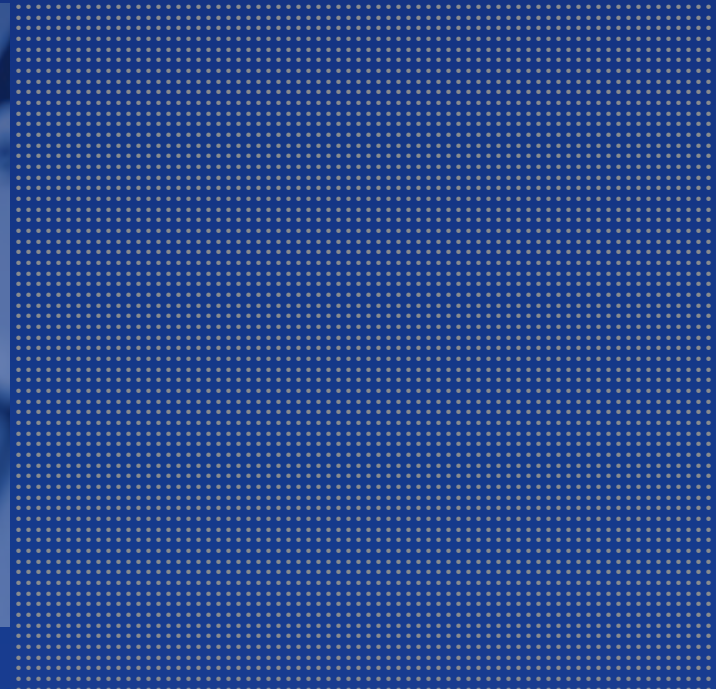


Monitoring Overview Microsoft Clustering

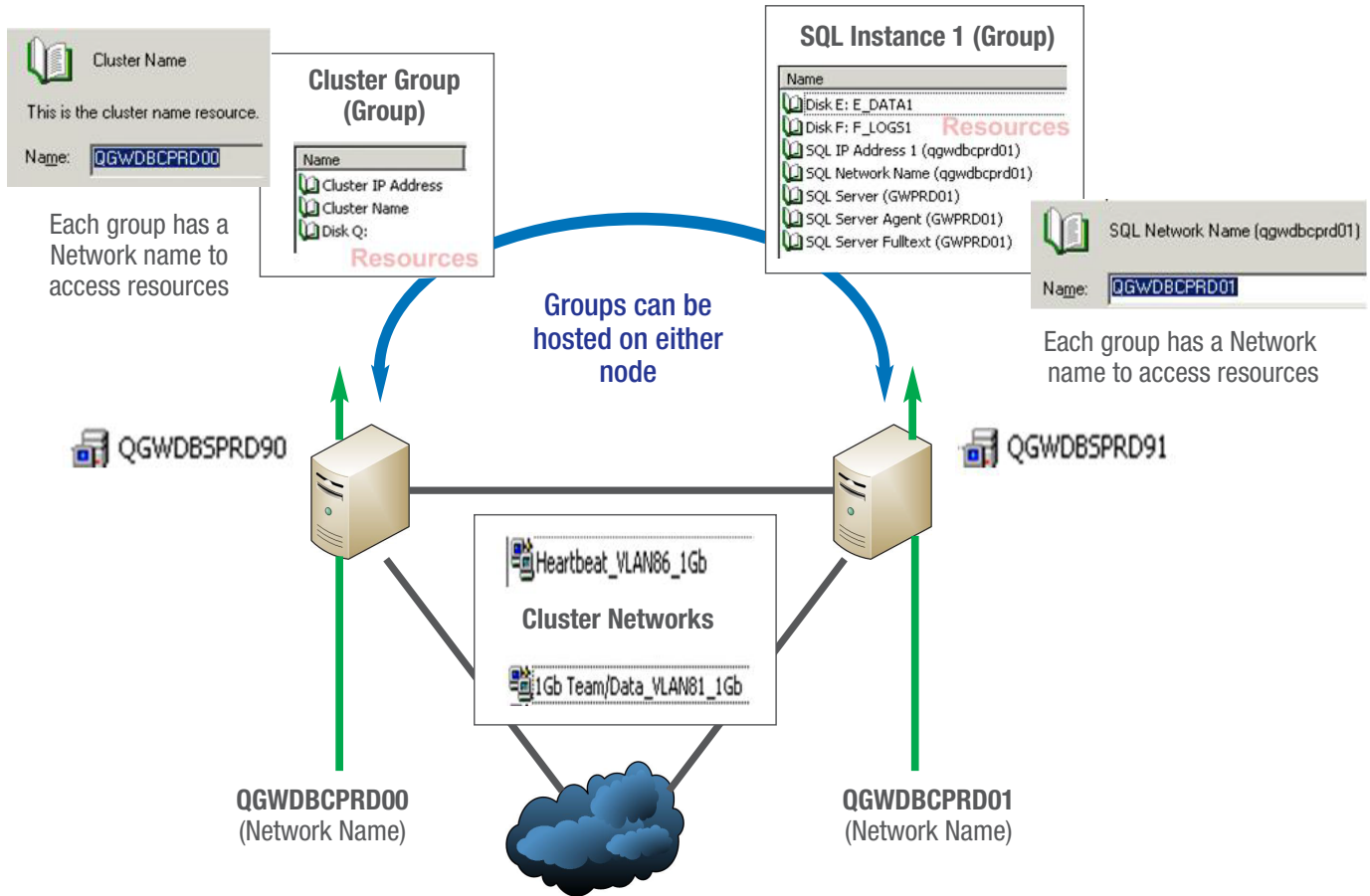
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Microsoft SQL Cluster Example



