TIBCO Hawk®

Release Notes

Software Release 6.2.0
September 2019

Contents

Preface

TIBCO Hawk® is a sophisticated tool for monitoring and managing distributed applications and systems throughout the enterprise. With Hawk, system administrators can monitor application parameters, behavior, and loading activities for all nodes in a local or wide-area network and take action when pre-defined conditions occur.

Topics

Related Documentation

This section lists documentation resources you may find useful.

TIBCO Hawk Documentation

The following documents form the TIBCO Hawk documentation set:

- *TIBCO Hawk Release Notes:* Read the release notes for a list of new and changed features. This document also contains lists of known issues and closed issues for this release.

- *TIBCO Hawk Concepts:* This manual includes basic descriptions of TIBCO Hawk concepts.

- *TIBCO Hawk Installation, Configuration, and Administration:* Read this book first. It contains step-by-step instructions for installing TIBCO Hawk software on various operating system platforms. It also describes how to configure the software for specific applications, once it is installed. An installation FAQ is included.

- *TIBCO Hawk Microagent Reference*: A reference to the microagents and methods used by a TIBCO Hawk Agent for system and application monitoring.

- *TIBCO Hawk WebConsole User's Guide:* This manual includes complete instructions for using TIBCO Hawk WebConsole.

- *TIBCO Hawk Programmer's Guide*: All programmers should read this manual. It contains detailed descriptions of Application Management Interface (AMI), Application Programming Interface (API) concepts, and the TIBCO Hawk security framework and its classes. It also contains detailed descriptions of each class and method for the following APIs:

  — AMI API

     Java, C++ and C API

  — Console API

     Java API

  — Configuration Object API

     Java API

  Programmers should refer to the appropriate language reference sections for the AMI API details. The TIBCO Hawk Application Management Interface (AMI) exposes internal application methods to TIBCO Hawk.

- *TIBCO Hawk Plug-in Reference Guide:* Contains details about the Enterprise Message Service, Messaging and JVM microagents methods that are used to administer and monitor the TIBCO Enterprise Message Service server.

- *TIBCO Hawk Plug-ins for TIBCO Administrator:* Contains detailed descriptions of the TIBCO Hawk plug-ins accessed via TIBCO Administrator.

- *TIBCO Hawk HTTP Adapter User's Guide:* Contains information about performing discovery, monitoring of agent status, monitoring of agent alerts, method invocation, method subscription, and many more activities on TIBCO Hawk and third-party products.

- *TIBCO Hawk Admin Agent Guide:* Contains basic configuration details for TIBCO Hawk Admin Agent and complete instructions for using the web interface of TIBCO Enterprise Administrator for TIBCO Hawk.

- *TIBCO Hawk Security Guide:* Provides guidelines to ensure security within the components of TIBCO Hawk and within the communication channels between the components.

Other TIBCO Product Documentation

You may find it useful to read the documentation for the following TIBCO products:

- TIBCO$^{®}$ Enterprise Administrator

- TIBCO ActiveSpaces$^{®}$

- TIBCO Rendezvous$^{®}$

- TIBCO Enterprise Message Service™

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1   General Typographical Conventions

Convention	Use
ENV_HOME *TIBCO_HOME* *HAWK_HOME* *CONFIG_FOLDER*	TIBCO products are installed into an installation environment. A product installed into an installation environment does not access components in other installation environments. Incompatible products and multiple instances of the same product must be installed into different installation environments. An installation environment consists of the following properties: • **Name** Identifies the installation environment. This name is referenced in documentation as *ENV_NAME*. On Microsoft Windows, the name is appended to the name of Windows services created by the installer and is a component of the path to the product shortcut in the Windows Start > All Programs menu. • **Path** The folder into which the product is installed. This folder is referenced in documentation as *TIBCO_HOME*. TIBCO Hawk installs into a directory within a *TIBCO_HOME*. This directory is referenced in documentation as *HAWK_HOME*. The default value of *HAWK_HOME* depends on the operating system. For example on Windows systems, the default value is `C:\tibco\hawk\6.0`. A TIBCO Hawk configuration folder stores configuration data generated by TIBCO Hawk. Configuration data can include sample scripts, session data, configured binaries, logs, and so on. This folder is referenced in documentation as *CONFIG_FOLDER*. For example, on Windows systems, the default value is `C:\ProgramData\tibco\cfgmgmt\hawk`.
`code font`	Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use `MyCommand` to start the foo process.

