

This is part of a series of feature highlight documents for EXTOL Business Integrator (EBI), a general-purpose business integration middleware solution from EXTOL. For more information about EBI features, visit www.extol.com, or contact us at info@extol.com.

High Availability – What It Is

Highly available systems are always or nearly always accepting, processing and sending transactions without interruption or unacceptable periods of unavailability. High availability means system outages are expected but planned for and minimized through automated detection and resolution of faults and errors.

Why It's Useful

Integration platforms that are highly available keep the streams of revenue and business documents (orders, invoices, acknowledgements, shipments) moving swiftly and smoothly. The flow of documents affects the tranquility of down stream processes and the physical movement of resources such as trucks, forklifts, goods, people, etc.

Disruptions to the flow cause a ripple effect of lost revenue and productivity across the enterprise. Additionally, the availability of your integration services also affects the value your organization brings to the supply chain. SLA's and scorecards are negatively affected due to interruptions in your ability to provide consistent and stable services to your trading partner community.

How It Works

High availability in EBI is delivered through redundancy of key functions and automatic fail-over to standby services and infrastructure. Single points of failure are mitigated by connecting two or more EBI Servers to form a distributed server cluster. Each EBI server node performs a certain role that achieves the separation of responsibilities and eliminates single points of failure.

- Receiver nodes are EBI Server nodes that receive or initiate transactions in the server cluster. High availability of these partner-facing services is provided through fail-over nodes (active-passive) that continue in the event of a primary node failure.
- Coordinator nodes are EBI Server nodes that manage document queues, processing priorities and distribution of work to Worker nodes. High availability of these services is provided through fail-over nodes (active-passive) that continue to operate in the event of a primary node fault.
- Worker nodes are EBI Server nodes that perform document routing, translation and delivery to downstream applications and data stores. High availability of these services is provided through multiple nodes that distribute the workload. Worker nodes can also be added dynamically to the cluster to increase throughput capacity as needed.

How You Use It

Deciding where high availability is required to deliver desired business outcomes will depend on your unique organization goals and IT strategies. A review of goals, strategies and outcomes before implementing high availability is recommended, as it will help ensure that your analysis supports and enables your key business functions.

- High Availability is delivered by means of an EBI Server Cluster that is initially deployed through a simplified install process. An EBI Server Cluster is collection of EBI Server Nodes, working together to provide high availability, scalability and redundancy.

- EBI Server nodes can be installed on separate VM's or dedicated hardware. Doing so mitigates the risk of single points of failure and reduces costly service outages.

- EBI Server nodes can also be combined and executed on the same VM or dedicated hardware. This reduces the overall management burden required by increased hardware infrastructure.

- Depending on your service availability requirements, SLA's and seasonal volume demands, additional nodes can be added to the cluster:

- An additional Receiver node provides fail over and fault tolerance (Active/Passive) for higher service availability, and ultimately increased customer satisfaction and revenue potential.

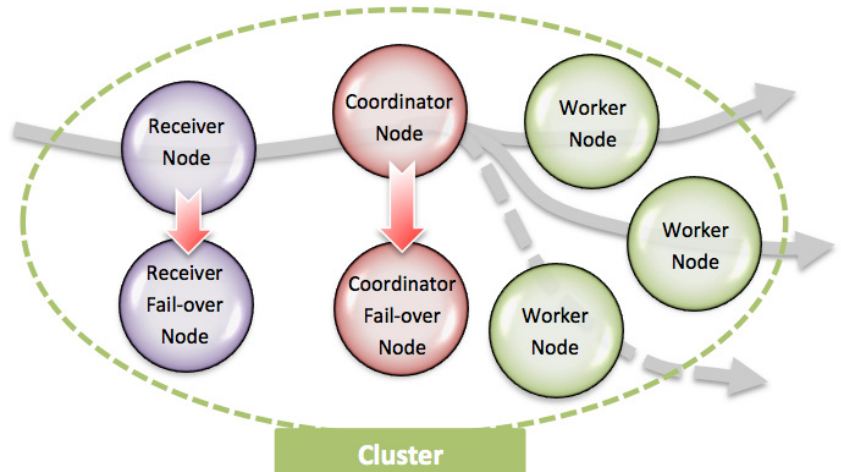
- An additional Coordinator node provides fail over and fault tolerance (Active/Passive) for critical queue management, concurrency and workload distribution functions.

- Additional Worker nodes provide throughput capacity to meet document volume demands and fulfillment of SLA's. Multiple worker nodes also provide higher availability of routing, transformation and delivery services.

- Maintenance and visibility of cluster health, resources and configuration is delivered through a user friendly UI, enabling you to be proactive, but also quickly reactive to issues if they arise.

Conclusion

High availability of key infrastructure services and platforms is essential to business operation continuity, which contributes positively to customer satisfaction and revenue streams. High availability confirms the value you bring to the supply value chain and builds confidence to accommodate your organizations growth strategies.



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