Release Bulletin
EAServer 6.3 for Microsoft Windows

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1. Accessing current release bulletin information

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❖ **Accessing release bulletins at the Sybase Product Manuals Web site**

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2. Product summary

Enclosed is Sybase EAServer version 6.3, which is compatible with these platform and operating system configurations:

- Microsoft Windows XP Professional – Service Pack 2 or later
- Microsoft Windows Server 2003, Standard Edition or Enterprise Edition
- Microsoft Vista Enterprise
- Microsoft Vista Business
- Microsoft Server 2008 – Service Pack 1

2.1 Version contents

Enclosed is Sybase EAServer version 6.3, Build 63006. You may have a later build number if you have installed ESD patches for this release. If so, the cover letters provided with each patch contain the build number and additional documentation.

The EAServer 6.3 software is provided on a DVD.

Table 1 on page 4 describes the products that EAServer 6.3 supports.

Table 1: Product support

Product	Supported versions/builds
Adaptive Server® Enterprise	12.5.1 and 15.0.2
C++ compiler	VC++ 8.0
Eclipse	3.4.2
Java Development Kits (JDK):	Versions:
1.5	1.5.0_17
1.6	1.6.0_12
Jetty	6.1.14
Oracle client	9.2.0.4 and 10g
PowerBuilder® Virtual Machine (PBVM)	11.2 and 11.5
Web server redirector plug-ins:	Versions:
Apache	2.0.55 and 2.2.11
Sun Java System	6.1
Microsoft Internet Information Services (IIS)	5.*x* and 6.*x* (7.0 for Windows Vista and Windows 2008)
SQL Anywhere®	11.0
Web browsers	Internet Explorer 6.0 and 7.0
	Firefox 3.0

3. Special upgrade instructions

You can install EAServer 6.3 as a new installation, or as an upgrade to an EAServer 6.*x* installation.

Before you upgrade from EAServer 6.2 to EAServer 6.3, rename *_shared.properties* file to *shared.properties* file in *<6.2_installed_directory>\Repository\Instance\com\sybase\djc\security\DataProtection*. This ensures that the keystore, truststore, and datasource passwords are all set correctly.

The EAServer migration tool enables you to migrate a subset of entity types from a 5.*x* repository to the 6.3 repository, saving time by scanning only those entity types that you require. For details, see:

- *EAServer Migration Guide* – on the SyBooks Online Web site at http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.dc00485_0600/html/easmig/title.htm.

- *EAServer 6.0.2 New Features Guide* – on the SyBooks Online Web site at http://infocenter.sybase.com/help/index.jsp?topic=/com.sybase.dc38032_0602/html/new602/title.htm. This book describes migration tool features that were introduced in version 6.0.2.

"Migration tool issue" on page 17 in this release bulletin describes problem that is known to occur during migration.

4. New features in this version

EAServer 6.3 includes these new features:

- Lomboz in Eclipse plug-in – Lomboz enables a complete development cycle for J2EE developers: coding, deploying, testing, and debugging. See "Creating EAServer as an application server in Lomboz" on page 5.
- Binary large objects (BLOBs) message in the EAServer message service – a new BLOB message API allows BLOBs to be sent by way of an out-of-band transport mechanism. Possible out-of-band mechanisms include HTTP, File Transfer Protocol (FTP), Session Control Protocol (SCP), or some other point-to-point protocol. See "Setting up BLOB messages" on page 6.
- Support SQL Server Native Client for EAServer –

  You can connect to SQL Server databases using JDBC, ODBC, or the SQL Server Native Client (SNC). EAServer does not include JDBC or ODBC drivers for Oracle, or the SNC libraries. EAServer provides dedicated support for the SQL Server proprietary C interface, SNC version 9. SNC connections that are cached by EAServer are used like any other SNC connection, except that EAServer opens the connection for you.

  You can create SQL Server data sources that use ODBC or JDBC as for any other ODBC or JDBC data source. See "Other databases" in Chapter 4, "Database Access" in the *EAServer 6.0 System Administration Guide*.

4.1 Creating EAServer as an application server in Lomboz

❖ **Creating EAServer as an application server in Lomboz**

1 Change to *%EAServer_Home%*\..*Shared**eclipse_342**eclipse*\ and execute *eclipse.exe*.

2 In Eclipse, open the Servers view:

  a Select Window | Show View | Other.

b In the Show View dialog box, choose Servers under the Server category.

3 Right-click the Servers view and select New | Server to add a new server runtime.

4 In the New Server - Define a New Server dialog box:

a Enter the server's host name. For example, *zeus-desktop*.

b Expand the Sybase folder and select EAServer 6.0 as its server type.

c Click Next.

5 In the New Server - New Server 6.0 Runtime dialog box, enter:

- EAServer6 location – *EAServer_Home*
- EAServer client jar – *EAServer_Home/lib/eas-client-15.jar*
- Additional client jar – *EAServer_Home/lib/servlet-rt.jar*

Click Next.

6 Complete these fields using your EAServer installation setting details:

- HTTP port
- IIOP host
- IIOP port
- User ID
- Password

Click Next. The Add and Remove Projects dialog box appears.

7 Click Next in the Add and Remove Projects dialog box.

8 Click Finish.

The EAServer 6 server runtime in Eclipse has been added successfully. Right-click the server and select Start item. In the Console view, a message will display to indicate that EAServer 6 server is able to start successfully.

4.2 Setting up BLOB messages

This section provides information about creating, sending, and receiving BLOB messages.

