



# **VisiBroker 8.5.2 for Visual Studio 2013**

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Release Notes

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# Micro Focus VisiBroker 8.5.2 for VS2013 Release Notes

This release extends the coverage of VisiBroker 8.5 SP2 to support Microsoft Visual Studio 2013.

For changes first made in this release, see:

- [Support for Visual Studio 2013](#)
- [Resolved issues in this release](#)

For changes made in HotFixes that have been included in this release, see:

- [OpenSSL version](#)
- [OpenSSL properties](#)
- [Resolved issues in HotFix 05](#)
- [Resolved issues in HotFix 03](#)
- [Resolved issues in HotFix 02](#)
- [Resolved issues in HotFix 01](#)

## Installing VisiBroker 8.5.2 for VS2013

To install this release:

1. Double-click on the **vb85.<version>.<platform>.exe** file supplied. Note that the precise filename varies depending on the platform to which it applies.
2. Follow the instructions in the installer.
3. You can consult the *VisiBroker 8.5.2 Installation Guide* if you need more detailed information. This is available with the rest of the product documentation from <https://supportline.microfocus.com/productdoc.aspx>.

## Operating Systems Supported

This release provides support for the following platforms:

- Microsoft Windows 8
- Microsoft Windows Server 2012 R2

For a full list of supported platforms, see

<http://supportline.microfocus.com/supportresources/VB85SP2prodmatrix.aspx>.

# New Features

This release provides enhancements in the following areas.

## Support for Visual Studio 2013

VisiBroker 8.5.2 for VS2013 adds support for Microsoft Visual Studio 2013. A new installer is included for Visual Studio 2013 installations.

### Note

Existing VisiBroker application code must be recompiled before you can use it with Microsoft Visual Studio 2013.

## Support for Windows 8

VisiBroker 8.5.2 for VS2013 adds support for Microsoft Windows 8.1, using Microsoft Visual Studio 2013.

## Support for Windows Server 2012

VisiBroker 8.5.2 for VS2013 adds support for Microsoft Windows Server 2012 R2, using Microsoft Visual Studio 2013.

## JDK 8 certification

VisiBroker 8.5.2 supports Oracle JDK 8.

## IPv4/IPv6 co-existence

This release enables IPv4 and IPv6 to co-exist within client code.

## Security providers

VisiSecure for C++ now provides support for an OpenSSL security provider as well as for the default Certicom security provider. A Security Provider Selection utility is included. See [Specifying the Security Provider](#) for information on using this utility.

The OpenSSL security provider offers a range of additional cipher suites, but support is withdrawn for some other cipher suites:

- Cipher suites incorporating SHA-256 hashing, SHA-384 hashing, or the AES algorithm are now supported.
- Cipher suites without encryption, EXPORT strength suites, and DES-56 encryption are no longer supported.
- If OpenSSL is selected, it is possible to use the TLS version 1.2 communications protocol.

## OpenSSL version

VisiBroker 8.5.2 for VS2013 includes an update to OpenSSL version 1.0.1m.

## OpenSSL properties

In order to support TLS 1.2 (as implemented in RPI 1095153), [HotFix 01](#) introduced additional arguments for two existing properties that apply when the OpenSSL security provider is selected. The affected properties are:

### **vbroker.security.client.socket.enabledProtocols**

The following arguments are additional to those listed in the *VisiBroker 8.5.2 Security Guide*:

`TLS_Version_1_1_With_2_0_Hello`

In this mode, the library negotiates a TLS 1.1 or above connection, but begins by sending an SSL 2.0 "Hello".

`TLS_Version_1_1_Only`

In this mode, the library negotiates a TLS 1.1 connection using a TLS 1.1 handshake. However Micro Focus recommends using the SSL 2.0 hello version as this allows detection of peers that do not support TLS1.1.

`TLS_Version_1_2_With_2_0_Hello`

In this mode, the library negotiates a TLS 1.2 or above connection, but begins by sending an SSL 2.0 "Hello".

`TLS_Version_1_2_Only`

In this mode, the library negotiates a TLS 1.2 connection using a TLS 1.2 handshake. However Micro Focus recommends using the SSL 2.0 hello version as this allows detection of peers that do not support TLS1.2.

### **vbroker.security.server.socket.enabledProtocols**

The following arguments are additional to those listed in the *VisiBroker 8.5.2 Security Guide*:

`TLS_Version_1_1_With_2_0_Hello`

In this mode, the library negotiates a TLS 1.1 or above connection, but can accept an SSL 2.0 or above "Hello".

`TLS_Version_1_1_Only`

In this mode, the library negotiates a TLS 1.1 connection using a TLS 1.1 handshake. However Micro Focus recommends using the SSL 2.0 hello version as this allows detection of peers that do not support TLS1.1.

`TLS_Version_1_2_With_2_0_Hello`

In this mode, the library negotiates a TLS 1.2 or above connection, but can accept an SSL 2.0 or above "Hello".

