

# More Info

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## Assure MIMIX Installation Wizard

The Assure MIMIX Installation Wizard provides a simple way to download, distribute, and install Assure MIMIX version 9.0 software to an IBM Power™ System or to multiple systems simultaneously. The wizard uses Vision AutoValidate™ to automatically obtain and apply license keys for the software being installed. The wizard automatically installs the Assure Unified Interface server and the Assure MIMIX portal application, which provide access to browser-based user interfaces for MIMIX®.

For new environments with two nodes, the wizard prompts you for information to create basic product configuration for MIMIX. The wizard will start the Precisely® Assure Unified Interface (Assure UI) portal, and its default options will start MIMIX. The first user to log in to the Assure UI portal (on an IBM i server) after the wizard completes a two-node installation will find already created portal connections to both nodes and an instance to access the installation. From the Assure UI portal, data protection reports can be used to complete the configuration.

The Assure MIMIX Installation Wizard does not support installing into a library located on an independent ASP. In order to install or upgrade an INTRA installation, the Assure MIMIX Installation Wizard must be run twice—once for the installation library and once for the INTRA library.

If you cannot use the Assure MIMIX Installation Wizard, the *Using License Manager* book contains installation procedures and supporting information for installing using the native user interface on System i.

## Software choices when installing

The Assure MIMIX Installation Wizard offers the following choices for what software to install:

- **MIMIX.** This choice is the default. It installs MIMIX software, License Manager, the Assure Unified Interface, and the Assure MIMIX portal application. The wizard uses Vision AutoValidate™ to obtain and apply license keys for your licensed software, which can be either Assure MIMIX Enterprise, Assure MIMIX Professional, Assure MIMIX for PowerHA, or Assure MIMIX DR.
- **Assure MIMIX portal application.** This saves the Assure MIMIX portal application to the system and installs or updates the Assure UI server as needed.
- **License Manager.** This installs only License Manager

## Shut down products

When upgrading, the wizard does not shut down MIMIX for you. The wizard verifies whether MIMIX is shut down on each system and, depending on whether you are using the standard or

custom upgrade option, will either issue an error or prompt you to shut down MIMIX. Both scenarios provide access to instructions for shutting down.

When installing MIMIX software or the Assure MIMIX portal application, if Assure UI server is active, you will be prompted to shut down the Assure UI portal. This affects access to all instances, including those for other products. If you choose not to shut down the Assure UI portal, it will not be updated; you will not be able to access the new capabilities in the Assure UI portal or the portal application after the install process completes.

## Installation options

The Assure MIMIX Installation Wizard supports standard and custom options for installing or upgrading MIMIX software.

**Standard Option** - The standard option streamlines interaction with the wizard and makes some choices for you. After the install or upgrade completes, the wizard always cleans up (removes) the installation files it used, automatically starts the MIMIXSBS subsystem, port jobs, and Assure UI servers on all nodes, and starts the data protection reports on the nodes where they have not been run before.

Also, default choices will cause the wizard to start MIMIX (STRMMX command) after the install or upgrade completes. If you select No for this choice, you will need to start MIMIX yourself after the wizard completes.

- For new installs, the standard option is limited to 2 node environments and will partially configure MIMIX. You are prompted for a product library name only if the default name, MIMIX, already exists. You cannot specify the auxiliary storage pool (ASP) in which to install; ASP 1 is used.
- For upgrades, the standard options supports any number of nodes. MIMIX software is upgraded using default choices.

**Custom Option** - The custom option provides more control for complex environments and allows you to install or upgrade on any number of nodes.

- If you use the custom option to install a new 2 node environment, you will be prompted to provide information to partially configure MIMIX. This is **not** done for new installs for any other number of nodes.
- For new 2-node installs, default choices in the custom option will cause the wizard to start MIMIX (STRMMX command) after the install completes. If you select No for this choice, you will need to start MIMIX after the wizard completes. The prerequisite MIMIXSBS subsystem and port jobs, as well as data protection reports, are started on both nodes regardless of your choice for starting MIMIX replication processes.
- For new installs with any other number of nodes, the custom option does not start MIMIX; you must manually start the MIMIXSBS subsystem and port jobs on all nodes and start MIMIX.
- For upgrades, default choices in the custom option will cause the wizard to start MIMIX replication (STRMMX command) after the upgrade completes. The default (Yes) also starts the prerequisite MIMIXSBS subsystem and port jobs on all nodes and data protection reports on nodes where they have not been run before. If you select No to not start MIMIX replication, there are additional installation options for addressing the prerequisite processes, which are started by default. If you select to not start replication, you must start MIMIX after the wizard completes. If you also select to not start the prerequisite processes, you must also manually start the MIMIXSBS subsystem and port jobs on all nodes before starting MIMIX.

