



Cisco Borderless Networks

Accelerate Business Innovation by Connecting Customers, Employees and Technology, and Devices - Securely, Reliably, and Seamlessly

The New IT Challenge

Today, IT organizations are facing new challenges. Consumers are getting more educated and more demanding about their shopping experience across all shopping channels and making technology an integrated part of purchase, which requires retail IT to be more strategic. This "My Shopping My Way" expectation are creating complex technology challenges that IT is being asked to solve. Yet in most organizations, IT resources and headcount remain flat. Additionally, consumerization of IT is introducing new devices and risks that IT must manage and balance. But these new consumer devices are powerful tools that can deliver big productivity gains, if harnessed properly.

Cisco® Borderless Networks is designed to help IT balance demanding business challenges and changing consumer expectations promoted by the influx of consumer devices into the retail business processes. Borderless networks help IT evolve its infrastructure to deliver secure, reliable and seamless user experience in a world with many new and shifting borders.

New Business Models

A new generation of hyper connected employees are working in retail. This new generation is multimedia savvy and socially connected. They are conditioned for always-on, instant, anytime, anywhere connectivity using their own devices of choice. They bring highly mobile video devices into the workplace and expect that video will be part of their interaction with employees, customers, and suppliers. Thus, IT must deal not only with new devices and usage models, but also with changing business practices that place huge new demands on the infrastructure.

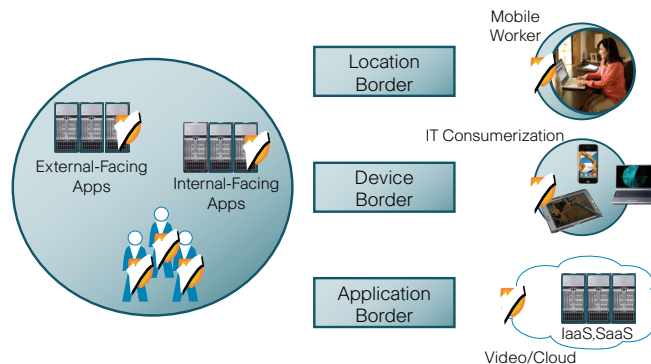
In today's workplace, it is increasingly common that primary business resources, including data centers, applications and end points as well as users, are all outside the traditional business perimeter. Extending business borders around

all these resources and users taxes the IT department. IT simply cannot scale when every project is an exception to traditional IT design and management practices. IT needs a better way to scale and manage users and customers in any location, given those users may be using virtually any device to access almost any application located anywhere in the world. Cisco Borderless Networks enables IT to architect and deploy their systems and policies efficiently to provide secure, reliable and seamless access to resources from multiple locations, from multiple devices, and to applications that can be located anywhere.

Removing Location and Device Borders

The research firm ABI Research estimates that by 2015 more than 7 billion new wireless devices will be connected to the network. There is a dramatic shift occurring toward pervasive wired and wireless access, but many organizations still treat such networks as separate entities. Cisco Borderless Networks provides the framework to unify wired and wireless access, including policy, access control, and performance management across many different device types. (See Figure 1.)

Figure 1. Shifting Business Borders



Enabling Secure Access Anywhere with Any Device

The way users access information is also shifting. In the past, data and applications were housed on premises, and users were also generally on premises. Today, many organizations tap into talent pools all around the world. Workers might be full-time remote employees or contractors. Applications might be hosted off-site or even in the cloud. But traditional IT still treats these crucial resources as internal entities.

With Cisco Borderless Networks, IT can unify its approach to securely delivering applications to users in a highly distributed environment. The crucial element to scaling secure access is a policy-based architecture that allows IT to implement centralized access controls with enforcement throughout the network, from server, to infrastructure, to client.

A New Technical Architecture

At the heart of borderless networks is a technical architecture that leverages the ubiquity of networks to link users, devices, applications and business processes. The architecture enables IT to innovate faster while providing control in an environment that includes suppliers, customers and employees.

