
Network Infrastructure: Why a single global standard is the only way forward

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In past centuries, communications network infrastructure included ships, foot messengers, pigeons, telegraphs. The world seemed much larger than it does today. Just as ships dominated global communications logistics back then, IT network infrastructure is now the central nervous system that transports data around the globe from data centers to businesses and consumers.

Without a global IT network, the Internet of Things, cloud computing, edge computing, big data analytics, digital banking, e-commerce, data centers, digital transformation projects, social media, and many other aspects of our day-to-day business and personal lives would not exist. It is therefore crucial for global banks such as HSBC, JP Morgan Chase, Crédit Suisse, CitiBank and Goldman Sachs to have the right IT network infrastructure in place to ensure that they can compete in today's hyper-connected world.

And the stakes are high; if infrastructure doesn't work as one, the whole system runs the risk of breaking down. The technology large businesses rely on must be able to work in unison with the technology of partners, customers, suppliers and even competitors. And in the world of IT network infrastructure, this places huge importance on network and cabling standards.

"Few organizations can airlock themselves from the rest of the world," says Clive Longbottom, Client Services Director for analyst firm Quocirca. "Even for those still wedded to an owned facility model, they need to access the rest of the world via email, telephony, internet access and so on. Without effective standards covering the entire IT stack, this just won't work. With the growth of cloud (particularly hybrid cloud), the need for effective and agreed standards is unavoidable."

However, with networks come industry-specific concerns. Latency equalization and the growing need for immediate access to trade data stored in multiple locations creates a unique infrastructure requirement for modern banks. Procurement leadership and their teams must be aware of these sensitivities when rostering suppliers.

This paper takes a closer look at why infrastructure innovation and standards development is important to the creation of fast and efficient IT network infrastructure in global banks. It will also examine what the rapidly changing technology landscape means for procurement leaders. We'll also discuss what suppliers should be able to demonstrate beyond the quality of their network and cabling designs, and how banks' procurement and technology leadership teams can ensure they engage with the right suppliers. And the problems that can be caused by compromising on costs.



What does the rapidly changing technology landscape mean for procurement?

Technology is often seen as a business expense. Even more so in banking where there is increasing cost-pressure to comply with a widening array of regulations, and being competitive is about reducing costs. However, as the trend towards converged infrastructure and consolidated data facilities accelerates, your CRE and technology leadership teams will require approved suppliers that can provide products and advice appropriate for their critical investments.

Longbottom advises anyone with a responsibility for procurement and for creating demand for new technology, such as global and regional heads of facilities management, facilities and procurement managers to “move fast; buy for flexibility”.

“Immediate up-front cost has to be a secondary issue; so, examine the overall balance of lifetime cost against lifetime value,” says Longbottom. “This is more important than cost. Look at how to maintain ongoing value through managed and cost-effective continuous updating of the infrastructure.”

Suppliers need to have a vision for the future. Are they well placed to approach it? If they aren't, then there could be a need to further change and upgrade the network and cabling as time passes. This would naturally increase long-term costs, while perhaps giving the false impression of operational and capital expenditure being reduced in the short-term. An ongoing technology audit is therefore advisable to ensure that challenges such as latency equalisation are constantly addressed. Latency itself can be mitigated by using WAN

acceleration solutions, which can enable data to be encrypted while increasing the speeds of data ingress and egress. With these solutions packet loss is reduced too, and so the accuracy of big data analysis is increased.

Suppliers must not only be able to demonstrate the quality of their designs. They must be able to guarantee their ability to deploy to precisely the same standards worldwide and to deliver a network infrastructure that is as future-proofed as can be possible. However, they also need to show that they can still work in concert with any existing legacy infrastructure and systems. Yet there is a need for suppliers to enable the bank to embrace new technology by creating an understanding of the business and what it may need in the short, medium and long-term.



The importance of the correct supplier list

Having the wrong suppliers can diminish a bank's competitive advantage, because several things could go wrong for the operational performance of the business. For example, if facilities management and data center infrastructure management (DCIM) teams find that they are being hampered by a technical issue that can only be resolved by a supplier, they need reliable support to ensure that there are no knock-on effects on trading platforms and the bank's ability to operate.

