

HP Total Care Branch Office Consolidation Solutions

Cut costs, lower risks and gain productivity for your business

Being competitive in a changing world

In the current economic climate, businesses are looking for ways to get the competitive edge by improving the cost structure and raising organisational efficiency. Many have to consolidate branch offices to cut capital and operational expenses, while having to address the critical need to increase the productivity of front line employees at these offices. With more employees responsible for revenue generation and customer relationships being dependent on the consolidated IT infrastructure, it is important to reduce the risks of business disruptions as well.

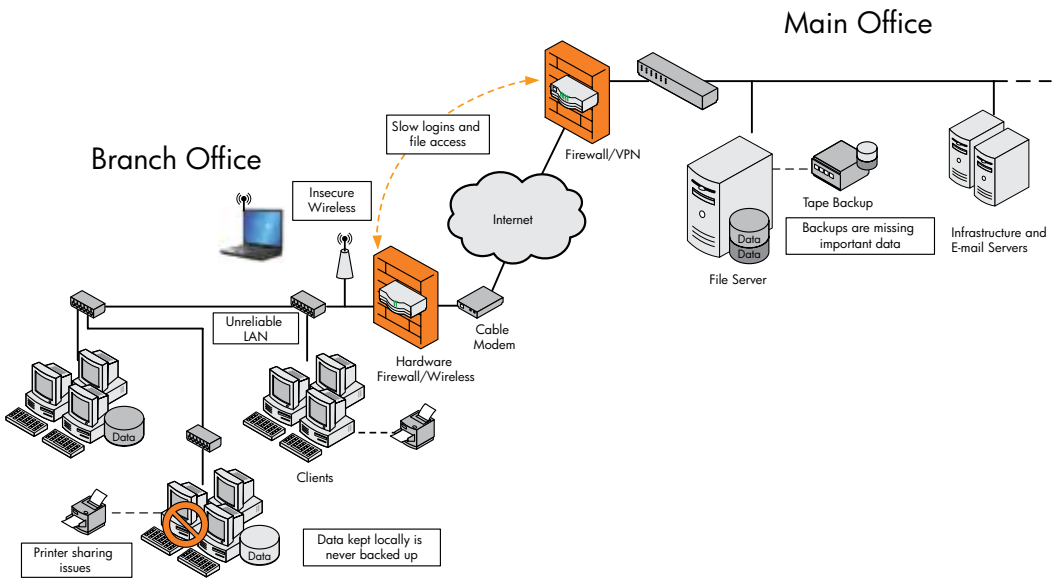
Branch Office Consolidation Solutions for your business

To accelerate your branch office consolidation, HP has developed the solutions to address this specific, critical business event with a focus on lowering your Total Cost of Ownership (TCO) and boosting productivity for both branch office employees and IT staff.

Which scenario fits your business?

Scenario 1: A small consolidated branch office supporting 10-15 employees. As a higher number of employees share a consolidated office, a previous peer-to-peer network can lead to significant inefficiencies, compromised productivity and operational risks. You can easily address these issues by establishing a client-server environment that provides faster, more secure access to data, reliable backup/printing policies and robust network security.

Figure 1A: Small branch office network before implementing HP Branch Office Consolidation Solutions



A small consolidated branch office without HP branch office consolidation solution (Figure 1A)

Small branch offices have the same administrative concerns as larger organisations – they need to protect local data, provide access to vital information stored at the main office, and deliver quick and efficient support. No servers are deployed in the branch office and employees connect back to a server at the main office to access shared company data, e-mail, Web and printing. The branch office has a broadband Internet connection protected by a hardware firewall for the site-to-site VPN to the main office.

