Product Definition

MIMIX® for PowerHA® 9.0

MIMIX for PowerHA is a complementary product to IBM® PowerHA® SystemMirror® for i that provides HA/DR protection for SYSBAS through logical replication. With MIMIX® Availability™ – Enterprise Edition, MIMIX for PowerHA extends a two node PowerHA topology, providing logical replication protection of SYSBAS and IASPs to multiple nodes in an IBM PowerHA for i environment. This document defines the product functionality to which licensees are entitled.

Definition of Terms

Auxiliary Storage Pool (ASP)
A software definition of a pool of disk units allocated to an IBM i server to which data can be assigned. Typically a user-generated ASP corresponds to a physical arrangement of disks.

Independent Auxiliary Storage Pool (IASP)
An ASP with all the necessary system information associated with the data it contains so that while the IBM i server is active, the IASP can be varied off (data no longer available) and varied on again.

SYSBAS
The collection of the base system ASP and user ASPs. It is the total set of all data that does not reside in an IASP.

Hardware HA
High availability replication and switch technologies that are based on storage hardware sector replication. The sector pair may both exist on a single storage device or between two storage devices.

IBM® PowerHA® SystemMirror® for i
Licensed Program Product (LPP) for IBM i which uses IBM external hardware solutions to provide HA/DR on the IBM i platform. It allows for the creation and control of switchable IASPs.

Nodes and Systems
Node is used to designate a single footprint of the MIMIX for PowerHA product and is the term used in the MIMIX graphical user interface (VSP) portlets. System is the equivalent term used in MIMIX 5250 interfaces.

Primary node and backup node
The primary node is where the principal copy of the data associated with the production application resides. The backup node is where the replicated copy of the data resides. These roles will change when a switch operation is performed.

Replicate node
A replicate node is a node which contains a replicated copy of all or a portion of the data, but which will become neither a primary node nor a backup node during a switch or failover operation.

MIMIX Instance
A MIMIX instance is set of participating nodes with MIMIX installed and configured on them. MIMIX for PowerHA is part of a MIMIX Availability instance.

Management node and network node
The terms management node and network node are used to define the role of the node within the MIMIX instance. These roles remain associated with the node to which they are originally defined. One node in the MIMIX instance is designated as the management node and the remaining one or more nodes are designated as network node(s). A management node is the node that is designated as the control point for all MIMIX nodes within the MIMIX Instance. It is the location from which work to be performed by the product is defined and maintained.

When MIMIX Availability – Enterprise Edition is installed in a MIMIX for PowerHA environment, every node can be a management node and the control point of the MIMIX installation can be from any of these management nodes. With multiple management nodes the choice of which node can become the new primary node is not dependent on the node having a direct connection to the single management node. The result is that a MIMIX Availability – Enterprise Edition instance can now support multiple backup nodes and replicate nodes while maintaining full switching of the primary node to any backup node. Replicate nodes will continue to maintain real-time copies of the data after the switch.

Product Entitlement & Upgrades

MIMIX for PowerHA 9.0 is the current version of the product and the upgrade path for MIMIX for PowerHA 8.1. Previous MIMIX Global – SAN Edition and MIMIX Global – IASP Edition versions must be upgraded to MIMIX for PowerHA 8.1 before upgrading to MIMIX for PowerHA 9.0.

Prerequisites

See the OS Compatibility Matrix posted in the MIMIX for PowerHA page in Support Central for supported OS levels and VSP versions.