- Default choices in the custom option will start the Assure UI server after the install or upgrade completes. However, if you select to not start the Assure UI portal, you will need to do so after the installation completes.

## **MIMIX configuration defaults for new installs for two-node environments**

When installing software for a new two-node environment, the wizard displays a MIMIX Configuration panel identifying the first and second nodes you logged in to as Node 1 and Node 2. This panel determines which node will be the primary node and identifies details needed to configure the nodes and communication between them (system and transfer definitions).

**Confirm that all fields have values and specify the primary node before continuing with the wizard.**

You must provide the following:

**MIMIX node (SYSDFN)** - If values are displayed, they are the host names from the logged in nodes. If you logged into a node using an IP address, the field is blank and you must specify a name. The names specified will be the names of the system definitions created.

**IP address or host name** - The values are displayed are from the systems you logged in to in previous panels in the wizard. Values can be either a mixed-case host alias name or a TCP address (nnn.nnn.nnn.nnn) and can be up to 256 characters in length.

**Port** - Identifies the port number of the node. The default value is port 50410. The valid range is from 1000 through 55534. To avoid potential conflicts with designations made by the operating system, it is recommended that you use values between 40000 and 55500.

**Primary node** - Select which node will be the primary node of the installation. The Primary node identifies which node will be the source node for replication activity. The node selected should be where your business runs. Ensure that you select the appropriate node before you continue. The default is the node identified as Node 1.

The node identified as the primary node will have its system definition assigned the role of a \*NET node. The other node will have its system definition assigned the role of a \*MGT node. These assignments occur even in environments licensed for multiple management nodes.

The transfer definition is created with the name PRIMARY.

## **Requirements**

Before launching the wizard, ensure that your environment meets these requirements.

### **Client (PC) system requirements for using this wizard**

Before launching the wizard, ensure that your client workstation meets the following minimum requirements:

**Note:** Closing other applications will improve the performance of the wizard.

- 256 MB free RAM
- One of these operating systems: Windows® 10, Windows Server® 2012 R2, Windows Server® 2016, or Windows Server® 2019
- Minimum 8-bit color depth (256 colors)

- Minimum 1024 x 768 resolution
- Adobe Acrobat Reader to view service pack Readme PDFs

## Communication requirements for using this wizard

The installation wizard has the following requirements for communicating with the IBM i nodes where software will be installed or upgraded.

**Install process:** To install software, the wizard requires the following:

- Communication between the PC where the wizard runs and each specified node must be active for the duration of the installation or upgrade process.
- Host Servers: For each node you select in the wizard, the wizard uses the node's Host Servers as access points to the node in order to copy software and save files from the PC to the nodes. Each server runs in a separate job on the node and each server job sends and receives data streams on a socket connection. The wizard requires that the following IBM i host servers be running on each selected node:
  - as-central in QSYSWRK subsystem (\*CENTRAL)
  - as-dtaq in QSYSWRK subsystem (\*DTAQ)
  - as-file in QSERVER subsystem (\*FILE)
  - as-rmtcmd in QSYSWRK subsystem (\*RMTCMD)
  - as-signon in QSYSWRK subsystem (\*SIGNON)
  - as-svrmap in QSYSWRK (\*SVRMAP)

To ensure that the IBM i host servers have been started, use the command: **STRHOSTSVR SERVER (\*ALL)**

