



Orbix[®] 3.3

Core Services SSL Installation Guide

Service Pack 9, July 2007

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Updated: 31-Jul-2007

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Installing OrbixSSL 3.3 SP9 Core Services

This document provides instructions for installing OrbixSSL 3.3 SP 9 Core Services on Red Hat Linux AS 3.0, Red Hat Linux ES 4.0, Windows XP, Windows 2003 Server, Windows 2003 R2 Server Enterprise x64 Edition, Windows Vista Ultimate x64 Edition, AIX 5.2 and AIX 5.3. In this case, OrbixSSL 3.3 SP 8 Core Services requires an existing installation of Orbix 3.3 SP 9 Core Services.

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Introduction

Product sets

This document provides instructions for installing OrbixSSL 3.3 SP 9 Core Services. OrbixSSL 3.3 SP 9 Core Services requires an existing installation of Orbix 3.3 SP 9 Core Services.

OrbixSSL 3.3 SP 9 is enabled by license codes for Orbix 3.3 SP 9 Java Edition or Orbix 3.3 SP 9 C++ Edition.

Note: Due to legal restrictions in some countries, the OrbixSSL 3.3 SP 9 CD-ROM is not supplied with Orbix 3.3 SP 9.

JRE requirements

The OrbixSSL 3.3 SP 9 Core Services installation was built with InstallAnywhere, which is a Java application. The installer requires a JRE (Java Runtime Environment). You should provide the JRE yourself (see Installation Prerequisites), or use a pre-installed JRE or JDK before launching the installer. The Windows Installer includes a JRE.

Installation steps

To install OrbixSSL 3.3 SP 9 Core Services follow these steps:

- Check the prerequisites to installing OrbixSSL 3.3 SP 9 Core Services.
- Install OrbixSSL 3.3 SP 9 Core Services on your host machine.
- Verify your installation.

Before you begin your installation

Before you install OrbixSSL 3.3 SP 9 Core Services, IONA recommends that you visit the OrbixSSL 3.3 SP 9 documentation web page at <http://www.iona.com/support/docs/orbix/orbix33.xml> to read the latest version of the Orbix 3.3 SP 9 Release Notes, and to check for any updates to this installation guide.

Note: OrbixSSL 3.3 SP 9 Core Services cannot be installed on machines that do not support 256 (8-bit) colors, because the Orbix installer is a Java application built on the Java platform which does not support 16 colors. For more information see <http://java.sun.com/products/jdk/1.2/changes.html#2D>.

Note: When installing OrbixSSL 3.3 SP 9 Core Services, using PCAnywhere (that is via a remote client), the following display information must be followed:

"Display resolution of type VGA (640 x 480). For more information see ftp://ftp.symantec.com/public/english_us_canada/products/pcanywhere/pcanywhere32/ver10.5/manuals/pca_105_user.pdf.

Orbix 3.3 SP 9 Core Services license codes

You must have a valid license code from IONA to install OrbixSSL 3.3 SP 9 Core Services Java edition, OrbixSSL 3.3 SP 9 Core Services C++ edition, and OrbixOTS. All other components of OrbixSSL 3.3 SP 9 Core Services are activated by these license codes. The code is a long numeric string taking the general form:

00000000-11111111-22222222-33333333-44444444

Your license code should be included in a loose sheet in your OrbixSSL 3.3 SP 9 Core Services pack. Otherwise, because OrbixSSL 3.3 SP 9 Core Services is a service pack release of Orbix 3.3, the license codes provided for Orbix 3.3 are valid for OrbixSSL 3.3 SP 9 Core Services. If you do not have any license codes, please contact IONA before proceeding any further.

Prerequisites to Installing Orbix 3.3 SP 9 Core Services

Existing Orbix installations

You must install OrbixSSL 3.3 SP 9 Core Services into the same location as an existing Orbix 3.3 SP 9 Core Services Java Edition or Orbix 3.3 SP 9 Core Services C++ Edition installation. The existing installation is updated by the OrbixSSL 3.3 SP 9 Core Services installation.

Note: Do not install OrbixSSL 3.3 SP 9 Core Services onto an older version of Orbix.

