

Acronis True Image Corporate Overview And Reviewer's Guide

Acronis True Image Corporate Overview & Reviewer's Guide For Version 9.1

Introduction

This guide is designed for members of the media and others who will be evaluating the corporate family of Acronis True Image disk imaging, backup and bare-metal recovery software. We will look at not only the features and benefits of the product, but also some of its underlying technology.

Here you will learn not only the capabilities of the product, but also a bit about how it competes in the market and some of the key features and capabilities. You also will learn some of the technology that makes it possible for Acronis True Image server and workstation products to do what they do — something that challenges all of the conventional thinking of how to do disk imaging in Windows and Linux and provides users with new and unique capabilities in an easy-to-use, easy-to-understand environment.

Chapter 1

What is Acronis True Image?

Acronis True Image falls generally into the categories of backup and disaster recovery software. Acronis True Image creates an exact duplicate image of the live disk drives, including the operating system, all configuration files, programs, updates, databases, and such at the drive sector level.

The image can be saved to an internal or external disk drives (including USB 2.0 and FireWire), networked drives, or to a writable CD or DVD. The image also can be saved to the same disk being imaged in the Acronis Secure Zone; we'll address this feature later. The image can be used for any number of purposes, including disaster recovery, data backup and disk cloning.

The corporate family of Acronis True Image consists of the follow products:

Acronis True Image 9.1 Enterprise Server

Complete online server backup and recovery solution for servers throughout an entire network. The products primary uses include:

- Create an exact server disk image over the network
- Backup and restore individual files and data bases
- Server disaster recovery
- Instant bare-metal server restore
- Central administration and remote backup and restore

Acronis True Image 9.1 Workstation

Comprehensive data and system protection solution for networked desktop PCs and laptops

- Online data and system backups
- Create an exact hard drive image of networked workstations
- Backup and restore individual files and folders
- Bare-metal restore in minutes
- Central administration and remote backup and restore

Acronis True Image 9.1 Server for Windows

Onsite system protection and recovery solution for standalone and departmental Windows servers

- Create an exact Windows server disk image
- Backup and restore individual files and databases
- Server disaster recovery
- Instant bare-metal server restore

Acronis True Image 9.1 Server for Linux

Onsite system protection and recovery solution for standalone or departmental Linux servers

- Create an exact Linux server disk image
- Backup and restore individual files and databases
- Server disaster recovery
- Instant bare-metal server restore

Compelling New Features

Acronis True Image has several new features that set it apart from the rest of the industry. This document will provide a complete listing of all key features in each of the products, but we will focus in depth on those features that IT managers will find most compelling.

First, however, let's look at a full list of all key features in the corporate product family. Then we'll drill down on the critical features. You'll be able to identify these features as they are highlighted in red text.

ACRONIS TRUE IMAGE CORPORATE FAMILY FULL LIST OF KEY FEATURES

Features	Enterprise Server	Work-station	Windows Server	Linux Server
System Protection				
Disk imaging	✓	✓	✓	✓
Differential and incremental backups	✓	✓	✓	✓
File-based backups	✓	✓	✓	✓
Exclude files from backups	✓	✓	✓	✓
Compression	✓	✓	✓	✓
Recovery				
Bare-metal restore of servers	✓		✓	✓
Bare-metal restore of desktop PCs and laptops		✓		
Acronis Universal Restore: Restore an image to different hardware/virtual machines	✓	✓	✓	
Restore specific files/folders	✓	✓	✓	✓
Acronis Snap Restore (boot from an image)	✓	✓	✓	✓
Acronis Recovery Manager (boot with F11 key)	✓	✓	✓	✓
Administration				
Scheduling	✓	✓	✓	✓
Notifications (email, pop-up and SNMP)	✓	✓	✓	✓
Store events in Windows Event Log	✓	✓	✓	
User Interface				
Wizards	✓	✓	✓	✓
Command-line interface, supporting scripts	✓	✓	✓	✓
Online Protection				
Hot imaging/backups	✓	✓	✓	✓
Microsoft Volume Shadow Copy Service (VSS) Support	✓	✓	✓	
CPU/Network Bandwidth/Disk Write speed throttling	✓	✓	✓	✓
Storage Media				
Storage options: DAS, SAN, NAS, RAID, tapes, network drives,	✓	✓	✓	✓

