

# Release Bulletin Adaptive Server<sup>®</sup> Enterprise Cluster Edition 15.7

**IBM AIX** 

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# **Product Summary**

This release bulletin provides late-breaking information about Adaptive Server<sup>®</sup> Enterprise Cluster Edition version 15.7. A more recent version may be available on the Web.

Adaptive Server Enterprise server and client components are distributed on separate CDs or DVDs.

See the Cluster Edition installation guide for operating system requirements, and *http:// certification.sybase.com* for additional supported operating systems.

#### Installation kit

The installation kit includes:

- Server media (CD or DVD)
- PC-Client media
- Getting Started media with the following documentation, specific to your platform:
  - Installation guide
  - Release bulletin (this document)

# Adaptive Server Interoperability

Interoperability of Adaptive Server against other Sybase<sup>®</sup> products, across different platforms, versions, and client products.

Interoperability between big-endian and little-endian platforms has been verified. Windows, Linux x86-32, Linux x86-64, Sun Solaris x86-32, and Sun Solaris x86-64 are little-endian platforms. IBM AIX, Linux on Power, Sun Solaris SPARC, and HP-UX on Itanium are big-endian platforms.

**Note:** To use new features of Adaptive Server Cluster Edition, make sure that your client supports them. See the client-specific documentation for information about the features your client supports. You may need to upgrade your client to use certain Cluster Edition features.

Client Name	Version	Supported Platform
Open Client <sup>™</sup> /Open Server <sup>™</sup>	15.7	<ul> <li>AIX 32-bit</li> <li>AIX 64-bit</li> <li>HP-UX IA 32-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x86 32-bit</li> <li>Linux x64 64-bit</li> <li>Linux Pseries 32-bit</li> <li>Linux Pseries 64-bit</li> <li>Solaris 32-bit</li> <li>Solaris 64-bit</li> <li>Solaris x86 32-bit</li> <li>Solaris x86 64-bit</li> <li>Windows x86 64-bit</li> <li>Windows x86 64-bit</li> </ul>
	15.5	<ul> <li>AIX 32-bit</li> <li>AIX 64-bit</li> <li>HP-UX 32-bit</li> <li>HP-UX 64-bit</li> <li>HP-UX IA 32-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x86 32-bit</li> <li>Linux r64 64-bit</li> <li>Linux Pseries 32-bit</li> <li>Linux Pseries 64-bit</li> <li>Solaris 32-bit</li> <li>Solaris 64-bit</li> <li>Solaris x86 32-bit</li> <li>Solaris x86 64-bit</li> <li>Mac OS X Intel 32-bit</li> <li>Windows x86 32-bit</li> <li>Windows x86 64-bit</li> </ul>

Table 1. Supported Client Platforms for Adaptive Server

Client Name	Version	Supported Platform
Adaptive Server Enterprise Extension Module for Python	15.7	<ul> <li>AIX 64-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x64 64-bit</li> <li>Linux Pseries 64-bit</li> <li>Solaris 64-bit</li> <li>Solaris x86 64-bit</li> <li>Windows x86 64-bit</li> </ul>
Adaptive Server Enterprise Extension Module for PHP	15.7	<ul> <li>AIX 64-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x64 64-bit</li> <li>Linux Pseries 64-bit</li> <li>Solaris 64-bit</li> <li>Solaris x86 64-bit</li> <li>Windows x86 64-bit</li> </ul>
Adaptive Server Enterprise Database Driver for PERL	15.7	<ul> <li>AIX 32-bit</li> <li>HP-UX IA 32-bit</li> <li>Linux x64 64-bit</li> <li>Linux Pseries 32-bit</li> <li>Solaris 32-bit</li> <li>Solaris x86 32-bit</li> <li>Windows x86 64-bit</li> </ul>
jConnect <sup>TM</sup> for JDBC <sup>TM</sup>	6.0.x, 7.0.x	• All