`TLS_Version_1_2_Only`

In this mode, the library negotiates a TLS 1.2 connection using a TLS 1.2 handshake. However Micro Focus recommends using the SSL 2.0 hello version as this allows detection of peers that do not support TLS1.2.

## Specifying the Security Provider

With this Service Pack VisiSecure for C++ provides support for OpenSSL security as well as for the default Certicom security provider.

A Security Provider Selection utility is provided, which you can use to specify your default security provider after installation, or to change it subsequently. To start this utility:

- On Windows systems, run `<VBROKERDIR>\bin\SelectSecurityProvider.cmd`, either from a command prompt or by double clicking.
- On UNIX systems, run `$VBROKERDIR/bin/SelectSecurityProvider.sh`.

You are prompted to close any open VisiBroker instances, and then prompted as follows:

```
Please select a security provider:
```

- ```
1) Certicom  
2) OpenSSL  
3) Exit with no changes
```

```
Select option:
```

Select the option you require. VisiBroker reconfigures and confirms that the selected security provider is in operation, with the message:

```
Configuring <name> security provider...  
Done.
```

You can alternatively specify a command line parameter such as:

```
bin/"SelectSecurityProvider.cmd" certicom  
  
bin/SelectSecurityProvider.sh openssl
```

This runs the utility to the same effect, but does not provide the prompt.

## User Documentation

New documentation released with VisiBroker 8.5.2 is available online, from <https://supportline.microfocus.com/productdoc.aspx>. It will be made available from within the product at a future release.

The documentation currently accessed from within the product is the legacy documentation from the VisiBroker 8.5 GA version.

## Resolved Issues

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

### Resolved issues in VisiBroker 8.5.2 for Visual Studio 2013 (this release)

- VisiBroker now supports Visual Studio 2013, Oracle DB 12c, and (on AIX only) XL C/C++ 11.1.

1097741 (2808103)

### Resolved issues in HotFix 05

- The following cipher suites are not supported by VisiBroker's MFCryptLib/OpenSSL security provider:

DH\_DSS\_WITH\_DES\_CBC\_SHA, DH\_DSS\_WITH\_3DES\_EDE\_CBC\_SHA,  
DH\_RSA\_WITH\_DES\_CBC\_SHA, DH\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA,  
TLS\_DH\_DSS\_WITH\_DES\_CBC\_SHA, TLS\_DH\_DSS\_WITH\_3DES\_EDE\_CBC\_SHA,  
TLS\_DH\_RSA\_WITH\_DES\_CBC\_SHA and  
TLS\_DH\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA.

OpenSSL itself does not support them, and so their definitions have been removed from `csstring_openssl.h`.

610400

- The segmentation fault in `CSIV2ServerReqInt::revokePrivileges()` has been fixed.

1081290 (2529859)

- The following OpenSSL cipher suite names are now available for use in the MFCryptLib/OpenSSL security provider:

TLS\_RSA\_WITH\_AES\_128\_CBC\_SHA256  
TLS\_RSA\_WITH\_AES\_256\_CBC\_SHA256  
TLS\_DHE\_DSS\_WITH\_AES\_128\_CBC\_SHA256  
TLS\_DHE\_DSS\_WITH\_AES\_256\_CBC\_SHA256  
TLS\_DHE\_RSA\_WITH\_AES\_128\_CBC\_SHA256  
TLS\_DHE\_RSA\_WITH\_AES\_256\_CBC\_SHA256  
TLS\_RSA\_WITH\_AES\_128\_GCM\_SHA256  
TLS\_RSA\_WITH\_AES\_256\_GCM\_SHA384  
TLS\_DHE\_DSS\_WITH\_AES\_128\_GCM\_SHA256  
TLS\_DHE\_DSS\_WITH\_AES\_256\_GCM\_SHA384  
TLS\_DHE\_RSA\_WITH\_AES\_128\_GCM\_SHA256  
TLS\_DHE\_RSA\_WITH\_AES\_256\_GCM\_SHA384

1097342 (2804783)

- Ephemeral Diffie-Hellman cipher suites are now available for use in the MFCryptLib/OpenSSL security provider. Note that Anonymous DH cipher suites remain available for use, but Elliptic Curve DH cipher suites are not yet supported.

1097343 (2804783)

### Resolved issues in HotFix 03

- TIMEOUT exceptions were occurring too soon, almost immediately after writing the request message, even though the timeout had not expired yet.

1096348 (2795586)

### Resolved issues in HotFix 02

- When used on multi-processor hardware, VisiBroker was bound to execute on one processor core only. VisiBroker will now use all available processor cores.

1096219 (2794764)

### Resolved issues in HotFix 01

- The MFCryptLib/OpenSSL security provider has been fixed to ensure that a peer certificate is never trusted when there is no valid CA intermediate/root certificate provided for it.

607261

- If `vbroker.security.cipherList` is specified and no certificates are configured, the cipherList was ignored and all anonymous cipher suites were enabled.