Features	Enterprise Server	Work-station	Windows Server	Linux Server
FTP/SFTP, USB and IEEE-1394 (FireWire) storage devices, CDs, DVDs, and removable drives				
Acronis Secure Zone (special partition)	✓	✓	✓	✓
Acronis Storage Server	✓	✓		
Supported Operating Systems and Processors				
64-bit and 32-bit processors	✓	✓	✓	✓
SuSE 8.0, 8.1, 8.2, 9.0, 9.1, 9.2, 9.3, RedHat 7.3, 8.0, 9.0, Advanced Server 2.1 3.0, 4.0, Enterprise Server 3.0, Fedora Core 1, 2, 3, 4, Mandriva 8.0, 9.2, 10.0, 10.1, Slackware 10, Debian stable and unstable (sarge), ASPLinux 9.2, 10, Server II, Virtuozzo 2.6.x, Gentoo, UnitedLinux 1.0, Ubuntu 4.10, TurboLinux 8.0, 10.0				✓
Microsoft Windows 2003 Server, 2003 Server x64 Editions, 2000 Advanced Server, 2000 Server and NT 4.0 Server	✓		✓	
Microsoft Windows XP Professional, XP Professional x64 Edition, 2000 Professional, NT 4.0 SP4, 98, and Me		✓		
Remote Administration				
Central management console	✓	✓		
Remote installation and configuration	✓	✓		
Group operations	✓	✓		
Remote restore	✓	✓		
PXE support	✓	✓		

Chapter 2

What makes Acronis True Image unique and mission-critical?

Acronis True Image 9.1 Server for Windows

Locally managed online server backup, server disk imaging, and bare-metal restore solution for Windows servers

Are you a small organization running a couple of mission-critical Windows servers in one location with limited IT staff? How much business would you lose if these servers went down? Acronis True Image 8.0 Server *for Windows* provides comprehensive system protection and recovery of Windows servers and allows you to get back to business and minimize downtime.

Acronis True Image Server for Windows allows you to create an exact disk image of a hard drive, including the operating system, applications, databases, and configurations or backup Individual files and folders.

Within minutes, complete system recovery can be accomplished from an image, with no reinstallation of the operating system, applications or any reconfigurations or individual files and folders restored. Recovery can be performed to an existing system, to a new system with different hardware, or to a virtual server.

Better yet, Acronis True Image Server for Windows is easy to implement. Its Wizard-driven user interfaces walks users through backup and recovery tasks, enabling the solution to be implemented with minimal to no user training.

Moreover, the product ensures 24 X 7 uptime during backup windows. Using the Acronis Drive Snapshot technology, the product can backup critical operating system files, the master boot record, partition tables and any partition-based boot records without a reboot. With support for Microsoft Volume Shadow Copy Service (VSS), even mission critical database applications, such as Microsoft Exchange, SQL and Oracle, can be backed up during business hours because they do not need to be taken offline.

New Features:

- **Restore to different hardware** – Complete disaster recovery by ensuring that systems can be restored to any hardware
- **Microsoft Volume Shadow Copy Service (VSS) support** – Online backup of mission critical applications, such as Microsoft Exchange Server, Microsoft SQL Server and Oracle
- **64 bit Windows support** – Use one application for both new and old systems
- **Boot from an image, using Acronis Snap Restore™ (a patent pending technology)** - Decrease downtime by allowing systems to be used during a recovery
- **Automatic image verification** – Peace of mind by ensuring that images can be used for restoration
- **Differential backups** – Decrease the number of backups you manage
- **File backups, in addition to our traditional image backups** - Flexible system protection
- **Exclude files from backups** – Capture only business data and saves space in storage archives ensuring that you capture only business data
- **Windows Event Log and SNMP support** – Plug into your existing network monitoring application
- **Custom scripts before/after backups** – Facilitate compliance with company-wide backup policies
- **Throttling to control hard disk write speed and network bandwidth usage** – Minimize disruptions of business operations
- **Create CDs with bootable images, and bootable recovery media ISOs** - Eliminate the need to have separate recovery media

