



Interstage Application Server

V6.0

Product Notes

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Fujitsu Limited

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Preface

Purpose of this Document

This manual provides additional information on the use of Interstage Application Server

Note

Throughout this manual Interstage Application Server is referred to as Interstage.

Who Should Read this Document?

This document is intended for users installing and operating Interstage Application Server.

It is assumed that readers of this manual have a basic knowledge of:

- The Internet
- Apache

Windows

- Windows NT®, Windows® 2000 and Windows 2003™ Server

Solaris OE

- UNIX

Linux

- Linux

Organization of this Document

This document is organized as follows:

- *Chapter 1 - Supported Software*
This chapter describes the supported software for application development and application execution. It also describes the client-side software products required to use client applications.
- *Chapter 2 - Restrictions*
This chapter describes the restrictions on some Interstage functions.
- *Chapter 3 - Notes on Interstage Operation*
This chapter provides notes about the operation of Interstage.

Functions that are not Supported by the Linux Version

The following functions are not supported by the Linux version. To use those functions, use the Windows version or Solaris™ Operating Environment version.

- Multi System (available only in the Solaris™ Operating Environment version)
- Cluster System
- Web Server (InfoProvider Pro)
- HTML Page Editing Service
- ebXML Message Service
- MessageQueueDirector
- MQ Communication Service
- InfoDirectory
- COBOL Web Subroutine
- COBOL/OOCOBOL development and execution environment (available on the Windows client)
- Firewall linkage function (proxy linkage and HTTP tunneling) and SSL linkage function of CORBA applications
- SMEE2 library (The SMEE3 library is available.)
- Online access management function
- Performance monitoring tool (real-time monitoring function of performance information)
- User authentication and access control of the Component Transaction Service
- AIM linkage function

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Chapter 1

Supported Software

This chapter describes the supported software.

Software Products Required for Application Development

This section describes software products required for application development.

J2EE (Exclude Security)

Table 1-1 lists the J2EE (exclude security) products required for application development.

Table 1-1 J2EE (Exclude Security) Products Required for Application Development

No.	Function Name	Product Name	Version
1	Development of J2EE applications (*1)	Any of Interstage Apworks (*2) Interstage Application Server Plus Developer	V5.0 or later V5.0.1 or later
2	Development of EJB applications using databases.	SymfoWARE® Server Enterprise Edition for Windows	V5.0 or later (*3)
		Oracle8i Enterprise Edition	R8.1.5 (*3) R8.1.6 (*3) R8.1.7 (*3)
		Oracle9i Database Enterprise Edition	Release1 (9.0.1) (*3)
		SQL Server	2000 (*3)

*1) JDK1.1 and JDK1.2 are not applicable.

*2) If the JSP remote debug function is to be used, the version of the Servlet service must match the version of Apworks. For this reason, use V6.0.

*3) SymfoWARE Server Enterprise Edition or Oracle8i Enterprise Edition or Oracle9i Database Enterprise Edition is required.

Use the JDBC driver for JDK 1.2 when you use Symfoware Server Enterprise Edition and Symfoware Server. Moreover, the JDBC driver for JDK1.2 can use the version of JDK/JRE by 1.2 or later. Do not download it though it is described, "The JNDI class library (jndi package) and JDBC2.0 Optional Package (javax.sql package) can be downloaded from the homepage of Javasoft of SUN Microsystems" in JDBC driver online manual of Symfoware when the JDBC driver for JDK1.2 is used.

Use the product since V4.0L10 when you use either Symfoware Server Enterprise Edition or Symfoware Server when you use the Symfoware with RDB2_TCP.

When the decentralized transaction function by JTS and JTA is used, Oracle8i Enterprise Edition R8.1.7 or Oracle 9i Database Enterprise Edition is required.

Use the Interstage JDBC Driver included while packaging the EJB Service when you use SQL Server. Refer to the associated software manual when using it. The software manual is in the following place.

Interstage installation folder\EJB\jdbc\fjisjdbc.txt

Interstage JDBC Driver can be used only with JDK/JRE1.3.

Install the SQL Server client tool in the execution environment of Interstage JDBC Driver when the installation environment of the execution environment of Interstage JDBC Driver and SQL Server is different.

Security

Table 1-2 lists the security products required for application development.

Table 1-2 Security Products Required for Application Development

No.	Function Name	Product Name	Version
1	SSL communication function of CORBA Service	Systemwalker PkiMGR (*1)	V1.0

*1) It is required on the server issuing certification. It is not required when you acquire certification from Certificate issue organization.

At the time of UTF-8 certificate creation, Systemwalker PkiMGR is required.

Operation / Administration

Table 1-3 lists the operation/administration products required for application development.

Table 1-3 Operation/Administration Products Required for Application Development

No.	Function Name	Product Name	Version
1	Real-time monitoring by performance monitoring tool and operation management linked to Systemwalker	Systemwalker CentricMGR	V5.0L20 or V5.0L30 or later (*1)
2	Automatic operation linked to Systemwalker	Systemwalker OperationMGR	V5.0L20 or V5.0L30 or later (*2)
3	Interstage Operation Tool	Microsoft® Internet Explorer or Netscape® Communicator	5.01, 5.5, or 6.0 6 Series or 7 Series
4	Real-time monitoring function of performance information by the Network Manager	SNMP service	Windows NT® 4.0 Windows® 2000 (*3)

*1) If the version level of Systemwalker CentricMGR to be linked is V5.0L20, the following functions cannot be used:

- Operation status monitoring of the EJB WorkUnit (for old version compatible environment)
- Displaying information on the multi object-resident objects
- Real-time monitoring of the application processing status

If the version level of Systemwalker CentricMGR is V10L10 or earlier, the following functions cannot be used:

- Monitoring of the CORBA WorkUnit operating status
- Monitoring of the Servlet container unit operating status (old version Servlet service)
- Real-time monitoring of the application processing status for the Implementation Repository of the CORBA WorkUnit
- Real-time monitoring of the EJB application processing status of the EJB WorkUnit (for old version compatible environment)
- Information display of EJB applications on the Light EJB container (for old version compatible environment)
- Operating status monitoring of the Light EJB container (for old version compatible environment)

*2) If the version level of Systemwalker OperationMGR to be linked is V5.0L20, the EJB WorkUnit (for old version compatible environment) cannot be operated automatically.

The following functions also cannot be used if the version level of Systemwalker OperationMGR is V10.0L10 or earlier.

- Automatic operation of the CORBA WorkUnit
- Automatic operation of the Light EJB container WorkUnit (for old version compatible environment)

*3) The SNMP Service is a function provided by the operating system.

Framework

Table 1-4 lists the framework products required for application development.

Table 1-4 Framework Products Required for Application Development

No.	Function Name	Product Name	Version
1	Using database linkage components of the Framework function	Oracle Database Enterprise Edition / Standard Edition	Release1(9.0.1) or Release2(9.2.0)
		Symfoware Server Enterprise Edition	V5.0
2	Using XML linkage function of the Framework function	Fujitsu XML Processor - Fujitsu XML Library for Java - Fujitsu XSLT Library for Java	V5.1.1
3	Using Struts linkage function of the Framework function	Struts	1.1

Other Functions

Table 1-5 lists the products required for application development (other functions).

Table 1-5 Products Required for Application Development (Other Functions)

No.	Function Name	Product Name	Version
1	Development of applications of the SOAP Service	Interstage Apworks or Interstage Application Server Plus Developer (*1)	V6.0
2	Development of applications using UDDI client	Interstage Apworks or Interstage Application Server Plus Developer (*1)	V6.0

No.	Function Name	Product Name	Version
3	Use of databases	Symfoware® Server Enterprise Edition for Windows	V2.0L10 or later edition
		Oracle7	R7.3.4 (*2)
		Oracle8 Enterprise Edition	R8.0.5 (*2)
		Oracle8i Enterprise Edition	R8.1.5 or R8.1.6 (*2) R8.1.7
		Oracle9i Database Enterprise Edition	Release1 (9.0.1)
		SQL Server	6.5 or 7.0
4	Development of applications using LDAP SDK	Microsoft® Visual C++	5.0, 6.0, .NET
5	Directory service (Only when you use Netscape Enterprise Server as WWW server)	Netscape Enterprise Server	3.5

*1) JDK1.1 and JDK1.2 are not supported.

*2) At the time of using SynfinityCLUSTER, it is required Symfoware Server Enterprise Edition V2.0L10 or later.

At the time of using JTS or JTA, Oracle Database Enterprise Edition R8.1.7, R9.0.1 or R9.2.0 is required.

Software Products Required for Application Execution

This section describes software products required for application execution.

J2EE (Exclude Security)

Table 1-6 lists the J2EE (exclude security) products required for application execution.

Table 1-6 J2EE (Exclude Security) Products Required for Application Execution

No.	Function Name	Product Name	Version
1	Employment of the application which uses a database	Oracle8i Enterprise Edition	R8.1.5 (*1) (*2)
		Oracle8i Enterprise Edition	R8.1.6 (*1) (*2) R8.1.7 (*1) (*2)
		Oracle 9i Database Enterprise Edition	Release1 (9.0.1) (*1) (*2)
		SQL Server	6.5 or 7.0 (*1)
2	J2EE Management Tool	Microsoft Internet Explorer® Netscape® Communicator	5.01, 5.5, 6.0 4.7 type (*3)
3	Old version Servlet Service (Only when Microsoft Internet Information Server or Microsoft Internet Information Services is used as the Web server)	Microsoft Internet Information Server Microsoft Internet Information Services	4.0 5.0 (*4)

*1) Oracle8i Enterprise Edition or Oracle9i Database Enterprise Edition or SQL Server is required.

When the decentralized transaction function by JTS and JTA is used, Oracle8i Enterprise Edition R8.1.7 or Oracle9i Database Enterprise Edition is essential.

Use Interstage JDBC Driver included while packaging the EJB Service when you use SQL Server. Refer to the associated software manual when using it. The software manual is in the following place.

Interstage installation folder\EJB\jdbc\fjisjdbc.txt

Interstage JDBC Driver can be used only with JDK/JRE1.3.

Install the SQL Server client tool in the execution environment of Interstage JDBC Driver when the installation environment of the execution environment of Interstage JDBC Driver and SQL Server is different.

*2) When JDBC2.X of Oracle8i Enterprise Edition R8.1.6 or R8.1.7 or Oracle9i Database Enterprise Edition is used, download File System Service Provider 1.2 from the JavaSoft site(<http://www.javasoft.com/>). The file name as of June 8, 2001 is fscontext1_2beta3.zip, however note that this may be changed without notice. When the downloaded files are decompressed, the following files are restored:

- providerutil.jar
 - fscontext.jar
- *3) If Netscape 4.7 type is used, a screen display error may occur.
- *4) Microsoft Internet Information Services 6.0 or later cannot be used.

Security

Table 1-7 lists the security products required for application execution.

Table 1-7 Security Products Required for Application Execution

No.	Function Name	Product Name	Version
1	SSL communication function of Web Server, CORBA Service, Portable-ORB and J2EE.	Systemwalker PkiMGR (*1)	V1.0

- *1) It is required on the server issuing certification. It is not required when you acquire certification from Certificate issue organization.

At the time of UTF-8 certificate creation, Systemwalker PkiMGR is required.

Operation / Administration

Table 1-8 lists the operation/administration products required for application execution.

Table 1-8 Operation/Administration Products Required for Application Execution

No.	Function Name	Product Name	Version
1	Real-time monitoring by performance monitoring tool and operation management linked to Systemwalker	Systemwalker CentricMGR	V5.0L20 or V5.0L30 or later (*1)
2	Automatic operation linked to Systemwalker	Systemwalker OperationMGR	V5.0L20 or V5.0L30 or later (*2)
3	Interstage Operation Tool	Microsoft® Internet Explorer or Netscape® Communicator	5.01, 5.5, or 6.0 6 Series or 7 Series
4	Real-time monitoring function of performance information by the Network Manager	SNMP service	Windows NT® 4.0 Windows® 2000 (*3)

*1) If the version level of Systemwalker CentricMGR to be linked is V5.0L20, the following functions cannot be used:

- Operation status monitoring of the EJB WorkUnit (for old version compatible environment)
- Displaying information on the multi object-resident objects
- Real-time monitoring of the application processing status

If the version level of Systemwalker CentricMGR is V10L10 or earlier, the following functions cannot be used:

- Monitoring of the CORBA WorkUnit operating status
- Monitoring of the Servlet container unit operating status (old version Servlet service)
- Real-time monitoring of the application processing status for the Implementation Repository of the CORBA WorkUnit
- Real-time monitoring of the EJB application processing status of the EJB WorkUnit (for old version compatible environment)
- Information display of EJB applications on the Light EJB container (for old version compatible environment)
- Operating status monitoring of the Light EJB container (for old version compatible environment)

*2) If the version level of Systemwalker OperationMGR to be linked is V5.0L20, the EJB WorkUnit (for old version compatible environment) cannot be operated automatically.

