TIBCO ActiveMatrix® Service Grid

Release Notes

Version 3.4.1

April 2022

Contents

New Features

The following new features have been added in this release of TIBCO ActiveMatrix Service Grid:

Jetty Upgrade

In ActiveMatrix Service Grid 3.4.1, the Jetty version for HTTP Connector resource templates is upgraded from version 9.2.25 to 9.4.41.

For details, see the Configuring and Preparing HTTP Connector for Jetty 9 section in *TIBCO ActiveMatrix®Service Grid Administration*.

TIBCO EMS Client Upgrade

TIBCO EMS Client version is upgraded from version 7.0.1 to 8.5.1.

Log4j is Replaced with reload4j

Log4j is replaced with reload4j (reload4j-1.2.19.jar).

Support for Mutual SSL Authentication

Mutual SSL authentication is now supported between ActiveMatrix Service Grid and TIBCO EMS (both Messaging Bus and Notification Server).

Support for Explicit Ciphers

You can now use explicit ciphers in SSL Client Provider resource template when creating connection with SSL enabled EMS. You can specify list of ciphers in the SSL Client Provider resource template **Explicit Cipher List** field.

Testing Connection to JDBC Resource

With this release, you now have the option to test the connection of JDBC shared resources by performing a test connection on the resource when you add or edit the shared resource by using the Administrator UI or CLI. Thus, if the configuration is incorrect, for example, wrong credentials are specified, you can update the configuration and resolve the issues and avoid failures at the time of invocation. The test connection can be disabled if required. For details, see Testing Connection to a JDBC Resource section in *TIBCO ActiveMatrix®Service Grid Administration*.

JRE Upgrade

With the current release, the Java Runtime Environment (JRE) is upgraded to JRE 1.8 Update 321.

Support for Oracle 18c, 19c, and 19c RAC

TIBCO ActiveMatrix Service Grid now supports Oracle 18c, 19c, and 19c RAC.

Support for PostgreSQL

TIBCO ActiveMatrix Service Grid 3.4.1 supports PostgreSQL versions 11.5 and 10.7.

Support for Oracle Database Server 12c with Transparent Application Failover (TAF)

TIBCO ActiveMatrix Service Grid now supports Oracle Database Server 12c with Transparent Application Failover (TAF) using Oracle 12C R2 JDBC Driver 12.2.0. This is certified for TIBCO ActiveMatrix runtime only. There is no TIBCO Configuration Tool (TCT) support. Contact TIBCO Support for enabling Oracle OCI driver with TAF feature.

Changes in Functionality

No functionality changes have been made in this release.

Changes in Platform Support

In this release, platform support for ActiveMatrix Service Grid has changed as follows:

Platforms	Status	As of Release
Red Hat Enterprise Linux Server 8.x	Added	3.4.1
Microsoft Windows Server 2019	Added	3.4.1
IBM AIX	Removed	3.4.1
HP-UX	Removed	3.4.1

For a complete list of all the currently supported platforms, see the readme file.

Deprecated and Removed Features

The following features have been deprecated or removed in this release.

Deprecated Features

Affected Component	Description	Deprecated in Version
Log Service and Payload Service	Log service and payload service are deprecated in this release.	3.4.1
TIBCO ActiveMatrix® Service Performance Manager	ActiveMatrix® Service Performance Manager is deprecated in this release.	3.4.1
Database	Oracle Database 12c, 12c RAC, 12.1.x, 12.2.x	3.4.1