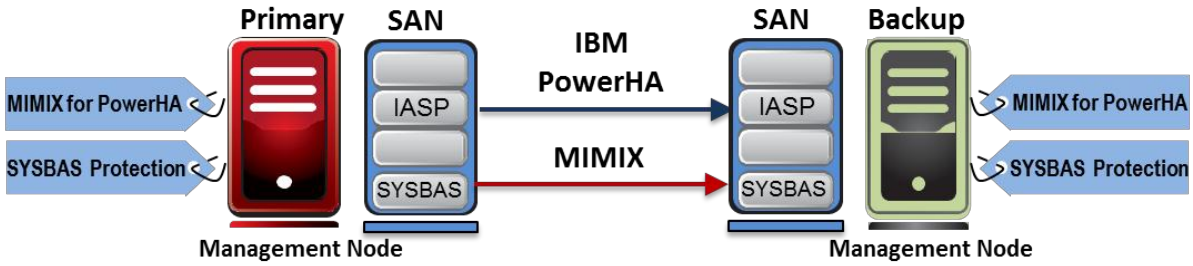
MIMIX for PowerHA requires IBM i OS Optional Feature 41 to enable the OS features for the handling of IASP functionality. The IBM PowerHA SystemMirror for i LPP is not required to control the PowerHA environment.

Supported Topologies

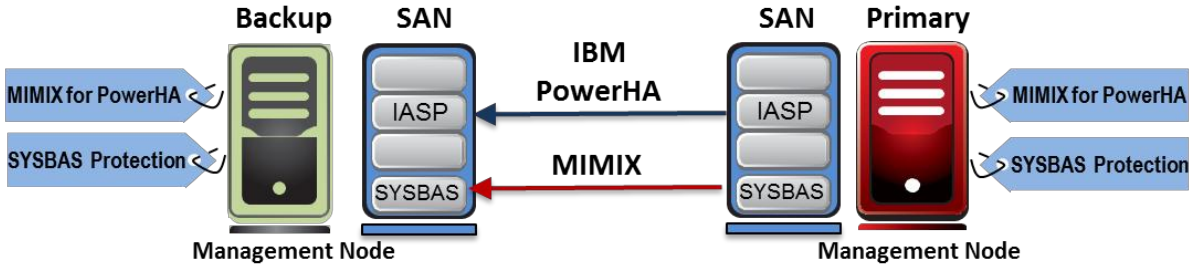
SYSBAS Protection

SYSBAS protection with MIMIX for PowerHA requires a feature code, which is available at no charge. The feature code enables use of a subset of the MIMIX Availability product for SYSBAS replication. Use of MIMIX Availability for SYSBAS protection is restricted as follows:

- Installed only as a licensed feature of MIMIX for PowerHA
- Limited to two node environments
- Use of this feature to replicate whole business applications not related to the applications being replicated with the hardware HA solution is not permitted
- A single MIMIX application group is used to control switching the primary node SYSBAS data to the backup node(s)
- A single Data Resource Group is used to replicate business data in SYSBAS



