ESVA

Enterprise Scalable Virtualised Architecture

Powerful, innovative storage to deliver more to your business

Key Benefits

✓ Leading performance, the highest levels of scalability and availability

✓ High performance 8Gb/s Fibre Channel and iSCSI connectivity

✓ "Scale-out" architecture for linear scaling of performance and capacity

✓ Energy efficient multi-level power saving modes and dynamic cooling

✓ Support for low-power Solid State Disks (SSD)

✓ Powerful management software with active event notifications

✓ Data services such as snapshot backup, storage virtualization, thin-provisioning, remote replication and mirroring, all built into the ESVA

✓ No annual subscription fee for software features and functions

✓ 24/7 support services included as standard for 3 years via phone, web or email

The Powerful Scalable Architecture from Infortrend

The ESVA series from Infortrend delivers leading innovation in storage solution design with easy to use, yet powerfully rich, flexible data service features allowing businesses to gain unparalleled control over essential information.

Specifically designed to meet the key challenges businesses face with growing data volumes, information protection and management, the ESVA from Infortrend delivers innovative, enterprise class features and capabilities without the enterprise price tag.

Fully Configured, Ready to Go

The ESVA can meet a broad range of demands from low cost entry-level requirements through to high performance, full capacity and the highest scalability needs in an enterprise environment.

The ESVA series comes in a number of pre-configured models and different connectivity options including Fibre Channel (F series) and iSCSI (E Series) allowing businesses to select the best solution for their specific application needs.

Enterprise Features, Enterprise Capabilities

Through the utilization of innovative features built into the ESVA, such as storage virtualization, thin-provisioning, replication and snapshot technology, customers can optimize availability whilst lowering costs and energy use.

ESVA - F20
Best value high performance networked storage

Infortrend ESVA F20 provides high capacity and performance, with 8Gb/s Fibre Channels and SATA drives

ESVA - F40
Twice the IOPS performance in the same rack space

Infortrend ESVA F40 provides high I/O per second speed for demanding applications in a small foot print, utilizing 2.5" enterprise SAS drives

ESVA - F60
Best-in-class performance for networked storage

Infortrend ESVA F60 provides powerful networked storage that scales seamlessly and features 8Gb/s Fibre Channel plus high performance enterprise SAS drives

"Infortrend has proved itself as a technology innovator and has, on many occasions, been the first to bring a new aspect of RAID technology to market."
Source: IDC Vendor Spotlight, May 2009

Features and Benefits

Consolidate, Scale Capacity and Performance
The scale-out architecture is the backbone of the ESVA. By adding additional ESVA storage to the existing ESVA network, it boosts the storage capacity instantly and also increase storage performance linearly. The storage capacity among all the managed ESVA systems on the storage network can be consolidated, managed and shared by multiple servers and applications.

Improved Storage Capacity Utilization
By consolidating and sharing storage capacity and through the use of ESVA thin-provisioning, disk utilization can be dramatically improved and allows businesses to delay capacity upgrade purchase until actually required.

Superior Availability
The Infortrend ESVA features full redundancy designs on the RAID controllers, power supplies, fan modules, disk drives and the cable connections. By avoiding any single-point-of-failure, the Infortrend ESVA provides superior availability, ideal for all applications and as primary data storage for business-critical information.

Highest Levels of Data Protection
The Infortrend ESVA utilizes RAID 5 and RAID 6, which offers the highest level of protection in the event of a disk failure. In the event of a power outage, the inbuilt CacheSafe technology ensures all the unwritten data stored in the cache memory is instantly protected and stored. Once power resumes, data is then written to the disk drives, maintaining data integrity and offering the highest levels of protection.

Your Choice of Disk Drives
Utilize the latest performance and capacity in disk drive technology from enterprise SAS drives, high capacity SATA drives or 2.5" SAS drives for smaller footprint in the data centre. For primary storage, choose the enterprise SAS drives for uncompromising reliability and for secondary storage, choose the high capacity SATA drive.

