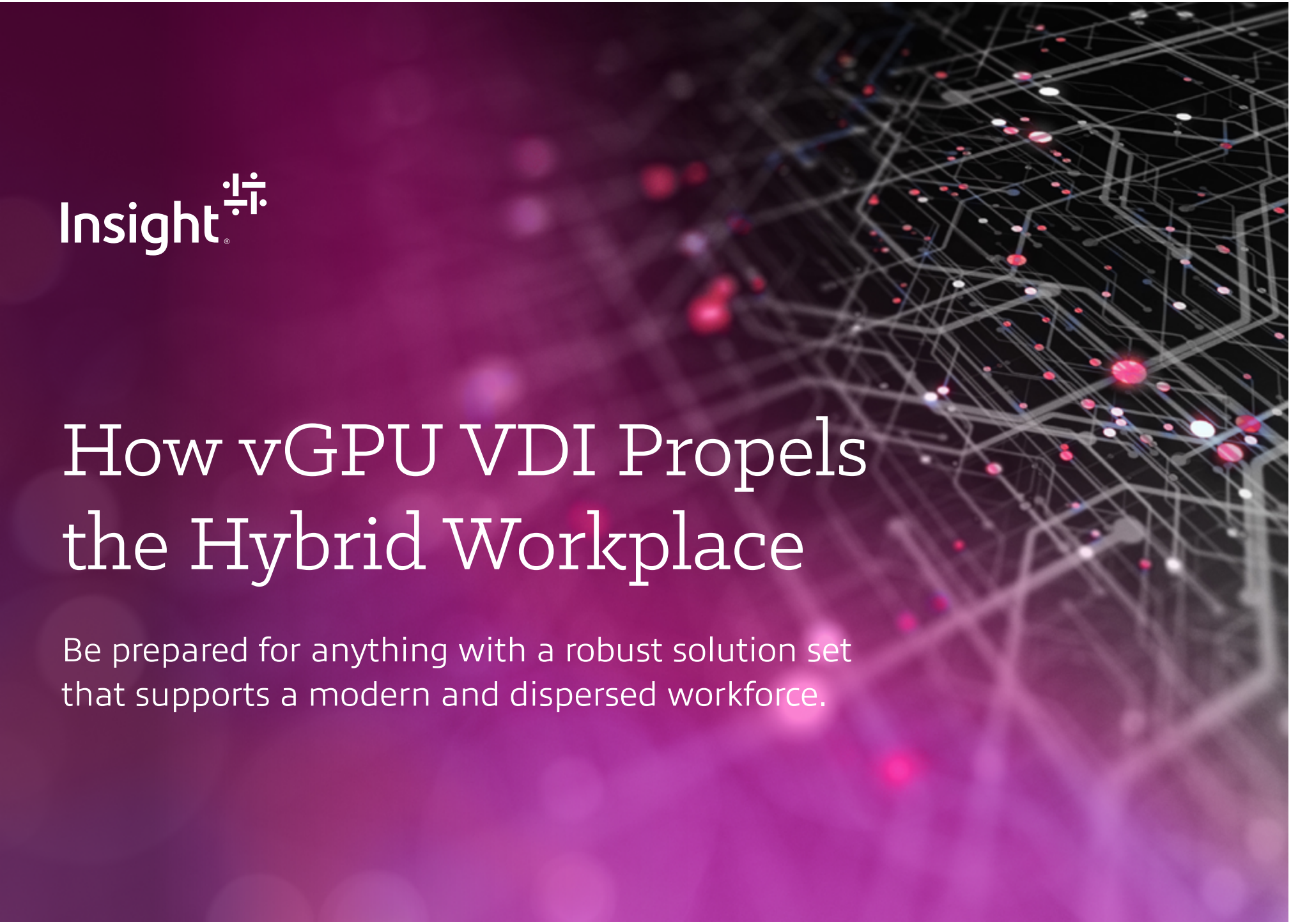
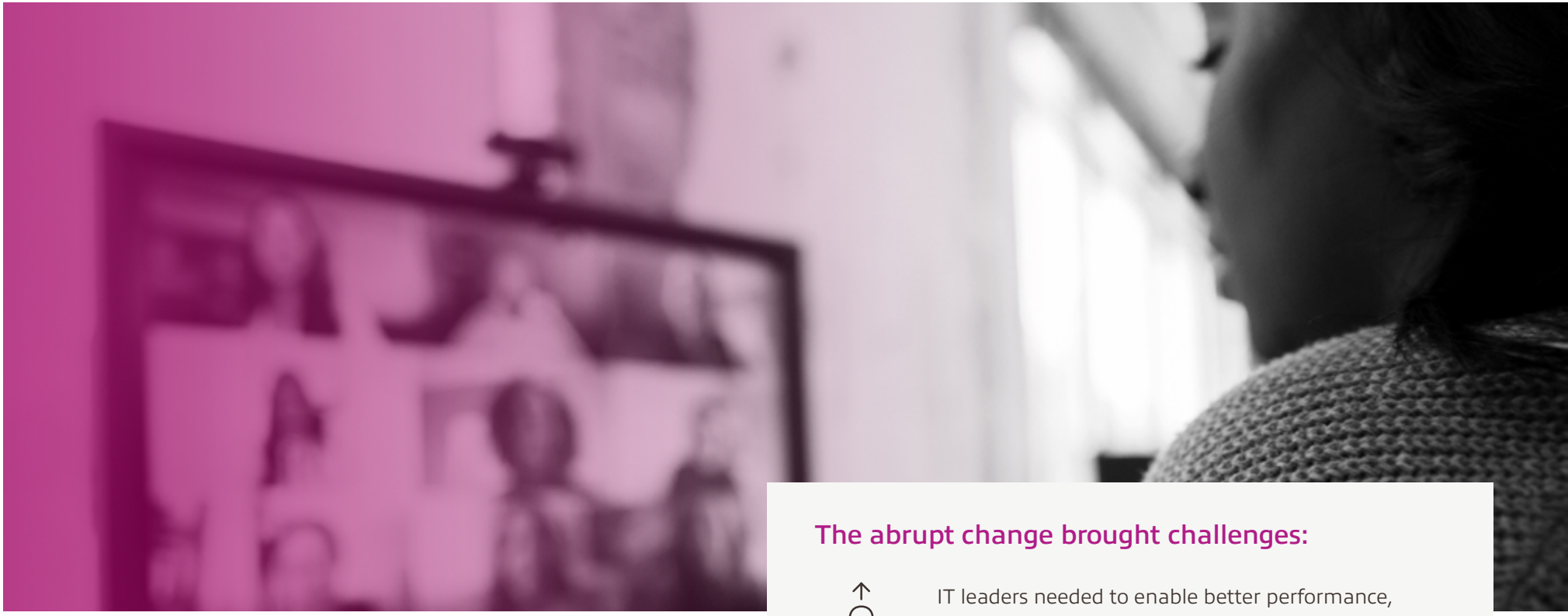


