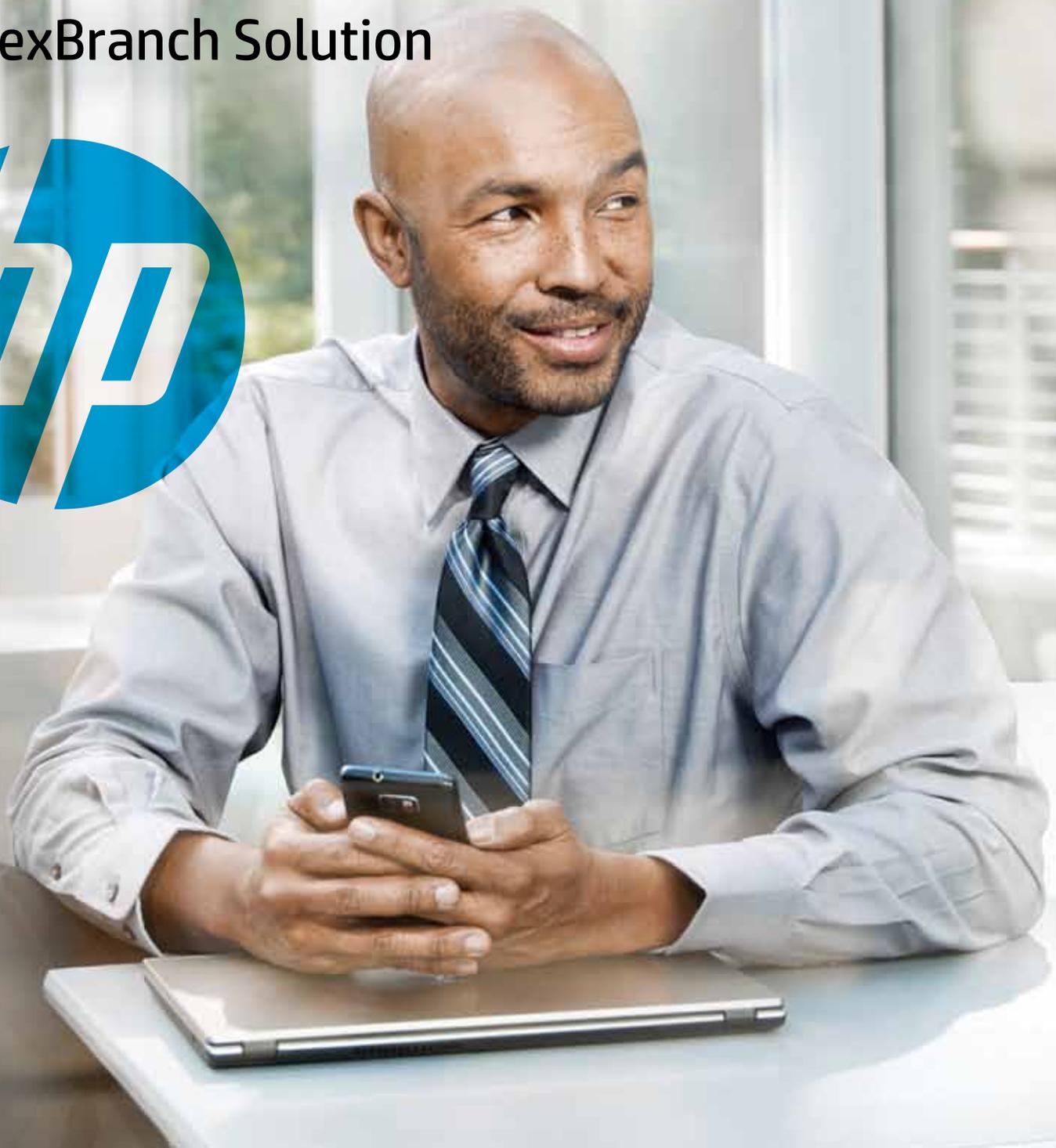


Solution brief

# Transform branch user experience

HP FlexBranch Solution



## Is your branch office network optimized for success?

The branch office plays an important role in an organization's ability to attract, service, and retain customers. Branch office employees—the face of the corporation—can significantly impact customer satisfaction and loyalty; particularly if supported by safe, dependable, and fast access to the corporate knowledge base (people, resources, and information); and productivity-enhancing tools. In addition, with today's increasing security vulnerabilities, branch office networks must be protected by comprehensive security policies and enforcement to help ensure business continuity.

