



# Sun Java™ Availability Suite

## Supported Cluster Configurations for Disaster Recovery

### Highlights

- Choice of multiple configurations to support the HA needs of different applications
- Simple \$50 USD/employee/year subscription model
- High availability for both Solaris™ SPARC® and x64-based platforms
- Single point of management with SunPlex™ Manager — a secure, browser-based tool
- Industry's largest portfolio of agents (50+) for applications



Today, applications and data are accessed around the clock and around the globe, forcing nearly every business to implement some level of service availability, be it simple server clustering or full-scale disaster recovery solutions mandated by federal regulations. Sun understands that each application within a data center has different needs and offers a full spectrum of high availability options with the Sun Java™ Availability Suite, the industry's premier high availability (HA) and disaster recovery solution supporting the largest portfolio of agents (50+) for applications, as well as arrays from major storage vendors including Sun.

### Sun Java Availability Suite — One Size Fits All

The Java Availability Suite provides different levels of availability to suit the evolving needs of every data center in the industry — from basic single-node application restart to simple two-node failover to a more sophisticated disaster tolerance solution spanning unlimited distances — all managed with a single SunPlex Manager. With the Java Availability Suite, virtually continuous application availability can be achieved for \$50 USD per employee per year on both Solaris SPARC and x64 based platforms.

### Supported Cluster Configurations

With Sun Java Availability Suite, enterprises have a choice of high availability solutions to best meet their business needs with:

- Single node and local clustering
- Campus clustering
- Metro clustering
- Geographic clustering

### Single-Node Cluster

For applications that can tolerate some downtime, or for cost-effective geographic clustering, a single-node cluster can be utilized. A single-node cluster takes advantage of Sun™ Cluster failover agents to automatically restart applications on the same server, providing higher availability than an server without Sun

Cluster software. Single node clusters are also helpful for development, test, and pre-production environments to validate operational planning prior to live production.

### Details

- Sun Cluster software running on a single node for automatic application restart

### Local Clustering

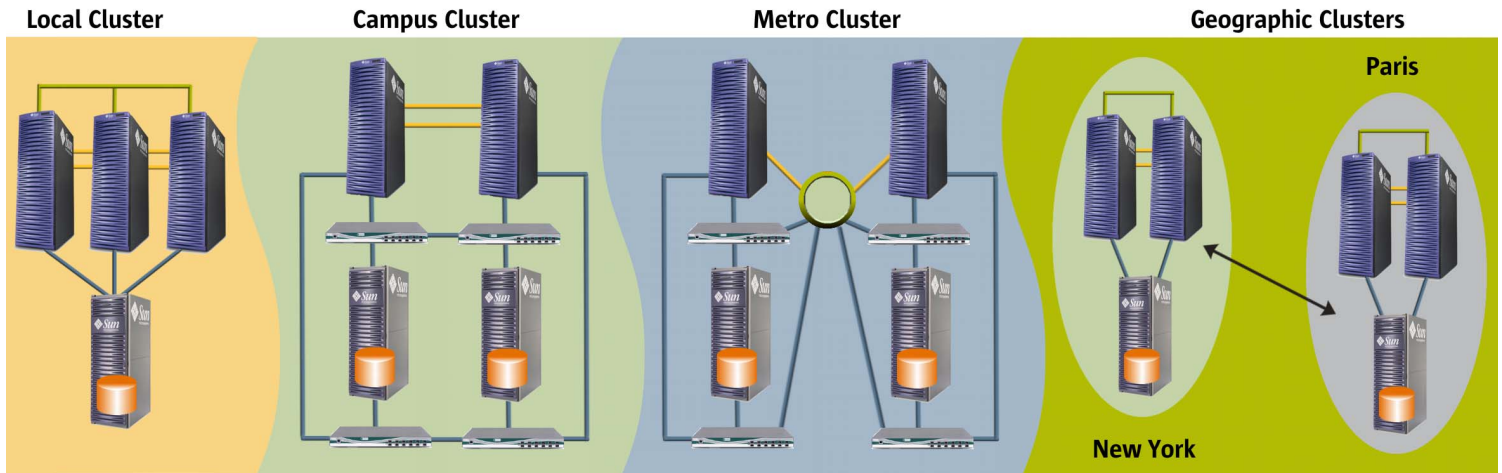
A cluster is a collection of loosely coupled computing nodes that provide a single view of application services, including databases, Web, and file services. A cluster offers restart, failover, and scalable services, capacity for modular growth, and a low entry price compared to fault tolerant systems. Local clustering provides a solid level of continuous service availability in the event of application, OS or hardware failure in a single data center.

### Details

- A single, local Sun Cluster in one data center with up to 16 nodes in a cluster
- HA at the component level, i.e., redundant server, storage, LAN interconnects, data, application, and operating system

### Campus Clustering

Campus clusters enable cluster components, such as nodes and shared storage, to be located in separate rooms several kilometers



Supported Cluster Configurations for the Java Availability Suite

apart. In the event of a localized disaster (flood, fire, or power outage) surviving nodes can support the service for a failed node.

#### Two Room Campus Clustering Details

- A single cluster in one data center with nodes separated up to 10 kilometers
- Distance limited by the technology — LWGBIC (long wave gigabit interface controller)
- One cluster to manage equals low cost, high security, and utilizes the same staff
- Cluster outage if a room with the quorum fails

#### Three Room Campus Clustering Details

- Same features as two room clustering above
- Third room with quorum disk or third server
- Automatic failover if any one room fails

#### Metro Clustering

For greater availability across a greater distance, cluster nodes can be separated by up to 400 kilometers using Sun Cluster software and

DWDM (dense wave division multiplexing) technology to provide application service continuity in the event of a catastrophic failure.

#### Details

- Based on a single cluster in two data centers
- Supports distance up to 400 km
- Distance is limited by technology (LWGBIC, DWDM)
- High availability at the application level
- Local storage is mirrored to secondary site
- Potential for no outage
- One cluster to manage equals low cost, high security, and utilized the same staff

#### Geographic Clustering, Provided by Sun Cluster Geographic Edition 3.1 08/05

Geographic clustering provides the highest level of availability (provided by the Java Availability Suite) for data and application services in the event of a large disaster such as the United States' East Coast power failure of 2003. In the event that a primary cluster fails,

Sun Cluster Geographic Edition software enables IT operators to startup services with replicated data on the secondary cluster. It can also be used when companies need their data and applications to follow the sun for global operations.

#### Details

- Support for multiple sites
- Separate cluster running at each site
- Failover from one cluster to another
- No distance limitation
- Data replication (host- or storage-based) used to preserve data
- One-way or bi-directional data replication
- Supports data replication from a multi-node cluster to a single node cluster, and from a multi-node cluster to a multi-node cluster.

Learn More

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