

Infrastructure Suite

Benefit with Cloud Elasticity and Scalability

Solution DATASHEET

Introduction

Axelaris suite delivers a complete, integrated cloud infrastructure that simplifies IT operations while also delivering the best SLAs for all applications. The suite delivers Virtualized infrastructure services (storage, network, security and availability), Infrastructure management services, System Information & Event management Services and Monitoring/Audit Services.

Solution Packages

Axelaris Suite gives IT access to a complete cloud solution with a single purchase. It also removes the hassle of managing per VM license purchasing. All components of each suite version are licensed on a per CPU basis. Regardless of the number of VMs running you can be assured they are covered for all the functionality of the entitled suite version.

Axelaris Infrastructure Suite is available in three editions:

Standard Get started with infrastructure as a service. Enable rapid, managed access to virtual resources and deliver software-defined datacenter services including networking and security within virtual datacenters. Allow extension to external cloud capacity.

Professional Intelligently manages your infrastructure as a service cloud and enables security and performance SLAs. Enable control and accountability with capacity, configuration and chargeback management. A highly available firewall and network load balancer deliver security and performance SLAs.

Enterprise Build a complete and mature cloud for IT service and application provisioning and management. Offer quick and consistent on-demand provisioning of multi-tier applications. Deliver availability SLAs for business critical applications with disaster recovery and maintain performance SLAs with application monitoring.

	Standard Edition	Professional Edition	Enterprise Edition
Compute Virtualisation	Basic	Professional	Enterprise
Storage Virtualisation	No	Professional	Enterprise
Network Virtualisation SDN	No	Professional	Enterprise
Infrastructure Management	Basic	Professional	Enterprise
Audit	No	No	Enterprise
Monitoring & Notification	Basic	Professional	Enterprise
SIEM	No	No	Enterprise
Security	No	No	Enterprise

Component Overview

Each of the above components provides significant value to the overall solution. The following sections provide additional details concerning each. Section titles are followed by the code for which suite that component is included in (E = Enterprise, P = Professional, S = Standard).

Axelaris Infrastructure solution enables companies to start their cloud project using the latest virtualization tools which enable them to define elastic resources allocation

Component Overview

Compute Virtualization
Storage Virtualization
Software Defined Network (SDN)
Infrastructure Management
Security & Event Alerting
Monitoring & Notification
Audit
Security

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Compute Virtualization

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KeyFeatures

- **Memory Optimization:** Reduces costs and improves application performance and protection by sharing unused server memory.
- **Intellicache:** XenServer is optimized to reduce the overall costs and improve performance.
- **Heterogeneous Pools:** Enables resource pools to contain servers with different processor types.
- **Improved Reliability and Security:** It became easy to maintain a consistent virtual infrastructure.
- **Reduced Management Overhead:**
The Infrastructure Suite uses an agentless approach to hardware monitoring and system management with an API-based partner integration model.
- **Simplified Hypervisor Patching and Updating:**
Infrastructure Suite Hypervisors need fewer Patches and Updates. Fewer patches mean smaller maintenance windows and fewer scheduled maintenance windows.
- **Hardened security:** This enables advanced security protection on a "need-to-know" basis between virtual machines for different users.



Benefits

- Great flexibility in the Hypervisor choices
- Greater scalability
- Save energy
- Enhance Reliability, Security and Protection
- Improve Functionality
- Increase Performance
- Server Consolidation
- Improved System Reliability and Security
- Faster server provisioning
- Increase uptime

Professional Services

Training

With AXELARIS Trainings, acquire in-depth expertise in administering, customizing, maintaining, and supporting AXELARIS orchestration and virtualization software products.

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Storage Virtualization

The storage virtualization suite from Axelar is based on Apache CloudStack Cloud suite. It enables defining virtual storages in a cloud context. It Provides storage pools that deliver and manage multiple storage volumes that will be attached to VMs, clusters, pods or virtual data centers. CloudStack manages Primary and Secondary Storage. Primary storage is associated with a cluster and/or a zone. It stores the disk volumes for all of the VMs running on hosts in that cluster. Primary storage can be either static or dynamic.

Secondary storage stores the following:

- **Templates** : OS images that can be used to boot VMs and can include additional configuration information, such as installed applications
- **ISO images** : disc images containing data or bootable media for operating systems
- **Disk volume snapshots** : saved copies of VM data which can be used for data recovery or to create new templates

The items in secondary storage are available to all hosts in the scope of the secondary storage, which may be defined as per zone or per region.

