

Using Adabas Transaction Manager with Adabas Cluster Services

A clustered operating system is a collection of independent operating system images working together as one. The objective is to spread work around the cluster to achieve better load balancing, throughput, and availability.

Clustered applications appeared before their operating system counterpart. Application clusters operated over multiple processes within a single operating system image. Now clustered applications are enhanced to operate throughout an operating system cluster.

Adabas Cluster Services allows multiple instances of the Adabas server to operate against the same database across multiple operating system images, which enhances the general clustering approach for high-end systems.

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Clustered Applications

A clustered application is a collection of independent jobs operating together as a single service.

Each implementation of a clustered application allows client sessions to migrate from one job to another across one or more images in an operating system cluster. The memory associated with a particular client session must be migrated along with the client session itself.

The following clustered applications may be implemented within a single operating system image:

- CICS/MRO with dynamic transaction routing in z/OS, OS/390 and VSE/ESA
- IMS/TM in z/OS and OS/390
- UTM in BS2000

The following clustered applications are available for operating system clusters:

- CICSplex in z/OS and OS/390
- IMSplex in z/Os and OS/390

Adabas Cluster Services

Adabas Cluster Services allows you to use multiple images of the Adabas server across an operating system cluster in order to provide truly scalable throughput. The cluster of Adabas servers can take part in distributed transaction processing, under the control of Adabas Transaction Manager. This is controlled by the ADARUN DTP parameter, in the same way as for a standard Adabas nucleus. The same value must be specified for the DTP parameter for every nucleus in the cluster.

Adabas System Coordinator

Support for clustered applications within a single system image or across multiple system images in an operating system cluster is enabled by the Adabas System Coordinator when running one or more of the following Adabas add-on products:

- Adabas Fastpath
- Adabas Vista
- Adabas Transaction Manager
- Adabas SAF Security

Adabas Fastpath also uses the Adabas System Coordinator to host the Asynchronous Buffer Manager service.

Job Parameters for Clustered Applications

When defining a job parameter for CICS/MRO with dynamic transaction routing or for CICSplex, select the job type CICS Cluster.

Clustered application job types have user context information allocated from shared memory rather than from local (job) memory.

Additional fields are available to support clustered applications:

Note:

For non-clustered applications, leave these fields empty.

Field	Used to...
System Coordinator Group Name	link the clustered application to the relevant Adabas System Coordinator group.
Clustered Application Service Name	group together all instances of the application to the Adabas System Coordinator.
Manage Terminal Sessions or Manage All Sessions	determine the type of sessions managed by the Adabas System Coordinator daemon.

Refer to the *Adabas System Coordinator* documentation for more information.