- Creating BLOB messages – new method, createBlobMessage(), has been added to com.sybase.jms.client class. Use SybSession to create BLOB messages.
- Sending BLOB messages – either:
  - Send by URL – use the following code to send a file or URL that exists on a shared file system or Web server, around the Java Message Service (JMS) network:

```
BlobMessage message = session.createBlobMessage(new
URL("http://some.shared.site.com"));
   producer.send(message);
```

  - Send by file or input stream – you are creating files or streams dynamically on the client, you may want to upload the file to some server such as Jetty, FTP, and so forth. Use one of these methods:
    - Upload the file using a Web application:

```
//set upload url,fileserver is file uploaded using web application
((SybConnection)connection).setRemoteUploadURL("http://hostname/
8000:/fileserver/");
```

    - Use a local file:

```
// lets use a local file


BlobMessage message = session.createBlobMessage(new
File("d:/upload.txt/"));
   producer.send(message);
```

    - Use an input stream:

```
// lets use a stream
InputStream in = ...;

BlobMessage message = session.createBlobMessage(in);
   producer.send(message);
```

  - Receiving BLOB messages – BLOB message is a regular JMS message, so it can be received just like any other message. This example shows how to receive BLOB messages:

```
public class MyListener implements MessageListener {
public void onMessage(Message message)
   {
     if (message instanceof BlobMessage)
     {
       BlobMessage blobMessage = (BlobMessage) message;
```

```
        InputStream in = blobMessage.getInputStream();

        // process the stream...
        }
      }
}
```

- This example shows how to write a client application to send and receive BLOB messages:

```
String CTXFACTORY = "com.sybase.jms.client.InitialContextFactory";
         Context context = null;


         String url = "iiop://" + hostname + ":" + port;
         Properties prop = new Properties();
         prop.put(Context.INITIAL_CONTEXT_FACTORY, CTXFACTORY);
         prop.put(javax.naming.Context.PROVIDER_URL, url);
         prop.put(javax.naming.Context.SECURITY_PRINCIPAL, username);
         prop.put(javax.naming.Context.SECURITY_CREDENTIALS, password);


         context = new InitialContext(prop);
         String queueName = "testQueue";


         QueueConnectionFactory factory = (QueueConnectionFactory)
           context
                .lookup("javax.jms.QueueConnectionFactory");


         QueueConnection connection = factory.createQueueConnection
                (username, password);

((SybConnection)connection).setRemoteUploadURL("http://hostname:8000/
    fileserver/");
          QueueSession session = connection.createQueueSession(false,
                  Session.AUTO_ACKNOWLEDGE);

         // Create a message producer and consumer.
            Queue queue = session.createQueue(queueName);
            QueueSender sender = session.createSender(queue);
            QueueReceiver receiver = null;
            receiver = session.createReceiver(queue);
            connection.start();

         // Prepare a text message to send http://syberspace.sybase.com/
            BlobMessage message =((SybSession)
            session).createBlobMessage(new File("d:/apachem.txt"));
```

```
 // Send the Msg
   sender.send(message);
   sender.close();

// Receive the message. Wait until msg arrives.
 if (receiver != null)
 {
     Message msg =  receiver.receive();
     BlobMessage blobmsg=  (BlobMessage)msg;
     InputStream input= blobmsg.getInputStream();
     //process the iputstream
     …
     receiver.close();
}


if (connection != null)
{
connection.close();
}
```

5. Improving performance

[CR #447488] You can significantly improve the performance of EAServer network applications running on Windows by configuring the system settings described in this section.

❖ **Configuring system properties**

1 Select Start | Control Panel.

2 In the Control Panel, double-click System. The System Properties dialog appears.

3 Select the Advanced tab. In the Performance section, click Settings. The Performance Options dialog appears.

4 On the Visual Effects tab, select Adjust for Best Performance.

5 Select the Advanced tab. Under both Processor Scheduling and Memory Usage, select Programs.

6 Click OK in the Performance Options dialog, then click OK in the System Properties dialog.

❖ **Deleting and re-creating the page file**

When you re-create the page file, it resides contiguously on the hard drive, instead of scattered across the drive, which improves performance.

1 Select Start | Control Panel.

2 In the Control Panel, double-click System. The System Properties dialog displays.

3 Select the Advanced tab. In the Performance section, click Settings. The Performance Options dialog displays.

4 Select the Advanced tab. In the Virtual Memory section, click Change. The Virtual Memory dialog displays.

5 Under Paging File Size for Selected Drive, select No Paging File, and click Set.

6 Click OK in the Virtual Memory dialog, the Performance Options dialog, and the System Properties dialog.

7 Restart your computer.

8 Repeat steps 1 – 4.

9 Under the heading Paging File Size for Selected Drive, select Custom Size, and set Initial Size and Maximum Size to the same value. This prevents the page file from dynamically resizing while applications are running, which can degrade performance. Enter a value that is 1.5 times the amount of physical memory on the machine. This allows the memory of all processes to be swapped out to the page file, and allows enough room for additional processes to be used, in case most of the physical memory is in use.

10 Click Set.

11 Click OK in the Virtual Memory dialog, the Performance Options dialog, and the System Properties dialog.

6. Known issues

This section describes known problems in this version of EAServer.

6.1 Upgrading of Jetty

[CR #569870] Jetty 6.1.14 has fixed an issue (JETTY-635) that may result in an EAServer test failure when you upgrade Jetty 6.1.5 to Jetty 6.1.14. If you are using jspParamForwardTest code in Jetty 6.1.14 in EAServer, update the code based on Jetty functional specification. For details, see the Jetty documentation at http://jira.codehaus.org/browse/JETTY-635.

6.2 Incorrect decoding of Chinese characters

[CR #566763] When you decode Chinese characters in a Java Server Page (JSP), there is a redundant "+" sign in the result.

Workaround: This is a known issue in Jetty which is scheduled to be addressed in the next release. For details, see the Jetty documentation at http://jira.codehaus.org/browse/JETTY-969.

6.3 Cannot stop a generated JMS server

[CR #548211] JMS server does not support HTTP. You can stop a generated JMS server only using Ctrl+C.

Workaround: Use jagtool or jagant to shut down or restart the JMS server.

6.4 Cannot hide the default HTTP response header

[CR #546416] By default, EAServer 6.x sends the default HTTP response header to the HTTP client. For example, `HTTP/1.1.....Server: Jetty(EAServer/6.2.0.12 Build 62012`. This may expose the Web server identity to all HTTP clients.

