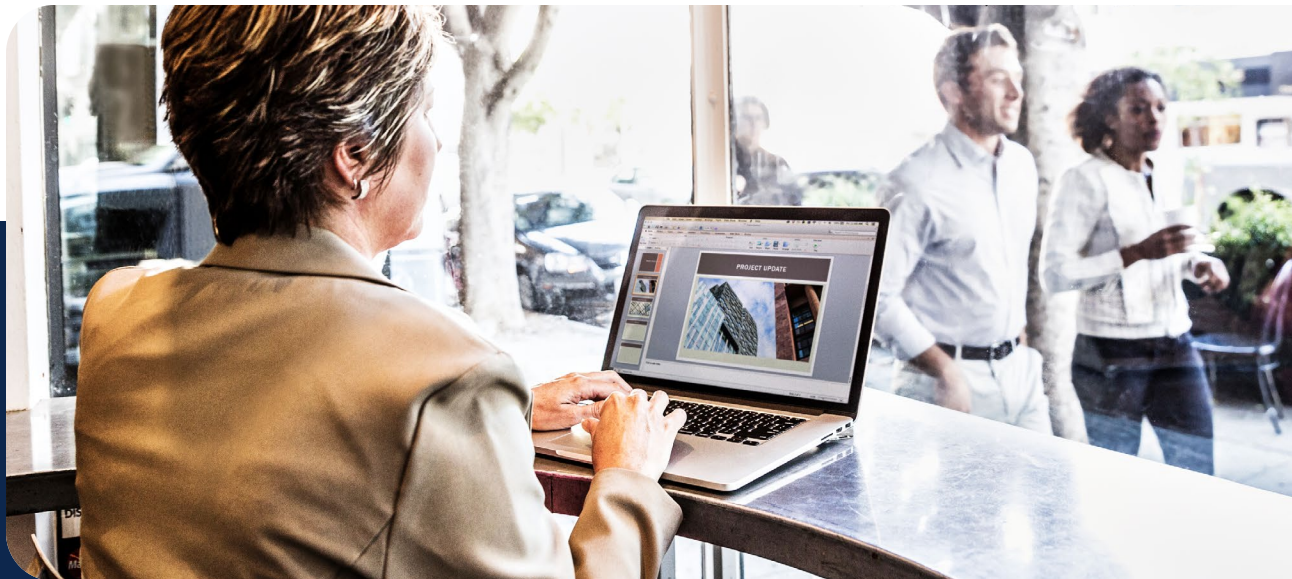




Reimagine your applications.



Across virtually every business sector, there is an increased demand for new or enhanced applications that increase workforce productivity or improve customer experiences. IT departments are often challenged to transform infrastructures to accommodate new technologies. The Internet of Things (IoT), artificial intelligence (AI), machine learning (ML), and business analytics are changing how developers build smart applications to simplify customer transactions and deliver new business insights.

Many enterprises have adopted multicloud strategies with unified management solutions to support microservices and containerized applications at the network edge. With a wide variety of software-as-a-service (SaaS) options, it is now possible to build intelligent business platforms that seamlessly connect applications, integrate IoT solutions, and enable customizable big data analyses. Enterprise, commercial, and consumer applications can all be reimaged with the appropriate infrastructure and the right partner to help you architect your purpose-built solution.

What role does AI play in delivering new insights and business intelligence from your apps?

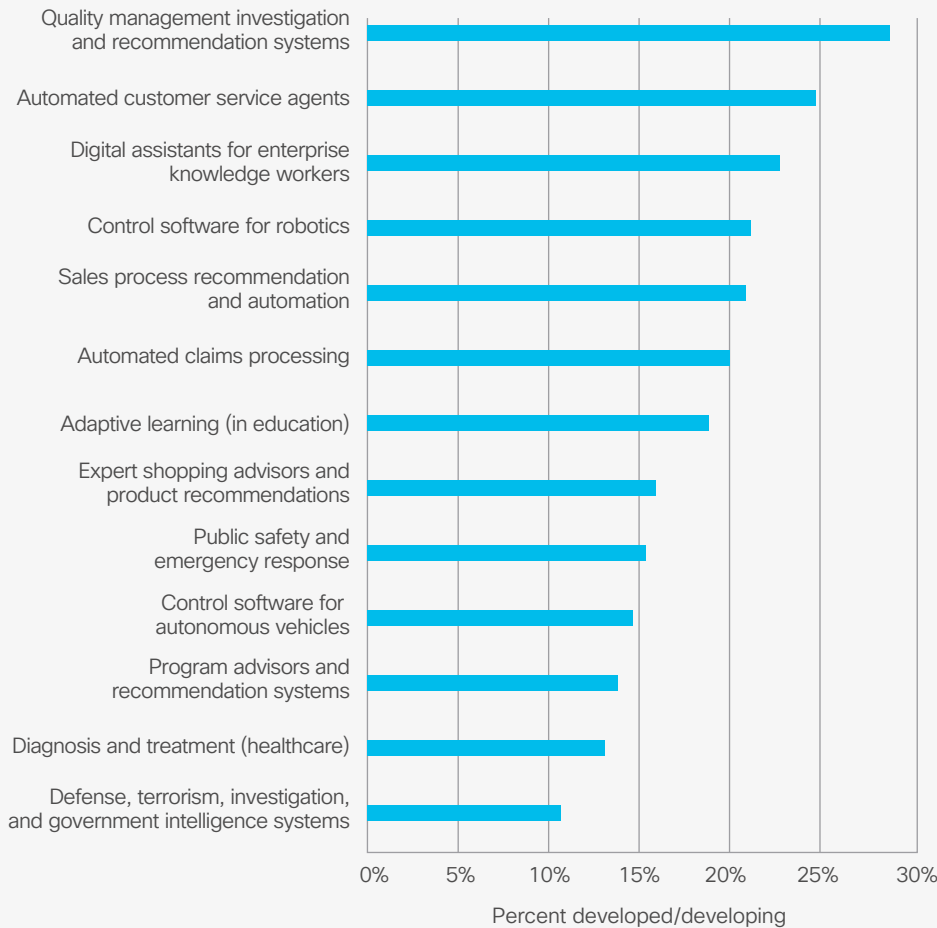
AI platforms and applications are enabling enterprise application developers to leverage ML capabilities to provide enhanced accuracy, user experience, efficiency, and capabilities. AI is projected to be utilized everywhere from edge to core to cloud. Technology providers should continue to partner and support rapid deployment, interoperability, and standardization of AI solutions.



