



**Release Bulletin**

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**Adaptive Server<sup>®</sup> Enterprise**  
**15.7 ESD #2**

Windows

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# Contents

<b>Product Summary .....</b>	<b>1</b>
Adaptive Server Interoperability .....	1
Product Compatibility .....	6
Password Compatibility with Replication Server .....	6
In-Row LOB Column Replication .....	6
Changes That Affect Existing Applications .....	7
Changes to Sybase Central .....	7
Backup Server and IBM Tivoli Storage Manager .....	7
Open Client and Open Server .....	7
Command Line Version of ddlgen .....	8
Compressed LOB Column Replication .....	8
Changed Functionality .....	8
Support for db2 Server Class .....	8
Replication Management Support for Granular Permissions .....	8
Plan Sharing Recommendations for 15.7 ESD #2 SAP ERP Customers .....	9
<b>Installation and Configuration .....</b>	<b>9</b>
Special Installation Instructions .....	9
Special Licensing Instructions .....	11
Problem Starting SySAM License Server .....	11
SySAM Licensing Checkout .....	11
SySAM Fails to Check Out License for Adaptive Server Small Business Edition .....	12
Sub-capacity licensing .....	12
Special Configuration Instructions .....	14
Configure Adaptive Server for Clients Using EPEP Algorithm .....	14
Special Upgrade and Downgrade Instructions .....	15

Special Downgrade Instructions .....	15
Loading Database Dumps into Earlier Versions .....	16
TIPSA Flag 0x4000 Error After Upgrade .....	16
Known Installation Issues for Adaptive Server .....	16
<b>Known Issues for Adaptive Server .....</b>	<b>18</b>
<b>Documentation Updates .....</b>	<b>23</b>
Additional information for Windows Failover in a High Availability System .....	24
<b>Obtaining Help and Additional Information .....</b>	<b>27</b>
Technical Support .....	27
Downloading Sybase EBFs and Maintenance Reports .....	28
Sybase Product and Component Certifications .....	28
Creating a MySybase Profile .....	28
Accessibility Features .....	29

# Product Summary

This release bulletin provides late-breaking information about Adaptive Server® Enterprise version 15.7 ESD #2. A more recent version may be available on the Web.

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

## *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

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Interoperability of Adaptive Server against other Sybase® 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.

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**Note:** To use new features of Adaptive Server, 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 Adaptive Server features.

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**Table 1. Supported Client Platforms for Adaptive Server**

Client Name	Version	Supported Platform
Open Client™/Open Server™	15.7	<ul style="list-style-type: none"> <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 32-bit</li> <li>• Windows x86 64-bit</li> </ul>
	15.5	<ul style="list-style-type: none"> <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 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>• Mac OS X Intel 32-bit</li> <li>• Windows x86 32-bit</li> <li>• Windows x86 64-bit</li> </ul>

Client Name	Version	Supported Platform
Adaptive Server Enterprise Extension Module for Python	15.7	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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™ for JDBC™	6.0.x, 7.0.x	<ul style="list-style-type: none"> <li>• All</li> </ul>

## Product Summary

Client Name	Version	Supported Platform
ODBC by Sybase	15.7	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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>
Replication Manager plug-in	15.5, 15.6	<ul style="list-style-type: none"> <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 64-bit</li> <li>• Sun Solaris x86 64-bit</li> <li>• Microsoft Windows x86 32-bit</li> <li>• Microsoft Windows x86 64-bit</li> </ul>

Client Name	Version	Supported Platform
	15.2	<ul style="list-style-type: none"> <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 Control Center 3.2.7.

## Product Compatibility

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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**

Sybase Central ASE plug-in is no longer included in the Adaptive Server installation image. Use Sybase Control Center 3.2.7 to manage your Adaptive 15.7 ESD#2 servers.

Sybase no longer maintains Sybase Central. However, if required, you can download Sybase Central Plug-ins by going to the <http://www.sybase.com/downloads> site, then clicking on **Maintenance Releases and Bug Fixes (EFBs)**.

### **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 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*.

## Command Line Version of **ddlgen**

The location of the command-line version of **ddlgen** has been changed.

In Adaptive Server versions 15.7 ESD #1 and earlier, the command-line version of **ddlgen** was located in:

- Unix - \$SYBASE/ASEP/bin
- Windows - %SYBASE%\ASEP\bin

In Adaptive Server version 15.7 ESD #2 and later, **ddlgen** is located in:

- Unix - \$SYBASE/ASE-15\_0/bin
- Windows - %SYBASE%\ASE-15\_0\bin

## 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.

## 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.

## Replication Management Support for Granular Permissions

Granular permission features are not supported for replication management.

Granular permissions, which allows you to construct site-specific roles or restrict system administrators and database owners from accessing user data, have been introduced in Adaptive Server 15.7 ESD #2. Granular permissions is currently not supported by Replication Server, or supported in following related system stored procedures:

- **sp\_config\_rep\_agent**
- **sp\_help\_rep\_agent**
- **sp\_reptostandby**
- **sp\_setrep**

- `sp_start_rep_agent`
- `sp_stop_rep_agent`
- `sp_setrepcol`
- `sp_setrepdb`
- `sp_setrepdbmode`
- `sp_setrepdefmode`
- `sp_setreplicate`
- `sp_setrepproc`
- `sp_setreptable`

## Plan Sharing Recommendations for 15.7 ESD #2 SAP ERP Customers

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Disabling the plan sharing feature in Adaptive Server 15.7 ESD #2 for SAP® ERP Customers.