The following functions also cannot be used if the version level of Systemwalker OperationMGR is V10.0L10 or earlier.

- Automatic operation of the CORBA WorkUnit
- Automatic operation of the Light EJB container WorkUnit (for old version compatible environment)

*3) The SNMP Service is a function provided by the operating system.

Framework

Table 1-9 lists the framework products required for application execution.

Table 1-9 Framework Products Required for Application Execution

No.	Function Name	Product Name	Version
1	Using database linkage components of the framework function	Oracle Database Enterprise Edition / Standard Edition	Release1(9.0.1), or Release2(9.2.0)
		Symfoware Server Enterprise Edition	V5.0
2	Using XML linkage function of the framework function	Fujitsu XML Processor - Fujitsu XML Library for Java - Fujitsu XSLT Library for Java	V5.1.1
3	Using Struts linkage function of the framework function	Struts	1.1

Portal Component

Table 1-10 lists the Portal component products required for application execution.

Table 1-10 Portal Component Products Required for Application Execution

No	Function Name	Product Name	Version
1	Directory server (*1)	InfoDirectory	The LDAP system enclosed by Interstage Application Server V6.0 or V1.2L10
		Netscape Directory Server	Ver.3.11 (supported only by Windows NT®)
2	Web Server	Interstage HTTP Server	V6.0
		Microsoft Internet Information Server	4.0/5.0
3	RDBMS for repository (*2)	Oracle8i Enterprise Edition	R8.1.6/R8.1.7
		Oracle9i database enterprise edition	Release1(9.0.1) Release2(9.0.2)
4	Web browser(Administrative Console)	Microsoft Internet Explorer	5.5/6.0
5	Web browser(User Page)	Microsoft Internet Explorer	5.0/5.01/5.5/6.0
		Netscape Navigator	4.6/4.7

*1) To use LDAP as an authentication system, it is necessary to install an LDAP system and to register its users. For more details, refer to the manual for your LDAP product.

- *2) It is possible to change the repository (Fujitsu Enabler) of the Portal component installed by default to RDB by using the repository change command immediately after installation. For more details, refer to the Portalworks Administration Guide.

Other Functions

Table 1-11 lists the products required for application execution (other functions).

Table 1-11 Products Required for Application Execution (Other Functions)

No.	Function Name	Product Name	Version
1	Directory Service (Only when Netscape Enterprise Server is the WWW server)	Netscape Enterprise Server	3.5
2	Use of Databases (Excluding EJB application)	Symfoware Server Enterprise Edition	V1.2L11 or later
		Oracle7	R7.3.4
		Oracle8 Enterprise Edition	R8.0.5
		Oracle8i Enterprise Edition	R8.1.5
		Oracle8i Enterprise Edition	R8.1.6 R8.1.7
		Oracle 9i Database Enterprise Edition	Release1 (9.0.1)
		SQL Server	6.5 or 7.0

Client-side Software Products Required to Use Client Applications

This section describes the client-side software products required to use client applications.

J2EE (Exclude Security)

Table 1-12 lists the J2EE (Exclude Security) client-side software products required to use client applications.

Table 1-12 J2EE (Exclude Security) Client-side Software Required to Use Client Applications

No	Function Name	Product Name	Version
1	Java application of EJB Service (including Java applet)	Interstage Apworks Server Runtime Package (*1)	V5.0 or later
2	Java applet of EJB Service (*2) (*3)	Netscape Communicator	4.06, 4.07, 4.08, 4.5, 4.51, 4.6, 4.7, 4.72, 4.73 or 4.75
		Microsoft Internet Explorer	4.01, 5.0, 5.01 or 5.5 (*4)
3	Operation of J2EE application clients using JNDI, JMS, JavaMail.	Interstage Apworks Server Runtime Package (*5)	V5.0 or later

*1) This product is required when a Java application (including a Java applet) of the EJB service is created.

*2) To operate Java applets, the following formats are available:

- Format to download the Portable-ORB and EJB Service client from the WWW server:
The jar file (fjcontainer32_plugin.jar) for the Portable-ORB and the client of the EJB Service must first be installed (resource must be stored) in the WWW server.
The JBK plugin provided by "J Business Kit," a component of Apworks V6.0L10, is required. The Apworks download installer must be installed in advance.
- Format to install the CORBA Service client and EJB Service client:
The CORBA Service client and EJB Service client must first be installed in the client.
If installation is performed without selecting JBK in custom installation mode, the JBK plugin must be installed in advance.

*3) As the Web browser, either Netscape Communicator or Microsoft Internet Explorer is required.

- *4) Service Pack 1 or Service Pack 2 is necessary for Microsoft Internet Explorer 4.01. Also, Software Development Kit for Java V4.0 is necessary for creating cab files used in Microsoft Internet Explorer.
- *5) JDK1.1 and JDK1.2 are not supported.

Security

Table 1-13 lists the security client-side software products required to use client applications.

Table 1-13 Security Client-side Software Required to Use Client Applications

No	Function Name	Product Name	Version
1	Encrypted communication with 128bit	Netscape Communicator	4.7
		Microsoft Internet Explorer and high reliability pack (128bit)	5.01

Framework

Table 1-14 lists the framework client-side software products required to use client applications.

Table 1-14 Framework Client-side Software Required to Use Client Applications

No	Function Name	Product Name	Version
1	Client (Windows®) for the web application using Framework	Microsoft Internet Explorer	5.x or 6.0
		Netscape Communicator	4.7x
2	Client (Macintosh®) for the web application using Framework	Microsoft Internet Explorer	5.1 for Mac (OS8.1 9.x) or 5.2 for Mac (OS X)
		Netscape	7.1 (Mac OS X)
		Safari	1.0
3	Using Applet linkage function of the Framework function	Interstage Application Server Plus V6.0	-
		Interstage Application Server Plus Developer V6.0	-
		Java Plug-in	1.3.1, 1.4.1, 1.4.2

Other Functions

Table 1-15 lists the client-side software products required to use client applications (other functions).

Table 1-15 Client-side Software Required to Use Client Applications (Other Functions)

No	Function Name	Product Name	Version
1	WWW Server Linkage	Netscape Communicator	4.0, 4.01, 4.02, 4.03, 4.04, 4.05, 4.06, 4.07, 4.08, 4.5, 4.51, 4.6 or 4.7
		Microsoft Internet Explorer	4.0, 5.0, 5.01 or 5.5 (*1)
2	SOAP Service client	INTERSTAGE APWORKS Client Runtime package	V4.1 or later
		Interstage Apworks Client Runtime Package	V5.0
		INTERSTAGE Java Server package (*2)	V4.1 or later
		Interstage Java Server package (*3)	V5.0 or later
		JCE (Java Cryptography Extension) (*4)	1.2.2
3	Using the UDDI client	INTERSTAGE APWORKS Client Runtime package (*5)	V5.0
4	Using the InfoDirectory web connector	Netscape Navigator	4.7, 4.73, 4.75
		Netscape Communicator	4.7, 4.72, 4.73, 4.75, 4.76, 4.78
		Netscape	6.0, 6.1, 6.2
		Microsoft Internet Explorer	5.01, 5.5, 6.0

*1) Service Pack 1 or Service Pack 2 is necessary for Microsoft Internet Explorer 4.01. Also, Software Development Kit for Java V4.0 is necessary for creating cab files used in Microsoft Internet Explorer.

*2) Use the functions corresponding to the APWORKS Client Runtime Package in the Interstage Java Server Package. For details of the functions corresponding to the APWORKS Client Runtime Package in the Interstage Java Server Package, refer to Section 4.6 Download Installer in \DATA4\READMEAP.TXT on the Interstage Java Server Package CD-ROM.

*3) When using the remote installation function of the EJB Deployment tool, the Interstage Operation Tool needs to be installed on the server for installation.

*4) Required when password management function for client authentication of SSL communication of SOAP Service client side is used.

*5) JDK1.1 and JDK1.2 are not supported.

Chapter 2

Restrictions

Some functions described in this manual have restrictions. The following tables detail these restrictions.

Restrictions on Interstage HTTP Server

Table 2-1 Restrictions on Interstage HTTP Server

No.	Restriction	Remarks	Date of Removal
1	<p>When a certificate in UTF-8 format, (such as a CA certificate, site certificate, or client certificate) is used for SSL communication, the following restrictions apply:</p> <ul style="list-style-type: none">- When SSL protocol Version 3 (client certificate) is used, the CA certificate and the client certificate in UTF-8 must be registered on both the Interstage HTTP Server and the web browser.- When SSL protocol Version 2 (server authentication) is used, the CA certificate and the client certificate in UTF-8 must be registered on both the Interstage HTTP Server and the web browser.- If Interstage HTTP Server is started in either of the above SSL versions, normal access is available only via Internet Explorer 5.5 or 6.0 on Windows® 2000.	None	Not determined

Restrictions on InfoProvider Pro

Table 2-2 Restrictions on InfoProvider Pro

No.	Restriction	Remarks	Date of Removal
1	<p>When a certificate in UTF-8 format, (such as a CA certificate, site certificate or client certificate) is used for SSL communication, the following restrictions apply:</p> <ul style="list-style-type: none">- When SSL protocol Version 3 (client certificate) is used, the CA certificate and the client certificate in UTF-8 must be registered on both InfoProvider Pro and the web browser.- When SSL protocol Version 2 (server authentication) is used, the CA certificate and the client certificate in UTF-8 must be registered on both InfoProvider Pro and the web browser.- If InfoProvider Pro is started in either of the above SSL versions, normal access is available only via Internet Explorer 5.5 or 6.0 on Windows® 2000.	None	Not determined

Restrictions on the J2EE Service

Table 2-3 Restrictions on the J2EE Service

No.	Restriction	Remarks	Date of Removal
1	If the EAR file is opened using the J2EE Deployment tool and the Application Display Name of the application is changed, some contents such as class files may not be displayed in the General contents of the Web application.	None. The files can be saved or deployed even if they are not displayed.	Not determined
2	When the J2EE Deployment tool is used, a save confirmation dialog box appears before closing a file. If the Close button on the title bar of the window is used, or if Close is selected from the window menu, the operation is the same as if No was selected. (Note that the operation in this case is not the same as if Cancel was selected!)	Select the Cancel button.	Not determined
3	When the J2EE Deployment tool is used with JDK/JRE1.3, the details of the file cannot be displayed on the File selection or Directory selection screen.	None.	Not determined
4	The remote installation function of the EJB Deployment tool cannot be used if the installation destination machine is a cluster system.	Transfer the server distribution generated with the EJB Deployment tool to the operation destination machine and install it with the <i>ejbinstalleb</i> command. For details on the <i>ejbinstalleb</i> command, see Chapter 5 <i>ejbinstalleb</i> in the Reference Manual (Command Edition).	Not determined
5	It is not possible to access the database directly from a J2EE application client and a Web application while using the global transaction with the JTA interface.	When the global transaction is used with the JTA interface, be sure to access the database from an EJB application.	Not determined
6	Interstage cannot be stopped forcibly (the <i>isstop</i> command cannot be executed by specifying option -f) with the J2EE Deployment tool activated.	Stop the J2EE Deployment tool and then forcibly stop Interstage (execute the <i>isstop</i> command by specifying option -f).	Not determined

Restrictions on the Servlet Service

Table 2-4 Restrictions on the Servlet Service

No.	Restriction	Remarks	Date of Removal
1	<p>When Apworks is used for remote debugging, the following may occur:</p> <p>When a Servlet service or servlet container is stopped, the following message is output to standard output or the standard input-output log file of the servlet container:</p> <p>"Internal debug-agent exception"</p>	Ignore this message.	Not determined
2	<p>The following phenomenon may occur when performing a remote debug using Apworks:</p> <ul style="list-style-type: none">- The Servlet service may end abnormally if JDK1.3(Java 2 Classic VM, JPDA) is used and the debug of Apworks is started before the Servlet service is started.	Start the debug of Apworks after starting the Servlet service.	Not determined