Key Features

- **Clustered LVM Support**
- **Supported Storage:** DAS, NFS, FC, iSCSI, SSD for Swap, FCoE, 16 GB FC HBA
- **Support of SAN Multipath**
- **Support of Shared File System**
- **Boot from SAN capabilities**
- **Support for:** OpenStack Object Storage (Swift) and Amazon Simple Storage Service (S3) object storage.



Benefits

- Consolidated storage management
- Advanced storage management features
- More energy-efficient operations
- Non-disruptive data migration
- Reduced capital expense and total cost of ownership for storage

Professional Services

Certification

Provide tangible evidence of your in-depth knowledge by becoming certified as a Cloud services expert. By validating your expertise, certification helps advance your career.

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Software Defined Network (SDN)

Axelaris Cloud data center architectures promise the agility you need in order to quickly deploy applications, maximize efficiency and deliver great user experience. Traditional network architectures are ill-suited to meet these requirements, so Software- Defined Networking (SDN) is transforming networking architecture.

As a result, enterprises and carriers gain unprecedented programmability, automation, and network control, enabling them to build highly scalable, flexible networks that readily adapt to changing business needs.

KeyFeatures

- **Network Virtualization:** Access-control, services and connectivity are defined via high level policies. By implementing inter-network routing in the host, we reduce latency for traffic crossing virtual-networks.
- **Network Programmability and Automation:** By defining the configuration of the network versus of a specific device, Our SDN solution simplifies and automates network orchestration.
- **Big Data for Infrastructure:** The analytics engine is designed for very large scale ingestion and querying of structured and unstructured data. Real-time and historical data is available via a simple REST API, providing visibility over a wide variety of information.
- **Change Layer 4-7 services:** SDN can change Layer 4-7 network services by enabling virtual applications of load balancing, WAN acceleration and network security appliances. These virtual appliances use the information gathered by SDN controllers and provide a holistic view of the physical and virtual network.
- **A Multiprotocol compatibility:** It interoperates directly with any network platform that supports the existing BGP/MPLS L3VPN standard for network virtualization.
- **A Multi-platform compatibility**



Benefits

- Centralized control of multi-vendor environments
- Reduced complexity through automation
- Higher rate of innovation
- Increased network reliability and security
- More granular network control
- Better end-user experience

Professional Services

Implementation services

Axelaris Implementation Services is your trusted partner for planning, deploying, integrating and optimizing your Axelaris Cloud solution.

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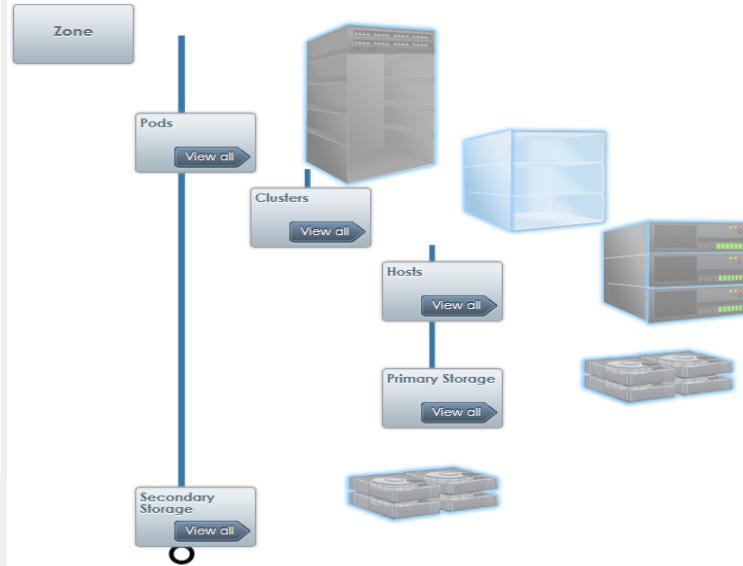
Infrastructure Management

Axelaris Suite ensures the full management of the whole infrastructure through a user friendly interface, CloudStack. It allows users to define templates, manage hosts (zone, pods, clusters ...), manage architecture's component...

KeyFeatures

- **Hypervisor Agnostic:** CloudStack provides you with the flexibility to allow you to integrate with the major hypervisors in the market
- **Easy Template Creation Process:** The CloudStack User Interface allows you to easily create pre-defined templates for efficient virtual machine deployments.
- **Rich Template and ISO Management:** Both users and administrators will be able to upload and manage their OS templates and ISO images from within the cloud
- **Rich Management User Interface:** CloudStack provides a feature-rich out-of-the-box user interface implemented on top of the CloudStack API to manage the cloud infrastructure.