Installation prerequisites

Prerequisite	Notes
Privileges	<p>General</p> <p>To install in a non-default location, you must have permission to create files and directories in that location.</p> <p>Windows</p> <p>To install in the default location, Windows users must have administrator privileges.</p> <p>UNIX</p> <p>To install into the default location, UNIX users must have root privileges.</p>

Prerequisite	Notes
UNIX DISPLAY	<p>The Installer was built using InstallAnywhere, which is a GUI application. To install OrbixSSL 3.3 SP 9 Core Services without the GUI, follow the instructions in “Installing OrbixSSL 3.3 SP 9 Core Services without the GUI” on page 15.</p> <p>For a GUI application to run on UNIX you will need to install on a UNIX host with X and a windowing environment configured. You will need to ensure your display environment variable is set to the workstation you are logged into. For example, set the following environment variable, substituting the full Domain Name System (DNS) name of your workstation for <code>imaginary.dublin.iona.ie</code>:</p> <pre>export DISPLAY=imaginary.dublin.iona.ie:0.0</pre> <p>Contact your system administrator if you require assistance with this.</p>
JRE	<p>The Installer was built using InstallAnywhere, which is a Java application. For it to run it needs a JRE (Java Runtime Environment). You are also required to provide the location of the JRE in order for the installation to run. The versions mentioned here are those built and tested on the operating system. (Be sure to install all required patches for all UNIX-based platforms.)</p> <p>Windows JRE</p> <p>The Windows Installer includes a JRE (version 1.5.0_03).</p> <p>Linux</p> <p>http://java.sun.com/downloads/index.html</p> <p>AIX</p> <p>http://www-128.ibm.com/developerworks/java/jdk/aix/service.html</p> <p>Be sure to install all required patches.</p>

Prerequisite	Notes
Domain Name	The installer requires your domain name for OrbixSSL 3.3 SP 9 Core Services configuration. The Domain Name System (DNS) to resolve Internet or UNIX computer names. Contact your network administrator to obtain the domain name for your TCP/IP internet prior to installing Orbix 3.3 SP 9 Core Services.

You need access on all platforms to an existing JRE (or JDK) version 1.4.2 or higher, or you should obtain and install the JRE yourself on your system prior to running the Installer. See the preceding table for details on obtaining the JRE.

CD-ROM Location of Installers

Installation CD-ROM	Description
/cdrom/NT51VC80/install.exe	Windows Installer (with JRE) - Windows XP/Visual Studio 2005
/cdrom/NT52VC71/install.exe	Windows Installer (with JRE) - Visual Studio .NET 2003
/cdrom/NT6452VC80/install.exe	Windows Installer (with JRE) - Visual Studio 2005 x64
/cdrom/RHLINUX3/install.bin	Red Hat Enterprise Linux 3 (without JRE)
/cdrom/RHLINUX4/install.bin	Red Hat Enterprise Linux 4 (without JRE)

Mounting the CD-ROM

Depending on your system configuration, /cdrom might have to be replaced with a different mount point. Contact your system administrator if you require assistance with this.

The following commands can be used to mount the CD-ROM on the platforms indicated:

Platform	Command
Windows	No command required for Windows.
Linux	<code>mount -t iso9660 /dev/cdrom /cdrom</code>

The values shown for the UNIX device controller are examples only and will vary depending on your system.

Operating systems

In regard to the operating system patches listed in this installation guide, OrbixSSL 3.3 SP 9 Core Services might not require that all these patches are installed. However, IONA recommends that you install all listed patches, to avoid any potential issues.

See the Web sites of specific vendors for more information on operating system patches.

OrbixSSL 3.3 SP 9 Core Services runs on the following operating systems:

Operating System	Required Operating System Patches
Red Hat Linux AS 3.0	<p>These patches can be displayed with the following commands:</p> <p>Linux kernel:</p> <p>Command: <code>rpm -q kernel</code></p> <p>Required version: <code>kernel-2.4.21-32.0.1.EL</code></p> <p>GCC 3.2.3 runtime and development environment:</p> <p>Command: <code>rpm -q gcc</code></p> <p>Required version: <code>gcc-3.2.3-52</code></p> <p>Command: <code>rpm -q gcc-c++</code></p> <p>Required version: <code>gcc-c++-3.2.3-52</code></p> <p>Command: <code>rpm -q libstdc++</code></p> <p>Required version: <code>libstdc++-3.2.3-52</code></p> <p>Command: <code>rpm -q libgcc</code></p> <p>Required version: <code>libgcc-3.2.3-52</code></p> <p>Command: <code>rpm -q binutils</code></p> <p>Required version: <code>binutils-2.14.90.0.4-37</code></p>
	<p>Note: It is recommended to update the system to the latest available packages through the Red Hat Update Agent, which can be executed by typing the command <code>up2date</code> from a shell prompt.</p>