The plan sharing feature is disabled by default. It is automatically enabled when the configuration option **enable functionality group** is turned on. Sybase recommends disabling the plan sharing feature until the next version update is issued. For SAP ERP installation, where **enable functionality group** is on, the "Plan Sharing" feature can be turned off by using the following:

```
sp_configure 'enable plan sharing', 0
```

## Installation and Configuration

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

On Windows 64-bit, you cannot install Adaptive Server 15.5 ESD #1 into the same directory where you have installed Replication Server version 15.5. You can, however, use the same directory once you upgrade Replication Server to version 15.5 ESD #1.

## Special Installation Instructions

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

### *Windows X86 and X64 System Requirements*

For Adaptive Server 15.7 ESD#2, either one of the following patches are required for both X86 and X64:

- Microsoft Visual C++ 2010 Service Pack 1 Redistributable Package and KB2565063

## Installation and Configuration

- Microsoft Visual Studio 2010 Service Pack 1 and KB2565057

Missing one of the above patches will result in the installation error:

```
Missing DLL MSVCR100.dll during Install
```

See the Adaptive Server Enterprise 15.7 ESD #2 Installation Guide for Windows for complete information about Windows system requirements.

### *Installing the ASE Plug-in*

Before installing the ASE Plug-in on top of Adaptive Server, shut down the Adaptive Server. If you do not shut down the server, the installation will fail. The entry in the log file states that a problem occurred while attempting to overwrite a JRE 7 file because the file is open.

### *Installing PC-client*

When running **autorun** to install PC-client, an error is raised stating that you are installing a 64-bit pc-client in a location that has 32-bit pc-client. To workaround this issue, run **setup.exe** from within the pcclient32 subdirectory to install PC-client.

### *Installing Adaptive Server Plug-ins*

Install Adaptive Server and all associated plug-ins in the same location.

### *Amendments to the response file for silent installation*

For Adaptive Server 15.7 ESD#2, the installer requires non-NULL passwords that are at least six characters long for the Adaptive Server sa login, and the Sybase Control Center logins uafadmin and sccadmin.

To perform a silent Adaptive Server installation using a response file, the response file should have the following additional rows:

```
SY_CFG_ASE_PASSWORD=<ASE sa password>
```

```
CONFIG_SCC_CSI_SCCADMIN_PWD=<Sybase Control Center admin password>
```

```
CONFIG_SCC_CSI_UAFADMIN_PWD=<Sybase Control Center agent admin password>
```

The passwords for sccadmin and uafadmin logins need not be the same as the password for sa login.

### *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™ DirectConnect™ for z/OS, including DirectConnect Manager, into its own directory.

### **See also**

- *Downloading Sybase EBFs and Maintenance Reports* on page 28

## Special Licensing Instructions

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

### Problem Starting SySAM License Server

You cannot properly use the IPv4 version of the license server if you have enabled IPv6 on the license server host.

When starting the SySAM license server, this error may be reported:

```
lmgrd is not running: Cannot connect to license server
system. (-15,570:10035 "WinSock: Operation would
block")
```

This version of Adaptive Server includes IPv4 and IPv6 versions of the SySAM license server software. Use the **sysam configure** command to choose the version of the license server appropriate to your environment. By default, the IPv4 version of the license server is configured for use. You cannot properly use the IPv4 version of the license server if you have enabled IPv6 on the license server host. If this is the case:

- Disable the IPv6 TCP/IP protocol on the license server host.
- Use another Windows host that does not have IPv6 enabled.
- Use a Unix host for the license server. You can use the IPv4 version of the license even if both IPv4 and IPv6 are enabled on Unix

If you are using the IPv6 version of the license server on a Windows host, you can access the license only through the IPv6 protocol. Any host with an IPv4-only network stack cannot obtain licenses from this IPv6 license server. To work around this issue, perform one of the following:

- Use a Unix host for the license server. License servers on Unix can serve licenses to both IPv4 and IPv6 client hosts.
- To use a Windows host for the license server, if you have both IPv4 and IPv6 clients to the license server, set up two license servers: one serving the IPv4 network and the other serving the IPv6 network.

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**Note:** Support for Internet Protocol version 6 (IPv6) is built into the latest versions of Microsoft Windows, and is available as part of service pack updates for earlier Windows releases. See Microsoft Internet Protocol Version 6 (IPv6) at <http://technet.microsoft.com/en-us/network/bb530961.aspx>.

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### SySAM Licensing Checkout

If Adaptive Server was licensed using a per-processor license type in previous releases, the license quantity was determined at startup.

Adaptive Server periodically checks the number of processors it can use and attempts to check out additional licenses for any increase. Adaptive Server shuts down after 30 days if additional

licenses are not made available within this period. See the *SySAM Users Guide* for details regarding license grace.

### **SySAM Fails to Check Out License for Adaptive Server Small Business Edition**

Under some circumstances with the Small Business Edition of Adaptive Server, you cannot install Adaptive Server, or it does not start in a virtual environment.