Removed Features

Affected Component	Description	Deprecated in Version	Removed in Version
ActiveMatrix Administrator Dashboard	The TIBCO ActiveMatrix Administrator dashboard (**Dashboards** > **Infrastructure**) is removed. You can check the status of all ActiveMatrix entities (nodes, hosts, applications, and resource instances) from the **Infrastructure** > **Enterprise Status** page. From this page, you can also search for entities in an Enterprise and perform specific actions on them.	3.4.0	3.4.1
Metrics Collection Runtime (MCR) Functionality	Starting from version 3.4.1, ActiveMatrix Service Grid does not support Metrics Collection Runtime (MCR) functionality.	3.4.0	3.4.1
Publishing to UDDI Server	The ability to publish Application Services to Universal Description, Discovery and Integration (UDDI) Server using TIBCO ActiveMatrix Administrator is not supported.	3.4.0	3.4.1

Migration and Compatibility

For instructions on how to migrate from a previous release to the current release, see the *TIBCO ActiveMatrix® Service Grid Installation and Configuration Guide*.

Product Compatibility

ActiveMatrix Service Grid 3.4.1 adds compatibility support for the following product versions:

- TIBCO Enterprise Message Service™ 8.6.0
- TIBCO® Operational Intelligence Hawk® RedTail 7.1.0

For complete list of compatible products and versions, see the Readme file.

Closed Issues

The table lists closed issues in this release.

Key	Summary
AMRP-5747	When applications in a TIBCO ActiveMatrix environment start, the order in which an application's components start is random and non-deterministic. Due to this, in case of TIBCO ActiveMatrix BPM, an incorrect version of the PageFlow component is invoked, resulting in downstream errors. With this fix, ActiveMatrix platform now sends the timestamp at which a component was created, so that BPM layer can choose the order in which the Application Components can be started.
AMRP-5746	The HTTP (Jetty) Server name, version, and SSL Cookie are revealed in HTTPS response header without secure flag. With this fix, a) You can hide the Jetty server version from the response header for all HTTP connectors running on a node by adding the following JVM property in the node TRA file. When not set, the default value is false. `java.property.com.tibco.amf.node.disableSendServerVersion=true` b) If the HTTP connector is configured with SSL, then all cookies have the secure flag set. For TRA property mentioned above it is not required.
AMRP-5743	In TIBCO ActiveMatrix Administrator, changes done to **Request Header Size**, **Response Header Size**, and **Output Buffer Size** of SSL-secured HTTP Connector can be saved using Administrator Server but are not honored by runtime. This issue is fixed and Header and Buffer sizes are applied successfully.
AMRP-5733	TIBCO ActiveMatrix Administrator does not disable the HTTP DELETE method and ActiveMatrix Administrator interface accepts requests for the HTTP DELETE method. With this fix, ActiveMatrix Administrator interface rejects the HTTP DELETE method call with a `HTTP/1.1 403 Forbidden` error.
AMRP-5717	In TIBCO ActiveMatrix Administrator, Maximum Pool Size can now be specified for SSL Client Provider Resource Template (RT) from the CLI. The new field is available in the CLI when creating a new SSL Client Provider RT. You can also update the value of Maximum Pool Size for existing SSL Client Provider Resource Templates. Specifying the Maximum Pool Size is optional. If no value is specified, the default value for Maximum Pool Size is 20 for SSL Client Provider Resource Template. When you change the Maximum Pool Size of an existing Resource Template, all Resource Instances of that Resource Template go in "Out of Sync" state, and need to be re-installed using Administrator UI. After the Resource Instances are reinstalled, the new value of Maximum Pool Size is applied to runtime.