Client Name	Version	Supported Platform
ODBC by Sybase	15.7	<ul> <li>Linux x86 32-bit</li> <li>Linux x64 32-bit</li> <li>Linux x64 64-bit</li> <li>AIX 64-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux Pseries 64-bit</li> <li>Solaris 64-bit</li> <li>Solaris x86 64-bit</li> <li>Windows x86 32-bit</li> <li>Windows x64 32-bit</li> <li>Windows x64 64-bit</li> </ul>
	15.5.x	<ul> <li>Linux x86 32-bit</li> <li>Linux x64 32-bit</li> <li>Linux x64 64-bit</li> <li>Mac OS X Intel 32-bit</li> <li>Windows x86 32-bit</li> <li>Windows x64 32-bit</li> <li>Windows x64 64-bit</li> </ul>
OLE DB by Sybase	15.7, 15.5.x	<ul> <li>Windows x86 32-bit</li> <li>Windows x64 32-bit</li> <li>Windows x64 64-bit</li> </ul>
ADO.NET	2.x, 4.x	<ul> <li>Windows x86 32-bit</li> <li>Windows x64 32-bit</li> <li>Windows x64 64-bit</li> </ul>

Client Name	Version	Supported Platform
Replication Server®	15.5, 15.6	<ul> <li>IBM AIX POWER 64-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x86 32-bit</li> <li>Linux x86-64 64-bit</li> <li>Linux on POWER 64-bit</li> <li>Sun Solaris SPARC 64-bit</li> <li>Sun Solaris x86-64 64-bit</li> <li>Microsoft Windows x86 32-bit</li> <li>Microsoft Windows x86-64 64-bit</li> </ul>
	15.2	<ul> <li>IBM AIX POWER 32-bit</li> <li>IBM AIX POWER 64-bit</li> <li>HP-UX IA 64-bit</li> <li>Linux x86 32-bit</li> <li>Linux x86 64-bit</li> <li>Linux on POWER 64-bit</li> <li>Sun Solaris SPARC 32-bit</li> <li>Sun Solaris SPARC 64-bit</li> <li>Microsoft Windows x86 32-bit</li> <li>Microsoft Windows x86 64-bit</li> </ul>

Note: Adaptive Server is supported on Sybase Central<sup>™</sup> 6.0 and Sybase Control Center 3.2.5.

# Product Compatibility

Learn about Adaptive Server compatibility.

### Password Compatibility with Replication Server

There are some compatibility issues with replicating logins and roles between different versions of Adaptive Server.

You can replicate logins from Adaptive Server version 15.0.2 and later to earlier server versions only during the password downgrade period when **allow password downgrade** is set to 1.

You cannot replicate roles with passwords from Adaptive Server 15.7 and later to earlier server versions.

### **In-Row LOB Column Replication**

The semantics and interface for replicating in-row LOB columns in Adaptive Server 15.7 is the same as that for LOB columns in versions earlier than 15.7.

To mark in-row LOB columns for replication, use:

```
sp_setrepcol table_name [, {column_name | null} [,
{do_not_replicate | always_replicate |
replicate_if_changed}]] [, use_index]
```

In addition, when replicating an in-row LOB column on the primary database, you can store the replicated data in-row or off-row, depending on the replicated database and replicated table settings. For example, if the page size is smaller in the replicate than in the primary, the replicated table row size is smaller, and the replicated LOB does not fit in-row; therefore the in-row value on the primary may be replicated as an off-row LOB value on the replicate.

### **Changes That Affect Existing Applications**

Learn about changes in Adaptive Server 15.7 that affect your existing applications.

#### **Changes to Sybase Central**

The SAM report license reporting tool is no longer included with the Sybase Central ASE plug-in.

Prior to 15.7 ESD 1, SAMreport was included as a licensing tool in the Utilities folder of the ASE plug-in. SAMreport is no longer included by default; however, you can add tools such as SAMreport to the Sybase Central Utilities folder.

To add additional tools:

From Utilities tab, select Add New Utility and follow the wizard prompts to supply the name, description, command, arguments and type.

#### **Backup Server and directio**

In version 15.5 and later, both Adaptive Server and Backup Server can bypass the operating system buffer cache when you enable the **directio** parameter for the device using **disk init**, **disk reinit**, or **sp\_deviceattr**. Adaptive Server passes the device options to Backup Server, which enables Backup Server to access the database device with the appropriate **directio** option.

### Backup Server and IBM Tivoli Storage Manager

Use a local backup server for dump and load to the IBM Tivoli Storage Manager; you cannot use a remote backup server.

You can configure the IBM Tivoli Storage Manager on a different host machine than the local backup server.