Workaround: Unselect Send the Server Version in HTTP header property in the HTTP tab in the Management Console. Restart EAServer for the change to take effect.

6.5 Getting OracleConnection in EAServer

[CR #538605] EAServer supports OracleConnection and its update batching mechanism in a multithreaded environment with high concurrency. For example, after obtaining the container-managed data source connection, *c*, the API at the client side calls the getRealConnection method.

6.6 Cannot access the Management Console

[CR #537700] If the EAServer installed path includes Chinese characters, you cannot access the Management Console.

Workaround: Before starting the server, execute:

```
%EAS63%\bin\configure.bat disable-builtin-jsf
```

6.7 Ant configuration fails after deploying EJB file

[CR #498829] You cannot complete the Ant configuration after you have deployed an EJB-JAR file in Eclipse plug-in. No information appears when you click Details in the Progress Information window.

Workaround: Restart EAServer after deploying a new EJB-JAR file.

6.8 Log files in Eclipse plug-in Management Console

[CR #497641] The Eclipse plug-in Management Console does not allow you to view the log files remotely.

6.9 Data source contents

[CR #496672] When you select the Data Sources folder on the left hand side of the Management Console, data source entries do not appear on the right side of the window. Other contents such as Welcome frame, Context Menu frame, and so forth appear on the right window.

Workaround: Set the Management Console as a trusted site. From the Internet browser:

1 Select Tools | Internet Options.

2 Select the Security tab.

3 Select Trusted sites and click Sites.

4 Click Add.

6.10 Uninstallation

[CR #490281] If you run *SilentUninstall.bat* for a GUI Client Runtime installation type, set the Window Service parameter in *SilentUninstall.txt* to false. For example,

```
-P WindowsService.activeForUninstall=false
```

6.11 Upgrading ignores existing listeners

[CR #481946] When you upgrade EAServer, the installer does not detect the current server listeners, and uses the default ports.

6.12 Obsolete HTTP server properties

[CR #452369] Beginning in version 6.2, EAServer no longer supports these HTTP properties:

- httpUseCustomGetServerInfo
- httpProxyProtocol
- httpProxyPort
- httpGetServerInfoFrom

Instead, EAServer reads these HTTP header fields:

- host – to determine the host and port the client used to connect.
- sybaseredirectorheader – to determine the protocol that was used to connect to a Web redirector.

If you call any of the HttpRequest methods, getServerName, getServerPort, or getProtocol, the values are retrieved from the browser. This is the same behavior that was achieved by setting httpGetServerInfoFrom to “source” in versions of EAServer earlier than 6.2.

6.13 Security risk

[CR #434293] Do not use HTTP to connect to the Management Console; the administrative user ID and password are passed in plain-text format during the login process, thus posing a security risk.

Workaround: Use HTTPS to log in to the Management Console. To use HTTPS, you first need to obtain a certificate. If you use the sample (test) certificate that is included with EAServer, anyone with EAServer 6.0 has access to your private (test) key. Therefore, Sybase recommends that you use your own certificate.

6.14 Failure to obtain correct license file

[CR #430720] If you start EAServer using a remote desktop connection, the server does not obtain the correct license file.

Workaround: To enable the server to obtain the correct license file when you connect from a remote desktop, use a Virtual Network Computing (VNC) system, such as VMWare or RealVNC.

6.15 Configuring a database type

If you specify values for both the dataSourceClass and driverClass properties when you configure a database type, the system uses the class defined by dataSourceClass, and ignores these properties:

- driverClass
- databaseURL, because it is used only by the driver class

6.16 SQL Anywhere database issues

When you upgrade to EAServer 6.3, Adaptive Server® Anywhere (ASA) version 9.0.2 is upgraded to version 11.0, and the name of the database server changes from ASA to SQL Anywhere.

6.16.1 DBProxy client may crash EAServer

[CR #471417] Connecting to EAServer from a DBProxy client may cause EAServer to crash. This is a jConnect™ bug.

Workaround: To avoid this problem, either:

- Run the jConnect script *jcatalog.sql*, or
- Install a version of SQL Anywhere later than 10.0.

6.16.2 ODBC driver version

[CR #470030] The ODBC driver that you use with EAServer must be either the driver packaged with EAServer or a later version.

6.16.3 ODBC data sources fail on 64-bit machines

[CR #454413] On a 64-bit machine, ODBC data sources do not work, because SQL Anywhere is a 32-bit application and is incompatible with the ODBC system data source name (DSN). The DSN is the logical name that ODBC uses to access data.

Workaround: Either register the system DSN or define a user DSN.

1 Select Start | Run.

   To register the system DSN:

   a In the Run dialog, enter `C:\Windows\SysWOW64\odbcad32`.

   b In the ODBC Administrator, select the System DSN tab.

   To define a user DSN:

   a In the Run dialog, enter `odbcad32`.

   b In the ODBC Administrator, select the User DSN tab.

2 Select the data source name, and click Add.

3 Select the database driver, then click Finish.

4 Configure these DSN properties:

   - **Database Driver** Path to the SQL Anywhere installation; for example: `C:\Program Files\Sybase\EAServer6\ASA100`.
   - **User ID** For example, the default: `dba`
   - **Password** For example: `sql`
   - **Database Name** `default`
   - **Database File** Path to *default.db*; for example: `C:\Program Files\Sybase\EAServer6\data\default.db`.
   - **Engine Name** `default`
   - **Auto Stop** `yes`
   - **Integrated** `no`
   - **Debug** `no`
   - **Disable Multirow Fetch** `no`
   - **Compress** `no`

6.17 Adaptive Server Enterprise 12.5.*x*

[CR #447543] If you are using Adaptive Server Enterprise (ASE) version 12.5.*x* with EAServer, you may see this error:

```
"SELECT INTO command not allowed within multi-statement transaction"
```

Workaround: On the machine where Adaptive Server is installed, run:

```
%DJC_HOME%\extras\jconnect-6.05\sp\sql_server12.5.sql
```

6.18 PowerBuilder issues

This section describes known problems using this version of EAServer with PowerBuilder.