Key	Summary
AMRP-5716	In TIBCO ActiveMatrix Administrator, Maximum Pool Size can now be specified for SiteMinder Authentication Resource Templates (RT) using Command Line Interface (CLI). The new field is available in CLI when creating a new SiteMinder Authentication RT. The value of Maximum Pool Size can also be updated for existing SiteMinder Authentication Resource Templates using CLI.
	Specifying the Maximum Pool Size is optional. If no value is specified, the default value for Maximum Pool Size is 20 for SiteMinder Authentication RT.
	When you change the Maximum Pool Size of an existing Resource Template, all Resource Instances of that Resource Template go in "Out of Sync" state, and need to be re-installed using Administrator UI. After the Resource Instances are re-installed, the new value of Maximum Pool Size is applied to runtime.
AMRP-5715	In TIBCO ActiveMatrix Administrator, Maximum Pool Size can now be specified for the hidden Subject Identity Provider Resource Template (RT) that is created along with JMS Connection Factory RT when **Enable Authentication** checkbox is selected and **Username + Password** is selected for Login Credentials, from the CLI. The value of Maximum Pool Size can be updated for existing Subject Identity Provider Resource Templates using CLI.
	NOTE:
	• The scenario where Subject Identity Provider Resource Template (RT) is created explicitly, that is, not hidden, is also addressed with this enhancement.
	• For hidden Subject Identity Provider Resource Template (RT), the name of the Resource Template created by Administrator along with JMS Connection Factory RT is of the format "<ParentJMSConnectionFactoryRTName>_userIdentityJNDIName". This name can be found in Node logs or <adminURL>/viewdata.jsp or http(s):// <adminHost>:<port>/amxadministrator/viewdata.jsp > Resource Template page. This name is required for the subsequent steps to update the Maximum Pool Size.
AMRP-5714	In TIBCO ActiveMatrix setups upgraded to version 3.4.0, applications containing WebApp Implementation Type (IT) with the context root as "/" stops functioning as expected. This applies to applications deployed in the setup prior to upgrading to TIBCO ActiveMatrix 3.4.0, as well as applications deployed after the upgrade.
	After the fix, the applications now work as expected with the updated Jetty Server API.
AMRP-5701	In TIBCO ActiveMatrix Administrator, if a user accesses an unauthorized page, the Administrator server correctly returns HTTP response with error code "401" indicating that the user is not authorized to access the page.
	With this fix, this error response is now being encoded.

Key	Summary
AMRP-5699	In a TIBCO ActiveMatrix BPM setup (with TIBCO ActiveMatrix 3.3.0 Hotfix 018 or higher), when the Java property `com.tibco.amx.cf.enable.virtualizationAddress.versioning` is set to "true" for the BPMNode, a `NullPointerException` is seen in the BPM Node logs when a business operation is invoked immediately following the undeployment and deployment of the user's BPM Application, or following a BPMNode restart. With this fix, the issue is no longer seen and the operation invocation proceeds without errors.
AMRP-5698	In TIBCO ActiveMatrix BPM setup involving ActiveMatrix BPM 4.2.0, a NullPointerException is intermittently seen when the user's Oracle 12.1.0.2 database is in a particular state with in-progress database transactions. This is a result of erroneous creation of a global transaction with a "null" GLOBALID in the DBA_PENDING_TRANSACTIONS table by one of the database users, which causes failures, and the subsequent retries every 5 minutes eventually results in connection pool exhaustion, as seen in the BPM logs. With this fix, the retry is skipped for transactions with a "null" GLOBALID and the NullPointerException is no longer seen. As a result the connection pool is no longer exhausted.
AMX-18334	When strong ciphers are used with SSL enabled EMS server, using **Configure SSL** option on the **Admin Configuration** > **Admin Server** > **Transport Configuration** tab fails with an error.

AMX-18333	When ActiveMatrix Service Grid is configured with SSL enabled TIBCO EMS with the following ciphers configured on the EMS, the connection between ActiveMatrix Service Grid and EMS fails.
	