Typical challenges

- **WAN speed:** Slow access to the main offices' file shares affect productivity. Employees face login problems intermittently.
- **Lack of reliable backup:** Due to WAN latencies, employees tend to keep important files on their PCs instead of the server. These files are easily forgotten and never get backed-up, posing a risk to business.
- **Unreliable printing:** The shared printers connected to individual PCs slow down the printing process when the PC is in use. Repeated reboots are needed to clear print queues, disrupting work and affecting productivity.
- **Frequent PC support issues:** Client desktops and laptops need frequent upgrades. These machines are a mix of ages, brands and operating systems.
- **Frequent local network issues:** Poor physical network implementation with multiple low-end hubs/switches cascaded around and cables running under desks.
- **Lack of a secure guest wireless:** Lack of a secure method to provide visiting customers/partners Internet access without sharing the private WEP key, making the network vulnerable to threats.

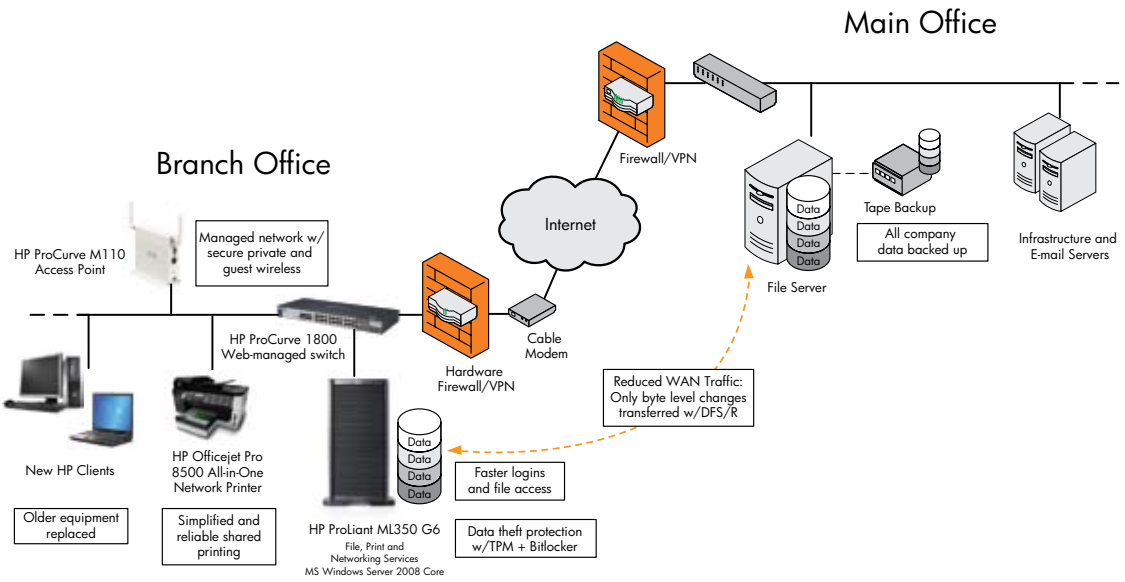
Proposed solution (Figure 1B)

Solution benefits

With a branch server your business can take advantage of the following benefits:

- Dramatically improve file access times with local storage.
- With increased performance, employees can keep data on the server instead of their individual drives.
- The server's operating system, Windows Server 2008, protects your local data with TPM/ Encryption/Server Core, providing faster, more safe logins for employees with Read Only Domain Controller (Read-Only DC).

Figure 1B: Secure, reliable and fast branch office network after implementing HP Branch Office Consolidation Solutions



- Protects against disastrous data losses with automatic off-site data replication using DFS (Distributed File System) replication.
- A network upgrade gives your business improved reliability and performance within the local area network and provides guests wireless access without compromising network security.
- Get the added ability to remotely manage the network with a Web-managed switch.
- The printer and client upgrades help eliminate common printing issues, reduce support costs, and do away with older OS versions on client machines, retiring outdated hardware.