Solid State Disk (SSD) Support
Perfect for applications demanding high numbers of transactions, the combination of Infortrend ESVA and Solid State Disks (SSD) can significantly boost the performance on numbers of transactions per second (IOPS) as well as being a "greener" technology through lower power consumption, less heat generated and the added reliability of no moving parts.

Energy Efficiency

Green Features Through Design
With businesses looking to leverage green elements of a storage system to meet environmental demands, the ESVA has been designed with energy efficiency in mind and features benefits in reducing energy requirements and carbon footprint.

Energy efficiency is not only about being "green". In many organizations where IT budgets include energy bills, paying less for power can have a positive effect on reducing ongoing costs, resulting in a faster return on the investment made with the ESVA.

Multi-level Drive Spin Down: depending on utilization, the ESVA will dynamically spin down unused drives to reduce power consumption and wear on internal mechanics prolonging the life of the drive. When required, drives instantly become re-available so there is no degradation in performance. The heat output of the ESVA is reduced, meaning that cooling requirements are also reduced.

ESVA

Power Supply Efficiency: The highly-efficient power supplies within the ESVA use less energy and generate less heat, while providing the right amount of power to ensure performance and capacity requirements are not compromised.

Dynamic Cooling Control: Cooling modules within the ESVA automatically change the air-flow rate depending on the heat generated internally. Less heat generated through the power supply efficiency means less power consumed by the air conditioning to cool the systems.

CacheSafe Technology: Offering a new level in data protection, the ESVA CacheSafe improvement means that the inbuilt battery is used far more effectively. Reducing the charging / discharging cycles therefore extends the battery life span from 1 year to up to 3 years, resulting in less waste and harm to the environment.

Improved Production Techniques: To help protect the environment, Infortrend use no harmful materials or chemicals in the production process of the ESVA

Comprehensive Data Services

A vital aspect of any enterprise class storage system is the inbuilt functionality and rich data services you would expect helping you manage, maintain and protect the data stored. The ESVA is no exception and is enabled with a whole host of software features that actually run on the ESVA hardware, freeing up servers to run applications.

What's more, with the ESVA, the main software features are enabled as standard with no restrictions on use and are fully licensed for 3 years with global support, 24 hours a day, 7 days a week included.

Centralized Management: The Infortrend ESVA comes equipped with SANWatch™, the cross-platform, central management software allowing one holistic view of the ESVA storage. Designed to be intuitive, simple to use and yet powerful, complete and comprehensive reports and statistics are all easily accessible by a few clicks in SANWatch™.

Active Notifications: Active notifications can be easily configured to notify the administrators of any event. The notifications can be sent by email, SMS[1], fax[1], MSN messenger, SNMP traps and network broadcast.

Array-based Storage Virtualization: Create and manage a pool of ESVA storage to take advantage of exponential storage scalability, managed as one virtual pool. Expand volumes, move capacity, add additional ESVA storage on demand. Being array based, there is no heavy utilization of the server processing power. Additionally, data does not have to travel twice across host channels, saving vital bandwidth for actual application data.

Thin-Provisioning: With thin-provisioning, storage capacity utilization efficiency can be automatically driven up towards 100%, without heavy administrative overhead. You can purchase less storage capacity up front, defer storage capacity upgrades in line with actual business usage, and save on operating costs.

Remote Mirroring, Remote Replication: The remote mirroring and replication function[2] can provide the highest levels of availability. Remote mirroring and replication functions are performed by the ESVA itself, without utilizing the host computer's processing power and bandwidth.

Snapshot: With support for up to 1024 snapshot images, you can avoid downtime through instant recovery of data, from a "point-in-time" in the event of a disaster, to provide Near Continuous Data Protection (NCDP).