Now, all non-anonymous cipher suites specified as part of this property value will be ignored; only the anonymous cipher suites specified as part of this property will remain actively available for the SSL handshake.

605971

- TLS 1.2 support is provided. See [OpenSSL properties](#) above for details of the changes made.

1095153 (2785118)

### Resolved issues in VisiBroker 8.5 SP2

- The thread maximum property setting was not enforced for Java NIO; the number of threads allocated at the server side could exceed the value set.

582474

- SSL server connection manager properties are now documented in the *VisiBroker Security Guide*.

585159

- Fixed an unexpected MARSHAL exception.

590008

- VisiBroker now sets the order into which cipher suites are sorted.  
590148
- Fixed incorrect MARSHAL exceptions for custom marshaled objects.  
590149
- The `equals` methods generated by `idl2java` for `Struct`, `Valuebox`, `Union`, `Enum` and `Value` instances when an array is present will no longer throw an exception when that array is null.  
599932
- Generated stubs now check for null before creating a string representation of an array or sequence.  
599976
- If an invalid ciphersuite is specified in the `vbroker.security.cipherList` property, it is removed from the list. If no valid ciphersuites are specified, none are enabled. This is different from the previous behavior when all available ciphersuites would be enabled.  
602836
- Added two properties to the C++ client implementation in order to make possible to set the port (and port range) to be bound when a new connection is opened by the ORB. These properties were already implemented for Java.  
1078232 (2500241)
- The `vbroker.ce.iiop.host` property could only specify an address in one of IPv4 or IPv6 formats. It is now possible to specify one address in each format, separated by a comma.  
1080840 (2533802)
- Protected against a NULL pointer dereference occurring after being returned from `oidToOIDType()`. This can occur when `v3_ca` extensions are used without the `vbroker.security.addOID` property being added to support them.  
1081048 (2533676)
- A thread deadlock no longer occurs if a CORBA request is received during server initialization.  
1081238 (2538035)
- On VisiBroker for HPIA 32-bit, `lmadm` now runs with the 32-bit JVM library.  
1081826 (2545427)
- Fixed a problem whereby long timeouts specified using `vbroker.orb.tcpTimeout` were not correctly implemented.  
1081913 (2543135)

- The exception `java.lang.IllegalStateException` could occur when multiple threads are trying to make SSL connections concurrently.  
1082235 (2543890)
- Timeout policies were not working when a secure VisiBroker client connected to a non-CORBA and non-secure server.  
1082271 (2550363)
- The hashcode methods generated by `idl2java` for `Struct`, `Valuebox`, `Union`, `Enum`, and `Value` instances are different from those in previous VisiBroker releases. Previously they have been identity-based, but now they are value-based. This matches the behavior of the class `equals` methods, and addresses an issue which affected their use with collections.  
1082773 (2555499)
- The code generated from IDL exception declarations that contain no members used to lead to specific "The value of the field `<IDLExceptionTypeName>Helper._initializing` is not used" warnings compiled using the Eclipse compiler for Java (ECJ). This does not now happen.  
1084110 (2573037)
- A memory leak that occurred when the property `vbroker.orb.ncsc=UTF8` was set has been fixed.  
1087359 (2604596)
- A `MARSHAL` exception could occur when sending a `CORBA.Any` containing a `CORBA Object`, if debug logging was enabled.  
1089669 (2644002)
- Problems with using FIPS/SP800-131(strict) validation certificates with IBM JDKs have been fixed. To use such certificates, you must set `-VBJprop vbroker.security.transport.protocol=TLSv1.2` on both the VisiBroker server and client.  
1090570 (2656369)
- The VisiSecure for Java properties `vbroker.security.CSS.strict` and `vbroker.security.keyStore.keyPass` have been documented.  
1090163 (2644840)
- Timer objects would generate exceptions (`IllegalStateException` and `NullPointerException`) when security was enabled. This was the result of a race condition in VisiBroker Java.  
1090167 (2644840)
- Fixed a rare segfault which can cause a VisiBroker server crash when logging to file is enabled.  
1092313 (2675031)

- Fix to the timeout calculation that is used when sending or receiving a message.  
1092704 (2673227)
- When a new secure connection is opened from VisiSecure for Java, the ClientHello messages now include the pseudo-ciphersuite "TLS\_EMPTY\_RENEGOTIATION\_INFO\_SCSV" instead of the TLS extension "Renegotiation Info". This allows interoperability with some problematic TLS implementations.  
1094117 (2696752)

# Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

## Further Information and Product Support

Additional technical information or advice is available from several sources.

The product support pages contain a considerable amount of additional information, such as:

- The WebSync service, where you can download fixes and documentation updates.
- The Knowledge Base, a large collection of product tips and workarounds.
- Examples and Utilities, including demos and additional product documentation.

To connect, enter <http://www.microfocus.com> in your browser to go to the Micro Focus home page.

**Note:** Some information may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described on the Micro Focus Web site, [www.microfocus.com](http://www.microfocus.com). If you obtained the product from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us.

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