Insight

How vGPU VDI Propels the Hybrid Workplace

Be prepared for anything with a robust solution set that supports a modern and dispersed workforce.



A tidal wave of change

In early 2020, few people anticipated the disruption that COVID-19 brought about. The pandemic created the deepest global recession since the end of World War II, with the global economy contracting by 3.5%.[1] Jobs — and lives — were lost.

Drastic changes occurred in the workplace. Mandated closures and social distancing requirements forced business leaders to face a tough decision: Shut down or adapt.

Many businesses transitioned workforces from office- or branch-based to fully remote or hybrid models. By October of 2020, 71% of workers were doing their jobs from home all or most of the time.[2]

The abrupt change brought challenges:

IT leaders needed to enable better performance, tighter security, and seamless experiences — **all at a much greater scale than before.**

New technology was needed to support new work models. An Insight survey of IT professionals in the U.S. and Canada revealed that 40% of IT leaders deployed Virtual Desktop Infrastructure (VDI) as a result of or in response to COVID-19.[3]

Disruptions were felt far and wide. End User Experience (EUX) scores dropped 5% between 2019 and 2020, representing an additional two hours of productivity impact per 40-hour workweek.[4]

Keys to enduring success

Organizations that thrived during the pandemic and recession leveraged technologies like Graphics Processing Units (GPUs). Originally developed for video game systems in the 1970s, GPUs offer increased bandwidth and speed compared to CPUs, proving an invaluable addition to business IT infrastructure. Productivity applications were found to use GPU technology more than 99% of the time in 2020.[4]

Top drivers of desktop virtualization[5]