Despite the critical nature of the branch office, legacy infrastructures often impede customer service with slow, unreliable access to information and applications. Poor WAN performance can prompt employees to store data locally, preventing it from being backed up and putting the business and regulatory compliance at risk if a local device fails. The high cost of maintaining IT staff in a branch prevents most organizations from having local support. As a result, branch office employees end up managing and troubleshooting systems, decreasing productivity, and taking the focus away from the customers.

Businesses are looking to deploy productivity-enhancing solutions to improve collaboration in their branch offices. IT must deliver new functionality to branch offices seamlessly without sacrificing the performance and availability of business and productivity applications. To optimize resources, reduce cost of IT operations and faster time to service delivery, organizations are delivering services from the cloud. These services are no longer local to the branch but delivered from distantly hosted cloud infrastructure. A salesperson, for instance, needs fast and reliable access to corporate systems when a customer is ready to place an order. A retail outlet requires instantaneous, trustworthy access to credit card networks to process a transaction. And a healthcare worker might need quick, reliable, and secure access to vital medical records to treat a patient.

Mobile access is demanded at an ever-increasing pace especially in the branch. The concept of Bring Your Own Device (BYOD) is making a strong foothold into corporate world. All of these devices have different security protocols as well as connectivity requirements.

However, organizations will need to control access to and provide appropriate applications for these mobile devices and managing them will certainly be challenging.

Many branch offices were built in isolation and may lack the interoperability needed to cost-effectively support business activities and growth. They are further shackled by a complex mixture of legacy network infrastructures that are expensive to expand and maintain. At a time when competitive requirements include the implementation of new services such as mobility and unified communications—as well as rapid access with enhanced security to applications and virtualized services—businesses struggle to efficiently scale, manage, and secure their networks. In an era where the role of IT organizations is changing from service provider to service broker. IT is obtaining the services from sources like cloud, outsourced, hosted and in-house. This requires that the underlying branch network be agile and support the changing needs.

## HP FlexBranch solution: Primed for innovation

Enterprises are optimizing service delivery and shifting focus from operations to innovation. They are embracing a centralized computing model that encompasses predictable application delivery, easy management, and comprehensive security. Dedicated application servers are migrated to consolidated data centers or services moved to hybrid cloud. This new, service-centric model is needed across the entire extended enterprise to improve customer service, employee productivity, and business outcomes. The solution is best delivered by an HP Converged Infrastructure that brings together IT silos into pools of virtualized assets, shared by many applications and services. The HP FlexNetwork architecture provides the foundation for interconnecting all enterprise systems and applications in the HP Converged Infrastructure.

The HP FlexBranch solution converges network functionality with services, enabling branch office employees to enjoy the same fast and reliable access to data and applications as workers at the main office. This superior user experience includes use of data, voice, video, and unified communications, as well as collaboration tools.

## Reduced complexity

The standards-based, integrated HP FlexBranch solution dramatically simplifies branch office deployments and centralizes management. It converges network connectivity and network applications within a single network platform, reducing the need to have multiple appliances in the branch. In addition, centralized, single-pane management streamlines operations, decreasing the need for multiple management stations and support of a variety of devices, configuration policies, and access rights.

The HP FlexBranch solution has multilayered security—perimeter security with integrated firewall and IPsec VPN/Dynamic VPN (DVPN) capabilities; interior protection with Threat Management Services (TMS); wired and wireless Intrusion Prevention Systems; and centrally managed Network Access Control integrated with Intelligent Management Center (IMC)—all of which work together to deliver robust enterprise-wide security.