Supported operating systems

- 2003 Server x64 Editions
- Windows 2003 Server
- Windows 2000 Advanced server
- Windows 2000 Server
- Windows NT 4.0 Server

Acronis True Image 9.1 Server for Linux

Locally managed online server backup, server disk imaging, and bare-metal restore solution for Linux servers

Are you a small organization running a couple of mission-critical Linux servers in one location with limited IT staff? How much business would you lose if these servers went down? Acronis True Image 8.0 Server *for Linux* provides comprehensive system protection and recovery of Linux servers and allows you to get back to business and minimize downtime.

Acronis True Image Server *for Linux* allows you to create an exact disk image of a hard drive, including the operating system, applications, databases, and configurations or backup Individual files and folders.

Within minutes, complete system recovery can be accomplished from an image, with no reinstallation of the operating system, applications or any reconfigurations or individual files and folder restored. Recovery can be performed to an existing system, to a new system with different hardware, or to a virtual server.

Better yet, Acronis True Image Server for Linux is easy to implement. Its Wizard-driven user interface walks users through backup and recovery tasks, enabling the solution to be implemented with minimal to no user training. Moreover, the Windows's like GUI hides the complexity of managing Linux-based systems, enabling IT administrators unfamiliar with Linux to manage these servers.

Based on the exclusive Acronis Drive Snapshot technology, Acronis True Image Server *for Linux* allows you to create a server disk backup image without interrupting server operations, providing 24 X 7 availability.

New Features:

- **Boot from an image, using Acronis Snap Restore™ (a patent pending technology)** - Decrease downtime by allowing systems to be used during a recovery
- **Automatic image verification** – Peace of mind by ensuring that images can be used for restoration
- **Differential backups** – Ease the administrative burden of the application by decreasing the number of backups you manage
- **File backups, in addition to our traditional image backups** - Flexible system protection
- **Exclude files from backups** – Capture only business data and saves space in storage archives ensuring that you capture only business data
- **SNMP support** – Plug into your existing network monitoring application
- **Custom scripts before/after backups** – Facilitate compliance with company-wide backup policies
- **Throttling to control hard disk write speed and network bandwidth usage** – Minimize disruptions of business operations
- **Create CDs with bootable images, and bootable recovery media ISOs** - Eliminate the need to have separate recovery media

Acronis True Image Universal Restore

What is Acronis Universal Restore?

- This new feature released with Acronis True Image 9.1 corporate products allows customers to restore an image to different or replacement hardware or to virtual systems

Why is this feature important?

- 44% of data loss is due to system or hardware malfunctions¹ – such situations may require replacement systems
- Refresh lifecycles dictate being prepared - 28% of businesses replace desktop PCs every three years. Laptops are replaced more frequently - 12% replaced every 2 years and 51% are replaced every 3 years²
- And, with the aftermath of Hurricane Katrina, businesses need a way to recover systems damaged beyond repair by Mother Nature - 93% of the companies that lost their data center for 10 days or more filed for bankruptcy within one year of the disaster and 50% of business that found themselves without data management for this same period of time filed for bankruptcy immediately³

How does Acronis Universal Restore feature work?

- This feature continues the Acronis True Image benefit of being easy-to-use
 - Step 1: Boot into our recovery environment
 - Step 2: Select the image to restore and the replacement system
 - Step 3: Product initiates restore process
 - Step 4: Product detects hardware and installs drivers
 - Detects machine type and installs appropriate drivers for Hardware Abstraction Layer (HAL)
 - Detects hard disk controllers (SCSI and IDE) and other drivers (network card, video cards, sound cards etc.)
- Or
- Prompts user for driver locations
 - Step 5: Reboot machine and begins mini-setup to load drivers into the Operating System
 - Product keeps Security Identifier (SID) and network information (domain, workgroup, username, and password)

How does this compare to our competitors?

