

Your company's single most valuable asset may be its data.

Customer data, product data, financial data, employee data—this is the lifeblood of modern organizations. And when something goes wrong, you will not define success by how the data was backed up—all that matters is getting your data back. All of it. All the time. All correct. All at once.

In data backup, recovery is everything. With this as the ultimate goal, your data protection software solution should deliver maximum:

Security

Reliability

Manageability

Affordability

Comprehensive Data Protection and Recovery from Anywhere, Anytime

Asigra Cloud Backup protects all of your organization's critical data, including applications and databases, whether it's on physical servers, virtual machines, or Docker containers, on desktops, laptops, smartphones and tablets, in SaaS-based applications such as Google Apps, Salesforce.com, or Microsoft Office 365, or in cloud-based platforms like Amazon Web Services and Microsoft Azure.

With Asigra, you avoid the cost, complexity, and protection gaps that are inherent with point solutions — solutions designed to protect only one or a small handful of data source types. The central administrative dashboard provides you with an organization-wide, real time view of your data protection status across all protected data sources, enabling you to quickly identify protection failures. Any failures can be immediately addressed using the same dashboard.

Although Asigra Cloud Backup is a single data protection solution for your entire enterprise, it does not force 'one-size-fits-all' protection on your data sources. Instead, Asigra recognizes that different data sources and workflows within your organization could have very different protection needs. For example, some VMs may need to be backed up once while others may require daily backups. Other VMs running mission critical apps may need to be replicated hourly to a warm standby VM for fast failover and disaster recovery purposes. Still other VMs may need to be both replicated and backed up. With Asigra, you can easily establish rules like these on a granular basis to achieve your organization's overall data protection objectives without making any compromises.



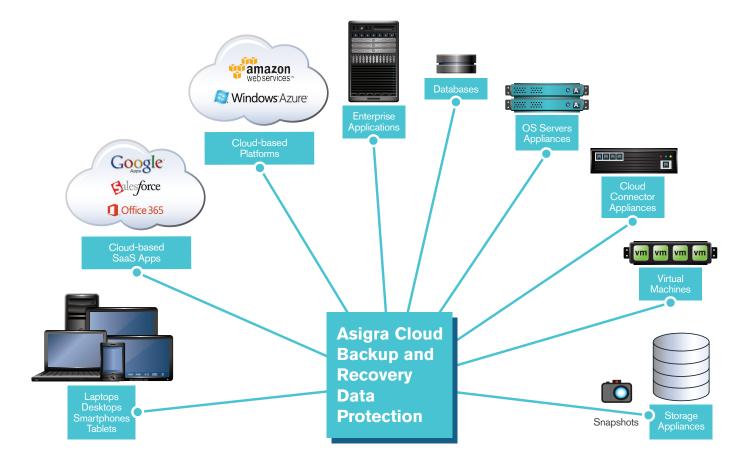
Maximum Security

With Asigra, your data is protected at all times with the highest levels of security and compliance:

- AES 256-bit in-flight and at-rest data encryption
- Government-approved NIST FIPS 140-2 security certification
- Customer-controlled encryption key and authentication

Asigra's agentless architecture is secure because it does not rely on vulnerable agents that need to be installed on each machine. This eliminates open ports on your firewall for all backup sources, dramatically enhancing security by removing points of attack inherent with agent-based architectures.

Asigra also includes geo-location and remote data wipe for mobile devices. These features enable you to quickly identify the location of a lost or stolen mobile device that contains your corporate data. If you decide the data is at risk of falling into the wrong hands, Asigra gives you the power to remotely delete it with the click of a button, while leaving any of your employees' personal files untouched, making it an ideal data protection solution for BYOD environments.



Fact:

Enterprises using Asigra technology have achieved 100% recovery of all data, regardless of where it resides.

