

Juniper Networks Branch Office Solutions

Providing Fast, Secure and Reliable access for Branch Office Workers

Challenge

Nearly 90 percent of employees outside company headquarters require immediate access and consistent response times from centralized business applications and resources.

Solution

Juniper Networks IP infrastructure solutions for the branch office deliver the performance, scalability, flexibility, security and management capabilities required to make branch office users more productive members of the corporation.

Benefits

- Protect valuable network resources
- Improve productivity by delivering LAN-like application performance
- Ensure business continuity and disaster recovery
- Reduce costs by lowering investments in hardware, software and operations

According to a 2006 report from Nemertes Research, approximately 89 percent of employees work away from company headquarters. During the same period, Forrester Research reported that 51 percent of firms considered server centralization and data center consolidation a key priority, since increasingly stringent regulatory requirements are making data management and archiving a vital requirement for enterprises. These employees require immediate access and consistent response times from centralized business applications and resources.

Unfortunately, most existing branch office infrastructure solutions cannot meet current requirements for performance, security and connectivity, nor do they provide the centralized management capabilities critical for regulatory compliance, reducing costs and streamlining operations. To meet today's increasing challenges, companies in every industry are demanding consolidated and centralized management solutions that help reduce the time and resources devoted to keeping branch offices online and operational.

The Challenge

Nearly 90 percent of employees currently work away from company headquarters. Because of this, ensuring fast and consistent response times for distributed users accessing centralized applications and resources is now more critical to business productivity than ever before. According to a 2006 Nemertes research report, the average growth in branch office locations is 11 percent per year. The increased adoption of IP telephony and video applications, as well as the deployment of new applications and the Webification of existing applications, is driving an increasing demand for higher bandwidth. According to a 2006 Forrester Research survey, 46 percent of all firms in North America have installed IP telephony systems and 39 percent use voice over IP (VoIP) to communicate with remote offices. Security is always a pressing concern for firms. FBI/CSI statistics reveal that 72 percent of all companies surveyed reported at least one security incident in 2006. Also, the 2006 Forrester Research survey found that 57 percent of all firms consider "upgrading the security environment" a top priority.

In short, the network infrastructure in most branch offices today can no longer satisfy the need for seamless connectivity and LAN-like application performance over the WAN, end-to-end security, and simplified, centralized management. Highly skilled IT resources must be onsite to support the growing number of devices and services in the branch. While a change is often needed, network upgrades tend to be disruptive and put a strain on local network capacity. Any interruption of network operations impairs productivity in the branch, which in turn negatively impacts business.

To avoid these disruptions, IT leaders around the world are searching for a branch office solution that not only ensures fast and consistent response times for centralized business applications and resources, but also streamlines operations and the rollout of new applications and technologies through centralized management and consolidation. Juniper Networks offers a comprehensive solution by delivering a proven IP infrastructure for branch offices that provides the level of performance, flexibility, security and intelligence required to increase branch office user productivity.

Juniper Networks Comprehensive Branch Office Solutions

Juniper offers best-in-class technologies and integrates them intelligently into key solutions. Juniper Networks branch office solutions encompass a broad portfolio of products that work together to meet the critical needs of the branch and enable the roll out of new applications. The key attributes of these solutions include:

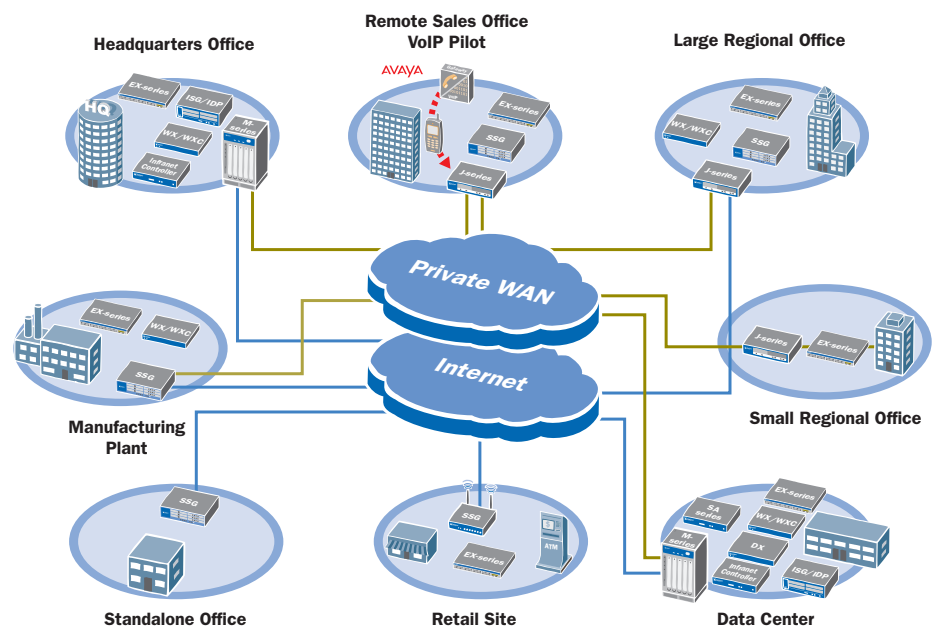
- Performance and scalability
- Reliability and flexibility
- Advanced security
- Operational simplicity