The Cisco Borderless Network Architecture delivers two primary sets of services: network services and user/endpoint services, all managed by a comprehensive and integrated management solution. Network services are end-to-end services delivered by the infrastructure that encompass routing, switching, mobility, security, and WAN optimization components:

- Multimedia optimization with [medianet](#): Scales and prioritizes multimedia with any device to partners, customers, and employees to optimize user experience.
- Energy management with Cisco [EnergyWise](#): Measures, controls and reports energy usage on IT and non-IT



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devices from Cisco and a broad eco-system of partners to reduce energy costs.

- Security with [TrustSec](#): Provides pervasive, consistent policy-based access and link-layer encryption to protect corporate assets and reduce risk.
- Mobility with [Motion](#): Provides seamless mobility and self-healing wireless access to improve workforce productivity.
- Application performance with [Application Velocity](#): Improves speed and availability of any application to increase business continuity and employee productivity.

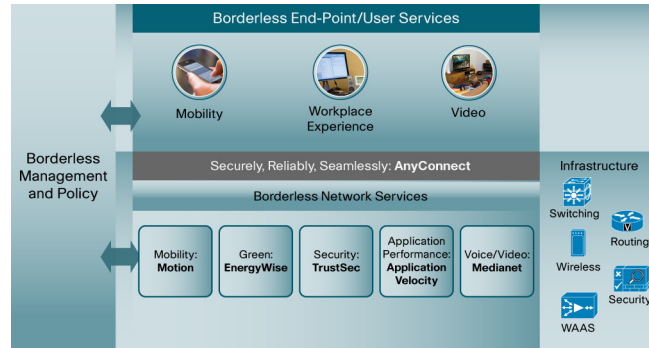
Endpoint/user services, even though they are the functions of the network, define the user experience and enable the attributes of secure, reliable, and seamless performance on a broad range of devices and environments. Cisco AnyConnect is an example of device software that delivers secure, persistent, policy-based access for a seamless user experience.

Policy and Management with Cisco Prime Network Control System (NCS): Provides converged management of users, policies and operations to increase IT efficiency and lower total cost of ownership.

A Platform for Business Innovation

The Cisco Borderless Network Architecture (Figure 2) creates agility to , improve customer experience andand improves workforce productivity. Borderless Networks holistically and extensibly link together users, devices, applications, and business processes with the network.

Figure 2. Cisco Borderless Network Architecture



What Are the Benefits of the Cisco Borderless Network Architecture?

In addition to addressing primary business and IT challenges, Cisco Borderless Networks provide:

- A robust network platform capable of delivering real-time collaboration experiences to any device
- Transparent mobility with location services for anytime, anywhere communications
- Security for devices both on the local network and across cloud services
- Sustainability and reduced energy costs for efficient and cost-effective business operations
- Optimized application performance for rich-media applications
- Policy-based access control and identity-aware networking to enable access and collaboration while protecting business-critical applications
- Compliance with current and future government and industry regulatory requirements

More Reasons for Implementing a Cisco Borderless Networks

In addition to the technology benefits already cited, some additional benefits of adopting Cisco Borderless Networks include:

- Relevance: Cisco has expertise in the retail industry to help ensure technology solutions fit the specific needs and requirements of your business.
- Operations: Cisco delivers well-tested, thoroughly documented solutions that reduce time to deployment and help lower systems integration costs.
- Professional and support services encourage borderless network innovation by taking an architectural approach to delivering IT-based solutions. Services from Cisco and partners provide planning, design, and implementation services, as well as award-winning technical services and optimization, so that the network is robust and secure. These services also help to meet industry and regulatory compliance requirements, while also supporting collaboration, sustainability, and operational cost reduction objectives.

Additional Resources

- Cisco Borderless Network Architecture: <http://www.cisco.com/go/borderless>
- Cisco professional and support services: <http://www.cisco.com/go/services>
- Cisco Retail Site: <http://www.cisco.com/go/retail/>
- Cisco PCI 2.0 for Retail Solution: <http://www.cisco.com/go/pci2>