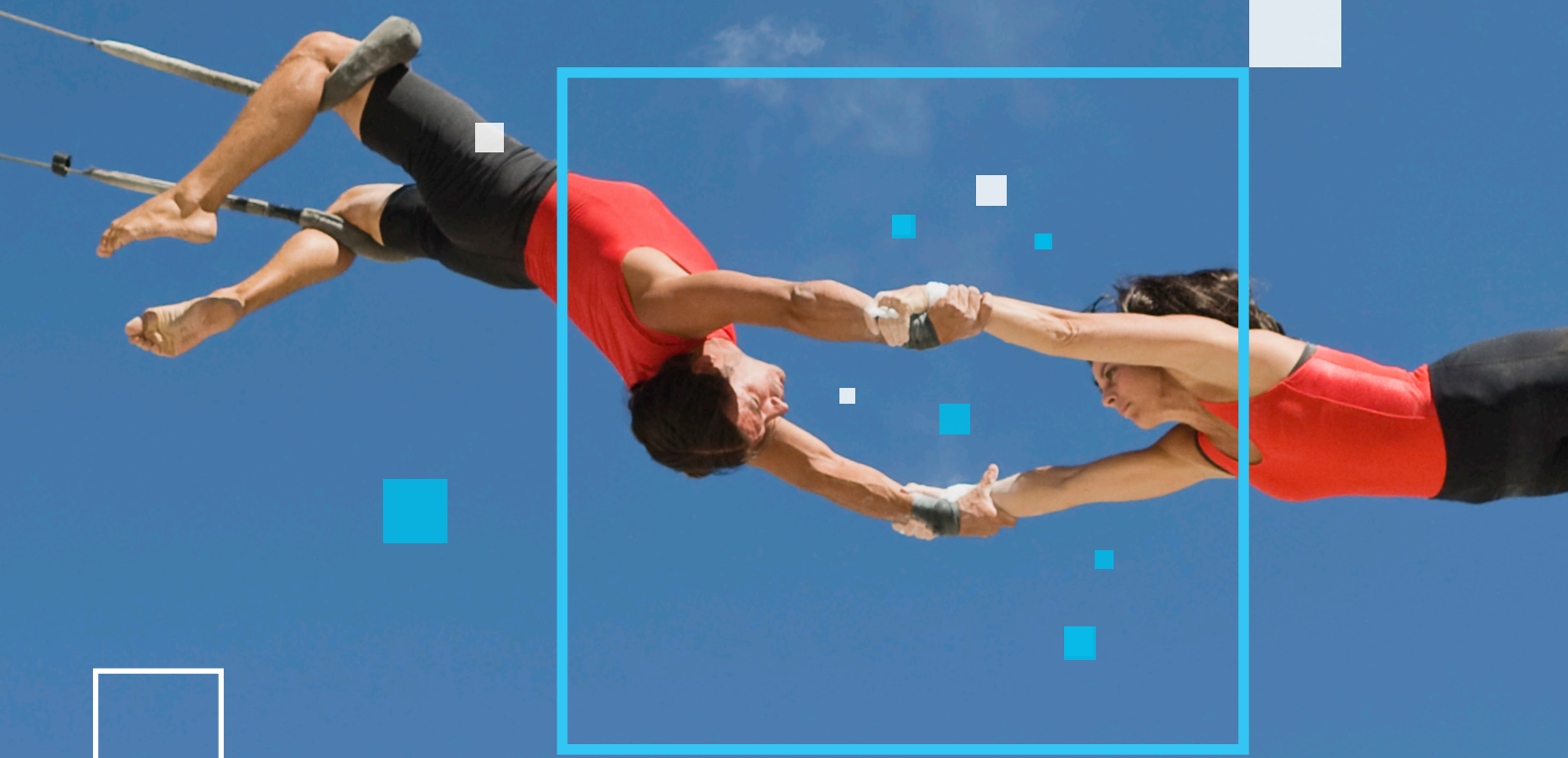


The future of digital transformation



intel
xeon

Why digital transformation is key to business survival

For today's enterprises, digital transformation is hardly a new concept.