Solution components

- **Deploy HP ProLiant ML350 G6 branch office server with Windows Server 2008 Standard Edition**

Upgrade branch office physical network

- HP ProCurve 1800-24G gigabit Web-managed switch
- HP ProCurve M110 Wireless Access Point – managed, allows second SSID for guest access

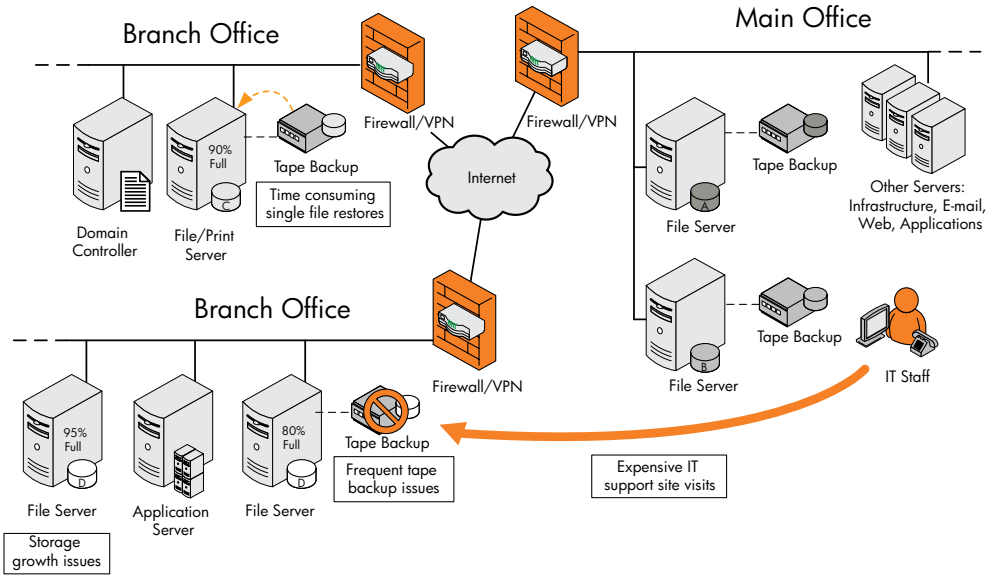
Deploy network printer

- HP Officejet Pro L7700 All-in-One Printer
- Print queues on branch server managed remotely with the Windows Server 2008 Print Management Console

Replace older desktops and laptops

- Implement a purchase/upgrade plan for user workstations
  - New machines deployed with Windows Vista Business Edition
  - Includes HP Backup and Recovery Manager (backs-up data in protected area on hard drive) and HP Total Care Advisor (keeps PCs updated to reduce support issues)
    - HP Compaq dc5800 Small Form Factor PC + 19" Flat Panel Monitor
    - HP Compaq 6730s Notebook PC
  - Upgrade older machines to Windows XP Pro SP3
  - Retire systems unable to run XP Pro SP3

Figure 2A: Backup and storage concerns before implementing HP Branch Office Consolidation Solutions



Scenario 2: A midsize consolidated branch office supporting 25-50 employees. Consolidate to lower IT management costs, reduce risks of catastrophic disruptions and protect valuable data.

A midsize consolidated branch office without HP branch office consolidation solution (Figure 2A)

Most branches of this size have a domain controller and file/print server. Some branches also have a LOB (Line of Business) application that only supports an older operating system.

Backups are done locally and employee e-mail runs on MS Exchange and is hosted at the main office. The existing WAN connectivity has acceptable performance and a reasonable level of security.

Typical challenges

- **Lack of reliable backup:** The branch office faces frequent backup job failures, and has no off-site copy of backups in case of a disaster.
- **Time consuming file restores:** Single file recovery is frequently requested by users, but is often not possible due to backup failures. This means completed work has to be redone or recreated.
- **Storage growth:** Most of the branch offices are running out of disk space, and there is no reliable method to store the growing amounts of data.
- **IT expenses:** IT staff has to often make after-hours, across-town visits to perform server maintenance and deal with backup/restore issues. A lot of time is spent in managing disk space and identifying files for archival. The technology team finds it difficult to do proactive server management, because by the time they are notified about a problem, it is already an emergency. They also have to deal with users complaining of slow network speeds, despite pushing the 100 MB network to its limits.

