Acronis® Backup & Recovery ® 10 Server for Linux

Update 5

Installation Guide

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1 Before installation

This section answers questions that might arise before the product installation.

1.1 Acronis Backup & Recovery 10 components

This section contains a list of Acronis Backup & Recovery 10 components with a brief description of their functionality.

Components for a managed machine (agents)

These are applications that perform data backup, recovery and other operations on the machines managed with Acronis Backup & Recovery 10. Agents require a license to perform operations on each managed machine. Agents have multiple features, or add-ons, that enable additional functionality and so might require additional licenses.

Console

The console provides Graphical User Interface and remote connection to the agents. Usage of the console is not licensed.

Bootable media builder

With bootable media builder, you can create bootable media in order to use the agents and other rescue utilities in a rescue environment. Availability of the agent add-ons in a rescue environment depends on whether an add-on is installed on the machine where the media builder is working.

1.1.1 Agent for Linux

This agent enables disk-level and file-level data protection under Linux.

Disk backup

Disk-level data protection is based on backing up either a disk or a volume file system as a whole, along with all information necessary for the operating system to boot; or all the disk sectors using the sector-by-sector approach (raw mode.) A backup that contains a copy of a disk or a volume in a packaged form is called a disk (volume) backup or a disk (volume) image. It is possible to recover disks or volumes as a whole from such backup, as well as individual folders or files.

File backup

File-level data protection is based on backing up files and directories residing on the machine where the agent is installed or on a network share accessed using the smb or nfs protocol. Files can be recovered to their original location or to another place. It is possible to recover all files and directories that were backed up or select which of them to recover.

1.1.2 Management Console

Acronis Backup & Recovery 10 Management Console is an administrative tool for local access to Acronis Backup & Recovery 10 Agent for Linux. Remote connection to the agent is not possible.

1.1.3 Bootable Media Builder

Acronis Bootable Media Builder is a dedicated tool for creating bootable media. The media builder that installs on Linux creates bootable media based on Linux kernel.

1.2 Supported operating systems

Acronis Backup & Recovery 10 Management Console, Acronis Backup & Recovery 10 Agent for Linux

- Linux with kernel 2.4.18 or later (including 2.6.x kernels) and glibc 2.3.2 or later
- Various 32-bit and 64-bit Linux distributions, including:
  - Red Hat Enterprise Linux 4.x and 5.x
  - Red Hat Enterprise Linux 6
  - Ubuntu 9.04 (Jaunty Jackalope), 9.10 (Karmic Koala) and 10.04 (Lucid Lynx)
  - Fedora 11 and 12
  - SUSE Linux Enterprise Server 10 and 11
  - Debian 4 (Lenny) and 5 (Etch)
  - CentOS 5
- Agent for Linux is in fact a 32-bit executable. For authentication, the agent uses system libraries, 32-bit versions of which are not always installed by default with 64-bit distributions. When using the agent on a 64-bit RedHat based distribution (such as RHEL, CentOS, Fedora), or on a 64-bit SUSE distribution, make sure that the following 32-bit packages are installed in the system:

      pam.i386

      libselinux.i386

      libsepol.i386

  These packages should be available in the repository of your Linux distribution.
- Before installing the product on a system that does not use RPM Package Manager, such as an Ubuntu system, you need to install this manager manually; for example, by running the following command (as the root user):

```
apt-get install rpm
```

1.3 System requirements

The components installed in Linux

Edition name	Memory (above the OS and running applications)	Disk space required during installation or update	Disk space occupied by the component(s)	Additional
Server for Linux	120 MB	400 MB	240 MB	Screen resolution 1024*768 pixels or higher
Bootable Media Builder (Linux)	70 MB	240 MB	140 MB	

Bootable media

Media type	Memory	ISO image size	Additional
Linux-based	256 MB	130 MB	

1.4   Licensing policy

Acronis Backup & Recovery 10 licensing is based on the number of machines managed and protected by the product. Acronis Backup & Recovery 10 Agent for Linux requires a license to perform operations on each managed machine. The license key has to be entered during the agent installation.