Table 1   General Typographical Conventions (Cont'd)

Convention	Use
bold code font	Bold code font is used in the following ways: • In procedures, to indicate what a user types. For example: Type **admin**. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [**enable** | disable]
italic font	Italic font is used in the following ways: • To indicate a document title. For example: See *TIBCO BusinessWorks Concepts*. • To introduce new terms For example: A portal page may contain several portlets. *Portlets* are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: MyCommand *pathname*
Key combinations	Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C. Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

TIBCO Product Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the TIBCO Product Documentation website mainly in the HTML and PDF formats.

The TIBCO Product Documentation website is updated frequently and is more current than any other documentation included with the product. To access the latest documentation, visit https://docs.tibco.com.

Documentation for TIBCO Hawk is available on the TIBCO Hawk Product Documentation page.

How to Contact TIBCO Support

You can contact TIBCO Support in the following ways:

- For an overview of TIBCO Support, visit https://www.tibco.com/services/support.

- For accessing the Support Knowledge Base, viewing the latest product updates that were not available at the time of the release, and getting personalized content about products you are interested in, visit the TIBCO Support portal at https://support.tibco.com.

- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to https://support.tibco.com. If you do not have a user name, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to https://community.tibco.com.

Release Notes

The release notes list the major updates in version 6.2.0 of TIBCO Hawk. For information about an earlier version, see the release notes provided with the corresponding version.

Topics

New Features

The following features have been added in this release of TIBCO Hawk:

Installer Improvements

The Hawk installer can now be used to configure multiple components such as Hawk Cluster Manager, Hawk Console, Hawk Event Service, and Hawk Agent. You can also configure the components for different transports such as TCP, EMS, and RV. You need not modify the underlying `.cfg` files after installation.

Logs Collection and Forwarding Using Universal Collector Microagent

You can now collect logs from different sources and forward the logs to LogLogic LMI or Syslog servers. You can collect logs from the following sources: real-time file, syslog, remote file, command line. You can also collect metrics data from Hawk Rulebase, and Microagents. You can configure collectors and forwarders at the domain level from Hawk Console UI and can deploy this configuration to multiple agents in the domain. For more information, see the *TIBCO Hawk® Console User's Guide* and *TIBCO Hawk® Plug-in Reference Guide*.

Support for an External Database in the Hawk Console

Hawk Console now supports external databases: MySQL, Apache Ignite and H2 database (both in-memory and external mode). All alerts received by the Hawk Console are stored in the external database that you configure. Previous alerts are retained even after you restart the Hawk Console. To configure an external database, you must specify external database parameters in the `hawkconsole.cfg` file. For more information, see the *TIBCO Hawk® `Installation`, `Configuration`, and `Administration` Guide*.

Support for LDAP-Based User Authentication

Hawk Console now supports LDAP-based user authentication. The authentication details can be specified in the `<CONFIG_HOME>/bin/hawkconsole.cfg` file.

For more information, see the "User Management in Hawk Console" topic in the *TIBCO Hawk® Installation, Configuration, and Administration Guide*.

Rulebase Repository

The new rulebase repository in TIBCO Hawk stores all the rulebases and schedules in the Hawk Console and maintains the mapping of rulebases to be deployed to agents. The rulebases can also be mapped to a group of agents. You can now manage the rulebase repository from Hawk Console. For more information, see *TIBCO Hawk® Console User's* guide.

Bulk Import and Export of Rulebases

In Hawk Console, you can now import and export multiple rulebases at a time. You can import a `.zip` file that contains multiple rulebase files in `.hrb` format. You can also select multiple rulebases and export them as a `.zip` file. For more information, see the *TIBCO Hawk® Console User's Guide*.

Alert Retransmission

Starting from TIBCO Hawk 6.2.0, when you start the Hawk Console, a request is made to the Hawk agent to retransmit the alerts that were sent when the Hawk Console was off.

Java 11 Support for TIBCO Hawk

Starting from TIBCO Hawk 6.2.0, Java 11 is supported for all Hawk components. For information about the platforms that are not supported for JRE 11, see the Readme file.

Changes in Functionality

The following functionality has been changed in this release of TIBCO Hawk:

Universal Collector Microagent Configurations

The Universal Collector microagent configurations of collectors and forwarders from TIBCO Hawk 6.1.0 cannot be used with the Universal Collector microagent in TIBCO Hawk 6.2.0.

You must configure collectors and forwarders again in the Hawk Console UI of TIBCO Hawk 6.2.0.

Deprecated and Removed Features

No features have been deprecated or removed as of this release of TIBCO Hawk.

