EVIDEN

Escala
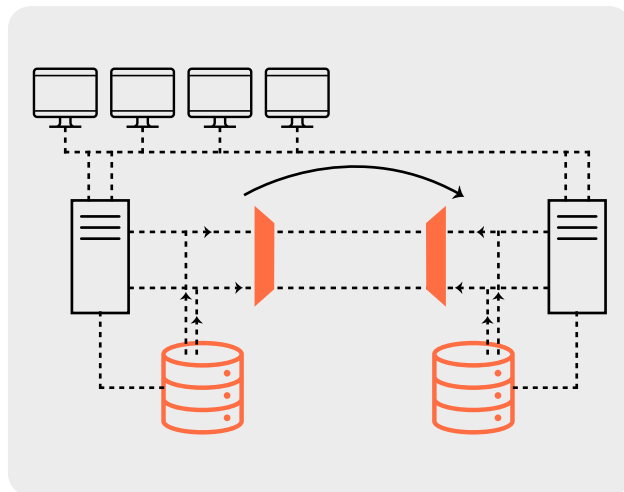
Secure critical applications efficiently and cost-effectively

ARF Escala value-added HA/DR solution

Application Roll-over Facility (ARF), the leading-edge high-availability software solution developed by Eviden, offers almost non-stop application availability, in case of hardware or software outages, maintenance operations, or disaster recovery. Combined with and adapted to the advanced virtualization functions of Eviden Escala servers, ARF provides optimal availability for business critical applications.

Based on a shared storage cluster, ARF, is designed to provide a completely resilient infrastructure. Data is constantly synchronized between nodes and ready for a failover event. In case of node failure, or simply for administration or maintenance purpose, the services associated with an application or a node can thus be activated very quickly on an alternate local or remote server.

Easy deployment and management

- Simple administration menus
- Quick propagation of the node definition across all the cluster nodes
- Creation of snapshots
- Integrated diagnostic tool for checking the global cluster configuration.

Easy-to-use flexibility

- Automatic or manual take-over of applications
- Intuitive graphical interface
- Management of any type of application from databases to application server
- Customization of the events that provide an application failover on the backup node.

Local or multiple site recovery

- Configuration options adapted to business resources and requirements of each company
- Integration with SAN (Storage Area Network) architectures
- Compatible with the most common storage units on the market (matrix updated regularly)
- Disaster recovery solution on a backup site with no distance limit.

Reduced costs

- License package optimization for local or multiple sites
- Temporary resource activation in case of application activation on the backup node.

Non-stop monitoring

- Dynamic view of the cluster status
- Permanent checking of the availability of each node through a heartbeat mechanism
- Automatic failure detection with immediate notification sent to the system administrator
- Event logging.

Meet the ARF experts

ARF is one of the key topics at the Demo Center in Grenoble. Customers can participate in ARF discussion workshops and demonstrations, tailored to their needs.

an atos business

Your benefits

- Better customer satisfaction due to faster response times and availability
- Improved operational efficiency
- Flexibility in responding to changing business requirements
- Highly secure architecture
- Reduced energy consumption
- Lower TCA/TCO for applications
- Open innovation for new capabilities

Professional services

Based on years of experience in business continuity on large production servers, Atos proposes a wide range of customized frontline assistance, disaster recovery planning and outsourcing services. As part of our GlobalCare offering, our HA 999 contract also guarantees 99.9% annual availability.

Escala servers, designed for reliability

At the heart of this solution, the full range of Eviden Escala servers provides functionalities largely inspired by main-frame technologies. These functionalities enable a commitment to business continuity thanks to the component redundancy, the failure prevention, the error auto-correction mechanism and the integration of advanced diagnostic aids.

With the AIX® operating system, recognized for its reliability, security and standards compliance, the Escala servers, with PowerVM®, provide innovative virtualization features. PowerVM offers optimum use of resources and improves availability by avoiding planned downtime with the ability to move running workloads between servers.

Finally, the Capacity Upgrade on Demand (CUoD) option allows the addition of processor and memory resources as required. Installed on the system, these resources can be activated on a temporary basis in case of peak activities or additional workloads, for example in case of application failover by ARF.

Technical specifications - ARF

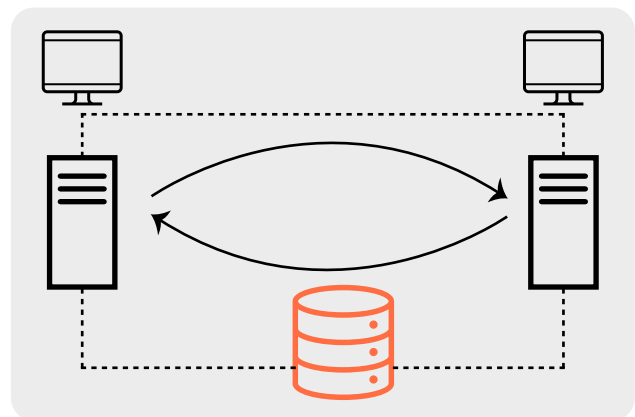| Cluster architecture with no single pont of failure (SPOF)	
Supported servers	Escala servers, virtualized or not
Operating system	AIX v7.1/v7.2/v7.3
Supported storage	EMC DMX, VPLEX, VMAX; NetApp; IBM System Storage disk subsystems; Hitachi; PureStorage; Huaweï Oceanstor; SAS Disk drawers; etc. For full list, please consult the ARF for Escala – Interoperability Matrix.
Heartbeat	Ethernet, disk heartbeat
SAN access	FC, IP or iSCSI protocol
Communication mode between nodes	ssh or rsh
Multipathing	AIX MPIO or multipathing software specific to disk systems
Disaster Recovery	AIX™ mirroring, IP replication with GLVM, or some third party data replication software (ex: EMC Recoverpoint, SRDF...)

Cluster administration
• Node installation and configuration with SMIT (System Management Interface Tool) • Configuration propagation across all nodes • Snapshot creation • Unified view of status of all clusters with the ARF Watch utility • Diagnostic tool • Error notification • Application monitoring • Dynamic ARF version update
Licenses
• Standard Edition: base functions and disaster recovery with data replication through AIX®mirroring • Enterprise Edition: disaster recovery with data replicated via GLVM or some third party data replication software

Features

- Network redundancy provided by the Etherchannel feature of AIX®
- Recovery of applications, nodes or disks
- Shared Storage Pools
- Manual or automatic application failover
- Dynamic node, application or disk volume addition
- Application reintegration on the original node, only on system administrator decision
- Virtualisation functions support: Virtual IO Server (VIOS), Live Partition Mobility (LPM), Workload partitions (WPAR), NPIV (N-Port ID Virtualization)

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