

MatrikonOPC Redundancy Broker

MatrikonOPC Redundancy Broker delivers seamless OPC Server-level redundancy for critical data delivery.

The MatrikonOPC Redundancy Broker (ORB) makes it easy to setup redundant control systems that use OPC connectivity for their data communications. Designed for use in critical applications that require redundant hardware and/or software, ORB sustains reliable communications by eliminating single-points of failure between an OPC Client and any OPC Server. Based on an open standard, OPC, the OPC Redundancy Broker can be easily used in both new and existing installations because it works equally well with all vendors' compliant OPC connectors.

OPC Redundancy Broker constantly monitors a Primary OPC server that is designated by the user. When a failure is detected, OPC Redundancy Broker automatically redirects communications to a Standby OPC server. By intelligently switching between the primary and standby OPC Servers – OPC Redundancy Broker prevents data loss and downtime in the event one of the OPC Servers fails.



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Features include:

- Support for multiple, same server, redundant pairs
- Support redundancy for DA, A&E, and HDA OPC Servers
- Full OPC HDA support for selected HDA interfaces.
- Status tags enable you to track which OPC Servers are down
- Multiple levels of redundancy (Hot, Warm, and Cold)
- Automatically switches between from primary to standby or vice versa when the criterion of failover is detected.
- Allow "Force a Failover" to manually toggle between the primary to standby or vice versa
- Powerful failover detection engine (trigger failover on item deviation, threshold, rate of change, and quality)
- Windows 32-bit and 64-bit are natively supported.

Easy Implementation

Setting up the OPC Redundancy Broker is easy. The initial installation only takes a few minutes and the setup of redundant pairs is straightforward as well. An intuitive user interface guides the user in the selection of the primary and standby OPC servers. While default criteria can detect communication failures and force failovers out of the box – additional criteria for defining specific types of server failures can also be customized. ORB works with any OPC Client software. It handles all configuration and fail-over issues automatically! ORB enables easy implementation of a transparent, redundant environment with no programming required.

Types of Redundancy:

ORB comes with three types of redundancy:

- **Hot:** in this mode, ORB subscribes to and activates tags on both the primary and the standby servers. This mode minimizes the data gap during failover because both OPC servers in the redundant pair constantly receive the same data updates.
- **Warm**: in this mode, ORB subscribes to tags in both the primary and standby servers. Tags are activated only in the primary server. When a failover condition occurs, tags are activated in the standby server. This option is popular in situations where it is not feasible to have the standby OPC server and the primary OPC servers active.
- **Cold:** in this mode, ORB subscribes to and activates tags in the primary server only. When a fail-over occurs, ORB subscribes to and activates tags in the standby server. This is commonly used where only a single connection to the data source is possible (such as a serial connection).

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Australia	Canada	Europe	Middle East	New Zealand	United States



Seamless Integration

ORB can be used to seamlessly upgrade an existing OPC infrastructure. Once a standby OPC Server is added, ORB will automatically enable all the client software to quickly make use of the reinforced system.

Connection

ORB makes the process of implementing redundancy easier than ever. With an clean user interface, OPC Redundancy Broker simplifies redundant pair configuration to the point that an existing OPC architecture can be made redundant within minutes. With no programming and no hassles!

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Watchdog Tags

Watchdog Tags can be configured to trigger a fail-over based on various trigger criteria based on item deviation, threshold, rate of change, and quality.

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tot	Condition Configuration Condition Spane: Adupts Red Condition Builder Use this form to build an expression that compare another. This condition becomes true if the spec [If the	PARAMETERS
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Flexible Diagnostics and Notifications

ORB automatically handles fail-overs, but it can also provide notification by various configurable methods!

Notification Config	uration	
You can request that ORB detected.	take specific actions when a faile	ure is
Email Notification		
Send an email to:	alarms@mycompany.com	
SMTP Server:	m-ail	RECEIVE FAILOVER
Email "From" address:	orb-status@mycompany.com	NOTIFICATION BY EMAIL OR LAUNCH
Program Execution		EXTERNAL PROGRAM
Execute the following pro	ogram whenever a failure occurs.	
Path to Executable:	c:\program files\pager.exe	
Command Line Argument	CRB Notification Failure	
L	ОК	Cancel

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Statistics at a Glance

View the state of all running ORBs on your site. The easy-to-read display broadcasts the state of each ORB with intuitive Windows-style icons.

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Supported OPC Specifications:

- OPC DA (OPC Data Access) 1.0a, 2.0, 2.05, 3.0
- OPC A&E (Alarms and Events) 1.01
- OPC HDA (Historical Data Access) 1.0, 1.1, 1.2