ESVA - E20
Best value high performance
iSCSI networked storage
Infortrend ESVA E20 provides high capacity and performance, with 8 channels of iSCSI and SATA drives

ESVA - E60
Best-in-class performance
for iSCSI networked storage
Infortrend ESVA E60 provides powerful networked storage that scales seamlessly and features 8 channels of iSCSI plus high performance enterprise SAS drives

"Infortrend is an emerging challenger for enterprise storage solutions and is well placed to maximize opportunities in this market…"
Source: IDC Vendor Spotlight, May 2009

Infortrend ESVA at a glance

	ESVA-F20	ESVA-F40	ESVA-F60	ESVA-E20	ESVA-E60
Capacity (Nominal)	From 16 TB up to 112 TB	From 1.8 TB up to 7 TB	From 2.4 TB up to 33.6 TB	From 16 TB up to 64 TB	From 2.4 TB up to 19.2 TB
Front-End (Host) Connectivity	4 ports of 8 Gb/s Fibre Channel	4 ports of 4 Gb/s Fibre Channel	4 ports of 8 Gb/s Fibre Channel	8 ports of 1 Gb/s iSCSI	8 ports of 1 Gb/s iSCSI
Disk Type	SATA-II 3.5" Disks	Enterprise SAS 2.5" Disks	Enterprise SAS 3.5" Disks	SATA-II 3.5" Disks	Enterprise SAS 3.5" Disks
Number of Disks	Starting from 16, up to 112	Starting from 12, up to 48	Starting from 16, up to 112	Starting from 16, up to 64	Starting from 16, up to 64
Cache Memory	8 GB	4 GB	8 GB	4 GB	4 GB
Storage Expansion	ESVA-J20-130	ESVA-J20-120	ESVA-J60-130	ESVA-J20-130	ESVA-J60-130
Back-End (Disk) Connectivity	SAS Channels with Redundant Paths and Dynamic Load Balancing				
Enterprise Scalable Virtualized Architecture	Linear scaling of performance and capacity; storage pooling; thin-provisioning; automatic data migration; prioritized volume access; distributed load balancing, Snapshot, Replication & Mirroring[2]				
Data Protection	RAID 5 / RAID 6; quick recovery; snapshot; volume copy/split mirror; remote mirroring (sync./async.); remote replication				
Power Saving	Multi-level power saving modes support on disk drives; high energy efficiency power supply; dynamic cooling mechanism				
Hardware Protection	Redundant and hot-swappable controllers, PSUs, FANs; CacheSafe technology; multi-path support				
Supported Operating Systems	Windows Server 2008 (including Hyper-V), Windows Server 2003, RedHat Enterprise Linux, SESE Linux Enterprise, SUN Solaris, IBM AIX, HP-UX, VMware ESX Server *For latest update and details of supported operating systems, refer to Infortrend web site				
Warranty and Service	Standard Service: 3 years 24x7 support through telephone, on-line support or email. Parts dispatch on the next business day. Advanced Service (optional): Onsite diagnostics, next business day. Premium Services (optional): Onsite diagnostics, 4 hours response. *Service offers may vary by regions				

Pre-sales Services
Our dedicated pre-sales team can help you to design your data storage configuration according to your requirements ensuring interoperability within a heterogeneous environment. Contact your systems integrator or local reseller for more information.

After Sales Service and Support
The Infortrend ESVA has three-year 24x7 support via phone, on-line support or email included. In the unlikely event of hardware failure, the self installable part will be dispatched on the next business day to the location of your choice. Upgrade to Advanced Service to receive on-site support on the next business day, or invest in our Premium Service for response to a problem within 4 hours, for an extra peace of mind.

Education & Training Service
The Infortrend Education Services offers multiple training options to fit your needs, including traditional instructor-led courses at one of our local offices worldwide, or on-line training courses with no travelling required. For more information on Infortrend Education Services, contact your local Infortrend representative.

[1] A Fax modem is required to send fax notifications. SMS gateway device, SIM with network subscription and mobile phone network coverage required for SMS notifications.
[2] Additional optional licence required. All Information are subject to change without prior notice.

www.infortrend.com/esva