	Ciphers configured in EMS:
	`ssl_server_ciphers ="-ALL:AES256-GCM-SHA384:DHE-RSA-AES256-SHA256:DHE-DSS-AES256-SHA256:AES256-SHA256"`
	
	Ciphers configured in ActiveMatrix Service Grid SSL Client Provider resource template Advanced tab:
	`TLS_RSA_WITH_AES_256_GCM_SHA384,TLS_DHE_RSA_WITH_AES_256_CBC_SHA256,TLS_DHE_DSS_WITH_AES_256_CBC_SHA256,TLS_RSA_WITH_AES_256_CBC_SHA256`

AMX-18332	When Explicit Ciphers are configured in the **Advanced** tab of SSL Client Provider resource template, the connection to TIBCO EMS fails.
AMX-18220	Jackson databind library is upgraded to 2.11.4 to address security vulnerabilities.
AMX-18186	TIBCO ActiveMatrix Administrator does not retrieve blank values for Boolean type application properties for some Administrator database types such as HSQLDB and PostgreSQL, due to which the deployment of such applications fails with `XmlValueOutOfRangeException`. With this fix, the application with boolean property with blank value is supported and the application is deployed or undeployed successfully.

Key	Summary
AMX-18164	With this enhancement, OpenID authentication supports PKCE (Proof Key for Code Exchange) with supported IDP. By default this feature of PKCE support is not enabled. To enable PKCE support, you can select the **Enable PKCE** checkbox of the 'OpenID Authentication' resource template in ActiveMatrix Administrator GUI, or set `enablePKCE=true` in the CLI build data file. For existing OpenID Authentication resource instance, enabling PKCE in the resource template and saving the change automatically triggers reinstallation of the corresponding resource instance and restarts of the corresponding applications.
AMX-18152	ActiveMatrix Service Grid 3.4.1 supports Microsoft Windows Server 2019.
AMX-18090	During TIBCO ActiveMatrix Service Grid 3.4.0 upgrade, some shared resource product features are ignored and not upgraded to version 3.4.0. Due to this incomplete 3.4.0 platform upgrade, there are some TIBCO ActiveMatrix BPM 4.3 upgrade issue. With this fix, all those previously ignored product features now get upgraded to 3.4.0, and both TIBCO ActiveMatrix 3.4.0 platform and TIBCO ActiveMatrix BPM 4.3 can be upgraded successfully.
| AMX-18044 | In TIBCO ActiveMatrix BPM 4.3.0 setup, applyPatch of ActiveMatrix 3.4.0 HF 002 fails due to exception:<br><br>```
EXCEPTIONS WHILE APPLYING PATCH TO HOST INSTANCE(S)
<hostInstance> : TIBCO-AMX-TOOLS-PATCHMGR-000001: error applying
patch
amx.platform.patch:3.4.0.HF2 to TIBCO Host instance
Caused by: product feature com.tibco.amx.platform.patch.rpf
3.4.2.000 contains
a release unit com.tibco.tct.admin.feature 1.6.1.003 that does not
exist in the machine model
```<br><br>This issue is fixed by removing the feature `com.tibco.tct.admin.feature` from the list of features included for patching. TCT features are not required to be patched as they are only used in TIBCO HOME. |
AMX-17757	Due to a restructuring of internal classes and packages carried out as part of TIBCO ActiveMatrix 3.4.0 Hotfix 001, BPM User Applications configured to use LDAP Connection Resource Template with SSL (LDAPS) fails with a NoClassDefFoundError indicating the missing classes. These classes have now been restored and the NoClassDefFoundError is no longer seen in the BPM.log.
AMX-17753	After upgrading to TIBCO ActiveMatrix BPM 4.3.0 (TIBCO ActiveMatrix 3.4.0 Platform, with or without 3.4.0 Hotfix 001), the old versions of some of the features of BPM Applications are missing in the Node Feature Configuration following the upgrade. With this fix, the issue is addressed and none of the features are missing post-upgrade.
AMX-17694	In TIBCO ActiveMatrix BPM setups, if a TIBCO BPM Application is upgraded to a newer version, in which some of the Components are removed, then the older versions of these Components cannot be Started or Stopped in Administrator. This issue has been addressed and now all versions of the Components within a BPM Application can be Started or Stopped.

