

Using Adabas Vista 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.

A clustered application uses multiple jobs in unison to provide a single (clustered) service. CICS in MRO or plex mode, IMS TM, and UTM are examples of such clustered applications.

Clustered applications can route transactions dynamically from one job (member) in the application cluster to another, usually for load-balancing purposes. Dynamic transaction routing can occur within an operating system image, or across operating system images that are members of an IBM sysplex cluster.

The Adabas System Coordinator provides Adabas Vista support for dynamic transaction routing within and across operating system images.

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 and VSE/ESA
- IMS/TM in z/OS
- UTM in BS2000

The following clustered applications are available for operating system clusters:

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

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.

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.

Client Runtime Controls for Clustered Applications

When defining runtime controls 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.