Proposed solution (Figure 2B)

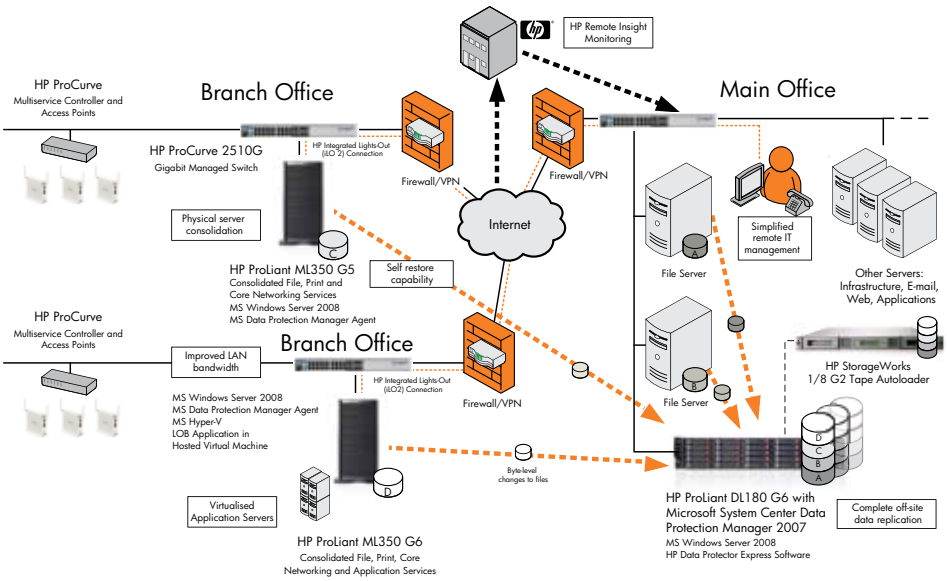
Solution benefits

Server consolidation: With server consolidation you can reduce your physical IT assets and maintenance costs. A virtualised environment eliminates the need for dedicated servers for LOB applications, thereby improving performance, and giving you expandable storage capacity.

Data protection: Your branch office data snapshots are replicated at the main office, providing off-site disaster protection. Users can retrieve previous versions of files from the DPM (Data Protection Manager) without involving the IT staff. The Tape Autoloader helps you with data archiving and off-site tape management from the main office, which further improves IT staff's productivity and reduces IT management expenses.

Remote management: Reduces the cost of site visits and branch office backups. iLO 2 provides remote management capability, further reducing support costs and branch IT staffing requirements. The HP Remote Insight alerts the IT staff of branch office issues, including pre-failure alerts for impending hardware failures, to reduce the risks of unplanned downtime.

Figure 2B: Server consolidation, data protection and remote management after implementing HP Branch Office Consolidation Solutions



Network performance and reliability: A gigabit network improves application responsiveness and the high-availability features protect your infrastructure against failures to boost employees' productivity with faster and reliable access, and lowers the risk of crippling network disruptions.

Solution components
Consolidate and standardise on HP ProLiant ML350 G6 branch office servers with HP Integrated Lights Out (iLO 2) – iLO Advanced Pack for remote management and control, and Windows Server 2008.

Deploy Microsoft System Center Data Protection Manager 2007

- At the main office:
  - HP ProLiant DL180 G6 (WS2008 + SCDPM 2007)
  - HP StorageWorks 1/8 G2 Tape Autoloader
- At the branch offices:
  - Microsoft Data Protection Manager Agent deployed on each branch office server
  - Deploy Microsoft Hyper-V
    - Run virtual machine to host LOB applications where needed in the branch, minimising server count
- Upgrade Network Infrastructure
- Deploy HP ProCurve 2510G managed gigabit switches throughout

Scenario 3: A regional consolidated office supporting 80-100 employees. The aim is to cut cost with consolidating servers and storage; reduce operational risks by standardising the security policy across branches.

