Known Issues and Platform Notes

This page describes known issues and platform-specific notes for this Ice release.

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Java

Socket connection issue in Android emulator

An Ice application that attempts to connect to an invalid address can generate "spurious wakeup" messages in logcat when running under an emulator for Android 4.2 or later. This issue does not occur on hardware devices, however you can still experience lengthy delays before receiving an exception. As a defensive measure, it is a good idea to always set reasonable timeouts on your proxies to avoid unexpected delays.

Android Bluetooth limitations

A process can only establish one Bluetooth connection at a time to a particular remote endpoint. The process can have multiple connections open at the same time, but each of those connections must be to a different endpoint.

Anonymous Diffie Hellman ciphersuites

Recent versions of Java require low-strength ADH ciphersuites to be disabled when using TLS 1.0. It is no longer sufficient to use this IceSSL configuration:

```
IceSSL.Ciphers=NONE (DH_anon)
IceSSL.VerifyPeer=0
```

We recommend using this setting instead:

```
IceSSL.Ciphers=NONE (DH_anon.*AES)
IceSSL.VerifyPeer=0
```

Entropy pool causes hangs

When using the Ice for Java SSL plug-in (IceSSL), you may experience occasional hangs. The most likely reason is that your system's entropy pool is empty. If you have sufficient system privileges, you can solve this issue by editing the file `java.home/jre/lib/security/java.security` and changing it to use `/dev/urandom` instead of `/dev/random`. If you do not have permission to modify the security file, you can also use the command-line option shown below:

```
java -Djava.security.egd=file:/dev/urandom MyClass ...
```

IPv6 hang

On systems with IPv6 enabled, you may experience occasional hangs the first time an Ice object adapter is activated within a JVM. A work-around is to disable IPv6 support by setting the Java property `java.net.preferIPv4Stack` to true. For example:

```
java -Djava.net.preferIPv4Stack=true MyClass ...
```

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Linux

Bluetooth limitations

A process can only establish one Bluetooth connection at a time to a particular remote endpoint. The process can have multiple connections open at the same time, but each of those connections must be to a different endpoint.

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Windows

Anti-Virus when testing WebSocket

If your anti-virus intercepts `http` traffic on localhost, a number of tests in the Ice test suite may fail due to timeouts when running the test suite with the `ws` (WebSocket) protocol. The work-around is to disable the "web access protection" feature of the anti-virus entirely or at least for localhost (127.0.0.1).

Multicast and Windows Store Apps

Network isolation for Windows Store Apps blocks multicast datagrams on the loopback interface. As a result, IceDiscovery and IceLocatorDiscovery won't be able to discover peers listening on the loopback interface.

.NET hang

When a connection is closed forcefully by a server, the client doesn't always detect the connection closure in a timely fashion. This might cause client invocations on the connection to hang for up to two minutes until the system notifies the client of the connection closure or until active connection management (ACM) closes the connection when the timeout is reached. Client invocations might therefore fail with either `Ice.ConnectionLostException` or `Ice.ConnectionTimeoutException` when this occurs. We have reported the issue to Microsoft.

TLS 1.2 with Windows 7, Windows 8.1 and Windows Server 2012

A bug in SChannel's implementation of TLS 1.2 that affects Windows versions prior to Windows 10 can result in SSL handshake failures when client and server negotiate a DHE-based cipher suite. Applications can work around this by disabling DHE cipher suites. See the links below for more information about this issue:

- https://connect.microsoft.com/IE/feedback/details/1253526/tls-serverkeyexchange-with-1024-dhe-may-encode-dh-y-as-127-bytes-breaking-internet-explorer-11
- https://github.com/dotnet/corefx/issues/7812#issuecomment-305848835

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