6.18.1 Calling BigDecimal.toString

[CR #441516] Calling the JDK 1.5 toString command for a BigDecimal datatype returns the string representation of the BigDecimal value, using scientific notation if an exponent is needed. For example, if you call:

```
toString(new BigDecimal("0.000000000000000001"))
```

The return value is "1E-18." This behavior change is documented by Sun.

Workaround: To return a string representation of a BigDecimal without an exponent, call toPlainString instead of toString.

6.18.2 Deployment fails for empty Web service

[CR #437435] To be successfully deployed, a Web service must contain at least one method.

6.18.3 Profile names cannot contain colons

[CR #406975] If you deploy a JSP target to EAServer, do not use a colon in the profile name. PowerBuilder writes EAServer profile information in *WEB-INF\classes\jaguar.properties*. If the EAServer profile name contains a colon, the related host name and port number cannot be retrieved from *jaguar.properties* at runtime.

6.19 Migration tool issue

[CR #437181] When you are migrating EAServer entities from version 5.*x* to version 6.2, the migrate tool does not migrate *sql.ini* content for Open Client™ Client-Library™ connections.

Workaround: Manually copy Open Client Client-Library connection information from the 5.*x* version of *sql.ini* to the 6.2 version.

6.20 Web Services Toolkit issues

6.20.1 Refreshing Web services collection causes an OutofMemory error

[CR #494522] When you refresh a Web services collection using the Refresh button in the Eclipse plug-in, or using jagtool, you see an OutofMemory error.

Workaround: To reduce memory leakage:

1 Log in to the Management Console.

2 Select Servers | <*name of your instance*>.

3 In the right pane, select the Module tab.

4 Under the User Start Modules, click Select and clear the Ejbjar-datawindow check box.

6.20.2 Datatype mapping

[CR #449109] In EAServer 6.0, the Web services datatype-mapping version is set to 1.3, so xsd:short may be mapped to either the short or unsignedByte Java datatype. This causes some Web service tests to fail.

Workaround: Set the datatype-mapping version to 1.2, so xsd:short will always be mapped to the short datatype:

1 Start EAServer, and connect to the server using the Management Console.

2 Expand the Servers folder, and select the server.

3 On the General tab, find the WebServices Type Mapping Version field. The default value is 1.3.

4 Change the value to 1.2, and click Save.

6.20.3 Activating and deactivating Web services

[CR #448806] The wstool commands for activating and deactivating Web services, wstool activate and wstool deactivate, do not work.

6.20.4 Apache Scout

[CR #448380] The Apache Scout client method BusinessLifeCycleManager.saveAssociations fails, and a null pointer exception is returned.

6.20.5 Web services display in random order

[CR #422161] Selecting the Management Console options to display Web services either alphabetically or in descending order by date fail. Web services display in random order.

6.21 Miscellaneous issues

6.21.1 Permission required to use JIT data sources

[CR #465348] You can use a JIT (just-in-time) data source to access a database only if you have permission to create tables in the database.

6.21.2 SSLServiceProvider.getGlobalProperty

[CR #436638] The SSLServiceProvider method for checking the status of FIPS, SSLServiceProvider.getGlobalProperty("fips140"), has not been implemented in EAServer 6.2.

7. Documentation updates and clarifications

This section contains updates and clarifications for the EAServer product manuals.

7.1 Automated Configuration Guide

7.1.1 Chapter 2, "Ant-Based Configuration"

[CR #574077] The text in the second paragraph of the "Embedding configuration scripts in J2EE archives" section is incorrect. The corrected text is:

Place the configuration file in the archive's META-INF subdirectory, using the file name that matches the archive type, as listed in the second column of Table 2-3. For *sybase-webapp-config.xml*, place this configuration file in the *WEB-INF* subdirectory.

7.1.2 Chapter 3, "Using Scheduled Tasks"

[CR #477285] "Predefined tasks" does not include task, which you can schedule to remove unwanted PowerBuilder cookies from your machine.

7.1.3 Chapter 4, "Creating Service Components"

[CR #500334] In Table 4-1 of "Service component entity properties," the Component property that specifies how to define the remote interface for a service component is incorrect. The corrected text is:

```
ejb.components.mypackage.MyComponentRemote
```

or, for a local interface for a service component:

```
ejb.components.mypackage.MyComponentLocal
```

Writing a Java class as a service component

This procedure shows how to write a Java class as a service component using these methods:

- start()
- run()
- stop()

1 Use a text editor to write a Java file that includes the three Java methods. For example:

```
package serviceTest;
public class oneService {
    boolean bstop = false;
    public void start()
```

```
{
            System.out.println("oneService start!");
            bstop = false;
}

    public void run()
    {
         while(!bstop)
         {
                System.out.println("oneService runing...");
                 try {
                         Thread.sleep(1000);
               }catch (InterruptedException e) {
                }
         }
    }

     public void stop()
     {
          bstop = true;
          System.out.println("oneService stop!");
     }
}
```

2 Save and compile this Java file to a class file.

3 Create a JAR file for the class file.

4 Place the JAR file in *%EAServer%\lib\ext*.

5 Log in to the Management Console.

6 Select the Service Components folder, right-click, and select Add.

   a Type the name of the service component, for example, *oneservice*.

   b Choose Finish.

7 Select *oneservice* from the Service Components subfolders.

   a Type the name of the component in the Component property field on the right side of the Management Console window. For example, *serviceTest.oneService*.

   b Select the Start Before Binding check box.

   c Select Apply to save the new settings.

8 Select the Servers folder.

a Select the server where EAServer is running. For example, *zeus-deskwxp*.

b Select the Services tab.

c Select the service component that you have just created, for example, *oneservice* from the list.

d Select Apply to save the new settings.