Restrictions on the EJB Service

Table 2-5 Restrictions on the EJB Service

No.	Restriction	Remarks	Date of Removal
1	The long type data type cannot be used as an argument or return value for the client/server communication.	None	Not determined
2	In JDK/JRE 1.2.2, any class in which String data of 64 KB or more is set to one variable in the class cannot be used as an argument or return value for EJB applications.	None	Not determined
3	<p>In the client/server communication in JDK/JRE1.2.2, when the interface shown below is used in business method parameters and return value, the method for the stored interface type cannot be issued. This is the case, even if the interface type that can be communicated in the application execution by the RMI over IIOP was stored in that interface.</p> <ul style="list-style-type: none"> - java.util.Collection - java.util.Enumeration 	None	Not determined
4	When defining a Bean in the Rapid invoking Bean, if it uses JDK/JRE1.2.2, the return value cannot use the finder method of java.util.Enumeration or java.util.Collection.	None	Not determined
5	Using "remove" as a business method name may lead to unexpected results.	None	Not determined
6	<p>When distributed transactions are used, if any of the following methods from the javax.ejb.EJBContext API are called from some particular methods, an IllegalStateException will be thrown.</p> <ul style="list-style-type: none"> - getCallerIdentity() - getCallerPrincipal() - isCallerInRole(Identity role) - isCallerInRole(String roleName) <p>If any of the above methods are called from one of the following methods, an exception will be thrown.</p> <ul style="list-style-type: none"> - For STATEFUL Session Bean <ul style="list-style-type: none"> beforeCompletion afterCompletion - For Entity Bean <ul style="list-style-type: none"> ejbStore 	None	Not determined

No.	Restriction	Remarks	Date of Removal
7	<p>If any of the above methods are called from one of the following methods, an exception will be thrown.</p> <ul style="list-style-type: none"> - getCallerIdentity() - getCallerPrincipal() - isCallerInRole(Identity role) - isCallerInRole(String roleName) <p>If any of the above methods are called from one of the following methods, an exception will be thrown.</p> <ul style="list-style-type: none"> - For STATEFUL Session Bean ejbRemove 	None	Not determined
8	<p>In the following cases, invoking a method that has method permission setting from an EJB application method, a RemoteException is thrown.</p> <ul style="list-style-type: none"> - When the distributed transaction function is used [STATEFUL Session Bean] beforeCompletion [Entity Bean] ejbStore - When the Session Timeout function is used [STATEFUL Session Bean] ejbRemove 	None	Not determined
9	<p>If "Application" is specified in the resource connector of the deployment descriptor file, and a JDBC resource is being accessed from an EJB application method, an SQLException is thrown in the following cases.</p> <ul style="list-style-type: none"> - When the distributed transaction function is used [STATEFUL Session Bean] beforeCompletion [Entity Bean] ejbStore - When the Session Timeout function is used [STATEFUL Session Bean] ejbRemove 	None	Not determined
10	<p>If "Application" is specified in the resource connector of the deployment descriptor file, and a JDBC resource is being accessed from an EJB application method, an SQLException is thrown in some cases.</p>	None	Not determined
11	<p>If distributed transactions are used and the Snap output level is set to "2", an ORA-01002 error in Oracle may be thrown.</p>	None	Not determined

No.	Restriction	Remarks	Date of Removal
12	Currently (May 2002), no database supports JDK1.4, and therefore, no database can be accessed from EJB when JDK1.4 is used.	None.	Not determined
13	When the user snap function is used with JDK1.4, the log information of the product in which the java.util.Logging package is installed may be output to the EJB snap file.	None.	Not determined
14	The EJB application that implements both Local and Remote interfaces cannot be used. It becomes an error at the startup when it is used.	Calling of an Entity Bean outside the process is not recommended. Therefore, use the Local interface instead.	Not determined
15	CDATA section cannot be described in deployment descriptor. CDATA section will be deleted when it is described and then executed the deployment.	None.	Not determined
16	Distributed Transaction in CMP2.0 cannot be used. It causes EJB1248 error at the startup when it is used.	None.	Not determined
17	<p>When the following API of javax.ejb.SessionContext is executed in a specific method of EJB application that implements the Local interface, it returns Null.</p> <p>[getEJBLocalObject]</p> <p>When this method is executed, the following method returns Null.</p> <p>[In case of STATEFUL Session Bean or STATELESS Session Bean]</p> <p>- ejbCreate</p>	None.	Not determined

No.	Restriction	Remarks	Date of Removal
18	<p>In a specific method of the EJB application that implements both Local and Remote interfaces, the following API of javax.ejb.SessionContext or javax.ejb.EntityContext is executed, it returns Null.</p> <p>[getEJBLocalObject]</p> <p>When this method is executed, the following methods return Null.</p> <p>[In case of STATEFUL Session Bean]</p> <ul style="list-style-type: none"> - ejbCreate - afterBegin - beforeCompletion - afterCompletion - business method - ejbRemove <p>[In case of STATELESS Session Bean]</p> <ul style="list-style-type: none"> - ejbCreate - business method - ejbRemove <p>[In case of CMP2.0 Entity Bean]</p> <ul style="list-style-type: none"> - ejbRemove 	None.	Not determined
19	<p>In a specific method of the EJB application that implements both Local and Remote interfaces, when the getEJBHome method is issued to the EJB object got by getEJBObject of SessionContext, it returns RemoteException. When the above method is executed, the following methods cause an exception.</p> <p>[In case of STATELESS Session Bean]</p> <ul style="list-style-type: none"> - ejbCreate - ejbRemove 	None.	Not determined
20	<p>When the lookup via Remote interface is done in the EJB application that implements both Local and Remote interfaces from the same EJB application, java.lang.ClassCastException occurs.</p>	See Note 1 below	Not determined

Note 1

When the lookup via LocalHome and Home interface is done in the EJB application that implements both Local and Remote interfaces from the same EJB application, the following works are necessary for the EJB application development and its runtime operation.

[EJB application development]

1. Deployment Edit descriptor

Edit not to duplicate EnterpriseBean reference name for “ejb-ref-name” in the “reference EJB tag” or “reference LocalEJB tag”.

2. Development of EJB application Describe not to duplicate the EJB application name specified for the argument at lookup via LocalHome interface and via Home interface. Describe EJB application name corresponding to the reference EnterpriseBean name defined in reference EJB or reference LocalEJB set by 1.

[Runtime of EJB application]

Associate it with the EJB application name specified by the argument at lookup in the reference LastName of EnterpriseBean changed by 1 and the EJB application by using the Naming Conversion file.

Restrictions on the SOAP Service

The SOAP Service can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-6 Restrictions on the SOAP Service

No.	Restriction	Remarks	Date of Removal
1	<p>The Web service information edit tool cannot edit Web service information for a server if execution of client authentication in SSL communication is set for the server.</p> <p>To use the Web service information edit tool when a Web service server application is operated with client authentication specified for SSL communication, the operation explained in the Remarks column is necessary.</p>	<p>Use two WWW servers for Web service information management and Web service server application operation.</p> <p>Set SSL communication without client authentication for the WWW server for Web service information management.</p> <p>Operate a SOAP Service Web application with administrator authority given to the Web service information edit tool and Web service manager in this WWW server.</p> <p>Set SSL communication with client authentication for the WWW server for Web service server application operation.</p> <p>Operate a SOAP Service Web application with administrator authority given to the Web service manager in this server and connect a Web service client to this server. For the Web service manager, set reference to the same Web service information management file as the file for Web information management.</p>	Not determined
2	<p>If a message with attachment is sent using the delivery guarantee function, the saved attachment data of the message may be lost and no attachment may be found in the sent message.</p>	None	Not determined

No.	Restriction	Remarks	Date of Removal
	<p>When this occurs, the following message will be output:</p> <p>UX: ISSOAP: ERROR: issoap1563: Method invoke error : java.io.IOException: java.io.FileNotFoundException: /var/tmp/Soapx17284soapx</p>		
3	<p>If a SOAP Message object is built in a stream including attachment data and shared with multiple requests in the SOAP server application, the following problems occur in the subsequent request processing:</p> <ul style="list-style-type: none">- An exception occurs when the attachment of the SOAP Message object is obtained and executed.- If the SOAP Message object is returned as a return message, the same message as that for the Item 2 above is output and a return message with no attachment data is sent back.	None	Not determined
4	The user authentication function for SOAP Message cannot be used.	None	Not determined

Restrictions on the CORBA Service

This section provides information on the restrictions on the CORBA Service.

Restrictions on IDL Definitions

The IDL definitions can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-7 Restrictions on IDL Definitions

No	Restriction	Alternative Method	Date of Removal
1	Type wchar, wstring cannot be used in the <i>const</i> declaration of the IDL definition	None	Not determined
2	The following values cannot exceed 65535 in the data type declaration. <ul style="list-style-type: none"> - Size of the string type (string/wstring) with the specified size - Size of the sequence type (sequence) - Number of elements of the enumeration type (enum), structure (struct), union (union), and exception structure (exception) (See Note) - Size of an array 	None	Not determined

No	Restriction	Alternative Method	Date of Removal
3	<p>Preprocessing declarations cannot be used under the following conditions:</p> <ol style="list-style-type: none">1) In an exception declaration2) In a struct/union/enum declaration, and in a member declaration (ending before a semicolon) <p>Example:</p> <pre>struct STR1{ long #pragma version STR1 2.3 a; string b; char c; };</pre>	None	Not determined
4	<p>The following recursive declarations cannot be used in the Java mapping of the IDL definition:</p> <ol style="list-style-type: none">1) Recursive declaration of a structure (struct) <pre>struct STR1 { sequence<STR1> para1; };</pre> <ol style="list-style-type: none">2) Recursive declaration of a union (union) <pre>union UNI1 switch(long){ case1: sequence<UNI1> para1; };</pre>	None	Not determined
5	Type union cannot be used in the CORBA/SOAP gateway generation of the IDL definition.	None	Not determined

No	Restriction	Alternative Method	Date of Removal
6	<p>In the Java mapping of the IDL definition, the same name as the module name cannot be specified in the following declarations. When the same name is specified, a package name will become a module name + 'Package', and a Java compile error will occur.</p> <ol style="list-style-type: none">1) interface declaration2) struct declaration3) union declaration4) exception declaration <p>Example</p> <pre>module AAA { interface AAA { short op(); }; };</pre>	None	Not determined

No	Restriction	Alternative Method	Date of Removal
7	<p>When registering an updated IDL definition containing inheritance of two or more interface declarations in an interface repository, the inheritance cannot be registered in the repository under the following conditions:</p> <ol style="list-style-type: none"> 1) Another IDL definition file is included in the IDL definition, and 2) The interface declaration in the included IDL definition file is inherited in two or more IDL definition files, and 3) The two or more IDL definition files in condition 2) are updated and registered in the interface repository. <p>Example:</p> <pre>[INTF_A.idl file] interface A {...} [INTF_B.idl file] #include "INTF_A.idl" interface B:A {...} [INTF_C.idl file] #include "INTF_A.idl" interface C:A {...}</pre>	<p>When creating IDL definition files to be registered in an interface repository, do not create the same interface declaration in different IDL definition files if two or more interface declarations are to be inherited.</p> <p>Example:</p> <pre>[INTF_A.idl file] interface A {...} [INTF_BC.idl file] #include "INTF_A.idl" interface B:A {...} interface C:A {...}</pre>	Not determined
8	':' cannot be specified in the constant expression in the case statement of a union.	None	Not determined

Note:

The maximum numbers of elements vary in the Java mapping.

- Enumeration (enum):
1,024
- Structure (struct), union (union), and exception structure (exception):
254 ("long long" and "double" are each counted as 2.)