## Enhanced business agility

The rapid rollout of new applications and services to the branch is imperative to maintain a competitive advantage and retain customers. The HP FlexBranch solution is designed to scale up as business demands change so that enterprises can quickly adapt to changing business requirements, dynamically scaling capacity and provisioning connections to deploy new services.

Services can be virtualized within the open network platform, enabling faster time to service delivery for the branch users. VMware vSphere 5 and Citrix XenServer hypervisors are integrated within network modules enabling customers to deploy new applications and services easily without the need for additional appliances. The branch virtual environment can be remotely managed with the same tools used to manage the virtual data center environment.

With AllianceONE partner solutions, we deliver the choice of best-in-class solutions to meet changing business needs. These solutions—including integrated WAN optimization, which

helps enterprise enhance WAN performance, Survivable Branch Communication, and SIP-based Unified Communications applications can increase employee productivity as business-critical applications and communications are provided with increased efficiency.

## Lower costs

The HP FlexBranch solution was purpose-built to lower total cost of ownership. Open platforms enable the use of advanced, industry-leading technologies that remove expensive vendor lock-in, enable simplified and flexible deployment, and provide investment protection. They free enterprises to select products and solutions that are right for their business and budget. Converged WAN routing, switching, security, wireless, and voice services all in one box (MSR) reduce operating and capital cost with fewer devices to manage and deploy. Performance- and productivity-boosting solutions such as WAN optimization, integrated DHCP, DNS, Active Directory, print services further decrease operational costs, reducing the need for costly WAN bandwidth upgrades and server infrastructure. Capital and operating expenses such as power and space requirements, are reduced through the integration of functionality in one device. Enterprise-wide unified management and centralized policy administration ease the need for remote IT staffing, reducing travel time, and cost while providing enhanced efficiency and functionality. In addition, HP Networking solutions are engineered to be energy efficient, consuming up to 50 percent less power than leading competitor systems<sup>1</sup>—lowering an organization's carbon footprint while providing unmatched performance.

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<sup>1</sup> Lab Testing Summary Report 100108, Miercom, January 2010.

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Here are a few examples of how the HP FlexBranch Office solution can help meet specific business needs.

## Scenario 1 (Branch office with less than 20 employees)

Employees in a small branch office require email, file sharing, local printing, and Internet access, in addition to secure access to the corporate network. The branch has a firewall and a site-to-site virtual private network (VPN) over a broadband connection for encrypted access to the headquarters' network. Email is usually hosted in the corporate data center (DC).

### Challenges

Inefficient WAN speed is affecting productivity, slowing access to main office file shares, and creating intermittent login problems. Frequent local network issues and a lack of reliable backup are jeopardizing the security of important customer data. Unreliable printing is forcing frequent reboots to clear the queue. There is no IT staff on site.

### Solution benefits

- Improved LAN reliability and performance
- Remote management capabilities
- Dramatically improved file access times

- Faster logins with enhanced security
- File storage with regular backup
- Automatic offsite data replication for disaster recovery protection