Maximum Manageability

Asigra delivers continuous control with low-touch manageability, centralized operations and capacity management that give you a comprehensive, unified, organization-wide view of your systems, users and devices:

- Single consolidated repository simplifies backup and recovery of data that's currently backed up in silos scattered across the enterprise
- Single-pane-of-glass view allows you to manage from an intuitive web-based dashboard with visibility across the enterprise for even the most complex disaster recovery and business continuity strategies, including multiple branch locations and local/remote backup and recovery management of data centers
- Support for private, hybrid and public cloud so you choose the cloud architecture or deployment model that best suits your business needs, and easily migrate as your needs evolve
- Agentless architecture simplifies installation and ongoing operations in your environment by eliminating the downtime and disruption of deploying and maintaining agents
- World-class service from our worldwide partner network minimizes the time and resources you spend on backup and recovery

Maximum Reliability

Having confidence in your ability to recover data when it matters most comes from trusting in the backup and restoration processes. Asigra has two important processes to ensure reliability in your recoverability:

- Autonomic Healing verifies the logical and physical integrity of the data written to the storage systems
- **Restore Validation** ensures data is restoreable by simulating real recoveries (without actually writing the restored data)

Aftape is no longer a viable option given other alternatives now available in the marketplace. Cloudbased data recovery is so much easier than having to find, load and retrieve data from tapes. Thanks to Echopath and Asigra we have shaved off the number of hours spent on backup significantly and substantially improved our ability to recover from a data loss event regardless of where the data was originally located.

Scott Reid, VP of Operations, PacMoore

Key Features

Security

- Agentless Architecture
- NIST FIPS 140-2 Certification
- Encryption Key Management
- AES 256-bit Encryption
- Regulatory Compliance (SOX, HIPAA, Basel II)
- Compliant Data Destruction

Manageability

- Block-Level Incremental Forever
- Deduplication
- Compression
- Local Storage
- Retention Rules
- LAN Storage & Resource Discovery
- Extensible Storage
- Backup Lifecycle Management (BLM)

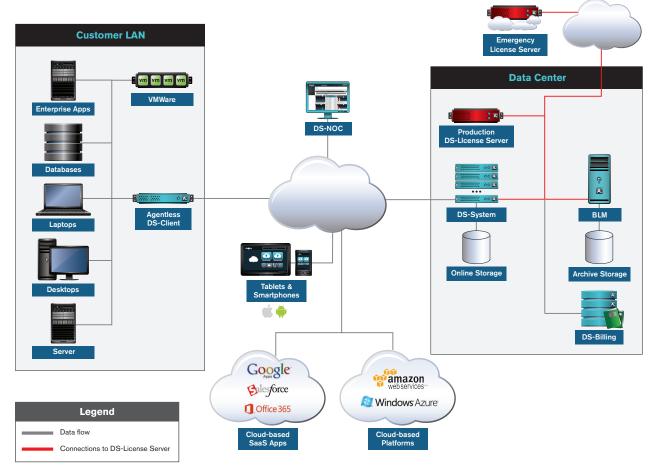
Reliability

- Restore Validation
- Autonomic Healing
- Reporting

Near-Instant Recovery

- Local and Remote Virtual Disaster Recovery (VDR)
- Virtual Machine Replication
- Continuous Data Protection (CDP)
- Snapshot Support

Asigra Cloud Backup Components



Did You Know?

Enterprises using Asigra can restore in a few minutes rather than several hours.

Granular Recovery When You Need it the Most

Organizations often want to backup an entire data source to ensure all data is protected, even though they will usually only need to recover individual items or files from the backup. Email servers are a typical example. Asigra supports this use case for many data sources, including VMs, Microsoft Exchange and SharePoint servers, and SaaS based data, by allowing you to recover individual data elements from the backup.

For example, Asigra includes a convenience feature that allows you to quickly backup hundreds of mailboxes belonging to a single Office 365 domain to one backup set. If you ever need to recover a single data element from the backup – such as an

email attachment or calendar entry – you don't need to recover all data in the domain. Instead, Asigra will let you pick and choose the items you want to recover, and the location where you want to recover them too – such as back to the Office 365 cloud or a local file on your laptop.

Recover Quickly and Resume Business as Usual

Depending on your organization's Recovery Time Objective (RTO) requirements, you may want near-instant recovery for some mission-critical applications and data. Asigra provides peace of mind by safeguarding the availability of your environment with four optional features:

- Continuous Data Protection (CDP) can be selected for specific backup sets to ensure you can be up and running quickly with minimal data loss
- Virtual Machine Replication uses snapshot without backup technology to replicate your production VM to one or more on or off site VMs. The replica VMs can be up and running in as little as 5 minutes, which helps you to keep your downtime to an absolute minimum.