Cluster Nodes

QGWDBSPRD90 and QGWDBSPRD91 need 1 license of (Argent Predictor, Argent Guardian, and Argent Data Consolidator) for each node.

Cluster Group (Group) resources need at least 1 license count of (Argent Predictor for Cluster, Argent Guardian for Cluster).

Argent Data Consolidator for Cluster only required if there are logs that need consolidating (\qgwdbcpd00\q\$\MSCS\quolog.log).

This Licensed resource will allow monitoring of all objects associated with the Cluster Group such as:

- Disk Q performance objects
- Any services associated with this group

Cluster Resources

SQL Instance 1 (Group) resources need at least 1 license count of (Argent Predictor for Cluster, Argent Guardian for Cluster and Argent SQL Monitor for Cluster).

Argent Data Consolidator for Cluster only required if there are any logs that need consolidating (\qgwdbcpd01\q\$\Microsoft SQL Server\MS-SQL.1\MSSQL\LOG\ERRORLOG)

This Licensed Cluster Resource will allow monitoring of all objects associated with the SQL Instance 1 Group

- Disk E and F performance objects
- Any Services associated with this Group
- Any SQL Instances associated with this group

If this was an Exchange Cluster Group then at least 1 license count of (Argent Predictor for Cluster, Argent Guardian for Cluster and Argent Exchange Monitor for Cluster). Argent Data Consolidator for Cluster only required if there are any logs that need consolidating.

Cluster Groups And Networks

Cluster Group and Cluster Network monitoring can be done without using a license count and will provide basic alerts if any resources within the group are pending, failed or Offline.

Configuring Cluster Objects

Look at Cluster Administrator to collect all the details required to configure the devices in the Argent Master Catalog.