Performance and Scale

Juniper's branch office solutions consist of flexible and scalable products that can accommodate the needs of everything from a single teleworker to a large regional branch office. These solutions offer flexible configurations and price points that meet the needs of all branch offices regardless of size, while delivering high-performance throughput with all services enabled including firewall, unified threat management (UTM), VPN, MPLS, IP version 6 (IPv6), and Connectionless Network Service (CLNS). This enables enterprises to roll out new applications without requiring expensive future upgrades to their network. On average, Juniper's branch office application acceleration platforms improve the performance and response times of IP-based applications by 5 to 10 times while increasing effective WAN bandwidth capacity from four to 50 times. Juniper's platforms also optimizes application delivery with quality of service (QoS) and bandwidth management capabilities, while providing full visibility into WAN, device and application performance.

Reliability and Flexibility

Juniper delivers proven reliability with support for a variety of High Availability (HA) options, including active/passive, active/active and active/active full mesh solutions. Juniper's branch office products support stateful failover for both firewall and VPN to ensure high availability of network resources. Administrators benefit from a wide range of connectivity options, such as on-board Gigabit Ethernet ports, expandable WAN and LAN ports, highly available virtual chassis for LAN switches, and a voice-enabled backplane for third-party voice modules and interfaces. Because it is open and standards-based for incremental deployment on any network, Juniper's branch office solutions enable a flexible deployment strategy that meets the needs of growing businesses while maximizing investments in existing infrastructure.



Incorporating Branch and Remote Offices into the High-Performance Enterprise

Advanced Security

Juniper’s branch office solutions integrate proven security and WAN connectivity to deliver high-performance throughput for multiple WAN connection interface types. This solution protects data traveling to and from the branch office at all vulnerable points with stateful firewall and IPSec VPN, Intrusion Detection and Prevention (IDP), UTM capabilities like anti-virus, anti-spam and Web filtering, virtual security zones and access control. Furthermore, the integrated security appliances also act as enforcement points when enterprises look at deploying network access control (NAC) solutions for granular policy enforcement.

Operational Simplicity

Juniper’s branch office solutions offer rapid deployment capabilities that do not require a skilled resource to install. All Juniper routing and switching devices run the carrier class JUNOS™ software, which is a single code base, single release and single train of software that simplifies product lifecycle management. Furthermore, all products support centralized data storage for compliance and forensics purposes, as well as robust logging and reporting capabilities and unified management of all logged data. The solutions provide real-time monitoring capabilities along with role-based administration for complete flexibility in access control and rights assignment. In addition, the best-in-class centralized management tools deliver easy and centralized configuration, as well as management and monitoring capabilities that reduce management complexity and costs.

Features and Benefits

Feature	Benefit
Routing	<ul style="list-style-type: none"> • Provides reliability and ease of management. • Flexible interfaces deliver secure, reliable network connectivity. • Designed to support a diverse set of network applications, while providing unmatched reliability, performance and value. • Runs modular JUNOS software with advanced services (MPLS, IPv6, QoS, multicast) and security (stateful firewall and IPSec VPN) by default.
Switching/LAN Connectivity	<ul style="list-style-type: none"> • Integrated switching modules as part of the J-series Services Routers and SSG products enables a single appliance deployment for small locations • High-performance, compact standalone Ethernet switches that offer carrier-class reliability in cost effective switching platforms • Fixed-configuration and highly scalable virtual chassis (stackable) configurations support a broad range of requirements (including port density, Power over Ethernet [PoE] and HA) • Simplified device management using the same JUNOS software as other Juniper devices
Firewall/VPN	<ul style="list-style-type: none"> • Purpose-built, security-specific platform delivers high-performance security and LAN/WAN connectivity at regional and branch offices • Proven stateful firewall and IPSec VPN for secure site-to-site connectivity • Extensible I/O architecture delivers LAN and WAN connectivity options • Designed for widely distributed enterprise security deployments or service provider-managed security services • Security zones, virtual LANS, and virtual routers facilitate the division of the network into secure domains to protect key resources
UTM	<ul style="list-style-type: none"> • SSG devices support a full set of UTM features including stateful firewall, IPSec VPN, Deep Inspection, anti-virus (anti-spyware, anti-adware and anti-phishing), anti-spam, and Web filtering that protects against worms, spyware, trojans and malware • Integrated Deep Inspection-based intrusion prevention functionality prevents application level attacks
Network Access Control	<ul style="list-style-type: none"> • Centralized deployment of unified access control (UAC) appliance with localized policy enforcement for branch offices provides increase security • Combines identity-based policy and endpoint intelligence to give enterprises real-time visibility and control across the entire network
Network Access Control	<ul style="list-style-type: none"> • Combines identity-based policy and endpoint intelligence to give enterprises real-time visibility and policy control throughout the network.
IP Telephony	<ul style="list-style-type: none"> • J-series Services Routers support a full featured integrated Avaya IG550 voice gateway and interface modules, allowing consolidation of branch office routing, security, switching and IP telephony functionality in a single device • End-to-end QoS support combined with PoE (EX-series switches) enables seamless deployment of IP phones
Application Acceleration	<ul style="list-style-type: none"> • WAN application acceleration (WX/WXC) platforms provide a scalable solution that delivers throughput speeds from 64 Kbps to 155 Mbps • Increases branch office productivity by accelerating all IP-based applications by an average of 5 to 10 times • Increases WAN capacity by 4 to 50 times, delivering a highly favorable return on investment while supporting new application rollouts without requiring network or bandwidth upgrades • Offers QoS, bandwidth management and path optimization capabilities to ensure effective delivery of delay-sensitive data like voice and video as well as business-critical applications • Provides complete visibility into WAN and application performance • Enables IT initiatives such as server centralization and data center consolidation, deployment of new applications, Webification of applications and data replication over the WAN • Reduces costs for server hardware and operation, application software licenses, and WAN communication services.