### **Open Client and Open Server**

For features that depend on Adaptive Server as a client., download and install the most recent Adaptive Server ESD for the corresponding Open Server and Software Developers Kit (SDK).

For information about changes that affect Open Client and Open Server, see the most recent release bulletins for these products on the Sybase Web site.

For information about new features, see the *New Features Bulletin Open Server 15.7 and SDK 15.7 for Windows, Linux, and UNIX.* 

#### Adaptive Server Extension Modules and Drivers

The extension modules for PHP and Python, and the database driver for Perl, allow developers to execute queries against an Adaptive Server database.

For information about the PHP and Python extension modules and the database driver for Perl, see:

- Adaptive Server Enterprise Extension Module for Python Programmers Guide
- Adaptive Server Enterprise Extension Module for PHP Programmers Guide
- Adaptive Server Enterprise Database Driver for Perl Programmers Guide

For installation instructions, see the *Software Developers Kit and Open Server Installation Guide.* 

### **Compressed LOB Column Replication**

Only Adaptive Server 15.7 ESD #1 and later, and Replication Server 15.7.1 and later support compressed LOB column replication. All intermediate Replication Servers in the route from Adaptive Server must also be version 15.7.1 and later.

# Changed Functionality

Learn about late-breaking functionality changes in Adaptive Server version 15.7.

For detailed information, see the Clusters Users Guide.

#### Support for db2 Server Class

Adaptive Server does not support server class db2.

To use db2, migrate your db2 server class to direct\_connect class.

### Change to kill command in clustered environments

In Adaptive Server Cluster Edition version 15.5 ESD #2 and later, a privileged Kerberos user can use the **kill** command to kill the "spid" for a database task being executed on a remote server.

# **Unsupported Features and Utilities**

Learn about features that are not supported in the Cluster Edition.

These utility programs are not supported, or have minimum support:

- sqlupgrade
- sqlloc
- srvbuild

These Adaptive Server features are not supported:

- In-memory databases introduced in Adaptive Server 15.5.
- Adaptive Server disk mirroring.
- High-availability. In the Cluster Edition, high-availability functionality is integrated into Adaptive Server.
- Maximum number of instances supported. The Cluster Edition architecture provides for up to 32 instances in a cluster. However, Cluster Edition 15.5 and later is currently certified for, and supported on, 4 instances only.

These Replication features are not supported:

- Multi-Path Replication<sup>™</sup>
- Metadata reduction
- Repdef elimination
- In-row LOB replication
- Replication of compressed data
- Replication using ASE Replicator

**Note:** The ASE-15\_0/bin directory includes a utility called **iofenceutil**, which duplicates the functionality of **qrmutil --fence\_capable**, but does not require the quorum device, and also returns an exit code. This is an internal utility used by **sybcluster** and is not designed for regular use.

# Installation and Upgrade

Get last-minute information about installation and upgrading that was omitted from or incorrect in your installation guide, or that needs special emphasis.

Sybase strongly recommends that you install the Adaptive Server Enterprise Cluster Edition into its own directory. If you cannot do this, install the Cluster Edition last.

**Warning!** Sybase recommends that you do not install an older version of a Sybase product in a \$SYBASE directory that includes a newer Sybase product. For example, installing Replication Server<sup>®</sup> 15.0 on top of the Cluster Edition may make either the Cluster Edition or Replication Server inoperable, depending on the choices you select during installation.

# **Special Installation Instructions**

Learn about special installation instructions for this version of Adaptive Server.

Installing Enterprise Connect Data Access (ECDA) or MainframeConnect DirectConnect for z/OS with Other Sybase Software Sybase strongly recommends you install the ECDA DirectConnect option or MainframeConnect<sup>™</sup> DirectConnect<sup>™</sup> for z/OS, including DirectConnect Manager, into its own directory.

Installing Adaptive Server Enterprise Cluster Edition with Sybase IQ 15.1 Sybase recommends that you not install Sybase  $IQ^{TM}$  15.1 in a directory that includes the Cluster Edition.

# **Special Configuration Instructions**

Special configuration instructions for this version of Adaptive Server.

### Changes to number of pre-allocated extent

In Adaptive Server version 15.5 and later, the maximum value allowed for the configuration parameter **number of pre-allocated extent** has been increased from 31 to 32.

