Clustering for Axway SecureTransport

Standard and Large Enterprise Options Ensure Business Continuity

Hardware fails. Software fails. Systems require periodic downtime for upgrades and maintenance. Volumes spike or grow until they overwhelm existing infrastructures. All of these scenarios can slow or disrupt the Managed File Transfer (MFT) data flows, processes, and services that are critical to maintaining business continuity.

To improve availability, scalability, and performance for business-critical services like MFT, many IT organizations have implemented clusters of loosely connected computers called "nodes." When a node fails, work is dispersed among the other nodes in the cluster, helping to ensure that mission-critical business processes and services are "always on." And when the overall load exceeds the capabilities of the cluster, additional nodes can be added to handle data and transaction volumes now and in the future.

Axway Standard and Large Enterprise Clustering

Axway SecureTransport, an enhanced MFT gateway, is the most scalable and resilient MFT product on the market. SecureTransport supports Standard Clustering and Large Enterprise Clustering to meet a wide range of capacity requirements and help organizations ensure business continuity.

Standard Clustering: This feature enables Active/Active and Active/Passive deployments, with no dependency on an external database. This option provides efficiency and a low total cost of ownership for organizations that need both redundancy and scalability.

What is Clustering?

Computer clustering is connecting two or more computers via local area networks (LANs) so that they work together as a single computer. Each node (computer used as a server) runs its own operating system, and a given task can be executed on a specific node or on all computers. Clusters are developed to improve performance, availability and cost-effectiveness over single computers.

"In today's world of 24x7x365 global operations and competition, downtime results not only in immediate lost revenue and productivity, but also in lasting damage to corporate reputation that erodes customer confidence in your brand. **Enterprises today must be always on and always available to an extended network of customers, employees, and partners.**"

Forrester; Build the Always-on and Always-available Extended Enterprise, August 2012

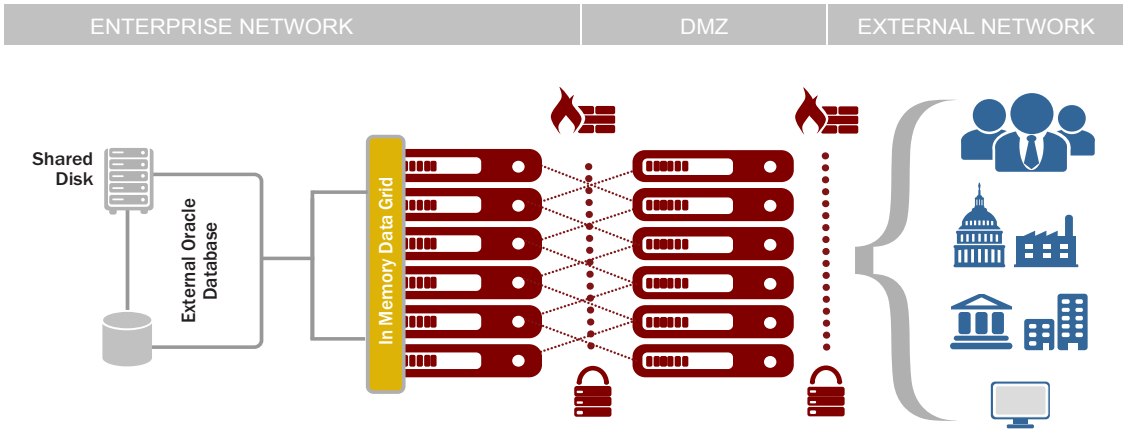
Large Enterprise Clustering (LEC): SecureTransport is the first MFT product to leverage an in-memory data grid that enables organizations to leverage an external database so that they can:

- Scale to 20 nodes with unlimited concurrent connections and up to a 200-percent performance improvement per node over Standard Clustering.
- Gain elastic scalability in physical and virtual deployments by adding capacity to support peak loads or unplanned growth. (Adding nodes does not require downtime for the cluster.)
- Use policy-based load distribution to isolate lines of business and server tasks in different parts of the cluster.
- Improve resiliency/disaster recovery with more nodes in service and faster recovery times.