When this occurs, Adaptive Server reports an error similar to this:

```
Cannot determine the total number of processor
cores on the machine from within this virtual system.
The ASE_CORE ("CH") license type is restricted for use on
a machine with a maximum of 2 processor chips regardless
of whether the virtual system is limited to use fewer
processor chips. You need to run 'sysamcap' on the physical
machine (or virtual-machine/partition control domain) and
set the reported environment variable prior to running
Installer.
```

This error is raised when:

- Adaptive Server is running on a virtual system that does not have access to the processor counts of the physical machine (this applies to all virtual environments except AIX LPAR and HP-UX vPar), or
- Adaptive Server is using a license type that is restricted for use to a machine with no more than a specific number of processors; for example, you cannot use Adaptive Server Enterprise Small Business Edition on a machine with more than two processor chips.

#### **Workaround:**

1. Run the **sysamcap machine** command on the physical machine or control domain for the virtualization technology (e.g., the VMware ESX console or XEN dom0).
2. Prior to running the product or product installer, set the environment variable reported.

See the SySAM Sub-capacity licensing section of the *SySAM Users Guide* for more information.

### **Sub-capacity licensing**

Learn about sub-capacity licensing for this version of Adaptive Server.

Sybase offers sub-capacity licensing options for Sybase IQ Enterprise Edition and Adaptive Server Enterprise Edition. Sub-capacity licensing refers to licensing a Sybase product on a subset of the CPUs available on a physical machine.



*Platform support***Table 2. SySAM virtualization sub-capacity compatibility**

<b>Vendor</b>	<b>Product</b>	<b>Platform support</b>	<b>Virtualization type</b>
HP	nPar	HP IA 11.31	Physical partition
	vPar		Virtual partition
	Integrity Virtual Machines with Resource Manager		Virtual machine
	Secure Resource Partitions		OS containers
IBM	LPAR	AIX 6.1, AIX 7	Virtual partition
	dLPAR		Virtual partition
Sun	Dynamic System Domains	Solaris 10	Physical partition
	Solaris Containers/Zones with Solaris Resource Manager		Virtual partition
	Sun Logical Domain (LDOM)		Virtual partition
Intel, AMD	VMWare ESX Server* Guest O/S: Windows	VMWare ESX 3.5, ESX 4.0 and ESX 4.1, ESXi4.1, ESXi 5.0, Guest OS: Windows 2008 R2, Windows 7	Virtual machine
	VMWare ESX Server Guest OS: Linux, Sun Solaris x64	VMWare ESX 3.5, ESX 4.0 and ESX 4.1, ESXi4.1, ESXi 5.0, Guest OS: RH 5.5, SuSE 11, Sun Solaris x64	Virtual machine
	Xen**, KVM, DomainU: Windows	Windows 2008 R2, Windows 7	Virtual machine

Vendor	Product	Platform support	Virtualization type
	Xen, KVM, DomainU: Linux	RH 5.5, SuSe 11	Virtual machine
	Hyper-V	Windows 2008 R2	Virtual machine

\* VMWare ESX Server excludes VMWare Workstation, and VMWare Server.

\*\* Xen excludes Sun Solaris x64.

*Enabling Sybase sub-capacity licensing*

You must have a sub-capacity licensing agreement with Sybase before you can enable sub-capacity licensing. As with other Sybase licenses, you must generate a license key. For specific steps, see the *SySAM Quick Start Guide*.

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**Note:** Keep your license server up-to-date.

Although the installation media include a copy of the most recent SySAM license server, Sybase recommends that you periodically check for license server updates on the Maintenance Releases and Bug Fixes (EBFs) link at <http://www.sybase.com/support>. See *Obtaining Help and Additional Information* on page 27.

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## Special Configuration Instructions

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Special configuration instructions for this version of Adaptive Server.

### Configure Adaptive Server for Clients Using EPEP Algorithm

---

An Adaptive Server can be configured to require the Extended Plus Encrypted Password (EPEP) login protocol using **sp\_configure**.

An additional value has been added to **sp\_configure 'net password encryption reqd'** to indicate that the server should only allow incoming clients using EPEP algorithm.

The configuration parameter **net password encryption reqd** supports a value of 3, which indicates the server should only allow incoming clients that are using EPEP login protocol. The values 0, 1, and 2 will also allow EPEP login protocol to be used when a client that supports the login protocol attempts to use it with an Adaptive Server that implements the EPEP login protocol.

Setting the value to 2 or 3 increases network memory in order to support the maximum configured connections using this protocol. The **additional network memory** configuration parameter is used to dynamically add more memory to the network memory pool used by EPEP. When the value is set to 3, the KPP Handler goes into sleep status. This is because there

is no need to provide new RSA key pair for every connection. You can use the **sp\_who** command to check the KPP Handler status.

---

**Note:** Adaptive Server supports two versions of the login protocol using RSA asymmetric encryption. See "Securing login passwords on the network" in the *Security Administration Guide* for more information.

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## Special Upgrade and Downgrade Instructions

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

### Special Downgrade Instructions

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

*Use **sp\_downgrade\_esd** to downgrade from Adaptive Server 15.7 ESD #2 to either 15.7 or 15.7 ESD#1*

If you are downgrading from Adaptive Server 15.7 ESD #2 to either 15.7 or 15.7 ESD #1, do not use the **sp\_downgrade** system procedure. Instead, use **sp\_downgrade\_esd** to downgrade both Adaptive Server, as well as any databases you may have upgraded to 15.7 ESD #2. See *Downgrading to an Earlier Version of Adaptive Server 15.7* in the installation guide for your platform.

