



What Is Cisco Application Networking Services?

Cisco® Application Networking Services (ANS) is a comprehensive portfolio of application networking solutions and technologies that enable the successful and secure delivery of applications within data centers to local, remote, and branch-office users. Using technology to accelerate, secure, and increase availability of both application traffic and computing resources, Cisco ANS provides a comprehensive and application-adaptive set of solutions for meeting the core application challenges related to the network.

Unlike application delivery point products that are focused on specific IT issues or places in the network, Cisco ANS comprises a broad portfolio of application networking platforms coupled with application fluency integrated into existing control points throughout the network, resulting in a truly end-to-end application delivery network.

Business Reasons for Deploying Application Delivery Technology

Enterprise and service provider customers are deploying Cisco ANS solutions in the data center and branch offices for numerous reasons, such as the following:

- **Faster deployment of applications:** IT can dynamically respond to changing business demands by rapidly provisioning network infrastructure to help bring applications into production in a more timely and cost-effective manner.
- **Better return on assets, efficiency, and utilization:** Customers can reduce costs associated with the scaling of server farms and centralized applications by optimizing the use of existing server resources and offloading nonessential server functions to the network.
- **Increased customer satisfaction, and end-user response time:** Improved application response times result in greater client and customer satisfaction, increased productivity, and better competitive positioning for the organization.

- **Consolidation of branch-office resources:** Branch-office resources, such as servers and storage, can be consolidated in the data center without compromising application performance for branch-office users.
- **Reduced OpEx and increased IT productivity:** Expenses for IT and network infrastructure can be reduced (fewer branch-office servers, data center servers, load balancers, etc.) through more efficient equipment

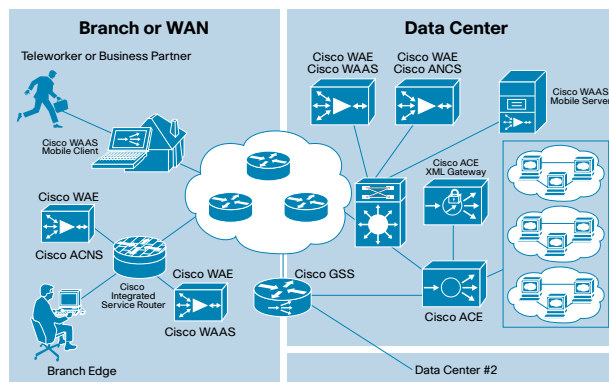
Cisco ANS Customer Benefits

Enterprise IT decision makers are challenged to provide applications and services to users while responding to consolidation, budget constraints, and the need for regulatory compliance. Cisco ANS provides a portfolio of application networking products and technologies that enables organizations to deliver end-to-end business performance, availability, and security across their entire infrastructures.

Data Center Application Delivery Solutions

Cisco solutions can increase application performance, availability, and security, helping achieve business and application objectives while providing maximum environmental efficiency (Figure 1).

Figure 1. Cisco Application Networking Services Portfolio



Cisco ACE Application Control Engine

The Cisco ACE family, which includes the Cisco Catalyst® 6500 Series service module and Cisco ACE 4710 appliance, provides a full suite of content switching and server load-balancing functions in a secure, virtualized platform.

The Cisco ACE platform helps ensure application availability, accelerate application performance, and protect applications while simultaneously reducing data center costs. Benefits of Cisco ACE include the following:

- Increased application availability
- Accelerated application performance
- Comprehensive application security
- Lower total cost of ownership (TCO)

Cisco ACE XML Gateway

The Cisco ACE XML Gateway is a standalone appliance that extends the core Cisco ACE functions to the Extensible Markup Language (XML) and web services and provides improved security and performance for applications and web services that use XML.

Cisco ACE GSS 4400 Series Global Site Selector Appliances

To help ensure data center availability, the Cisco ACE GSS appliances provide global load balancing and intelligent failover between data centers to help ensure business continuity, full Domain Name System (DNS) and Dynamic Host Configuration Protocol (DHCP) support, and protection from DNS-based distributed-denial-of-service (DDoS) attacks.

Cisco CSS 11500 Series Content Services Switches

The Cisco CSS 11500 Series switches are modular Layer 4 to 7 load-balancing appliances that offer flexible configuration, onboard Secure Sockets Layer (SSL) encryption and decryption, and compression.