Migration and Compatibility

The following information provides migration procedures for this release of TIBCO Hawk.

TIBCO Hawk 6.2.0 requires that associated or dependent products (such as TIBCO Runtime Agent, TIBCO Administrator, and various platform microagents) be declared compatible with this version of Hawk.

For example, the following TIBCO products are all incompatible with Hawk 6.2.0 agents and therefore Hawk 6.2.0 should not be loaded to the same TIBCO Home where these products are installed.

- TIBCO Administrator 5.8.0 and earlier
- TIBCO ActiveMatrix BusinessWorks 5.11 and earlier
- TIBCO Hawk ActiveMatrix Plug-in 1.2.0 and earlier
- TIBCO BusinessEvents 5.1.1 and earlier

However, Hawk 6.2.0 is functionally compatible with any versions of these products which either have Hawk 4.9.x microagent or Hawk 5.2.x and later microagents. Functional compatibility implies that the Hawk 6.2.0 agent can detect and execute methods of the hawk microagents embedded in the mentioned products. However, this does not certify any product with Hawk 6.2.0. The following products are functionally compatible with Hawk 6.2.0:

TIBCO Hawk 6.2.0 agent can detect and invoke microagents of the following Hawk versions:

- Hawk 6.1.0 standalone
- Hawk 6.0.0 standalone
- Hawk 5.2.x standalone
- Hawk 5.1.x standalone
- Hawk 5.0.0 standalone
- Hawk 4.9.x standalone
- Hawk 5.2.x embedded
- Hawk 5.1.x embedded
- Hawk 4.9.x embedded

Closed Issues

The following issues have been fixed in this release of TIBCO Hawk:

Key	Summary
HK-7195	If even one of the Hawk agents in the domain was enabled with security mode, the Hawk Console did not list any agents.
HK-7172	Rulebase count on domain card became zero (0) when Hawk Cluster Manager for TCP transport was restarted.
HK-7124	In the Hawk Console, when creating a rulebase, the class name of microagents is displayed instead of the display name.
HK-7118	When creating a test condition, numerical operators such as `postedConditionExists` and `!postedConditionExists` were not available for selection in the test creation builder.
HK-7027	Hawk Console, Hawk TEA Agent, and Hawk Web Console did not support more than one security certificate (`-ssl_trusted`) for EMS server.
HK-7019	The Hawk Console did not support some ciphers. For a list of supported ciphers, see the "Hawk Console Configuration Options" table in the *TIBCO Hawk Installation, Configuration, and Administration guide*.
HK-6997	The Hawk Console did not support "`Retransmit Alert`". You can now view active alerts when Hawk Console starts.
HK-6965	When you tried to edit a rule in Hawk Console, existing argument values were cleared unexpectedly.
HK-6964	Hawk Console failed to apply negative schedule (`!<Schedule_Name>`) on Hawk rulebases.
HK-6946	The Hawk Console threw an exception if we used fault tolerance configuration with TCP transport.
HK-6927	The Hawk Console showed an incorrect schedule while editing a rule in an already deployed Hawk rulebase.
HK-6924	Special characters such as hyphen (-) and underscore (_) were not accepted for Schedule names in Hawk Console. However, these special characters work in legacy Console UI such as Hawk Display.

Key	Summary
HK-6889	When multiple collectors forwarded logs to the same forwarder, Universal Collector Microagent threw `BufferOverflowException`.
HK-6888	The prefix value in the `addLogFileCollector` method of Universal Collector Microagent did not work.
HK-6860	The TIBCO Enterprise Message Service (EMS) plug-in bundled with Hawk 6.1.0 returned incorrect values for some of the columns.
HK-6856	The `jackson-databind` JAR files bundled with Hawk 6.1 had security vulnerabilities. These JAR files are upgraded to the latest versions.
HK-6855	The JVM plug-in bundled with Hawk 6.1.0 had a thread leak. Whenever the `getVirtualMachineInfo()` method of JVM plug-in was invoked, the thread count of the Hawk Agent kept on increasing.
HK-6846	The `hawkteaagent.jar` file size was invalid (1KB size) in Hawk 6.1.0.
HK-6837	The Proxy domain was not accessible after the registration, if the proxy domain's password was not the default one.
HK-6805	The Universal Collector Microagent bundled with Hawk 6.1.0 did not persist any configuration. This resulted in loss of configurations when the Hawk Agent was restarted.
HK-6794	The Hawk Console failed to fetch the agents of proxy domain which had SSL configuration.
HK-6793	The Agent Description on the Dashboard page was blank when the agent name contained special characters such as period(.). (Example: `apps-mac-mini-5.apac.com`.
HK-6678	The Hawk Console showed "`test condition`" instead of "`clear condition`" when editing a test in the Hawk rulebase.
HK-6411	In Hawk Console, re-authentication of the user is required while exporting or importing rulebases.
HK-5970	Hawk Agent failed to send emails when custom SMTP port was used instead of the default port.