- Only one competitor includes this functionality, but this product has issues...
- The competition requires an add-on license and installation and cannot be used “after the fact.” You must create an image with the option in place, or you cannot restore to different hardware. Acronis doesn’t have any such restriction. If you have not purchased Universal Restore initially, you can purchase it later and use it for an image created previously.
- Competition forces user to insert SID and network account information and reconfigure all primary network and system settings manually. Acronis maintains the SID and network settings, so our restore is faster and less complex. When a system is restored with Acronis True Image Enterprise server, all domain, workgroup, username and password information is retained.
- Competition locks out ability to add device drivers during restore. Acronis permits users to add drivers for network cards, video cards, sound cards, etc. enabling a complete

recovery. Acronis also include a driver repository to centrally store all drivers so users don't need to go looking for them.

Universal Restore Scenario #1

An IT manager has a group of servers in an office. Hot spares are kept at that same facility in case a drive, network card or other component is damaged. Due to a torrential rain, the servers, along with the hot spares, are swept away in a flood. Before the disaster occurred, the IT manager created an image of his mission-critical servers using Acronis True Image Enterprise Server. That image was stored off-site on a networked server. As soon as the flood destroyed his server room, the IT manager restored the image to a completely different set of servers. Although the hardware was different (different motherboard manufacturer, different NICs, different hard disks, different storage controllers, etc.), the image was restored in minutes at the new location and the company was able to resume business operations.

Universal Restore Scenario #2

A company has a mission-critical server that is running multiple virtual machines. The IT manager needs to move one of the virtual machines to a different physical server that uses different hardware. An image is created of the virtual server on the original system and then restored to the new system. During restoration, the image automatically seeks out and restores the necessary drivers required to run on the new hardware from a driver repository identified by Acronis True Image Enterprise Server.

Universal Restore Scenario #3

An IT manager purchases Acronis True Image Enterprise Server, but has not considered the need to restore the image to different hardware. He also has a server running a competitor's product that does not include its optional module to restore to dissimilar hardware. Both servers are damaged in a fire and the images of the servers need to be restored to new hardware. In the case of the server protected by Acronis, the IT manager needs only to run Acronis True Image Enterprise Server 9.1 in order to restore the image to new hardware. This is true even if the image was made by an earlier version of the software. However, the other server cannot be restored. Even if the IT manager were to purchase a license for the option to restore to different hardware after the fact, the competitor's product could not restore the image since that license was not included in the original image file.

64-Bit Hardware & Software Support

What is 64 bit?

Bits

- The bit rating of a processor determines the largest numerical number that a processor can handle. The largest number that can be processed in a single clock cycle will be equivalent to 2 to the power of the bit rating. Thus a 32 bit processor can handle 2^{32} or roughly 4.3 billion. A number greater than this will require more than one clock cycle to process. A 64 bit processor can handle up to 2^{64} or roughly 18.4 quintillion.

Memory

- The bit rating of a processor is affected by memory. 32 bit processors are constrained to a maximum of 4 GB or 2 GB RAM access. While this is more than adequate for many types of applications, it is not optimal for servers running large databases. 64 bit processors do not have these constraints – they can support up to an order of billion gigabytes of RAM.

Operating Systems and Applications

- Full use of a processor is only as good as the software written for it. Running a 64-bit processor with a 32-bit operating system will waste a large amount of the computing potential of the processor – it will still have the same limitations as a 32 bit processor. The same goes for running 32 bit software.

What does Acronis True Image v. 9.1 support?

- Acronis True Image 9.1 corporate products will support both 64-bit hardware and software
- Previously, our corporate Windows products (Workstation, Server, and Enterprise Server) did not support the drivers for 64-bit Windows
- With the 9.1 version, they now support 64-bit Windows (note: our Linux servers already supported this in version 8)
- The products also supports 64-bit processors that are X86 based (today, that includes all Intel and AMD 64-bit processors), in addition to 32-bit processors

Why does it matter?