- DDM Server: When using the wizard, the Distributed Data Management (DDM) server on all selected nodes must be started using the IBM Start TCP/IP Server (STRTCPSVR) command. Also, use the Display Network Attributes (DSPNETA) command to verify that network attribute *DDM Request Access* is set to \*OBJAUT. This attribute cannot be set to \*REJECT.
- The wizard uses the MIMIX communication path to copy MIMIX software from one system to another if MIMIX is active.
- The port used for file distribution must not be in use or blocked by a firewall between nodes.
- The wizard uses TCP/IP to transfer files from one node to another. A TCP/IP connection requires an open port upon which the connection is established. If the default port number (54321) is already in use or is blocked by a firewall, you will need to specify an alternative port number. Port numbers between 12,000 and 55,000 are open on most nodes.
- When using the wizard, node security is controlled through the wizard's **IBM i Login** panel. All actions on the node are performed under the user profile with which you log in.

**License keys:** The wizard uses Vision AutoValidate™ to automatically obtain and apply license keys for the software being installed. This requires coordination between the product installation wizard and the PC where it runs, your IBM i systems, and [Support](#). Firewall or other restrictions in your environment may prevent the Vision AutoValidate™ function from working automatically. In this case, the product installation wizard will direct you on how to obtain a License Key Package (LKP) from Support. You will be asked to upload system information in License Request files and

download the generated LKP file. The product installation wizard will then request the location of that file.

## **IBM Power™ Systems requirements for using this wizard**

Before launching the wizard, ensure that your IBM i nodes meet the following requirements:

- The operating system must be IBM i V7R1 or higher. (There may be some functionality within the product or its licensed features that require higher levels of the operating system.)
- Option 30, IBM i - QShell Interpreter, of the operating system (5770-SS1 for V7R1, V7R2, V7R3, or V7R4) is required.
- To use the wizard, TCP communications must be configured and operational between the nodes in your environment, as well as between your PC and the nodes.
- To use the wizard, the system name or IP address that is used to login to the nodes from the PC also needs to be usable between the nodes.
- To use the wizard, the QSYS/QUSRWRK subsystem must be active on all nodes.
- The user profile you use to install must have all these special authorities for the system: \*ALLOBJ, \*AUDIT, \*IOSYSCFG, \*JOBCTL, \*SAVSYS, \*SECADM, \*SERVICE, and \*SPLCTL.

## **System value requirements for installing and operation**

Before launching the wizard, ensure that your systems meet the following requirements for installing MIMIX software.

To access options to display or change these system values, use the command: **WRKSYSVAL**  
**SYSVAL ( name )**

- QALWOBJRST - Allow object restore option  
Setting: \*ALWPGMADP or \*ALL  
Required so that software installation and fix installation processes function correctly. If this is not set, the installation process will end with an error. This must be set on each system in the instance.
- QALWUSRDMN - Allow user domain objects in libraries  
Setting: \*ALL  
Required for the product to function when QSECURITY is 30 or higher. If the value is not \*ALL on a system in the instance, the installation process will add the product library and data library names to the list of libraries for this system value.
- QLIBLCKLVL - Library locking level  
Setting: 1  
Required on all systems in the product instance so that product processes complete successfully.
- QSECURITY - System security level  
Setting: 30 or higher  
Strongly recommended on each system in the product instance.
- QSYSLIBL - System part of the library list  
Setting: **cannot** include library QTEMP.  
If present before installing or upgrading, remove library QTEMP from the system library list on each system in the instance. If QTEMP is included in QSYSLIBL, the installation process will

end with an error.

To operate, the MIMIX product needs the following system value settings, and may automatically change some system values, as indicated.

**Note:** The system value checks listed below that occur when system manager or replication processes start will occur when any procedure or command that starts MIMIX runs. This includes when MIMIX is started as a result of default options within the Assure MIMIX Installation Wizard.