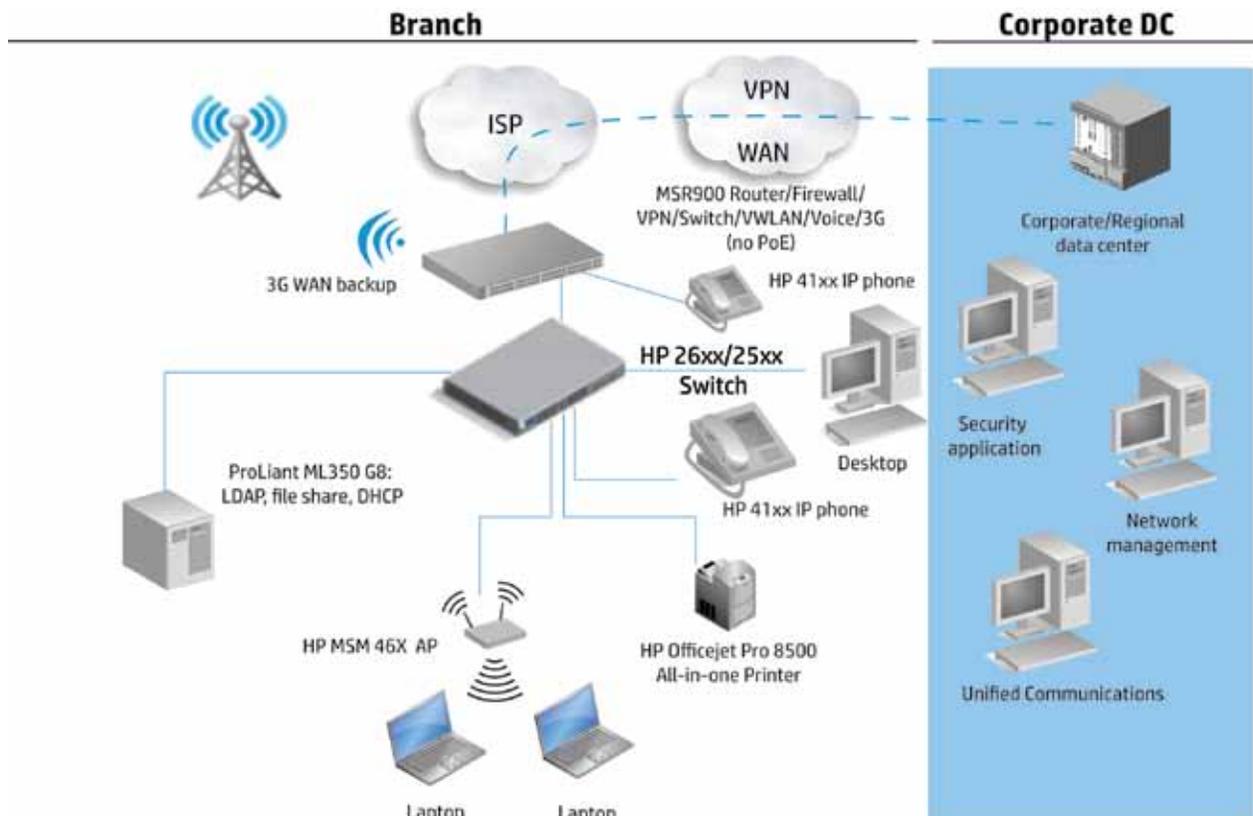
### Solution features

- WAN router with integrated firewall, VPN, Ethernet switch, voice, WLAN, and 3G WAN
- Near Gigabit speed 802.11n WLAN
- Infrastructure server (DHCP, print, and file services)
- Remote management
- Perimeter security
- Internet access with split tunneling
- Storage with remote backup

### Solution components

- HP MSR900 Multi-Service Router
- HP 2620-24-PoE+/2520-24G-PoE/2910 24G POE al switch
- HP MSM 46X Access Point, managed centrally from a controller in the corporate DC
- Intelligent Management Center (IMC) with Branch Intelligent Management System (BIMS) in Data Center
- HP ProLiant ML350 G6 Server for the branch office
- HP Officejet Pro 8500A All-in-one Printer

Figure 1: FlexBranch office with less than 20 employees



## Scenario 2 (Branch office with 20–50 employees)

A large corporation has multiple branches, several of which offer extended hours. There is a domain controller and file/print server at most branches and locally delivered business applications at some of the branches. Email is hosted in the corporate data center and made available over the WAN. WAN connectivity requires higher bandwidth with robust security. Some enterprises may have a VoIP communications rather than traditional PBX system for voice services.

### Challenges

Due to the critical mass of employees, the branch office experiences slow application performance and poor reliability. Lack of reliable backup and time-consuming file restores are causing productivity issues. Storage growth is exceeding disk space, and IT staff is spending too much time managing these and other issues. Additionally, plans are being developed to deploy VoIP and video in all branches.

