

ASSUREON[®] STORAGE SYSTEMS

HARDWARE COMPONENTS

SX SERVER (2.5 INCH CHASSIS)	
CPU	Dual 8-core Hyper-Threaded CPU
Max data drives	60
RAM	64GB
Standard NIC Ports	One 1GbE RJ-45 MGMT Port Two 10GbE RJ-45/SFP+ Data Ports
Optional NIC Ports	Two 40GbE QSFP Data Ports for optional RoCE connectivity for reading virtual shortcuts (see Advanced Features)
Power cables	5-15 and C13/C14
AX SERVER (3.5 INCH CHASSIS)	
CPU	Dual 8-core CPU
RAM	32GB
Standard NIC Ports	One 1GbE RJ-45 MGMT Port Two 10GbE RJ-45/SFP+ Data Ports
Power cables	5-15 and C13/C14
EDGE (ASSUREON CLIENT) SERVER (3.5 INCH CHASSIS)	
CPU	Dual 8-core CPU
RAM	32GB
Standard NIC Ports	One 1GbE RJ-45 MGMT Port Two 10GbE RJ-45/SFP+ Data Ports
Optional NIC Ports	Two 40GbE QSFP Data Ports for optional RoCE connectivity for reading virtual shortcuts (see Advanced Features)
Power cables	5-15 and C13/C14
AX ASSUREON APPLIANCE	
Useable Archive Space	16TB to 32TB
Expandable with Similar Systems	Yes
External Storage	No
LOW CAPACITY ASSUREON	
Small SX/SXR	14TB to 168TB
Rackspace	4 U
Processing Node Included	Yes
Storage Node Included	Yes
ENTERPRISE CAPACITY ASSUREON	
Large SX/SXR	400TB to 600TB*
Rackspace	6 U
Ability to Add Additional Processing Nodes	Yes
Ability to Add Additional Storage Nodes	Yes



*An unlimited number of nodes can be configured together for Petabytes of secure archive.

FEATURES AND FUNCTIONALITY

ENVIRONMENT

Usage Environments	Windows, Unix/Linux, Apple MacOS
Supported Files / Capacity	No architectural limit
Removable Media	No
Admin Interface	Web GUI, role-based admin
Remote Replication	Yes - WAN-based
Primary Ingestion Methods	Assureon client, Edge device
Optional Ingestion Methods	Read-only lock, XML ingestion file
Custom API	Not required but can use as alt method to set retention

OPERATIONAL

Storage Technology Used	RAID disk systems, integrated disk, or cloud
System Logging	Yes
System Automatic Reporting	Yes
System Self-Protecting	Yes
Redundant Fans	Yes
Redundant Power Supply	Yes
Battery Backed-Up RAID	Yes

INTEGRITY

Unique Fingerprints	Generated using MD5 and SHA1 hash
Serial Numbers	Each file assigned unique serial number
Secure Time Stamp	Global, redundant, time source
Two Copies of All Files	Each file and its fingerprints stored twice
Data Verification	Continuously verified via fingerprints

COMPLIANCE FUNCTIONS

e-Discovery: Content Indexing, Search, Export	Yes
Automatic Copies	Yes - makes two copies on disk - local or remote
Unique Copy Serialization	Yes
Multi-Tenancy - Isolation to Storage Devices	Yes
Secure Delete	Yes
Legal Hold on Files and Multi-overlapping	Yes, Yes
WORM	Yes
Multi-Regulations Simultaneously	Yes
Audit-Trail with Chain of Custody for Data Accesses	Yes
Retention Controls - Default Setting by Archive	Yes
Retention Controls - Application Controlled Setting	Yes

SCALABILITY AND HIGH AVAILABILITY

Remote Replication	Two active Assureons can continuously replicate each other
Failover/Failback	Native Active/Active replication with automatic read and manual write failover
Capacity	Scale capacity up to multiple petabytes

CLOUD READY

Multi-Tenancy	Enables service to offer highly secure Archive-as-a-Service
Online Archive	On-premise Assureon can replicate to a cloud-based Assureon powered archive service
Assureon Cloud Transfer (ACT)	ACT Transfers data to or from cloud applications. Reference any or all archive files from AWS, Azure or windows servers for cloud data portability - eliminating cloud vendor-lock-in

MANAGEMENT	
Automatic Archive	Move files to Assureon, leave original file in place or optionally leaves virtual shortcut
NAS (NFS/CIFS)	Edge device presents a CIFS/NFS NAS interface to users and applications
Fast and Easy Deployment	Assureon client can be installed on Windows Server 2008R2 - 2019 with no reboot required.
Global Management	Single pane-of-glass management
Reports	Reports keep track of storage usage
Lights-Out Management	Self-managing Assureon issues alerts when something needs attention

REGULATORY AND CORPORATE COMPLIANCE	
Government Regulations	FRCP, SOX, SEC-17A4, HIPAA, GDPR, CCPA, CJIS, PCI, GLBA and PCI-DSS
Data Retention Policies	Create retention rules for directories and file types
Legal Hold	Ability to place on any set of files
Retention Periods	Fixed and flexible retention periods
Data Deletion	Single-point deletion and optional data wipe of the drive

ADVANCED FEATURES	
Power - Auto Spin-Down of Disk Drives	Yes
Single instancing	Yes
Compression	Yes
Encryption	AES-256, FIPS 140-2, automatic key management
Versioning	Yes
Reporting	Yes - extensive
Ingestion Throttling	Yes
RoCE (RDMA Over Converged Ethernet)	Optional RoCE connectivity delivers blazing-fast 40GbE read functionality for virtual shortcuts

PRIVACY	
Separation of Data	Logical and physical separation plus separation via multiple AES-256 encryption keys
Encryption	Files can be AES-256 encrypted
Authentication	Active directory or digital certificates
Audit Trails	Report on file access and denied access

ASSUREON COMPONENT DESCRIPTIONS	
Single Site Assureon (SX)	Assureon will maintain two copies of every file within local Assureon system
Replicated Assureon (SXR)	Assureon will maintain two copies of every file or object. Replicated Assureons (SXR) are typically geographically separated.
Hosted Assureon (HXR)	A local Assureon will maintain a single copy of the data while a second copy of the data is replicated to a remote, multi-tenancy Assureon. Typically, the second Assureon resides at an Assureon-as-a-service cloud provider or in a corporate cloud.
Edge Server	The Edge Server includes 8 GB RAM, single quad-core CPU, and approximately 2.3 TB capacity for customer data. It supports four additional drives for extra capacity and it also supports Infiniband for high-speed Assureon.
Client Software	The Edge Server includes 32 GB RAM, dual 8-core CPU, and approximately 3.2 TB capacity for data. It also supports four additional drives for extra capacity.
Shortcuts/File Stubs and Virtual Shortcuts	After successfully archiving a file, you can configure Assureon to replace the file with a shortcut or a virtual shortcut using RoCE. When a user or application reads the shortcut, the file is retrieved from the Assureon Archive and presented to the user or application as if it was the actual file. This facilitates fast recovery time of files, and reduces the amount of disk storage required on client systems. Virtual shortcuts with RoCE consume no disk space.