***sp\_downgrade\_esd** does not check tables which are configured for in-row LOB compression*

When downgrade from Adaptive Server 15.7 ESD #2 to either 15.7 ESD #1 or 15.7, **sp\_downgrade\_esd** does not check tables when data compression and LOB compression is enabled for tables with in-row LOB column .

**Workaround:** Manually run the following query on each database to check for in-row LOB compressed tables. This query reports table names configured for in-row LOB compression.

```
select distinct convert(varchar(39), o.name) as 'check these tables'
from syscolumns c, sysobjects o, syspartitions p
where o.id = c.id and o.id = p.id
and (o.sysstat3 & 28672 != 0
     or (p.ptndcompver is not null and p.ptndcompver > 0))
and ((c.lobcomp_lvl is not null and c.status2 & 131072 = 0)
     or ((o.lobcomp_lvl is not null and o.lobcomp_lvl > 0)
         or (o.sysstat3 & 2048 != 0))
     or (p.lobcomp_lvl is not null and p.lobcomp_lvl > 0))
and (c.inrowlen is not null) and (c.inrowlen > 0)
go
```

---

**Note:** The correct procedure to downgrade in-row LOB compressed tables is to **set compression = none** using **alter table** and run **reorg rebuild** for each table before downgrade.

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## 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.

## TIPSA Flag 0x4000 Error After Upgrade

The flag 0x4000 in TIPSA is set in Adaptive Server versions earlier than 15.7. This flag can cause unexpected errors after an upgrade to Adaptive Server 15.7.

The TIPSA 0x4000 flag is used by the LOB compression feature in Adaptive Server 15.7. After an upgrade to Adaptive Server 15.7, an LOB column with this flag set will be mistakenly treated as a compressed LOB column, which will result in unexpected errors. Use the following command to correct the flag issue after an upgrade to Adaptive Server 15.7.

```
dbcc rebuild_text()
```

## Known Installation Issues for Adaptive Server

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

CR #	Description
709431	<p><b>SAMPLE_RS cannot be created after RS 15.7.1 installed upon ASE 15.7 ESD#2</b></p> <p>When Adaptive Server 15.7 ESD #2 and Replication Server 15.7.1 are installed in the same directory, the creation of a sample Replication Server will fail.</p> <p><b>Workaround:</b> Do not install Replication Server and Adaptive Server in the same directory.</p>
692496	<p><b>Configuring tempdb device for HA</b></p> <p>When installing an Adaptive Server to be used in an HA configuration, the <b>sp_companion</b> stored procedure <b>configure</b> command may fail due to duplicate device names for the tempdbdev logical device.</p> <p><b>Workaround:</b> Do not specify the "Tempdb Device" (set the value of this field to blank) when configuring the secondary server during ASE installation.</p> <ul style="list-style-type: none"><li>• If additional tempdb space is required on either server, log into this server after installation is complete and use the alter database command to increase the size of tempdb.</li><li>• If additional disk space is required to allocate the tempdb database, use the disk init command to create a new database device for tempdb.</li><li>• If a new device is created, the logical device name should be unique between the two servers.</li></ul>

CR #	Description
678698	<p><b>When you execute isql in an installation where Replication Server 15.6 is installed on top of Adaptive Server 15.7, you see: Could NOT locate the point entry of cs_locator_drop in libsybcs64.dll.</b></p> <p><b>Workaround:</b> Move &lt;installed_directory&gt;\OCS-15_0\dll, &lt;installed_directory&gt;\OCS-15_0\lib3p, and %SYBASE%\OCS-15_0\lib3p64 to the front of the %PATH% environment variable value. To do this, select <b>Control Panel &gt; System &gt; Advanced</b> tab, then click <b>Environment Variables</b>. In "System variables," select <b>Path</b> and click <b>Edit</b>. In "Variable value," find and paste the above directory names at the beginning of the variable.</p>
671844	<p><b>Cannot start Sybase Central if RMP 15.2 is installed on top of Adaptive Server 15.7.</b></p> <p><b>Workaround:</b> Change the shortcut of the Sybase Central in the start menu to point to scjview.exe under %SYBASE%\shared\Sybase Central 6.0.0\win64. Start Sybase Central and then manually register the RMP plug-in.</p>
670146	<p><b>With Adaptive Server 15.7 installations, a SySAM served license cannot be checked out if IPv6 is installed.</b></p> <p><b>Workaround:</b> In the SySAM License Entry Panel, select <b>Use previously deployed license server</b> and replace the host name with the IPv4 address of the machine.</p>
624167	<p><b>When you install Adaptive Server 15.5 ESD #1 or later versions in a non-English environment, the default installation type is Custom rather than Typical.</b></p> <p><b>Workaround:</b> Use the Custom option. If you select Typical, the Additional Language Modules component is not installed, and some messages may not be localized.</p>
590282	<p><b>You cannot use the tab and arrow keys to navigate the Choose Product Features pane of the installation or uninstallation program.</b></p> <p><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.</p>
588793	<p><b>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.</b></p> <p>These issues occur while using products installed with different installer technologies:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> </ul> <p><b>Workaround:</b> Do not install products that use Install Anywhere and products that use InstallShield Multiplatform in the same directory.</p>