2 Installation in Linux

This section describes installation of Acronis Backup & Recovery 10 components on a machine running Linux.

By using command-line parameters, you can install the product in the unattended installation mode.

2.1 Preparation

Make sure that the RPM Package Manager (RPM) is installed in your system. Before installing the product on a Linux distribution that does not use RPM, such as Ubuntu, you need to install RPM manually; for example, by running the following command as the root user:

```
apt-get install rpm
```

Linux distributions where RPM is already installed include Red Hat Enterprise Linux, Fedora, and SUSE Linux Enterprise Server.

You need the **AcronisBackupRecoveryServerLinux.i686** installation file. Make sure that the file is assigned the necessary access permissions to execute it.

2.2 Installation in the interactive mode

1. Run the **AcronisBackupRecoveryServerLinux.i686** installation file.
2. Read the terms of the license agreement, then select **Next**.
3. Select **Enter the license key**, and then type your Acronis Backup & Recovery 10 license key.
4. When prompted to select the edition to install, select **Next**.
5. Select the components that you want to install.

   Note: You need Acronis Backup & Recovery 10 Upgrade Tool only if you are upgrading from Acronis True Image Echo.

6. The setup program may ask you to compile the SnapAPI module for your Linux kernel. Select **Continue** to compile the module now (recommended), or select **Skip** to compile it manually later.

   Note: If the setup program could not compile the necessary module for your Linux distribution, or if you have chosen to compile the module manually later, please refer to the file:
   /usr/lib/Acronis/BackupAndRecovery/HOWTO.INSTALL

2.3 Installation in the unattended mode

To install the product or any of its components in the unattended mode (without asking for confirmations), run the installation file with the **-a** command-line parameter. You may need to use other parameters (p. 7) to specify how to perform the installation.

For example, the following command installs Acronis Backup & Recovery 10 Agent for Linux and Acronis Backup & Recovery 10 Management Console in the unattended mode (without asking for confirmations) and uses the license key 12345-7890-ABCDE:

```
./AcronisBackupRecoveryServerLinux.i686 -a -i
BackupAndRecoveryAgent,ManagementConsole -l 12345-67890-ABCDE
```

2.4 Command-line parameters

When running the **AcronisBackupRecoveryServerLinux.i686** installation file, you can specify one or more of command-line parameters.

Parameters

-a or **--auto**

Performs installation in the so-called unattended setup mode, as opposed to the default interactive mode.

The setup program will proceed without asking for interaction, such as typing the license key or clicking the **Next** buttons. Specify the license key by using the **-l** parameter. Specify the component to install by using the **-i** parameter.

If the SnapAPI module needs to be compiled and the compilation is possible, the setup program will automatically compile the module; otherwise, it will skip the compilation.

-n or **--nodeps**

Ignores dependencies during an unattended setup. This option is effective only in the unattended setup mode (see the **-a** parameter described previously).

-u or **--uninstall**

Uninstalls the component. You do not need to specify a license key.

-d or **--debug**

Puts verbose information to the installation log.

-i *ComponentName* or **--id=***ComponentName*

Specifies the name of the component being installed:

For Acronis Backup & Recovery 10 Agent for Linux: **BackupAndRecoveryAgent**

For Acronis Backup & Recovery 10 Bootable Components and Media Builder: **BackupAndRecoveryBootableComponents**

For Acronis Backup & Recovery 10 Management Console: **ManagementConsole**

For Acronis Backup & Recovery 10 Upgrade Tool: **AcronisUpgradeTool**

Without this parameter, all components will be installed.

-l *LicenseKey* or **--serial=***LicenseKey*

Applies only to Acronis Backup & Recovery 10 Agent for Linux and Acronis Media Builder.

Specifies the license key for the component.

-v or **--version**

Displays the product version and then exits.

