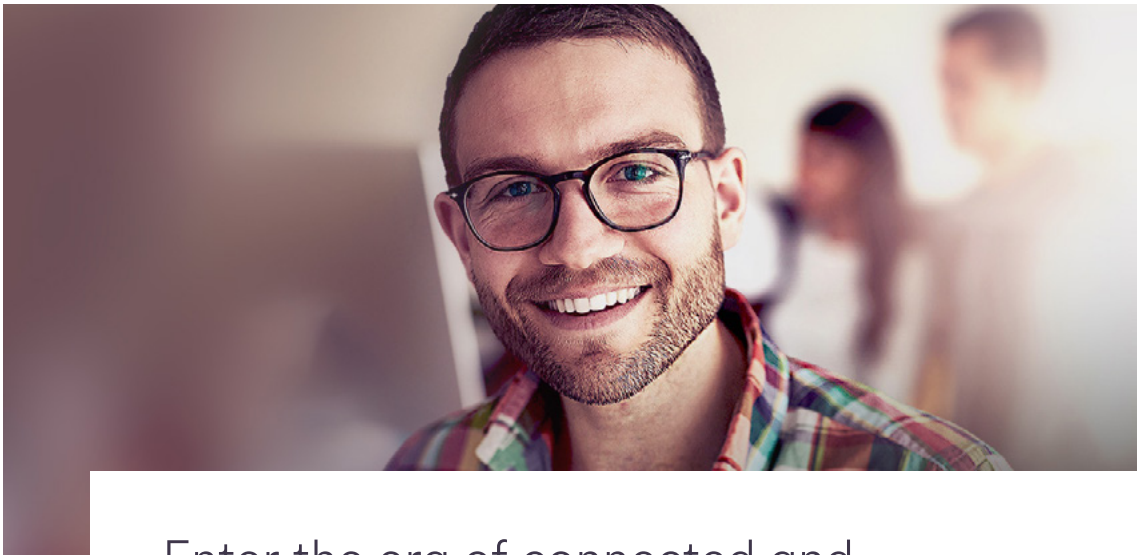


WHITE PAPER

HSCN: THE FUTURE OF CONNECTED HEALTHCARE



Enter the era of connected and collaborative patient care.

As with any industry, healthcare has undergone a dramatic digital transformation over recent years – most notably with the switch from the NHS's N3 national broadband network to the Health and Social Care Network (HSCN).

HSCN not only provides new efficiencies for those concerned with technical issues like operating costs and IT management, but also opens the door to a whole new era of connected, data-driven patient care.

Healthcare providers are now able to communicate in a more cost-effective, safe, reliable and efficient way. And, more importantly, they can embrace new ways of working, gaining a complete and connected view of patients, seamlessly sharing information and services between organisations, and meeting the needs of the public more efficiently. This is the first step in improving the quality of care nationwide and, ultimately, saving more lives.

These technological developments are also supporting key health and social care initiatives, like the National Information Board's "Paperless 2020", NHS England's Five Year Forward View, and various Sustainability and Transformation Plans (STPs). But this transition has its complexity and challenges.

To access new capabilities, connect disparate services and provide the best level of care for those at the heart of what we do, you need a partner that can help you push the boundaries of technology and improve the healthcare experience for everyone. Both now and into the future.

As a fully certified HSCN provider, Virgin Media Business is using its vast expertise and industry experience to help customers identify and achieve the right path to digital success – connecting health and social care, and providing the ultimate platform for improved patient outcomes.

HSCN: bigger, better, faster, and more

HSCN is the replacement for N3. HSCN enables 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) that allows 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 that has worked closely with NHS Digital to shape HSCN), Virgin Media Business played a key role in defining and planning the new network, and is now a certified supplier of HSCN services.