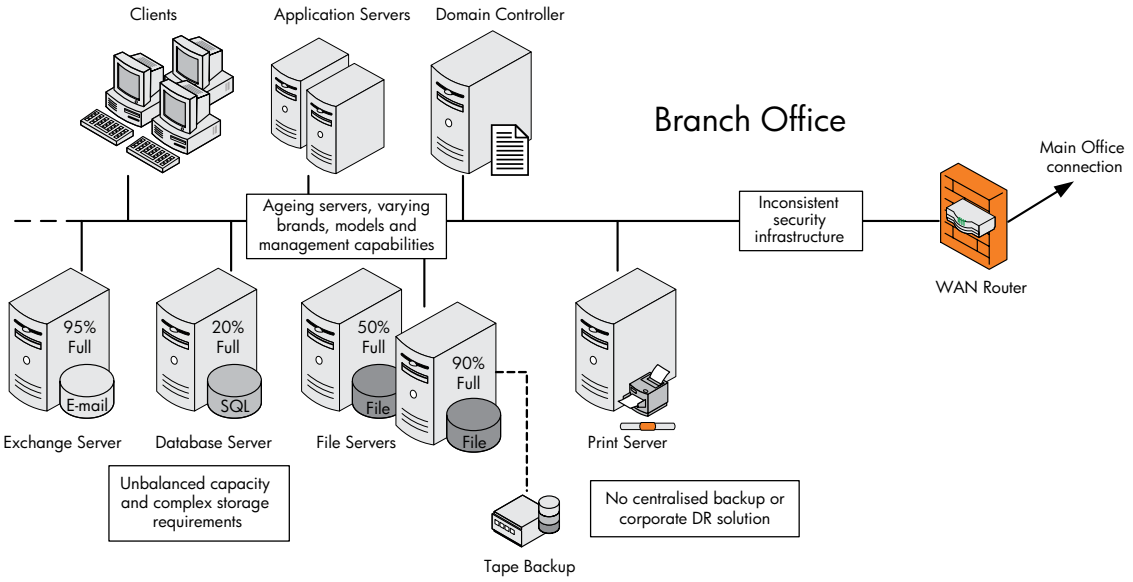
A regional consolidated office without HP branch office consolidation solution (Figure 3A)

This is one of several consolidated regional offices, and has 6-10 servers providing file, print, e-mail, application and networking services. Like other regional offices, it is managed by 1-2 IT staff. The IT staff located at these various branches has varying levels and fields of experience.

Typical challenges

- **Server sprawl:** New sites have many brands/models with different levels of manageability and asset control.
- **Storage growth:** All sites are struggling with disk space issues. These issues extend into file share, database and mailbox storage requirements, and are also growing faster than expected.
- **No corporate data recovery strategy:** Each site has a different approach that varies in complexity and robustness, which introduces inefficiency and unnecessary management overhead.
- **Inconsistent network security:** Due to the merger, there are different firewall/security solutions at each location. This makes it difficult to manage company-wide security policies and increases risks of security breaches.

Figure 3A: Server sprawl and security threats before implementing HP Branch Office Consolidation Solutions



Proposed solution (Figure 3B)