Using a value of 32 for the **number of pre-allocated extent** parameter has a special significance for configuration, and impacts the space allocations Adaptive Server performs internally. If you set the number to 32, Adaptive Server attempts to reserve an entire allocation unit of extent for utility operations that use a large-scale allocation scheme of space reservation, such as **bcp in** and **select into**.

Using the maximum for **number of pre-allocated extent** can greatly improve the performance of these utilities, particularly when you run them in parallel. Using a value of 32 greatly increases the likelihood that each engine running the utility can work independently on its own allocation unit without interference from other engines.

# Special Upgrade and Downgrade Instructions

Get last-minute instructions for upgrading, downgrading, and migrating different versions of Adaptive Server.

#### **Upgrading Job Scheduler**

During the upgrade from Adaptive Server version 12.5.x to 15.5 and later, Job Scheduler increases the size of **sybmgmtdb** from 50MB to 90MB.

Upgrade any jobs that are created from templates.

#### Migrating from Adaptive Server 12.5.1 to 15.7

Migration from Adaptive Server 12.5.1 to 15.5 and later versions using **sybmigrate** may generate an error message.

When you migrate from Adaptive Server 12.5.1 to 15.5 and later versions using the **sybmigrate** utility, you may encounter an error message similar to:

```
"local server name not set for server 'source' on
host 'hostl'(IP address + port number='xx.xx.xx.xx:xxx')"
```

Adaptive Server version 12.5.1 is no longer supported. Sybase recommends that you upgrade from 12.5.1 to 12.5.4, then from 12.5.4 to 15.5 and later versions.

To make the 12.5.1 server visible to the 12.5.4 or later server, use:

1>sp\_addserver 'servername', local
2>go

Restart Adaptive Server. It now recognizes the 12.5.1 server.

### Loading Database Dumps into Earlier Versions

You cannot dump a database on this version of Adaptive Server and then load this dump into a database on a server running an earlier (15.x) version of Adaptive.

# Known Installation Issues for Adaptive Server Cluster Edition

Learn about known installer issues and workarounds. Known issues are listed in descending order of Change Request (CR) numbers.

CR #	Description		
688101	Cannot start Sybase Central for Sybase IQ 15.4 after uninstalling Adaptive Server 15.7.		
	If you have installed Adaptive Server Enterprise Edition 15.7 into the same directory as Sybase IQ 15.4 and then uninstall Adaptive Server, you cannot then start Sybase Central for IQ. This problem occurs because shared files are removed by Adaptive Server uninstaller.		
	Workaround: Either:		
	• Back up the shared directory before uninstalling Adaptive Server and restore the miss- ing files after Adaptive Server has been uninstalled, or,		
	• Reinstall Sybase IQ by choosing Custom mode and install only Sybase Central.		
683486	Cannot use DBISQL from Sybase Central after installing RMP 15.2 and RMP 15.7. on top of Adaptive Server 15.7.		
	<b>Workaround</b> : After installing Replication Server and RMP, reinstall DBISQL and Sybase Central (including the plug-in), using the Adaptive Server15.7 custom installation and selecting only those components to install. This replaces the Sybase Central plug-in with the newer version.		
678912	Cannot use DBISQL from Sybase Central after installing RMP on top of Adaptive Server 15.7.		
	<b>Workaround</b> : After installing Replication Server and RMP, reinstall DBISQL and Sybase Central (including the plug-in), using the Adaptive Server 15.7 custom installation and selecting only those components to install. This replaces the Sybase Central Plug-in with the newer version.		

