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Orbix 3.3.18

Release Notes

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Contents

Orbix 3.3.18 Release Notes

Orbix 3.3.18 is a service pack release of Orbix 3.3 from Micro Focus.

These release notes contain information about the Orbix 3.3.18 release. They contain information that might not appear elsewhere in the documentation. Read them in their entirety before you install the product.

For details of the changes that were made in earlier releases of Orbix 3.3, see:

- For changes made in Orbix 3.3.17, see the *Orbix 3.3 SP17 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp17/ https://www.microfocus.com/documentation/orbix/orbix33sp17/

- For changes made in Orbix 3.3.16, see the *Orbix 3.3 SP16 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp16/

- For changes made in Orbix 3.3.15, see the *Orbix 3.3 SP15 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp15/

- For changes made in Orbix 3.3.14, see the *Orbix 3.3 SP14 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp14/

- For changes made in Orbix 3.3.13, see the *Orbix 3.3 SP13 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp13/

- For changes made in Orbix 3.3.12, see the *Orbix 3.3 SP12 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp12/

- For changes made between Orbix 3.0.1 and Orbix 3.3.11, see the *Orbix 3.3 SP11 Release Notes*, available at https://www.microfocus.com/documentation/orbix/orbix33sp11/

CORBA Compliance

Orbix 3.3.18 complies with the following specifications:

- CORBA 2.1.

- GIOP 1.1 and 1.0

- C++ Language Mapping (formal/99-07-41)

- IDL-to-Java Language Mapping (formal/99-07-53)

Interoperability

The Java and C++ editions of Orbix 3.3 SP 18 are tested and are interoperable with each other except for those areas that are documented as Known Issues for each edition.

Product Structure

Orbix 3.3.18 includes:

- Orbix C++ edition
- Orbix Java edition
- OrbixNames
- OrbixSSL C++ edition
- OrbixSSL Java edition

> **Note:** The distinction between "Orbix Core Services" and the "Orbix Full Services" product, which was made in previous release, no longer applies from Orbix 3.3.13. Some components that formed part of the previous "Orbix Full Services" are no longer supported.
>
> All components still supported are part of the single Orbix 3.3.18 product.
>
> The following features of previous Orbix 3 versions are **no longer supported** (except for OrbixEvents on AIX, which is now supported as of Orbix 3.3.18):
>
> - Orbix Code Generation Toolkit
> - OrbixEvents
> - OrbixOTS
> - Orbix Wonderwall

Removal of Orbix GUI components

The following GUI components are no longer automatically installed:

- Orbix Java Daemon (orbixdj)
- Orbix Configuration Explorer
- Orbix Server Manger
- OrbixNames Browser
- Demos containing GUIs

They are now available as an optional component. To install, please download and extract the GUI components archive and follow the installation instructions contained therein.

The GUI components archive can be downloaded from our Software License & Download (SLD) site, which is part of the Micro Focus Support Portal. Among other benefits, this site provides access to product license keys and install-kits, including the relevant GUI components.

For more information on the SLD, please see our Support Portal overview:

https://support.microfocus.com/help/support-portal-overview.pdf

The GUI components have been separated from the product as they do not fully comply with the Section 508 and WCAG accessibility requirements and guidelines. It is intended that future product releases will include updated GUI components that comply with the relevant accessibility guidelines.

New Features

Orbix 3.3.18 includes the following new features:

- Open JDK 17 support

- OrbixEvents which was deprecated and removed in Orbix 3.3 SP8 on AIX 32-bit platforms, is now supported and available via the OrbixEvents 3.3.18 for AIX Add-on. For more information on how to obtain and install this add-on, see the **Orbix 3.3.18 Installation Guide**.

