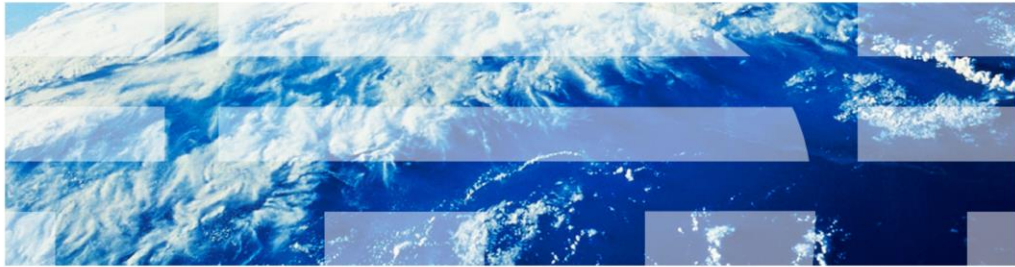


IBM Netcool/OMNIbus version 7.3

Introduction to gateways



This training module provides an introduction to IBM Netcool®/OMNIbus version 7.3 gateways.

Objectives

When you complete this module, you can perform these tasks:

- Describe the functions that are performed with IBM Netcool/OMNIBus gateways
- Explain the difference between unidirectional and bidirectional gateways
- Describe the types of IBM Netcool OMNIBus gateways

When you complete this module, you can perform these tasks:

Describe the functions performed by IBM Netcool/OMNIBus gateways

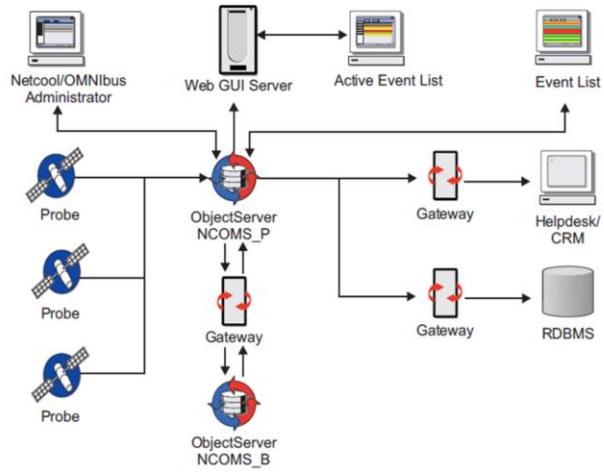
Explain the difference between unidirectional and bidirectional gateways

And name some of the different types of IBM Netcool OMNIBus gateways

Gateways and other IBM Netcool/OMNIBus system components

Netcool/OMNIBus system components:

- ObjectServer
- Probes
- Gateways
- Desktop – Event List
- Administration tools
- The web GUI Server
- Gateway interface targets:
 - RDBMS
 - HelpDesk
 - CRM



In this slide you see the basic IBM Netcool/OMNIBus network architecture. ObjectServers, probes, and other components work with gateways to provide system functions.

IBM Netcool/OMNIBus gateway functions

IBM Netcool/OMNIBus gateways perform these functions:

- Exchange of events between applications, databases, and helpdesk.
- Pass events between primary and backup object servers. Primary object server transmits events to the gateways to replicate those events on the backup object server (object server failover)
- Integrate business functions Application gateways integrate business functions
 - Reporting/Archiving
 - Auto Trouble Ticketing

After configuration, gateway transfer of events is not apparent to system users

IBM Netcool/OMNIBus gateways enable the transmission and reception of events to and from applications, databases, and helpdesks. Gateways also are vital to primary and backup ObjectServer failover functions. Gateways keep events stored on the backup ObjectServer identical to those stored on the primary ObjectServer. During failover between ObjectServers, the backup can become active immediately without the need to update its stored events. Gateways integrate with business functions such as trouble ticketing, reporting, and archiving. After configuration, gateway event message transfers take place in relatively real time. The transfer process is invisible to operations personnel.