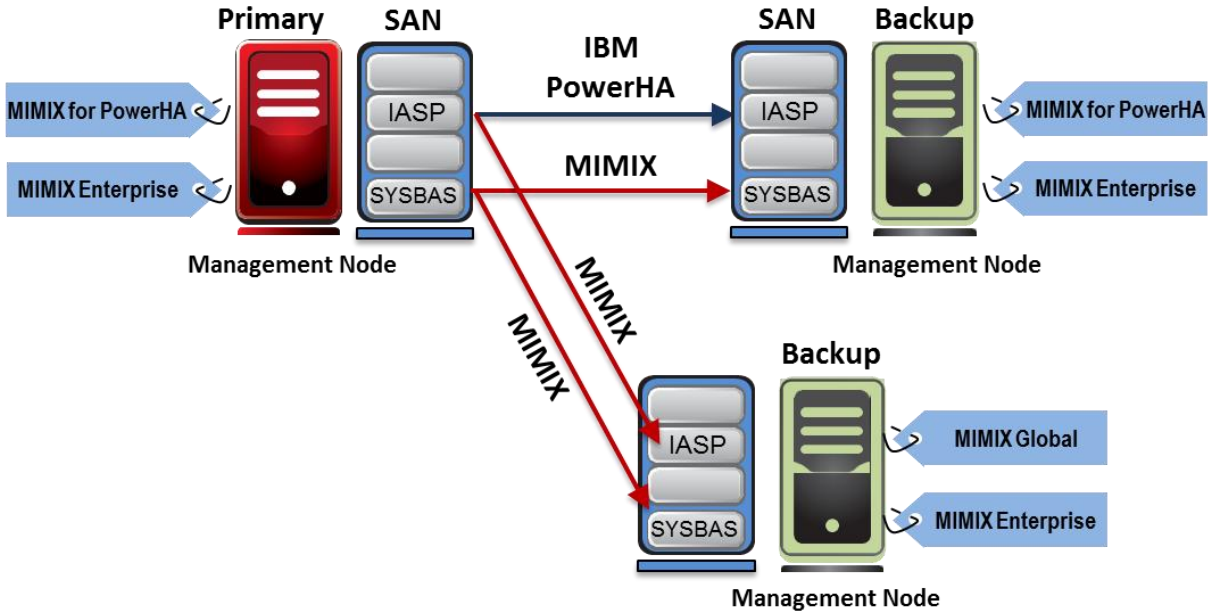
After switching



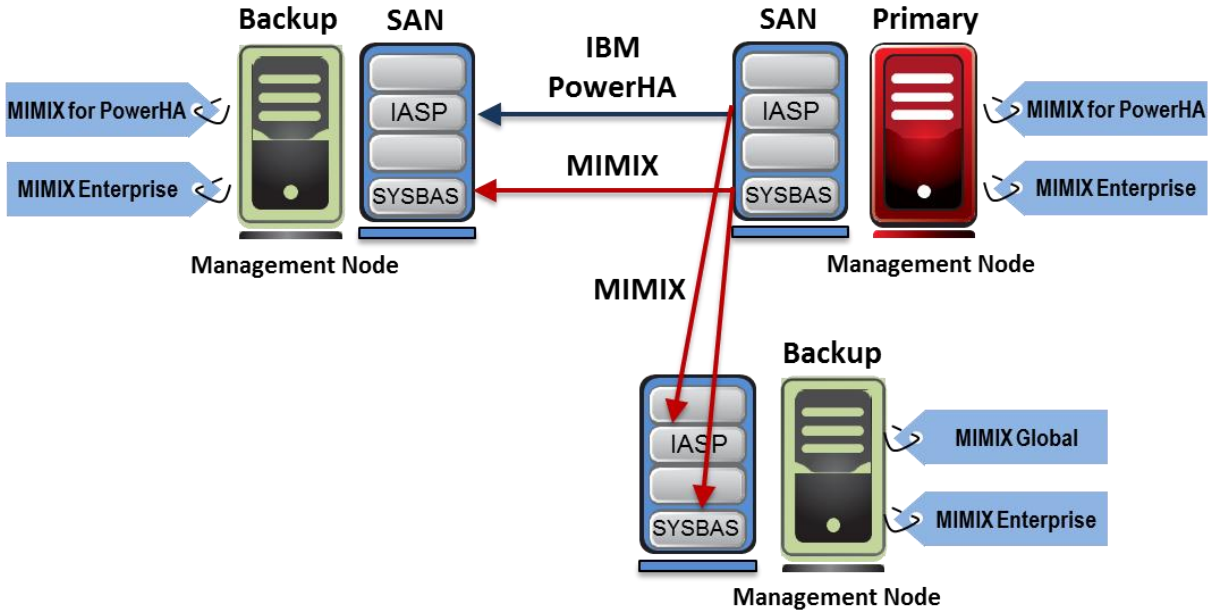
Additional nodes

A MIMIX for PowerHA license provides for full switching between three or more nodes. A MIMIX Availability – Enterprise Edition license is required to handle the replication and switching function for IASP data to the additional nodes and is used for SYSBAS replication to all nodes.