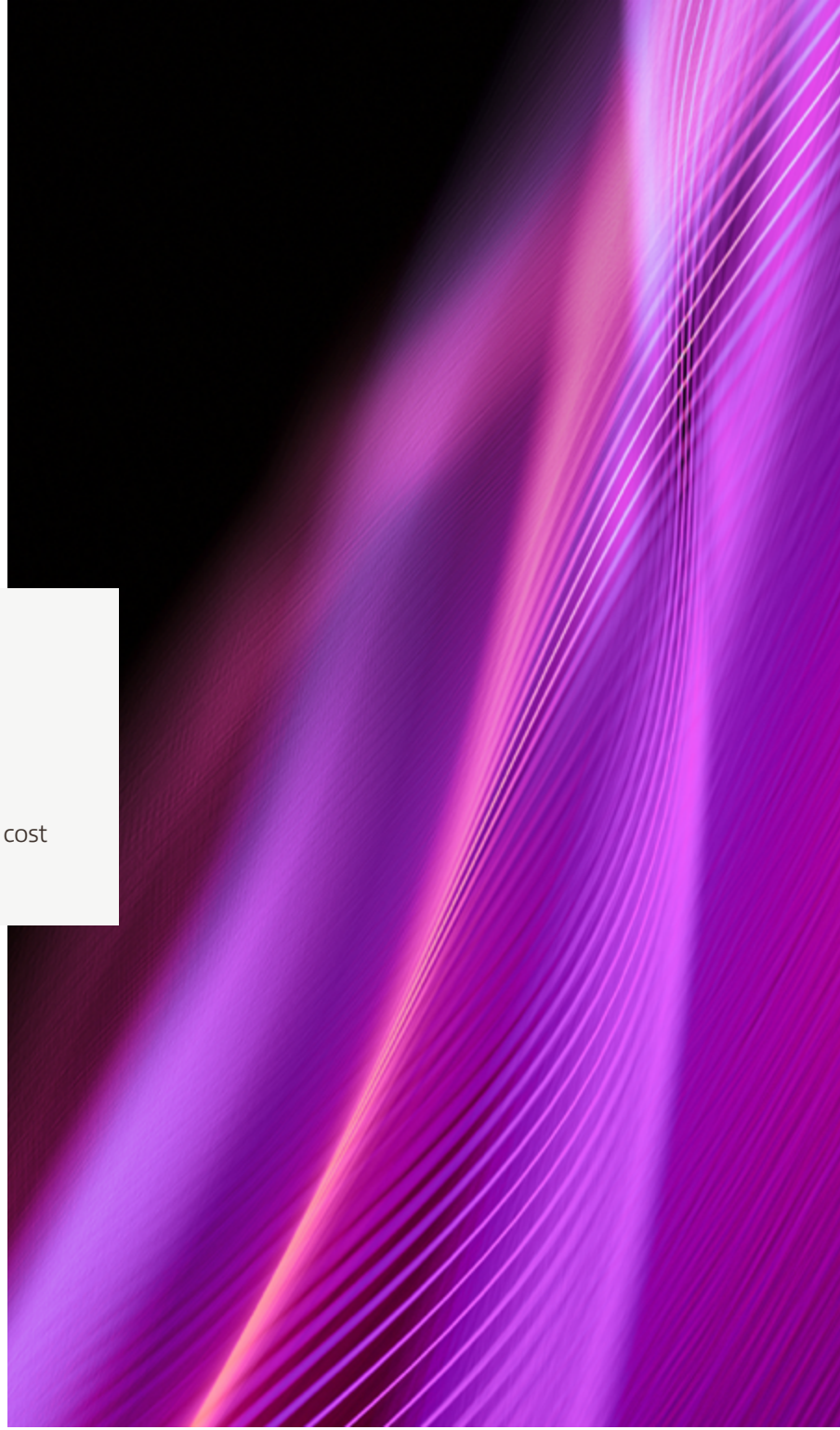
More efficient use of computing resources

Supports a remote workforce

Increases control over sensitive data

Reduces total cost of ownership

Even prior to COVID-19, virtual GPU (vGPU) was a critical component of modern VDI and application environments. Many industries — architecture, design, finance, animation, and healthcare, to name a few — are heavy users of graphics-intensive and compute-intensive workloads. In the past, this required employees in these fields to be at their desks with specialized hardware configurations dedicated to them, even for after-hours or emergency work needs. The power of vGPU enables users to work from any device, anywhere and anytime.



vGPU: Not just for graphics

Use cases for vGPUs extend across industries and company size:

A healthcare worker, such as a radiologist, can read diagnostic-quality images from a phone, tablet, or personal machine and provide real-time updates to attending staff for quicker decision-making.