Platforms and Compilers

The following list shows the different platforms, processors, C++ and Java versions that is Orbix is supported on:

Platform	Processor	C++ Compilers	C++ Libraries	Java Versions	Java Runtimes
AIX 6.x	PowerPC	XL C++ 11	32/64 bit	IBM 8	32/64 bit
AIX 7.x	PowerPC	XL C++ 11, XL C++ 12 & XL C++ 13	32/64 bit	IBM 8	32/64 bit
HPUX 11iv3 (B.11.31) Classic & Standard C++ Runtime	Itanium-2	Classic - A.06.27, Standard - A.06.28	32/64 bit	HP 7 & HP 8	32/64 bit
RedHat Enterprise Linux 5.5	Intel x86-x64	GCC4.1	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11	32/64 bit
RedHat Enterprise Linux 6.x	Intel x86-x64	GCC4.4	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11	32/64 bit

Platform	Processor	C++ Compilers	C++ Libraries	Java Versions	Java Runtimes
RedHat Enterprise Linux 7.x	Intel x86-x64	GCC4.8	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
RedHat Enterprise Linux 8	Intel x86-x64	GCC8.2	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
RedHat Enterprise Linux 9	Intel x86-x64	GCC11.2	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Solaris Intel 10.x	Intel x86-x64	Sun Studio 12 Update 3[a]	32/64 bit	Oracle 7, Oracle 8, Open JDK 8	Oracle 7 32/64 bit, all others 64 bit only
Solaris SPARC 10.x	SPARC	Sun Studio 12 Update 3[a]	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11	Oracle 7 32/64 bit, all others 64 bit only
Solaris Intel 11.x	Intel x86-x64	Sun Studio 12 Update 3[a]	32/64 bit	Oracle 7, Oracle 8, Open JDK 8	Oracle 7 32/64 bit, all others 64 bit only
Solaris SPARC 11.x	SPARC	Sun Studio 12 Update 3[a]	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11	Oracle 7 32/64 bit, all others 64 bit only
SuSE Linux ES 12.x	Intel x86-x64	GCC4.8	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit

Platform	Processor	C++ Compilers	C++ Libraries	Java Versions	Java Runtimes
SuSE Linux ES 15	Intel x86-x64	GCC8.2	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Windows 10	Intel x86-x64	VS2010, VS2013 & VS2015	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11,, Open JDK 17 Open JDK 11	32/64 bit
Windows 7	Intel x86-x64	VS2010 & VS2013	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Windows 8.1	Intel x86-x64	VS2012 & VS2013	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Windows Server 2012 R2	Intel x86-x64	VS2010, VS2012 & VS2013	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Windows Server 2016	Intel x86-x64	VS2015	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11	32/64 bit
Windows Server 2019	Intel x86-x64	VS2017 & VS2019	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11	32/64 bit

Platform	Processor	C++ Compilers	C++ Libraries	Java Versions	Java Runtimes
Windows Server 2022	Intel x86-x64	VS2022	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit
Windows 11	Intel x86-x64	VS2022	32/64 bit	Oracle 7, Oracle 8, Open JDK 8, Oracle 11, Open JDK 11, Open JDK 17	32/64 bit

a. Both Oracle Solaris Studio 12.4 and Oracle Solaris Studio 12.5 compilers are not supported with the latest versions of CORBA products. Two compiler issues have been uncovered during testing and raised against Oracle. Oracle Bug 21681651 relates to an inconsistent behavior in pushing function parameters on the stack between Studio 12.4 and earlier compiler versions. Oracle Bug 22179603, relates to an inconsistent behavior in symbol name mangling between Studio 12.4 and earlier compiler versions.

Micro Focus has confirmed that Bug 21681651 has been addressed in Oracle Sun Studio 12 Update 5. Oracle Bug 22179603 remains unresolved in Sun Studio 12 Update 5. Micro Focus is working with the compiler vendor towards a resolution for these issues.

Migration from Previous Versions

For information on migrating from an earlier version of Orbix to Orbix 3.3 SP 18, see *Migrating Orbix Applications to Orbix 3.3* available with the rest of the Orbix 3.3 SP18 documentation at https://supportline.microfocus.com/productdoc.aspx.

To upgrade to Orbix 3.3.18 from existing Orbix 3.3.x installations, carry out the following procedure:

> **Note:** The services that made up the "Orbix Full Services" product in previous releases are no longer supported, as described in Product Structure. For customers who are upgrading from a full services installation of Orbix to Orbix 3.3.18, such as Solaris SPARC or HP-UX Itanium (32-bit), Micro Focus recommends some additional steps in the upgrade procedure, which are noted below.