9 Restart EAServer.

When you run the service component, the log file or console displays these messages:

```
oneService start!
oneService runing...",
```

If you stop EAServer, the log file or console displays this message:

```
oneService stop!"
```

7.1.4 Chapter 6, "Using jagtool and jagant"

Deploying applications

[CR #481055] When you use jagtool to deploy a self-contained application, you can configure the application to use all the classes from the internal class loader by setting the disableResolveFirstBySystem property to true. For example:

```
jagtool.bat deploy -type war -disableResolveFirstBySystem true foo.war
```

Obsolete jagtool commands

[CR #465796 and #447432] These jagtool commands are documented in the *Automated Configuration Guide*, but the commands are not supported in EAServer 6.0 and later:

- configure
- export
- exportconfig
- grantroleauth
- mergeprops
- props

- removeroleauth
- set_props

Generating stubs

[CR #462838] To generate stubs for a package or component, you can use the jagtool gen_stubs command. See the *Automated Configuration Guide* for more information about jagtool commands.

Syntax

gen_stubs [-javastubs true|false] [-cppstubs true|false] [-javastubjarname *file-name*] [-javastubcodebase *path*] [-cppstubcodebase *path*] [-compilejavastubs true|false] [-verbose true|false] *entity*

Option	Description
javastubs	Whether to generate Java stubs; the default is true.
cppstubs	Whether to generate C++ stubs; the default is true.
javastubjarname	If specified, the Java stubs are placed in a JAR file of the specified name. The file name must include the full path. If not specified, Java files are generated (the default).
javastubcodebase	The location of the code base for Java stubs; the default is *%DJC_HOME%\genfiles\java\stubs*.
cppstubcodebase	The location of the code base for C++ stubs; the default is *%DJC_HOME%\include*.
compilejavastubs	Whether to compile the generated Java stubs; the default is true.
verbose	Whether to produce verbose output while generating stubs; the default is false.
entity	The name of the entity for which stubs are being generated, in the form *EntityType:EntityName*, where *EntityType* is either “Package” or “Component.”

Return values

Return value	Indicates
0	The command ran successfully; the result is true/success.
2	The command did not run successfully; an exception was thrown.

7.2 CORBA Components Guide

7.2.1 Chapter 4, "Managing CORBA Packages and Components"

[CR #437366] You cannot use hyphens ("-") in CORBA-component package names. CORBA-component packages are those that contain CORBA/C++, CORBA/Java, or PowerBuilder components.

7.2.2 Chapter 5, "Developing and Deploying PowerBuilder Components"

[CR #405138] You cannot use a hyphen ("-") in the name of a PowerBuilder nonvisual object (NVO) method or variable. EAServer wraps NVOs as EJBs, and Java does not support method or variable names that contain hyphens.

Accessing data sources

[CR #533120] When accessing these predefined EAServer data sources from PowerBuilder components, set the default transaction object (SQLCA) to use the appropriate database type as shown in Table 2.

Table 2: Database type

Database type	Description
JCM_Sybase	For ASE database: `sqlca.dbms="SYJ"`
JCM_Oracle or JCM_Oracle_Unicode	Oracle database which corresponds to the EAServer 5.*x* Oracle Call Interface (OCI) 9 and OCI10 native connection caches. `sqlca.dbms="O90"`, or `sqlca.dbms="O10"`
JCM_Odbc or JCM_Odbc_Unicode	For any databases using ODBC driver: `sqlca.dbms="ODBC"`
JCM_*non-JCM JDBC-compliant*	For any non-JCM JDBC-compliant database type: `sqlca.dbms ="JDBC"`

Implementing method-level security for PowerBuilder components

[CR #488947] You can implement method-level security after deploying PowerBuilder components. To implement method-level security for a PowerBuilder component:

1 Add two users. For example, "Pass" and "Fail".

2 Change the role of the user “Pass” to admin-role. You can also define and use your role.

3 Deploy the *final_test* NVO into EAServer from PowerBuilder.

4 Deploy *final_test.jar* into EAServer from Web console or command line.

5 Run PowerBuilder client and click the Pass and Fail buttons.

6 Modify the *%EAServer%\config\ejbjar-final_test-user.xml* file, as follows:

```
<setProperties
component="ejb.components.final_test.n_easerver_5_componentRemote">
    <transaction retry="false"/>
       <copyValues enable="false"/>
           <accessControl
              type="default"
             auditDeny="true"
            auditPermit="true"
       />
<permitAccess method="of_return_name(String)" roles="admin-role"
ports="${ejb.allowedPorts}"/>
</setProperties>
```

7 Run the Ant Refresh followed by the Run Ant Recompile from the Management Console.

8 Run the PowerBuilder client.

If the implementation is successful, the Pass button works.

If you click Fail, the NO_PERMISSION exception occurs.

7.3 Enterprise JavaBeans User’s Guide

7.3.1 Chapter 3, “Developing EJB Clients”

[CR #498818] In the “Client runtime requirements” section, include this:

When using JDK 1.6, add this option in *%JAVA_HOME%\bin\java*:

```
-Dsun.lang.ClassLoader.allowArraySyntax=true
```

This is because the JDK 1.6 on the client side provides the allowArraySyntax option to convert array from the server result data.

If clients run with a JRE, instead of a full JDK, you can prevent the client from trying to generate and compile stubs by setting the system property djc.allowRuntimeCompile to false for the Java command that starts the client application.

7.3.2 Chapter 4, "Creating Application Clients"

[CR #472302] In the section "Starting the runtime container," this example for starting an application client's runtime container is incorrect:

```
runclient.sh -client my_appclient -login true
```

The correct syntax is:

```
run-appclient.sh -client my_appclient -login true
```

7.4 Installation Guide

7.4.1 Chapter 4, "Installing and Configuring a Web Server Redirector Plug-In"

[CR #569866 and CR #551790] To use the IIS 7.0 Web server redirector plug-in on Windows 2008, perform the following configuration steps:

❖ **Installing and configuring the IIS redirector plug-in**

Your EAServer installation includes files that implement the IIS Web server plug-in; you must copy these files to the IIS host machine.