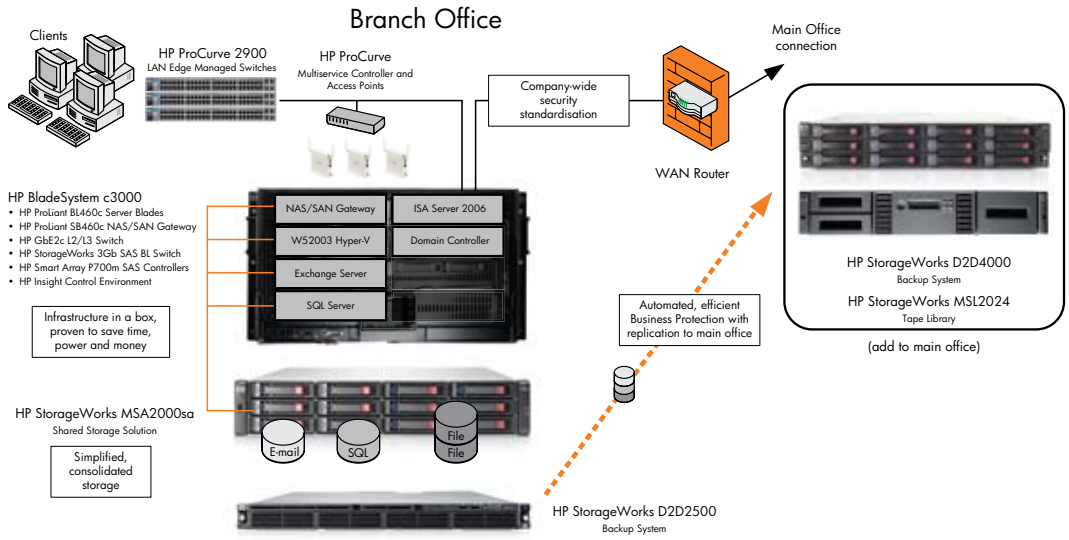
Solution benefits

- **BladeSystem Infrastructure-in-a-box:** Helps with server consolidation, giving you best-in-class manageability (HP Insight Control for BladeSystem), and time, power and cooling benefits to significant drive down Total Cost of Ownership.
- **Storage consolidation:** Eliminate the dedicated file and print servers, and avoid wastage of disk space caused by individual server upgrades. You can dramatically simplify storage management, saving the need for specialised storage IT experts. You can also implement centralised data protection schemes, including replication to corporate headquarters to safeguard against catastrophic disruptions due to data loss.
- **Standardised security:** Improve company-wide network security by simplifying deployment of the security policy. Reduce the need for specialised security expertise at each regional office and provide managed wired and wireless LAN.

Solution components

- **Deploy HP BladeSystem c3000 at regional office with consolidated storage**
  - HP ProLiant BL460 G6 blades for dedicated workloads (SQL, Exchange, DC)
  - HP ProLiant SB460c NAS/SAN Gateway blade for files services front-end
  - HP ProLiant BL460 G6 with Hyper-V for LOB applications
  - HP StorageWorks MSA2000sa attached to HP BladeSystem c3000 for all server storage needs
    - o HP StorageWorks Gb SAS BL Switch and HP Smart Array P700m SAS Controller
  - HP Insight Control
- **Business protection**
  - Deploy HP StorageWorks D2D2500 in branch offices
  - Deploy HP StorageWorks D2D4000 + HP StorageWorks MSL2024 Tape Library (for archiving) at main office
  - HP Data Protector Software
- **Deploy HP ProCurve Switch + Wireless controller + WAPs**
  - HP ProCurve MSM710 Controller
  - HP ProCurve MSM310 Wireless Access Points
  - HP ProCurve 2910 Series Switches to provide enterprise-class feature set with Gigabit connectivity and 10G scalability. PoE/PoE+ functionality enables convergence solution deployment to power devices such as IP phones and Wireless Access points
- **Deploy Microsoft ISA Server 2006**
  - Deploy at each regional office on HP ProLiant BL460c G6 blade
  - Deploy at main office as well
  - Provide a consistent firewall, VPN and Web-caching solution

Figure 3B: Server/storage consolidation, business protection and managed security after implementing HP Branch Office Consolidation Solutions



Leveraging HP ProLiant G6 technology
Given the increased reliance on the consolidated offices, all the above solutions make the most of the latest HP ProLiant G6 technology to help you effectively realise the cost savings and productivity gains from your consolidation. With our ProLiant G6 servers, you can:

Squeeze every ounce of productivity out of your server with smart tools that unite physical and virtual worlds

- Every server comes with a programmable IT admin inside the chassis – HP ProLiant Onboard Administrator for simplified server configuration, secure iLO remote control, and power management
- Reduce administrative expenses by up to US$48,000 for every 100 users with HP Insight Control[1]

Make every server purchase count, demand performance and durability

- Content does not have a downturn letting you effortlessly handle exponential data growth with up to 2X memory, 2X storage and a 200X faster Smart Array
- Maximise server productivity for the long haul, ProLiant's legendary test methods include over 20,000 hours of rigor
- Reduce unplanned downtime by 77% through proactive pre-failure notification
- With limited budgets, uptime is even more critical, depend on HP Insight Remote Support to resolve problems before you even know you had one
- Build the exact service plan you need – no more, no less – with HP Proactive Select, a flexible service access programme based on a simple credit point system

HP Total Care

Your business is constantly evolving. You need to make your next move. And whether that move is large or small, reactive or proactive, it is powered by technology. But you know that technology is more than a product, it is a strategy. You need it all to work together, and you want a partner that understands how it all works – not only the tools but the terrain. That is what HP Total Care is all about.

With HP Total Care, you are working with a partner as sensitive to the realities of your business as we are versed in the tools you need to succeed. We take advantage of the full breadth of the HP product line to develop solutions that target your most critical business events. We put our stability and capital to work for you with financing options that put those solutions in your hands. And we rally our network of industry alliances and global partners to deliver it all, when and where you need it.

[1] Source: IDC paper titled, 'Gaining Business Value and ROI with HP Insight Control'

Benefits of HP Total Care

- **Delivering the value and results you need:** Cash flows both ways. Getting it to flow in your favour is what success in business all about. Whether your goal is to run leaner or flex some muscle, HP Total Care helps you manage your cash streams and control your top and bottom lines.
- **The technology that makes it possible:** You understand technology is a means to an end. And you want a technology partner that can deliver on the strategy as well as the goods. HP Total Care makes the most of the full breadth of the HP product line to bring you the products and services you need, the support you deserve and the solutions that address your critical business events.
- **The experience that makes it obtainable:** Economies change; trends cycle; challenges and opportunities surprise us. Through it all, business happens. All this occurs independent of your cash flow. Get what you need, when you need it. Put the HP stability and capital to work for you with our unbeatable financing options and special offers.
- **The commitment that brings it all together:** When we say HP Total Care is ready to partner with your business, it is not a metaphor it is a commitment. And we are not making it alone. Our network of industry alliances is committed to helping us develop the solutions you need. Our network of global partners is committed to delivering and supporting those solutions.

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programmes to help customers cost-effectively acquire, manage and ultimately retire their HP solutions. For more information on these services, please contact your HP representative or visit:
www.hp.com/go/hpfinancialservices

HP Services

Your business needs to keep up with changes in the economic climate. In order to stay ahead, you need services and support that can scale in the same way your business does.

HP Services can help you manage and evolve your branch office environment so that you can easily handle growth, decrease operational costs and protect data, while reducing risk. Whatever your needs, you can rely on HP and our Authorised Channel Partners to work with you for better results.

HP Installation Service: Provides initial installation of HP branded products – hardware and software, as well as HP-supported products from other vendors.

HP Support Services: Provides integrated hardware and software support services designed specifically for your technology. HP Services engineers deliver reactive on-site hardware support and over-the-phone software support around-the-clock.

Additionally, **HP Care Pack Services** gives you a range of packaged, affordable, best-in-class services that are scaled to your needs. You get complete technology life-cycle support – and expert advice – at an affordable price.

For more information, visit:
www.hp.com/hps/support

www.hp.com/go/carepack

For more information

To see an interactive demonstration of the branch office consolidation and other solutions for midsize businesses, visit: **www.hp.com/go/midbizsolutions**

Technology for better business outcomes

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