For the high-end computer market that is near the limit of 32-bit processors, 64-bit hardware and software is important because it brings the following benefits:

- Increased productivity – workers can spend more time thinking and producing, rather than waiting for software/hardware to finish processes
- Lowers cost of ownership – each server can support larger number of users and applications, requiring fewer servers
- New application opportunities – new applications can be designed without the 32-bit limit

Who needs 64-bit support?

In a corporate environment, 64-bit processing makes multitasking easier with less stress on the processors. For example, a processor might be running a database application with one CPU core while also running anti-virus software with the other. Some corporations today require 64-bit support, not because they use it now, but because they see all new CPUs heading in that direction. As hardware moves to 64-bits, software will as well. Acronis supports both 64-bit and 32-bit technology in the same software package, protecting IT investments for years to come.

- Anyone using *or planning to use* a 64-bit CPU from AMD or Intel and Microsoft Windows x64

- Anyone using *or planning to use* a 64-bit CPU from AMD or Intel and any 32-bit Windows operating system

Acronis Secure Zone and Acronis Recovery Manager

What is the Acronis Secure Zone?

- The Acronis Secure Zone allows users to save backups to a special hidden partition on a hard disk drive
- The partition is completely separate from the operating system and all applications, and thus will not be affected by any software or operating system malfunctions

What is the Acronis Recovery Manager?

- The Acronis Recovery Manager is a unique feature that enables users to boot a failed system and initiate recovery by selecting the F11 key
- It will work, even if the operating system will not boot

Why are these features important?

- Both features enable remote users and traveling users with system protection and recovery that can be initiated from their systems, without access to any outside storage or boot media
- Moreover, because the product is so easy to use, many users will be able to step through a recovery on the road without having to contact their help desk for assistance

How do these features work?

- Setting up self service recovery with the Acronis Secure Zone and the Acronis Recovery Manager for remote or traveling users is easy. Here are the steps:
- Install the Acronis True Image agent on a laptop
- Create an Acronis Secure Zone on the local machine
- Create an image task that saves the image to the Acronis Secure Zone on the local machine
- If a user has an unbootable laptop, they can select the F11 key and recover a local image from their machine *WITHOUT* being connected to the network!

Do our competitors have this feature?

- While Symantec LiveState Recovery has the Lights Out Restore option to remotely restore servers and desktops on the network, this is **NOT** the same feature
- Why? Lights out restore requires that the machine be connected and an IT admin perform a restore from a remote location. It is also an add-on license and a separate installation.
- We have this feature in the 9.1 release with our remote bootable agent which is included in our main license and part of our product installation
- But, the Acronis Secure Zone and the Acronis Recovery Manager *GO FURTHER* than the competition's feature
- Acronis' features enable self service as users can restore a system themselves from their own machine

- Only one competitor offers just part of this type of functionality – Paragon Drive Image. This product offers an equivalent to the Acronis Secure Zone, the Paragon Backup Capsule
- However, Paragon does not include F11 (no boot media feature), so users are forced to use bootable media to boot a failed machine

In addition to image-based backups, Ver. 9.1 of the corporate Acronis True Image products add an important, new feature — file-based backups. IT managers have indicated that while they need image-based backups for disaster recovery, they also like having file-based backups for quick retrieval of data files. Acronis now provides the best of both worlds — the most advanced image-based technology that can create the image without interrupting the user or any running applications, but also a comprehensive file-based backup approach when that strategy is called for.

Acronis has the ability to exclude system and hidden files, as well as to allow the user to specify specific files that they want excluded. This means that if you are imaging your data and wish to exclude, for example, your huge video files, you can do so. Likewise, if you choose to image *only* your video files, you can exclude everything except those file extensions.

Supported operating systems include all current workstation versions of Windows, including Windows 95/98/Me/NT/2000/XP. It also can be used with other non-Windows operating environments, including Linux and Novell NetWare. Supported file systems include Windows FAT 16, FAT 32 and NTFS, as well as Linux Ext2/Ext3, ReiserFS, JFS and XFS file systems, as well as Linux SWAP partitions.

Simplicity At Its Finest