Key	Summary
AMX-17693	TIBCO ActiveMatrix Administrator does not correctly handle the operation of adding Substitution Variables concurrently on a Node. If more than one thread attempts to add Substitution Variable on the Node in parallel with another, the operation fails with the following error:
	<pre>TIBCO-AMX-CLI-000020: Error invoking bulk action add on SubstitutionVariable: org.hibernate.StaleObjectStateException: TIBCO-AMX-ADMIN-005484: The object '<NodeName' (internal id: NNN) appears to have been already modified by another user action or another thread. The current update is being reverted due to the conflict. Retry your update action again.</pre>
	This issue has now been addressed and multiple Substitution Variables can now be added concurrently to ActiveMatrix Nodes.
AMX-17676	With this fix, the property java.heap.size.max for NodeUtil utility has been updated from 48M to 512M by default. This higher memory setting can be seen in the NodeUtil.tra. The default memory has been increased to ensure that NodeUtil does not run out of memory in case of long-running upgrades.
AMX-17590	In TIBCO ActiveMatrix Administrator configured with Authentication realm as LDAP SSL, after upgrading to TIBCO ActiveMatrix Service Grid 3.4.0, each time the SystemNode restarts, the users are unable to log in to Administrator with correct login credentials within 1 hour or so, and the following exception is seen in the SystemNode log:
	<pre>[WARN] [] com.tibco.amx.ra.authldap - Internal error: java.lang.NullPointerException. java.lang.NullPointerException at java.util.Hashtable.put(Hashtable.java:460)</pre>
	This issue also surfaces when users creates a new TIBCO ActiveMatrix Service Grid 3.4.0 setup with Administrator configured with Authentication realm as LDAP SSL. With this fix, you can login successfully.
AMX-17584	TIBCO ActiveMatrix Administrator server does not support SSL-enabled TIBCO Enterprise Messaging Server (EMS) fault-tolerant (FT) servers using JSON configuration, and fails with the following error during EMS failover, as seen in the SystemNode logs:
	<pre>com.tibco.tibjms.admin.TibjmsAdminSecurityException: Command unavailable on a server not in active state and using a JSON configuration file</pre>
	With this fix, the failure is no longer seen, and SSL-enabled EMS FT servers configured with JSON is supported for failover in a fault tolerant manner.

Key	Summary
AMX-17583	This issue is observed when failover happens in a large scale TIBCO ActiveMatrix setup with Administrator configured with TIBCO Enterprise Messaging Server (EMS) fault-tolerant (FT) servers, Runtime Nodes configured with the `tibco.tibjms.connect.attempts` Java property, and the EMS server specified first in the FT URL is not running. The user Applications on the Runtime Nodes cannot be stopped or started because after the failover, the Runtime Nodes are unable to send their status after successfully reconnecting to the EMS Server. The following error message is seen in Runtime Node logs: `"com.tibco.amx.hpa.notification.NotificationGroup - TIBCO-AMX-HPA-000308: cannot send status update message, notification service is unavailable and sending is suspended until notification service is restored".` As a result, ActiveMatrix Administrator marks these Runtime Nodes as "Offline" and does not deploy any application on these Nodes. With this fix, the Runtime Nodes can successfully transmit their status upon connecting to the EMS server, and Administrator is able to mark the Nodes as "Online" as a result, consequently allowing successful Application deployment.
AMX-17485	In an ActiveMatrix setup with Administrator configured with TIBCO Enterprise Messaging Server (EMS) fault-tolerant (FT) servers, with Runtime Nodes configured with the `tibco.tibjms.connect.attempts` Java property, when the EMS server specified first in the FT URL is not running, the user actions of starting or stopping SystemNodes and Runtime Nodes take a long time. This is due to the fact that when starting or stopping SystemNode or Runtime Nodes with EMS FT configured, the Nodes keep trying to connect to the inactive primary EMS server, instead of connecting to the active, secondary EMS server. With this fix, the issue is no longer seen and the Nodes now connect to the active EMS server while starting or stopping without any delay.