Various IBM Netcool/OMNIBus gateway types

- [Tivoli® Netcool/OMNIBus gateways](#)
- [Gateway for Clarify](#)
- [Flat File Writer Gateway](#)
- [Gateway for HP ServiceCenter](#)
- [ObjectServer Gateway Guide for V7.3.0](#)
- [ObjectServer Gateway Guide for V7.2.1](#)
- [ObjectServer Gateway Guide for V7.2](#)
- [ODBC Gateway](#)
- [Gateway for Oracle](#)
- [Gateway for Remedy ARS](#)
- [Gateway for Siebel](#)
- [SNMP Writer Gateway](#)
- [Socket Writer Gateway](#)
- [TCP Echo Utility Gateway](#)
- [Gateway for Tivoli EIF](#)
- [Gateway for Tivoli Service Request Manager®](#)
- [Message Bus Integration](#)
- [Integration with Tivoli Service Request Manager](#)
- [JDBC Gateway](#)
- [Gateway for AmDocs CRM](#)

This slide shows the many types gateways available as of IBM Netcool/OMNIBus version 7.3.

IBM Netcool/OMNIbus events

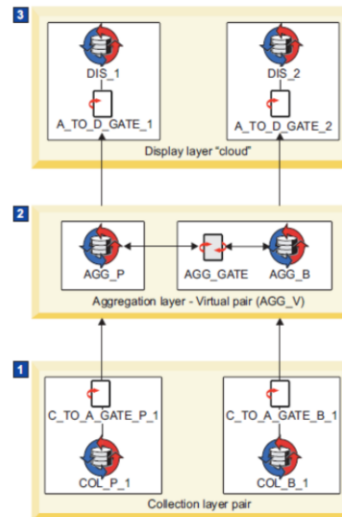
Alerts (events) are information can then be:

- Assigned to operators
- Passed to helpdesk systems
- Logged in a database
- Replicated to remote OMNIbus system for consolidation/failover/HA
- Certain events are used to trigger automatic responses

Gateways transmit and receive events. These events can be passed to operators, helpdesk systems, databases, or other IBM Netcool/OMNIbus systems. Some events are programmed to be the catalysts or triggers for other actions.

Gateways in Netcool/OMNibus multi-tiered architecture

- Multi-tiered architecture (three layers)
 - Collection Layer
 - Aggregation Layer
 - Display Layer
- Unidirectional gateways in Collection Layer and Display Layer
- Bidirectional gateways in Aggregation Layer

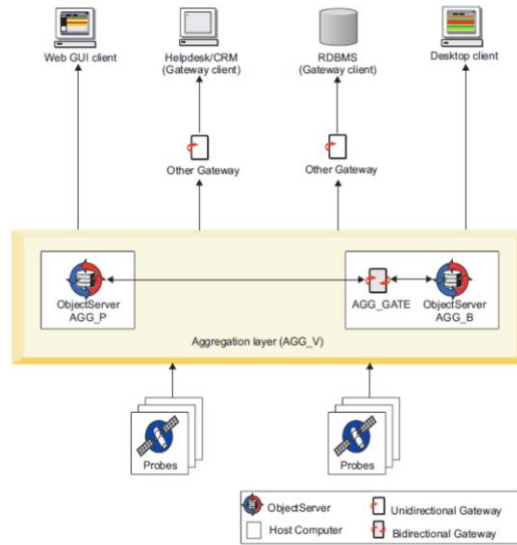


Object servers can be configured in a multi-tiered three-layer architecture. With this architecture the IBM Netcool/OMNibus system can handle more events. Unidirectional gateways are used between layers in the Collection and Display layers. A bidirectional gateway is used in the Aggregation layer.

Netcool/OMNIBus basic architecture with single failover and fallback pair

The Netcool/OMNIBus design includes failover and fallback capabilities:

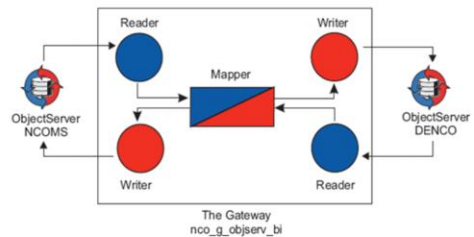
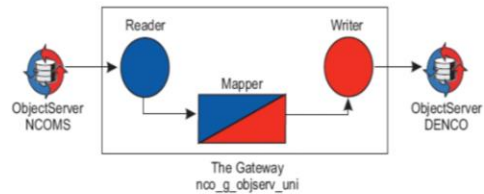
- The virtual ObjectServer is configured with primary/backup failover pairs
- Desktops, gateways, and probes are connected to failover pairs
- If the primary object server fails, clients switch to the backup automatically (failover)
- When the primary object server is available again, clients reconnect automatically (fallback)



Unlike the multi-tiered architecture, the basic architecture contains only one pair of ObjectServers. Gateways are connected to the ObjectServers. The ObjectServers are configured in pairs. One is the primary ObjectServer and the other is the ObjectServer backup. When the primary fails the backup automatically becomes active. This is called failover. The opposite takes place automatically when the primary is back on line. This opposite process is called fallback.