### Solution benefits

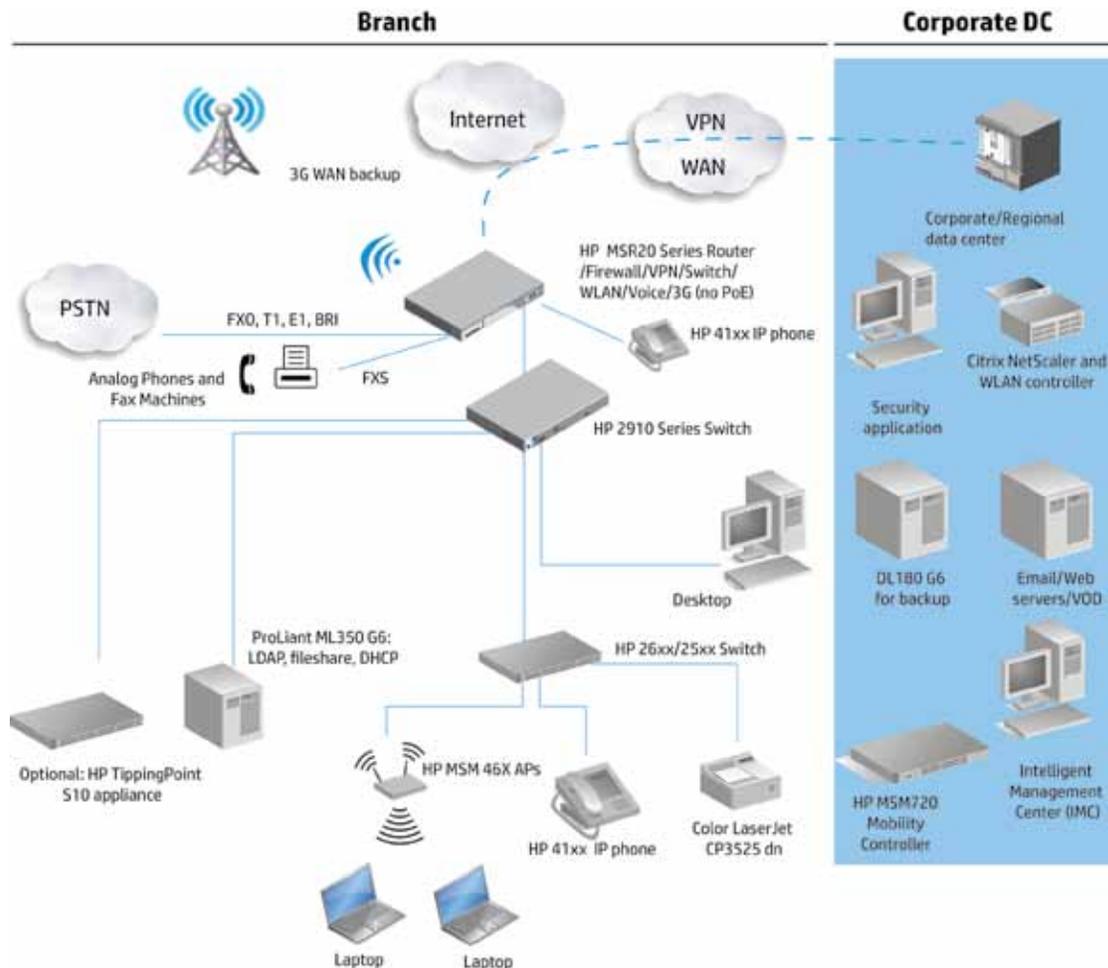
- Dramatically improve application delivery with high speed WAN
- Single pane of glass remote management
- Enable offsite disaster protection with data snapshots replicated to the main office
- Pervasive security with firewall and deep packet inspection
- Help optimize power needs with PoE and EEE

### Solution features

These are incremental to the features listed in scenario 1:

- Modular WAN router with integrated firewall, VPN, Ethernet switch, voice, WLAN, and 3G WAN
- Near Gigabit speed 802.11n WLAN
- Integrated security
- Remote management with IMC-BIMS
- Guest access
- Local DNS, DHCP, print, AD services
- PoE/PoE+ for VoIP phones and WLAN APs
- Efficient storage with auto backup
- Virtual servers