AMX-17205	Apache Commons File Upload Library has now been upgraded to version 1.3.3.
BJMS-1587	In TIBCO ActiveMatrix, when Applications containing JMS or SOAP/JMS Binding Types (BT) with Authentication enabled for JMS Connection Factory Resource Template (RT), the services response is delayed due to the security update in Oracle JRE, specifically when the JRE has been updated to JRE 7u161, JRE 8u151 or later. Also, the username and password are being accessed from the keystore multiple times while creating JMS sessions, which is excessive and unoptimized, and this contributes to the increased response time. This behavior has now been optimized thus improving the overall response time of the JMS and SOAP/JMS services.
MED-3358	If a mediation app is importing a schema file and the schema location has space in the file path then application deployment fails with MalformedURLException. After this fix if schema location contains space then mediation application deployment happens successfully.

Key	Summary
PD-4438	When failover happens in a TIBCO ActiveMatrix setup with Policy Director (PD), with Administrator configured with TIBCO Enterprise Messaging Server (EMS) fault-tolerant (FT) servers, Runtime Nodes configured with the `tibco.tibjms.connect.attempts` Java property (with value set to 600,500), and the EMS server specified first in the FT URL is not running, the Governance Control (GC) deployment fails after EMS failover and went into "DeployError" state. This is because after the failover, the Runtime Nodes kept trying to connect to the stopped EMS server until all the attempts are exhausted. This issue is now fixed and the runtime Nodes now connect to the active EMS server immediately following the failover. Deployment of Governance Control is also completed successfully after the failover.
PER-2191	In TIBCO ActiveMatrix Service Grid 3.4.0 setup with Policy Director Governance, the "Authorization by Role" policy is not working for specific Roles. This is a result of failure to retrieve the security token from the internal action context during validation. With this fix, security subject itself will carry the security token which will be made available during validation, and "Authorization by Role" policy will work as expected for the specific Roles usecase with Basic/Username Token Policy in place.
| PER-2190 | After Runtime Node restarts, the users are unable to invoke SOAP Binding Type (BT) services configured with Authentication policy, which used LDAP Authentication Resource Template (RT) with SSL. The following error is seen in the Runtime Node logs:<br><br>```
com.tibco.amx.governance.agent.action.api.AbstractActionManager -
Failed to execute action.
com.tibco.governance.pa.action.security.SecurityException:
Policy enforcement failed to authenticate the request.
Caused by: com.tibco.trinity.runtime.core.provider.authn.LoginError:
Internal error in login; check logs java.lang.NullPointerException.
at com.tibco.trinity.runtime.core.provider.authn.AbstractLoginModule.
login(AbstractLoginModule.java:190)
```<br><br>With this fix, users can successfully invoke SOAP services secured via Authentication policy using SSL-enabled LDAP Authentication. |
| PER-2188 | In TIBCO ActiveMatrix BPM setup when a Load Balancer is used, the "X-Forwarded-For" header is not being logged for successful as well as failed authentication login attempts. With this fix, the "X-Forwarded-For" header will be logged for all authentication attempts so as to identify the originating client's IP address when attempting to connect to the server via HTTP proxy or a load balancer.