1 Create the location on the Web server host for the plug-in files, for example:

- *<plugin_location> c:\winnt\system32\inetsrv\iisplugin*
- *<dll_location> plugin_location\dll*

2 Install the appropriate libraries into the *dll_location* directory. See "Installing libraries from EAServer to your Web server" section in the *EAServer Installation Guide for Windows*.

3 Add the *dll_location* directory to the system path.

4 Create a text file called *iis_redirector.cfg* in the *plugin_location* and copy the following lines into the file. This becomes the starting point for your redirector configuration file:

```
Connector.IIS.Extension_URI /sybase/libjeas_iis.dll
Connector.IIS.URLS /myWebApp
Connector.IIS.LogFile
```

```
c:\winnt\system32\inetsrv\iisplugin\redirector.log
Connector.LogLevel error
Connector.WebApp /myWebApp
=http://myJaguarMachine:8000
```

5 Create the WSPLUGIN_CONFIG_FILE system environment variable and set its value to the *iis_redirector.cfg* configuration file created in the previous step. To do this, open the System Properties dialog box, create the WSPLUGIN_CONFIG_FILE variable, and set it to the full path of the configuration file:

```
WSPLUGIN_CONFIG_FILE
c:\winnt\system32\inetsrv\iisplugin\iis_redirector.cfg
```

6 Install the IIS plug-in into IIS – your "IIS Plugin" includes the *libjeas_iis.dll* file that implements the IIS Web server plug-in:

   a Open the IIS Administrative Tool.

   b On Windows, select Control Panel | Administrative Tools | Internet Service Manager.

      Alternately, you can select Control Panel | Administrative Tools | Computer Management | Services and Applications | Internet Information Services.

7 Configure the ISAPI filter:

   a Highlight the Web site where you want to install the plug-in., right-click, and select Properties.

   b On the ISAPI Filters tab, click Add, and install *libjeas_iis.dll* as an ISAPI filter. Filters are invoked in the listed order, so if you install more than one filter, *libjeas_iis.dll* should be first in the list.

```
Filter Name: Sybase
Executable: C:\WINNT\system32\inetsrv\iisplugin\dll\libjeas_iis.dll
```

   c Click OK.

8 Create and configure the virtual directory that corresponds to the location of the *libjeas_iis.dll* directory:

   a Highlight the Web site where you installed *libjeas_iis.dll*, right-click, and select New | Virtual Directory.

   b Specify the alias:

```
Alias: Sybase
```

   c Specify the directory:

```
Directory:
C:\WINNT\system32\inetsrv\iisplugin\dll
```

d Specify the permissions:

```
Enable read, run scripts, and execute permissions
on the virtual directory.
```

9 Enable ISAPI-dll in Handler Mapping

a Highlight the Web site where you installed *libjeas_iis.dll* and select Handler Mapping.

b Select ISAPI-dll handler, click the Edit Feature Permissions, and select the Execute Permission option.

10 Configure ISAPI and CGI Restrictions.

a Select the hostname node and select ISAPI and CGI Restrictions.

b Right-click and select Add ISAPI and CGI Restriction ISAPI and CGI path:

```
C:\WINNT\system32\inetsrv\iisplugin\dll\libjeas_iis.dll

Description: Sybase Inc
```

c Enable the Allow extension path to execute option.

11 Edit the configuration file for your specific environment and system. Using a text editor, open the configuration file, *plugin_location\iis_redirector.cfg.*

a Configure static information. These settings are generic to your redirector and do not change as you add or modify Web applications.

1 Set the Extension_URI to the DLL under the virtual directory:

```
Connector.IIS.Extension_URI /sybase/libjeas_iis.dll
```

2 Set Connector.IIS.LogFile:

```
Connector.IIS.LogFile
C:\WINNT\system32\inetsrv\iisplugin\redirector.log
```

3 Set Connector.LogLevel:

```
Connector.LogLevel error
```

b Configure Web application-specific information, which is dependent on the Web applications you are redirecting, and changes as you add or modify Web applications.

1 Set Connector.IIS.URLS to a comma-separated list of your Web applications:

```
Connector.IIS.URLS /myWebApp1, /myWebApp2
```

2 Set Connector.WebApp, which maps each redirected Web application to an EAServer instance:

```
Connector.WebApp /myWebApp1=http://eas1:8000
Connector.WebApp /myWebApp2=http://eas2:8000
```

12 Reboot the Web server machine for the environment changes to take effect.

13 Test the redirector with a browser—enter the IIS URL followed by the Web application path. For example, if your settings are:

```
IIS URL:   http://myIIS
Web Application Context: /myWebApp1
Web Application page: login.jsp
```

You should be able to reach *login.jsp* with:

```
http://myIIS/myWebApp1/login.jsp
```

Note On Windows Vista or on Windows 2008 server 64 bi-system, select Enable32bitAppOnWin64=true in IIS7 application pool.

7.5 New Features Guide

[CR #493619] The introduction in the ".NET client support" section in the *EAServer 6.1 New Features Guide* is incorrect. The corrected introduction is:

EAServer 6.1 includes .NET client support, and enables IIOP/IIOPS communication between .NET and J2EE distributed objects in EAServer.

7.6 Security Administration and Programming Guide

7.6.1 Chapter 6, "Using TLS and FIPS"

[CR #474337] The section "SSL/TLS and FIPS Support" describes how to enable FIPS support, "Enabling FIPS using the Certicom Java libraries." Step 2 says to set the com.sybase.ejb.fips connection property to specify FIPS usage, but fails to specify the value. To enable FIPS support, set the value of com.sybase.ejb.fips to true; to disable, set the value to false.

7.6.2 Chapter 11, “Managing Keys and Certificates”

[CR #535090] The “Set-certificate” section of Chapter 11, “Managing Keys and Certificates” does not provide sufficient information. You must run a setup procedure before you can use the set-certificate script.