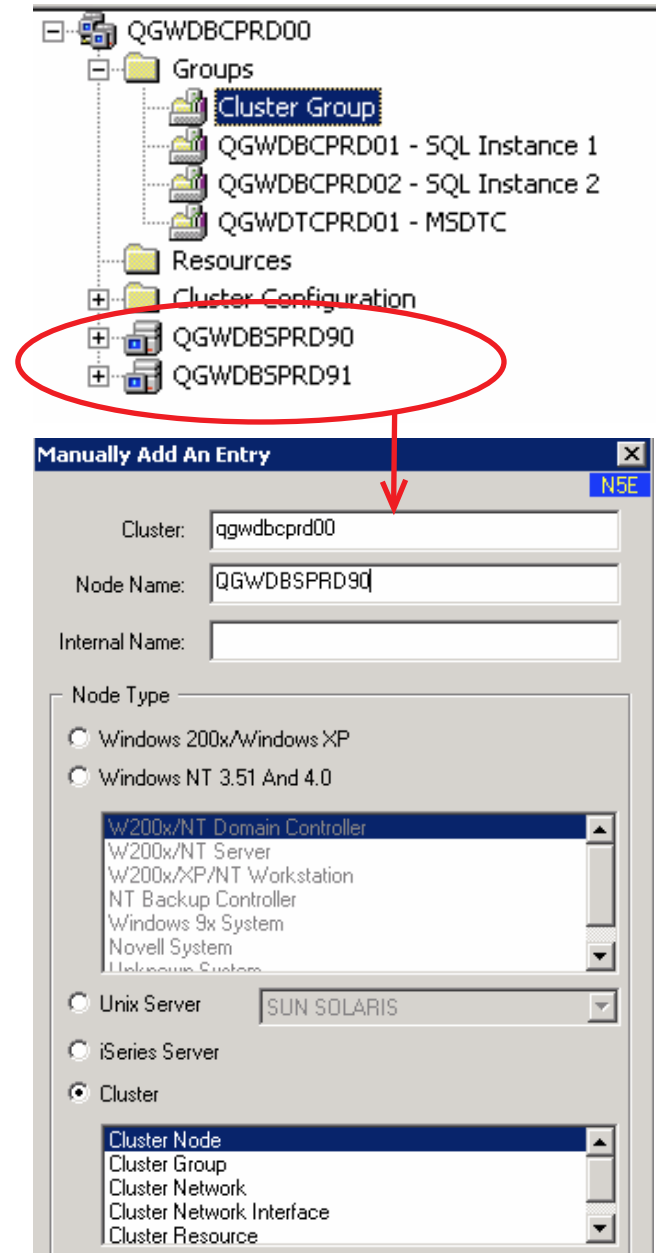
Cluster Nodes

Cluster Name

Argent Master Catalog Node Name (Must be resolvable)

Cluster Device – Cluster Node

These Cluster Nodes would be licensed for Argent Predictor, Argent Guardian, Argent Data Consolidator and Argent WMI Monitor – these will reduce the License Count.



Cluster Groups

This is the Cluster Name must be resolvable
Argent Master Catalog Name.

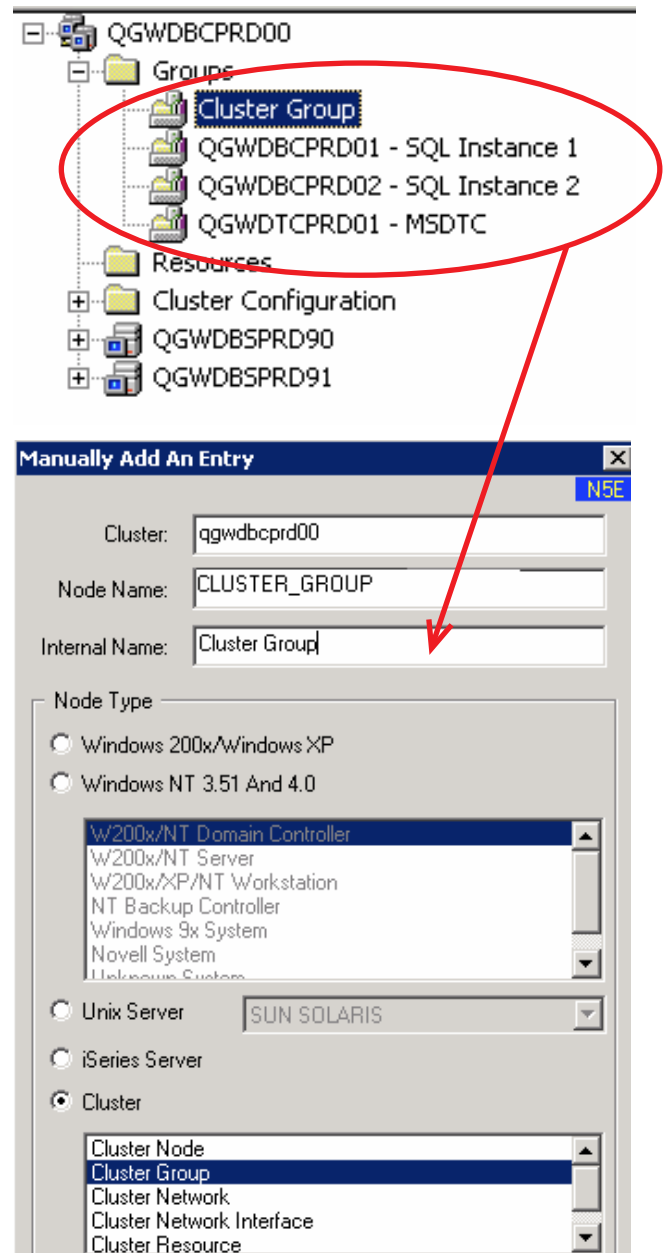
This is the Cluster Administrator Group Name.