Operating System	Required Operating System Patches
Red Hat Linux ES 4.0	<p>These patches can be displayed with the following commands:</p> <p>Linux kernel:</p> <p>Command: <code>rpm -q kernel</code></p> <p>Required version: <code>kernel-2.6.9-42.0.10.EL</code></p> <p>GCC 3.4.6 runtime and development environment:</p> <p>Command: <code>rpm -q gcc</code></p> <p>Required version: <code>gcc-3.4.6-3.1</code></p> <p>Command: <code>rpm -q gcc-c++</code></p> <p>Required version: <code>gcc-c++-3.4.6.-3.1</code></p> <p>Command: <code>rpm -q libstdc++</code></p> <p>Required version: <code>libstdc++-3.4.6-3.1</code></p> <p>Command: <code>rpm -q libgcc</code></p> <p>Required version: <code>libgcc-3.4.6-3.1</code></p> <p>Command: <code>rpm -q binutils</code></p> <p>Required version: <code>binutils-2.15.92.0.2-21</code></p> <p>It is recommended to update the system to the latest available packages through the Red Hat Update Agent, which can be executed by typing the command <code>up2date</code> from a shell prompt.</p>
Windows XP Professional	Service Pack 2
Windows 2003 R2 Server Standard Edition	Service Pack 1
Windows 2003 Server Standard Edition	Service Pack 1

Operating System	Required Operating System Patches
Windows 2003 R2 Server Enterprise x64 Edition	Service Pack 1
Windows Vista Ultimate x64 Edition	
AIX 5.2	Maintenance Level 5200-07 for AIX operating system 5.2 Use the <code>oslevel -r</code> command to determine the current operating system level. February 2007 XL C/C++ Enterprise Edition V7.0 for AIX PTF. April 2007 IBM C++ Runtime Environment Components for AIX.
AIX 5.3	Maintenance Level 5300-03 for AIX operating system 5.3. Use the <code>oslevel -r</code> command to determine the current operating system level. February 2007 XL C/C++ Enterprise Edition V7.0 for AIX PTF. April 2007 IBM C++ Runtime Environment Components for AIX.

Development environment prerequisites

Java Development

Orbix 3.3 SP 9 Core Services was built and tested with the following JDK versions.

Platform	Built on (JDK version)	Tested on (JDK version)
Red Hat Linux AS 3.0	1.4.2	1.4.2, 1.5.0
Red Hat Linux ES 4.0	1.4.2	1.4.2, 1.5.0
AIX 5.2	1.4.2	1.4.2, 1.5.0

Platform	Built on (JDK version)	Tested on (JDK version)
AIX 5.3	1.4.2	1.4.2, 1.5.0
Windows 2003 Server	1.4.2	1.4.2, 1.5.0
Windows XP	1.4.2	1.4.2, 1.5.0'
Windows 2003 Server x64 Edition	1.4.2	1.5.0
Windows Vista Ultimate x64 Edition	1.4.2	1.5.0

C++ Development

Orbix 3.3 SP 9 Core Services was built and tested with the following C++ compilers.

Platform	Compiler Built on	Compiler Tested on
Red Hat Linux AS 3.0	g++ (GCC) 3.2.3	g++ (GCC) 3.2.3
Red Hat ES 4.0	g++(GCC) 3.4.6	g++(GCC) 3.4.6
AIX 5.2	XL C/C++ Enterprise Edition V7.0 (with February 2007 AIX PTF)	XL C/C++ Enterprise Edition V7.0 (with February 2007 AIX PTF) XL C/C++ Enterprise Edition V8.0
AIX 5.3	-	XL C/C++ Enterprise Edition V8.0
Windows 2003 Server	Microsoft Visual Studio .NET 2003 C/C++ Optimizing Compiler Version 13.10.3077	Microsoft Visual Studio .NET 2003 C/C++ Optimizing Compiler Version 13.10.3077
Windows XP	-	Microsoft Visual Studio .NET 2003 C/C++ Optimizing Compiler Version 13.10.3077
Windows XP	Microsoft Visual Studio 2005 32-bit C/C++ Optimizing Compiler Version 14.00.50727	Microsoft Visual Studio 2005 32-bit C/C++ Optimizing Compiler Version 14.00.50727

