Handy Backup

Use Case

Centralized Backup for Virtual Infrastructure and Physical Servers

Customer:

A public educational institution providing training for emergency management and disaster response professionals.

30	14	MySQL
VMware	physical servers	databases

Задача

The institution uses an IT infrastructure that includes VMware virtual machines, physical servers, and MySQL databases.

The servers host information systems, file resources, service applications, and data required for the educational process and administrative operations.

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VMware	**physical servers**	**databases**

The IT department needed to implement a centralized backup system that would allow them to:

- ✔ centrally manage backups for 45 server nodes
- ✔ protect both virtual and physical servers
- ✔ perform regular backups of MySQL databases
- ✔ restore data to standby hardware when required
- ✔ configure flexible backup schedules
- ✔ store backup copies in encrypted form
- ✔ monitor task execution through logs
- ✔ receive notifications about backup results

Key Challenges

The customer's infrastructure includes both physical servers and VMware virtual machines. Using separate tools for these environments would have increased administrative complexity, requiring independent monitoring of schedules, task statuses, errors, and backup storage.

In addition, the customer needed not only reliable backup creation but also verified recovery readiness. It was important to confirm in advance that backup copies were created correctly, data integrity was preserved, and recovery could be performed on the required hardware when needed.

Solution Implementation

Handy Backup Server Network was selected for the project. The following components were deployed:

1	14	30
central management server	agents for physical servers	agents for virtual machines

All backup tasks are managed through a single administrative console.

Centralized Management

In the Handy Backup console, administrators can create and edit tasks, configure schedules, view logs, get email notifications.

VMware Backup and Guest Data Protection

Full VMware backup tasks and incremental file backup tasks inside the virtual machines have been configured.

Physical Server Backup

Backups include business data, documents, and configurations. Filters allow files to be selected by name, extension, or pattern.

Backup Storage

Data is stored on local and network storage. The solution also supports FTP/SFTP, WebDAV, NAS, and cloud storage.

MySQL Database Backup

Automated MySQL backups are configured for data consistency. They support reliable database recovery.

Encryption, Logs, and Notifications

AES-256 encryption is used to protect backups. Administrators receive email notifications with task results.

Results

After the deployment of Handy Backup, the customer received a unified and scalable backup system for the entire server infrastructure, which provided the following benefits:

- Protection for 45 server nodes, including virtual machines and physical servers.
- Centralized management of backup, recovery, and synchronization tasks.
- Automated backup tasks for MySQL databases, physical servers, and VMware Backup.
- Differential and incremental backup schemes implemented for file-level protection inside VM.
- Backup storage configured on local and network resources.
- AES-256 encryption implemented to protect backup data.
- Email notifications configured for backup task results.
- Recovery testing completed to verify backup integrity.
- Reduced administrative effort required to maintain backup operations.
- A foundation established for future infrastructure growth and scalability.

The deployment was completed without interrupting daily operations and provided reliable data protection in accordance with the organization's infrastructure requirements.

Source: www.handybackup.net/use-case/emergency-management-training-institution.shtml