Choose Cluster – Cluster Group.

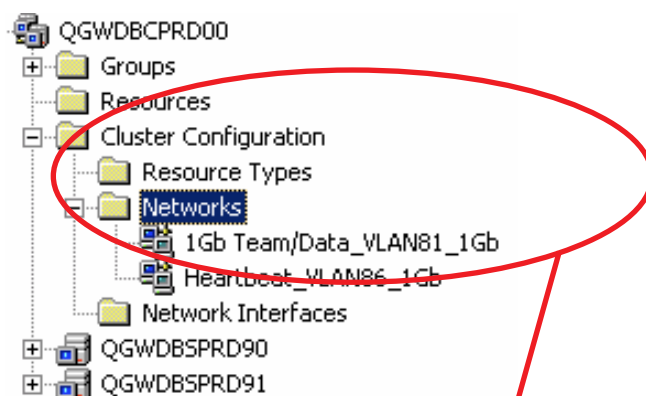
This is an example of another Cluster Group:

Cluster Name:	qgwdbcpd00.RSE
Object Type:	Cluster Group
Object Name:	SQL1_GROUP
Internal Name:	QGWDBCPD01 - SQL Instance 1
(Leave blank if internal name is same as object name)	

These Cluster Groups would be licensed for Argent Predictor and
Argent Guardian – these will not reduce the license count.



Cluster Networks



Add an Entry to Master Catalog

Cluster – Cluster Network

Cluster Name must be resolvable

Argent Master Catalog Name

Cluster Administration – Network Name

Cluster Name:	qgwdbcpd00
Object Type:	Cluster Network
Object Name:	HEARTBEAT_NET
Internal Name:	Heartbeat_VLAN86_1Gb
(Leave blank if internal name is same as object name)	

These Cluster Networks would be licensed for Argent Predictor and Argent Guardian – these will not reduce the license count.

Example Relator For Cluster Groups, Cluster Networks And Cluster Nodes

How To Determine If The Nodes In The Monitoring Group Are Running:

☐ Use Windows NetRemoteTOD API
☒ Check Cluster (Node, Group, Network, Network Interface Or Resource)

Rules:

Rule Name	Rule Type
NDE_CLUSTER_CHECK	System Down

Argent Monitoring Groups:

Argent Monitoring Group	Node Type
CLUSTER_GROUPS	
CLUSTER_GROUP	Cluster Group
&MG_CLUSTER_NETWORK	
HEARTBEAT_NET	Cluster Network
&MG_SQL_NODES	
qgwdbsprd90.RSE	Cluster Node
qgwdbsprd91.RSE	Cluster Node

This Relator will check:

- All resources within Cluster Group are not pending or failed (Relator Test Output)

All of the resources are online for group CLUSTER_GROUP of cluster qgwdbcpd00.RSE Server CLUSTER_GROUP is alive. Rule NDE_CLUSTER_CHECK is NOT broken

- All resources within Cluster Network are online (Relator Test Output)

The network is operational; all of the nodes in the cluster can communicate for network HEARTBEAT_NET of cluster qgwdbcpd00.RSE Server HEARTBEAT_NET is alive. Rule NDE_CLUSTER_CHECK is NOT broken

- Cluster Service is running on Cluster Nodes (Relator Test Output)

Cluster service is running on node qgwdbsprd90.RSE
 Server qgwdbsprd90.RSE is alive. Rule NDE_CLUSTER_CHECK is NOT broken

Cluster Resources

To monitor resources within each cluster group a Cluster Resource Object must be defined in the Master Catalog.

QGWDBCPRD00

Groups

Cluster Group

QGWDBCPRD01 - SQL Instance 1

QGWDBCPRD02 - SQL Instance 2

QGWDTCPRD01 - MSDTC

Name	State	Owner	Resource Type
Cluster IP Address	Online	QGWDBSPRD91	IP Address
Cluster Name	Online	QGWDBSPRD91	Network Name
Disk Q.	Online	QGWDBSPRD91	Physical Disk

Cluster Name – must be DNS resolvable

Argent Master Catalog Name

Cluster Administrator Resource Name

Cluster Name:

qgwdbcprd00.RSE

Object Type:

Cluster Resource

Object Name:

qgwdbcprd00.RSE

Internal Name:

Cluster Name

(Leave blank if internal name is same as object name)

These Cluster Resources would be licensed for Argent Predictor and Argent Guardian – these will reduce the license count for Cluster Resources.

