

IBM Platform Symphony RFC 4519 Readme File

About the retrieve client connection state feature

This package contains the retrieve client connection state feature. The retrieve client connection state feature allows the user to get/check the state of the connection between the client and the Symphony Session Manager (SSM) by the client API. The state of the connection helps the user choose a better time to submit tasks.

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1. Scope

Applicability	
Operating system	Solaris x86 (STLport4) Solaris x86_64 (STLport4) Windows 32bit Windows 64bit
Symphony version	Symphony 5.1
API	C++/Java
Limitations	
<Limitation>	N/A

2. Installation

1. Prerequisites

1. Symphony 5.1 is installed.
2. Symphony 5.1 DE is installed.

2. Packages

File name	Description
symphony_build227353_x86-64-sol10-stlport4.tar	The binary package that contains this new feature for Solaris 10 x86_64 (STLport4).
symphony_build227353_x86-sol10-stlport4.tar	The binary package that contains this new feature for Solaris 10 x86 (STLport4).
symphony_build227353_w2k3_x64.zip	The binary package that contains this new feature for Windows 64 bits.
symphony_build227353_w2k-x86.zip	The binary package that contains this new feature for Windows 32 bits.
symphonySDK-x86-64-sol10-stlport4-5.1.0-227353.tar.gz	The SDK package that contains this new feature for Solaris 10 x86_64 (STLport4)
symphonyDE-x86-sol10-stlport4-5.1.0-227353.tar.gz	The DE package that contains this new feature for Solaris 10 x86 (STLport4)
checksum.md5	Contains the MD5 checksum for above package

3. Installation procedure: Symphony DE on Windows 64 bits.

1. Download "symphony_build227353_w2k3_x64.zip".
2. Shut down the DE environment using the following commands:
C:\> soamcontrol app disable all -f
C:\> soamshutdown
3. (OPTIONAL) Back up SOAM binaries. Use this step if you want to be able to roll back the change.
Go to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib directory and back them up.
Go to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib64 directory and back them up.
Go to %SOAM_HOME%\5.1\src directory and back them up.
Go to %SOAM_HOME%\5.1\include directory and back them up.
4. Copy symphony_build227353_w2k3_x64.zip to C:\tmp\ directory and decompress the package.
5. Copy files.
Copy C:\tmp\java\JavaSoamApi.jar to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib
Copy C:\tmp\jnativesoamapi_5.1.0_64.dll and C:\tmp\jnativesoamapi_5.1.0_64.pdb to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib64
Copy C:\tmp\soambase.dll, C:\tmp\soambase.lib and C:\tmp\soambase.pdb to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib64
Copy C:\tmp\cpp\SoamConnection.cpp and C:\tmp\cpp\soam.cpp

```

to %SOAM_HOME%\5.1\src
Copy      C:\tmp\cpp\SoamConnection.h,      C:\tmp\cpp\SoamException.h      and
C:\tmp\cpp\SoamInterfaces.h to %SOAM_HOME%\5.1\include
Copy      C:\tmp\lib32\jnativeoamapi_5.1.0.dll      and
C:\tmp\lib32\jnativeoamapi_5.1.0.pdb to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib
Copy      C:\tmp\lib32\soambase.dll,      C:\tmp\lib32\soambase.lib      and
C:\tmp\lib32\soambase.pdb to %SOAM_HOME%\5.1\w2k3_x64-vc7-psdk\lib

```

4. Installation procedure: Symphony DE on Windows 32 bits.

1. Download "symphony_build227353_w2k-x86.zip".
2. Shut down the DE environment using the following commands:


```

C:\> soamcontrol app disable all -f
C:\> soamshutdown

```
3. (OPTIONAL) Back up SOAM binaries. Use this step if you want to be able to roll back the change.


```

Go to %SOAM_HOME%\5.1\win32-vc7\lib directory and back them up.
Go to %SOAM_HOME%\5.1\src directory and back them up.
Go to %SOAM_HOME%\5.1\include directory and back them up.

```
4. Copy symphony_build227353_w2k-x86.zip to C:\tmp\ directory and decompress the package.
5. Copy files.


```

Copy      C:\tmp\java\JavaSoamApi.jar      C:\tmp\jnativeoamapi_5.1.0.dll      and
C:\tmp\jnativeoamapi_5.1.0.pdb to %SOAM_HOME%\5.1\win32-vc7\lib
Copy      C:\tmp\soambase.dll,      C:\tmp\soambase.lib      and      C:\tmp\soambase.pdb
to %SOAM_HOME%\5.1\win32-vc7\lib
Copy      C:\tmp\cpp\SoamConnection.cpp      and      C:\tmp\cpp\soam.cpp
to %SOAM_HOME%\5.1\src
Copy      C:\tmp\cpp\SoamConnection.h,      C:\tmp\cpp\SoamException.h      and
C:\tmp\cpp\SoamInterfaces.h to %SOAM_HOME%\5.1\include

