social care organisations. Integration is core to HSCN, which has been specified as a standards-based network, allowing organisations to create an infrastructure that will deliver shared ICT services through multiple suppliers.

HSCN is a 'network-of-networks' (see figure 1) being served by a nascent marketplace, which will allow health and social care organisations to access shared services and information regardless of their location or network supplier.

As a member of Innopsis (the industry association which has worked closely with NHS Digital to shape HSCN) Virgin Media Business played a key role in defining and planning the new network and will be a certified supplier of HSCN services.

FIGURE 1: HSCN HIGH LEVEL ARCHITECTURE



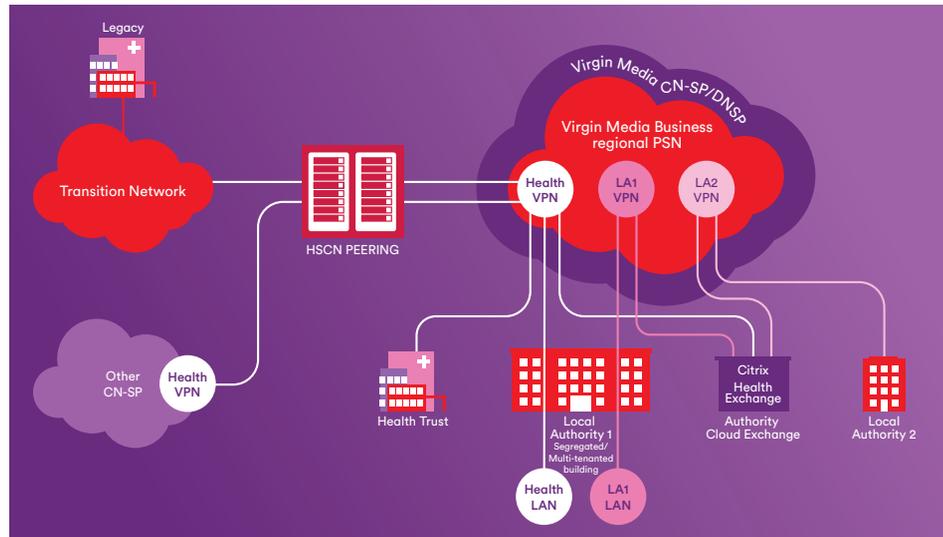
A key difference between the HSCN architecture and preceding network-of-network architectures is the presence of the HSCN Peering Exchange; a new component, and one that has been procured by NHS Digital. The Peering Exchange has the potential to make HSCN a very high performance environment when data is being sent from one end of the network to the other. The HSCNs Peering Exchange has no practical capacity limit, everything depends upon the size of the connection a CNSP (Consumer Network Service Provider) uses, and that will be driven by market forces.

Differentiation between CNSPs will centre on the capabilities of their respective networks. At Virgin Media Business, we have elected to make our IPVPN product, the very product we use to deliver PSN services, HSCN compliant. This means that we will be able to bring our market leading public services network proposition to HSCN, and that our health customers will benefit from the performance and stability of this proven technology. For our customers, there will be little to-no difference between the HSCN and the PSN, and this is shown in figure 2.





FIGURE 2: VIRGIN MEDIA BUSINESS BRINGS HSCN AND PSN TOGETHER



Our pre-existing PSN customers (such as Local Authorities and some Trusts) will be able to consume HSCN services over their pre-existing PSN connections. If they have sufficient capacity then they may not need to procure any new connections at all. This opens the door to true collaboration between the NHS and Local Authorities for social care, and potentially realises even more savings to the Public Sector.

New HSCN customers will be able to access the PSN in the same way their Virgin Media Business provided HSCN Connection will be able to deliver PSN connectivity and enable them to utilise PSN shared services - an additional benefit from day one.

### PAYING THE PRICE

Previously, the funding model was convoluted where NHS England paid for N3 connectivity, and sometimes made contributions to CoINs (Community of Interest Networks – a class of regional wide area networks). A CCG, GP surgery, or hospital trust would ask the N3 provider for their required connectivity, NHS England would then decide how much of that connectivity it would fund, with the health organisation making up the difference.

Crucially, the health organisation would almost never have visibility of the full cost of the network connection. This is a straight forward approach, but not necessarily one that provides good value for money. The problem is that if the buyer rarely, if ever, sees the true price of the N3 service there may be little incentive to seek best value. And, in the cases where they did, it was impossible for the customer to secure funding for service from another supplier, thereby stifling competition (and value).

NHS Digital is ending the existing funding model which it has demonstrated itself to be market distorting. Health and social care organisations will now need to apply for funding and pay for their service directly – in other words funding will flow to the end customers, who can then make the most appropriate purchasing decision for their connectivity services.

What the health and social care sector needs now is a marketplace approach that opens the environment up to true competition – such as the marketplace that has existed everywhere else in the Public Sector for the past 6 years through the PSN, “says Keith Smith, Public Sector Business Development Manager at Virgin Media Business. “Which is precisely what HSCN is about to enable.”



## WELCOME TO THE NEW MARKETPLACE

For the first time, the health network services landscape will no longer be dominated by one supplier. Health and social care organisations are now free to choose their procurement route and the supplier that best meets their needs.