Platform	Compiler Built on	Compiler Tested on
Windows 2003 R2 Server	-	Microsoft Visual Studio 2005 32 bit C/C++ Optimizing Compiler Version 14.00.50707.42 for 80x86
Windows 2003 R2 Server x64 Edition	Microsoft Visual Studio 2005 C/C++ Optimizing Compiler Version 14.00.50727.42 for x64	Microsoft Visual Studio 2005 C/C++ Optimizing Compiler Version 14.00.50727.42 for x64
Windows Vista Ultimate x64 Edition	-	Microsoft Visual Studio 2005 C/C++ Optimizing Compiler Version 14.00.50727.42 for x64

Disk space requirements

The following table lists the approximate amount of disk space taken up by the Orbix 3.3 files. The installation program also requires approximately 50MB of temporary work space.

Component	Linux	Windows	Tru64	AIX 5.2	AIX 5.3
OrbixSSL	30 MB	30 MB	30 MB	30 MB	30 MB

Note: On Windows, ensure that you have enough disk space before starting the installation.

Default location

Install OrbixSSL 3.3 SP 9 Core Services into the same location as an existing Orbix 3.3 SP 9 Core Services installation.

The default location of your Orbix 3.3 installation is as follows:

Platform	Default Location
UNIX main installation	/opt/iona
UNIX variable files	/var/opt/iona
Windows	C:\iona

Note: Orbix 3.3 SP 9 Core Services installs in a fixed location relative to the path you specify. Installing into a non-default location will create a copy of the default location path relative to the non-default location. Additionally, IONA recommends that you do not install into locations with spaces in their directory names.

Installing OrbixSSL 3.3 SP 9 Core Services without the GUI

Overview

Installing OrbixSSL 3.3 SP 9 Core Services without a GUI (silent install mode) allows you to run the installer without using the GUI. The silent mode installer looks to a template file that provides the required information.

For more detailed information on using silent install mode, see Knowledge Base article 4087.633 on the IONA Web site.

Installing in silent mode

1. To install in silent mode, enter the following command:

```
$ ./install.bin -f /path/to/template.file
```

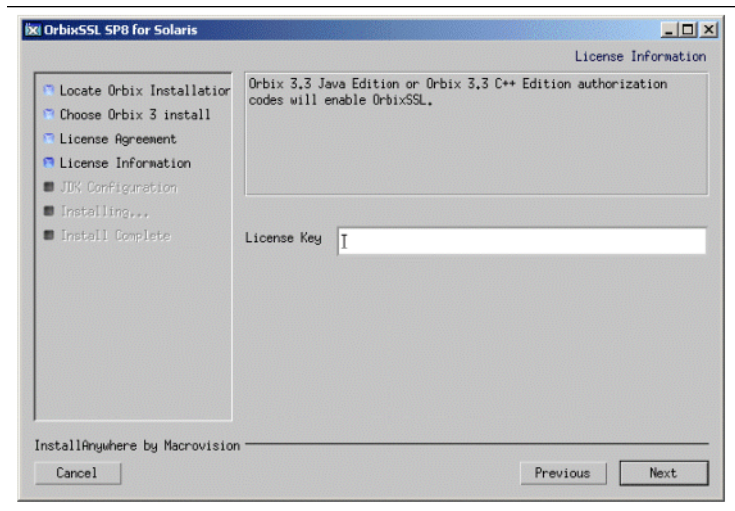
In this case, `template.file` contains the following information.

```
##Specimen properties with operating system Licence codes.
##Use on one combination as per requirement. The first section is in effect now.
##It will install Orbix 3.3 SP 9 Java and C++ edition with OTS
##-----
##C++, Java with OTS
##-----
##Choose the directory where you want OrbixSSL 3.3 SP 9 installed
USER_INSTALL_DIR=/local1/install_dir
##Choose the location of your Java Development Platform
JAVA_LOCATION=/usr/java
JAVA_VERSION=1.3
JAVA_VERSION_1=1.3
ISVALIDJDKPATH=TRUE
INSTALLER_UI=SILENT
##Choose the components of Orbix you want to install
PRODUCTS="Orbix 3.3 - Java Edition and C++ Edition with OrbixOTS 3.3"
## Licence key: c++, java , ots
LICENCE_KEY= "<c++ license key1>", "<java license key2>", "<ots license_key3>"
LICENCE_KEY_1=<Licence Key1>
LICENCE_KEY_2=<License Key2>
LICENCE_KEY_3=<License Key3>
DOMAIN=dublin.iona.ie ##Choose the domain for the installation
DOMAIN_1=dublin.iona.ie
##-----
```