Restrictions on IDL Compilation

The IDL compilation can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-8 Restrictions on IDL Compilation

No	Restriction	Alternative Method	Date of Removal
1	"-noinclude" cannot be specified for the IDL compiler.	None	Not determined
2	A prototype module definition file with no PROGRAM-ID named IDL-file-name_skel.def may be created in the COBOL mapping of IDL files.	None	Not determined
3	Long long overflows are not checked when IDL is compiled	None	Not determined

Restrictions on C and C++ Programming

C and C++ Programming can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition

Table 2-9 Restrictions on C and C++ Programming

No.	Restriction	Alternative Method	Date of Removal
1	Solaris OE When a child process is generated by a server application, and the child process is terminated by exit(), the parent process is also terminated.	Use _exit() when you finish a child process only.	Not determined
2	Solaris OE If WS Compilers C++ 6 used, no context object can be used.	None	Not determined
3	Linux A context cannot be used on the C++ application.	None	Not determined

Restrictions on Java Programming

Java programming can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-10 Restrictions on Java Programming

No.	Restriction	Alternative Method	Date of Removal
1	The data type of the long long cannot be used in preinstalled type Java client and the Java server of JDK/JRE 1.2.2 and 1.3	None	Not determined
2	In Java, when the equal method is executed with TypeCode of a structural type that contains the Object type, TypeCode remotely generated and the same TypeCode generated locally do not match.	None	Not determined
3	Solaris OE Linux The green thread of HotSpot VM and Classic VM cannot be used as Java application execution environment.	None	Not determined

Restrictions on the Naming Service

Table 2-11 Restrictions on the Naming Service

No.	Restriction	Alternative Method	Date of Removal
1	Solaris OE No IP address in the IPv6 format may be specified in inithost(nshost) of a corbaloc URL schema.	None	Next version

Restrictions on the CORBA Service

Table 2-12 Restrictions on the CORBA Service

No.	Restriction	Alternative Method	Date of Removal
1	<p>Windows</p> <p>The system may not release the CORBA Service port number (eg, 8002) when the <i>isstop</i> command is run.</p> <p>When the OD_start service was started (including execution of the <i>isstart</i> command) in this status, it is possible that a communication error occurs in the application.</p>	Use the <i>netstat -a</i> command to check that the CORBA Service port number has been released then start the service.	Not determined
2	<p>Windows</p> <p>If the OD_start service is terminated before a CORBA application is terminated, the system may stop responding or "hang" while the CORBA application is terminated.</p>	Terminate all CORBA applications before terminating the OD_start service.	Not determined
3	When the server per method is used for starting a CORBA application, starting the CORBA application may fail.	None	Not determined
4	<p>Windows</p> <p>In Windows NT® Server with Service Pack 5, when simultaneous requests are issued by a client that has generated multiple threads and a communication error (COMM_FAILURE exception) occurs, the system resources used by the CORBA Service may not be released.</p> <p>This will show up as repeated communication errors, followed by all requests from client applications causing communication errors.</p>	It is necessary to stop and restart the CORBA Service.	Not determined
5	When the dynamic skeleton interface of C++ language is used with the server application, memory leak occurs. (Approximately 150 bytes for a request)	None	Not determined
6	The <i>odlistproc</i> process may output the message od10727 while quitting the CORBA service (ObjectDirector).	None No operation problems other than output messages	Not determined

Restrictions on the Event Service

The Event Service can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-13 Restrictions on the Event Service

No.	Restriction	Remarks	Date of Removal
1	The following functions cannot be used in the dynamically generated event channels. - Non-volatilization of connection information and event data - Transaction linkage - Channel-to-channel linkage Windows Solaris OE - Point-To-Point Messaging Model	None	Not determined

Restrictions on the Component Transaction Service

The Component Transaction Service be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Table 2-14 Restrictions on the Component Transaction Service

No.	Restriction	Remarks	Date of Removal
1	<p>Windows Solaris OE</p> <p>If Interstage is initialized in succession using the Interstage operation tool or the <i>isinit</i> command, the initialization of Interstage may fail.</p>	None	Not determined
2	<p>Windows Solaris OE</p> <p>When the Component Transaction Service is used, the start of Interstage and the start of the WorkUnit may become unusual if the installation path of Interstage exceeds 230 bytes.</p>	Set the installation path of Interstage to no more than 230 bytes	Not determined
3	<p>Solaris OE</p> <p>If the <i>tdc</i> command is executed before OD has been started, the following message is displayed ("<i>/tmp/aaa</i>" and "1.0" is variable):</p> <pre> "/tmp/aaa", line 1: CORBA_ORB_init Error tdc: Stop. IDLparser status = 4 IDLdestroy_rep (I/R) :CORBA_ORB_init :IDL:CORBA/StExcep/UNKNOWN:1.0 </pre>	Start OD, then re-execute the <i>tdc</i> command.	Not determined

Restrictions on the Database Linkage Service

The Database Linkage Service can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Plus.

Restrictions on the Locale of Languages

Table 2-15 Restrictions on the Locale of Languages

No.	Restriction	Remarks	Date of Removal
1	The client is not returned correctly when UNICODE is specified in locale when Java server applications are registered in the implementation repository and the following exceptions are caused: org.omg.CORBA.TRANSACTION_ROLLEDBACK org.omg.CORBA.TRANSACTION_REQUIRED org.omg.CORBA.TRANSACTION_INVALID_TRANSACTION	Specify NONE in locale when registering in the implementation repository	Not determined

Restrictions on InfoDirectory

Restrictions on the InfoDirectory Administration Tool

Table 2-16 Restrictions on the InfoDirectory Administration Tool

No.	Restriction	Remarks	Date of Removal
1	Multiple management tool clients cannot simultaneously access the same directory server except for references.	None. Ensure that, when a management tool client makes other than a reference, no other management tool client attempts to access the same directory server.	Not determined

Restrictions on the JNDI

Table 2-17 Restrictions on the JNDI

No.	Restriction	Remarks	Date of Removal
1	The LDAP function of JNDI has not been supported by JDK/JRE1.4.	None. Use JDK/JRE1.3.1.	Not determined

Restrictions on JDK/JRE

This section describes the restrictions on JDK/JRE.

Table 2-18 Restrictions on JDK/JRE

No	Restriction	Remarks	Date of Removal
1	<p>Windows</p> <p>In using JDK/JRE1.4.1_01 or JDK/JRE1.3.1_06 in Windows XP to run a Java application or a Java applet, the background color of menu groups is different from the background color of the menu bar.</p>	Adjust the menu color to the menu bar or use the classic style in the display property setting on Windows XP.	Not determined
2	<p>Windows</p> <p>In using the GUI lightweight components (JTextField or others) in JDK/JRE1.4.1_01, JDK/JRE1.3.1_06 or JDK/JRE1.2.2_014 in the IME2002 environment, the language bar may flicker synchronously with the caret of the component.</p>	<p>To avoid this, specify the following Java VM runtime option.</p> <p>-Dsun.java2d.noddraw=true</p>	Not determined
3	<p>Linux</p> <p>If JServlet is started on HotSpot VM for debugging, remote debugging of Apworks is used, and the Servlet container is shut down, the Java VM may crash generating core and hs_err_pid***.log or fjvm_pid***.log (***) is the process ID).</p>	None	Not determined
4	<p>Linux</p> <p>If the J2EE deployment tool is started, the Java VM may crash generating core and hs_err_pid***.log or fjvm_pid***.log (***) is the process ID).</p>	None	Not determined
5	<p>Linux</p> <p>The service concerned may be in a hang-up state at the time of the stop of each service that uses JavaVM.</p>	None	Not determined
6	<p>Linux</p> <p>StackOverflowError cannot be caught in JDK 1.3.1 and 1.4.1. The Java VM may crash generating core and hs_err_pid***.log or fjvm_pid***.log (***) is the process ID).</p>	None	Not determined

Restrictions on the Portal Component

Restrictions on Scripts in Contents

Table 2-19 Restrictions on Scripts in Contents

No.	Restriction	Remarks	Date of Removal
1	External contents with a script such as JavaScript, JScript, and VBScript written may not be displayed correctly with Portal component or a script may not operate correctly when the external contents are referenced via Portal component.(*1)	If a script error occurs, display the script on another window by pressing the button.	Not determined
2	Anchor movement within a page in the brick of the Portal component differs from that displayed directly on the browser. In anchor movement in the brick of the Portal component, content is redrawn. Example: <code> to the top </code>	If the operation in a content performed without using the Portal component differs from that with the Portal component, display the content in a separate window.	Not determined

*1 For JavaScript and JScript, display and operation with Portal component may be impossible under the following conditions:

1. Examl:eval("document.location=" + "http://foo/bar" + query);
Examl:setTimeout("document.location = " + "http://foo/bar" + query",2000);
Examl:setInterval("document.location = " + "http://foo/bar" + query",1000);
2. A script which can be rewritten with document.write() or HTML is written.
Examl:document.write("document.location = " + "http://foo/bar" + query");
Examl:document.write("");
3. "(" or ")" is used in the rewriting target object part.
Examl:foo(x, y).bar.href = "http://xxxxx";
4. Operation may not be performed correctly if the following properties are referenced in a script:
document.URL
document.domain
document.referrer
location.protocol
location.host
location.hostname
location.port
location.pathname
location.hash
location.search
location.href

5. A script which can be rewritten with with() is evaluated.
 Examl:with(document.F1){
 target="newTarget";
 acrion="action.cgi";
 }
6. When the window name is set by window.name or self.name, control in the brick frame of the Portal component is disabled. (When the back icon or home icon in the brick frame of the Portal component is clicked, another window opens and displays a content.)
7. When a processing is designed so that JavaScript in HTML content controls the Cookie in the remote server, the Cookie is not posted to the remote server. If the Cookie is needed in the remote server, a problem may occur in the operation of the remote server.
8. If a method (such as history.back();) used to perform history operation is written in the JavaScript called by an onLoad event, a content may be repeatedly read in endless manner. If this symptom occurs, quit the browser and change the settings so that the relevant content is not displayed in the brick.

Restrictions on the Alternative Logon Function

Table 2-20 Restrictions on the Alternative Logon Function

No.	Restriction	Remarks	Date of Removal
1	Proxy logon cannot be executed if the one-time password authentication is used for contents form authentication.(*1)	None	Not determined
2	Form authentication alternative logon cannot be executed under the following conditions: - The logon form is displayed using the HTTP protocol redirection function.(*2)	Register the logon form URL after redirection as an alias.	Not determined
3	When the user uses a Netscape4.X browser, the maximum number of characters in each input item on the basic authentication information setting screen and form authentication information setting screen is defined as follows: a) Basic authentication information setting screen - User name: 64 bytes - Password: 64 bytes - Comment: 64 bytes b) Form authentication information setting screen - Comment: 64 bytes	None	Not determined

4	In form authentication alternative logon, the maximum size of post data sent from a browser is 8K bytes. If this value is exceeded, the message below is recorded in an event log and the alternative logon fails. [Event log message] Failed to save proxy logon information. The parameter is incorrect. [too long post data]	Send post data with length of 8K bytes or less.	Not determined
---	---	---	----------------

- *1 In the one-time password authentication, a password that can be only once is created using such a key which changes for each request as the time in PC and counter value.
- *2 The HTTP protocol redirection function in this condition requests a jump to the specified URL for a browser with response code 301 or 302 returned by the Web server for an HTTP request. The jump destination URL is written in the location header in the response header.

Restrictions on the Load Distribution Environment

Table 2-21 Restrictions on the Load Distribution Environment

No.	Restriction	Remarks	Date of Removal
1	Values set in the number of logon items and duplicate logon control under access control are managed for each server. These values are not managed totally in a load distribution environment.	None	Not determined

Restrictions on Using Netscape 4.6/4.7

Table 2-22 Restrictions on Using Netscape 4.6/4.7

No.	Restriction	Remarks	Date of Removal
1	If Portalworks is used to display contents containing an ilayer or layer tag usable with contents for Netscape via a Netscape browser, error message "Not Found" is displayed and the contents cannot be displayed correctly.	None	Not determined

Restrictions on Using Web USP (List of URLs to be Excluded With Form Authentication Inherited)

Table 2-23 Restrictions on Using Web USP

No.	Restriction	Remarks	Date of Removal
1	For a dynamically created logon form, the same URL as an action URL from a logon form may be used for access to this logon form. If so, the function that inherits alternative logon and displays a new browser window does not operate.	None	Not determined

Access from PC to Secure Site (HTTPS)

Table 2-24 Access from PC to Secure Site (HTTPS)

No.	Restriction	Remarks	Date of Removal
1	"Network Error -1" may be displayed if two or more secure sites (https) are accessed in brick services in the same roll.	Reduce the number of brick services displayed in a roll, for example by dividing the roll.	Not determined

Restrictions on Using the Brick Automatic Update Function

Table 2-25 Restrictions on Using the Brick Automatic Update Function

No.	Restriction	Remarks	Date of Removal
1	If contents consisting of two or more frames are registered as Portalworks service (alias), the contents may not be displayed correctly.	Select [Brick automatic update] under [Brick information] and cancel the automatic update.	Not determined

Restrictions on Other Functions

Table 2-26 Restrictions on Other Functions

No.	Restriction	Remarks	Date of Removal
1	When "SystemWalker/CentricMGR" is installed in the same system, the "SystemWalker console job monitoring" function cannot be used.	None	Not determined
2	<p>Solaris OE</p> <p>In products from SystemWalker/CentricMGR 5.0 through 5.2, the information on the following EJP application type is not displayed.</p> <ul style="list-style-type: none"> - Bean-managed persistence Entity - Container-managed persistence Entity 	None	Not determined
3	<p>Solaris OE</p> <p>Do not uninstall the following services specified in Interstage initialization in other than Interstage uninstallation:</p> <ul style="list-style-type: none"> - Service supported in operating mode - Service specified in the Interstage operating environment definition <p>If these services are uninstalled, Interstage activation and reinitialization may become impossible</p>	If a service listed in the column at left is to be uninstalled, reinitialize Interstage so that the service is not a target of initialization, and then uninstall the package.	Not determined

Chapter 3

Notes on Interstage Operation

This chapter provides additional information on the use of Interstage Application Server.

