Asigra Cloud Backup™
and Recovery Software.
Asigra software is designed from the ground up for the cloud and for cloud-based service delivery. Service oriented features like license management and centralized monitoring simplifies backup and restore management whether are you supporting a single department in an enterprise or thousands of customers on your public cloud. With deduplication and compression, network and storage usage is minimized and costs are reduced.

Asigra can backup and restore data irrespective of where it resides in the enterprise environment from servers to desktops, laptops, smartphones, tablets, and in cloud-based applications. Asigra Cloud Backup™ supports a wide range of operating systems, physical and virtual machines, servers, databases, applications, and storage environments to ensure you can backup heterogeneous environments. While these features were developed with the storage needs of enterprises in mind, our pay-as-you-grow licensing model ensures you only pay for what you need.

Unprecedented data growth is challenging companies of all sizes, placing increasing pressure on their backup and recovery initiatives. With mounting pressure to comply with regulatory compliance and improve disaster recovery practices, companies are experiencing challenges with traditional backup methods that are falling short regarding efficiency, reliability, and ease of use. An ever expanding network of central, remote and branch offices further compounds the situation. The need to deliver against strict service level expectations, while managing costs, turns information recovery management into a complex challenge for enterprise data centers of all sizes.

With over 26 years of experience, Asigra understands the challenge. We developed our backup and recovery software to address the challenges of enterprise backup and backup service delivery in a single package.

Asigra Cloud Backup and recovery software addresses the needs of enterprises and progressive managed service providers delivering cloud backup managed services. It is designed to deliver against strict service level expectations, while reducing capital investment and operating costs.

Backup Service Delivery Software

- Block-Level Incremental
  Forever
- Deduplication
- Continuous Data Protection
- Retention
- LAN Storage & Resource
  Discovery
- Snapshot Support
- Extensible Storage
- Backup Lifecycle Management
  (BLM) & Compliant Data
  Destruction
- Cloud Backup of Cloud based
  (SaaS/PaaS) Applications/
  Platforms
- Encryption NIST FIPS 140-2
  & Key Management
- Compression
- Validation Restore
- Local Storage
- Reporting
- Autonomic Healing
- Billing Tier Storage
- Virtual Disaster Recovery (VDR)
Addresses Enterprise Backup Challenges:

**DATA PROTECTION**
With shrinking backup windows and the proliferation of virtual machines and unsanctioned devices like smartphones and tablets being brought into the workplace, the job of protecting your data is becoming more challenging. Asigra’s ability to support a heterogeneous application, hardware, and device environment combined with enterprise class restore and recovery assurance (R2A) ensures all your data can be backed up and restored quickly and easily.

**RISK MANAGEMENT**
Data risk and security in the cloud is top of mind for senior IT decision makers. Asigra protects your data at all times with AES 256-bit in-flight and at-rest data encryption. With government approved FIPS 140-2 security certification you can be rest assured your data is being protected at the highest level of security and compliance.

**TOTAL COST OF OWNERSHIP**
Asigra Cloud Backup is designed to be low-touch to reduce costs of implementation and on-going operations. With a pay-as-you-grow cloud model, you can minimize your upfront capital investment. Furthermore, with Asigra’s flexible deployment options, you can decide whether your want to completely outsource backup to an Asigra service provider partner, manage it in-house in your own data center(s), or choose a hybrid approach.

Addresses Managed Service Provider Challenges:

**TRADITIONAL SOLUTIONS ARE NOT DESIGNED FOR CLOUD**
Traditional backup solutions are not well-suited for cloud and service delivery. Asigra is built for the cloud from the ground up, with low-touch agentless technology to reduce the impact on the end customer environment, scalability to support thousands of end users, multi-tenancy, and centralized operations and capacity management capabilities.

**DELIVERING ON SECURITY AND SLAS**
Government approved FIPS 140-2 security certification assures your cloud backup services to be at the highest level of security and compliance. With enterprise class, backup, archiving, mobile, and consumer modules Asigra enables managed service providers to address all segments of the market and deliver varying Service Level Agreements (SLAs) and price points.

**REAL REVENUES AND PREDICTABLE COSTS**
Asigra delivers a proven software platform that managed service providers have been successfully implementing into profitable cloud backup services for many years. With a pay-as-you-grow cloud model you only pay for what you need. Our agentless architecture reduces customer onboarding and day-to-day operating cost.
Backup to a SINGLE Consolidated Repository.

www.asigra.com   |   Asigra Cloud Backup™ and Recovery Software

Integrate all data protection strategies into a single, secure, enterprise class backup and recovery platform with Asigra Cloud Backup™ - backup and recover with certainty NOW from ANYWHERE

Cloud-based applications

Cloud-based platforms

Laptops

Desksopms

Smartphones

Tablets
Recover NOW from ANYWHERE

Integrate all data protection strategies into a single, secure, enterprise class backup and recovery platform with Asigra Cloud Backup™ - backup and recover with certainty NOW from ANYWHERE.

