

Digital Infrastructure for Business

Your guide to technical
preparation and
commercial success



What is Digital Infrastructure?

Exactly like traditional infrastructure, digital infrastructure is the collection and connection of facilities and systems that allow an institution to operate. Instead of roads, bridges, tunnels, tracks, and grids, digital infrastructure includes software, internet connections, data, devices, security, and the cloud.

On a municipal level, infrastructure enables the normal and developing functions of a society. Your digital infrastructure is the equivalent of that for your business's data operations.

In its most basic form, it enables you to operate. At a higher level of capacity, it enables you to operate well.

At its most sophisticated, it enables you to operate better than your competitors.

What is the state of Digital Infrastructure?

The IMF values global digital infrastructure at

\$418bn

By 2030, that is set to rise to

\$655bn

44%

cite security and compliance as an influence on their infrastructure decisions

75%

of IT decision-makers anticipate managing increasing data volumes over the next decade

89%

will require high-density, high-performance computer systems in 2030

50%

are only partially prepared to adopt IoT and edge computing technologies

80%

of enterprises' new digital infrastructure will be subscription-based by 2026

50%

growth forecast for 5G edge computing 2023-2030

34%

forecast CAGR for global interconnection bandwidth 2021-2026

Average UK broadband speed (Mb/s)

2018

18.38

2024

106.5

2028

139.5

What is new in Digital Infrastructure?



Edge computing

Traditional bandwidth and latency can't (or soon won't be able to) handle the volume of data that is (and will be) generated. Projections put the amount of data generated at **181 Zettabytes by 2025**.

Edge computing is a form of data architecture in which data storage and computation are closer to the point of data generation, rather than at a central data centre. A Cisco-Gartner **survey** found that 27% of IT architects have already implemented edge computing, and 54% find the concept interesting enough to explore.



Internet of Things (IoT)

By 2025, there will be around **55.7 billion** IoT devices, generating 80 billion zettabytes of data. Supporting all of that data and processing it in a timely and meaningful way will take significant infrastructure investment and development.



AI

AI is the subject of much discussion, and the focus of much strategy.

85%

of businesses intend to use it in IT operations

81%

will integrate into cyber security

79%

plan to apply it to customer experience

However, despite businesses' enthusiasm to embrace AI tools, **42%** of IT leaders don't think their infrastructure can accommodate it.

What are your Digital Infrastructure challenges?



Sustainability

The electricity consumption of global data centres in 2022 was

**240-340
TWh**

TWh, which is similar to the **UK's total electricity demand.**

All of the innovations in and around your digital infrastructure involve more data, and more processing power. That means more emissions, and unless all of your power is 100% renewable, you will (indirectly) pollute more as your infrastructure evolves.

You can expect scrutiny from legislators and customers on your efforts to minimise the environmental impact of your digital activities.



Security (and privacy)

80% of CIOs reported that they plan to increase spending on cyber security.

New infrastructure inevitably means new weaknesses and vulnerabilities. Not only is there more 'surface area' to attack, but there are also new functions and processes which will be unfamiliar to many, making it harder for the average user to spot unusual activity.



Change Fatigue



Faced with a new wave of pragmatism, capital restrictions or margin concerns, CIOs are delaying some IT spending. Organisations are shifting the emphasis of IT projects towards cost control, efficiencies and automation, while curtailing IT initiatives that will take longer to deliver returns.”

John David Lovelock, **Gartner**



Talent

63%

of health, government, and education leaders report that a lack of skills and experience are a barrier to digital projects

43%

of tech leaders say talent is their biggest challenge in digital infrastructure

85 million

projected shortage of tech workers by 2030

65 workers

are currently available for every 100 roles in technology

So, what are the roles, the skills, and the experience that you need to solve your infrastructure challenges, and how can you secure them?



Leadership

No transformation happens without transformational leadership. Whether it's a CEO, chief information officer, chief data officer, chief digital officer, or chief technology officer, a C-suite leader with technical expertise, vision, and the ability to inspire will identify and drive the change your business needs.

RPI's executive team have an unrivalled network of C-suite technology leaders, which they built over a long history of placing pioneers and innovators onto boards in sectors like telecommunication, payments, software, technology, and retail.



Communications

A strong digital infrastructure serves communications, and communications serve the digital infrastructure. 5G, IoT, and edge computing will soon cease to be cutting edge, and become commonplace, but in their place, new developments will emerge. Digital communications experts will need not only to master the commercial application of that technology, but also anticipate and prepare for the newest innovations.

RPI's deep telecommunication heritage has given us a long track record of placing communication talent across the world. That was given us a global network of experts to draw from.



Infrastructure

The cloud is the infrastructure of choice for many businesses, especially in the age of remote working. 'How' you change is just as important as 'what' you change. Infrastructure experts need a deep appreciation of business context and commercial imperatives, as well as a technical understanding of cloud migration and modernisation.

While there is no shortage of talent wishing to work in cloud technology, those who have actually delivered a successful digital transformation are few and far between. Fortunately, RPI's extensive contact list contains many professionals with exactly that impressive track record.



Architecture

Many businesses have to overcome 'process disparity', legacy systems, and 'tech debt' in the transformation of their digital infrastructure.

Not only do architects need to navigate those, but they also need to ensure that technology is enabling and not suffocating, stifling and overpowering the business. That is a complex challenge. Legacy dependencies, tech debt and business process disparity require sophisticated Architecture roadmaps with your unique business at the heart of them.

RPI's understanding of the challenges and our network of Architecture experts enables the delivery of the best talent for your business.

RPI's 25-year heritage in sourcing digital, commercial, and technological talent has made us the talent specialist of choice for businesses in five global regions, and countless sectors.



There are digital infrastructure specialists in our network, looking for their perfect next role. Contact people@rpint.com

[Website](#)