Recommended action

The role of AI in enterprises is changing how your customers buy, your suppliers deliver, and your competitors compete. With AI/ML offerings being made available in more ready-to-use and customized consumption models, an application developer can AI-enable any application with ease. You will need to deploy AI-optimized and AI-scalable solutions, ranging from bundles for specific markets to best-of-breed packages.

AI software adoption and use-case priorities



Source: *AI Software Platform Adoption Survey*, IDC, February 2019.
[Percent of respondents: N = 505]

Can edge networks optimize your business and IoT applications?

According to the *Cisco Annual Internet Report (2018-2023)*, IoT devices will account for 50 percent (14.7 billion) of all global networked devices by 2023. Device manufacturers, business intelligence software firms, mobile carriers, systems integrators, and infrastructure vendors will all play unique but complementary roles across the IoT landscape.

Edge networks and computing allow enterprise architectures to optimize processing for business-critical analysis of data sets from IoT applications and communications. According to the Uptime Institute, half of all workloads will be run outside the enterprise data center by 2021, either in cloud or noncloud data centers or at the network edge. Low-latency real-time communications and high-definition video applications will leverage the multi-access edge enabled by 5G and Wi-Fi 6.



Recommended action

IoT applications are diverse and can be complex. You should explore mobile connectivity options and determine the best approach for your IoT initiatives. Assess your need for geographic coverage. In the longer term, prepare to shift your focus from managing connectivity to managing data across your IoT applications.

Quantifying the performance benefits of 5G

10x

Decrease in latency:
Delivering latency as low as 1 millisecond

10x

Connection density:
Enabling more efficient signaling for IoT connectivity

3x

Spectrum efficiency:
Achieving even more bits per hertz with advanced antenna techniques

10x

Experienced throughput:
Bringing more uniform, multi-Gbps peak rates

100x

Traffic capacity:
Driving network hyperdensification with more small cells everywhere

100x

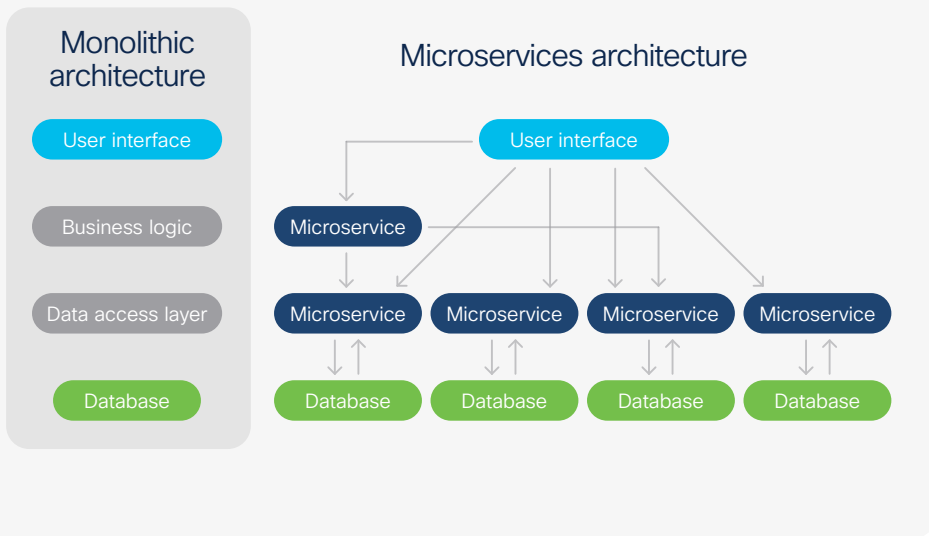
Network efficiency:
Optimizing network energy consumption with more efficient processing

How will you future-proof today's applications for tomorrow's scale and capabilities requirements?

At the core of your digital journey, you must modernize your applications to meet today's business demands while anticipating future needs and growth. For many organizations, containerized applications and microservices are providing the flexibility and resiliency needed to keep pace with technology innovations and competitive business pressures.

By 2022, microservices architectures will support 90 percent of all applications—improving the ability to design, debug, update, and leverage third-party code (according to IDC). Microservices and application containerization provide independent operation scalability, unparalleled system availability, and rapid new service launches without massive reconfigurations.

Microservices architecture offers more flexibility than legacy platforms.



Recommended action

We live in a multicloud world (public, private, and hybrid). Your business needs to develop a multicloud strategy to enhance and extend its application capabilities to meet new competitive challenges. Your digital transformation can only happen when architectures and operations are simplified with the aid of microservices and containerization.

Cisco can help you build and enhance your application strategy and tactical plan.

[Learn more from the Cisco Annual Internet Report >](#)

- Find out more about the role Cisco will play in empowering global [5G networks](#).
- Explore Cisco's comprehensive [containers and microservices](#) solutions.