Stat Server Deployment Guide

Java Sections

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Java Sections

> **Important**
>
> For Stat Server release 8.x, Java functionality is reserved for use in conjunction with Genesys-provided reports for Outbound Contact and eServices (formerly known as Multimedia).
> Starting with release 8.5.1, Stat Server is extended to include support for the Orchestration Server (ORS) Java Extension.

Upon startup, Stat Server reads the enable-java configuration option to determine whether SSJE (Stat Server Java Extension) functionality is enabled. Adding Java to the value of the debug-level configuration option enables Stat Server to log messages that are related to Java extension functionality. If the value of the `enable-java` option is `true`, Stat Server processes the information specified in the following Stat Server sections (See the RTME Options Reference for details):

- [java-config]
- [jvm-options]
- [java-extensions]

using the following high-level procedure:

1. Stat Server verifies that the `[java-config]` section exists.
2. Stat Server verifies that the jvm-path option within that section has been specified.
3. Stat Server verifies that the `[jvm-options]` section exists.
4. If all three are true, Stat Server loads Java Virtual Machine (JVM) from the path specified by `jvm-path` using any options that you might have specified within the `[jvm-options]` section.

   For Stat Server to be able to load JVM, a platform-appropriate environment variable has to be set on the host:

   - LD_LIBRARY_PATH for Linux/Solaris.
   - LIBPATH for AIX.
   - PATH for Microsoft Windows.

   In general, the parent folder of the jvm.dll or libjvm.so (specified in the jvm-path option) should be included within the value of the environment variable.
   For example:

   - On Linux or Solaris, if the location of the file is `/usr/java/jdk1.7.0_60/jre/lib/amd64/server/libjvm.so`, then LD_LIBRARY_PATH should contain `/usr/java/jdk1.7.0_60/jre/lib/amd64`.

  - On AIX, if the location of the file is `/usr/java/sdk7/jre/lib/ppc64/j9vm/libjvm.so`, then `LIBPATH` should contain `/usr/java/sdk7/jre/lib/ppc64`.
  - On Windows, if the location of the file is `C:\Java\jre7\bin\server\jvm.dll`, then PATH should contain `C:\Java\jre7\bin`.

- Stat Server loads Java classes from the Genesys Platform SDK (`kv65_adapter.jar` and `kvlists.jar`) and from the Stat Server Java SDK (`statserver.jar` and `statserver_impl.jar`).
- Stat Server loads the Java libraries indicated by the java-libraries-dir configuration option of the [java-config] section.
- If Stat Server successfully loads the Java host environment, Stat Server next tries to load Java Extensions (specified by the `java-extensions-dir` configuration option of the `[java-config]` section) from archives specified in the `[java-extensions]` section.
- Stat Server takes the initial parameters for each <`extension.jar`> extension from the section where `java-extension-jar=`<`extension.jar`>, and uses them for this extension execution.

  For configuration options for which you specify `true`/`false` values, any of the following additional values are also valid:

  - `yes` and `no`
  - `y` and `n`
  - `1` and `0`
  - `on` and `off`

How to Configure a Particular Java Extension

When Stat Server loads SSJE, Stat Server passes a set of parameters during the initialization phase. To specify those parameters in Stat Server, follow these steps:

1. Create a new configuration section, with an arbitrary name, on the Stat Server `Options` tab in Configuration Server.
2. Within this section, create the `java-extension-jar` option and, as its value, specify the relative path of the corresponding SSJE jar archive with respect to the SSJE installation directory; for example, `MySSJE.jar`.
3. Add any other options to this section. Stat Server passes the corresponding `name:value` pairs to SSJE during the initialization phase.

How to Configure a Particular Java Extension Stat Type

Some Stat Server clients (such as CC Analyzer) require an explicit statistical type (stat type) configuration in Configuration Server. Java stat types are configured slightly differently than regular stat types. To configure a particular stat type defined in a Java Extension:

1. Create a new section, with an arbitrary name, on the Stat Server `Options` tab in Configuration Server.
2. Within the newly created section, create these new mandatory options:

   - `Category`
   - `Objects`

- JavaSubCategory

The first two are standard for all stat types. (Refer to Statistical Type Sections for a description of these and other options.)

The value of the third option must have the format extension-jar-path:stat-type-name, where:

- extension-jar-path is the relative path of the Java Extension jar archive with respect to the SSJE installation directory described by the java-extensions-dir option.
- stat-type-name is the name of the stat type residing in SSJE.

- Add any other options to the newly created section. Stat Server will pass the corresponding name:value pairs to SSJE whenever the statistics associated with this corresponding stat type are requested.

How to Configure Logging Level and Agent Assignment Reset Delay for the OCC Extension

OCC Extension supports the ability to reset agent assignments-related actions both by the explicit request from Outbound Contact Server and upon Outbound Contact Server disconnect. This functionality is required for proper functioning of agent assignments in scenarios involving switchovers between a primary/backup Outbound Contact Server pair.

Configure logging levels and agent assignment reset delays in the [OCCExtension] section of the Stat Server application by setting the following options:

- java-extension-jar
- print-level
- assignment-reset-delay

Troubleshooting Tips

If Windows 2008 does not have the appropriate 32-bit or 64-bit Microsoft Visual C++ 2010 Redistributable Package, Stat Server is unable to load JVM shared library.