BEA Tuxedo 9.1 Release Notes

BEA Tuxedo Release 9.1
Date: May 2010

Table 1 Revision History

Revision Date	Summary of Change
May 12, 2010	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Microsoft Windows 2008 R2 Server (32-bit) on x86-64 with MS Visual Studio 2005 Professional Edition • Novell SUSE Linux Enterprise Server 11 (32-bit) on x86
April 12, 2010	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Microsoft Windows 7 (32-bit) (Client Only) on x86 with MS Visual Studio 2005 Professional Edition

Table 1 Revision History

Revision Date	Summary of Change
September 18, 2008	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Microsoft Windows 2008 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition • Microsoft Windows 2008 Server (64-bit) on x86-64/EM64T with MS Visual Studio 2005 Professional Edition Also updated the "Supported Platforms" on page 10.
April 22, 2008	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • HP-UX 11i v3 (32-bit) on Itanium Also updated the "Supported Platforms" on page 10.
February 04, 2008	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • IBM AIX 6.1 (32-bit) on IBM PowerPC • IBM AIX 6.1 (64-bit) on IBM PowerPC Also updated the "Supported Platforms" on page 10.
January 08, 2008	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Novell SUSE Linux Enterprise Server 10 (32-bit) on x86 • Red Hat Linux Enterprise AS 5 (32-bit) on x86 Also updated the "Supported Platforms" on page 10.
December 05, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Novell SUSE Linux Enterprise Server 10 (64-bit) on x86-64 • Red Hat Linux Enterprise AS 5 (64-bit) on x86-64 Also updated the "Supported Platforms" on page 10.
September 14, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • HP-UX 11i v3 (32-bit) on PA-RISC and HP-UX 11i v3 (64-bit) on PA-RISC Also updated the "Supported Platforms" on page 10.

Table 1 Revision History

Revision Date	Summary of Change
July 23, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Microsoft Windows Vista Business Edition (32-bit) on Intel with MS Visual Studio 2005 Professional Edition Also updated the "Supported Platforms" on page 10.
June 28, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (64-bit) on x86-64 Also updated the "Supported Platforms" on page 10.
June 12, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in Installing the BEA Tuxedo System with the following platform(s): • HP-UX 11i v3 (64-bit) on Itanium Also updated the "Supported Platforms" on page 10.
June 07, 2007	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Sun Microsystems Solaris 10 (64-bit) on x86-64 Also updated the "Supported Platforms" on page 10.
January 19, 2007	Added the following to IBM AIX 5.3 (32-bit) on IBM PowerPC compiler description (see, "BEA Tuxedo 9.1 Platform Data Sheets"): Note: VisualAge 8.0 (XL C/C++ v8), requires the installation of the most current PTF that can be downloaded from the following URL: http://www-1.ibm.com/support/docview.wss?rs=0&uid=swg24014300
January 4, 2007	Added Micro Focus 4.0 compiler to the following platform (see, "BEA Tuxedo 9.1 Platform Data Sheets"): • Sun Microsystems Solaris 10 (32-bit) on x86-64
November 28, 2006	Added ACUCOBOL-GT 7.2 compiler to the following platforms (see, "BEA Tuxedo 9.1 Platform Data Sheets"): • HP-UX 11i v2 (64-bit) on Itanium • Red Hat Linux Enterprise AS 4 (64-bit) on x86-64

Table 1 Revision History

Revision Date	Summary of Change
November 16, 2006	Added ACUCOBOL-GT 7.2 compiler to the following platforms (see, "BEA Tuxedo 9.1 Platform Data Sheets"): • HP-UX 11i v2 (32-bit) on Itanium • Red Hat Linux Enterprise AS 4 (32-bit) on x86 • Sun Microsystems Solaris 10 (32-bit) on x86-64
October 31, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2005 Professional Edition Also updated the "Supported Platforms" on page 10.
October 25, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Red Hat Linux Enterprise AS 4 (32-bit) on x86 Also updated the "Supported Platforms" on page 10.
September 25, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • HP-UX 11i v2 (64-bit) on Itanium Also updated the "Supported Platforms" on page 10.
August 25, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Red Hat Linux Enterprise AS 4 (64-bit) on x86-64 Also updated the "Supported Platforms" on page 10.
June 30, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Sun Microsystems Solaris 10 (32-bit) on x86-64 Also updated the "Supported Platforms" on page 10.

Table 1 Revision History

Revision Date	Summary of Change
June 26, 2006	Updated "BEA Tuxedo 9.1 Platform Data Sheets" in *Installing the BEA Tuxedo System* with the following platform(s): • Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (32-bit) on x86 Also updated the "Supported Platforms" on page 10.
May 16, 2006	Initial Release

This document contains release notes for the BEA Tuxedo 9.1 release, including ATMI, CORBA, BEA Jolt, and SNMP Agent.