All leading applications and operating systems supported:

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Asigra Cloud Backup™ and Recovery Software  |  www.asigra.com
Key Features & Benefits

**SUPPORT – RECOVER FROM ANYWHERE**
- Physical and Virtual Machines
- Protect servers, desktops, laptops, tablets and smartphones
- Protect data in SaaS/PaaS clouds
- Storage array snapshot supported

**FLEXIBLE CLOUD DEPLOYMENT**
- Public/Private/Hybrid and flexibility to change models
- Address more market opportunities in enterprise
- Provide differentiated services

**MULTI-TENANCY AND SCALABILITY**
- Support thousands of clients and petabytes of data on an unified system
- Prevents cross contaminations of customer data
- Removes administration and data silos

**NETWORK AND STORAGE OPTIMIZATION**
- Data reduction through deduplication and compression
- Incremental server backups and change block tracking
- Reduces WAN/network usage

**NEAR INSTANT RECOVERY – RECOVER NOW**
- Local machine failure protection – Local DS-VDR
- Site disaster recovery capability – Remote DS-VDR
- Physical to Virtual Conversion (P2V)

**SECURE AND COMPLIANT**
- 256-bit encryption
- Data encrypted in-flight and at-rest
- FIPS 140-2 certified
- Meet regulatory compliance (e.g. SOX, HIPAA, Basel II)
- Disaster Recovery
- Offsite replication and failover
- Backup and restore to secondary sites

**LOCAL BACKUP AND RECOVERY**
- Local backup option for fast backup and recovery
- Address tight Recovery Time Objectives (RTO)
- Self-service options to reduce management costs

**RESTORE & RECOVERY ASSURANCE**
- Address varying Recovery Point Objectives (RPO)
- Bare metal, message level, and file level restore
- Data consistency and data transfer checks
- Autonomic healing
- Restore validation

**CENTRALIZED OPERATIONS**
- Web-based dashboard for centralized management/monitoring
- Simplify deployment/management of remote customers
Asigra’s agentless architecture delivers significant benefits over traditional agent based approaches. Asigra protects all files (visible and hidden), databases, email systems and mailboxes, all operating systems such as Windows, Linux, and Mac OS. The agentless architecture removes the need to install individual agents on each machine that needs to be backed up. This simplifies installation and on-going operations in the customer’s environment and removes any downtime and disruption associated with installing and maintaining agents. Agentless is more secure and efficient as there are no agents to be hacked and no software is installed to waste system resources.
Service Delivery Modules

CLOUD LICENSE SERVER
The only cloud license server that provides service providers a simplified approach to manage the capacity licenses across multiple clouds whether public, private, or hybrid. Instead of managing capacity licenses individually for each backup cloud, the service provider can buy licenses in bulk and thinly provision them across different clouds. This simplifies capacity planning and management, and reduces administration costs.

NETWORK OPERATIONS CENTER (NOC)
DS-NOC is a centralized, web-based command center that enables managed service providers, SMB and enterprise users to have real-time visibility and control of the entire Asigra Cloud Backup environment through an intuitive interface. At a glance, Asigra Cloud Backup administrators can easily view the status of licenses, capacity usage and backup completion status.

It provides a detailed dashboard for status monitoring and alerts as well as comprehensive reporting functionality. With permission based access, managed service providers can provide end customers and partners access to DS-NOC to view their own status, usage, and reports.

DS-BILLING
DS-Billing provides managed service providers a comprehensive toolkit for managing customer billing and chargeback. With multidimensional billing, service providers can choose from several different metrics to bill end customers. Many templates for reports and invoices are provided to simplify your billing rollout.

Restore and Recovery Assurance

The following features are designed to further protect backup data, improve restorability, and improve recovery time objectives (RTO):

AUTONOMIC HEALING
Autonomic healing acts like a storage immune system. This module constantly scans the DS-System and immediately notifies when it encounters a corrupted or otherwise problematic file. Before the file can cause any harm, autonomic healing detects any corruptions (both data corruptions and logical inconsistencies caused by third-party technologies such as faulty RAID controllers, file systems, operating systems, disk subsystems, network packet loss, etc.) and sends notifications so that the personnel can fix the problem before it becomes harmful.