An off-site architect can work with a general contractor at the job site to collaboratively view and manipulate building materials and plans in real time.

A financial firm can give its data scientists access to one or many vGPUs to run compute-intensive training modules.

Many of us are wondering what the long-term impacts of COVID-19 on the workforce will be. One survey reported that 64% of workers want to spend at least some hours at the workplace, as opposed to working entirely remotely.[2] Regardless, the needs that became critical during the pandemic remain so — and IT leaders must rise to the challenge of delivering high-performance, virtualized, secure, and user-centric experiences in order to remain competitive.

VDI with vGPU ticks all the boxes.

No single technology tool is a silver bullet solution, but technologies or combinations of technologies can be vital to enabling certain capabilities. vGPU-powered VDI is one such combination — it's feature-rich and essential for the post-pandemic work environment and beyond. Here's why.

vGPU delivers excellent VDI user experience.

User experience is a major driver for VDI implementation. But unfortunately, only 49% of VDI deployments deliver a good user experience.[6] If the VDI session or application does not behave exactly like it does on a dedicated PC, users notice. This applies to a wide range of uses, from productivity tools to any sort of streaming media. User experience is especially important to consider as 4K screen resolution becomes more mainstream.

Are you giving employees the tools they need to be successful?

93% of executives who prioritize employee experience within their organizations report that their teams have the tools and technology to work efficiently.[7]

A GPU greatly improves the speed and performance of VDI. With a GPU, servers are able to accommodate more users and deliver fast — and, thus, more consistent — user experiences. Good user experiences also engender other benefits: higher productivity, better employee engagement, increased adoption, and simpler maintenance at reduced costs.

GPUs help optimize the virtual environment.

When users leverage GPUs, the CPU on the host can decline in utilization — this is a good thing, since the CPU is no longer emulating graphics and can refocus on traditional compute tasks for operating systems. GPUs can also help reduce the load on hosts and extend the usable life of infrastructure, increasing Return on Investment (ROI).

According to testing performed by NVIDIA, a GPU-enabled VDI environment significantly improves server density when compared to a CPU-only VDI environment:[8]

3X
improved latency for snappier response times

1.5X
more remoted frames for better fluidity

33%
more users supported on the server with GPU, increasing density and lowering costs

Moving users to VDI can improve your security posture.

VDI powered by vGPU enables you to secure the workload within the data center, rather than manage endpoints on an individual basis. Updates, patching, controls, and security management activities can be executed consistently across the IT environment, saving time and money over one-off desktop fixes. IT leaders needn't worry about corporate devices left in the back of a cab or stolen from the local coffee shop. With VDI, endpoint devices don't contain any corporate data — it all remains securely in the data center.

Windows of opportunity?

Coming soon, Windows® 11 will require more processing power and 4X more memory and storage than Windows 10.[9] While the change in CPU requirements will enable more robust security, having the latest GPUs to support your systems will be critical.

Cloud-based VDI market size was valued at

$3.654 million
in 2016

and is estimated to reach

$10.154 million
by 2023.[10]

Connecting the dots for the long haul

Hybrid work is here to stay. With innovations in vGPU and VDI, both IT teams and employees will be able to reap the benefits of improved performance and productivity, no matter what the future holds for the workplace.

Is your infrastructure up to the task? Insight has strategic partnerships with frontrunners in the vGPU and VDI solutions space and can help ensure you're making the best business decisions with these technologies.

We're in your corner.

Insight has the expertise and qualifications to support your vGPU and VDI implementation, from strategy through management.

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Explore other resources on vGPU and VDI:

Envisioning Effective Virtual Desktop Infrastructure

vGPU and VDI for an Efficient and Productive Remote Workforce

How to Overcome VDI Limitations

About Insight

At Insight, we help clients modernize and secure critical platforms to transform IT. We believe data is a key driver, hybrid models are accelerators, and secure networks are well integrated. Our end-to-end services help organizations strategically leverage technology solutions to overcome challenges, support growth and innovation, reduce risk, and transform the business.

Learn more at:
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