HSCN services can be procured via any suitable procurement vehicle, including Crown Commercial Services' Network Services Framework, where Virgin Media Business has been successful in achieving a place on all 10 lots, or an existing regional vehicle. Finally, organisations can always fall back to an OJEU process to execute their procurement.

NHS Digital are advocating three distinct engagement models for the upcoming HSCN procurements. These are:

### **Do it for you – Centrally Managed Aggregated Procurement**

NHS Digital will run the procurement on the organisations behalf and this will be loosely based on STP footprints.

### **Do it with you – Collaborative Self-Serve**

Organisations can design and manage the procurement of a WAN (Wide Area Network) with the organisations they interact with frequently.

### **Do it yourself – Individual Self-Serve**

The organisation wishes to procure individually and has a good understanding of their needs.

## EARLY ADOPTERS

So, when will HSCN be ready? This is the question on the lips of most health organisations we speak to. There is an air of excitement and trepidation around HSCN. When will organisations be able to take advantage of the new network?

During transition to HSCN the legacy N3 connections will be maintained on the 'Transition Network' provided by BT. The transition network (and every operator's network) will be connected through a new component, purchased by NHS Digital,

called the Peering Exchange. Before organisations can use the HSCN both the Transition Network and the customer's HSCN service provider must have connected to the peering exchange.

The current expected timeframe for live operation is May/June 2017; however services will be available for sale well in advance of this operational date to enable transition activities to commence.



## IMAGINE THE POSSIBILITIES

Imagine the possibilities that a new, open, and secure network can bring to the health community: faster and more affordable bandwidth enabling new innovative technologies that can be deployed right across the health sector, and a far greater opportunity to share services than ever before.

Imagine if a clinician in the community could easily share notes with other agencies via Wi-Fi or mobile networks, rather than having to be on-site to access to their network. Imagine if services that report on x-rays, MRIs and other medical results to hospitals and other healthcare departments, could be shared even more widely and rapidly. It is all possible with HSCN.

## THE REALITY CHECK

But let's not underestimate the size and complexity of moving to a new network for health and social care. This transition isn't going to be quick or easy. Health and social care organisations have a huge task ahead of them - they need to understand their current requirements, and ideally create a complete site map showing current connectivity, voice and other services, on a site-by-site basis.

They need to understand their future roadmap and identify the services they will need. They may need to bring together different stakeholders within their organisation to piece this together.

They must select a framework and procurement vehicle that suits them, while ensuring that they have applied for and secured the appropriate funding for their needs. Once they have completed these activities they still need to write the ITT and execute the procurement. And all this is before the hard work of migration starts.

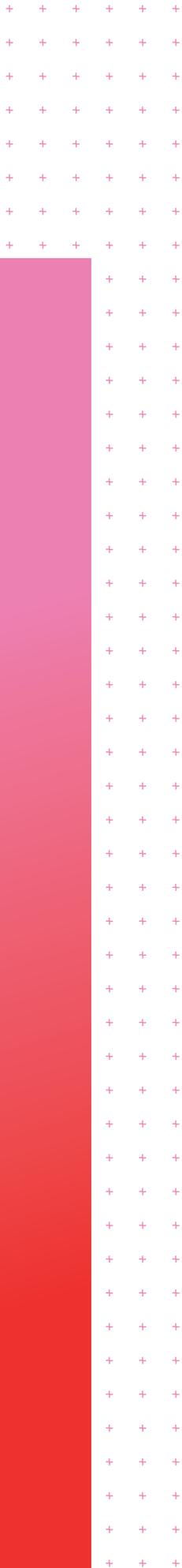
Healthcare organisations will need a trusted partner that can help and support them through the transition, offering informed advice and guidance.

## VIRGIN MEDIA BUSINESS

Virgin Media Business is one of the largest providers of networking services in the UK. We're also experts in the Public Sector. Eight years ago, we helped build the Public Services Network (PSN), a network-of-networks used by most of the UK's Public Sector, including every Local Authority.

We offer a range of telecommunications products and services to the Public Sector; from basic Internet connectivity to sophisticated WANs, from traditional BEL and ISDN voice products through to next generation SIP and UC services, and from the resale of commodity network equipment through to the design and implementation of bespoke data centre environments.

We're already working with NHS organisations to help them prepare for HSCN – and the opportunities it brings. We think we can help your organisation too.



## TIPS

Preparing for HSCN procurements: getting ready for a smooth transition to HSCN.

- Engage with IT suppliers and talk to them - not just the incumbent BT.
- Make a list of your networking sites and technology. You'd be surprised how many organisations don't know the full extent of their vast networks, or the technologies they will be transitioning away from. We can help - network discovery and design audits are services offered by many organisations, including ourselves.
- Consider your future network capacity needs: what applications are you likely to run over it, will multiple organisations be using it, do you see an increase in remote working and/or video conferencing, will you be sharing your network with the general public or with your employee's personal devices? How will it integrate mobile technology? Considerations such as these can have a strong influence on the capacity needs of your future network.
- Determine the service levels you are likely to need.
- Consider your procurement options, and their pros and cons i.e. is it best to buy network connectivity in partnership with other Public Sector organisations in your region, or to procure for just yours?



# BUSINESS

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