Installing OrbixSSL 3.3 SP 9 Core Services with the GUI

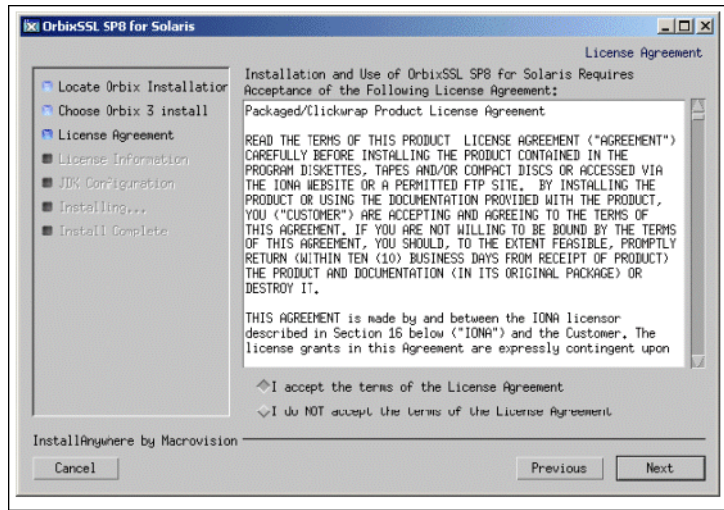
Installation steps

1. After the JRE is initialized, a progress bar is displayed as the installer prepares to begin the installation process.
2. In the **Select Product** screen, select the OrbixSSL 3.3 SP 9 product set that you purchased and click **Next** to continue.
3. In the **License Information** screen, enter the IONA license code(s) you have purchased in the appropriate text field(s). Click **Next** to continue.

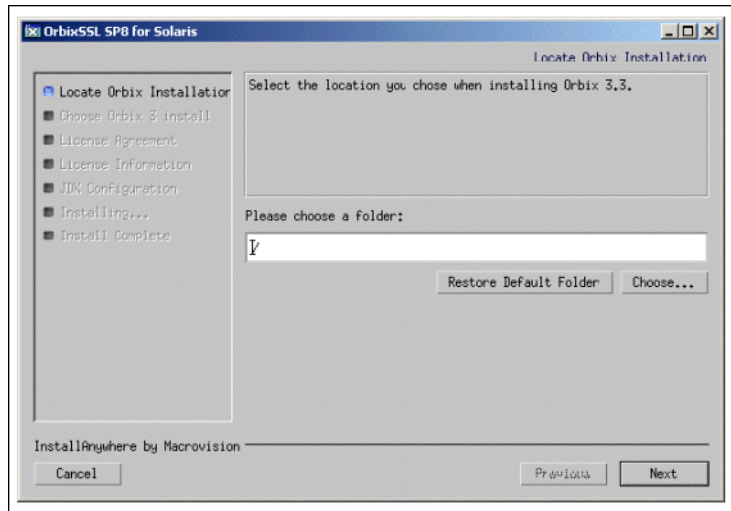


The license keys requested here will depend on the product set you selected in the previous screen.

4. In the **License Agreement** screen, click **Yes** to agree to the terms of the License Agreement then click **Next** to continue.