Common Notes for Interstage

About Netscape 6

Do not install Netscape 6 on the same system.

About the Cross-Site Scripting Problem

What is the Cross-Site Scripting Problem?

The Cross-Site Scripting problem is a security problem that occurs when the client Web Browser sends input data based on a dynamically generated Web page back to the server. Static HTML pages and dynamically generated Web pages not using the data input, are not affected by this problem.

This is explained in the following example:

- 1) The following script is an example of a script that is executed when cross scripting occurs. This script is placed at the end of the input data form script, just before "Submit".

```
"<SCRIPT Language=JavaScript>alert("Hello");</SCRIPT>"
```

- 2) After the input data was sent, the dialog box with "Hello" will be displayed.
The data input was processed but so was the script. However, if the user sends the input data directly to the reliable site there is no problem even if there are errors on the page. But when the user sends input data through an unreliable site, and the unreliable site sends this as input data to the reliable site then the script that is executed causes the Cross-Site Scripting problem.

Analysis of the Problem

When developing applications like CGI and Servlet that generate dynamic pages to be displayed by the Web browser and that generate Web pages without investigating the input data, this problem needs to be fixed.

Examples:

- Retrieved result pages
- Those checking there is no errors in the input
- Those that register the input data in databases and display the input data through key words.

Investigation Method

Review the application programs one by one from the point of retrieving input data to that of generating the Web pages. This can be done manually, by visual inspection of the source code, or, when reviewing the source program is not practical, by running tests such as the one described above.

Countermeasures

When any problem is detected, take one of the following actions.

- Stop embedding input data into Web pages
- Convert special characters (< > &) to (< > &).

Security Information

Security information regarding Fujitsu products is announced in the following url.

<http://software.fujitsu.com/en/security/main.html>

Using the JSSE Function

When Interstage Application Server is installed, a library for the Java Secure Socket Extension (JSSE) function is stored at the following location:

<Interstage installation folder>\J2EE\lib

The stored JSSE function library is classified into two types: one for JSSE1.0.2 and one for JSSE1.0.3. The names of the files that are actually stored are as follows:

- For JSSE1.0.2
 - isj2ee.jar (The class for JSSE1.0.2 is stored in this jar file.)
- For JSSE1.0.3
 - jcert.jar
 - jnet.jar
 - jsse.jar

To use the JSSE function, these files must be set with the environment variable CLASSPATH.

When JSSE1.0.2 is to be used, ensure that isj2ee.jar is set with CLASSPATH.

When JSSE1.0.3 is to be used, set jcert.jar, jnet.jar, and jsse.jar with CLASSPATH so that these files come before isj2ee.jar.

Monitor Screen Colors

For the machine on which Interstage Application Server is installed, use a display monitor and driver for which 256 colors or more can be specified as monitor screen colors.

If a value of less than 256 colors is set, the GUI program using Java cannot start. This type of display monitor cannot be used.

Applicable Functions

J2EE common resources

- J2EE resource access definition
- J2EE development tool

InfoDirectory

- InfoDirectory management tool client
- InfoDirectory management tool agent environment setup
- Certificate management utility
- SSL environment setting utility

Other

- User-developed program

Setting Port Numbers Used for Individual Services

When port numbers are set or changed for Interstage Application Server services, unique port numbers must be set for all individual services including applications in the system. If services are operated with the same port number set for different services, normal operation cannot be performed (for example, a client may fail to access a service).

Table 3-1 lists the services and functions for which port numbers are set under Interstage Application Server. The table also lists the locations where the port numbers are set.

Table 3-1 Services/Functions for Which Port Numbers are Set

Service Name/ Function Name	Port Number Setting Location
Interstage Management Console	"Port number for Interstage management console" C:\Interstage\gui\etc\httpd.conf - Port directive
Web server (Interstage HTTP server)	"Port number for the entire Web server (Interstage HTTP server)" Interstage Management Console - [Services] > [Web Server] > [Web Server Settings] tab > [Port Number] Or The environment definition file (httpd.conf) - Port directive
	"Port number for the virtual hosts" Interstage Management Console - [Services] > [Web Server] > [Virtual Hosts] > [Create a new Virtual Host] > [IP Address] and [Port Number] Or Interstage Management Console - [Services] > [Web Server] > [Virtual Hosts] > [Virtual Host Name] > [Configuration] > [IP Address] and [Port Number] The environment definition file (httpd.conf) - Listen directive Note: Setting the Listen directive in the environment definition file (httpd.conf) invalidates the Port directive in the environment definition file (httpd.conf).
Web server (InfoProvider Pro)	"Port number for Web server (InfoProvider Pro)" InfoProvider Pro environment definition file - port

Service Name/ Function Name	Port Number Setting Location
CORBA Service	<p>"Port number for CORBA service"</p> <p>Interstage Management Console</p> <ul style="list-style-type: none"> - [System] > [Update System Settings] > [CORBA Service Settings [Show]] > [Port number] <p>Or</p> <p>The environment definition file (config)</p> <ul style="list-style-type: none"> - IIOP_port
	<p>"Port number for CORBA service SSL"</p> <p>Interstage Management Console</p> <ul style="list-style-type: none"> - [System] > [Update System Settings] > [CORBA Service Settings [Show]] > [SSL Encryption] > [SSL listen port] <p>Or</p> <p>The environment definition file (config)</p> <ul style="list-style-type: none"> - UNO_IIOP_ssl_port
Servlet Service	<p>"Port number for Servlet service"</p> <p>Interstage Management Console</p> <ul style="list-style-type: none"> - [WorkUnits] > [Create a new WorkUnit] > [Detailed Settings[Show]] > [Servlet Container Settings[Show]] > [Port number] <p>Or</p> <p>Interstage Management Console</p> <ul style="list-style-type: none"> - [WorkUnits] > Select "IJSERVER name" > [Settings] > [Servlet Container Settings[Show]] > [Port number] <p>Interstage Management Console</p> <ul style="list-style-type: none"> - [Services] > [Web Server] > [Web Server Settings] > [General Settings] > [Port number] <p>Note: Port numbers must be set when the Web server connector and Servlet container are provided on separate systems (when "Yes" is selected from "Run Web server and WorkUnit on the same machine?" on the [System] > [Update System Settings] > [Detailed Settings[Show]] > [Servlet Container Settings[Show]]). A port number does not need to be set when these components are provided on the same machine.</p>

Service Name/ Function Name	Port Number Setting Location
Servlet Service for Interstage operation control	<p>"Port number for Interstage operation control Servlet service"</p> <p>JServlet environment definition file</p> <ul style="list-style-type: none"> - [containername].port definition <p>Servlet gateway environment definition file</p> <p>[When Web server is Interstage HTTP Server]</p> <ul style="list-style-type: none"> - ApJServMount definition - ApJServHost definition <p>[When Web server is other than Interstage HTTP Server]</p> <ul style="list-style-type: none"> - Container definition <p>Servlet container environment definition file</p> <ul style="list-style-type: none"> - Parameter tag
Old version Servlet Service	<p>"Port number for old version Servlet service"</p> <p>JServlet environment definition file</p> <ul style="list-style-type: none"> - [containername].port definition <p>Servlet gateway environment definition file</p> <p>[When Web server is Interstage HTTP Server]</p> <ul style="list-style-type: none"> - ApJServMount definition - ApJServHost definition <p>[When Web server is other than Interstage HTTP Server]</p> <ul style="list-style-type: none"> - Container definition <p>Servlet container environment definition file</p> <ul style="list-style-type: none"> - Parameter tag
Interstage JMX Service	<p>"Port number used for the Interstage JMX service to receive a request from the Interstage Management Console"</p> <p>Customize by specifying a value for the rmi attribute on the "port" tag in the isjmx.xml file.</p>
	<p>"Port number required for operation of the Interstage JMX service"</p> <p>Customize by specifying a value for the internal attribute on the "port" tag in the isjmx.xml file.</p>

Service Name/ Function Name	Port Number Setting Location
Infodirectory Directory Service	<p>“DSA LDAP port number”</p> <p>[When DSA is created]</p> <p>[Management tool client] > [InfoDirectory Server Management] > [Create DSA] > [Configure Processes] > [Active process] > "Select LDAP process (mtdapd)" > [Property] > [LDAP Configuration] > [Port No]</p> <p>[After DSA is created]</p> <p>[Management tool client] > [InfoDirectory Server Management] > [Configure Processes] > "Select LDAP process (mtdapd) from [Active process]" > [Properties...] > [LDAP Configuration] > [Port No]</p>
	<p>“Port number for shadowing (DISP)”</p> <p>[Management tool client] > [Server management] > [Database] > "Select [Configuration]" > "Select [Network parameter]" > [open] > [Addressing...] > "Select [DISP]" > "Select [TCP/IP] from "[Network address]" > [Modify] (or [Add]) > [Port]</p>
	<p>“Port number of subordinate reference (DAP or DSP)”</p> <p>[Management tool client] > [Server management] > [Database] > "Select [Configuration]" > "Select [Network parameter]" > [open] > [Addressing...] > "Select [DAP or DSP]" > "Select [TCP/IP] from "[Network address]" > [Modify] (or [Add]) [Port]</p> <p>Windows</p> <p>Windows [Start] menu [Programs] [Interstage] [Application Server] [InfoDirectory] [Directory service property] [RFC1006] tab [TCP/IP port number]</p> <p>(For [TCP/IP port number], specify the same number as that specified for the port number for the subordinate reference.</p>
	<p>“Web connector port number”</p> <p>[When DSA is created]</p> <p>[Management tool client] > [InfoDirectory Server Management] > [Create DSA] > [Configure Processes] > "Select [Web process] from Process column" > "idweb selected state" > [Properties...] > [Listening port]</p> <p>For [LDAP port], specify the same number as that specified for "DSA LDAP port number."</p> <p>[After DSA is created]</p> <p>[Management tool client] > [InfoDirectory Server Management] > [Configure Processes] > "Select idweb from [Active process]" > [Properties...] > [InfoDirectory Web configuration] > [Port No]</p> <p>For [LDAP port], specify the same number as that specified for "DSA LDAP port number."</p>

Notes on the Interstage Operation Tool

The Interstage Operation Tool can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Version Level of Each Service Performing the Operation

Solaris OE

The version level of each service operating with Interstage Operation Tool is limited to the service installed with the same CD-ROM. The service installed with the CD-ROM of other version levels cannot be operated.

Notes on the Interstage Integration Commands

Windows

This section provides additional information on the Interstage integration commands.

The Interstage integration commands can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

Dealing with Abnormal Command Termination

If the *isstart*, *isstop* or *isinit* command terminates abnormally, terminate the system by using the `-f` option in the *isstop* command.

To start Interstage again, use the *isstart* command.

Starting and Stopping Services

Do not start or stop the following services when using the *isgencodef*, *isregistdef*, *isinit*, *isstart* or *isstop* commands:

- OD_start
- NamingService
- InterfaceRep_Cache Service
- InterfaceRep_Cache_e Service
- EventService
- TransactionDirector
- ObjectTransactionService
- Interstage API
- NS LoadBalancing Option
- F3FMwww
- Interstage JServlet
- CORBA_SOAP ClientGW

Note on Stopping Interstage

To stop Interstage, first stop all WorkUnits, then use the *isstop* command to stop Interstage.

Notes on the InfoProvider Pro

Windows Solaris OE

This section provides notes on the InfoProvider Pro.

(1) Authority to Use the Web Server

Web server install/uninstall and Web Server start/stop operations can be used only by Administrators or users with Administrator authority.

(2) SQL Gateway

Articles about the SQL gateway have been deleted from V4.0. This function can still be used in the current version. Those who use the SQL gateway of V3.0 or earlier and require the manual should refer to the manuals of V3.0 or earlier.

(3) When accessing from a Web browser using the IPv6 Protocol

When accessing from a Web browser using the IPv6 protocol, use an OS product and Web browser which support the IPv6 protocol officially.

Notes on the Interstage HTTP Server

This section provides notes on the Interstage HTTP Server.

Authority to Use the Interstage HTTP Server

Windows

Interstage HTTP Server install/uninstall and Interstage HTTP Server start/stop operations can be used only by Administrators or users with Administrator authority.

Notes on Operating Interstage HTTP Server

Solaris OE Linux

Do not delete the following process management files while operating Interstage HTTP Server.

`/opt/FJSVihs/logs/httpd.pid`

If the file is deleted, the operation of Interstage HTTP Server cannot be guaranteed. Restart the system again to operate normally.

Notes on J2EE

1) J2EE Application Operation

To use the following XML files while the web application or the J2EE application client is operating, add the Java VM heap area, which is calculated from the formula shown below, to the specified value for the maximum Java VM heap area size.