- Constant and seamless monitoring of DS-System storage
- Saves time by identifying potential problems before they become serious issues
- Ensures backup data is constantly in a valid state to maintain high SLAs for customer restores

RESTORE VALIDATION
Restore validation allows managed service providers and enterprises to test the recoverability of their data and exercise the disaster recovery plans without impact to the end customer. This module enables data restore and recoverability test at the data center on the DS-System.

LOCAL STORAGE
This module enables customers to store copies of their backed up data locally, on DS-Client LAN for fast restores in major failure scenarios. Data saved in Local Storage is also saved offline to DS-System.

LOCAL-ONLY
This module enables customers to store backed up data on-site on the local LAN.
Recover NOW

Asigra Cloud Backup contains features and functionalities that enable you to recover quickly and efficiently from data loss situations.

**LOCAL DS-VDR**
Local DS-VDR helps organizations create a backup copy of one or more physical or virtual machines within the local environment. When the original machine goes down, organizations can recover instantly from the failure and continue to operate by just turning on the virtual copy of the machine.

**REMOTE DS-VDR**
With Remote DS-VDR organizations can create a warm spare of their VMware virtual machines at a remote offsite data center. They can use this machine to fail over to in the event of a complete site failure, even as they work on recovering their primary site.

**ASIGRA SNAPSHOTs AND SNAPSHOT MANAGER**
Asigra's snapshot capabilities enable organizations to protect large data sets in a very short time interval. Organizations can also manage and configure snapshots using the complimentary snapshot manager interface.

**LAN STORAGE DISCOVERY**
Asigra provides LAN storage discovery functionality that completely analyzes the entire application and data types on the LAN before you commit to a backup procedure. It generates relevant reports that identify possible storage inefficiencies, thereby enabling you to optimize and better manage the backup procedure from both a data and cost perspective.

**REPORT DATA HELPS TO SHOW AREAS WHERE YOU CAN:**
- Assess recoverability of data
- Increase server availability and performance
- Isolate storage abuses before conducting a costly backup
- Reduce backup window time
- Identify mission-critical and non-critical data
Asigra Cloud Backup is comprised of three major components:

1. **DS-CLIENT**
   DS-Client software is installed at the end customer’s premises where data needs to be protected. The DS-Client collects data from all machines, drives, applications and systems on the end customers LAN. 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 backup a heterogeneous environment of different OS, databases, applications, and data types.

   **DS-Client is offered in several variants:**
   1. Full-featured – for enterprise and data center backup
   2. Mobile – for corporate managed laptops
   3. Consumer – for consumer laptops and desktops
   4. Smartphone – for corporate and consumer smartphones
   5. Tablet – for corporate and consumer tablets

2. **DS-SYSTEM**
   DS-System software is installed at the enterprise or service provider’s 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 and price points:**
   1. Full-featured – accepts connections from all variants of DS-Client
   2. Mobile – accepts connections from DS-Mobile Clients for Windows and Mac, DS-Consumer, DS-Smartphone, and DS-Tablet Clients
   3. Consumer – accepts connections from DS-Consumer, DS-Smartphone, and DS-Tablet Clients

3. **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, either for cost or for regulatory compliance reasons.
   - 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)
   - Offsite replication option for additional redundancy and compliance
“Working with Asigra technology gives me confidence in my data protection plan. I know that if I ever need to restore, it will take a few minutes rather than several hours. It’s about the recovery, not the backup.”

For more information about Asigra Cloud Backup visit our resource center at www.asigra.com/resource-center for case studies and white papers, or contact us at 416-736-8111.

About Asigra
Asigra is the leading cloud computing software vendor focused on backup, recovery and restoration with more than 550,000 global installations. Asigra Cloud Backup™ transforms the way businesses manage and protect their data by delivering seamless end-to-end data protection that efficiently scales and easily adapts to any IT environment. With more than 26 years of experience as backup/recovery pioneers, Asigra manages one of the largest business-class backup service provider ecosystems in the world who power their cloud backup services using Asigra technology and provide hands-on local service. Asigra Cloud Backup was recently awarded the 2012 Frost & Sullivan North American New Product Innovation Award in Cloud Based Data Management and was named “Product of the Year” by Storage Magazine. Asigra was recently awarded a 5-Star rating in the CRN Magazine’s 2012 Partner Program Guide, named a CRN 2012 Channel Chief, and also named a Best Channel Partner for 2012 by Business Solutions Magazine. Asigra is headquartered in Toronto, Canada, with offices globally. For more information, visit www.asigra.com