- If necessary, install the certificate authority (CA) root certificate into the server’s truststore. This enables the server to trust the client’s certificate.

  By default, some CA root certificates are preinstalled, but you may need to add one or more for testing purposes.

  a If the root certificate is not preinstalled, obtain a root certificate from the certificate authority at http://www.cacert.org/certs/root.txt.

  b Copy the certificate text, including BEGIN and END lines, and save in a file named *root.crt* in .

  %DJC_HOME%\Repository\Security\truststore.jks

  ```
  ...
  -----BEGIN CERTIFICATE-----
  ...
  -----END CERTIFICATE-----
  ```

  c The administrative user must install root certificates into the server’s truststore. To execute:

```
keytool  -import -alias cacert.org -file root.crt
   -keystore %DJC_HOME%\Repository\Security\truststore.jks
```

- Obtain client certificates.

  a Request the client certificates from the CA at http://wiki.cacert.org/wiki/ClientCerts. Follow the instructions provided at this Web site to complete the request.

  b Click Install Your Certificate to install the certificates into your Web browser.

  c For nonbrowser clients (including IIOPS), export the certificate from the browser with a private key in PKCS #12 format, then import into client’s certificate keystore as appropriate.

  Use the keytool command to perform these tasks. For more details about the keytool command, see “Managing keys and certificates on EAServer” in Chapter 11, “Managing Keys and Certificates.”

  d Obtain the certificate in RFC 1421-form (Base64-encoded X.509). Use the keytool -help command.

For other cases, consult with your CA to determine how to obtain the RFC 1421-form of certificate.

e In *root.txt*, copy the certificate text, including BEGIN and END lines, and save in a file named *root.crt* in *%DJC_HOME%\Repository\Security\truststore.jks* on the client side.

This is to set up client's trust certification.

f The administrative user must register this certificate with an EAServer user using:

```
set-certificate test -file test.crt
```

7.7 System Administration Guide

7.7.1 Chapter 3, "Creating and Configuring Servers"

Installing the server as a Windows service with JDK 1.5

To install a server as a Windows service with JDK 1.5, execute:

```
\bin\service.bat -install -svr  $(SERVER_NAME}  -servicename $(SERVICE_NAME) -jdk15
```

To install a server as a Windows service with JDK 1.5 runtime, execute:

```
\bin\service.bat -install -svr  $(SERVER_NAME}  -servicename $(SERVICE_NAME) -rt15 -jdk15
```

Adding and configuring service components

[CR #500334] The configuration property name for the Component property in Table 3-7 is incorrect. The correct property name is serviceComponents, as indicated below:

Property	Description
Component	The name of the component that implements the service. For a user-defined service component, enter either: • The class name of a simple Java class (must be in the server class path), or • The fully-qualified name of an EJB local or remote interface; for example, `ejb.components.mypackage.MyCompLocal` or `ejb.components.mypackage.MyCompRemote`. The configuration property name is serviceComponents.

Adding and configuring listeners

[CR #549163] To prevent EAServer from trying to allocate too many Windows handles, Sybase recommends that you set the number of listener connections to a maximum of 1,000. If you are using a 64-bit JVM, EAServer can support about 5,000 connections instead of 1,000. You can set this configuration using the Management Console. On the listener's General tab, set the Maximum Number of Threads listener property to 1,000.

Enabling password sharing

[CR #487210] By default, multiple users can start EAServer. However, to allow single user to start EAServer, configure EAServer with the shared-data-protection-off option. For example:

```
cd %EAServer%\bin
configure.sh shared-data-protection-off
```

To allow multiple users to start EAServer, use the shared-data-protection-on option. For example:

```
cd %EAServer%\bin
configure.sh shared-data-protection-on
```

Configuring system logging

[CR #473658] "Configuring system logging" describes how to customize the location of the system log files, but the name of the variable (DJC_JVM_ARGS) is incorrect. The correct variable is DJC_JVM_USER_ARGS; for example:

```
set DJC_JVM_USER_ARGS=%DJC_JVM_USER_ARGS% -Ddjc.logFile=/myserver/myserver.log
-Ddjc.logFileMaxSize=5m -Ddjc.logFileRotation=true
```

Note If you customize the location of the system log files, only the HTTP log is rotated; the server log is not.

7.7.2 Chapter 4, "Database Access"

The section that describes how to configure a database type fails to explain that if you define both a dataSourceClass and a driverClass, EAServer uses only the dataSourceClass value—see "Configuring a database type" on page 14 in this release bulletin.

Configuring data sources

[CR #531900] When using servers in a cluster, make sure these predefined data sources are all connected to the same database:

- cluster.db
- message.db
- tx_manager

You can change the data sources using the Management Console.

7.7.3 Chapter 11, "Runtime Monitoring"

[CR #546885] The "Monitoring Web application and EJB statistics" section of Chapter 11, "Runtime Monitoring," provides information about viewing statistics for Web applications and EJBs by accessing the Statistics node beneath an individual entity. However, this information is incorrect. There is no Statistics node available in the selected Web application component and EJB component.

7.7.4 Chapter 12, "Command Line Tools"

deploy

[CR #481055] When you deploy a self-contained application, you can configure the application to use all the classes from the internal class loader by setting the disableResolveFirstBySystem property to true. For example:

```
deploy.bat -disableResolveFirstBySystem foo.war
```

[CR #475511] EAServer 6.2 does not support the -jsr154filter option for the deploy.sh command line tool. -jsr154filter may be supported in a later version of EAServer.

[CR #475510] The documentation that states the deploy.sh command line tool includes an eas5naming option is incorrect. This option is not supported.

wlogin and wlogout

[CR #443144] The command line tools wlogin and wlogout support only this syntax:

```
wlogin.sh <host:port>
wlgout.sh <host:port>
```

Chapter 12 incorrectly states that you can pass the server name if it is defined in the local repository.