- Virtual Disaster Recovery (VDR) combines VM replication and backup, and allows you to failover to a local or, in the event of a site loss, a remote environment in minutes instead of hours or days
- Snapshot capability gives you the ability to achieve aggressive Recovery Point Objectives (RPOs) and Recovery Time Objectives (RTOs) for even large amounts of data.

Maximum Affordability

In addition to the patent-pending Asigra Recovery License Model® — an innovation in pricing that delivers immediate and long-term savings by allowing you to pay based on how little data your organization actually recovers — Asigra delivers technical innovations that reduce time to benefit (T2B) and increased return on investment (ROI).

Asigra Cloud Backup provides you with a single solution for the end-to-end backup and recovery requirements of your enterprise, eliminating the high costs of integrating disparate point solutions to protect different types of enterprise data.

Asigra leverages the latest technologies and best practices for block-level and incremental forever backup, deduplication and compression to reduce your WAN and network usage and more importantly, your storage costs.

A key feature is **LAN storage discovery**, which completely analyzes the entire application and data types on the LAN before committing to a backup procedure. It generates reports that identify possible storage inefficiencies, enabling you to optimize and better manage the backup procedure from the perspective of both data and cost.identify possible storage inefficiencies, enabling you to optimize and better manage the backup procedure from the perspective of both data and cost.

Operating Systems and Applications Supported

Asigra Cloud Backup supports a wide range of operating systems, physical and virtual machines, servers, databases, applications, and storage environments to ensure you can recover heterogeneous environments in local, primary and disaster recovery data centers using a single consolidated tool.

How Recovery License Model Works

With the patent pending Asigra Recovery License Model®, businesses now pay two separate license costs, purchased together:

- Fixed backup costs based on stored data capacity after compression and deduplication and always constant on a per GB basis
- Variable recovery costs based on the percentage of data you recover, as reflected by the Recovery Performance Score measured by the Asigra Recovery Tracker™
 The new model is based on a low limited per GB recovery cost, so the expenditures remain predictable and low even as data volumes rise.

For more information about the Asigra Recovery License Model, visit http:// www.asigra.com/solutions/recoverylicense-model

Asigra's Recovery License Model helps businesses achieve 40% cost savings immediately.

All leading enterprise applications and operating systems are supported:

SAP **VMware** GroupWise System i XenServer Oracle MySQL Apple iOS DB2 Hyper-V Windows Android MS SharePoint **PostgreSOL** Docker containers Google Apps MS Exchange Sybase Linux Salesforce.com NovellNetware MS Office 365 MS Outlook Lotus Notes MS SQL Server Lotus Domino Mac OSX NetApp NAS



Asigra Cloud Backup is Comprised of the Following Components:

DS-System

DS-System software is installed at the enterprise data center in the core of the cloud. The DS-System aggregates data from remote DS-Clients. The DS-System can leverage any disk-based storage such as Direct-Attached-Storage (DAS), Storage Area Network (SAN) or Network-Attached Storage (NAS). The DS-System can be deployed as a standalone or High Availability (HA) N+1 configuration. The N+1 configuration is a redundant grid of nodes that provide further scalability, performance and high- availability. This configuration allows the DS-System to withstand failures to up to half minus one the nodes in the cluster without interruption to the backup services. The addition of nodes also helps scale the performance of the grid by providing additional backup and restore processing resources. DS-System also offers optional offsite replication for additional redundancy and Disaster Recovery (DR). DS-Clients can be configured to automatically failover to the replicated DS-System for both backup and restore activities. In prolonged outages, the replicated DS-System can be promoted to be the primary DS-System.

DS-Systems are offered in several variants:

- FullFeatured accepts connections from all variants of DS-Client
- Replication accepts connections from replication DS-Systems and from replicated DS-Clients for restore activities
- Mobile accepts connections from DS-Mobile Clients for Windows and Mac, DS-Smartphone, and DS-Tablet Clients

DS-Client

DS-Client software is installed on your LAN and collects data from all machines, drives, applications and systems on it.