But due to recent global challenges like supply chain disruption, stubborn inflation and the far-reaching influence of the hybrid workforce, organizations are recognizing the urgent need to embrace digital transformation.

Investments in digital transformation are already skyrocketing — they are expected to reach \$6.3 trillion from 2022 to 2024, according to [International Data Corporation \(IDC\)](#).¹ By 2024, nearly 55% of all investments in information and communication technology will be focused on digital transformation initiatives, according to IDC.²



To put digital transformation into effect, enterprises have identified five top business priorities:

1. Achieving rigorous security, identity and compliance management
2. Activating mature and agile cloud strategies across hybrid, multicloud or the intelligent edge
3. Adopting data analytics and artificial intelligence (AI) technologies to advance insights and drive critical business outcomes
4. Redefining the employee experience
5. Producing a company culture of sustainability and equitability

As enterprises rapidly embrace their digital-first/modernized transformation, Intel® is pushing the frontier forward, delivering the essential hardware, software and services to bring current and innovative future solutions to life.

By using Intel's world-changing hardware, software and services, enterprises can compete, innovate and drive business success in this new digital frontier.



In this flipbook, we show how these technologies can help your organization quickly, responsibly and sustainably modernize your operations, ultimately turning your business aspirations into reality.

Intel AI could save your business millions each year: Here's how.

For any organization that aspires to be the next leader in its industry, using AI and analytic tools to generate new insights is not just a luxury: It's a business necessity. By adopting Intel® Xeon® Scalable processors with built-in AI accelerators and Intel® OpenVINO™ toolkit, businesses are discovering new levels of flexibility and efficiency, ultimately leading to greater cost savings.

Speaking with seven different organizations as part of an Intel-commissioned study, Forrester Consulting created a composite profile to reflect today's enterprise organizations. Through a mix of shortened development cycles, improved interoperability and a reduced need for new equipment, Forrester determined that Intel's hardware- and software-based AI solutions helped this composite business save \$4.9 million over three years.³ Here's how that's possible.

Here's how that's possible

Cost savings over three years

	Development savings	\$2.2 million
	Interoperability savings	\$1.1 million
	Hardware savings	\$1.6 million

Total savings

\$4.9 million⁴

Shortened development times

75%

reduction in time needed to develop an AI model⁵

According to Forrester, using Intel® Xeon® Scalable processors and Intel® OpenVINO™ toolkit can reduce the number of hours a data scientist would need to work on a single model from 160 to 40.⁶ Assuming that 325 models would need to be created over three years, and the average data scientist costs \$85/hour, that amounts to a \$2.2 million reduction in spending on data scientists.⁷

Increased flexibility and interoperability

200 hours

of redevelopment time saved per AI model⁸

Roughly 30% of AI/ML models require interoperability to function as intended.⁹ Thanks to Intel's open interoperability standards, less coding time will be required to make that a reality.

Reduced hardware costs

\$2,500

saved per edge device with Intel Xeon Scalable processors¹⁰

A typical digital transformation strategy will opt to upgrade or repurpose existing hardware whenever possible. Assuming that a total of 750 edge devices will need to be upgraded over three years, the majority of hardware-related cost savings are reflected in these edge devices.¹¹

Why data-driven insights are more crucial than ever for enterprise management business decisions

The speed of business is accelerating. How do you keep pace with the demand for rapid modernization and optimization? Meet transformation with built-in acceleration.

[Click here to watch our video.](#)



Is your organization ready to get the most from AI and analytics? Let Intel help launch your [AI and analytics journey](#) today with Intel Xeon Scalable processors and support to take you across the entire end-to-end pipeline.

4 ways businesses can take enterprise networking to the next level

Enterprises today have access to more data than ever before. But without the right network infrastructure in place, they may be missing out on big business opportunities. The best enterprise networks are scalable, secure and intelligent — and they are powered by Intel Xeon Scalable processors.