- QAUDCTL - Auditing control  
Setting: \*OBJAUD and \*AUDLVL  
Required for system journal (QAUDJRN) replication. Set by MIMIX when starting replication processes and when MIMIX commands are used to build the journaling environment for system journal replication.
- QAUDLVL - Security auditing level  
Setting: Multiple values set by MIMIX as described below.  
Required for system journal (QAUDJRN) replication. Set by MIMIX when starting replication processes and when MIMIX commands are used to build the journaling environment for system journal replication. Set as follows:
  - MIMIX adds the values \*CREATE, \*DELETE, \*OBJMGT, and \*SAVRST.
  - MIMIX checks for values \*SECURITY, \*SECCFG, \*SECRUN, and \*SECVLDL. If the value \*SECURITY is set, no change is made. If \*SECURITY is not set, MIMIX adds the values \*SECCFG, \*SECRUN and \*SECVLDL.
  - If there is any data group configured to replicate spooled files, MIMIX adds the values \*SPLFDTA and \*PRTDTA.
  - If there is any data group configured to replicate jobs within \*JOBQ objects, MIMIX checks for the presence of either \*JOBDTA or \*JOBBAS values. If necessary, MIMIX will change QAUDLVL to add \*JOBBAS to ensure that journal entries for job level auditing can be placed in the system journal. This may result in more journal entries in the system (QAUDJRN) journal. MIMIX does not update the QAUDLVL system value to remove the \*JOBDTA or \*JOBBAS values if you later change configuration to no longer replicate jobs.
- QMLTTHDACN - Multithreaded job action  
Setting: cannot be set to 3  
Affects only environments licensed for Assure MIMIX for PowerHA, which cannot have the value 3 set on any node in the cluster.
- QPVDLVL and other QPVDnnnn system values  
Setting: Strongly recommend using the same settings on all systems in the instance.  
When a data group is configured to replicate user profiles, MIMIX replication enforces the QPVD system value settings on each system. If values on the target system are more restrictive, replication failures can occur for user profiles with replicated passwords. These system values are set by MIMIX.  
**Note:** Changes to QPVDLVL require an IPL to become effective and should be made only with careful consideration.
- QRETSVRSEC - Retain server security data  
Setting: 1  
Required on each system in the MIMIX product instance for MIMIX operations that use

remote journaling. If the value is not 1, MIMIX sets this value to 1 when MIMIX system manager processes start and when a transfer definition is created or changed.

- **QTIME** - Time of day  
Setting: Correct value for time zone in which the partition runs.  
All systems in an instance must be properly set to prevent issues when running procedures.  
Not set by MIMIX.
- **QTIMZON** - Time zone  
Setting: Time zone in which the partition runs  
All systems in an instance must be properly set to prevent issues when running procedures.  
Not set by MIMIX.

For more information about system values, see the *Assure MIMIX Administrator Reference* book.

### **MIMIX DASD requirements on IBM Power Systems**

The Assure MIMIX Installation Wizard copies MIMIX software to the IFS directory `/Lakeviewtech/Upgrades` on each system defined to your MIMIX installation. The size of a MIMIX software upgrade can be large—300 megabytes (MB) or more—and it is common to have several MIMIX software files in the directory at a given time.

If you choose the standard option while upgrading, the wizard automatically saves your MIMIX installation library during an upgrade or service pack installation process. The wizard also deletes the saved library after a successful upgrade.

If you choose the custom option while upgrading, you have the option to save your MIMIX installation library during an upgrade or service pack installation process. If you choose to save them, the save files are placed in a temporary library named `MXIWIZnnnn`, where `nnnn` is a unique identifier obtained from a timestamp.

### **Disk space and memory requirements for the Assure UI portal**

After it is installed, the Assure UI portal has the following memory and disk space requirements.

- **RAM** - 2 GB recommended for less than 10 instances. 4 GB is recommended for best performance with 10 or more instances.
- **Disk space**
  - 350 MB for the Assure UI portal
  - 25 MB for each installed portal application deployed to the Assure UI server plus additional storage for each configured instance.

## IBM i software requirements for using the Assure UI portal

To use the Assure Unified Interface, the following licensed program options are required on the IBM i system where the Assure UI server is installed.

Licensed programs and options required on IBM i system where Assure UI server is installed.

Licensed Programs	IBM i 7.1	IBM i 7.2 or 7.3	IBM i 7.4
IBM i operating system, and the following options:	5770-SS1 *BASE	5770-SS1 *BASE	5770-SS1 *BASE
• Host Servers	Option 12	Option 12	Option 12
• Qshell	Option 30	Option 30	Option 30
• Portable App Solutions Environment	Option 33	Option 33	Option 33

**Note:** Option 12 is also required on all IBM i nodes within each product instance to which you will connect via a portal application deployed to the Assure UI server, regardless of whether the server runs on IBM i or on Windows.