- Target XML files during operating web application
 - Web application environment definition file (web.xml)
 - Name conversion file (FJWebebeProperties.xml).
- Target XML files during operating J2EE application client
 - Deployment descriptor file
 - Name conversion file.

Java VM heap area size calculation

Use the following formula to calculate the Java VM heap area size of each XML file. Add them to find the total required area:

$$(((a * 460) + b) / 1024) + 500 * c \text{ (unit: kilobytes)}$$

a: Number of lines in an XML file

b: XML file size (unit: bytes)

c: Number of clients accessed at the same time (when operating the Web application), or the number of threads that issue lookups (when operating the J2EE application client)

The specification method of Java VM heap area size

When operating the Web application

Specify the size for the JavaVM option at [WorkUnits] > "IJServer name" > [Settings] tab.> [WorkUnit setting[Show]] > [Java VM Options] on the Interstage Management Console

Example of specifying 512 megabytes for the maximum Java VM heap area size:

```
-Xmx512m
```

When operating the J2EE application client

Use the -Xmx option of the Java command, and specify the size as shown below:

Example of specifying 128 megabytes for the maximum Java VM heap area size:

```
java -Xmx128m ClientAPL
```

Event resulting when the Java VM heap memory becomes insufficient

When an application is operated, if the Java VM heap area size to be used is not added to the maximum size, the following event may occur:

```
javax.naming.NamingException:com.fujitsu.interstage.j2ee.def.FJDefException: unknown error:  
java.lang.OutOfMemoryError
```

2) Use of the J2EE Management Tool or J2EE Deployment Tool

Do not use the "Release Deployment" or "Deleting IJServers" functions of the J2EE Management tool or the J2EE Deployment tool on a Web application with the following set up:

- A Web service container of SOAP Service

If these functions are used, re-installation is required before the Web application can be used again. Refer to the SOAP Service User's Guide for details of Web service containers.

Notes on the Servlet Service

1) Servlet Service Execution Environment

The Servlet Service execution environment is based on Tomcat4.1.2. A Servlet or JSP application that runs on Tomcat4.1 or later may not function correctly.

2) Execution Environment of Earlier Version Servlet Service

An earlier version Servlet Service (servlet execution environment based on tomcat3.1) is not compatible with the Microsoft Internet Information Server of Windows 2003 Server.

When the Windows 2003 Server is used, use the Interstage Application Server Web server.

3) Session Management Cookie of Servlet Service

When the Web server runs in an SSL environment, the Secure attribute is automatically added to the session management cookie.

If the Web server runs in non-SSL (HTTP) mode while the SSL accelerator is used, the Secure attribute is not automatically added. Use the following method to add the Secure attribute:

[V6.0 Servlet Service]

Refer to Environment Setup for Servlet Service in Chapter 12 in the Security System Guide.

[Earlier version Servlet Service]

Modify the following JServlet properties file:

Definition file name : jservlet.properties

Storage location : C:\Interstage\F3FMjs2\conf

Definition item : com.fujitsu.interstage.jservlet.session.cookie.secure.mode=auto|secure

– auto: Default value

When the Web server runs in an SSL environment, the Secure attribute is automatically added to the session management cookie.

– secure:

Be sure to add the Secure attribute to the session management cookie.

Select this option when the Web server runs in non-SSL (HTTP) mode while the SSL accelerator is used.

Definition example: com.fujitsu.interstage.jservlet.session.cookie.secure.mode=secure

Notes on Using the EJB Service

This section provides information on using the EJB Service.

Version of Java Development Kit/Java Runtime Environment

- 1) The same version of Java Development Kit (JDK)/Java Runtime Environment (JRE) is recommended from development to execution.
The application class created by the Java Development Kit 1.1.x *javac* command is not always executable in Java Development Kit/Java Runtime Environment 1.2 and 1.3 execution environment. In this case, recompile in a Java Development Kit 1.2 or 1.3 environment before execution.
The application class created by JDK 1.2.x or 1.3.x *javac* command is not executable in a Java Development Kit/Java Runtime Environment 1.1.x execution environment.
- 2) Before using the JDK/JRE1.3 environment
When using the Servlet Service in the JDK/JRE1.3 environment, do not log out of Windows. If Windows is logged off, the Servlet container (JavaVM) terminates abnormally due to a bug in JDK1.3 (Bug Id: 4323062). For detailed information about the JDK1.3 bugs, refer to Sun Microsystems' Bug parade. This bug has been corrected in JDK1.3.1. For the JDK1.3.1 environment, specify `-Xrs` in "default.bin.parameters or [containername].bin.parameters" of the JServlet environment definition file.

Notes on the EJB Customize Tool

Windows

- 1) Due to JDK/JRE restrictions, the Customize Tool display colors may be unstable or the system cannot be started if 256 colors or less is selected for display in screen properties. Select more than 256 colors.
In addition, if the customize tool is started using Terminal Service of Windows® 2000 or Server/Windows® 2000 Advanced Server, the number of colors that appears in the display is 256, and the displayed colors become unstable. This does not affect the tool's operation.
- 2) When the EJB Service is installed over another edition, specify the path setting information for the Web browser Customize Tool again after installation in order to initialize it.
- 3) EJB applications created in Interstage V2 in a JDK/JRE 1.3 or later environment cannot be selected with the Customize Tool when it is started with the *ejbcust* command. Run setup again after installation.

- 4) The startup performance of the rapid invocation definition screen of the customize tool that is started by *ejbcustx* is improved (V5.0). Because the processing to acquire information on Enterprise Bean installed when it is listed is accelerated, if Enterprise Bean of the EJB1.1 and EJB2.0 specification as well as Enterprise Bean of the EJB1.0 specification are installed in the invoking Bean, they are also listed. If Enterprise Bean of the EJB1.0 specification is selected, an error message appears, and the edit cannot be performed. As for V3.0, in order not to display Enterprise Bean of the EJB1.0 specification on the rapid invocation definition screen when it is listed, add the -v3 (or -V3) option to the *ejbcustx* command and execute it. However, in this case, the processing time remains the same as that is for V3.0.
- 5) In an environment where screen response is slow (such as when using the customize tool in the terminal service), buttons may be operated in succession during the operation of the customize tool without visible effect. For example, it may take time to mask the button after it is pressed.

The following are specific operations where this behavior may be in evidence:

Multiple dialogs may be opened in these circumstances:

- When you select a button in the definition information (Note1) panel
- When you select a button on the path settings screen of the WWW browser
- When you select the Change or Add buttons to access environment definition screen
- When you select the Delete.
- When you select EJB Application Runtime Environment Definition in the File menu.
- When you select Rapid invocation definition in the Tool menu.
- When you select DB access environment definition in the Tool menu.
- When you select Path settings of the WWW browser in the Help menu.
- When you select Version information of the Help menu.

If multiple screens or dialogs open, close the unnecessary ones before starting the operation.

Solaris OE

- 1) If HotJava™ Browser is set in the “WWW Browser Path Setup” of the Customize Tool, use HotJava™ Browser Version 3.0 or after. If a version earlier than 3.0 is used and the manual is displayed, it may not be output normally.
- 2) The PC X Server (note1), which works on the common desktop environment (CDE) on X Server built into Solaris™ Operating Environment OS (SPARC) by the standard or Microsoft Windows, is necessary for the operation environment of the Customize Tool.

The response time of drawing and the operation slows in an environment that it is far from the server, and the communication is late when executing it with the PC X server. In this case, the use of Customize Tool of the operation command is advised.

The screen of Customize Tool might not be displayed when operating in other environments or even if it is displayed, it might not be displayed correctly. Be sure to login on common desktop environment (CDE) from the above environment, execute the *ejbcust* or *ejbcustx* command to activate the Customize Tool.

Note1) These are operation results of FUJITSU PC-X V20L30 of FUJITSU Ltd. and the X Vision Eclipse7.2 of SCO Ltd. as PC X Server product. Operation by other PC X Server products is not guaranteed.

Set the system to use the font of the font server when using the PC X server. Refer to the Help file appended to FUJITSU PC-X and X Vision Eclipse for details of how to set the font. In addition, it is necessary to make font server (xfs) work on the Solaris™ Operating Environment Server side.

- 3) The startup performance of the rapid invocation definition screen of the customize tool that is started by *ejbcustx* is improved (V5.0). Because the processing to acquire information on Enterprise Bean installed when it is listed is accelerated, if Enterprise Bean of the EJB1.1 and EJB2.0 specification as well as Enterprise Bean of the EJB1.0 specification are installed in the invoking Bean, they are also listed. If Enterprise Bean of the EJB1.0 specification is selected, an error message appears, and the edit cannot be performed.

In the same way as for V3.0, in order not to display Enterprise Bean of the EJB1.0 specification on the rapid invocation definition screen when it is listed, add the *-v3* (or *-V3*) option to the *ejbcustx* command and execute it. However, in this case, the processing time remains the same as that for V3.0.

- 4) In an environment where screen response is slow (such as when using the customize tool in the PC X Server), buttons may be operated in succession during the operation of the customize tool without visible effect. For example, it may take time to mask the button after it is pressed.

The following are specific operations where this behavior may be in evidence:

Multiple dialogs may be opened in these circumstances:

- When you select a button in the definition information (1) panel
- When you select a button on the path settings screen of the WWW browser
- When you select the Change or Add buttons to access environment definition screen
- When you select the Delete
- When you select EJB Application Runtime Environment Definition in the File menu
- When you select Rapid invocation definition in the Tool menu
- When you select DB access environment definition in the Tool menu
- When you select Path settings of the WWW browser in the Help menu
- When you select Version information of the Help menu

If multiple screens or dialogs open, close the unnecessary ones before starting the operation.

When Operating with WorkUnits

- 1) When operating EJB applications with WorkUnits, do not install the Interstage Java Server Package and the Interstage package in a folder that includes blank spaces.
- 2) In the JDK/JRE1.3 environment, if the EJB application is operated in the WorkUnit, do not log off from Windows NT. When this is done, the JavaVM terminates abnormally due to a JDK1.3 failure (Bug Id:4323062) and Interstage is forcibly stopped. For more information on JDK1.3 failures, see the Bug Parade from Sun Microsystems.

Specify *without fail -Xrs* in the Java Command Option of the WorkUnit definition in case of JDK1.3.1 environment.

When Interstage JDBC Driver is Used

Windows

1) Data Type

The support range of the data type is as follows.

Supported Data Types

- integer type (int, smallint)
- round number type (float, real)
- character string type (char, varchar, text)
- binary type (binary, varbinary, image)
- money type and smallmoney type
- decimal type and numeric type
- datetime type and smalldatetime type
- Other data types (timestamp)

The timestamp type of the SQL Server is for fetching only and can be used in the BMP.

Unsupported Data Types

- integer type (tinyint, bigint)
- bit type (bit)
- other data types (cursor, uniqueidentifier, sql_variant, table)
- Unicode character type (nchar, nvarchar, ntext, sysname)
- User-defined type

2) Format of the datetime Type and smalldatetime Type

When updating the data of the column of the datetime type and smalldatetime type, specify the data in the following format.

Description Format

YYYY-MM-DD hh:mm:ss

- YYYY=year
- MM=month
- DD=day
- hh=hour
- mm=minute
- ss=seconds

Note: millisecond is not supported.

3) Stored Procedure

A stored procedure cannot be used.

4) API when datetime Type is Used

When the following API is used for the datetime type, only the values within the smalltime type are valid.

- `PreparedStatement.setTimestamp(int parameterIndex, Timestamp x)`

5) Unsupported API

Among the JDBC API standard specifications, the following APIs are not supported.