Figure 2: FlexBranch office with 20–50 employees



### **Solution components**

- HP MSR30 Multi-Service Router
- HP 2910-24G-POE+ al Switch
- HP TippingPoint 10 Intrusion Prevention System
- Intelligent Management Center with BIMS in Data Center
- HP MSM 46X Access Point (802.11 a/b/g/n access points are managed centrally from the controller in the corporate DC)
- HP ProLiant ML350 G6 Servers with Microsoft® Hyper-V
- HP X1500 G2

## **Scenario 3 (branch office with 50–100 employees)**

Each regional office has 6 to 10 servers that provide secure local Internet access, as well as file, print, email, application, and networking services. Video must be downloaded from corporate headquarters and streamed to multiple locations in the branch every day. Each remote location is supported by its own IT staff with one or two variously skilled employees.

### **Challenges**

Several branch offices were acquired through recent mergers, resulting in a fragmented network and inconsistent implementation of security policies and management. With multiple brands and models of servers, asset control and manageability have become critical issues, and storage growth is exceeding disk space capacity.

### **Solution benefits**

- Consistent and predictable performance with high availability for access to applications and services, enhanced productivity, and improved customer service
- Faster time to new service deployment with virtualization
- Unified management and advanced security services that reduce administrative burdens and deliver more robust data protection
- Server consolidation with time, power, and cooling advantages that save space and reduce costs
- Dramatically simplified storage management to reduce the need for specialized IT expertise

### **Solution features**

These are incremental to the features listed in scenarios 1 and 2:

- High-performance modular WAN router with integrated firewall, VPN, Ethernet switch, voice, WLAN, and 3G WAN
- Improved local Internet security
- Efficient storage with deduplication
- Virtual server on BladeSystem
- D2D backup and recovery
- Local DHCP, DNS, Active Directory and print services

