

Government Cloud



The Journey to Cloud Computing for 21st Century Government

Governments, agencies, and ministries around the world are transitioning to secure cloud computing and realizing tangible operational and financial benefits. They're cutting costs, becoming more agile, and transforming the way they deliver services. Cloud computing is enabling governments to:

- Meet mission requirements
- Solve tight budgets through cost-effective, cloud-based capabilities
- Deliver secure, shared services for mobile workers and citizens
- Achieve cost savings from consolidated data centers and open data initiatives
- Achieve the level of security agencies or ministries require



Scaling Quickly, Improving Service Delivery

Employees, and often members of the public, increasingly want applications available on demand, which is causing many IT organizations to focus on service delivery. By offering applications and services through the cloud, you can achieve significant benefits, including:

- Delivering services consistently across devices
- Ensuring access to an always-current version
- Supporting easy service procurement and activation
- Enabling rapid deployment at scale
- Allowing agencies and ministries to focus on “core” vs. “context” as appropriate

These are a number of good reasons for moving to cloud computing, and your agency or ministry may be interested in adopting it, but how do you do it right?

Operational Models for Government Cloud Computing

Moving to cloud computing can span strategic, functional, operational, and technical processes, and to accommodate them government organizations are adopting a variety of governance models:

- **Agency-led cloud:** One agency or ministry takes a lead role in providing cloud services to other government organizations. In many countries, the Ministry of Interior or Ministry of Finance takes this role.

In France, DILA (Directorate of Legal and Administrative Information) is responsible for ensuring public access to laws, citizen rights and duties, and the information needed to conduct business with the government. DILA is currently changing from paper-based processes to a cloud infrastructure-as-a-service (IaaS) solution for its own operations. It also supplies cloud services to other agencies.

- **Government information and communications technology (ICT) provider:** In some countries, the ministry-led model has evolved to one in which an independent provider offers cloud computing services. Bundesrechenzentrum GmbH (BRZ), the Federal Computing Centre of Austria, redesigned the ministry's cloud-computing architecture to increase availability, speed, and ease of operations. This model is available to other ministries and agencies within the country.
- **Government broker:** Other ministries and agencies use public cloud services selectively, so they can focus on their core mission. Workspace-as-a-service, for example. This can be achieved through a classic central procurement model, such as apps.gov in the United States, or as an integrated self-service portal for services. The United Kingdom proposes to achieve direct cost savings by fundamentally changing the way public sector specifies, procures, and operates. The change will be embodied in two key government programs: the Public Services Network (PSN) and G-Cloud (Government Cloud), which various agencies and local governments may use.

A Unique Strategy: Enabling the World of Many Clouds

As these three models demonstrate, there's no right way to move into cloud computing. And that agrees with our cloud computing strategy. Cisco doesn't build a one-size-fits-all "megacloud." Instead, we offer Cisco® Validated Designs based on the best technology building blocks that you, working with one of our partners if you wish, can use to build solutions that are right for your specific needs.

We recognize that cloud technologies and markets are continuing to evolve and that customers' solutions need to be flexible and future-oriented. That's why we design and build intelligent networks capable of supporting private cloud, public cloud, and hybrid cloud solutions.

Cisco Cloud Computing brings together computing, networking, and storage resources within the data center and connects clouds together between data centers to deliver a secure, high-quality experience. Among the benefits of working with Cisco to create your cloud solution are:

- **Reduced time to deployment:** Provides a fully tested and validated architecture that enables technology adoption and rapid deployment.
- **Reduced risk:** Enables your IT teams to deploy new architectures and technologies with confidence and in compliance with current regulations.

"The public sector is under constant pressure to do more with less. Our vision was to create an 'always-on' infrastructure that would serve us well over the next five to ten years."

—Thomas Kasa, Head of Network Development, Operation and Client-Services, Bundesrechenzentrum GmbH (BRZ), Federal Computing Centre of Austria

- **Increased flexibility:** Through a web portal (called the Government App Store), you can provide users (including those in other agencies) access to the catalog of information and communications technology (ICT) services that you control. Cisco or a partner might potentially operate these services.
- **Improved operational efficiency:** Integrates automation with multitenant resource pools (compute, network, and storage) to improve asset use, reduce operational overhead, and mitigate operational configuration errors.

Architecture to Enable Government Cloud

Cisco Unified Data Center is a simplified architecture that incorporates an open system for supporting multiple cloud and virtualization strategies. This architecture has three main components: Cisco Unified Fabric, Cisco Unified Computing System™, and Cisco Unified Management.

Cisco Unified Fabric

Cisco Unified Fabric delivers massive scalability and resilience by creating large pools of virtualized network resources. With this architecture, you can easily move and re-provision existing and new virtual assets. Cisco's architecture simultaneously preserves the existing ICT resources and eliminates the complexity of introducing new virtual machines and applications in the future.