Release Notes Topics

This document includes the following topics:

About This BEA Tuxedo Release

BEA Tuxedo software provides businesses and organizations that depend on mission-critical applications with the flexibility of two proven programming interfaces: an Application-to-Transaction Monitor Interface (ATMI) and a Common Object Request Broker Architecture (CORBA) interface. Both interfaces use the BEA Tuxedo infrastructure, which has

demonstrated, through years of use in large, transaction-based, production systems, that it is powerful, robust, scalable, manageable, and reliable.

This topic includes the following sections:

What's New and Improved

BEA Tuxedo Release 9.1 includes the following new features and enhancements:

- Tuxedo .NET Workstation Client

  The Tuxedo .NET workstation Client provides customers with access to the Tuxedo system using the .NET environment. It is implemented as a set of APIs and development utilities for developers.

  The current release supports only the workstation *client programming*. Native client and server-side programming are not yet supported.

  The feature is developed and distributed as part of Tuxedo 9.1 and is a component available during the install process. For more information see, Creating Tuxedo .NET Workstation Client Applications.

- Oracle RAC Support

  The Oracle Real Application Clusters (RAC) feature supports clustering of machines that utilize replicated Oracle database services accessing the same Oracle database. For more information, see Using Tuxedo with Oracle Real Application Clusters (RAC).

- Remote Desktop Enhancement

  Allows Tuxedo to start up, be accessed and shut down using MS Windows remote desktop.

- Performance Enhancements
  - TDomain transaction performance enhancement

    Improved performance when switching from Jolt or WLEC to WTC.

  - Memory Usage Enhancement

Reduced memory footprint size compared to Tuxedo 9.0, bringing the memory footprint in Tuxedo 9.1 closer to the memory footprint of Tuxedo 8.1.

- CORBA/Java Interoperability Hardening

  Improved overall functionality and performance for CORBA and Java interoperability.

- Customer Enhancements
  - `TPESYSTEM` Enhancement

    The environment variable `TM_LOG_ESYS` adds detailed information to ULOG when TPESYSTEM occurs for some critical call paths (for example, tpcall, tpacall and tpgetrply). For more information, see `tuxenv(5)` Additional Miscellaneous Variables.

  - `TPEXIT` Enhancement

    Indicates "EXITING" status after `tpreturn(TPEXIT)` is called. Prevents further requests from being dispatched to the server. For more information, see `TM_MIB(5)` `T_SERVER` Class Definition, Attribute Semantics `TA_STATE`.

  - Increased RDOMs Enhancement

    Provides service-level failover for up to 10 domains. For more information, see `DMCONFIG(5)` `DM_IMPORT` section.

Installation Upgrade Considerations

Tuxedo 9.1 and Tuxedo 9.0 are 100% compatible. This means Tuxedo 9.0 users will have a smoother upgrade to Tuxedo 9.1 than pre-Tuxedo 9.0 users. You can think of Tuxedo 9.0 and Tuxedo 9.1 as being the same when performing an upgrade. Upgrading constraints applied to Tuxedo 8.1 or earlier release users may not apply to Tuxedo 9.0 users.

Before installing the product, be sure to review the product issues in "Known Issues." For complete information on upgrading to BEA Tuxedo 9.1, see "Upgrading the BEA Tuxedo System to Release 9.1" in *Installing the BEA Tuxedo System*.

Hot Upgrade From Tuxedo 8.0 to Tuxedo 9.1

In order to perform a hot upgrade from BEA Tuxedo 8.0 to BEA Tuxedo 9.1, you must be running Tuxedo 8.0 rolling patch 22 at a minimum. If performing a hot upgrade from any other supported release to Tuxedo 9.1, there is no rolling patch level requirement.

Adding Memory Capacity When Upgrading to Tuxedo 9.1 from Tuxedo 8.1 or Earlier

Applications migrating to Tuxedo 9.1 from Tuxedo 8.1 will require more memory for executable code, while applications migrating to Tuxedo 9.1 from Tuxedo 9.0 will require less memory for executable code. Since shared libraries are normally shared among all processes on a system, the largest component of the size increase or decrease will be independent of the number of Tuxedo processes running on the system. The size increase or decrease will be in the range of 2 to 3 megabytes on most systems.

In Tuxedo 9.0, new features, additional code and data in underlying Tuxedo shared libraries (especially `libengine.so`), made some of these libraries much bigger in Tuxedo 9.0 than in Tuxedo 8.1. This size increase caused higher memory consumption for shared library-dependent Tuxedo system and application processes. For more information, see "Adding Memory Capacity When Upgrading an Existing Application" in the Tuxedo 9.0 Release Notes.

In Tuxedo 9.1, Cert-C encryption functionality has been moved to `libcertctux` so that the vast majority of applications that do not need this functionality will not load it. No change in `buildclient` or `buildserver` is required for applications that *do need* this functionality, since they should already be linking `libcertctux`. This has decreased the size of `libengine` between Tuxedo 9.0 and Tuxedo 9.1 (although libengine is still bigger than in Tuxedo 8.1).