- Ensure that all Orbix services are stopped.

- Back up existing installations before you upgrade to Orbix 3.3.18.

- If you are upgrading from a full services installation of Orbix to Orbix 3.3.18, such as on Solaris SPARC or HP-UX Itanium (32-bit):

  - Rename the installation folder of the Orbix 3.3.x installation, so that it is not overwritten.
  - Install Orbix 3.3.18 to the old location of the Orbix 3.3.x installation.

- Overlay the **config** folder of the Orbix 3.3.x installation to the **config** folder of the Orbix 3.3.18 installation, in order to preserve the previous configuration and databases (such as IMR, NamesRep).
- In other circumstances, simply run the Orbix 3.3.18 installer. The Orbix installer overwrites the existing version.

For details on installing Orbix 3.3.x service packs, see the ***Orbix Installation Guide***, available with the rest of the Orbix 3.3.18 documentation at:

https://www.microfocus.com/support-and-services/documentation/

Support for C++ 17 compilers

Orbix 3.3.18 adds support more modern C++ compilers, which include support for the newer C++ 17 dialects.

With regard to the C++ 17 dialect and above, the C++ dynamic exception throw specifier is no longer supported, and existing applications will not compile. To overcome this limitation, a new C++ pre-compiler macro IT_THROWSPEC has been introduced to aid in migrating existing CORBA applications to newer compilers.

Existing applications that used the `-throw` IDL compiler flag should also recompile their IDL to ensure that the pre-compiler macro is correctly generated.

Changing Java Version after Installation

While it is always possible to change the version of Java used by the product, changing Orbix 3.3.18 from using JDK 7 or 8 to JDK 11 will require some extra changes.

See the section "*Changing Java version after installation*" in the ***Orbix 3.3 SP18 Installation Guide*** for details.

Deprecated Features Policy

When a feature is deprecated it means that:

- No support for this feature is given for the current version and for subsequent versions (we do not explain how to use it, and we do not fix any bugs in this feature).
- If you have not used this feature before, DO NOT start using it with this release.
- If you are already using this feature, you should remove it if at all possible.
- The feature may not be present in future versions of the product.

Other Resources

The following additional resources are available:

- The most up-to-date versions of Orbix technical documentation are available at:

https://www.microfocus.com/documentation/orbix/

- The Orbix Knowledge Base is a database of articles that contain practical advice on specific development issues, contributed by developers, support specialists, and customers. This is available at: https://community.microfocus.com/t5/Orbix-Knowledge-Base/tkb-p/wikiid-155

- Contact Micro Focus technical support at:

  http://www.microfocus.com

Orbix 3.3.18 C++ Edition

This section describes changes made specifically to Orbix C++ Edition that are relevant to Orbix 3.3 SP 18.

Orbix 3.3 SP 18 C++ Edition is binary compatible with Orbix 3.3 C++ Edition.

New Features

There are no new features for Orbix 3.3.18 C++ Edition.

Deprecated Features

The following is a list of deprecated features in Orbix C++ Edition. See "Deprecated Features Policy" for what deprecation of a feature entails.

Feature	Description	Feature Removed	When Deprecated
_bind()	Should use other means.	No	Orbix 3.0
Transformers	Can use SSL for security.	No	Orbix 3.0
Piggy backing data with filters	Should use Service Contexts.	No	Orbix 3.0
Opaque data type		No	Orbix 3.0
Orbix network protocol (POOP)	Must use IIOP instead.	No	Orbix 3.0
IDL compiler options -i and -f		No	Orbix 3.0
IR	Replaced with the IFR.	Yes	Orbix 3.0
Locator	Can implement own load balancing solution.	Yes	Orbix 3.3
Non-native exceptions	Must use Native Exceptions	Yes	Orbix 3.3
TIE macro DEF_TIE(I,X)	Use other form	Yes	Orbix 3.3
Configuration Explorer (`ConfigurationExplorer.bat`)	Configure Orbix components without modifying the configuration files directly.	No	Orbix 3.3 SP 5
Server Manager (ServerManager.bat)	Allows you to manage the Implementation Repository.	No	Orbix 3.3 SP 5
`setenvs.csh` and `setenvs64.csh`	The c-shell environment scripts in the Unix product installations.	Yes	Orbix 3.3 SP 16

Feature	Description	Feature Removed	When Deprecated
Actional Integration	Integration with Actional SOA management products.	No	Orbix 3.3 SP 17

Note: Orbix 3.0 was released February 1999 and Orbix 3.3 was released September 2000.