Unidirectional gateways and bidirectional gateways

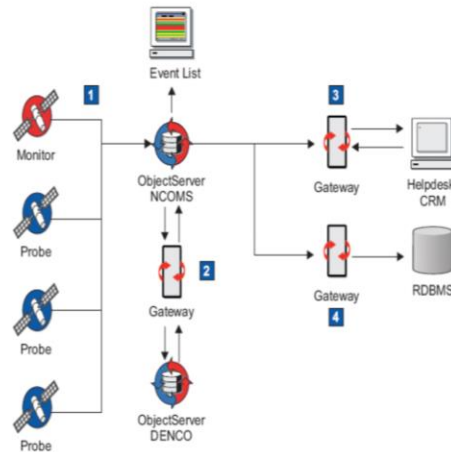
- **A unidirectional ObjectServer Gateway**
 - Alerts to flow from a source ObjectServer to a destination ObjectServer
- **A bidirectional ObjectServer Gateway**
 - Alerts to flow from both source/destination ObjectServer



The IBM Netcool/OMNibus architecture uses bidirectional gateways between the Aggregation Layer pair of ObjectServers. Bidirectional gateways are part of either the multi-tiered architecture or the basic architecture with only one tier. Unidirectional gateways are used only in the multi-tiered three-layer architecture. Unidirectional gateways are used to forward events from the Collection Layer to the (middle) Aggregation Layer ObjectServers. Unidirectional gateways are again used to forward events from the Aggregation Layer ObjectServers to the Display Layer ObjectServers.

Netcool/OMNibus gateway usages

1. Probes send alerts to the local ObjectServer.
2. The ObjectServer Gateway replicates alerts between ObjectServers in a failover configuration.
3. The Helpdesk gateway integrates the Network Operations Center (NOC) and the helpdesk by converting trouble tickets to alerts, and alerts to trouble tickets.
4. The RDBMS gateway stores critical alerts in a relational database management system (RDBMS) so that you can analyze network performance.



This slide demonstrates some of the alert message transmission and reception roles played by gateways. The figure shows bidirectional gateways transmitting and receiving alerts from ObjectServers, help desk systems, and relational database management systems.

Gateway event transmission targets

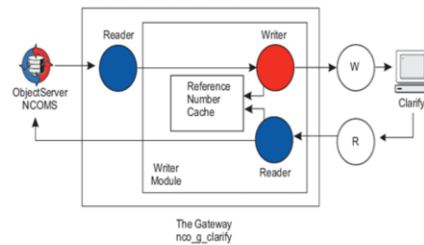
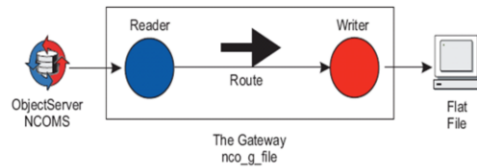
Gateways can send alerts to targeted receiving components:

- Another ObjectServer (unidirectional and bidirectional gateways)
- A database (ODBC gateways)
- A helpdesk application (Remedy gateways)
- Other applications or devices (Flat file gateways)

Shown here are more specifics about the destination targets of gateway event transmission.

Gateway reader and gateway writer components

- Gateways have a *reader* and a *writer*.
- Readers extract alerts from the ObjectServer.
- Writers forward alerts to another ObjectServer or to other applications



IBM Netcool/OMNibus gateways contain both reader and writer components. Readers pull alerts from ObjectServers while writers send alerts either to another ObjectServer or to other applications.

Summary

Now that you completed this module, you can perform these tasks:

- Describe the functions that are performed with IBM Netcool/OMNIbus gateways
- Explain the difference between unidirectional and bidirectional gateways
- Describe the types of IBM Netcool/OMNIbus gateways

Now that you completed this module, you can perform these tasks:

Describe the functions performed by IBM Netcool/OMNIbus gateways

Explain the difference between unidirectional and bidirectional gateways

and name some of the different types of IBM Netcool OMNIbus gateways

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