The DS-Client can also be configured to collect data from cloud-based applications and platforms such as PaaS and SaaS infrastructures. The DS-Client software is agentless and does not need to be installed on every machine that needs to be backed up. DS-Client can run on a dedicated machine or on an existing machine on the LAN. It is designed to back up a heterogeneous environment of different OS, databases, applications and data types.

DS-Client is offered in several variants:

- 1. FullFeatured for enterprise and data center backup
- 2. Mobile for corporate managed laptops
- Notebook for corporate Mac laptops and desktops DS-Tablet Clients

- **Smartphone** for corporate and consumer smartphones
- 5. **Tablet** for corporate and consumer tablets

Recovery Tracker

Recovery Tracker is a powerful analytics engine focused on data recoveries and is an integral part of Asigra's revolutionary Recovery License Model. It provides customers with in-depth analytics about their data recovery performance to help them benchmark their operations with others in their industry, geographic region and business size.

The Recovery Tracker includes the following components:

- Annual recovery performance score A score between 0 and 10 based on the percentage of data recoveries performed over a 12-month period. This score is then used to calculate the license price based on performance.
- Recovery analytics Provides various measurements related to recoveries, including number of recoveries performed each year, amount of data recovered, type of data lost, and reason for recoveries.

Backup Lifecycle Management (BLM)

Every business stores data of varying importance. Mission-critical data required for day-to-day operations must be immediately accessible and stored on the DS-System. However, less important data or dormant files for significant periods of time occupy premium real estate on the DS-System and should be saved to less expensive storage and eventually deleted to ensure compliance. The DS-System's online disk-based storage maintains critical data. BLM allows you to archive DS-System backup data for long term:

- Saves money while still offering data protection by archiving obsolete generations, deleted data, and old data.
- Enables compliance with backup regulations by allowing periodic copy archiving, and by providing data destruction (with certificate).
- Provides optional offsite replication for additional redundancy and compliance.

DS-NOC

DS-NOC is the Network Operations Center for systems administrators. It is the web-based control interface that provides a single-pane-of-glass view into the entire backup environment. The graphical dashboard is simple to use and allows for monitor and control of the entire set of Asigra software products, including the associated reports and logs.

Asigra, Inc.

Extensive APIs are also available to enable seamless integration with your existing monitoring and management systems.

DS-Billing

DS-Billing offers easy management and maintenance of billing information for internal charge-back capabilities. The billing module can also be used for quota allocation to provision capacity across multiple departments.

DS-License Server

DS-License Server is the single management console for license capacity management across your Asigra real estate, including

DS-Systems, BLMs, production and replication servers. It provides a centralized tool for managing and provisioning total capacity and expiration dates per component, as well as performs authentication of all components on a regular basis.

Asigra Snapshot Manager

Snapshot Manager is a management interface that comes pre-packaged at no additional cost with Asigra Cloud Backup, providing you with a simple and effective way to initiate, catalog, and manage snapshots. Your can now schedule, configure, and manage all snapshots from the familiar Asigra user interface.

Our single-minded focus makes Asigra your single solution for data backup and recovery. At Asigra, we focus on one thing: being the absolute best at backing up and recovering your data.

Contact us to learn more about how you can increase your recoverability.

For additional technical information, white papers and case studies, please visit our resource center at www.asigra.com/resource-center.

If you have a question, please call us at 416-736-8111 ext. 1462, or email us at info@asigra.com. We'll get back to you quickly.

About ITC Infotech

ITC Infotech is a specialized global scale - full service provider of Domain, Data and Digital technology solutions, backed by a strong business and technology consulting focus. The company caters to enterprises in Supply Chain based industries (CPG, Retail, Manufacturing, Hi-Tech) and Services (Banking, Financial Services and Insurance, Airline, Hospitality) through a combination of traditional and newer business models, as a long term sustainable partner. ITC Infotech is a fully owned subsidiary of USD 7bn ITC Ltd – one of India's most admired companies.

For more information, please visit www.itcinfotech.com | or write to: contact.us@itcinfotech.com