### **Solution components**

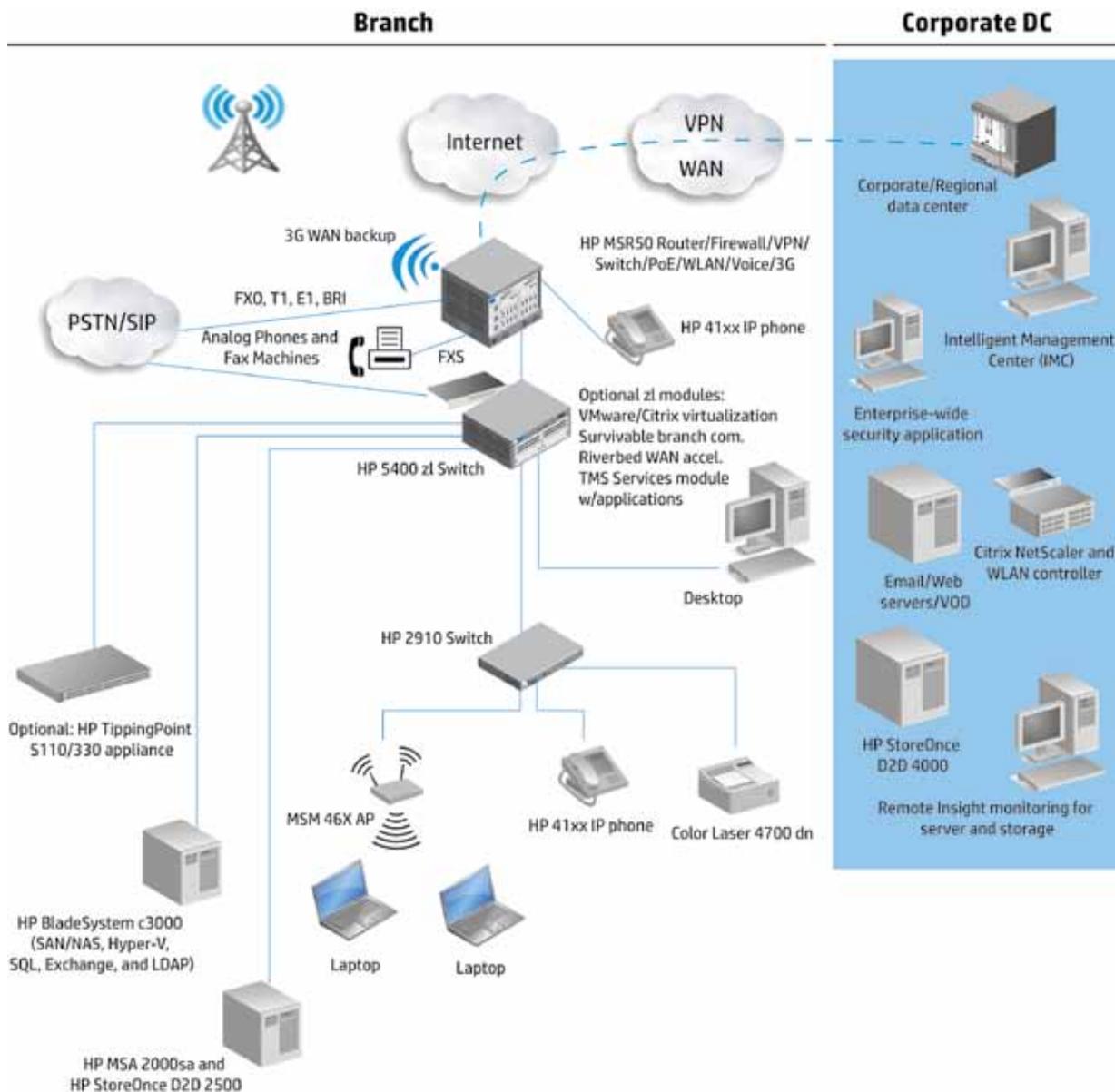
- HP MSR50 Multi-Service Router
- HP 5400 zL Switch
- HP Survivable Branch Communication Services zL Module with Microsoft Lync Server 2010
- HP Advanced Services zL Module with VMware(R) vSphere(TM) Platform
- HP Advanced Services zL Module with Citrix XenServer(TM) Platform
- HP Threat Management Services zL Module
- MSM720 WLAN controller
- HP TippingPoint 110/330 Intrusion Prevention System for in-depth protection
- Intelligent Management Center with BIMS in Data Center
- HP BladeSystem c3000 Enclosure at the regional office with consolidated NAS
- HP StoreOnce D2D 2500 Backup System deployed in branch offices
- HP StoreOnce D2D 4000 Backup System and HP MSL2024 Tape Library (for archive) deployed at the main office
- HP Data Protector software

### Solution components

- HP MSR50 Multi-Service Router
- Modular, high-performing HP 5400 zl Switch
- HP Survivable Branch Communication Services zl Module with Microsoft Lync Server 2010
- HP Advanced Services zl Module with VMware(R) vSphere(TM) Platform
- HP Advanced Services zl Module with Citrix XenServer(TM) Platform
- HP Threat Management Services zl Module
- MSM720 WLAN controller

- HP TippingPoint 110/330 Intrusion Prevention System for in-depth protection
- Intelligent Management Center
- HP BladeSystem c3000 Enclosure at the regional office with consolidated NAS
- HP StoreOnce D2D 2500 Backup System deployed in branch offices
- HP StoreOnce D2D 4000 Backup System and HP MSL2024 Tape Library (for archive) deployed at the main office
- HP Data Protector software

Figure 3: FlexBranch office with 50–100 employees



## Industry-leading service and support

### HP Consulting, Integration, and Technical Services

HP Consulting, Integration, and Technical Services organizations have the knowledge and expertise to consolidate solution components into a true branch office solution. Along with extensive experience in consulting, systems integration, architecture, project management, network design, and implementation, these organizations have services that reflect an in-depth understanding of all components of a branch office solution—from the HP portfolio of servers, storage, archiving solutions, networking, PCs, and software, to the various products offered by partners of HP.

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## For more information

### Get a transformed branch office network.

Use HP FlexBranch solution to reduce network complexity, enhance business agility, and reduce costs; visit [hp.com/networking/FlexBranch](http://hp.com/networking/FlexBranch) to know how.

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