Known Issues

The following table summarizes known issues for Orbix 3.3.18 C++ Edition.

Incident ID	Synopsis

Resolved Issues

The resolved issues for Orbix C++ Edition that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number or an Octane defect number followed by the Customer Incident Numbers (in parentheses). RPIs/Octane defects that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

Issues resolved in previous HotFixes

This section includes issues that were fixed in HotFixes to Orbix 3.3 SP17, and are now incorporated into SP18.

• The Orbix 3 IDL compiler has been enhanced such that it can ignore annotations that may appear in an IDL file. This change ensures that the IDL compiler can continue to compile IDL files as if they did not contain any IDL-RS annotations.
388108

• Continuous memory increase by Orbix Library.
394046

• Orbix3 client restart after time out forwarded from IDBC.
372088

• Address issues with the Bind with Locate Requests functionality in Orbix 3.
415228

Orbix 3.3.18 Java Edition

This section describes changes made specifically to Orbix Java Edition that are relevant to Orbix 3.3 SP 18.

Orbix 3.3 SP 18 Java Edition is binary compatible with Orbix 3.3 Java Edition.

New Features

There are no new features for Orbix 3.3.18 Java Edition.

Deprecated Features

The following is a list of features deprecated in Orbix Java Edition. See "Deprecated Features Policy" for what deprecation of a feature entails.

Feature	Description	Feature Removed	When Deprecated
_bind()	Use other means.	No	OrbixWeb 3.2
Transformers	Can use SSL for security.	No	OrbixWeb 3.2
Piggy backing data with filters	Should use Service Contexts.	No	OrbixWeb 3.2
Opaque data type		No	OrbixWeb 3.2
Orbix network protocol (POOP)	Must use IIOP instead.	No	OrbixWeb 3.2
IDL compiler options `-i` and `-f`		No	OrbixWeb 3.2
Orbix Java activator (`Orbixdj.bat`)	Java activator in graphical mode	No	Orbix 3.3 SP 5
Orbix Java utilities (such as `putitj`)	Use C++ utilities instead	No	Orbix 3.3 SP 14
`setenvs.csh` and `setenvs64.csh`	The c-shell environment scripts in the Unix product installations.	Yes	Orbix 3.3 SP 16
Actional Integration	Integration with Actional SOA management products.	No	Orbix 3.3 SP 17

Known Issues

The following table summarizes known issues for Orbix 3.3.18 Java Edition.

Incident ID	Synopsis

Resolved Issues

The resolved issues for Orbix Java edition that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number or an Octane defect number followed by the Customer Incident Numbers (in parentheses). RPIs/Octane defects that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

OrbixNames 3.3.18

This section describes changes made specifically to the OrbixNames product that are relevant to OrbixNames 3.3 SP 18.

New Features

There are no new features for OrbixNames 3.3.18.

Deprecated Features

The following is a list of features deprecated in OrbixNames:

Feature	Description	Feature Removed	When Deprecated
Names Service browser (`NamesBrowser.bat`)	Allow you to monitor and manage the Naming Service externally to your applications.	No	Orbix 3.3 SP5
Names java utilities (such as `lsnsj`)	Use C++ utilities instead	No	Orbix 3.3 SP14

Known Issues

There are no known issues for OrbixNames 3.3.18.

Resolved Issues

The resolved issues for OrbixNames that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number or an Octane defect number followed by the Customer Incident Numbers (in parentheses). RPIs/Octane defects that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

OrbixSSL 3.3.18 C++

This section describes changes made specifically to OrbixSSL C++ that are relevant to Orbix 3.3 SP 18.