CR #	Description
586169	<p><b>gzip must be installed on the machine for installer to succeed.</b></p> <p>The installer reports: gzip: Not Found</p> <p><b>Workaround:</b> Install <b>gzip</b> on your machine and make sure it is included in the path.</p>
583979	<p><b>The installer does not validate feature names specified in the response file when you install in silent mode.</b></p> <p><b>Workaround:</b> Ensure that the specified feature names are correct.</p>

## Known Issues for Adaptive Server

Learn about known issues and apply workarounds for Adaptive Server. 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
715798	<p><b>Errors are raised using the Windows Cluster Administrator for a high availability system</b></p> <p>When attempting to launch <code>SybCpnSrvSetup.msc</code>, a bad file format error message is raised with a stacktrace and subsequent unloading of the DLL.</p> <p><b>Workaround:</b> Use command the line utility <code>sp_companion</code> for cluster configuration in a high availability system.</p>
714061	<p><b>The <i>forwrowcnt</i> column in the <i>systabstats</i> table does not change after running online reorg rebuild</b></p> <p>The number of forwarded rows in the <i>forwrowcnt</i> column of the <i>systabstats</i> table does not zero out after running the <b>online reorg rebuild</b> command.</p> <p><b>Workaround:</b> Run <b>update statistics</b> on the table after running <b>online reorg rebuild</b>.</p>

CR #	Description
713855	<p data-bbox="323 215 1188 267"><b>An exception is raised when migrating from Adaptive Server versions, 12.5.4 through 15.0 to version 15.7 ESD #2 using sybmigrate</b></p> <p data-bbox="323 284 1188 336">An exception is raised due to inconsistencies between roles that exist in the sysusers table of the source server and the roles that exist in the sysusers table of the target server.</p> <p data-bbox="323 354 462 380"><b>Workaround:</b></p> <ol data-bbox="323 406 1188 692" style="list-style-type: none"> <li data-bbox="323 406 1188 493">1. In the source and target server, run the query:  <pre data-bbox="360 440 1116 493">select u.* from sysusers u, sysserverroles r where u.name = r.name and r.srid &lt; 31 order by u.uid</pre> </li> <li data-bbox="323 510 1188 536">2. Compare the results of the above query retrieved from the source and target servers.</li> <li data-bbox="323 545 1188 623">3. In source server, insert rows returned from the query into master.dbo.sysusers table. These rows contain server roles that exist in target sysusers table and do not exist in the source sysusers table.</li> <li data-bbox="323 631 713 657">4. Run <code>sybmigrate -m setup</code></li> <li data-bbox="323 666 1161 692">5. Delete the same rows that you inserted in step 3 from source's master.dbo.sysusers.</li> </ol> <p data-bbox="323 718 1188 744">For example, when migrating from Adaptive Server 15.0 to Adaptive Server 15.7 ESD #2.</p> <ol data-bbox="323 770 1188 1395" style="list-style-type: none"> <li data-bbox="323 770 1188 918">1. Run the following query in the source and target servers:  <pre data-bbox="360 796 1116 848">select u.* from sysusers u, sysserverroles r where u.name = r.name and r.srid &lt; 31 order by u.uid</pre> Your query shows you need to insert one row (-2, 16398, 16398, 'keycustodian_role', NULL) into the source master.dbo.sysusers table. </li> <li data-bbox="323 927 1188 1152">2. Run the following SQL in the source server:  <pre data-bbox="360 961 1188 1152">use master exec sp_configure 'allow updates to system tables' 1 insert sysusers values(-2, 16398, 16398, 'keycustodian_role', NULL) exec sp_configure 'allow updates to system tables', 0</pre> </li> <li data-bbox="323 1170 713 1196">3. Run <code>sybmigrate -m setup</code></li> <li data-bbox="323 1204 1188 1395">4. Run the following SQL in the source server:  <pre data-bbox="360 1239 1188 1395">use master exec sp_configure 'allow updates to system tables' 1 delete sysusers where name = 'keycustodian_role' exec sp_configure 'allow updates to system tables', 0</pre> </li> </ol>

## Known Issues for Adaptive Server

CR #	Description
713631	<p><b>Create index in parallel with descending keys may fail with error 832</b></p> <p>In some cases, when the creation of an index in parallel mode using the <b>WITH CONSUMERS=<i>number</i></b> option is executed, and the configuration parameter <b>enable functionality group</b> is on, Adaptive Server may generate the following error:</p> <pre>Error 832: Unable to place buffer 0x4e498f68 holding logical page 2344 in sdes for object &lt;table name&gt; - there is no room in sdes aux keep pool.</pre> <p>The following is an example of a command that may generate the error message:</p> <pre>1&gt; create index ind on tab(a desc,b, c) with consumers = 3 2&gt; go</pre> <p><b>Workaround:</b> This is an internal error that does not lead to data corruption. Traceflag 549 could be used to avoid running into this error.</p>
713464	<p><b>Create index in parallel with descending keys may fail with error 1503</b></p> <p>In some cases, when the creation of an index in parallel mode using the <b>WITH CONSUMERS=<i>number</i></b> option is executed, and the configuration parameter <b>enable functionality group</b> is on, Adaptive Server may generate the following error:</p> <pre>Msg 1503, Level 20, State 2: Line 1: Sort Internal Error:</pre> <p>The Root page of right/left sub-index tree is missing. Command has been aborted.</p> <p>The following is an example of a command that may generate the error message:</p> <pre>1&gt; create index ind on tab(a desc,b, c) with consumers = 3 2&gt; go</pre> <p><b>Workaround:</b> This is an internal error that does not lead to data corruption. Traceflag 549 could be used to avoid running into this error.</p>