CR #	Description		
611780	Installing Adaptive Server 15.5 Cluster Edition in the same directory as ECDA 15.0 ESD #2 and earlier versions results in errors.		
	The Unified Agent does not start after this installation; and you cannot create a cluster from Sybase Central.		
	<b>Workaround</b> : Sybase strongly recommends that you install the Adaptive Server Enterprise 15.5 Cluster Edition into its own directory. If you must install Adaptive Server 15.5 Cluster Edition in the same directory as ECDA 15.0, then:		
	<ul> <li>If you have installed ECDA 15.0 ESD #3, you can install Adaptive Server 15.5 Cluster Edition on top of the ECDA installation.</li> <li>If you have an ECDA installation that is version 15.0 ESD #2 or earlier, you must:</li> </ul>		
	<ul> <li>Uninstall the older ECDA version.</li> <li>Delete the \$SYBASE/ua directory.</li> </ul>		
	Install Adaptive Server 15.5 Cluster Edition.		
590282	You cannot use the tab and arrow keys to navigate the Choose Product Features pane of the installation or uninstallation program.		
	<b>Workaround</b> : Use the mouse to click in the Install or Uninstall window. This sets the focus on the window and allows you to navigate using your keyboard.		
588793	Installing Adaptive Server 15.5 and later versions that use Install Anywhere on older directories that have been installed with InstallShield Multiplatform can lead to incompatibility issues.		
	These issues occur while using products installed with different installer technologies:		
	• If you install products using Install Anywhere or InstallShield Multiplatform on top of a product installed using the other installer, the same files included in both installers are silently overwritten by the later installation.		
	• If you run either the Install Anywhere or InstallShield Multiplatform <b>uninstaller</b> , the same files installed by both installers are removed without any indicating messages.		
	<b>Workaround</b> : Do not install products that use Install Anywhere and products that use InstallShield Multiplatform in the same directory.		
586169	gzip must be installed on the machine for installer to succeed.		
	The installer reports:		
	gzip: Not Found		
	Workaround: Install gzip on your machine and make sure it is included in the path.		
583979	The installer does not validate feature names specified in the response file when you install in silent mode.		
	Workaround: Ensure that the specified feature names are correct.		

# Known Plug-In Issues for Adaptive Server Cluster Edition

Learn about known issues and workarounds for Interactive SQL and the Adaptive Server Enterprise plug-in. Known issues are listed in descending order of Change Request (CR) numbers.

CR#	Description and Workaround	
694020	You may not be able to start an instance that has been added to a cluster using the ASE plug-in.	
	Workaround: Shut down and restart the cluster.	
693548	A new cluster cannot be agent enabled.	
	After creating a cluster using the ASE plug-in, the cluster does not appear as agent enabled.	
	Workaround: Shut down and restart the ASE plug-in.	
487524	Raw device permission error from sybcluster while executing create cluster command.	
	This happens when a device name is misspelled, or does not exist.	
	Workaround: Reenter the name of an existing device.	
478875	In the Adaptive Server plug-in, you cannot drop a connected instance; your connection is lost as soon as the instance is shut down.	
	<b>Workaround</b> : Before shutting down the instance to drop, connect to another instance in the cluster.	

# Known Issues for Adaptive Server Cluster Edition

Learn about known issues and apply workarounds for Adaptive Server Cluster Edition. Known issues are listed in descending order of Change Request (CR) numbers.

Sybase does not include system problem reports (SPRs) and closed problem reports (CPRs) with Adaptive Server Enterprise. You can search the Web site for solved cases. Click **Support** > Services > Solved Cases.

CR #	Description		
698388	Bootstrapping COTS JVM may result in a SIGSEGV.		
	When Adaptive Server attempts to bootstrap COTS JVM, you may encounter a signal 11 followed by a stacktrace in the error log which includes the module jvmh_utl_printn. This will result in Java operations not being able to execute.		
	<b>Workaround</b> : To avoid the issue, change the global java.policy file by adding the following rule and changing the first string starting after file: with your absolute path.		
	<pre>grant codeBase "file:/absolute_path_to/sybase/ ASE-15_0/lib/pca/sybasert.jar" { permission java.lang.reflect.ReflectPermission "suppressAcces- sChecks"; };</pre>		
	For example,		
	<pre>grant codeBase "file:/opt/sybase/ASE-15_0/lib/pca/ sybasert.jar" { permission java.lang.reflect.Reflect- Permission "suppressAccessChecks"; };</pre>		
	For each platform, the java.policy file is located here:		
	<ul> <li>IBM-\$SYBASE/shared/JRE-6_0_SR9FP1_64BIT/lib/securi- ty/java.policy</li> </ul>		
	<ul> <li>HP-\$SYBASE/shared/JRE-6_0_10/lib/security/java.pol- icy</li> </ul>		
	<ul> <li>Linux - \$SYBASE/shared/JRE-6_0_24_64BIT/lib/security/ java.policy</li> </ul>		
	<ul> <li>Solaris - \$SYBASE/shared/JRE-6_0_24/lib/security/ java.policy</li> </ul>		