IBM Developer Kit for Java, and <u>one</u> of the following options:	5761-JV1 *BASE	5770-JV1 *BASE	5770-JV1 *BASE
• Java SE 8 32 Bit	Option 16	Option 16	Option 16
• Java SE 8 64 Bit (recommended)	Option 17	Option 17	Option 17
• Java SE 7 32 Bit	Option 14	Option 14	n/a
• Java SE 7 64 Bit	Option 15	Option 15	n/a

**Note:** On all supported IBM i releases, the STRVSI SVR command will fail if 64-bit Java is not installed. However, you can specify STRVSI SVR JVM(\*IBM32) to start the Assure Unified Interface server in a 32-bit Java environment.

IBM PTFs - Install the latest PTFs for the licensed programs listed above. To locate the most recent available IBM Group PTFs, go to <https://www-01.ibm.com/support/docview.wss?uid=nas4PSPbyNum>.

## Assure UI portal upgrade considerations and portal application compatibility

If version 3.2 of the VSP or Assure UI server, or an earlier VSP server (version 3.0 or 3.1) exists on the system when you install or upgrade the Assure UI server, be aware of the following:

- **User access to multiple products via the portal is not available while the wizard runs.** While the wizard runs, the Assure UI portal (or VSP) is temporarily not available to its existing users. Users will not be able to monitor or access any Precisely products from the portal until after the installation process completes.
- **Enterprise monitoring requires version 3.2 of the Assure UI portal.** Support for enterprise monitoring was introduced with service pack 3.2.09.00. Precisely products that support enterprise monitoring may require a higher service pack level. Check what level is required by each product that you intend to monitor.
- **Earlier versions of portal applications do not function with version 3.2.** If an existing VSP server is running version 3.1 or 3.0, its deployed portal applications are not compatible with version 3.2 of the Assure UI portal. The first time an existing version 3.1 or 3.0 VSP server is upgraded to this version of the Assure UI server, you must take one or more of these actions to ensure that existing users of the VSP server will continue to have a functional environment after the server is upgraded:






- For products that support portal applications, default options within the product’s installation wizard will upgrade an existing VSP 3.1 or 3.0 server to Assure UI server version 3.2 and will upgrade that product’s portal application to a compatible level. However, deployed portal applications for other products must be manually upgraded to levels compatible with version 3.2. You can upgrade portal applications as follows:
  - For an Assure UI server on an IBM i platform, use the product’s installation wizard and select the “portal application” option to upgrade a portal application.
  - For an Assure UI server on a Windows platform, use the product’s portal application-specific installation wizard for Windows.
- If a deployed portal application cannot be updated to a level compatible with version 3.2, you may need to maintain multiple servers, one for version 3.2 functionality, such as enterprise monitoring, and an earlier version. A portal application that cannot be upgraded to a 3.2-compatible level requires that you maintain a server that remains at VSP version 3.1 or 3.0. If you require multiple Assure UI servers, they must be on different systems.
- **Windows-only considerations.** When you use the Assure UI server or an older VSP server on Windows, be aware of the following:
  - This product installation wizard does not install or upgrade the VSP or Assure UI server or any portal applications on Windows.
  - A VSP server on a Windows platform that does not support 64-bit applications cannot be upgraded to version 3.2 of the Assure UI server. Install the Assure UI server on a supported Windows platform. If you require portal applications on the server, use the product’s portal application-specific installation wizard to install and deploy them on the new server.
  - A VSP server or Assure UI server on a Windows platform supports portal applications for Precisely products that run on AIX and IBM i systems. Upgrading the server to support access to products that run on IBM i may affect the AIX products, too. The MIMIX for AIX version 5.1 portal application is not compatible with version 3.2 and will not function if it is deployed on a VSP server that is upgraded to version 3.2 (VSP or Assure UI).

Compatibility of supported product portal applications with the Assure UI portal server (formerly VSP).