CR #	Description
696072	<p><b>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.</b></p> <p>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 RepAgent reads an older image of database log pages that is on disk while the latest image is on another node.</p> <p><b>Workaround:</b> Sybase recommends that for:</p> <ul style="list-style-type: none"> <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	<p><b>This message is reported by Open Client applications connecting to Adaptive Server Enterprise:</b></p> <pre>ct_send(): network packet layer: internal Client Library error: State error: trying to write when connection is expecting a read.</pre> <p>This message is reported in some cases when Kerberos message confidentiality service is turned on.</p> <p><b>Workaround:</b> Reconnect to the server with confidentiality service turned off.</p>
694912	<p><b>The sybcluster localize utility does not function properly and exceptions are raised.</b></p> <p>If the <code>SYBASE/SYBASE_ASE/locales</code> 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.</p> <p><b>Workaround:</b> Do not place files or directories unrelated to localization in the <code>SYBASE/SYBASE_ASE/locales</code> directory.</p>
684713	<p><b>sybmail configuration fails with:</b> Sybmail CMC Error: There was a generic failure that does not fit the description of any other return code.</p> <p>The configuration cannot be completed as documented in the <i>Configuration Guide</i> because the Messaging Application Programming Interface (MAPI) used by <b>sybmail</b> has been removed from current versions of Windows.</p> <p><b>Workaround:</b> None.</p>

## Known Issues for Adaptive Server

CR #	Description
684556	<p>\ The select for update semantics introduced in version 15.7 do not support datapages-locked tables.</p> <p><b>select for update</b> support exists only for datarows-locked pages.</p>
595923	<p><b>There are two known issues with transfer table:</b></p> <ul style="list-style-type: none"> <li>When creating a unique index that is using the <b>ignore_dup_key</b> property, importing a row with a key that is already present in the table leads to an error, and the import is aborted. This differs from when a duplicate key is inserted with <b>bcp</b> or with a regular <b>insert</b> statement, since in those cases, the row is discarded, and the transaction continues.</li> <li>When an <b>insert</b> trigger exists, the trigger is not fired when data is inserted through <b>transfer table...from</b>.</li> </ul> <p><b>Workaround:</b> None.</p>
593866	<p><b>Cannot access help from syconfig in Windows 2008.</b></p> <p>When you click <b>Help</b> in <b>syconfig</b>, you see an error message that online help cannot be shown.</p> <p><b>Workaround:</b> Download the WinHlp32 .exe file from Microsoft. See the Microsoft Support site at <a href="http://support.microsoft.com/kb/917607/en#3">http://support.microsoft.com/kb/917607/en#3</a>.</p>
589269	<p><b>Adaptive Server may stop responding during start-up.</b></p> <p>If you are using the in-memory database or relaxed-durability database feature, Adaptive Server may run into a timeslice error during start-up if it cannot access the license server as it starts.</p> <p><b>Workaround:</b> Make sure Adaptive Server can access the license server.</p>
478875	<p><b>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></p> <p><b>Workaround:</b> Before shutting down the instance to drop, connect to another instance in the cluster.</p>
470078	<p><b>Running syconfig during upgrade may not execute.</b></p> <p>If you install a new version of Adaptive Server in a different directory than the existing installation directory, the length of the <code>path</code> environment variable may exceed the maximum permissible length. As a result, <b>syconfig</b> may not be able to execute <b>preupgrade</b> during the upgrade process.</p> <p><b>Workaround:</b> Remove unwanted directories from the <code>path</code> and make sure new Adaptive Server installation directories are included in the <code>path</code>.</p>

# Documentation Updates

Read about updates, corrections, and clarifications to the documentation released with Adaptive Server .

- New Feature Guide, Version 15.7, ESD #2, Hash-Based Update Statistics

The New Feature Guide describes the **update statistics** configuration parameter **hashing** which enables Adaptive Server to gather hash-based statistics. The range of values for the **hashing** option are:

- off – no hashing
- on – hashing on all columns
- partial – hashing only for low unique count columns
- default – off

An example showing that three parameters are required for this option is missing from the documentation.