-? or **--help**

Displays help and then exits.

--usage

Displays a brief usage message and then exits.

3   Upgrading from trial to full product version

The trial key required at installation can be obtained on the Acronis Web site.

The Acronis Backup & Recovery 10 trial version has the following limitations for bootable media:

- The disk management functionality is available, but there is no option to commit the changes.
- Besides disk management, only the recovery functionality is available.

To upgrade from the trial version to the standard product you do not need to re-download the software. When the trial period is over, the product GUI displays a notification requesting you to specify a standard license key.

To specify the standard license key, use the **Change License** window in the management console, or run the setup program and follow its instructions.

3.1   Changing a license

By changing the license, you switch to a different version or edition of the product. The following table summarizes the available options.

Switching a license	Why you may need it
trial > full	Upgrade from trial to full product version
trial > trial different edition	Define the edition that better fits your needs
trial > full different edition	The edition you bought differs from the edition of the trial version

You can also enable Acronis Deduplication and Acronis Universal Restore by using additional licenses, if these are available for the version and edition you are switching to.

Switching between advanced and standalone editions is not possible.

To change a license:

1. Click **Help > Change license**.

Enter the new license key.

3.2   Upgrading components for Linux

To specify the full license key, run the **AcronisBackupRecoveryServerLinux.i686** installation file and proceed as described in the Installation procedure (p. 6) section. When asked for the license key, enter the full license key.

4 Upgrading to stand-alone editions of Acronis Backup & Recovery 10

This section describes how to upgrade Acronis True Image Echo Server for Linux to Acronis Backup & Recovery 10 Server for Linux.

Preparation

Before proceeding with the upgrade, make sure that:

- You have a license key for Acronis True Image Echo Server for Linux.
- You have an upgrade license key for Acronis Backup & Recovery 10 Server for Linux.

Installing components

1. Run the Acronis Backup & Recovery 10 setup file: **AcronisBackupRecoveryServerLinux.i686**
2. Specify the upgrade license key and the license key for Acronis True Image Echo Server for Linux.
3. Confirm deletion of the currently installed product components.
4. If you want to import Acronis True Image Echo backup tasks and validation tasks, make sure that the **Upgrade tool** component is selected to install. If not, select it.
5. Follow the on-screen instructions. For details, see "Installation in Linux (p. 5)".

Result:

- The Acronis True Image Echo components are replaced with the Acronis Backup & Recovery 10 components.

Importing tasks

After you have upgraded the agent, you might want to import Acronis True Image Echo backup tasks and validation tasks to Acronis Backup & Recovery 10. If you do not import them, these tasks will no longer run. You can import the tasks at any time.

Note: The tasks that back up data to Acronis Backup Server or validate archives stored on it will not be imported to Acronis Backup & Recovery 10.

To import the old tasks, use Acronis Backup & Recovery 10 Upgrade Tool:

1. Change the current directory to: **/usr/lib/Acronis/UpgradeTool**
2. Run the following command:
   ```
   ./UpgradeTool.sh Agent
   ```

Result:

- Tasks that were present in Acronis True Image Echo are converted to Acronis Backup & Recovery 10 tasks and appear in the **Backup plans and tasks** view.
- Each backup task's schedule, items to back up, and backup destination are the same as before, but the task will create a new archive to perform further backups.
- Each backup task is part of a backup plan. You can edit the backup plan to change the task's schedule or other parameters.

Importing old options

The upgrade tool enables you to import the default backup options, default restoration options, notification options, and event tracing options of Acronis True Image Echo to the default backup and recovery options of Acronis Backup & Recovery 10.

To import the old options:

1. Change the current directory to the one where the upgrade tool is installed.
2. Run the following command:

```
./UpgradeTool.sh Options
```

The old options are imported as follows:

- **Notifications** is imported as **Notifications** in both Default backup options and Default recovery options.

- **Event tracing** is imported as **Event tracing** in both Default backup options and Default recovery options.

