

Cisco IT Brief

Top IT Trends

In a 2016 [IDC survey](#) about corporate strategy, two out of three CEOs said digital transformation would play a starring role. But what technologies help you get there? Rob Maynard, Cisco IT architect, cast his votes for the most important IT trends in [this blog](#) and a [follow-on](#). Here's how Rob's picks are driving digital transformation at Cisco.

The Internet of Things (IoT)

Connecting non-IT devices to the network helps you find out and react to events sooner. At Cisco we've [connected our thermostats](#) to the Internet to consume less energy. Cities like [Barcelona](#) use the IoT to learn when trash containers are full. Businesses use it to stave off vehicle and equipment failures by predicting when they'll fail.

Software Defined Networking (SDN)

With SDN, the network configures itself to adjust to demands at this moment. (Technically speaking, SDN moves the control plane out of the router to a centralized controller.) At Cisco, we use a flavor of SDN called [Application-Centric Infrastructure \(ACI\)](#) that lets the application manage network behavior—not the other way around. [This article](#) explains how we use ACI for our Hadoop applications to strengthen security, speed up provisioning, and improve performance.

Open APIs

APIs help you get creative by linking applications and clouds. This [article](#) explains how we used the Cisco Spark API to link it to our software development platform. Now our Agile scrum teams get word on their smartphones and laptops as soon as a build completes. No more communications delays. We've also used APIs to create brand-new services by linking existing clouds. One is [SalesConnect](#), which helps Cisco sellers and partners more quickly find the content they need to close deals.

Big Data Analytics

Our engineers analyze big data to improve quality. Sales teams use it to discover the best sales approaches in different situations. Our IT team analyzes network data to combat cyber threats, using tools like [Stealthwatch](#) and [Cisco Tetration Analytics](#). We put big data analytics into service to secure the network at the [2016 Rio Olympics](#).

Cybersecurity

We protect our systems and data by embedding security throughout our infrastructure. An example is [Cisco Advanced Malware Protection \(AMP\)](#). But malware keeps getting nastier, and a strong defense takes more than hardware and software. [Working together with our Information Security \(InfoSec\) organization](#), we take a holistic approach to security that includes employee education and security-focused processes.

Shadow IT

Shadow IT refers to employees using unapproved technologies, such as public file-sharing services. Shadow IT lurks in nearly every company, and it puts you at risk. The best way to avoid it is by finding a secure way to give employees the technologies they want. That includes BYOD and convenient cloud services. Here's how we designed a [secure BYOD architecture](#).

Hybrid Cloud

Most organizations now use a combination of on-premises and cloud services. For example, at Cisco we use cloud services for conferencing, messaging, and streaming video, and on-premises gear for voice, video, and contact center. Here's how we [secure third-party cloud applications](#).

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