Argent Guardian And Argent WMI Monitor		
W200X/NT	103	90
Cluster Resource	7	7

SQL Cluster Resources

The screenshot shows the SQL Server Enterprise Manager interface. On the left, a tree view displays the cluster hierarchy: QGWDBCPRD00, Groups (Cluster Group, QGWDBCPRD01 - SQL Instance 1, QGWDBCPRD02 - SQL Instance 2, QGWDTCPRD01 - MSDTC), Resources (Cluster Configuration, QGWDBSPRD90, QGWDBSPRD91). The right pane shows a list of resources for the selected group. A red circle highlights the 'SQL Server (GWPRD01)' resource, and a red arrow points from it to the 'Internal Name' field in a configuration dialog below.

Name	State	Owner	Resource Type
Disk E: E_DATA1	Online	QGWDBSPRD91	Physical Disk
Disk F: F_LOGS1	Online	QGWDBSPRD91	Physical Disk
SQL IP Address 1 (qgwdbcprd01)	Online	QGWDBSPRD91	IP Address
SQL Network Name (qgwdbcprd01)	Online	QGWDBSPRD91	Network Name
SQL Server (GWPRD01)	Online	QGWDBSPRD91	SQL Server
SQL Server Agent (GWPRD01)	Online	QGWDBSPRD91	SQL Server Agent
SQL Server Fulltext (GWPRD01)	Online	QGWDBSPRD91	Generic Service

Cluster Name:	qgwdbcprd01.RSE
Object Type:	Cluster Resource
Object Name:	qgwdbcprd01.RSE
Internal Name:	SQL Server (GWPRD01)

(Leave blank if internal name is same as object name)

These Cluster Resources would be licensed for Argent Predictor, Argent Guardian and Argent SQL Monitor – these will reduce the license count for Cluster Resources.

This Argent Object Name would be used in the Argent SQL Monitor Relators to test any resource objects associated with its Cluster Group (QGWDBCPRD01 – SQL Instance 1) such as:

- Disk E and Disk F Performance Objects
- SQL Server Service
- SQL Server Agent Service
- SQL Server Fulltext Service
- SQL Server Instance (DB Space, LOG Space, CPU, IO and Query Rules)

For A Windows 2008 Failover Cluster:

mail

Summary of mail

Status: Online
Alerts: <none>
Preferred Owners: WLCPEXC01, WLCPEXC02
Current Owner: WLCPEXC01

Name	Status
Server Name	
⊕ Name: mail	Online
Other Resources	
Exchange Information Store Instance (mail)	Online
Exchange System Attendant Instance (mail)	Online
GxClusPlugIn (mail) (Instance001)	Online
Storage Group (A-D)/Mailbox Store (A-D) (mail)	Online
Storage Group (E-J)/Mailbox Store (E-J) (mail)	Online
Storage Group (K-O)/Mailbox Store (K-O) (mail)	Online
Storage Group (P-S)/Mailbox Store (P-S) (mail)	Online
Storage Group (Resources)/Mailbox Store (Resources) (mail)	Online
Storage Group (T-Z)/Mailbox Database (T-Z) (mail)	Online

Node	Domain	Type ▲	Alias
MAIL_GROUP	WLCPLUS01.NETWORK.LOCAL	Cluster Group	mail
CLUSTER_PUBLIC_NET	WLCPLUS01.NETWORK.LOCAL	Cluster Network	Public Network
CLUSTER_PRIVATE_NET	WLCPLUS01.NETWORK.LOCAL	Cluster Network	Private Network
WLCPEXC02	WLCPLUS01.NETWORK.LOCAL	Cluster Node	WLCPEXC02
WLCPEXC01	WLCPLUS01.NETWORK.LOCAL	Cluster Node	WLCPEXC01
MAIL	WLCPLUS01.NETWORK.LOCAL	Cluster Resource	Exchange Information Store Instance (mail)

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