7.7.5 Chapter 13, "JNI Compiler"

[CR #472818] Before calling a generated proxy class, standalone clients must call either:

- JNICC_CreateJavaVM to initialize the JVM, or
- JNICC_SetJavaVM(JavaVM* *vm*) if the JVM has already been initialized.

7.7.6 Chapter 14, "Systems Management"

[CR #437261] EAServer supports Simple Network Management Protocol (SNMP) features that conform to the Java Specification Request JSR 77. The status of a server and its components are reported as Management Information Base objects, which can be polled, and can also be reported as SNMP traps.

7.8 Troubleshooting Guide

7.8.1 Chapter 1, "Monitoring Techniques"

This example shows how to configure the *log4j.properties* file.

❖ **Configuring Log4j**

1 Use a text editor to create a *log4j.properties* file.

```
# Set root category priority to INFO and its only appender to CONSOLE.
#log4j.rootCategory=FATAL, CONSOLE
log4j.rootCategory=DEBUG, LOGFILE

# Set the enterprise logger category to FATAL and its only appender to CONSOLE.
# log4j.logger.org.apache.axis.enterprise=DEBUG, LOGFILE

# CONSOLE is set to be a ConsoleAppender using a PatternLayout.
log4j.appender.CONSOLE=org.apache.log4j.ConsoleAppender
log4j.appender.CONSOLE.Threshold=DEBUG
log4j.appender.CONSOLE.layout=org.apache.log4j.PatternLayout
log4j.appender.CONSOLE.layout.ConversionPattern=- %m%n

# LOGFILE is set to be a File appender using a PatternLayout.
log4j.appender.LOGFILE=org.apache.log4j.FileAppender
log4j.appender.LOGFILE.File=<install_directory>/axisserver.log
log4j.appender.LOGFILE.Append=true
log4j.appender.LOGFILE.Threshold=DEBUG
log4j.appender.LOGFILE.layout=org.apache.log4j.PatternLayout
log4j.appender.LOGFILE.layout.ConversionPattern=%-4r [%t] %-5p %c %x - %m%n
```

2 Put the *log4j.properties* file into *%EAServer_Home%\lib*.

3 Change to *%EAServer_Home%\bin* and execute:

```
run-server -
Dorg.apache.commons.logging.Log=org.apache.commons.logging.impl.Log4JLogger
```

4 Write a class named “Hello”:

```
package sayhello;

public class Hello {
public String hello() {
      return "hello";
    }
}
```

5 Use Sybase Web Services Toolkit to deploy this class as a Web service and generate a client.

6 Run *Hello_ServiceTestClient.java*.

7 Find the log file in <*install_directory*>*\aixsserver.log* and view the contents which should look similar to:

```
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
loadBundle: Ignoring MissingResourceException: Can't find bundle for
base name org.apache.axis.resource, locale zh_CN
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
Created org.apache.axis.i18n.resource, linked to parent null
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
getBundle(org.apache.axis,org.apache.axis.utils,resource,null,...)
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
loadBundle: Ignoring MissingResourceException: Can't find bundle for
base name org.apache.axis.utils.resource, locale zh_CN
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
loadBundle: Ignoring MissingResourceException: Can't find bundle for
base name org.apache.axis.resource, locale zh_CN
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  - Root
package not found, cross link to org.apache.axis.i18n.resource
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  - Root
package not found, cross link to org.apache.axis.i18n.resource
953  [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
org.apache.axis.i18n.resource::handleGetObject(engineFactory)
1047 [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
org.apache.axis.i18n.resource::handleGetObject(attachEnabled)
1063 [main] DEBUG org.apache.axis.i18n.ProjectResourceBundle  -
org.apache.axis.i18n.resource::handleGetObject(oddDigits00)
```

7.9 Web Services Toolkit User's Guide

7.9.1 Chapter 9, "Using wstool and wstant"

[CR #464242] The Ant build example for the exposeComponent command is incorrect:

```
<wst_antTask command="exposeComponent"
entity="component:myPackage/myComponent"/>
```

The correct command is:

```
<wst_antTask command="exposeComponent"
entity="myPackage/myComponent"/>
```

8. Technical support

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you have any questions about this installation or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

9. Other sources of information

Use the Sybase Getting Started CD, the SyBooks™ CD, and the Sybase Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.
- The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format.

  Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.

Refer to the *SyBooks Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

  To access the Sybase Product Manuals Web site, go to Product Manuals at http://www.sybase.com/support/manuals/.

9.1 Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ **Finding the latest information on product certifications**

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Click Certification Report.

3 In the Certification Report filter select a product, platform, and timeframe and then click Go.

4 Click a Certification Report title to display the report.

❖ **Finding the latest information on component certifications**

1 Point your Web browser to Availability and Certification Reports at http://certification.sybase.com/.

2 Either select the product family and product under Search by Base Product; or select the platform and product under Search by Platform.

3 Select Search to display the availability and certification report for the selection.

❖ **Creating a personalized view of the Sybase Web site (including support pages)**

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

1 Point your Web browser to Technical Documents at http://www.sybase.com/support/techdocs/.

2 Click MySybase and create a MySybase profile.

9.2 Sybase EBFs and software maintenance

❖ **Finding the latest information on EBFs and software maintenance**

1 Point your Web browser to the Sybase Support Page at http://www.sybase.com/support.

2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.

3 Select a product.

4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the "Technical Support Contact" role to your MySybase profile.

5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

10. Accessibility features

This document is available in an HTML version that is specialized for accessibility. You can navigate the HTML with an adaptive technology such as a screen reader, or view it with a screen enlarger.

EAServer and the HTML documentation have been tested for compliance with U.S. government Section 508 Accessibility requirements. 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.

The online help for this product is also provided in HTML, which you can navigate using a screen reader.

For information on using EAServer without a mouse, see “Keyboard navigation” in Chapter 2, “Management Console Overview,” in the *EAServer System Administration Guide*.

Note You might 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.

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

For a Section 508 compliance statement for EAServer, go to Voluntary Product Assessments at http://www.sybase.com/detail_list?id=52484, and click the link for EAServer.