Unsupported Code Samples and Tools Web Page

BEA Tuxedo customers can download unsupported code samples and developer tools from the BEA Systems, Inc. dev2dev online site. Start on the following Web page:

`http://dev2dev.bea.com/index.jsp`

If you do not already have a BEA dev2dev login, links are provided with instructions for free membership.

BEA Tuxedo Software Components

The BEA Tuxedo software consists of the following components:

- BEA Tuxedo ATMI software

  The ATMI software enables you to build scalable ATMI applications using either of two programming languages: C or COBOL. This software includes the following components:

  – BEA Tuxedo ATMI servers

  - BEA Tuxedo /WS clients
  - BEA Tuxedo Native clients
  - BEA Tuxedo .NET Workstation clients
  - BEA Tuxedo infrastructure
- BEA Tuxedo CORBA software

  The CORBA software enables you to build scalable CORBA applications in the C++ programming language. This software includes the following components:

  - CORBA C++ servers
  - C++ client and server Object Request Broker (ORB)
  - BEA Tuxedo object infrastructure
- BEA Tuxedo Administration Console
- BEA Jolt 9.1 software

  BEA Jolt is a Java-based interface to the BEA Tuxedo system that extends the functionality of existing BEA Tuxedo applications to include intranet- and Internet-wide availability.
- BEA SNMP Agent software

  BEA SNMP Agent for BEA Tuxedo and BEA WebLogic Enterprise is a Simple Network Management Protocol (SNMP) agent that enables BEA Tuxedo and BEA WebLogic Enterprise applications to be managed from an Enterprise Management Console.
- BEA Tuxedo 56-bit or 128-bit Encryption Package software that provides Secure Sockets Layer (SSL) and Link-Level Encryption (LLE) for BEA Tuxedo applications. This software is included in the BEA Tuxedo 9.1 distribution and is enabled or disabled depending on which license is used.

Software Component Licensing Requirements

For BEA Tuxedo 9.1, all software components are included on the product CD-ROMs. A single license is issued when you purchase the product that enables the components that you want to use.

Licensing is used to enable the product components as follows:

- Basic license

  This license enables the following components:

  - The ATMI and CORBA programming environments (clients and servers)
  - Secure Sockets Layer (SSL), Link-Level-Encryption (LLE), and Public Key Interface (PKI) plug-ins
  - 56-bit encryption

- 128-bit encryption license

  This license enables 128-bit encryption as well as the components enabled by the basic license.

Note: It will not be possible for a customer to use 128-bit encryption for data messages without obtaining a 128-bit encryption license from BEA. However, 128-bit encryption can be used for BEA Tuxedo Administration Console messages without obtaining a 128-bit license.

- Jolt license

  This license enables the BEA Jolt software as well as the components enabled by the basic license.

- Full license

  This license enables all product components.

BEA Tuxedo 9.1 requires that all customers upgrade their licenses to a new format; previous licenses will not work. Customers with existing support contracts may use one of the following methods to obtain a license upgrade:

- If you have a previous version of a BEA Tuxedo license, you may update your license from the BEA Support site using an automatic form, or by contacting a BEA representative.
- If you have a BEA WebLogic Enterprise license, you must contact your BEA representative to upgrade your license to BEA Tuxedo 9.1.

Supported Platforms

BEA Tuxedo software runs on the platforms listed in the following sections. BEA has certified these platforms for development and production use with the BEA Tuxedo release 9.1 product. BEA can provide customer support only for these platforms. Note that although BEA has attempted to implement the BEA Tuxedo software in a manner that conforms to industry-standards, it is not feasible for BEA to certify its use with all third-party databases, ORBs, and other products.

Additional software ports and certifications may continue after the initial release of BEA Tuxedo 9.1. For information regarding subsequent ports and certifications, please refer to the Platform Support information on the BEA web site at the following link:

`http://www.bea.com/products/tuxedo/platforms.shtml`

Platform information is maintained under the "Requirements" option under the Tuxedo product page.

Note: More detailed platform information is maintained on the secured eSupport portal under "Product News and EOL Updates." A customer eSupport password login is required. The eSupport link is:

`http://support.bea.com`

BEA Tuxedo Server Platforms

The BEA Tuxedo server components run on the following platforms:

- Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (32-bit) on x86: Using SUSE Linux Enterprise Server 9 Tuxedo 9.1 32-bit Binary
- Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (64-bit) on x86-64: Using SUSE Linux Enterprise Server 9 Tuxedo 9.1 32-bit Binary
- HP-UX 11i v2 (32-bit) on Itanium
- HP-UX 11i v2 (32-bit) on PA-RISC
- HP-UX 11i v2 (64-bit) on Itanium
- HP-UX 11i v2 (64-bit) on PA-RISC
- HP-UX 11i v3 (32-bit) on Itanium
- HP-UX 11i v3 (32-bit) on PA-RISC
- HP-UX 11i v3 (64-bit) on Itanium
- HP-UX 11i v3 (64-bit) on PA-RISC
- IBM AIX 5.3 (32-bit) on IBM PowerPC
- IBM AIX 5.3 (64-bit) on IBM PowerPC
- IBM AIX 6.1 (32-bit) on IBM PowerPC

