

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.

Clustering – What It Is

Two or more EBI Servers are connected together to form a single integration cluster that provides high service availability, scalable performance and infrastructure fault tolerance required for critical integration systems. An EBI Server cluster can reside on one or more VMs or dedicated hardware servers, depending on your infrastructure goals and objectives. The combined topology of EBI Server nodes and hardware nodes is highly configurable to match your unique IT requirements.

Why It's Useful

Distributing the integration infrastructure across multiple nodes mitigates the risk of single points of failure that cause disruptions to the flow of business documents and streams of revenue into your business. Clustering delivers higher levels of service availability to your trading partners, confirming the value your organization brings to the supply chain.

Additionally, high service availability continuously feeds key business systems so that processes, people and resources can continue to operate efficiently and productively. As your business grows, an EBI Server cluster scales to meet or exceed your Service Level Agreements (SLA's) and peak document volumes.

Costly chargebacks or penalties from broken SLA's due to integration bottlenecks are significantly reduced or eliminated by dynamically adding capacity to the cluster, increasing performance and reducing response times.

Meeting SLA's, scalable capacity and highly available services yields satisfied customers, operational efficiency and sustained revenue streams.

How It Works

Two or more EBI Server nodes are connected together to form a single integration cluster. Each server node has a specific role and a role has a specific set of functions or services it provides.

- Receiver node – an EBI Server node that provides Web Service connectivity, File Monitor, Scheduler and Messaging services. High availability of these services is provided by a fail over node that passively waits for the primary node to fail.
- Coordinator node – an EBI Server node that provides document queue and event management. Document payloads accepted by the Receiver Node are handed to the Coordinator to be distributed to the Worker Nodes for processing. The Coordinator Node manages queue prioritization, concurrency and workload distribution. High availability of this service is provided by a fail-over node that passively waits for the primary node to fail.
- Worker node – an EBI Server node that performs business process execution, document routing, translation and delivery to downstream applications and data stores. Scalability is achieved by adding one or more additional Worker Nodes to the cluster. As Worker Nodes are added to the cluster, capacity is increased to meet or exceed document volume requirements or SLAs.

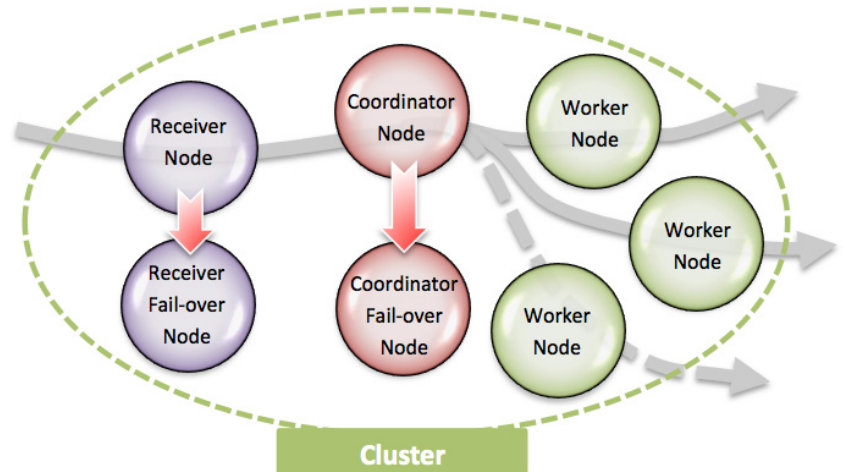
How You Use It

Configuring the cluster and deciding how many nodes are 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 your cluster is time well spent, as you will have confidence that your implementation supports and enables your key business functions.

- An EBI Server Cluster is initially deployed through a simplified install process, through which the nodes of the cluster are identified and configured.
- 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

Use Clustering to achieve business objectives related to accommodating business growth, continuous business operations, and reducing the risk of revenue stream disruption. Clustering gives you the assurance that expected service levels are being delivered to your current customers, and the confidence that your infrastructure will be able to handle new business as



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