The following is an example of using **update statistics** using the hashing option:

```
sp_configure 'update statistics hashing', 0, 'on'
```

- System Administration Guide – **lock timeout pipe active**

The default value and the range of values for **lock timeout pipe active**, as described in the Adaptive Server Enterprise 15.7 System Administration Guide are incorrect. The documentation currently states:

Default value 1 (off) Range of values 0 (on), 1 (off)

The correct values are:

Default value 0 (off) Range of values 1 (on), 0 (off)

- System Administration Guide – *Setting the maximum failed logins for specific roles*

The documentation provides an incorrect example to set the maximum failed logins for a role. The example:

```
create role intern_role with passwd "temp244", maximum failed
logins 20
```

Should be changed to:

```
create role intern_role with passwd "temp244", max failed_logins
20"
```

- System Administration Guide – *Setting the maximum failed logins for specific roles*

The documentation provides an incorrect example to set the maximum failed logins for a role. The example:

```
create role intern_role with passwd "temp244", maximum failed
logins 20
```

Should be changed to:

```
create role intern_role with passwd "temp244", max failed_logins 20"
```

- System Administration Guide – *Changing the maximum failed logins for specific logins*

The documentation provides an incorrect example to to change the maximum failed logins for a login. The example:

```
alter login joe max failed attempts 40
```

Should be changed to:

```
alter login joe modify max failed attempts 40
```

- System Administration Guide – *Changing the maximum failed logins for specific roles*

The documentation provides incorrect examples to remove overrides or change the maximum failed logins for a role. The example to change the maximum failed logins allowed for “physician\_role” to 5, should be:

```
alter role physician_role set max failed_logins 5
```

The example to remove the overrides for the maximum failed logins for all roles should be changed to:

```
alter role "all overrides" set max failed_logins -1
```

- Updates to third-party licensing

Check the *Free Download Terms* document for recent updates to third-party licensing details. The document is at: [http://www.sybase.com/softwarelicenses/third\\_party\\_legal](http://www.sybase.com/softwarelicenses/third_party_legal).

## Additional information for Windows Failover in a High Availability System

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This information is to be used in addition to Chapter 12, "Configuring Adaptive Server for Failover on Windows," of the document, "Using Sybase Failover in a High Availability System, Adaptive Server Enterprise 15.7".

Two Windows systems are required. Microsoft Cluster Server must be installed on both systems and they must be configured together as a Microsoft cluster. It is recommended to set up and test failover of a simple application such as **Notepad** on the cluster to ensure that the basic failover capabilities of the cluster are working properly. All configuration must be performed from an account which has Domain Administrator privilege.

### Before you begin

- Download and install Microsoft .NET runtime package V4.0
- The .NET runtime includes a utility called `installutil.exe`. Locate this and copy it to `%SYBASE%\ASE-15_0\install`
- Run the command `sybcpnln -s` on each cluster node. This installs the “Sybase Companion Server” resource type and Sybase Cluster Administrator extensions.

### Start the Failover Cluster Manager

Select **Start | Administrative tools**, then right click **Failover Cluster Manager** and choose **run as administrator**.

Each instance of an Adaptive Server companion server Primary/Secondary pair requires a dedicated shared disk which can be failed over between the cluster nodes (you may configure further shared devices later if you wish). To begin the Adaptive Server configuration the shared disk must be online to the cluster node on which Adaptive Server is being configured. To achieve this you may find it convenient to create a temporary group and assign the shared disk to this group. When the Adaptive Server companion server setup is complete it will automatically create its own group and the shared disk can then be moved to the new Adaptive Server group.

### Configure the Adaptive Server using the syconfig utility

Having moved the shared disk(s) to the correct cluster node(s), the Adaptive servers can be configured using the **syconfig** utility. When **syconfig** prompts you to create the various devices, alter the prompted default values as follows:

- Increase the `sybserverprocs` size by 30Mb over the default value
- Alter all the path names so that they are stored on the shared cluster disk
- Alter the name of the `tempdb` device such that it is unique on each Adaptive Server instance in the cluster

### Test the servers

Test that the two Adaptive Servers can execute remote commands:

- In ASE1 isql connection, enter: **ASE2...sp\_who ;**
- In ASE2 isql connection, enter: **ASE1...sp\_who;**

Make sure that both of the above commands succeed. The following are some tips for troubleshooting:

- Check that the Windows global variables such as `%SYBASE%`, etc. are set.
- Check the `%SYBASE%\%SYBASE_ASE%\ini\sql.ini` file entries
- Check by using `isql` to connect to the ASE1 from m1 and m2. If connecting from m1 fails, then there is a problem with the m1. If connecting from m2 fails, and you find that there is no problem with the m2 environment, try connecting from a third machine. If the connection fails from a third machine, check the firewall settings, as it may prevent you from logging in from outside of m1.

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**Note:** You may wish to make backup copies of your `master`, `sybserverprocs` and other devices at this time so that, should something go wrong with the companion configuration, you can easily get back to this point without having to repeat any of the earlier steps.

---

### Cluster Configuration

Assuming our servers are called ASE1 and ASE2, to configure an asymmetric failover companionship:

1. On ASE2 enter `sp_companion ASE1, "configure" , null, sa, <sa pswd>, sa, <sa pswd>`.  
As part of the companion configuration, a new group is created called ASE1\_GRP. The group contains the Adaptive Server service name which is the same as the server name (ASE1). ASE1 becomes the primary server and ASE2 the secondary.
2. Move the shared disk containing ASE1's master and other devices into the new group ASE1\_GRP.
3. Inside the new group, ASE1\_GRP, right click the service name ASE1, select **Properties**, and choose the **Dependency** tab. Add a new dependency of ASE1 on the shared disk which has just been moved. This ensures that the cluster will bring the disk online before attempting to start ASE.
4. Right click on the new group ASE1\_GRP, choose **Properties**. On the **General** tab, **Preferred owner** sub-window, choose the machine, m1. For failback, it is important that m1 is location of ASE1.
5. Click the tab for failover increase **Maximum failures in the specified period** to set values based on tasks: 50-100 for test, 10-20 for production.  
The above values are for reference only. Determine values based on your specific needs.
6. Choose **Allow failback**, if a failback is needed; otherwise choose **Prevent failback**.