- IBM AIX 6.1 (64-bit) on IBM PowerPC
- Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition
- Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2005 Professional Edition
- Microsoft Windows 2008 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition
- Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2003 Professional
- Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2005 Professional
- Microsoft Windows 2008 Server (64-bit) on x86-64/EM64T with MS Visual Studio 2005 Professional Edition
- Microsoft Windows 2008 R2 Server (32-bit) on x86-64 with MS Visual Studio 2005 Professional Edition
- Microsoft Windows Vista Business Edition (32-bit) on Intel with MS Visual Studio 2005 Professional Edition
- Novell SUSE Linux Enterprise Server 9 (32-bit) on x86
- Novell SUSE Linux Enterprise Server 9 (64-bit) on x86-64
- Novell SUSE Linux Enterprise Server 9 (64-bit) on Itanium
- Novell SUSE Linux Enterprise Server 10 (32-bit) on x86
- Novell SUSE Linux Enterprise Server 10 (64-bit) on x86-64
- Novell SUSE Linux Enterprise Server 11 (32-bit) on x86
- Red Hat Linux Enterprise AS 4 (32-bit) on x86
- Red Hat Linux Enterprise AS 4 (64-bit) on x86-64
- Red Hat Linux Enterprise AS 4 (64-bit) on Itanium
- Red Hat Linux Enterprise AS 5 (32-bit) on x86
- Red Hat Linux Enterprise AS 5 (64-bit) on x86-64

- Sun Microsystems Solaris 9 (32-bit) on SPARC
- Sun Microsystems Solaris 9 (64-bit) on SPARC
- Sun Microsystems Solaris 10 (32-bit) on x86-64
- Sun Microsystems Solaris 10 (64-bit) on x86-64
- Sun Microsystems Solaris 10 (32-bit) on SPARC
- Sun Microsystems Solaris 10 (64-bit) on SPARC

BEA Tuxedo Client Platforms

The BEA Tuxedo client software runs on the following platforms:

- BEA Tuxedo Native CORBA C++ clients:
  All server platforms listed in the previous section.
- BEA Tuxedo remote (IIOP) CORBA C++ clients:
  All server platforms listed in the previous section, plus Microsoft and Microsoft Windows 7.
- BEA Tuxedo /WS clients:
  All server platforms, plus Microsoft Windows XP and Microsoft Windows 7.
- BEA Tuxedo Native clients:
  All server platforms listed in the previous section.

BEA Tuxedo Administration Console Platforms

The BEA Tuxedo Administration Console software runs on all the platforms listed in the section “BEA Tuxedo Server Platforms” on page <$elempagenum

Note: While the Administration Console software cannot be installed on Microsoft Windows XP systems, you can use the Web browser on your Microsoft Windows XP system to access and use the Administration Console software on any BEA Tuxedo server system that is accessible over your network.

BEA Security Service Platforms

The BEA Tuxedo Security Service (56-bit or 128-bit) runs on the following platforms:

- Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (32-bit) on x86: Using SUSE Linux Enterprise Server 9 Tuxedo 9.1 32-bit Binary
- Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (64-bit) on x86-64: Using SUSE Linux Enterprise Server 9 Tuxedo 9.1 32-bit Binary
- HP-UX 11i v2 (32-bit) on Itanium
- HP-UX 11i v2 (32-bit) on PA-RISC
- HP-UX 11i v2 (64-bit) on Itanium
- HP-UX 11i v2 (64-bit) on PA-RISC
- HP-UX 11i v3 (32-bit) on Itanium
- HP-UX 11i v3 (32-bit) on PA-RISC
- HP-UX 11i v3 (64-bit) on Itanium
- HP-UX 11i v3 (64-bit) on PA-RISCy
- IBM AIX 5.3 (32-bit) on IBM PowerPC
- IBM AIX 5.3 (64-bit) on IBM PowerPC
- IBM AIX 6.1 (32-bit) on IBM PowerPC
- IBM AIX 6.1 (64-bit) on IBM PowerPC
- Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition
- Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2005 Professional Edition
- Microsoft Windows 2008 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition
- Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2003 Professional

- Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2005 Professional
- Microsoft Windows 2008 Server (64-bit) on x86-64/EM64T with MS Visual Studio 2005 Professional Edition
- Microsoft Windows Vista Business Edition (32-bit) on Intel with MS Visual Studio 2005 Professional Edition
- Microsoft Windows XP (Client only)
- Microsoft Windows 7 (32-bit) (Client Only) on x86 with MS Visual Studio 2005 Professional Edition
- Novell SUSE Linux Enterprise Server 9 (32-bit) on x86
- Novell SUSE Linux Enterprise Server 9 (64-bit) on x86-64
- Novell SUSE Linux Enterprise Server 9 (64-bit) on Itanium
- Novell SUSE Linux Enterprise Server 10 (32-bit) on x86
- Novell SUSE Linux Enterprise Server 10 (64-bit) on x86-64
- Novell SUSE Linux Enterprise Server 11 (32-bit) on x86
- Red Hat Linux Enterprise AS 4 (32-bit) on x86
- Red Hat Linux Enterprise AS 4 (64-bit) on x86-64
- Red Hat Linux Enterprise AS 4 (64-bit) on Itanium
- Red Hat Linux Enterprise AS 5 (32-bit) on x86
- Red Hat Linux Enterprise AS 5 (64-bit) on x86-64
- Sun Microsystems Solaris 9 (32-bit) on SPARC
- Sun Microsystems Solaris 9 (64-bit) on SPARC
- Sun Microsystems Solaris 10 (32-bit) on x86-64
- Sun Microsystems Solaris 10 (64-bit) on x86-64

- Sun Microsystems Solaris 10 (32-bit) on SPARC
- Sun Microsystems Solaris 10 (64-bit) on Itanium
- Sun Microsystems Solaris 10 (64-bit) on SPARC

BEA Tuxedo 9.1 offers two type encryption services: secure sockets layer (SSL) and link-level encryption (LLE). The SSL and LLE encryption software is included on the BEA Tuxedo 9.1 distribution and is an integral part of the installation procedure. You also configure the SSL software during the installation.

Before you can use BEA Tuxedo Security Service software on any of the platforms listed above, you must first install it according to one of the following options:

- Option 1: On the Tuxedo server platforms, install at least one of the following BEA Tuxedo 9.1 server components:
  - Full Install
  - Server Install
- Option 2: On all platforms, install at least one of the following BEA Tuxedo 9.1 client components:
  - Full Client Install (All BEA Tuxedo client components; this is recommended)
  - Customized Install

    - CORBA C++ client

    - BEA Tuxedo /WS client

    - BEA Jolt client

    - BEA Tuxedo .NET Workstation client

Software Environment

The following sections list the software that can run on each platform supported by the BEA Tuxedo software.

Software Supported by Each Platform

Table 2 lists the software supported by each platform that can run the BEA Tuxedo software.