- Connection class
 - `nativeSQL(String sql)`
 - `setCatalog(String catalog)`
 - `getCatalog()`
- DatabaseMetaData class
 - `getCatalogTerm()`
 - `isCatalogAtStart()`
 - `supportsCatalogsInProcedureCalls()`
 - `supportsCatalogsInTableDefinitions()`
 - `getMaxCatalogNameLength()`
 - `getCatalogSeparator()`
 - `supportsCatalogsInDataManipulation()`
 - `supportsCatalogsInIndexDefinitions()`
 - `supportsCatalogsInPrivilegeDefinitions()`
 - `getTableTypes()`
 - `getCatalogs()`
 - `getColumnPrivileges(String catalog, String schema, String table, String columnNamePattern)`
 - `getVersionColumns(String catalog, String schema, String table)`
 - `getCrossReference(String primaryCatalog, String primarySchema, String primaryTable, String foreignCatalog, String foreignSchema, String foreignTable)`
 - `getTablePrivileges(String catalog, String schemaPattern, String tableNamePattern)`
 - `getBestRowIdentifier(String catalog, String schema, String table, int scope, boolean nullable)`
 - `getImportedKeys(String catalog, String schema, String table)`
 - `getExportedKeys(String catalog, String schema, String table)`
- PreparedStatement class
 - `setBoolean(int parameterIndex, boolean x)`
 - `setByte(int parameterIndex, byte x)`

- setLong(int parameterIndex, long x)
- execute()
- setObject(int parameterIndex, Object x)
- setObject(int parameterIndex, Object x, int targetSqlType)
- setObject(int parameterIndex, Object x, int targetSqlType, int scale)
- setBigDecimal(int parameterIndex, BigDecimal x)
When column data type is round number type(real type, float type)
- setTimestamp(int parameterIndex, Timestamp x)
When column data type is character string type(char type, varchar type)
- setString(int parameterIndex, String x)
When column data type is datetime type and smalldatetime type
- ResultSetMetaData class
 - getCatalogName(int column)
 - getColumnLabel(int column)
- Statement class
 - setEscapeProcessing(boolean enable)
 - getQueryTimeout()
 - setQueryTimeout(int seconds)
 - cancel()
 - getMoreResults()
 - getResultSet()
 - getUpdateCount()
- JDBC 2.0

In the JDBC 2.0, some of the methods that were supported in JDBC1.X are positioned as 'not recommended methods' and others are supported in place of them. Also, new classes and methods are supported.

The JDBC driver supports the following methods only in place of those no longer recommended. All other new APIs are not supported yet.

- CallableStatement class
getBigDecimal(int parameterIndex)
- ResultSet class
getBigDecimal(int columnIndex)
getBigDecimal(String columnName)
- DriverManager class
getLogWriter()
setLogWriter(PrintWriter out)

6) Fetching a Line from a Text Type and a Table Containing an Image Type

With regard to fetching a line from a text type and a table containing an image type; in BMP, specify the row of the text type and the image type such that they are placed last in the selected list.

- Example 1: Specify the line of the text type and the image type so that they are placed in the COL3.

```
SELECT COL1, COL2, COL3 FROM SCM.TBL WHERE COL1=?
```

- Example 2: When handling multiple lines of the text type and the image type, specify the line of the text type and the image type so that they are placed in the COL2 and COL3 respectively.

```
SELECT COL1, COL2, COL3 FROM SCM.TBL WHERE COL1=?
```

In CMP, when operating the text type and a table containing an image type, specify the row of the text type and the image type last in the CMF mapping definition.

Note on Class Names

When installing multiple EJB applications on the same machine, if there is a class (such as HOME interface, Remote interface, Enterprise Bean class, and primary key class) that has the same name but different implementation, the incorrect operation occur. Therefore, when developing EJB applications, determine a package name so that the class name does not get duplicated.

Starting EJB Applications

In DB access environment definition of the customize tool, if the same port number of the existing product is specified by mistake, much time is required for starting and an error occurs. Specify a correct port number and restart.

About the EJB Application Process

Solaris OE

In the EJB application, do not control the signal by JNI (Java Native Interface). When the signal is controlled, it does not operate correctly.

Notes on SOAP Service

When Encryption Communication by SSL is Used

- It is necessary to construct the SSL environment for the SOAP server and the SSL environment for the SOAP client with the system environment that the SOAP Service operates.
- It is necessary to construct the SSL communication environment respectively of SOAP communication between the IIOP communication with the CORBA client application and the SOAP server application in the CORBA/SOAP client gateway. In addition, the site certificate cannot be shared by the IIOP communication and SOAP communication. Acquire the certificate in each SSL communication environment.
- The certificate that the telephone number or the employee number is set for the identification name cannot be used with the SOAP client. Set neither "Telephone number" nor "Employee number" to the identification name when you acquire the site certificate.

When Session Recovery Function of Servlet Service is Used

When using the session recovery function of the Servlet Service, the SOAP router of the SOAP Service cannot be employed.

When J2EE Management Tool or J2EE Deployment Tool is Used

Do not use the "Release Deployment" or "Deleting JJServers" functions of the J2EE Management tool or the J2EE Deployment tool on a Web application of a Web service container. If these are used, re-installation is needed in order to use the Web application of the Web service container again.

Notes on the CORBA Service

This section provides additional information on the CORBA Service.

Notes on Installation and Environment Settings

Windows Solaris OE

- 1) When the CORBA Service is installed and linked to the Systemwalker/CentricMGR operation management tool, particular care is needed when stopping the CORBA Service and when setting up the environment uninstalling.

Stopping

The SystemWalker/CentricMGR operation management tool cannot be used when the CORBA Service (ObjectDirector) has been stopped

Setting Up the Environment

Setting up the CORBA Service environment may affect the SystemWalker/CentricMGR operation management tool if it is using ObjectDirector. Pay attention to the environments for this product when setting up the CORBA Service environment.

Uninstalling

The SystemWalker/CentricMGR operation management tool cannot be used when CORBA Service (ObjectDirector) has been uninstalled.

Refer to Notes for Installing SystemWalker/CentricMGR in the Installation Guide for the installation procedure.

Windows

- 2) When the *odadmin_ex* command is used to set up the environment in Windows® 2000, the following message may be displayed, indicating that environment setup has failed:

```
ObjectDirector environment setup failed
Return code
2
Error details
odsetns : error occurred code = 402, 1072
Cannot execute command. : odsetns
```

In this case, run the process again and set up the environment correctly. If the **Service** property screen is displayed, close the screen and repeat the processing.

Notes about Setting Applications

Windows

- 1) When specifying environment variables in **env** when registering the implementation repository, do not specify multiple character strings delimited by semicolons (;). The system recognizes semicolons as delimiters between different environment variables.

Examples of acceptable settings:

- (1) `env = Path=C:\WINDOWS`
- (2) `env = Path=C:\WINDOWS;LIB=C:\USER`

Example of unacceptable setting:

- (1) `env = Path=C:\WINDOWS;C:\WINDOWS\SYSTEM`

If it is necessary to specify values delimited by semicolons in the PATH environment variable, do not register the variable in the implementation repository, but use one of the following methods:

- Set the necessary path in the PATH system environment variable
- Set the environment variable by the application itself (putenv function)

Also note that system and user environment variables other than those specified in **env** are invalid.

- 2) If a server-per-method server is called continuously, increase the value in `proc_conc_max`.

Solaris OE

- 3) To operate COBOL applications in a Shift JIS environment, specify `CBR_CODE_CHECK=no`.

Solaris OE

- 4) If the `odadmin` command, `isinit` command or CORBA Service is executed during operation of a CORBA application or WebGateway, the following message is output to the console.

Stop the CORBA application or WebGateway.

```
"UXOM 1.0:SEV=E,acf=init :demon start fails"
```

Notes on the IDL Compiler

The IDL Compiler can be used with the following products:

- Interstage Application Server Enterprise Edition
 - Interstage Application Server Standard Edition
 - Interstage Application Server Plus
- 1) If the IDL compiler is used in a client, install CORBA Service Client and CORBA Service Development Tool.
 - 2) The IDL file suffix, "idl" must be in lower-case letters. If the suffix is in upper-case letters (such as when the file is moved with ftp), change the suffix to the lower-case letters, and then execute the IDL compile.
 - 3) When the IDL compiler is used, it is necessary to set the environment variable OD_HOME.

Notes on the Java Environment

- 1) The applet viewer in JDK/JRE 1.2.2 and 1.3 cannot be used.

Solaris OE

- 2) In the operation of Java applet, if InfoProvider Pro is used as Web server and if cab file is written in HTML file, file extension "cab" as data type "application/octet-stream" must be specified to the file specified as "content-type" in InfoProvider Pro environment definition file.

Notes on SSL communication

- SSL linkage cannot be used from the clients of a version of Interstage earlier than V2.0L10. Also, the Object Reference for the SSL linkage cannot be registered to the Naming Service of Interstage earlier than V2.0L10.
- In SSL linkage, requests from the clients cannot be received in the following cases:
 - Certificates become invalid or expired after starting the CORBA Service (ObjectDirector).
 - Nicknames of certificates were omitted in setting the SSL environment or in executing the *odsetSSL* command.
- When deleting or canceling (CRL: Registering in the list of invalid certificates) the certificates that have been set in the CORBA Service, first terminate the CORBA Service.
- When the server host names or IP addresses from the clients cannot be solved in the SSL communication, set the server host information in the "hosts" file or DNS.

Notes on the Event Service

The Event Service can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

The following notes relate to the operation of the Event Service.

Note on Reinitializing Interstage

When Interstage is to be reinitialized after the event channel has been generated with the *esmkchnl* command, use the *esrmchnl* command to delete the event channel before reinitializing Interstage. If Interstage is to be initialized without deleting the event channel, delete the event channel that existed before initialization, after initialization.

Notes on SSL Communication

To perform SSL communication in the event service, the SSL environment of the CORBA service must have been set in advance.

Note on Unit Generation

Windows

To generate a unit during persistent channel operation, the storage folder of each control file must specify a drive whose file system is NTFS. For unit generation, refer to *esmkunit* in the Reference Manual (Command Edition).

Note

Persistent channel operation can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition

Note on Persistent Channel Applications

Persistent channel applications can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition

If the connection is forcibly disconnected due to a system failure, applications of the persistent channel must be restarted. If processing continues without restarting persistent channel applications, a system exception COMM_FAILURE with the minor code 0x464a0109 (invalid data received) may be returned.

Notes on Multi-IP Address Operation

Host Name

When the host name is set to either of the following, the Multi-IP address function cannot be used:

- "Corba Host Name" in the Interstage operating environment definition file
- "IIOP_hostname" in the CORBA Service config file

Port Number

Set either of the following for the port number:

When SSL communication is invalid:

- "Corba Port Number" in the Interstage operating environment definition file
- "IIOP_port" in the CORBA Service config file

When SSL communication is effective:

- "SSL Port Number" in the Interstage operating environment definition file
- "UNO_IIOP_ssl_port" in the CORBA Service config file

Refer to the Reference Manual (Command Edition) for the method of specifying the host name and the port number of the Event Service.

Notes on the Component Transaction Service

The Component Transaction Service can be used with the following products:

- Interstage Application Server Enterprise Edition
- Interstage Application Server Standard Edition
- Interstage Application Server Plus

This section provides additional information on the Component Transaction Service.

Note on Messages in Windows® 2000

Windows

If the system locale value is changed after Interstage is installed in Windows® 2000, EXTP messages may not be displayed correctly.

About CORBA Service Termination using the *isstop* Command

Solaris OE

When the *isstart* command is executed, CORBA Service cannot be stopped using the *isstop* command. If this occurs, immediately execute the *isstop* command with *-f* specified.

Monitoring during Interstage Operation

Solaris OE

If Interstage is started using the *isstart* command and one of the Interstage services terminates abnormally during operation, execute the following recovery processing:

- If CORBA Service, Naming Service, Interface Repository, Load Balance, Component Transaction Service, Database Linkage Service, WWW Server, HTML Page Editing Service, or Servlet Service terminates abnormally, stop the Component Transaction Service, Database Linkage Service, resource control program, WWW Server, HTML Page Editing Service, and Servlet Service.
- If the Event Service terminates abnormally, then Interstage continues operation. Even if the service is stopped using an individual command (*tdstop* for Component Transaction Service), execute recovery processing in the same manner as when the service terminates abnormally.

Notes on the Database Linkage Service

Notes on OTS Command Execution

Windows

If an OTS command is executed in an environment in which the CORBA Service has not been installed, an application error dialog box may be displayed.

In this case, install and start the CORBA Service and re-execute the *otssetrsc* command.

Notes on the Use of Oracle

Solaris OE

Use of Oracle Database by Java Server Application

Use Oracle 8.0.5 or later.

Using Oracle8

An error message is displayed at recovery and an unsolved transaction is left in both the following scenarios:

- By ROLLBACK FORCE, forced rollback using manual rollback function of Oracle8 on the unresolved function.
- Resource management program restarted. The output messages are shown below.

OTS: WARNING: 9666 System memory or system resource is insufficient.

The following message would be displayed if committed using the command “otspendlist.”

OTS: ERROR: 9348 Error occurred in commit operation.

Discharge in-doubt status by entering command “otspendlist”.

Installation of Oracle8i(8.1.6)

When Oracle8i(8.1.6) is used for distributed transaction linkage, the installation must be carefully performed. Install the necessary functions for using the user application in process environment.

Notes on Development using Functions for the Java Language Provided by the Database Linkage Service of Interstage 1.1 or Earlier

Solaris OE

Use environment under Database Linkage Service installation directory/pc/lib/J11.