Branch-Office and WAN Application Delivery Solutions

Cisco Wide Area Application Services

Cisco Wide Area Application Services (WAAS) is a WAN optimization and application acceleration solution that



optimizes application and video delivery over the WAN. It allows IT departments to centralize servers and storage in the data center for better economies of scale, and deliver on-demand local and branch-office services while maintaining LAN-like application performance. Cisco WAAS enables organizations to accomplish three primary IT objectives:

- Optimize application performance and video quality for remote users accessing centralized resources.
- Host applications, such as Microsoft Server 2008, directly on Cisco Wide Area Application Engine (WAE) Appliances.
- Minimize branch IT costs through server and storage centralization, WAN bandwidth optimization, and simplified data protection for regulatory compliance.
- Deliver on-demand network-hosted branch-office services while minimizing the amount of space required for the device.

The Cisco WAAS solution, consisting of the Cisco WAAS Software and the Cisco WAAS Mobile Client software, makes use of:

- A range of Cisco WAE appliances, from the WAE 512 to 7371.
- Network modules (NMEs) for the Cisco 2800 and 3800 Series Integrated Services Routers.
- Microsoft Windows-based PCs for mobile client support.

Cisco Application and Content Networking System (ACNS) Software

Cisco ACNS Software enables customers to establish a content delivery network (CDN) within their organizations. It enables effective large-scale and cost-effective content distribution and video streaming to remote sites over the WAN.

Typical Cisco ANS Deployments

Cisco ANS deployments meet the needs of customers with the following requirements:

Enterprise customers with:

- An existing Cisco Catalyst 6500 Series infrastructure in the data center.
- Existing deployments of Cisco application delivery solutions (for example, Cisco CSS local directors, competitive load balancers or content switches, or CDN solutions).
- Mission-critical servers requiring high availability, or a group of servers with high traffic that have different performance capabilities and need optimized performance.
- An initiative to improve efficiency and utilization rates of assets (servers, bandwidth, etc.), including at branch offices.
- Consolidation projects to reduce costs for operational, security, or compliance reasons.
- Third-party or in-house business applications offered to partners or clients.
- Poorly performing applications accessed by remote users or offices, especially over long distances.
- Large numbers of branch or retail locations.

Service provider customers that:

- Support high-traffic web portals.
- Offer managed or hosted services.

ANS Product Applicability

The area being addressed affects decisions related to ANS solutions:

- **Network operations:** Primary concerns are integration, deployment, and manageability.
- **IT:** Primary concerns are uptime, utilization, capital expenditures (CapEx), OpEx, and TCO.
- **Applications:** Primary concerns are application availability, performance, and security for strategic applications such as customer relationship management (CRM), enterprise resource planning (ERP), human relations, supply chain, and e-commerce.
- **Server operations:** Primary concerns are server and storage availability and efficiency and TCO.
- **Security operations:** Primary concerns are perimeter and application security.

Cisco Data Center Assurance Program for Applications Helps Achieve Application Deployment Success

Cisco is extending its highly successful Data Center Assurance Program (DCAP) to include applications. Cisco is working with major application partners such as Microsoft, Oracle, and SAP to create validated designs that customers can build on. Cisco DCAP provides both Cisco and partner expertise and validated designs to decrease deployment times and increase the success rate of application rollouts.

Cisco Services Helps Accelerate Deployment

Data centers are complex environments. Cisco Services can help mitigate the risk of making changes to your data center and accelerate deployment of your Cisco ANS solution. Cisco product and technology expertise is constantly enhanced by hands-on experience with real-life networks and broad exposure to the latest technology and implementations. Cisco uses leading practices to help you define your IT and business requirements and deliver fast, secure, and highly available application access in a scalable environment.

For More Information

Cisco ANS: <http://www.cisco.com/go/applicationsservices>.

Data Center Solutions

Cisco ACE: <http://www.cisco.com/go/ace>.

Cisco CSS: <http://www.cisco.com/go/css11500>.

Cisco ACE XML Gateway: <http://www.cisco.com/go/ace>.

Cisco GSS: <http://www.cisco.com/go/gss>.

Branch-Office and WAN Solutions

Cisco WAAS: <http://www.cisco.com/go/waas>.

Cisco ACNS: <http://www.cisco.com/go/acns>.

Cisco Services: http://www.cisco.com/en/US/products/ps6894/serv_group_home.html.