Table 2 Software Supported by Each Platform

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (32-bit) on x86	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: gcc ver. 3.4.3 20050227 (Asianux 2.0.3.4.3-22.1.1)+ compat-libstdc++-296-2.96-132.7.2	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Asianux 2.0 (Red Flag DC 5.0, Miracle & Haansoft Linux) (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.x	C/C++:gcc/g++ 3.4.6 (Asianux 2.0 3.4.6-3.1)	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v2 (32-bit) on Itanium	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: HP aC++/ANSI C B3910B A.06.06 with patches (PHSS_34046, PHSS_34047, PHSS_34048) COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.2, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v2 (32-bit) on PA-RISC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/CC++: HP C/ANSI C B.11.23.08 with patches PHSS_32152, PHSS_32513 applied; HP aC++ A.03.63 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
HP-UX 11i v2 (64-bit) on Itanium	Java 2 SDK (or JRE) 1.5.x	C/C++: HP aC++/ANSI C B3910B A.06.06 [Nov 7 2005] COBOL: ACUCOBOL-GT 7.2 or other compatible COBOL compiler Must apply patches: PHSS_34046, PHSS_34047, PHSS_34048	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v2 (64-bit) on PA-RISC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: HP ANSI C B.11.23.08 (Bundle B3901BA) with patches (PHSS_32511 ANSI C compiler B.11.11.12 cumulative patch) (PHSS_32513 +O4/PBO Compiler B.11.11.12 cumulative patch) HP aCC C.03.62 (Bundle B3913DB) with patch (PHSS_32511 HP aCC Compiler (A.03.63)) COBOL: ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
HP-UX 11i v3 (32-bit) on Itanium	Java 2 SDK (or JRE) 1.5.0.03	C/C++: HP C/aC++ for Integrity B3910B A.06.12 [Nov 03 2006] COBOL: ACUCOBOL-GT 7.2	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v3 (32-bit) on PA-RISC	Java 2 SDK (or JRE) 1.5.x	C/C++: HP ANSI C B.11.59.01 061205, HP aCC /opt/aCC/bin/aCC	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v3 (64-bit) on Itanium	Java 2 SDK (or JRE) 1.5.x	C/C++: HP C/aC++ B3910B COBOL: ACUCOBOL-GT 7.2 or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
HP-UX 11i v3 (64-bit) on PA-RISC	Java 2 SDK (or JRE) 1.5.x	C/C++: HP C/ANSI C B.11.59.01 061205; HP aC++ /opt/aCC/bin/aCC or later compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
IBM AIX 5.3 (32-bit) on IBM PowerPC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: VisualAge C++ 6.0 or later compatible; C for AIX Compiler V6.0 or later compatible. Note: VisualAge 8.0 (XL C/C++ v8), requires the installation of the most current PTF that can be downloaded from the following URL: http://www-1.ibm.com/support/docview.wss?rs=0&uid=swg24014300 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, IBM COBOL for AIX, or other compatible COBOL compiler. **Note:** In order to use IBM COBOL for AIX, you must install Tuxedo rolling patch 096 or later.	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
IBM AIX 5.3 (64-bit) on IBM PowerPC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: Visual Age C/C++ 7.0 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
IBM AIX 6.1 (32-bit) on IBM PowerPC	Java 2 SDK (or JRE) 1.5.x	C/C++: XL C/C++ 9.0	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
IBM AIX 6.1 (64-bit) on IBM PowerPC	Java 2 SDK (or JRE) 1.5.x	C/C++: XL C/C++ 9.0	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2003 Server on Intel with MS Visual Studio 2003 Professional Edition	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: VC.net 2003 Professional; required for full (development) install, but not for server-only or client-only installations; COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler, NetCOBOL version 7.x or later from Fujitsu, or compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2003 Server (32-bit) on Intel with MS Visual Studio 2005 Professional Edition	Java 2 SDK (or JRE) 1.5.x	MS Visual Studio 2005	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2008 Server (32-bit) on Intel with MS Visual Studio 2003 Professional Edition	Java 2 SDK (or JRE) 1.5.0_09	MS Visual Studio 2003	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2003 Professional Edition	Java 2 SDK 1.6.0_01.	C/C++: Microsoft Visual Studio 2003 Professional, required for full (development) installations, but not for server-only or client-only installations COBOL: Microsoft Visual Studio 2003 Professional: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler, NetCOBOL version 7.x or later from Fujitsu, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2003 Server (64-bit) on x86-64 with MS Visual Studio 2005 Professional Edition	Java 2 SDK 1.6.0_01.	C/C++: Microsoft Visual Studio 2005	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2008 Server (64-bit) on x86-64/EM64T with MS Visual Studio 2005 Professional Edition	Java 2 SDK (or JRE) 1.5.0_09	MS Visual Studio 2005 (SP1)	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows 2008 R2 Server (32-bit) on x86-64 with MS Visual Studio 2005 Professional Edition	Java 2 JRE 1.6.0_17	MS Visual Studio 2005 Professional Edition	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Microsoft Windows Vista Business Edition (32-bit) on Intel with MS Visual Studio 2005 Professional Edition	Java 2 SDK (or JRE) 1.5.0_0_8	C/C++: Microsoft Visual Studio 2005 Professional Edition Windows Visual Studio 2005 SP1 (KB926601) Windows Visual Studio 2005 for Vista patch (KB932232)	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Microsoft Windows XP (Client only)	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: VC.net 2003 Professional; no additional compiler software is required on client-only systems. COBOL: ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; Tuxedo /WS	None
Microsoft Windows 7 (32-bit) (Client Only) on x86 with MS Visual Studio 2005 Professional Edition	Java 2 SDK (or JRE) 1.6.0	C/C++: Microsoft Visual Studio 2005 Professional Edition	CORBA C++ over IIOP; Tuxedo /WS	None
Novell SUSE Linux Enterprise Server 9 (32-bit) on x86	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: gcc/g++ 3.3.3 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Novell SUSE Linux Enterprise Server 9 (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.x	C/C++: gcc/g++ 3.3.3 COBOL: ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Novell SUSE Linux Enterprise Server 9 (64-bit) on Itanium	Java 2 SDK (or JRE) 1.4.x	C/C++: gcc/g++ 3.3.3 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Novell SUSE Linux Enterprise Server 10 (32-bit) on x86	Java 2 SDK (or JRE) 1.5.x	C/C++: gcc version 4.1.0 (SUSE Linux)	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Novell SUSE Linux Enterprise Server 10 (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.x	C/C++ : gcc version 4.1.0 (SUSE Linux) COBOL: Micro Focus 5.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Novell SUSE Linux Enterprise Server 11 (32-bit) on x86	Java 2 SDK (or JRE) 1.6.0_05	C/C++: gcc version 4.3.2 (SUSE Linux)	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Red Hat Linux Enterprise AS 4 (32-bit) on x86	Java 2 SDK (or JRE) 1.5.x	C/C++: gcc/g++ 3.4.4 (Red Hat 3.4.4-2) COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.2 or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Red Hat Linux Enterprise AS 4 (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.x	C/C++: ggcc version 3.4.4 20050721 (Red Hat 3.4.4-2) COBOL: ACUCOBOL-GT 7.2 or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Red Hat Linux Enterprise AS 4 (64-bit) on Itanium	Java 2 SDK (or JRE) 1.4.x	C/C++: gcc ver. 3.4.3 20041212 (Red Hat 3.4.3-9.EL4)+ compat-libstdc++33-3.2.3-47.3.ia64.rpm COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Red Hat Linux Enterprise AS 5 (32-bit) on x86	Java 2 SDK (or JRE) 1.5.x	C/C++: gcc version 4.1.1 20070105 (Red Hat 4.1.1-52) +compat-libstdc++-33-3.2.3-61	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Red Hat Linux Enterprise AS 5 (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.x	C/C++ : gcc version 4.1.1 20070105 (Red Hat 4.1.1-52) + compat-libstdc++-33-3.2.3-61 COBOL: Micro Focus 5.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Sun Microsystems Solaris 9 (32-bit) on SPARC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: SUN ONE Studio 8 or later compatible COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler, NetCOBOL version 7.x or later from Fujitsu, or compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Sun Microsystems Solaris 9 (64-bit) on SPARC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: Sun Studio 10 COBOL: ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Sun Microsystems Solaris 10 (32-bit) on x86-64	Java 2 SDK (or JRE) 1.5.0_01	C/C++: Sun Studio 11 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.2 or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Sun Microsystems Solaris 10 (64-bit) on x86-64	Java 2 SDK (or JRE) 1.5.0_08	C/C++: Sun Studio 11 Required patches: 120759 Sun Studio 11_x86: Sun Compiler Common patch for x86 backend 121018 Sun Studio 11_x86: Patch for Sun C++ 5.8 compiler 121016 Sun Studio 11_x86: Patch for Sun C 5.8 compiler COBOL: Micro Focus 5.0 or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Sun Microsystems Solaris 10 (32-bit) on SPARC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: Sun Studio 10 COBOL: Micro Focus 4.0, ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