Known Issues

The following table lists the known issues in this release.

Key	Summary/Workaround
HK-7851	**Summary:** Installation in the silent mode does not set correctly the RV transport parameters `rvd_session` and `ami_rvd_session` in the `hawkagent.cfg` file. **Workaround:** After installation in the silent mode is complete, edit the `hawkagent.cfg` file and set the correct values for `rvd_session` and `ami_rvd_session` parameters.
HK-7840	**Summary:** Rulebase deployment fails if you are using TIBCO Hawk TEA Agent with TIBCO Enterprise Administrator 2.3.0, as the TIBCO Enterprise Administrator server is currently not compatible with Java 11. **Workaround:** Run TIBCO Hawk TEA Agent with Java 8 runtime. Update the following properties in `tibhawkteaagent.tra` file to point to Java 8 specific files and folders: - `JVM_LIB_PATH` - `JVM_LIB_DIR` Restart TIBCO Hawk TEA Agent after update.
HK-7836	**Summary:** Hawk JVM plug-in cannot retrieve the information of Java processes running with Java 11. **Workaround:** None
HK-7818	**Summary:** Hawk Universal Collector Microagent fails to add a new Collector when only secured ULDP or TCP (Syslog) forwarder is added. The following error message is displayed: `APPLY action on forwarder has error emptyConfiguration.` **Workaround:** Try to add the collector again after some time. The collector is added after repeated attempts.

Key	Summary/Workaround
HK-7814	**Summary:** Hawk TCP transport does not support PKCS12 keystore format on AIX platform. **Workaround:** Use JKS keystore format instead of PKCS12 keystore format on AIX platform for Hawk TCP Transport. To use PKCS12 format, edit `java.security` file available at `<TIBCO_HOME>/tibcojre64/1.8.0/lib/security`. Set the property `keystore.type=pkcs12`.
HK-7810	**Summary:** In Hawk Universal Collector Microagent, forwarders and collectors from Hawk Agents of regular domains cannot be deployed to Hawk Agents of proxy domains using **Deploy To** action. **Workaround:** First export the forwarders or collectors from Hawk Agent of regular domain which you want to deploy to Hawk Agents of proxy domains. Then import these forwarders or collectors in the Hawk Agents of proxy domains.
HK-7801	**Summary:** Hawk Universal Collector Microagent cannot import secured forwarders. **Workaround:** Export forwarders without authentication and then import them in Hawk Console. Configure the authentication after the forwarders are imported.
HK-7764	**Summary:** In Hawk Console, you cannot deploy the rulebase of a regular domain to the Hawk Agent of a proxy domain by using the **Deploy To** option. **Workaround:** None
HK-7731	**Summary:** Hawk Universal Collector Microagent secured forwarder cannot be deployed to other agent(s) and gives the following error: `Certificate file does not exist` **Workaround:** Forwarders without authentication must be deployed to other Hawk Agent(s) and then the authentication can be configured.
HK-7238	**Summary:** When the database server goes down and Hawk Console is unable to connect to the database, Hawk Console asks for authentication repeatedly. Even after signing out, you cannot login again using the correct user name and password. **Workaround:** Check the database status and restart it. Once database has started try to login to Hawk Console again.

