

What Is Cisco Application Networking Services?

Cisco® Application Networking Services (ANS) is a portfolio of products that provide network wide, fully integrated application networking technologies that supply the availability, security, and acceleration needed to help ensure that applications are successfully delivered.

Cisco ANS products are crucial components of the Cisco Data Center 3.0 solution set, enabling the creation of end-to-end application delivery networks and the successful deployment and delivery of applications organization wide and globally to all users.

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 scaling server farms and centralized applications by optimizing the use of existing server resources and offloading nonessential server functions to the network.
- Increased application utilization, customer satisfaction, and end-user response time: Improved application response times result in higher client and customer satisfaction, increased productivity, and better competitive positioning for an organization.
- Consolidation of branch-office servers: Large numbers of file and print servers and storage devices in branch offices represent significant operating expenses (OpEx) and data protection risks. Branch-office consolidation creates initiatives to move branch servers to data centers.
- Reduced OpEx and increased IT productivity: Expenses for IT and network infrastructure can be reduced (fewer branch servers, data center servers, load balancers, etc.) through more efficient equipment. Reduced IT cycles can be achieved through simpler provisioning, fewer management cycles, and unique benefits from virtualization.
- Latest security threats addressed at the application layer, not just the network layer: Application attacks are causing concern because most traditional firewalls do not address application-based attacks.

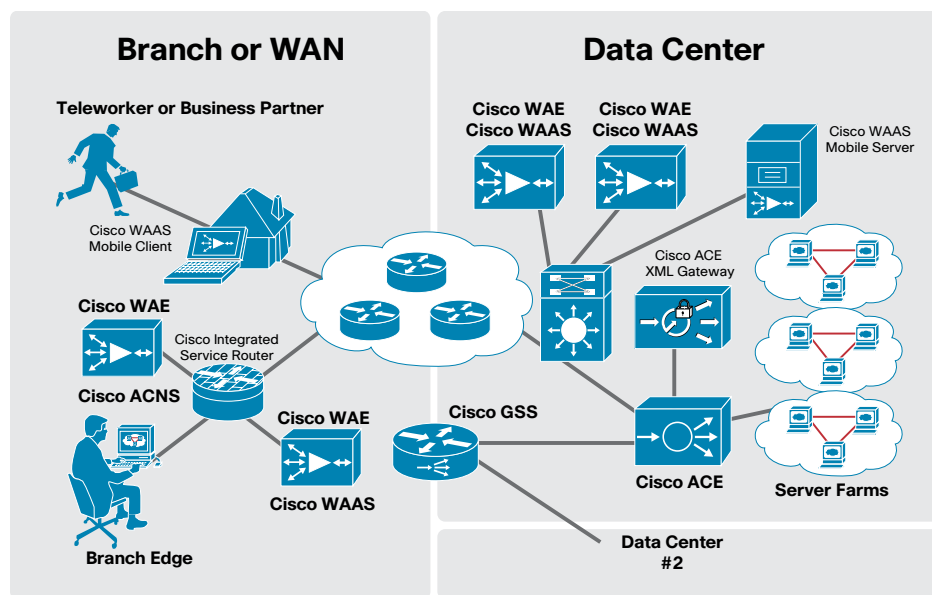
Cisco ANS Customer Benefits

Enterprise IT decision makers are challenged to provide reliable and acceptable applications and service to users while responding to consolidation, budget constraints, and regulatory compliance. Cisco ANS provides a portfolio of application networking products and technologies that enable these organizations to deliver end-to-end business processes across their entire infrastructures and to all users everywhere while optimizing the resources needed to make this happen.

Data Center Application Delivery Solutions

Cisco innovative data center solutions can help 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 platform, a comprehensive set of application delivery solutions, helps ensure application availability, accelerate application performance, and protect applications while simultaneously reducing data center costs. Benefits of Cisco ACE include the following:

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

Cisco ACE Module and ACE 4710 Appliance

Cisco ACE application switches represents state-of-the art data center application delivery solutions, providing a full suite of content switching and server load-balancing features and functions. Cisco ACE application switches are available as service modules for the Cisco Catalyst® 6500 Series Switches and Cisco 7600 Series Routers, as well as in a convenient appliance form factor (the Cisco ACE 4710).

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, as well as protection from DNS-based distributed-denial-of-service (DDoS) attacks.

Cisco CSS 11500 Series Content Services Switches

The Cisco CSS is a modular Layer 4 to 7 load-balancing appliance that offers flexible configuration, onboard Secure Sockets Layer (SSL) encryption and decryption, and compression.

Branch-Office and WAN Application Delivery Solutions

Cisco Wide Area Application Services Software

Cisco Wide Area Application Services (WAAS) Software is a powerful application acceleration and WAN optimization solution that optimizes the performance of any

TCP-based application operating over a WAN. Cisco WAAS allows organizations to accomplish three primary IT objectives:

- Deliver centralized applications with LAN-like speed to any employee regardless of location, while preserving end-to-end visibility and security.
- Consolidate costly branch-office servers, storage, and backup infrastructure into data centers while optimizing WAN bandwidth utilization.
- Maximize regulatory compliance and data protection through consolidation of branch-office storage and acceleration of branch-office backup applications.

The Cisco WAAS solution consists of the Cisco WAAS Software and a range of Cisco Wide Area Application Engine (WAE) Appliances and network modules (NMEs) for the Cisco 2800 Series and 3800 Series Integrated Services Routers.

Cisco Application and Content Networking System

Cisco Application and Content Networking System (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 Services Help 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/applicationservices>

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