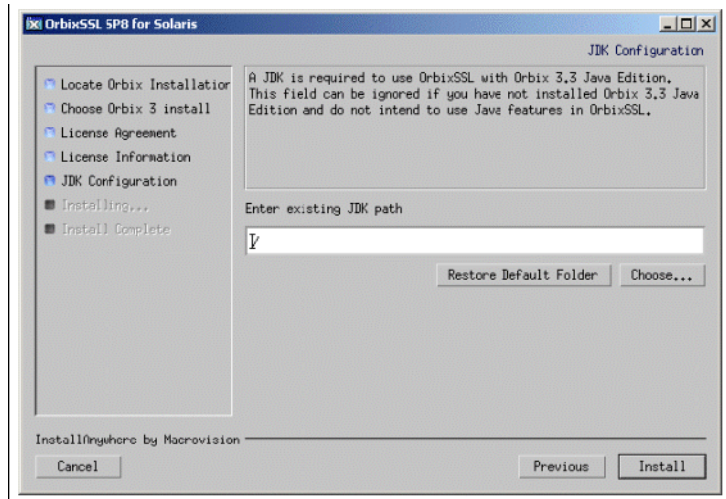
5. In the **Orbix Installation Folder** screen, enter the file location that you wish to install OrbixSSL 3.3 SP 9 into, and click **Next** to continue.



Note: You must have permission to create files and directories in this location.

6. In the **Domain Information** screen, enter your domain information, and click **Next** to continue.

7. In the **JDK Configuration** screen, enter the location of your Java Development Kit. This is not required for OrbixSSL 3.3 SP 9 C++ edition.



Click **Next** to continue.

8. In the **Get Java Version** screen, select the version of your Java Development Kit, and click **Next** to continue.
9. A progress bar will be displayed while the files are installed.
10. After the installation is complete the Orbix Welcome Page launches automatically.
11. The **Install Complete** screen is displayed to confirm that the installation is finished. Click **Done** to finish the installation.

Verifying Your Installation

Configuration Checks

When the installation is complete, follow these steps to ensure correct operation:

1. Check the contents of the OrbixSSL configuration files, to ensure that the specified directory paths and domain name match those for your site.

Platform	Location
UNIX	/opt/iona/config/orbixssl.cfg /opt/iona/config/ssleay.cnf
Windows	C:\iona\config\orbixssl.cfg C:\iona\config\ssleay.cnf

Note: OrbixSSL security is initially disabled after installation as the default value of `IT_DISABLE` in `orbixssl.cfg` is set to "true". Consult Chapter 2 "Getting Started with OrbixSSL" of the *OrbixSSL C++ Programmer's and Administrator's Guide* or the *OrbixSSL Java Programmer's and Administrator's Guide* for instructions on enabling OrbixSSL security.

2. Read the *OrbixSSL 3.3 SP 9 Release Notes*.

3. Consult Chapter 2 "Getting Started with OrbixSSL" of the *OrbixSSL C++ Programmer's and Administrator's Guide* or the *OrbixSSL Java Programmer's and Administrator's Guide* for instructions on how to run the example applications with OrbixSSL security. The most up-to-date versions of all Orbix 3.3 documents are available on IONA's Orbix 3.3 documentation Web page.

Note: The certificates updated by the OrbixSSL update utility at installation time are for use by OrbixSSL example programs only. They should not be used for deployed applications. The process of creating and signing certificates is described in detail in Chapter 4 of the *OrbixSSL C++ Programmer's and Administrator's Guide* or the *OrbixSSL Java Programmer's and Administrator's Guide*.

Reinstalling the license code

If you entered the license authorization key incorrectly, or left it blank during installation, you should reinstall OrbixSSL 3.3 SP 9 Core Services.

Note: OrbixSSL 3.3 SP 9 Core Services is enabled with Orbix 3.3 SP 9 Core Services Java Edition or Orbix 3.3 SP 9 Core Services C++ Edition license codes.

Uninstalling OrbixSSL 3.3 SP 9 Core Services

To uninstall OrbixSSL 3.3 SP 9 Core Services, run the UninstallOrbix file in the UninstallOrbix directory of your OrbixSSL 3.3 SP 9 Core Services installation. The following are example locations:

Platform	Uninstall script
UNIX	/opt/iona/UninstallOrbix/UninstallOrbix
Windows	C:\iona\UninstallOrbix\UninstallOrbix.exe

Note: The Uninstaller will remove the complete installation of OrbixSSL 3.3 SP 9 Core Services, but it will not remove any files that were added or generated after installation (for example, log files, executables generated in demonstration runs, implementation repositories, and so on). If OrbixSSL has been installed, it should be uninstalled first.

Further Information

If you require further technical assistance in using this product, please contact support@iona.com.

