

Get Your Network Ready for the Cloud

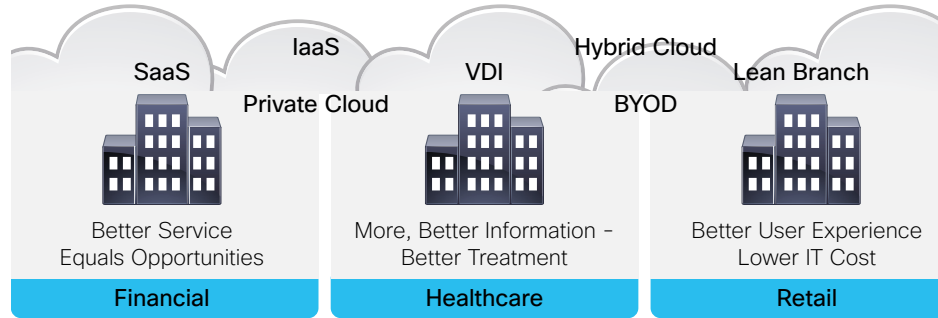


CONNECT USERS TO THE CLOUD WITH CONFIDENCE WITH A CISCO CLOUD INTELLIGENT NETWORK

Organizations are migrating to cloud-based applications and services to solve some of their biggest business and technology challenges: reducing costs, reaching new levels of efficiency, and creating innovative business models (Figure 1). However, cloud services change how applications are delivered and consumed, and ultimately increase demands on the network.

50% of workloads will be processed in the cloud by 2014.
 Source: Cisco Cloud Index, December 2011

Figure 1. Cloud Is Changing the Way Organizations Do Business



The traditional enterprise network, which is essential for connecting users to the cloud, is not architected to support cloud services. The 2012 Cisco Global Cloud Networking Survey revealed that updating the network is one of the top focus areas for cloud migration (Figure 2).

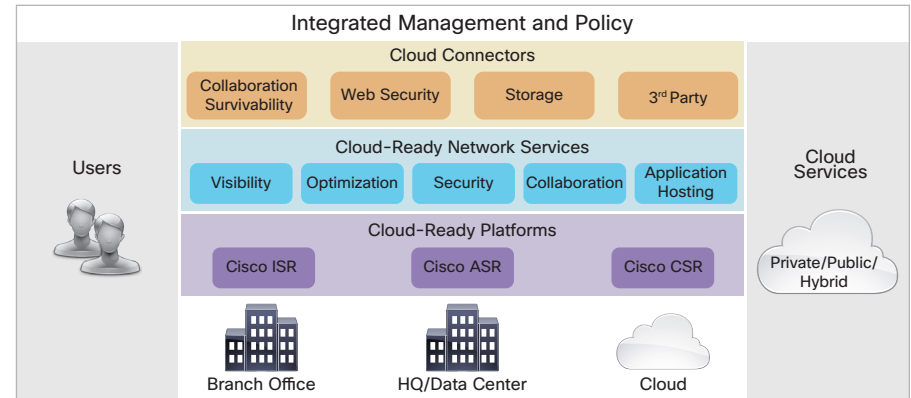
Figure 2. Today's Networks Are Not Ready for Cloud

Key Findings - Cisco Global Cloud Networking Survey, April 2012				
Expectation		Reality		
20%	37%	64%	66%	60%
Organizations who plan to have more than 50% apps in the cloud by 2012	Consider cloud-ready WAN to be the most important infrastructure for cloud	Cited performance as a key challenge for cloud	Cited security and policy as a key challenge for cloud	Cited management as a key challenge for cloud
Need for a Major Architectural Shift in the Network				
1300+ Global IT professionals across 13 countries				

Cisco Cloud Intelligent Network

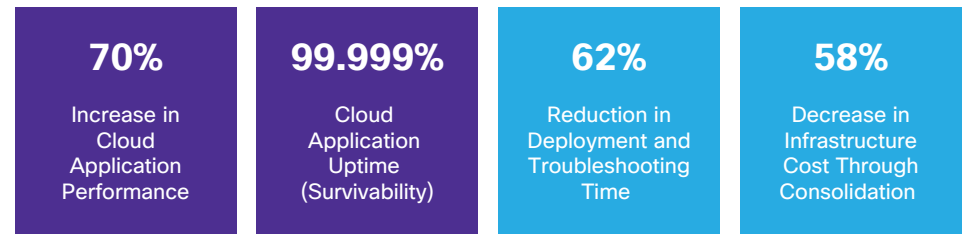
Cisco® Cloud Intelligent Network helps organizations deliver a secure, scalable, high-quality user experience for diverse applications and services that operate in the cloud (Figure 3).