To configure symmetric failover companionship, perform the same set of above steps on server ASE1 but substituting ASE2 for ASE1 in the various commands.

### Testing the asymmetric HA companionship failover and failback

To test the asymmetric HA companionship failover and failback, do the following:

- HA test for complete failover:
  - On ASE1, issue shutdown with nowait
  - On m1 taskmgr kill ASE1 process
  - On m1 service: stop ASE1
  - On the Failover Cluster Manager: ASE1\_GRP | ASE1 offline
  - On the Failover Cluster Manager: ASE1\_GRP | ASE1 simulating failure in the ASE
  - On the Failover Cluster Manager: ASE1\_GRP | disk1 simulating failure in the disk
  - Shut down machine m1
  - Power off machinem1

The above actions should result in a ASE1 shared disk failover to ASE2. On ASE2 will show the ASE1 databases and devices. ASE1 client connections with `-Q` failover property should also failover to ASE2.

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**Note:** Asymmetric shutdown of ASE2 will not cause a failover because the group ASE2 has not been created in this case.

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### Test for a completed failback

- HA test for a completed failback:

- On ASE2, enter: **sp\_companion ASE1 , “prepare\_failback”**
- On m1 service start ASE1
- On the Failover Cluster Manager: ASE1\_GRP | ASE1: bring online
- Power on machine m1.

To test the symmetric companionship, the above steps can be performed on both machines or only on ASE1.

Also see, "CR 692496, Configuring tempdb device for HA" in the Known Installation Issues for Adaptive Server.

The following **syconfig** utility fields must be set correctly.

- Connection protocol: TCP
- Connection value: hostname,portnumber  
The host and port number must separated by a comma.
- If `syconfig` is not started in the ASE configuration file location, then in the parameter field must specify `-c <ase>.cfg` where `<ase>.cfg` is the full path of the file.

## Obtaining Help and Additional Information

Use the Sybase Getting Started CD, Product Documentation site, and online help to learn more about this product release.

- The Getting Started CD (or download) – contains release bulletins and installation guides in PDF format, and may contain other documents or updated information.
- Product Documentation at <http://sybooks.sybase.com/> – is an online version of Sybase documentation that you can access using a standard Web browser. You can browse documents online, or download them as PDFs. In addition to product documentation, the Web site also has links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, Community Forums/Newsgroups, and other resources.
- Online help in the product, if available.

To read or print PDF documents, you need Adobe Acrobat Reader, which is available as a free download from the *Adobe* Web site.

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**Note:** A more recent release bulletin, with critical product or document information added after the product release, may be available from the Product Documentation Web site.

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## Technical Support

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Get support for Sybase products.

If your organization has purchased a support contract for this product, then one or more of your colleagues is designated as an authorized support contact. If you have any questions, or if

## Obtaining Help and Additional Information

you need assistance during the installation process, ask a designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

## Downloading Sybase EBFs and Maintenance Reports

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Get EBFs and maintenance reports from the Sybase Web site or the SAP® Service Marketplace (SMP). The location you use depends on how you purchased the product.

- If you purchased the product directly from Sybase or from an authorized Sybase reseller:
  - a) Point your Web browser to *http://www.sybase.com/support*.
  - b) Select **Support > EBFs/Maintenance**.
  - c) If prompted, enter your MySybase user name and password.
  - d) (Optional) Select a filter, a time frame, or both, and click **Go**.
  - e) Select a product.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as an authorized support contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click **My Account** to add the “Technical Support Contact” role to your MySybase profile.

- f) Click the **Info** icon to display the EBF/Maintenance report, or click the product description to download the software.
- If you ordered your Sybase product under an SAP contract:
    - a) Point your browser to *http://service.sap.com/swdc*.
    - b) Select **Search for Software Downloads** and enter the name of your product. Click **Search**.

## Sybase Product and Component Certifications

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Certification reports verify Sybase product performance on a particular platform.

To find the latest information about certifications:

- For partner product certifications, go to *http://www.sybase.com/detail\_list?id=9784*
- For platform certifications, go to *http://certification.sybase.com/ucr/search.do*

## Creating a MySybase Profile

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MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

1. Go to *http://www.sybase.com/mysybase*.



2. Click **Register Now**.

## Accessibility Features

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Accessibility ensures access to electronic information for all users, including those with disabilities.

Documentation for Sybase products is available in an HTML version that is designed for accessibility.

Vision impaired users can navigate through the online document with an adaptive technology such as a screen reader, or view it with a screen enlarger.

Sybase HTML documentation has been tested for compliance with accessibility requirements of Section 508 of the U.S Rehabilitation Act. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

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**Note:** You may need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

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For information about how Sybase supports accessibility, see the Sybase Accessibility site: <http://www.sybase.com/products/accessibility>. The site includes links to information about Section 508 and W3C standards.

You may find additional information about accessibility features in the product documentation.

## Obtaining Help and Additional Information