```

5. Installation procedure: Symphony client on Solaris 10 x86_64 (STLport4).

1. Download "symphony_build227353_x86-64-sol10-stlport4.tar".
2. Copy symphony_build227353_x86-64-sol10-stlport4.tar to /tmp/RFC4519 directory and decompress the package.
3. Copy files.


```

Copy /tmp/RFC4519/java/JavaSoamApi.jar to $SOAM_HOME/lib
Copy /tmp/RFC4519/libjnativeoamapi_5.1.0_64.so to $SOAM_HOME/lib64
Copy /tmp/RFC4519/libsoambase.so to $SOAM_HOME/lib64
Copy /tmp/RFC4519/lib32/libjnativeoamapi_5.1.0.so to $SOAM_HOME/lib
Copy /tmp/RFC4519/lib32/libsoambase.so to $SOAM_HOME/lib

```

6. Installation procedure: Symphony client on Solaris 10 x86 (STLport4).

1. Download "symphony_build227353_x86-sol10-stlport4.tar".
2. Copy symphony_build227353_x86-sol10-stlport4.tar to /tmp/RFC4519 directory and decompress the package.
3. Copy files


```

Copy      /tmp/RFC4519/java/JavaSoamApi.jar,      /tmp/RFC4519/libsoambase.so      and
/tmp/RFC4519/libjnativeoamapi_5.1.0.so to $SOAM_HOME/lib

```

7. Installation procedure: Symphony client on Windows 64 bits.

1. Download "symphony_build227353_w2k3_x64.zip".
2. Copy symphony_build227353_w2k3_x64.zip to C:\tmp\ directory and decompress the package.
3. Copy files
Copy C:\tmp\java\JavaSoamApi.jar to %SOAM_HOME%\lib
Copy C:\tmp\soambase.dll, C:\tmp\soambase.pdb to %SOAM_HOME%\lib64
Copy C:\tmp\jnativesoamapi_5.1.0_64.dll and C:\tmp\jnativesoamapi_5.1.0_64.pdb to %SOAM_HOME%\lib64
Copy C:\tmp\lib32\soambase.dll, C:\tmp\lib32\soambase.pdb to %SOAM_HOME%\lib
Copy C:\tmp\lib32\jnativesoamapi_5.1.0.dll and C:\tmp\lib32\jnativesoamapi_5.1.0.pdb to %SOAM_HOME%\lib

8. Installation procedure: Symphony client on Windows 32 bits.

1. Download "symphony_build227353_w2k-x86.zip".
2. Copy symphony_build227353_w2k-x86.zip to C:\tmp\ directory and decompress the package.
3. Copy files
Copy C:\tmp\java\JavaSoamApi.jar, C:\tmp\soambase.dll, C:\tmp\soambase.pdb
C:\tmp\java\jnativesoamapi_5.1.0.dll and C:\tmp\java\jnativesoamapi_5.1.0.pdb to %SOAM_HOME%\lib

9. Installation procedure: Symphony SDK on Solaris 10 x86_64 (STLport4).

This Solaris SDK package (symphonySDK-x86-64-sol10-stlport4-5.1.0-227353.tar.gz) is installed in the same way as the general Symphony Solaris SDK.

For more detailed information about installing the Solaris SDK, refer to the installation document in the Knowledge Center.

10. Installation procedure: Symphony DE on Solaris 10 x86 (STLport4).

This Solaris DE package (symphonyDE-x86-sol10-stlport4-5.1.0-227353.tar.gz) is installed in the same way as the general Symphony Solaris DE.

For more detailed information about installing the Solaris DE, refer to the installation document in the Knowledge Center.

3. Usage

1. How these features work

When the “retrieve client connection state” feature is enabled, the user gets/checks the state of the connection between the client and SSM by the client API “soam::Connection::getState()”. According to the current state of the connection, the user chooses a better time to submit tasks to avoid a connection broken exception: for example, if the connection is broken and Symphony is re-connecting to the SSM, it is better to hold on sending tasks until the connection is reestablished. The state of connection can be changed at the next checkpoint because it is updated by Symphony asynchronously.

2. API reference

C++ API reference

class Connection	
Description	Used by the client to maintain a physical connection between client and the SOA middleware for an application
int getState(void);	
Description	Used to get the state of the connection
Return	The return value is the state of the connection, as follows: Connection::INVALID Connection::CONNECTING Connection::ESTABLISHED Connection::RECONNECTING Connection::CLOSED
class SoamException	
Description	Base class of exceptions generated by the system, accessible to both client applications and services.
const static int CONNECTION_ERROR	
Description	The error code of the connection error

Java API reference

class Connection	
Description	Used by the client to maintain a physical connection between client and the SOA middleware for an application
int getState(void);	
Description	Used to get the state of the connection
Return	The return value is the state of the connection, as follows: Connection.INVALID Connection.CONNECTING Connection.ESTABLISHED Connection.RECONNECTING Connection.CLOSED
class SoamException	
Description	Base class of exceptions generated by the system, accessible to both client applications and services.

const static int CONNECTION_ERROR

Description	The error code of the connection error
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4. Note

The ESTABLISHED status is the only available state for the user to communicate with SSM, such as creating sessions, sending tasks, and so on.

If the connection status is not ESTABLISHED, using the connection to communicate with SSM, such as creating a session, will cause undefined behavior.

After `SoamFactory.uninitialize()` is called by the client, if the client calls `connection.getState()` again, the connection status is undefined.

5. Copyright and trademark information

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