COMPARING ORACLE REAL APPLICATION CLUSTERS TO FAILOVER CLUSTERING FOR ORACLE DATABASE

Customers looking to remove the server as a single point of failure for their database applications often implement an active-passive failover solution. The active-passive failover architecture is used by both Oracle Real Application Clusters (RAC) and Failover Clustering for Oracle databases. This solution is superior to the failover clustering that is available on most platforms today. Failover clustering is an active-passive failover solution that provides higher availability than a single server but the availability service is less than that you can achieve with RAC. You do not need to have an active/passive failover configuration for database applications. RAC is under the control of the database software, which is automatic and is stopped and monitored by the RAC software. If you have an RAC database instance and the database instance is running, you must twice the resource requirements of the database software.

FAILOVER CLUSTERING FOR HIGH AVAILABILITY

Failover clustering is provided by active software vendors today including the Oracle RAC software. The database runs on one node at any time. You must not have the second node enabled for failover or a failover configuration. If you have an RAC database instance, you must restart the instance. The database instance can be stopped using the RAC software. If the node is hung, you must restart the database instance and any other dependent processes are restarted. The database instance can be stopped using the RAC software.

ORACLE REAL APPLICATION CLUSTERS

A RAC database is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that cooperate as a single server. Each RAC is a group of independent servers that coopera...
Oracle resources (VIP, istener, database, services) in the customer are incurred out of the box. An API is incurred forward customers to add additional processes to be managed by Oracle's software to keep them highly available.

Along with the higher availability, RAC provides you with the ability to scale servers when needed without having to size a single server. Instead of having to size a single server to support your application, RAC allows you to scale the load across multiple servers that have been clustered together. When additional resources are required, additional nodes and instances can be easily added to the cluster with no downtime. A RAC database can scale to 100 instances. Applications do not have to be changed to use RAC.

RAC scales by allowing you to take advantage of the cost savings of using smaller servers clustered together to provide the resource requirements of your application. A larger server of smaller servers reduces the impact of a server failure. If there are 2 nodes in a cluster and one fails, you have lost 50% of your resources and 50% of your users are impacted. If you lose 1 node in a cluster of 10 nodes, you have lost 10% of your processing power and only 10% of your users are affected. So to provide the same level of resource to the application during a failure, you need to add 10% additional resources.

**Conclusion**

Oracle Real Application Clusters has been designed for high availability and scalability. By providing protection from hardware and software failures, Oracle Real Application Clusters provides systems availability ensuring continuous data access. Its scale out and scale up features offer a platform which can grow in any direction owing enterprises toward growing their businesses. Existing applications saw new opportunities benefit from the transparency. Oracle Real Application Clusters provides. Application development as well as administration and change management thus become much easier owing to a reduction in total cost of ownership. Oracle Real Application Clusters is unique toward the market with its offering and capabilities. RAC is used by thousands of customers worldwide in industries where mission critical and many other applications environments.

*For more information on using RAC: [ote.com/r/c](http://ote.com/r/c)*

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