OrbixSSL 3.3 SP 18 C++ Edition is binary compatible with Orbix 3.3 C++ Edition.

New Features

There are no new features for OrbixSSL 3.3.18.

Deprecated Features

The following is a list of deprecated features in OrbixSSL C++:

Feature	Feature Removed	When Deprecated
Support for the following cipher suites: • `SSLV3_RSA_WITH_RC4_128_SHA` • `SSLV3_RSA_WITH_RC4_128_MD5` • `SSLV3_RSA_WITH_3DES_EDE_CBC_SHA` • `SSLV3_RSA_WITH_DES_CBC_SHA` • `SSLV3_RSA_EXPORT_WITH_DES40_CBC_SHA` • `SSLV3_RSA_EXPORT_WITH_RC2_CBC_40_MD5` • `SSLV3_RSA_EXPORT_WITH_RC4_40_MD5`	No	Orbix 3.3.14

Known Issues

There are no known issues for OrbixSSL 3.3.18.

Resolved Issues

The resolved issues for OrbixSSL Java that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number or an Octane defect number followed by the Customer Incident Numbers (in parentheses). RPIs/Octane defect that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

Issues resolved in previous HotFixes

This section includes issues that were fixed in HotFixes to OrbixSSL 3.3 SP17, and are now incorporated into OrbixSSL 3.3 SP18.

- OpenSSL was upgraded to version 1.1.1n to address the denial of service risk described in CVE-2022-0778.

- OpenSSL "middle box" capability is now configurable. TLSv1.3 handshakes may encounter problems when flowing through network hardware that does not understand TLSv1.3.

  The OrbixSSL C++ default is to run with middle box capability turned on, providing a handshake flow that looks more like TLSv1.2.

  To turn off middle box capability, set the following configuration item, in the `orbixssl.cfg` configuration file:

  ```
  IT_ENABLE_MIDDLEBOX_COMPAT = "FALSE";
  ```

  374080

- Make `openssl` setting `SSL_OP_CIPHER_SERVER_PREFERENCE` configurable.

  The ability to have server cipher preference.

  From `openssl` document:
  `https://www.openssl.org/docs/man1.1.1/man3/SSL_CTX_se t_options.html`

  ```
  SSL_OP_CIPHER_SERVER_PREFERENCE
  ```
  When choosing a cipher, use the server's preferences instead of the client preferences.
  When not set, the SSL server will always follow the clients preferences.
  When set, the SSL/TLS server will choose following its own preferences.

  OrbixSSL will default to enable server-side preference, to disable this and use client-side preference, set the following in your `orbixssl.cfg` configuration file.

  ```
  IT_CIPHER_SERVER_PREFERENCE = "false";
  ```

  372088

OrbixSSL 3.3.18 Java

This section describes changes made specifically to OrbixSSL Java that are relevant to Orbix 3.3 SP 18.

OrbixSSL 3.3 SP 18 Java Edition is binary compatible with OrbixSSL 3.3 Java Edition.

New Features

There are no new features for OrbixSSL 3.3.18 Java.

Deprecated Features

The following is a list of features deprecated in OrbixSSL Java:

Feature	Feature Removed	When Deprecated
Support for the following cipher suites: • SSLV3_RSA_WITH_RC4_128_SHA • SSLV3_RSA_WITH_RC4_128_MD5 • SSLV3_RSA_WITH_3DES_EDE_CBC_SHA • SSLV3_RSA_WITH_DES_CBC_SHA • SSLV3_RSA_EXPORT_WITH_DES40_CBC_SHA • SSLV3_RSA_EXPORT_WITH_RC2_CBC_40_MD5 • SSLV3_RSA_EXPORT_WITH_RC4_40_MD5	No	Orbix 3.3.14

Known Issues

There are no known issue for OrbixSSL 3.3.18 Java.

Resolved Issues

The resolved issues for OrbixSSL Java that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number or an Octane defect number followed by the Customer Incident Numbers (in parentheses). RPIs/Octane defects that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.