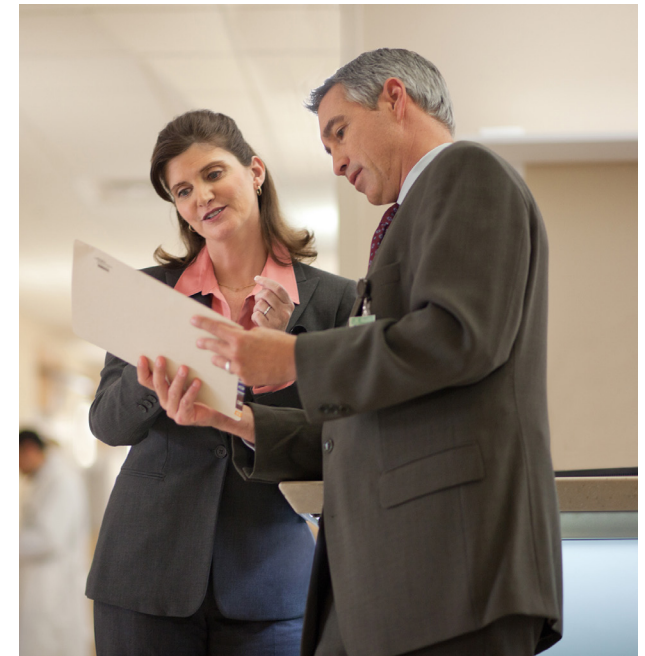
Cisco Unified Computing

Cisco Unified Computing System (Cisco UCS®) uses model-based service templates to automate the entire server configuration process; each template can easily configure one or hundreds of servers using role- or service-based policies. These templates can reduce the number of configuration steps from more than a hundred to just two. Meanwhile, IT managers have greater visibility and control over the entire computing environment.

Cisco Unified Management

Cisco Unified Management allows transparent management across physical and virtual resources to simplify and accelerate delivery of IT services within the data center or in a cloud environment. Cisco Intelligent Automation for Cloud (Cisco IAC) provides this capability and is optimized for Cisco UCS and Cisco Nexus® infrastructure – and for heterogeneous ICT environments. Cisco IAC offers sophisticated service management functions such as policy-based governance, service assurance, lifecycle management, and pay-per-use tracking.

Once you've established the data center foundation for your cloud application, you can employ additional components of the Cisco cloud solution to help ensure success in meeting your users' requirements.



Robust Cloud Service Delivery

Cisco Cloud Intelligent Network is a comprehensive set of solutions that delivers secure, reliable, and predictable cloud services. These solutions integrate transparently with the Cisco Unified Data Center to provide an end-to-end delivery platform for cloud services.

The goal is to deliver services anywhere, on any device, at any time with the security, performance, and reliability previously possible only with traditional, on-premises deployments.

“We had a hard time meeting constituent and customer expectations. Due to the new system, the City of Melrose is looking at a 40 percent de-duplication rate on our production data, which translates into 40 percent less disk we need to buy and 40 percent less data we need to manage and archive.”

—Jorge Pazos, Chief Information Officer, [City of Melrose](#)

Portfolio of Cloud-Computing Applications and Services

Cisco offers a portfolio of cloud-based applications and services you can employ directly or as a service from a Cisco partner or a service provider. The portfolio includes:

- Rich, interactive collaboration using Cisco Unified Communications, Cisco TelePresence®, and other industry-leading applications for meetings, instant messaging, and presence

- Hosted services including Cisco Hosted Collaboration Solution (HCS), Cisco WebEx®, and Cisco TelePresence
- Cisco Videoscape™, an innovative service-provider solution, that is reinventing the delivery of video experiences
- Cisco Cloud Security solutions that provide effective, scalable, and always-updated web and email security:
 - Cisco Cloud Web Security analyzes web requests to identify malicious, inappropriate, or acceptable content
 - Cisco Cloud Email Security helps protect organizations from spam, viruses, and blended threats
- An extensive portfolio of third-party cloud services and applications pretested for cloud computing

Why Cisco?

Cisco has years of experience working closely with government organizations to achieve their missions, reduce costs, and deliver innovative services for citizens and constituents with network-centric solutions, expertise, and resources. The Cisco Cloud architecture and validated network designs have been successfully tested and deployed together with services, support, and ecosystem partner technologies to reduce risk and simplify deployment.

For More Information

For more information, contact your local Cisco account representative or authorized Cisco partner, or visit www.cisco.com/go/government and www.cisco.com/go/cloud. For information on Cisco Validated Designs for cloud solutions, visit www.cisco.com/go/cvd.