Maximum Number of Resources for One Transaction

Solaris OE

The maximum number of resources that can be used in a transaction using the *isinit* command is four. This value cannot be changed.

Sample Provided with Database Linkage Service

Solaris OE

Use Pro*COBOL1.8.27 when you precompile the COBOL data base cooperation service sample application. When Pro*COBOL R8.0.5 is used, the following line should be deleted from the COBOL sample:

```
COPY SYMBOL-CONST IN CORBA
```

According to this, reserved words declared in the COBOL register and library (\$OD_HOME/include/COBOL/CONST.cb1) cannot be used.

CORBA Server Application is Operated using Multi Thread

Solaris OE

If resource management program or OTS system is re-started under the CORBA server application operation, do not call CORBA server application from client. Restart after start.

Notes on InfoDirectory

This section provides additional information on InfoDirectory.

Setup Item Related to the Maximum Simultaneous Number of Clients Connected

The following setting of InfoDirectory is needed when InfoDirectory is used by the security function of the Component Transaction Service and the online reference function of the WWW server. The exact setting is also dependent on the maximum simultaneous connection number of clients.

- 1) Number of IPC messages of InfoDirectory
Set the following value for the "Maximum number of messages for each IPC queue" of the directory service property when the maximum simultaneous connection number of clients exceeds 40.
Maximum number of connected clients x 5
- 2) Maximum number of associations of DSA
Set the maximum simultaneous connection number to the maximum number of associations of network parameters of the InfoDirectory control tool when the maximum simultaneous connection number of clients exceeds 100.

Error Messages in the Event Log

- 1) "No DSA in this directory"
When creating a new DSA, this message is output to the event log. This is not a problem because this message is output when confirming DSA status.
If this message is output when not creating a new DSA however, examine the operating environment for problems. Call your Fujitsu support center if there is no problem in the operating environment.
- 2) Other error messages
If an error is detected in the processing of InfoDirectory, an error message is output to the event log. In such cases, confirm the contents of the error message and examine the operating environment for problems. Call your Fujitsu support center if there is no problem in the operating environment.

Notes on JDK/JRE

Notes on Java VM

The default JavaVM when using JDK/JRE1.3.1_06 and 1.4.1_01 in Interstage Java Server Package is Fujitsu JavaVM (FJVM). This default is synonymous with specifying "-fjvm" in the java command option.

Notes on OutOfMemoryError Caused by a Permanent Area Shortage

The Permanent area is one of heap areas used to manage objects (Java classes and methods) that are permanently referenced by HotSpotVM (including FJVM), which is a JavaVM introduced to JDK/JRE 1.3 and later. For a Java application that uses many classes and methods, the size of the Permanent area must be increased. Especially if an OutOfMemoryError occurs irrespective of how much the maximum heap value (specified in -Xmx) is increased, a Permanent area shortage may be one of the possible causes. The default size of the Permanent area is as follows:

- JDK1.3.1(HotSpot ClientVM): 32MB
- JDK1.3.1(FJVM, HotSpot ServerVM): 64MB
- JDK1.4.1(HotSpot ClientVM): 64MB
- JDK1.4.1(FJVM, HotSpot ServerVM): 64MB

The size of the Permanent area can be specified using JavaVM option "-XX:MaxPermSize."

Example: Set the maximum size of the Permanent area to 128 MB:

```
-XX:MaxPermSize=128m
```

Notes on java.lang.Object.wait()

After JDK/JRE is installed, java.lang.Object.wait() may be released (spurious wakeups) without waiting for a restart instruction (notification), interruption, or time-out. Therefore, make a program so that wait() is used in a loop.

Reference: Notes on the return value of java.beans.PropertyDescriptor.getWriteMethod()

Notes on the Return Value of `java.beans.PropertyDescriptor.getWriteMethod()`

JDK/JRE 1.3.1_08 and 1.4.0_01 solved the problem "bean methods may not be obtained," which caused by a problem in `java.beans.Introspector.getBeanInfo()`. The operation of the `java.beans.Introspector` that may have produced different results on different JavaVMs (because the order in which methods should return was not defined in the JavaBeans specifications) has been corrected. Accordingly, for an application in which the parameter data type of the `set***()` method that sets class properties does not match the data type of the return value of the `get***()` method that obtains class properties, null will be returned as a return value from `PropertyDescriptor.getWriteMethod()`. For this reason, make a program so that these data types match.

Notes on Portal Component

Notes on Contents Use

A homepage (Web page) or the individual contents (text, images, music, etc.) on the homepage are copyrighted. Therefore, using these copyrighted materials may infringe the copyright. It is recommended that the permission of the copyright owner is obtained before using the homepage or its contents.

Notes at Logon

When logging on to Portal component, IDs/passwords of common users are sent without being encoded. To improve security, it is recommended that the SSL environment be set up by the WWW server.

For a detailed description of the setup method, refer to the manual for the WWW server to be used.

Notes on Portal Component Server Operating Mode

When opening the Portal component server to the Internet, a secure environment must be built. In such cases, it is recommended that an environment that places the SecurityDirector on DMZ and Portal component on IDC, and connects the access to Portal component via SecurityDirector is built.

Also, always register the Portal component server in the DNS (Domain Name System).

Notes

- DMZ (DeMilitarized Zone)
This is a segment that is separated from the Internet and IDC by a firewall.
- IDC (Internet Data Center)
This is a secure data center connected to the Internet.

Windows

Communicate between the Internet zone and DMZ (SecurityDirector) using HTTPS protocol. Only HTTP and HTTPS protocols are valid between DMZ (SecurityDirector) and Portal component.

When opening the Portal component server to the Internet, use the procedure described below to execute file access right commands. This prevents illegal file modification by Windows end users.

- (1) Logon to the Windows server using the user ID that installed Portal component.
- (2) Confirm that Portal component installation is completed.
- (3) Open the command prompt.

The command prompt can be displayed by the following method:

Windows® 2000:

Start | Programs | Accessories | Command prompt

Windows NT® 2000:

Start | Programs | Command prompt

- (4) Execute the following program:

<Interstage install directory>\portalworks\bin\pwinetop.exe -d|-w

When this system is installed to "C:\Interstage\portalworks" on a machine belonging to the domain.

C:\Interstage\portalworks\bin\pwinetop.exe -d

When the system is installed to "C:\Interstage\portalworks" on a machine (work group machine) that does not belong to the domain.

C:\Interstage\portalworks\bin\pwinetop.exe -w

- (5) Change the permissions to the shared folder of Fujitsu Enabler.

Share folder name	Directory
\\[Machine name]\enabler	<Interstage install directory>\Enabler\Server\control
\\[Machine name]\FAS\$ADM	<Interstage install directory>\Enabler\Server\FASADM

Change the following permissions to the above-mentioned folder

Administrators group (full control).

Everyone (read only).

Solaris OE

- Communicate between the Internet zone and DMZ (SecurityDirector) using HTTPS protocol. Only HTTP and HTTPS protocols are valid between DMZ (SecurityDirector) and Portal component.
- When Portal component is connected to a server on IDC using USP, set up a firewall between DMZ and IDC to let only packets from the Portal component server be filtered out.
- The recommended protocol to be filtered out through DMZ and IDC is HTTPS.
- When more than one Portal component is installed to share the repository data and directory information with the database server and LDAP server, copy information required for Portal component operations to the DMZ only, and hide the master data in IDC.

Notes on USP Use

Notes on Web USP Use

1) Processing when "Network Error:503" Occurs

If "Network Error : 503" is displayed when a Web page was added as a private client, check that the following are specified correctly:

- URL description
- [Bypass the proxy server for addresses beginning with] setting at Proxy server specification

If "Network error : 503" is generated even when the above processing is performed, the Web server may have stopped.

2) Processing when "No response from service" Occurs

The message "No response from service. Processing interrupted by timeout." may be displayed in the brick.

Check for the following probable causes:

- The server power of the connection destination server is down, etc.
- Some kind of problem occurred in the communication path up to the connection destination server

Notes on Web To Host USP(S2K USP) Use

1) Notes on Server2000 USP(S2K USP) Operation

The proxy logon function cannot be used in connection to Server2000 V1.1L40 and Server2000 1.1.

Also, the proxy logon function cannot be used when the Server2000 service name and screen name contains Japanese language characters.

Notes when Applying Portal Component Independent Authentication to Operation Management

The password can be changed using the command. The previous password is not required. However, the command must be called on the server where the Portal component operation control is operating, and the Servlet must be stopped.

Windows

Modification Method

Start the command prompt on the server that runs Portal component.

- (1) Stop the [PortalServer] WorkUnit.
- (2) Move to "<Interstage install folder>\portalworks\bin\"
- (3) Input "pwadminpasschg.bat {new password}". "{" and "}" are unnecessary.

Example: "pwadminpasschg.bat pwadmin_password"

- (4) Start the [PortalServer] WorkUnit.
- (5) Start Portal component operation management and check the password change.

Solaris OE

Modification Method

- (1) Stop the [PortalServer] WorkUnit.
- (2) Move to "/opt/FJSVispw/bin/"
- (3) Input "pwadminpasschg.sh {new password}". "{" and "}" are unnecessary.
Example: "pwadminpasschg.sh pwadmin_password"
- (4) Start the [PortalServer] WorkUnit.
- (5) Start Porta component operation management and check the password change.

Notes on Using Operation Management Tool Commands

When each command of the operation management tool starts, a message that shows the start state may be displayed. This message shows that the command is running normally. If command execution generates an error, a report message is displayed. Check the error contents by means of this message.

Notes on Portal Component Repository Database Operation

The following precautions are necessary when starting and ending a database (Fujitsu Enabler or Oracle) used as a Portal component repository.

- (1) If the [PortalServer] WorkUnit was made automatic the starting service, Portal component start fails depending on the start sequence with the database. In this case, restart the [PortalServer] WorkUnit.
- (2) If the database was stopped and restarted during Portal component operation, restart the [PortalServer] WorkUnit.

About the Specification of Keep-alive between WebUSP and Back Server

If HTTP communication between WebUSP and back server (or proxy, load distribution device) does not use keep-alive, add "-Dhttp.keepAlive=false" to the [JavaVM option] by the Interstage Management Console.

Notes when Using a Long Character String for Alias

If the message shown below was output at the user's window, the system may enter the URL not handled state because the alias character name is long. Check the alias or scenario name.

```
The page cannot be found
HTTP 400 - Bad Request
```

Notes on Using Administrative Console

Solaris OE

- In the setting example of definition in the server that is displayed on the scenario registration window or the USP addition window, Windows NT® server is used.
Example: file:/temp/scenario/scenario.jar
Make the actual settings in accordance with the syntax for the Solaris™ Operating Environment system.
- If only a host name is specified to start the Administrative console, an error may occur when the operation control function is used because of the DNS settings.
Example: http://hostA/portalworks/PWAdminSystem
In such cases, specify FQDN as shown in the following example. In addition, when the URL is specified for adding USP, be sure to specify FQDN.
Example: http://hostA.domain.com/portalworks/PWAdminSystem

Setting the Heap Size in the Java Execution Environment

It is recommended to set the heap size in the Java execution environment to 256 MB or more.

The procedure for changing the heap size is as follows:

- (1) Start the Interstage Management Console.
- (2) Select [System], [WorkUnit], and then [PortalServer].
- (3) Add the following options to [JavaVM option]:
-XX:NewSize=64m, -XX:MaxNewSize=64m, -Xms256m, -Xmx256m
- (4) Restart [PortalServer] WorkUnit.
Select the [Operation] tab and restart [PortalServer].

Change the values for -XX:NewSize, -XX:MaxNewSize, -Xms, and -Xmx according to the environment of the machine on which the Portal component is installed and the scope of using the Portal component.

-Xmsn

Specify the number of bytes for the initial size (n) of the memory allocation pool.
The value to be specified must be a multiple of 1024 that is greater than 2 megabytes.
To specify the value in kilobytes, suffix the value with character k or K.
To specify the value in megabytes, suffix the value with character m or M.
The default is 64 megabytes.

-Xmxn

Specify the number of bytes for the maximum size (n) of the memory allocation pool.
Specify the same value as the size specified for the -Xms option.
-XX:NewSize=64m, -XX:MaxNewSize=64m
When specifying 256 MB or more for the maximum size of the memory allocation pool, specify also these three Java execution options.

Notes on Framework

Security on the Internet

When using applications that use framework on the Internet, design them considering the security of application development. Security may also be necessary depending on the firewall or other infrastructure products.

Redistributable Files

The following files can be redistributed. These files can be distributed to the client environment and used.

C:\Interstage\APC\redist\applet\ujiapplet.jar

C:\Interstage\APC\redist\ejb\ujiejbcl.jar

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