CR #	Description		
697384	Segmentation violation when decreasing number of engines (thread count) using the alter thread pool command.		
	Under certain circumstances, Adapter Server may encounter a segmentation violation fol- lowed by a stacktrace involving the function <b>uppwakeup()</b> when the number of engines is decreased via the <b>alter thread pool</b> command.		
	<b>Workaround</b> : To avoid the segmentation violation, do not decrease the number of engines (thread count).		
696071	In some Cluster Edition configurations, Adaptive Server 624 and 69x errors may occur in rare circumstances during database replication of a database or replication of tables within a database.		
	In active-active or active-passive cluster configurations, you can configure RepAgent to run on only one node of the cluster. These errors may occur in rare circumstances when Rep- Agent reads an older image of database log pages that is on disk while the latest image is on another node.		
	Workaround: Sybase recommends that for:		
	<ul> <li>Active-passive configuration – run RepAgent on the active node to ensure that data and log pages are on the same node as RepAgent.</li> <li>Active-active configuration – start Adaptive Server with the 16872 trace flag to prevent log page corruption and 69x errors. However, using this flag degrades the server performance.</li> </ul>		
695625	This message is reported by Open Client applications connecting to Adaptive Server Enterprise:		
	ct_send(): network packet layer: internal Client Li- brary error: State error: trying to write when connec- tion is expecting a read.		
	This message is reported in some cases when Kerberos message confidentiality service is turned on.		
	Workaround: Reconnect to the server with confidentiality service turned off.		
695135	The following message is reported in the error log regarding thread pools. "kernel Expected object passed to kmuxtskGetThreadpool is not of type Multiplexed Task, 0x4d858884 != 0x52544354 (TCTR)"		
	Workaround: You can safely ignore this message.		

CR #	Description	
694912	The sybcluster localize utility does not function properly and exceptions are raised.	
	If the \$SYBASE/SYBASE_ASE/locales directory contains files or directories that are not server-related locales files, the sybcluster localize utility does not function properly. If unrelated files are in the locales directory, the localize command aborts and raises an exception at the beginning phase. If an unrelated directory is in the locales directory, the charset selection menu is shown incorrectly and localize may abort during further processing.	
	<b>Workaround</b> : Do not place files or directories unrelated to localization in the \$SYBASE/ SYBASE_ASE/locales directory.	
693181	Adaptive Server 624 or 69x errors may occur in a rare circumstances when RepAgent reads an older image of the database log pages from disk, while the latest image resides in memory of the remote cluster node.	
	You may encounter errors in these scenarios:	
	Active - Active setup: There is more than one node on the cluster which sends insert/update/ delete operations on the database. This results in logs generated for a database on more than one node.	
	Active - Passive setup: There is only one node on the cluster which sends insert/update/ delete operations on the database. This node is considered an active node. If RepAgent is configured on a passive node, the passive node will only have read operations.	
	<b>Workaround</b> : Active - Active setup: In order to configure RepAgent and prevent 624 or 69x errors, use traceflag 16872. Using this traceflag will degrade the performance of the servers in the active-active scenario.	
	Active - Passive: Configure RepAgent on the active node.	
686604	The LogicalReads columns in the MDA tables is listed as 0.	
	The LogicalReads columns in the MDA tables listed below are 0 if <b>statement sta-tistics active</b> is off:	
	• monOpenObjectActivity	
	• monOpenPartitionActivity	
	• monProcessActivity	
	• monProcessStatement	
	Workaround: Turn on statement statistics active to use LogicalReads for the above MDA tables.	