So, it's important to ensure that the right suppliers are on your supplier and partner list to accommodate the high levels of performance required while still controlling energy consumption and ensuring regulatory compliance. It's crucial that facilities management, technology leaders such as those working in DCIM, and procurement leaders work collaboratively to place [high quality, performant suppliers](#) on that list. This means suppliers must:

- Offer complete reliability and compatibility across all products and ranges, especially in regulated areas like latency.
- Optimise for both cost and performance.
- Provide support to the same standard for centrally consolidated businesses or globally distributed businesses – and maintain their standards in every region in which their customers need to operate.

Suppliers must be able to guarantee their ability to deploy to precisely the same standards

worldwide – while still working in concert with existing infrastructure and systems. “If they can't guarantee this, then they shouldn't even be on the shortlist. It is table stakes,” says Longbottom. He also warns that corporate real estate and technology leadership teams' increasing requirement for approved suppliers that can provide products and advice appropriate for these critical investments in the company's future is a “potentially risky approach”.

He adds: “IT and procurement need to work far more closely together, so that both sides fully understand what the other needs and why. The third leg of the stool is the business – IT and procurement must understand what constraints – if any – the business brings to the mix. For example, is the problem on the table one where money is not an issue: the problem must be dealt with for the very survival of the company? Or, is it one where the problem needs dealing with – but at the lowest possible cost, even if there is a degree of overall risk associated with it? Such discussions change the approach to acquiring solutions on a case-by-case basis.”

What choosing the wrong supplier can mean

Get your choice of partner wrong and you may experience failures at the overall platform level. These could include spiraling maintenance and licensing costs, being held over a barrel by a supplier who has more control than they should have, and growing constraints on capabilities as the platform ages and the supplier fails to adapt and deal with issues.

Building new critical facilities with insufficient cabling capacity or sub-standard products can also create any of the following issues:

- Inability to adapt to changing business needs or capitalise on new market opportunities. From a bank's perspective this will reduce its competitiveness and ability to offer new digital products and services; or a means to communicate and interact with its customers. For example, video and audio data is increasing due to a variety of factors, from video distributed via social media applications, to the growth of video conferencing. Big data is increasing too, and real-time big data analysis requires latency to be mitigated.
- Compliance breaches (such as data leaks) can lead to financial penalties, such as those that will apply to the European Union's General Data Protection Regulation (GDPR), which comes into force in May 2018. GDPR applies to any global organization of any national origin with customers in the EU – whether or not they have an office in the trading bloc. So, security needs to be considered as paramount whenever a bank's – or any organization's – cabling and network infrastructure is designed and implemented.

- Insufficient flexibility and agility (as accessing collocated data becomes difficult or impossible).
- Incompatibilities or inconsistencies across different parts of the global estate, making interoperability and high a level of interconnectedness hard to achieve.

Any attempt to save or compromise on cost in the near-term when choosing suppliers may present the business with huge long-term risk across the lifetime of upcoming capital projects. The lowest cost approaches are often dangerous unless they are “made with full knowledge of what the reasons are” for investing in them.

There must always be a balance between cost, risk and value. If an organization wants the best overall value from a change (e.g. being able to sell more of the same product or service at the same or higher margin) with the lowest possible risk, then it has to accept that cost will be higher. However, if it wants to provide a means of selling more at a higher margin, but at a lower cost, then it has to accept that there will be a higher risk involved.

Says Longbottom, “I've always said that it is easy to save your way out of business.”



Who are Panduit?

“We create physical, electrical, and network infrastructures that make more meaningful connections for modern businesses.”

We're highly R&D focused, re-investing 10% of our revenue into development projects. Because of this focus, our customers become an extension of our business, allowing us to create ever better products to satisfy their needs.

- We operate to a single, universal standard in manufacture, testing, and deployment. Every instance of a Panduit product is the same, wherever it's made.
- We operate in over 100 countries with extensive local, regional, and continental knowledge bases to account for on-the-ground realities wherever your business needs us.

- We consult regularly with leaders in industry, software, and hardware to propose and refine solutions for your exact strategic requirements.

As global leaders in network infrastructure innovation and standards development, we represent the natural partner of choice for banking institutions thanks to our unique ability to provide a single, global standard at the highest level possible.

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