Here are four ways enterprise networks can take your business to the next level.

01

Improve connectivity and collaboration without sacrificing security

The widescale adoption of remote working has unlocked many new possibilities for businesses when it comes to productivity. With this new paradigm shift comes new challenges. Employees still need access to services and data when outside the company firewall, but with more people connecting from mobile devices and private networks, the likelihood of network performance bottlenecks and security vulnerabilities increases.

By implementing technologies such as [software-defined WAN \(SD-WAN\)](#), your workforce can access the data and services it needs from a public cloud without having to go through the hub data center.

02

Increase productivity through hyperautomation

As more enterprises incorporate digital services and data analytics into their core operating strategies, the processes employees must integrate into their workflows have not only become more complex, but the sheer number of processes has increased dramatically. By using AI and machine learning (ML) solutions, organizations can deploy bots and algorithms that automate several of these processes.

Known as hyperautomation, this approach helps increase efficiency and lessen the burden on IT workforces. It also gives employees control over advanced technologies that may have previously required a more specialized skill set to utilize. Thanks to the intelligence capabilities of Intel Xeon, powered by the built-in [Intel® Advanced Vector Extensions 512 \(Intel® AVX-512\)](#) and Intel® Deep Learning Boost (Intel® DL Boost) accelerators, organizations have the tools to incorporate hyperautomation strategies without the need for additional hardware.

03

Deliver greater network throughput and scalability

Modern enterprises are now required to adapt to needs and challenges faster than ever before. In response, they're taking an increasingly decentralized approach to operations, which means their network infrastructure remains in a constant state of flux when it comes to size and capacity requirements.

With the help of Intel Xeon's support for 5G and virtualized radio access networks, these businesses can expand the scale and throughput of their networks with greater ease and flexibility. While 5G provides the bandwidth and data speeds that will help lead organizations into the future, vRAN allows them to scale the size of the networks using standards-based servers that are cheaper and quicker to deploy and operate than proprietary network solutions.

04

Bolster insights with the help of virtual assistants

Managing a high volume of customer support requests can be a challenge for any organization. Trying to glean insights from those interactions is an even bigger hill to climb. But with the help of AI-powered virtual assistants, which can be supercharged with Intel Xeon and the Intel DL Boost accelerator, organizations can automate greater portions of those workloads while also getting actionable insights through algorithms.

In a time when businesses are more dependent on data and digital services than ever before, they need networking solutions that operate with speed and efficiency — and help them turn a high volume of information into actionable insights. Thanks to Intel Xeon Scalable processors in conjunction with Intel's portfolio of hardware and software solutions, businesses have the tools they need to build an enterprise network equipped to provide a secure, connected, automated platform — a platform that can handle today's business priorities and modernization demands.

The 4 advantages of choosing Intel Xeon Scalable processors

Enterprise cloud architectures span multiple vendors and clouds — and integrate with a wide range of edge devices. This presents new challenges of workload placement and migration across an increasingly distributed multicloud infrastructure.

For wide availability across multiple cloud service providers (CSPs) and consistently high speed and performance, more companies are using Intel Xeon-powered technologies for cloud workloads.

01

A flexible ecosystem for migration and acceleration

The vast majority of enterprise applications and open-source projects are developed first for Intel architecture. Consider that Intel has been a leading Linux Kernel contributor for the last decade. Intel also enjoys two decades of global open-source experience and is active in more than 650 open-source projects, including KVM, Kubernetes and TensorFlow.¹³ By investing in Intel cloud infrastructure, companies can expect seamless enterprise workload migration within and across cloud service providers as well as on premises.

02

Streamlined manageability tools

No IT shop wants to learn a whole new set of management tools just for cloud workloads. They also don't want to maintain two sets of management tools, one devoted to cloud and the other for on-premises workloads. Popular hybrid cloud stacks like AWS Outposts, Azure Stack, Google Cloud's Anthos and VMware Cloud are optimized for Intel architecture. These stacks provide intuitive management capabilities that can lower cloud adoption barriers.

