Remote office data protection can be a challenge for IT organizations that lack qualified backup administrators or adequate hardware budgets. However, as enterprises expand remote office operations, they cannot risk leaving business-critical data unprotected. Products such as VERITAS Backup Exec™ for Windows Servers and VERITAS Storage Replicator™ software can help make remote office data protection more efficient—and affordable.

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Any organizations invest heavily in protecting business-critical data at headquarters while leaving remote offices less protected—or not protected at all. However, today’s business climate is driving enterprises to institute broader guidelines that protect their assets and minimize the risk of data loss. In response, IT administrators must overcome the challenges of limited staffing and capital budgets to ensure protection of critical business data, meet strict service level agreements, and conform to tough local and federal government regulations—or face potential data loss, revenue loss, or fines.

To protect data and help reduce the cost of backup operations at remote locations that have no on-site administrators, IT organizations may implement one of two strategies for maintaining, monitoring, and troubleshooting backup jobs. First, if tape drives already exist at remote locations, administrators can simplify and automate local storage management for distributed servers using products such as VERITAS Backup Exec™ for Windows Servers software and its Admin Plus Pack Option. Alternatively, organizations that do not need to perform the backup process at each remote location can protect data using products such as VERITAS Storage Replicator™ file-based replication software, which efficiently copies data to a backup server at a centralized location.

Simplifying remote server deployment
Deploying and configuring backup servers can be a time-consuming, labor-intensive process for IT administrators. The Admin Plus Pack Option for VERITAS Backup Exec can help administrators reduce remote backup costs by enabling Backup Exec software—and all desired agents, options, and settings—to be installed efficiently on remote servers using the following methods:

- Manual push installation: Installs unique configurations from a centralized backup server to a single remote backup server over network connections.
- Remote installation with cloned local settings: Duplicates the configuration and settings that are installed on a remote server running Backup Exec software, from which the push operation is performed. This method mirrors the source backup server so that whatever agents, options, and settings are installed on the remote source also are installed on the cloned backup server.
• **Cloned image push installation:** Pushes a previously created cloned image of a unique Backup Exec configuration to another server. This method helps IT administrators improve efficiency when rolling out several similar backup servers.

• **Local silent installation:** Performs backups using a CD image created on a server that contains the desired Backup Exec configuration and settings. This CD image enables administrators to perform an automated, or silent, installation that does not prompt for any local user input. Although this method requires on-site deployment, it simplifies the process and reduces opportunity for error.

Beyond the logistical challenges administrators must address when deploying remote servers, the development and setup of backup jobs can be extremely time-consuming. If several backup servers perform similar functions, the Admin Plus Pack Option for VERITAS Backup Exec can help administrators streamline job creation and distribution for remote servers. Because jobs, job templates, and selection lists can be copied between servers running Backup Exec software, administrators can create these components on one backup server and then copy them to one or more remote backup servers on the network (see Figure 1). The ability to create and distribute jobs on remote servers enables organizations to improve efficiency without requiring on-site IT administrators.

**Managing remote office backups**

Once administrators have completed backup server deployment and job setup, they can begin backup operations. VERITAS Backup Exec ExecView™ software, which is included in the Backup Exec package, provides a Web-based console that enables administrators to monitor jobs, devices, and alerts on hundreds of local or remote servers running Backup Exec software. Management functions include the following:

• Monitoring any backup server’s active, scheduled, and completed jobs
• Pausing and resuming media servers and devices
• Starting scheduled jobs and canceling jobs
• Creating backup server groups
• Receiving and responding to alerts
• Receiving e-mail or pager notifications of events

The ExecView console also enables administrators to manage by exception, so that only errors and failed jobs appear in a particular view or are clearly identified in red. When managing several Backup Exec servers remotely, administrators can improve efficiency by zeroing in on critical errors or exceptions that require review or immediate action.

To assist in the management of remote and branch offices, the Admin Plus Pack Option offers advanced reporting that includes active alerts, alert history, configuration settings, device summary, event logs, media vault contents, and robotic library inventory. Reports can be viewed and printed in HTML format and distributed through e-mail. The capabilities of the Admin Plus Pack Option help IT administrators to track their protection and recovery services and to bill back individual departments on a regular basis.

**Automating real-time data replication**

Traditionally, organizations protect remote office data by deploying tape drives, tape media, and backup software—and by hiring administrators at each location to manage the tape backup process. When qualified backup administrators are not available, organizations may assign untrained employees the task of administering daily tape backup and restore operations. However, relying on untrained administrators to perform backups can increase an organization’s chance for data loss because failed backups may go unnoticed.

An alternative approach to protecting remote office data enables administrators to combine data replication with traditional
backup policies. For example, VERITAS Storage Replicator for Microsoft® Windows NT®, Windows® 2000, Windows Server™ 2003, and Windows Storage Server 2003 operating systems can help administrators efficiently protect their remote office data by replicating data to a backup server at a centralized location. This approach also helps IT organizations reduce costs by eliminating tape drives, tape media, and backup administrators at remote locations. VERITAS Storage Replicator can support hundreds of nodes and replication processes from one centralized console. Administrators simply push Storage Replicator out from the central location to remote offices and manage the remote offices from the central console.

Replication can be performed on all files, including open files, continuously or on a scheduled basis. For continuous replication, Storage Replicator copies a changed block back to the central location every time data is written to a file at the remote office. Alternatively, to maximize network connections for business-critical production servers, administrators can schedule data replication only during off-peak hours. In addition, administrators can restrict the amount of bandwidth that is used for replication to preserve adequate network throughput for production servers.

Once the remote office data arrives at the central location over an IP connection, backup administrators can perform standard backups consistently for all enterprise data and can manage replication jobs at remote offices from the central location. When necessary, central backup administrators can restore remote data over the network without requiring remote office staff to manage and restore the data from tape.

Maximizing resources while reducing costs

Many administrators must strike a balance between implementing cost-saving measures and protecting business-critical data. Backup and data replication packages such as VERITAS Backup Exec for Windows Servers and VERITAS Storage Replicator offer administrators tools to simplify on-site backups and streamline remote office backups. Such tools help administrators reduce the cost of data protection and improve the efficiency of remote office backups through centralized management.

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VERITAS Software Corporation (http://www.veritas.com) is a leading storage software company, providing data protection, application performance, storage management, high availability, and disaster recovery software.