CORPORATE HEADQUARTERS
AND SALES HEADQUARTERS
FOR NORTH AND SOUTH AMERICA
Juniper Networks, Inc.
1194 North Mathilda Avenue
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or 408.745.2000
Fax: 408.745.2100
www.juniper.net

EAST COAST OFFICE
Juniper Networks, Inc.
10 Technology Park Drive
Westford, MA 01886-3146 USA
Phone: 978.589.5800
Fax: 978.589.0800

ASIA PACIFIC REGIONAL
SALES HEADQUARTERS
Juniper Networks (Hong Kong) Ltd.
26/F, Cityplaza One
1111 King's Road
Taikoo Shing, Hong Kong
Phone: 852.2332.3636
Fax: 852.2574.7803

EUROPE, MIDDLE EAST, AFRICA
REGIONAL SALES HEADQUARTERS
Juniper Networks (UK) Limited
Building 1
Aviator Park
Station Road
Addlestone
Surrey, KT15 2PG, U.K.
Phone: 44.(0).1372.385500
Fax: 44.(0).1372.385501

Copyright 2008 Juniper Networks, Inc. All rights reserved. Juniper Networks, the Juniper Networks logo, NetScreen, and ScreenOS are registered trademarks of Juniper Networks, Inc. in the United States and other countries. JUNOS and JUNOSe are trademarks of Juniper Networks, Inc. All other trademarks, service marks, registered trademarks, or registered service marks are the property of their respective owners. Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

Solution Components

Product/Technology	Teleworker, Standalone Small Office	Small Branch (less than 20 users)	Medium Branch (20-100 users)	Large Branch (more than 100 users)
Routing		J2300 J2320	J2320 J2350	J4350 J6350
Switching	Integrated into J-series and SSG family	Integrated into J-series and SSG family EX 3200	EX 4200 virtual chassis	EX 4200 virtual chassis
Firewall/VPN with intrusion prevention and full UTM features (anti-virus, anti-phishing, anti-Spyware, anti-adware, anti-keylogger, anti-spam, Web filtering)	SSG 5 SSG 20 (optional-wireless)	SSG 20 SSG 140	SSG 140 SSG 300 Series	SSG 500 Series IDP 50 IDP 200
Identity-based Access Control	UAC – deployed at central site with firewall as enforcement points			
WAN Application Acceleration		ISM module integrated into J-series WX 15	ISM module integrated into J-series WX 20 WXC 250	WX 50 WX 60 WXC 500 WXC 590
Centralized Management	NSM for security WX Central Management System (CMS) for WAN Application Acceleration Junoscope for enterprise routers			

Summary—Making Branch office Users More Productive

By providing consistent, fast and secure response times for branch users accessing centralized business applications and resources, Juniper Networks branch office solutions enable companies to meet the needs of both customers and employees by incorporating branch and remote offices into the real-time enterprise. The solutions' integrated architecture gives branch and remote-office employees seamless, real-time access to essential information, applications and resources to keep business operations running smoothly across the enterprise, leading to greater overall productivity and profitability. The solutions include best-in-class management tools with easy and centralized configuration, management and monitoring capabilities that reduce management complexity and costs.

For more information about Juniper's branch office solutions, please contact your Juniper Networks sales representative or visit www.juniper.net.

About Juniper Networks

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at www.juniper.net.



To purchase Juniper Networks solutions, please contact your Juniper Networks sales representative at 1-866-298-6428 or authorized reseller.