<ul> <li>686131 Using I/O fencing via SCSI-3 PGR when using the AIX DKPRES API with disk reserve_policy set to PR_shared, may allow any remote application to open the disk reserve_policy set to PR_shared, may allow any remote application to open the disk which automatically creates and removes registrations on the device.</li> <li>AIX supports I/O fencing via SCSI-3 PGR in two ways: AIX DKPRES API or raw SCS PGR API.</li> <li>When the disk reserve_policy is set to no_reserve, Adaptive Server uses raw SCSI-3 P API. In this configuration, remote applications cannot inadvertently create and remover registrations on disks.</li> <li>When the disk reserve_policy is set to PR_shared, Adaptive Server uses AIX DKPRE API. The PR_shared setting may allow any remote application, for example dd, to open disk, which automatically creates and removes registrations on the device. This can m the database devices susceptible to data corruption. syb_cluster/UAF are known to oper database disks and cause this problem, and therefore should not be left running when us AIX DKPRES.</li> <li>Workaround: The preferred method is raw SCSI-3 PGR API, however, some IBM stor devices like DS5800 do not support raw SCSI-3 PGR. First try setting the reserve_polic no_reserve. If the ASE instance fails to start up due to I/O fencing issues, then the devices on support raw SCSI-3 PGR API. In such cases, configured the devices to use DKPRES API, so set the reserve_policy to PR_shared.</li> <li>684556 The select for update semantics introduced in version 15.7 do not support datapage</li> </ul>
<ul> <li>PGR API.</li> <li>When the disk reserve_policy is set to no_reserve, Adaptive Server uses raw SCSI-3 P API. In this configuration, remote applications cannot inadvertently create and remove registrations on disks.</li> <li>When the disk reserve_policy is set to PR_shared, Adaptive Server uses AIX DKPRE API. The PR_shared setting may allow any remote application, for example dd, to open disk, which automatically creates and removes registrations on the device. This can m the database devices susceptible to data corruption. syb_cluster/UAF are known to oper database disks and cause this problem, and therefore should not be left running when us AIX DKPRES.</li> <li>Workaround: The preferred method is raw SCSI-3 PGR API, however, some IBM stor devices like DS5800 do not support raw SCSI-3 PGR. First try setting the reserve_polic no_reserve. If the ASE instance fails to start up due to I/O fencing issues, then the devices not support raw SCSI-3 PGR API. In such cases, configured the devices to use DKPRES API, so set the reserve_policy to PR_shared.</li> </ul>
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684556 The select for undate semantics introduced in version 15.7 do not support datana
locked tables.
select for update support exists only for datarows-locked pages.
Workaround: None.
615204 If enable DTM is set, the distributed recovery feature is disabled and all databases recovered only on the cluster coordinator, rather than on different instances of th cluster.
Workaround: None.
595923 There are two known issues with transfer table:
<ul> <li>When creating a unique index that is using the ignore_dup_key property, importing row with a key that is already present in the table leads to an error, and the import aborted. This differs from when a duplicate key is inserted with bcp or with a regularisert statement, since in those cases, the row is discarded, and the transaction con ues.</li> <li>When an insert trigger exists, the trigger is not fired when data is inserted through transfer tablefrom.</li> </ul>
Workaround: None.

CR #	Description
483651	Incorrect cluster failover may occur during diagnostic shared-memory dump.
	If you start an instance while the rest of the cluster is performing a diagnostic shared memory dump, the instance that is starting may incorrectly perform a cluster takeover. This occurs only if <b>automatic cluster takeover</b> is set to 1, or if the <b>cluster_takeover</b> option is passed to the data server. In environments without <b>i/o fencing</b> enabled, this may lead to data corruption.
	<b>Workaround</b> : Do not start an instance during a diagnostic shared-memory dump. Configure <b>automatic cluster takeover</b> to 0.
439406	Configuring Job Scheduler Self Management for Simplified Chinese.
	When you configure the Job Scheduler Self Management feature for an Adaptive Server localized for Simplified Chinese, you may receive an error saying that a <i>varchar</i> datatype cannot be converted to a date. The Job Scheduler configuration process stops at this point.
	Workaround: Do not configure the Self Management feature for Simplified Chinese.
439404	Creating Job Scheduler schedules for Adaptive Server with Simplified Chinese.
	When you attempt to create a Job Scheduler schedule using the Adaptive Server plug-in for an Adaptive Server that is localized for Simplified Chinese, you may receive an error indicating that the <i>varchar</i> datatype cannot be converted to a date.
	<b>Workaround</b> : Localize the Adaptive Server for Simplified Chinese before configuring Job Scheduler.

Known Issues for Adaptive Server Cluster Edition

# **Documentation Updates**

Read about updates, corrections, and clarifications to the documentation released with Adaptive Server Cluster Edition version 15.7.

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