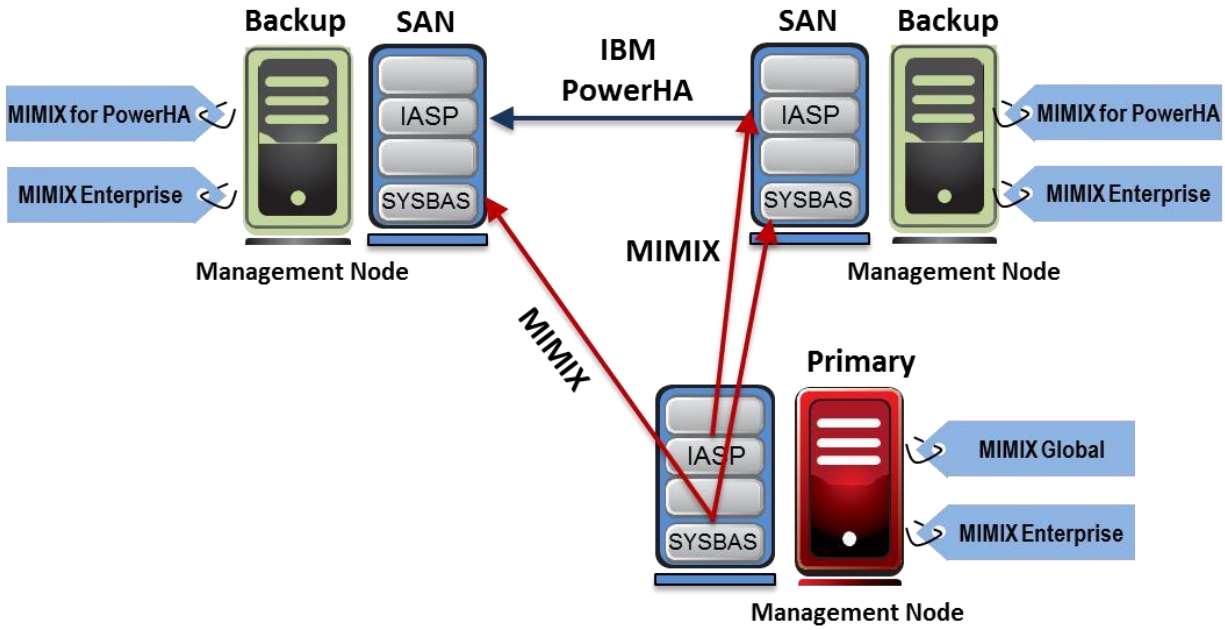
In a MIMIX for PowerHA topology of three nodes or more, every node can be a management node, ensuring that correct action will be taken during a switch operation.



After switching to the first backup



After switching to the second backup



Integrated Management

MIMIX for PowerHA provides for integrated management of MIMIX Availability and IBM PowerHA for i using the MIMIX interface (VSP or 5250). This is only available when using DS8000 Metro Mirror and Global Mirror or PowerHA Geographic Mirror.

Key Product Functionality

Topologies	
Two node instance	✔
Multiple node instance with two or more backup nodes	✔
Multiple node instance with backup and replicate nodes	✔
Integration with the MIMIX Graphical User Interface (VSP)	
Enterprise level at-a-glance monitoring	✔
Subscriptions notifications via email or SNMP	✔
Data Protection Reports with replication configuration	✔
Application Group level procedures	✔
License management window	✔
Logical replication	
SYSBAS replication with SYSBAS Protection feature for 2 nodes	✔
SYSBAS and iASP replication with MIMIX Availability - Enterprise Edition	✔
Threading Level when used with SYSBAS protection feature	Medium
Threading Level when used with with MIMIX Enterprise	High
Switch	
Switch from current primary node to selected backup node	✔
Virtual switch support on selected backup node	No
Features which require a no-charge license key	
SYSBAS Protection	✔
Compatibility with other MIMIX products	
MIMIX Availability	✔
MIMIX Global	✔
Product Support under maintenance contract	
Syncsort Support access	✔
KnowledgeBase access	✔
Email notification of product announcements and technical alerts	✔
Electronic-based incident management	✔
Telephone-based incident management	✔

Open Source Software

This product uses open source software. The open source license agreements are included in the installation of the product. They are located in the installation folder on the server where the MIMIX graphical user interface (VSP) is installed. See the MIMIX Graphical User Interface (VSP) User's Guide for details regarding the VSP installation location.

Product Compliance

Syncsort reserves the right to audit Licensee's usage of the product functions for compliance to this product definition and the terms of the License Agreement between Licensee and Syncsort.

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