Also, Intel processors feature built-in telemetry that can be used to achieve closed-loop automation to orchestrate containers, optimize power consumption and streamline root-cause analysis. For example, node-level telemetry can identify workloads that do not have enough cache or memory, while cluster-level telemetry can help optimize placement decisions, scaling and life cycle management.

03

Half the cores, equal the performance

Many cloud cost assessment tools are driven by instance cost alone. But there are other factors that affect true cloud infrastructure cost. For example, many independent software vendors (ISVs) charge per core. Choosing a server node that has fewer cores but provides similar performance to a higher core-count node can lower software licensing costs. Intel® Server Platforms provide outstanding virtual machine (VM) density, which means you can do more with less. Besides core count, other aspects of total costs to consider include migration ease, compatibility and vendor lock-in risks.

Intel also offers companies a variety of cloud software tools, including Intel® Workload Optimizer, Intel® Cloud Optimizer and Intel® Migration Advisor. These tools enable thorough evaluation, analysis, performance enhancement and cost-effective resource management for a broad spectrum of cloud workloads. Most notably, they help optimize performance and reduce cost.

04

Battle-tested and trusted by the largest corporations

Intel technology is most trusted across all major CSPs, as evidenced by the fact that the top ISVs, like Oracle, SAP and VMware, certify their cloud environments only or primarily on Intel.¹⁴

Through long-standing relationships with top ISVs, original equipment manufacturers (OEMs) and CSPs, Intel closely collaborates with the cloud ecosystem. This includes working closely with CSPs to develop purpose-built instances, such as Microsoft Azure DCsv2 Virtual Machines, designed to better support demanding tasks and workloads.

As cloud adoption grows, every application and workload have distinctive infrastructure requirements that evolve over time. Intel technology solutions are solving real pain points and business challenges in every setting: on premises, through communication networks, at the edge and in the public cloud.

Intel understands the business challenges facing enterprise organizations.

We are pushing the frontier forward by delivering the essential hardware, software and services that bring innovation to life. In doing so, Intel is helping all constituents to access and quickly adapt to changing economic and business demands.

Intel's brand promise is to provide sound consultation and tangible steps to help you quickly and wisely modernize.

With our extensive partner relationships, solutions and experience, Intel delivers digital transformation solutions that help bring your visions and innovations into reality.



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- ¹ IDC, "IDC FutureScape: Worldwide Digital Transformation 2022 Predictions" (October 2021) <https://www.idc.com/getdoc.jsp?containerId=US47115521#:~:text=Investment%20levels%20for%202022-2024,direct%20investment%20at%20%245.4%20trillion.>
- ² IDC, "IDC FutureScape: Worldwide Digital Transformation 2022 Predictions" (October 2021) <https://www.idc.com/getdoc.jsp?containerId=US47115521#:~:text=Investment%20levels%20for%202022-2024,direct%20investment%20at%20%245.4%20trillion.>
- ³ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁴ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁵ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁶ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁷ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁸ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ⁹ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ¹⁰ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ¹¹ Forrester Consulting, "The Total Economic Impact™ of Intel (June 2021) AI" <https://www.intel.com/content/www/us/en/artificial-intelligence/documents/total-economic-impact-of-intel-ai-report.html>
- ¹² Intel. (2021). Critical Considerations for AI Deployment. Intel.com. Retrieved 2022, from <https://www.intel.com/content/www/us/en/products/performance/nvidia-ai-facts.html>
- ¹³ Intel, "Top Benefits of Intel® Technology in the Cloud," <https://www.intel.com/content/www/us/en/cloud-computing/top-reasons-for-cloud-guide.html>
- ¹⁴ Intel, "Top Benefits of Intel® Technology in the Cloud," <https://www.intel.com/content/www/us/en/cloud-computing/top-reasons-for-cloud-guide.html>

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