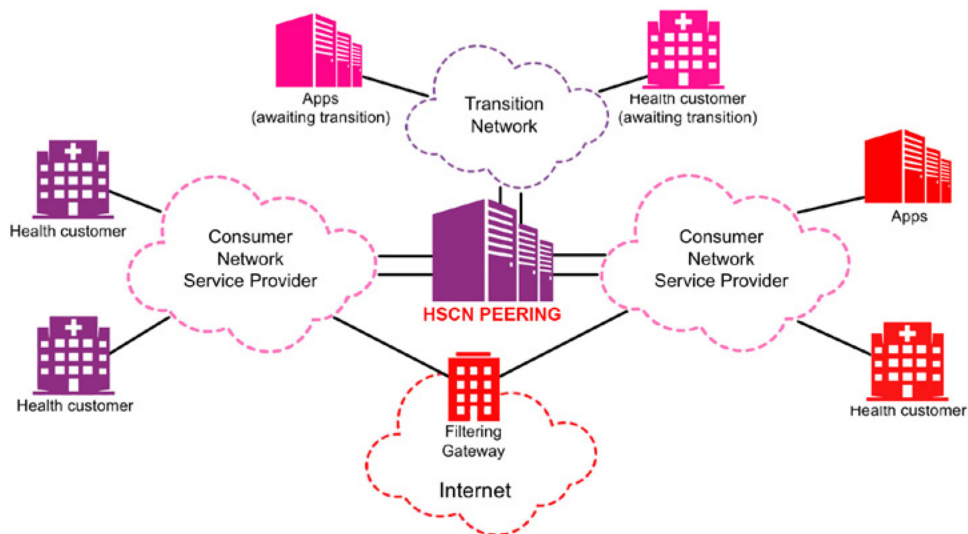


Figure 1

A key difference between the HSCN architecture and earlier network-of-networks 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 Consumer Network Service Provider (CNSP) 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 Public Services Network (PSN) services) HSCN-compliant. This means we are able to offer our market-leading public services network proposition to the 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.