Compatible Portal Application	Assure UI server or VSP server version 3.2	VSP server version 3.1	VSP server version 3.0
Assure MIMIX 9.0	✓	✗	✗
MIMIX 8.1	✗	✓ 8.1.11.00 and higher ✗ 8.1.10.00 and earlier	✓ Only 8.1.01.00 through 8.1.10.00
Assure iOptimize 9.0	✓	✗	✗
iOptimize 8.1	✗	✓ 8.1.11.00 and higher ✗ 8.1.10.00 and earlier	✓ Only 8.1.01.00 through 8.1.10.00
MIMIX for AIX 5.2	✓	✗	✗
MIMIX for AIX 5.1	✗	✓	✗

Compatibility of supported product portal applications with the Assure UI portal server (formerly VSP).

Compatible Portal Application	Assure UI server or VSP server version 3.2	VSP server version 3.1	VSP server version 3.0
Double-Take for AIX 5.0			

The Assure UI server supports the indicated versions of AIX portal applications only on AIX or Windows platforms. The MIMIX for AIX 5.2 portal application supports connecting to Assure MIMIX HA for AIX 5.2 and Assure MIMIX DR for AIX product nodes.

You can upgrade the MIMIX or iOptimize portal applications to version 3.2-compatible levels without having to upgrade their respective product instances on IBM i systems.

Once installed and deployed, portal applications can connect to and manage multiple instances of their respective products. Product instances on the IBM i server to which a product portal application connects may be at different versions. For example, the version 9.0 portal applications for MIMIX and iOptimize support connecting to versions 9.0 and 8.1 instances of their respective products. For more information, see the *Assure Unified Interface User's Guide*.

## Installed software location

The wizard installs the MIMIX product into the product library name that you specify during the installation process. The default library name is MIMIX.

The wizard installs 7VSI001 \*BASE and option 2 into library VSI001LIB if they are not already present on the system. Depending on what software you choose to install, option 13 may also be installed.

The wizard stores and optionally removes MIMIX software at the system IFS location `/Lakeviewtech/Upgrades`. If you choose the custom option and the MIMIX software for this upgrade is already located in this directory, the wizard provides the opportunity to use those files. Using those files can reduce the amount of time required for the distribution phase.

The Assure UI server software and product portal applications are stored on the system at IFS location `/visionsolutions/http/vsisvr`. Portal applications are stored and deployed from the system IFS location `/visionsolutions/http/deploy`.

## Troubleshooting

**Install log files:** Two install log files are created each time the wizard is run. One log is placed on the IBM i and the other on the PC where the installation wizard was run. These logs are not automatically deleted.

The PC log contains more information than the IBM i log, and is always the preferable one to collect and use. It can be found on the PC at:

```
C:\MIMIX_InstallL_Log.txt
```

If for some reason the PC log is unavailable, you can find the IBM i log at the following system IFS location:

```
/Lakeviewtech/Upgrades/install_log_day_mmm_dd_hh_mm_ss_zne_yyyy.txt
```

If you encounter problems while using the Assure MIMIX Installation Wizard and are unable to resolve the problem and need assistance, contact Support.

**Installation failure - new/upgraded installation:** If your new or upgraded installation fails or is canceled before completion, you may be able to determine what caused the failure and take the appropriate steps to fix the problem.

The system job information is displayed in the status pane. You can copy and paste job information from the Assure MIMIX Installation Wizard status pane to the native user interface command line. To assist you in resolving the problem, use the Work with Job (WRKJOB) command to view the system job log as follows:

```
WRKJOB JOB( job_number/userid/job_name)
```

After you have corrected the reason for the failure, click the Retry button from the Installing Panel. If you are unable to determine or correct the cause of the failure, contact Support.

**Important!** If you were unable to successfully upgrade, do not attempt to start your MIMIX installation. This could lead to an issue with your MIMIX configuration. A Certified MIMIX Consultant will assist you with the restoration process.

## Assure MIMIX Support

Should you encounter problems while using the wizard, visit our [Contact Support](#) webpage for a complete list of contact information.

If you are current on maintenance, support for Assure MIMIX products is also available from [Support](#).

It is important to include product and version information whenever you report problems. To locate this information for the Assure UI portal, select the Home folder in the navigation area, then select the Portal Applications portlet on the Support page.