Advanced Axway LEC capabilities include automated node management and recovery, dynamic and policy-based load configuration and tuning, and automated server health monitoring.

Large Enterprise Clustering

Axway SecureTransport



The Axway Advantage

Experience and expertise

Axway has a proven track record of serving customers with complex business and IT environments. Our experience is encapsulated in our people, processes and products, ensuring that our customers benefit from best practices derived from valuable lessons learned.

Recognized by analysts as a leader in MFT technology, Axway has helped thousands of customers around the world drive business value through Managed File Transfer, including ultra-high-end shared service bureaus that meet the demands of multiple business units and organizations in one scalable infrastructure.

Leading technology

Clustering for SecureTransport leverages leading and emerging technologies to improve performance, management, scalability, and resiliency, so you can rest assured that your MFT infrastructure is always available to support the way you, your customers, and your partners do business — 24 x 7 x 365.

- **Redundancy:** RAID data protection, dual ports, and redundant power supplies, controllers, network cards, paths, and servers ensure that there is no single point of failure.
- **Management:** Integrated cluster management functionality (including automated node management and recovery, dynamic and policy-based load configuration and tuning, and automated server health monitoring) simplifies management and enables SecureTransport to be layered on top of well-known cluster solutions without adding complexity or a new learning curve.
- **Storage:** Clustering storage systems must be able to support multi-host shared access with each host using its own dedicated port.

SecureTransport's Standard Clustering option uses an embedded database with transparent data replication, so you don't need to worry about ports. Large Enterprise Clustering leverages In-Memory Data Grid technology and an external Oracle database, which handles port management.

Both options use external SAN or NAS storage, with either the SAN drivers or the NAS head dealing with multi-path locking.

- **Visibility and analytics:** Axway provides dashboard views for real-time monitoring, reporting and audit of business and IT processes across the cluster.

What is an in-memory data grid (IMDG)?

"IMDGs provide an in-memory, distributed (across large "grids" of networked servers) store (usually called "cache" or "space"), in which multiple, distributed applications can place, retrieve and exchange large volumes of data objects. … IMDGs provide security, management, clustering and failover support, as well as space partitioning, warmup and overflow management. Organizations often use IMDGs to retain frequently accessed data — such as Web pages, database rows, information feeds or XML documents — in the distributed space. "

Source: Gartner, Innovation Insight: Invest in In-Memory Computing for Breakthrough Competitive Advantage, 16 November 2011

100% Resiliency

- All servers/tasks are active across the cluster
- Integrated with an external database
- Seamlessly swap and configure nodes

Performance and Scalability

- High-performance cache management layer
- Unlimited scalability
- Delegated authority

"… in today's digital age, businesses compete 24x7 on a global stage — and **if IT is unavailable, the business is unavailable.** Business leaders and users don't care if it's a hurricane, cyberattack, or human error that disrupts IT services — they expect these services to be available no matter the cause."

Forrester; Move Beyond Disaster Recovery and Prepare for Business Technology Resiliency, September 2012

Ease of implementation, integration, and migration

Combined, Axway's technology, experience, and expertise provide a smooth path to getting your MFT Clustering solution up and running, and maintaining and improving its effectiveness and efficiency over time.

- Initial set up requires fewer resources than other offerings, and Cluster management features integrated into SecureTransport make configuration of additional cluster nodes simple; the core configuration is automatically shared across the cluster.
- Integration with other Axway solutions, as well as non-Axway solutions, can be accomplished quickly and easily.
- Migrations are less invasive than other offerings, providing more transparency to business units.
- Templates and partner cloning significantly reduce partner-enablement time and costs.
- Server nodes can be cloned and added to the cluster in minutes.
- Superior Disaster Recovery support enables exponentially faster recovery time for nodes in a cluster or DR site.
- Your organization does not need to have special skillsets, such as BPML.
- Support for virtually unlimited concurrent connections provides ultra high-end availability, scalability, and performance.

For More Information, visit www.axway.com

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