Figure 3. Framework for Cisco Cloud Intelligent Network Solution



This multiservice network experience is possible throughout the network-integrated intelligence that optimizes application performance, enhances security, and simplifies network management. With this innovative approach for a cloud-ready network, the Cisco Cloud Intelligent Network offers many benefits (Figure 4).

Figure 4. Cisco Cloud Intelligent Network Benefits



Optimal Experience

The new enterprise network must deliver improved visibility and control, application acceleration, optimization, problem resolution, and survivability. These capabilities are particularly important for IT to meet user expectations.

Cisco Cloud Intelligent Network offers superior capabilities for optimizing, controlling, and providing visibility into diverse applications and traffic types, including video and virtual desktops (Table 1).



Table 1. Optimal Experience: Greater Productivity, Higher Utilization, and Increased Reliability

Visibility and Control	Application Visibility and Control on Cisco Integrated Services Routers Generation 2 (ISR G2) and Cisco ASR 1000 Series Aggregation Services Routers: Provides granular visibility and control for 1000+ applications
Application Optimization	Cisco Wide Area Application Services (WAAS): Accelerates applications, optimizes bandwidth, provides local hosting of branch-office IT services, and enables a smooth evolution to cloud-based services that can reduce transport and operating expenses (OpEx) by 50+ percent Cisco AppNav for Cisco WAAS: Offers scale-as-you-grow WAN optimization deployment by enabling organizations to virtualize their WAN optimization resources in the data center by pooling them into one elastic resource in a manner that is policy-based and on-demand with the best latency performance
Application Survivability	Cisco Unified Survivable Remote Site Telephony (SRST) for Cisco Hosted Collaboration Solution (HCS): Provides voice survivability for Cisco HCS deployments CTERA Cloud Storage Connector on UCS E-Series Server Module on ISR G2: Offers cloud storage backup for branches for business continuity

Cloud Security

Application and access security must be integrated throughout the network to maintain a strong security posture. Security must be applied based on the context of the application, location, user and device.

Cisco Cloud Intelligent Network Solution includes pervasive, context-aware security features that allow granular controls over user access while maintaining a positive user experience, especially when users are mobile (Table 2).

50% of the organizations that are not adopting cloud computing cite security as the reason.
Source: Security and the Cloud, Forrester Research, October 2010

Table 2. Cloud Security: Protect Assets, Meet Compliance, and Increase Business Innovation

Virtual Security Service	Cloud Services Router 1000V: On-demand, flexible network-as-a-service “in-the-cloud,” to enable secure, optimized, scalable and consistent connectivity between premise and cloud
Web Security Services	Cisco Cloud Web Security Connector: Solution that blocks web-based malware and protects direct access to the cloud with up to 99.9999-percent uptime for cloud security services for branch-office users
Unified VPN for Cloud	FlexVPN on ASR 1000: Scalable, secure, and manageable IP Security (IPsec) and remote-access VPN

Simplified Operations

Most IT organizations today are using a variety of nonintegrated, siloed management products, making the management process manual and error-prone.

Cisco Cloud Intelligent Network Solution supports easier, integrated, and automated network management and troubleshooting with visibility across networks and clouds (Table 3).

Table 3. Simplified Operations: Lean Branch, Accelerate Deployment, and Lower Cost

Virtualized Application Hosting	Cisco Unified Computing System™ (Cisco UCS®) E-Series Server on ISR G2: <ul style="list-style-type: none"> Provides converged network, compute, and storage for lean branch offices that enables services anywhere more cost-effectively while consolidating IT infrastructure at every location Up to 80-percent OpEx savings over a traditional tower server Local application hosting also addresses performance, survivability, and compliance requirements for the cloud
Centralized Monitoring	Cisco Prime™ Assurance Manager: Offers consistent application visibility and performance monitoring across branch office, data center, and cloud, providing application health, user experience, and faster problem resolution
Flexible Deployment	Cisco ASR 1002-X Aggregation Services Router: Offers pay-as-you-grow performance upgrade model with 5- to 36-Gbps performance upgrade on demand, and up to 7x faster WAN performance

For more information, visit: <http://www.cisco.com/go/readyforcloud>.

Cisco Cloud Intelligent Network Product Portfolio

Cloud-Ready Routing and WAN Optimization Platforms

The diagram illustrates the Cisco Cloud Intelligent Network Product Portfolio, organized into three categories based on deployment location:

- Branch/Remote Sites:** Includes WAAS Express, WAAS on SRE, UCS E Series, and WAAS (WAVE 294, 594, 694).
- WAN/HQ:** Includes ASR 1000 (1001, 1002, 1002-X, 1004, 1006, 1013).
- Cloud/DC:** Includes ASR 1000 (w/ OTV, LISP etc), CSR, and WAAS (WAVE 7541, 7571, 8541), vWAAS.