Table 2 Software Supported by Each Platform (Continued)

Platform	Java 2 SDK and JRE[a]	C/C++ and COBOL Compilers	Clients	Servers
Sun Microsystems Solaris 10 (64-bit) on Itanium	Java 2 SDK (or JRE) 1.5.x	C/C++: HP aC++/ANSI C B3910B A.06.06 [Nov 7 2005]. Must apply patches: PHSS_34046, PHSS_34047, PHSS_34048	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI
Sun Microsystems Solaris 10 (64-bit) on SPARC	Java 2 SDK (or JRE) 1.4.x and 1.5.x	C/C++: Sun Studio 10 COBOL: ACUCOBOL-GT 7.0.1, or other compatible COBOL compiler	CORBA C++ over IIOP; CORBA C++ Native; Tuxedo /WS	CORBA C++; ATMI

a. The Java 2 JRE is needed for run-time environment.

Note: There are sample COBCC files for the NetCOBOL compiler by Fujitsu on the BEA dev2dev site. Please check BEA dev2dev Tuxedo product Web site for sample COBCC files at the following URL: http://dev2dev.bea.com/tuxedo/

Database Support

BEA Tuxedo ATMI and CORBA C++ applications support the XA standard. This facilitates inter-operation with any XA-compliant software system including database management systems.

Security Related Software Supported

The following security software is supported on all BEA Tuxedo platforms:

- SSL Certificate authorities
  - Verisign

- To support certificate-based authentication when using SSL, BEA Tuxedo provides an LDAP-based certificate retrieval mechanism. This retrieval mechanism has been certified for use with the LDAP Directory server that is included with the Netscape Enterprise Server

Table 3 lists the BEA Tuxedo clients and connections that support SSL when the SSL Certificate software is installed and the clients and connections that are not supported.

Table 3 BEA Tuxedo Support for SSL 3.0

SSL is supported for...	SSL is not supported for...
BEA Tuxedo CORBA C++ and IIOP clients.	BEA Tuxedo ATMI /WS client connections to the BEA Tuxedo 9.1 Workstation Listener/Handler (WSL/WSH).[a] BEA Jolt client connections to BEA Jolt Listener/Handler (JSL/JSH).

a. BEA Tuxedo 9.1 56-bit or 128-bit encryption is available for link-level encryption of these connections and also for link-level encryption of connections between machines and domains.

BEA Tuxedo End-of-Life Information

BEA Systems, Inc. periodically finds it necessary to discontinue support for certain older products to ensure the highest level of quality and support for our customers going forward. BEA has a policy of providing advanced notification to our customers so migration strategies and plans can be made.

To access end-of-life (EOL) information for the BEA Tuxedo product, access the BEA eSupport web site at the following link.

`http://support.bea.com`

Log in to the Support site or register to get a login ID to access EOL information. After logging in, click the Product News and EOL Information link in the left navigation area of the Support page.

Online Documentation

The BEA Tuxedo product documentation is available from the following locations:

- Go directly to the BEA Tuxedo e-docs product documentation page at `http://edocs.bea.com/tuxedo/tux91/index.htm`
- On the BEA Tuxedo Documentation CD-ROM. The documentation CD-ROM includes Web-browsable HTML and easy-to-print Adobe Acrobat PDF documentation for this product.

Accessing the Documentation CD-ROM on Microsoft Windows Systems

To access the online documentation on CD-ROM, proceed as follows:

1. Insert the BEA Tuxedo Documentation CD-ROM into the drive.
2. Using Windows Explorer, click `index.htm` in the following directory of the Online Documentation CD-ROM:

   `docs\tuxedo\tux91\index.htm`

   The documentation home page is displayed in your browser.