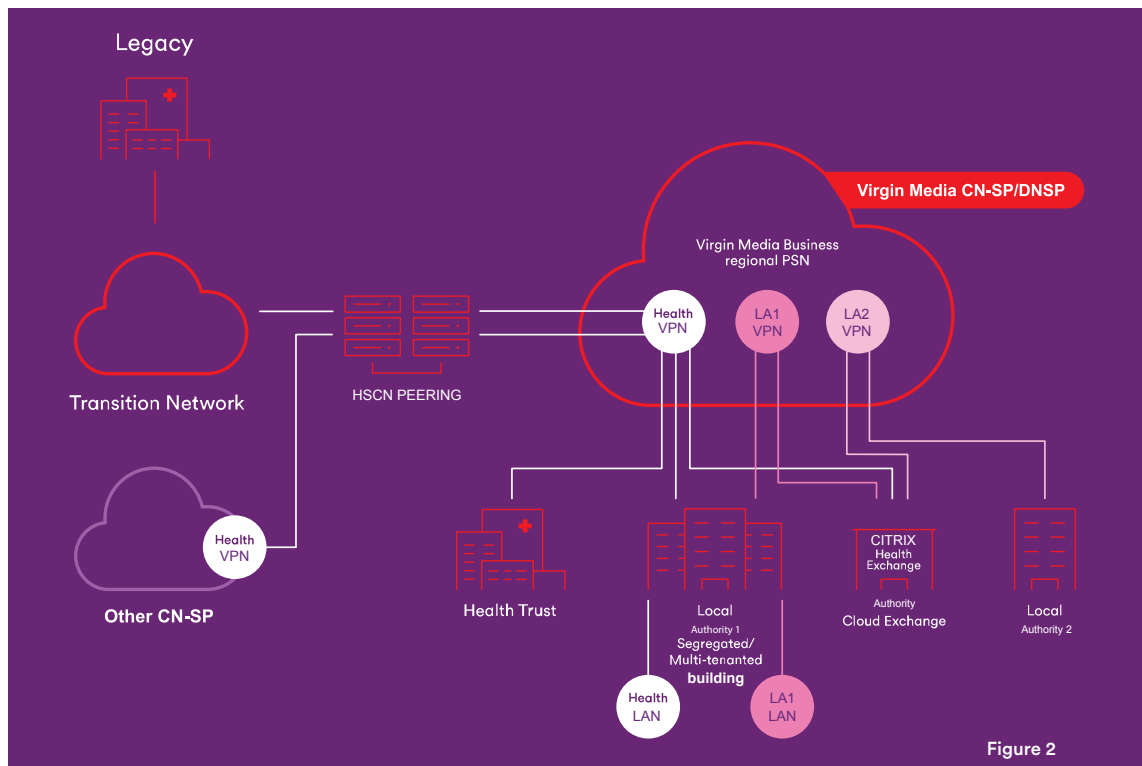


Figure 2

Our current PSN customers (such as Local Authorities and some Trusts) are able to consume HSCN services over their pre-existing PSN connections. If they have sufficient capacity, they may not need to procure any additional 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 for the public sector.

Our existing PSN customers can run HSCN services over their current PSN connections. This potentially removes the need to procure further connections, which will drive efficiencies and bring true collaboration between NHS and social care – an additional benefit from day one.

Paying the price

Previously, the funding model was convoluted: NHS England paid for N3 connectivity, and sometimes made contributions to Community of Interest Networks (CoINs – a class of regional Wide Area Networks (WANs)). A Clinical Commissioning Group (CCG), GP surgery or hospital trust would ask the N3 provider for the connectivity required. NHS England would then decide how much of that connectivity it would fund and the health organisation would pay the difference.

Crucially, the health organisation would almost never have visibility of the full cost of the network connection – and was unable to secure funding from any other supplier. This is a straightforward approach, but one that stifles competition and doesn't necessarily provide good value for money.

NHS Digital has ended the existing funding model, which it has shown to be market-distorting. Health and social care organisations will now need to apply for funding and pay for their service directly. This means that 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 has now [in the HSCN] is a marketplace approach that opens the environment up to true competition – much like the marketplace that has existed everywhere else in the public sector for the past six years through the PSN,” says Keith Smith, Public Sector Business Development Manager at Virgin Media Business. “Which is precisely what HSCN enables.”

Welcome to the new marketplace

For the first time, the health network services landscape is no longer dominated by a single 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. It can also be procured through regional PSNs and RM3825.

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

- 1. Do it for you – centrally managed aggregated procurement.**

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

- 2. Do it with you – collaborative self-serve.**

Organisations can design and manage the procurement of a WAN with the organisations they interact with frequently.

- 3. Do it yourself – individual self-serve.**

The organisation wants to do the procurement by itself, and has a good understanding of its own needs.

Imagine the possibilities

Imagine the possibilities that a new, open and secure network could bring to the health community: faster and more affordable bandwidth, enabling new innovative technologies that can be deployed right across the health sector; 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 WiFi or mobile networks rather than having to be on-site to access their network. Imagine if x-rays, MRIs and other medical results shared between hospitals and other healthcare departments could be transferred even more widely and rapidly. It's 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 overview 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 Invite to Tender (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 network services in the UK, and we've continued to invest billions in our infrastructure year-on-year.

We're also experts in the public sector, with over 20 years of experience, regional expertise and proven practices in innovation and service delivery under our belt. Eight years ago, we played a key role in shaping the PSN (a network of networks), used by most of the UK's public sector, including every Local Authority. Now we're working on bringing health and social care together through the HSCN.

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

We're already working with NHS organisations to help them get the most from the HSCN and the opportunities it brings – introducing new ways of working and helping train and transform staff. We think we can help your organisation too.

Tips

Getting ready for a smooth transition to the 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 with our network discovery and design audits – services offered by many organisations, including us.
- Consider your future network capacity needs: what applications are you likely to run over the HSCN, 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 employees' 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. For example, is it best to buy network connectivity in partnership with other public sector organisations in your region, or to procure for just yours?

To find out more visit
www.virginmediabusiness.co.uk/HSCN



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