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Benefits

- All in one Interface
- Improve service
- Simple use
- Reduce cost
- Manage risk

Professional Services

Accelerate Evaluation Services

Knowing what to measure during your transformation is crucial to reducing costs, improving productivity and becoming more agile than your competitors.

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Security & Event Alerting

SIEM Tool provides real-time analysis of security alerts generated by network hardware and applications. Axelaris Suite integrates SIEM System to guarantee a maximum security of the infrastructure and to prevent attacks or unavailability of the platform. SIEM Tool provides a way for organizations with limited security staff and budget to address compliance and threat management needs.

KeyFeatures

- **Asset Discovery:** Active and passive network discovery
- **Vulnerability Assessment:** Active network scanning, continuous vulnerability monitoring
- **Threat Detection:** IDS, host-based IDS (HIDS), file integrity monitoring, etc.
- **Behavioral Monitoring:** Net flow analysis, log normalization, etc.
- **Security Intelligence:** log management, SIEM event correlation, etc.
- **Avoid major attacks type:**
 - Known Vulnerability (CVE) Exploits
 - Brute force Attacks
 - Denial of Service Attacks
 - Malware Detection
 - Network-level Attacks
 - SCADA Attacks
 - System Probing and Scanning
 - Malicious Activity Infrastructure Suite



Benefits

- Unified Security Management platform
- Open Threat Exchange
- Easy detection for emerging threats across their environments
- Respond quickly to incidents and conduct thorough investigations
- Easy to Measure, manage, and report on compliance (PCI, HIPAA, ISO, and more)
- Reduced risk by Optimized security

Professional Services

Accelerate Diagnostic Services

Successful virtualization and ITaaS initiatives require a thorough understanding of the changes needed to sustain and maintain your new environment.

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Security

Security is a big issue for infrastructure in today's enterprise environment. That's why Axelar Suite attaches great importance to security system with integrating security modules such as IDS, Honey Pots, etc. The Infrastructure suite guarantees full-seal against intrusion.

KeyFeatures

- **IDS:** Intrusion Detection System or IDS is software, hardware or combination of both used to detect intruder activity.
- **Network IDS (NIDS):** NIDS are intrusion detection systems that capture data packets traveling on the network media (cables, wireless) and match them to a database of signatures.
- **Host IDS (HIDS):** Host-based intrusion detection systems or HIDS are installed as agents on a host. These intrusion detection systems can look into system and application log files to detect any intruder activity.
- **Intrusion Prevention System (IPS):** IPS, not only has the ability of IDS, but also can drop malicious packets and close connection sessions in order to stop further attacks. IPS could achieve Real-time Interdiction by leveraging in-line deployment in the network topology.
- **StatefulFirewall:** Decreases the attack surface of physical, cloud, and virtual servers with fine-grained filtering, design policies per network, and location awareness for all IP-based protocols and frame types.
- **Anti-Malware:** Optimizes security operations to avoid antivirus storms commonly seen in full system scans and pattern updates
- **Cloud VPN:** Virtual Private Network (VPN) provides encrypted Device Cloud access over the public Internet a business will benefit from a fully secure data solution that yields ROI through superior reach, quality of service and cost savings.



Benefits

- Detect intrusions, attacks & hackers
- Increase visibility into real-time threats
- Fine-tune alerts and correlate findings to reduce noise
- Increase control over application threats
- Leverage deployed IPS infrastructure to be alerted to custom Web application attacks in real-time
- Extends IPS from the network space to include Web applications
- Simple deployment

Professional Services

Accelerate Strategy Services

Let our experts work with your stakeholders, IT teams and lines of business to develop a comprehensive strategy, roadmap and pragmatic action plan for your enterprise IT.

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Conclusion

Axelaris infrastructure virtualization and management tools help customers dramatically reduce capital expenses through server consolidation. It has improved operating expenses through automation, and it has minimized lost revenue with reduced planned and unplanned downtime. Today enterprises also need better time to market for their products and services while maintaining flexibility and elasticity of their infrastructure. Business units demand rapid access to IT resources and applications. To support these goals, IT teams need to be more agile while ensuring that datacenters can be fully monitored, managed and protected. Axelaris enables customers to achieve the full benefits of a private or hybrid cloud—increased responsiveness, simplified operations and the best service-level agreements (SLAs) with a single package.



Contact AXELARIS today

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