Key	Summary/Workaround
HK-7231	**Summary:** TIBCO Hawk TCP transport does not support IPv6 configuration. Hawk components fail to start, if IPv6 address is used in TCP transport configurations like `tcp_session`, `ami_tcp_session`. **Workaround:** None
TAHK-191	**Summary:** You cannot start the Admin Agent from the Start menu: **Start > All Programs > TIBCO > HAWK_HOME > TIBCO Hawk TEA Agent *<version>* > Admin Agent** **Workaround:** To start the Admin Agent, follow the steps mentioned in the *TIBCO Hawk Installation, Configuration, and Administration Guide*.
TAHK-169	**Summary:** The clear and suspension details for an alert are not displayed after alert suspension. **Workaround:** None
HK-6792	**Summary:** In Hawk WebConsole log, an exception was logged when you run Hawk WebConsole with SSL based TIBCO Enterprise Message Service 8.3. **Workaround:** Edit the *HAWK_HOME*`/webconsole/tomcat/bin/setenv.bat` (the `.sh` file on UNIX/Linux) file and update the `CLASSPATH` variable with the following changes: 1. Replace `slf4j-simple-1.4.2.jar` with `slf4j-simple-1.5.2.jar` 2. Replace `slf4j-api-1.4.2.jar` with `slf4j-api-1.5.2.jar`
HK-6677	**Summary:** In Hawk Console, you cannot simplify or reduce complex test conditions in a single edit by using the rulebase test expression UI. **Workaround:** Perform multiple edits, modifying one expression per edit. You must click **Update Test** after each edit to simplify the complex test condition.
HK-6264	**Summary:** When the Hawk Agent's configuration directory (`-auto_config_dir`), to auto-load rulebases, is empty and in Admin Agent, you import a rulebase, the Rulebase page do not list the imported rulebase. **Workaround**: Restart the Admin Agent.
HK-6263	**Summary:** In the Rulebase Details page of Hawk Admin Agent, the **Deploy To** option does not deploy the rulebase to the same agent but changes the rulebase state to Deployed. **Workaround:** None

Key	Summary/Workaround
HK-6244	**Summary:** In Hawk Admin Agent, when you close the Derive Rulebase wizard, a derived rulebase is created instead of cancellation of the derive operation. **Workaround:** None
HK-6197	**Summary**: If access control is activated with restrictions on `updateRulebase` or `deleteRulebase` methods, then changing the name of an existing rulebase causes the rulebase to go into an inconsistent state. **Workaround**: None
HK-6126	**Summary:** You cannot create a Clear Action for a test in Hawk Admin Agent. **Workaround:** Create or edit the rulebase to add the clear action using some other console application such as, Hawk Display or Hawk WebConsole.
HK-5736	**Summary**: The Messaging microagent's `sendMessage` method in `msghma` does not sets the JMS timestamp. Thus, the sent messages do not expire in the TIBCO Enterprise Message Service queue and fills up the queue. **Workaround**: None
HK-5387	**Summary**: The invocation of the method `JMSController->getConsumer` fails on the CentOS platform. **Workaround**: None
HK-5379	**Summary**: Even though a database user might have full privileges, the user encounters an error when trying to upload a .mar file using the Configuring Monitoring tool from its command mode. However, all privileges work if using the GUI. **Workaround**: Select Read, Write, and Administer permissions for "Monitoring Management" folder before selecting Read, Write, and Administer permissions for "TIBCO Administrator" folder while creating a user.
HK-5175	**Summary**: The `ClassNotFoundException` is observed when the TIBCO Hawk 5.0 Agent is accessed from TIBCO Hawk 5.1 Display and the security policy is enabled. **Workaround** : None
HK-5172	**Summary**: In WebConsole, if an agent has multiple schedules and you select one schedule to send to the repository using the **Send to Agent/Repository** option, all schedules for that agent are sent to the repository, instead of only the selected schedule. **Workaround**: None

Key	Summary/Workaround
HK-5093	**Summary**: The HMA microagent methods do not work after invoking the getStatistics() method in the Network microagent. **Workaround**: None
HK-5031	**Summary**: In Unix, the `getVirtualMachineInfo` and `getProcess` methods returns no results when the process name in the argument is more than 15 characters. Also, when the methods are executed with empty arguments, they return all the process names truncated to 15 characters. The issue occurs because both these methods read the process details from the `/proc/<process ID>/stat` file, where the Linux kernel limits the process name to 15 characters only. **Workaround**: Run the `getVirtualMachineInfo` or `getProcess` methods with a truncated (15 characters) process name. This returns information on all processes matching the supplied first 15 characters. You can identify the information about the required process name using the Command Line (in the `getVirtualMachineInfo` method) or Command (in `getProcess` method) column, that displays the full path to the executable.
HK-4902	**Summary**: The TrustedWithDomain security model cannot be configured with the Hawk WebConsole application. **Workaround**: None
HK-4722	**Summary:** Start two EMS agents (one with SSL and another without SSL) with the same name but in different Hawk domains. Now, if you configure the Hawk Microagent for the SSL Hawk domain and agent only, the microagent is added to both the agents. **Workaround:** None
HK-4601	**Summary:** In Hawk WebConsole, under **Network Query > Invoke an Action** some asynchronous methods are displayed. This happens because some methods are registered as synchronous methods but internally they work asynchronously. Such methods are being displayed under the Network query but they cannot be used to perform any network query or network action. **Workaround:** None.
HK-4546	**Summary:** In Hawk WebConsole, the Performance microagent > TBS Counter method displays an error in subscription. **Workaround:** TBS - TPM Base Services, need to have certain user permissions to be enabled. This is the default behavior of the service. Refer to http://msdn.microsoft.com/en-us/library/windows/desktop/ms725663(v=vs.85).aspx for details on user permissions.