- **Archive splitting** is imported as **Backup splitting**.

- In **Media components**, if **Place Acronis One-Click Restore on media** is the only check box selected, it is imported as **Acronis Bootable Agent and One-Click Restore**.

- **Validate backup archive upon its creation completion** is *not* imported from **Additional settings** in Default backup options or Default recovery options.

- In Default recovery options, **Files to exclude from restoration**, **Files overwriting mode**, and **Restore files and folders without restoring full path** (in **Additional settings**) are *not* imported.

- Other options are imported as the corresponding options in Default backup options and Default recovery options.

Using backup archives created with Acronis True Image Echo

After the upgrade to Acronis Backup & Recovery 10, you have the ability to recover data from backups created with Acronis True Image Echo.

To facilitate access to these backups, you may want to create a personal vault where the backups are located. For instructions on how to create a personal vault, see the "Actions on personal vaults" section in the User's Guide.

A personal vault can store both Acronis True Image Echo archives and Acronis Backup & Recovery 10 archives. You can specify this vault as a destination for new backup plans.

4.1   Importing a task

Instead of importing the tasks from Acronis True Image Echo as a whole, you can use the upgrade tool to import a particular backup or validation task.

Note: The tasks that back up data to Acronis Backup Server or validate archives stored on it cannot be imported.

Acronis True Image Echo stores each task as a .tis file. By default, these files are located in the directory **/etc/Acronis/TrueImage/Scripts**.

The names of the .tis files are Universally Unique Identifiers (UUIDs), such as 6AED5F49-7EED-4E3E-939E-19360A44137F.tib.tis. Each file has the XML format. The **<display>** tag in the file specifies the task name as it appears in the list of tasks.

To import a task

1. Determine the file name of the task that you want to import—for example, by examining the content of the **<display>** tag.

2. Change the current folder to the one where the upgrade tool is installed.

3. Run the following command, specifying the task's file name:

```
./UpgradeTool.sh Script -f /etc/Acronis/TrueImage/Scripts/6AED5F49-7EED-4E3E-939E-19360A44137F.tib.tis"
```

As a result, the task is imported as an Acronis Backup & Recovery 10 task and becomes part of a backup plan.

5 Uninstallation of Acronis Backup & Recovery 10

This section describes uninstallation of Acronis Backup & Recovery 10.

5.1 Uninstalling Acronis Backup & Recovery 10

To uninstall Acronis Backup & Recovery 10

Do the following as the root user:

1. Run the following commands to uninstall other Acronis Backup & Recovery 10 components:

```
# cd /usr/lib/Acronis/BackupAndRecovery/uninstall
# ./uninstall
# cd /usr/lib/Acronis/BootableComponents/uninstall
# ./uninstall
# cd /usr/lib/Acronis/BackupAndRecoveryConsole/uninstall
# ./uninstall
# cd /usr/lib/Acronis/UpgradeTool/uninstall
# ./uninstall
```

2. Run the following command to delete the source files of the SnapAPI module:

```
# rm -rf /usr/src/snapapi*
```

To uninstall all components in the unattended mode, run each of the **./uninstall** commands with the **-a** option.

5.2 Deleting Acronis Secure Zone

Uninstallation of Acronis Backup & Recovery 10 does not affect Acronis Secure Zone and its contents. You will still be able to recover data from Acronis Secure Zone on booting from bootable media.

If you need to delete Acronis Secure Zone, perform the following steps in the operating system (before the agent uninstallation) or under bootable media.

To delete Acronis Secure Zone:

1. In the **Acronis Secure Zone Actions** bar (on the **Actions and tools** pane), select **Delete**.
2. In the **Delete Acronis Secure Zone** window, select volumes to which you want to add the space freed from the zone and then click **OK**.

   If you select several volumes, the space will be distributed proportionally to each partition. If you do not select any volume, the freed space becomes unallocated.

After you click **OK**, Acronis Backup & Recovery 10 will start deleting the zone.