Accessing the Documentation CD-ROM on UNIX Systems

To access the online documentation, proceed as follows:

1. Insert the BEA Tuxedo Documentation CD-ROM into the drive.
2. Mount the CD-ROM. This step might not be required for Solaris systems.

Note: For mounting instructions for the supported UNIX platforms, refer to Appendix A of *Installing the BEA Tuxedo System*.

3. Start the Web browser and set the browser to `/mnt/docs/tuxedo/tux91/index.htm` (where `mnt` is the CD-ROM mount point) and press Enter.

The documentation home page is displayed in your browser.

Accessing the Java API Documentation

Documentation for the BEA Jolt 9.1 is automatically installed on each machine on which the BEA Tuxedo software has been installed. This is in addition to the Java API documentation available on the online documentation CD-ROM.

The BEA Tuxedo API documentation is installed in the following location. TUXDIR represents the top-level directory where BEA Tuxedo is installed:

On Windows Systems:

For BEA Jolt: %TUXDIR%\udataobj\jolt\doc\index.html

On UNIX Systems:

For BEA Jolt: $TUXDIR/udataobj/jolt/doc/index.html

Using a Web browser, open the index.htm start page in that directory.

Documentation Addenda

This topic includes updates to various sections of the Tuxedo documentation.

Documentation Addenda for BEA Tuxedo 9.x

Table 4 lists documentation addenda.

Table 4 BEA Tuxedo 9.x Documentation Addenda

CR019784	**Some Windows NT and UNIX syntax errors in BEA Administration Console Online Help.**	
	Problem	The syntax for pathnames (specifically the use of slashes and backslashes) on UNIX and Windows systems is reversed in various sections of the Online Help for the BEA Administration Console.
	Workaround	Pathnames on UNIX systems are specified with slashes. Pathnames on Windows systems are specified with backslashes.
NA	**The Run Simpapp step is incorrect in the BEA Administration Console Online Help.**	
	Problem	The procedure provided for "Step 6: Run Simpapp" is incorrect in the Online Help for the BEA Administration Console.

	Workaround	Modify this procedure as follows:
		1. Change the item number 2 in step 6 to read as follows:
		From the command shell that you used in step 1, set and export the TUXCONFIG environment variable as follows:
		`$ TUXCONFIG=your_simp_dir/tuxconfig`
		`$ export TUXCONFIG`
		2. Ignore item 5 in step 6.

Table 4 BEA Tuxedo 9.x Documentation Addenda (Continued)

CR092416	**MBSTRING is treated the same as CARRAY. Use memcpy with MBSTRING instead of strcpy.**	
	Problem	Error occurs if using `strcpy` instead of `memcpy` when you copy the string data after `tpalloc("MBSTRING")`.
	Workaround	Use `memcpy` with MBSTRING.
CR094270	**GW_KEEPALIVE env does not work in Tuxedo 8.1 and later releases.**	
	Problem	Documentation specifies enabling TCP Keepalive using the GW_KEEPALIVE environment variable. For BEA Tuxedo 8.1 or later, TCP Keepalive is enabled through the DMCONFIG file.
	Workaround	If you are using TCP Keepalive with Tuxedo 7.1 and need to migrate to Tuxedo 8.1 or later, configure this feature using DMCONFIG. For information refer to the *File Formats, Data Descriptions, MIBs, and System Processes Reference* for how to configure DMCONFIG file to use TCP Keepalive in Tuxedo 8.1 or later.

Multithreaded CORBA C++ Client Considerations

Table 5 lists a multithreaded CORBA C++ client consideration.

Table 5 Multithreaded CORBA C++ Client Considerations

NA	**Multithreaded CORBA C++ clients are supported.**
	BEA Tuxedo provides support for multithreaded CORBA client applications, for both the thread-per-request and the thread-per-object concurrency strategies. Build a multithreaded CORBA client as you would any CORBA client application. Whether the client application functions as a multithreaded client application depends on the environment in which it is run. Note the following considerations for multithreaded CORBA client applications running in the BEA Tuxedo environment: • Multithreaded CORBA client applications using IIOP are supported. • Multithreaded native CORBA client applications are not supported. • Multithreaded joint client/servers are not supported. • A multithreaded CORBA client application is limited to a singe Bootstrap object. • A multithreaded CORBA client application is limited to a single logon to the BEA Tuxedo domain. • CORBA client applications that use static invocation can use multiple threads. • CORBA client applications that use the dynamic invocation interface (DII) cannot be multithreaded.

How to Obtain Patches

To obtain patches, access the BEA Customer Support page at `http://www.bea.com/support/` and open a New Case to request the patches. BEA customers can gain access to support information by accessing the Customer Support page and registering for a Web account.

You can also contact Customer Support by using the contact information provided on the BEA Tuxedo 9.1 Customer Support Card, which is included in the product box.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using

- A description of the problem and the contents of pertinent error messages