Key	Summary/Workaround
HK-4399	**Summary:** In Hawk WebConsole, if the WebConsole server is started without starting the h2 database, an exception is thrown in the logs. **Workaround:** Start the h2 database.
HK-4158	**Summary:** If you try to login to TIBCO Hawk WebConsole from multiple tabs of the same browser window, the loading mask is displayed and you are not able to login. The same problem exists when you try to logout from Hawk WebConsole. **Workaround:** To resolve this issue, login to Hawk WebConsole from a single tab of the browser window.
HK-4044	**Summary:** Hawk Event is not able to batch commit records in the database. Each record is written in the database using separate commit commands. **Workaround:** None
HK-3723	**Summary:** If the Java process uses IBM JDK and Hawk Agent uses Sun JDK, the JVM microagent cannot discover the JVMs running in the Java process. **Workaround:** Make sure that Hawk Agent uses the same JDK (IBM JRE version 1.6 that support for attach APIs) as used by the Java process.
HK-3573	**Summary:** Adding Hawk domain with SSL to TIBCO Administrator results in errors. **Workaround:** None
HK-3384	**Summary**: (AIX) AIX agent cannot be discovered from other machines in the same Hawk domain. **Workaround**: Make sure that the TIBCO Rendezvous messages are not blocked.

Key	Summary/Workaround
HK-3305	**Summary**: (HP-UX) After installing TIBCO Hawk 4.9 on HP-UX, Hawk agent, Hawk Display, and Event Service do not start.
	Note: TIBCO Hawk 5.x does not provide HP-UX HPPA platform support.
	Workaround: To start Hawk Agent, Hawk Display, and Event Service on HP-UX 11i:
	• Update HP-UX 11i system with the latest patch.
	OR
	• Manually export the path of JVM 1.6. That is, execute one of the following shell commands (based on 32-bit or 64-bit installation) before invoking any executable for TIBCO Hawk components: % *export SHLIB_PATH=JRE_1.6_path/lib/PA_RISC2.0/server (32-bit)* % *export SHLIB_PATH=JRE_1.6_path/lib/PA_RISC2.0W/server (64-bit)*
	For example: % *export SHLIB_PATH=/home/swadmin/jre1.6/PA_RISC2.0/server*
HK-2912	**Summary**: On the SUSE Linux 11 64-bit platform, the method `COM.TIBCO.hawk.hma.TibRendezvous:onRvDaemonStatus` returns a wrong value for field Inbound Data Loss.
	Workaround: None
HK-1412	**Summary**: If the HMA is stopped and then restarted with a different -timeout value, any Hawk Display that had discovered the HMA originally still has the cached descriptions of the HMA reflecting the old -timeout value.
	Workaround: Restart TIBCO Hawk Display to get the new HMA -timeout value.
HK-312	**Summary**: The Physical Memory value returned by the `System:getTunableInfo` method do not match the underlying HP-UX operating system command-line output.
	Workaround: None
HK-307	**Summary**: Uploading the Monitoring Console plug-in in the TIBCO Administrator fails with an exception.
	Workaround: Performing a standalone installation of TIBCO Hawk on the same machine resolves the issue.

Key	Summary/Workaround
HK-280	**Summary**: On Windows Vista platform, the Job Object Details method of the Performance microagent does not return any values. This issue occurs when the PDH counter detects negative or invalid values when querying Job Object Details counter. **Workaround**: None
HK-143	**Summary**: On Windows platforms, Japanese characters are not supported for use in regular expressions in the HMA microagents `Performance`, `Process`, and `Filestat`. Currently, only ASCII characters can be used for pattern matching. **Workaround**: None
HK-129	**Summary**: On AIX platform, the `Network:getStatistics` method returns `No Data` for the loopback interface. **Workaround**: None
HK-43	**Summary** When using the Hawk Console on the **Agents** or **Rulebases** tab, if you have grouped the agents by cluster and an agent is added or removed, the contents of the page do not get refreshed. **Workaround**: None