NOTE: The loggers `com.tibco.amx.login.success` and `com.tibco.amx.login.failure` must be set to "INFO" level for the BPMNode in order to view the log entries. This can be set using the **Administrator UI > Infrastructure > Nodes > Select Node > Configuration > Logging** screen.

Once configured correctly, the log entries can be viewed in

`<TIBCO_CONFIG_HOME>/tibcohost/<TH_INSTANCE_FOLDER>/data_3.2.x/nodes/<BPM_NODE_NAME>/logs/BPMNode.log`. |

Key	Summary
SDS-7821	In TIBCO ActiveMatrix BPM, TIBCO Business Studio is not able to generate a script for BPM projects from a Deploy Project due to NullPointerException.
	The issue has been fixed and scripts are getting generated for BPM projects without NPE in logs.
TAP-16366	TIBCO ActiveMatrix Administrator Node JVM property value does not support special characters $, due to which installation of Node fails.
	With this fix, the user can add special characters $ in the Node JVM property value and Installation of a Node is also successful.
TAP-16338	In TIBCO ActiveMatrix Administrator GUI mode, when trying to change a resource instance for an application using Resource picker dialog, unable to see Node level resource instances when Tibcohost level is selected. With this fix, the resource picker will drill down to Node level to show the list of resource instances the same as that of TIBCO Host level.
TAP-16326	When trying to use ActiveMatrix Administrator exported data to populate the `rest_binding_data.xml` file and then using CLI scripts `ant -f rest_binding_build.xml` to edit the REST reference binding (Example: changing a shared resource) of an application, the CLI build fails with the following error:
	`Type 'T=HttpTransportDetailsForReference@xxx' is not derived from 'T=HttpTransportDetailsForRestReference@yyy' in element Binding`
	This is because ActiveMatrix Administrator export wizard does not handle REST Reference binding properly.
	With this fix, the exported app information has the correct tag name for the REST reference binding in the data XML file, thus CLI build of editing the REST reference binding does not fail with the preceding error.
TAP-16294	In a TIBCO ActiveMatrix BPM setup, when you change the logging levels of any loggers in the amx.bpm.app application and apply the changes, it takes long time for the changes to be applied in TIBCO ActiveMatrix Administrator. It takes even longer to propagate the changes across all the Nodes on which the Application is deployed.
	With the performance improvements that have been introduced as part of this fix, the time taken to apply the changes to logger levels of the amx.bpm.app application has been reduced to a fraction of the time it used to take before.
TAP-16292	In case of Node creation in TIBCO ActiveMatrix BPM, when computing capability resolution for across Node dependencies, the old versions of the Application Components are not being factored in. As a result, failures are seen during BPM Node creation related to deployment of BPM User Applications.
	With this fix, the BPM User Applications can be deployed and the BPM Node can be created successfully.
TAP-16291	In a TIBCO ActiveMatrix BPM setup, in case of BPM Applications containing multiple Component References promoted to the same Promoted Reference with REST Binding, the Binding does not start successfully on newly created BPM Nodes.
	With this fix, the REST Reference Binding starts successfully on newly created BPM Nodes.

Key	Summary
TAP-16290	In TIBCO ActiveMatrix Administrator UI and CLI, invalid passwords are not handled correctly for certain Resource Templates. These issues have now been addressed.
TAP-16240	In certain TIBCO ActiveMatrix BPM setups, the list of all Applications on the **Applications** tab takes a long time to load. With this fix, the time taken to load the Applications tab has been reduced significantly.
TAP-16279	In TIBCO ActiveMatrix Administrator, if user enables org.eclipse.jetty logger at TRACE level on a node then there might be few "NoSuchMethodException" and "NoSuchFieldException" exception at trace level. These exceptions are benign and can be ignored.
TAP-16278 TAP-15948	In TIBCO ActiveMatrix BPM setup, when upgrading a BPM Application, Administrator sets the "Prepare For Undeploy (PFU)" flag to "true" for the components' old versions. Previously, Administrator sets the PFU flag back to "false" if "UNCONFIGURE" task got canceled or failed during upgrade, thus blocking further upgrade. With this fix, Administrator doesn't set the PFU flag back to "false" even if "UNCONFIGURE" task fails or cancels, allowing the application upgrade to proceed successfully.
TAP-16219	In TIBCO ActiveMatrix BPM setup, making any change to application level logging configuration during (in the middle of) BPM application update causes the application update to fail. With the fix, BPM application can be upgraded and deployed successfully though application level logging is configured in the middle of application update.
TAP-16025	In TIBCO ActiveMatrix setup containing Nodes, which are in "Not Installed" state, when JDBC drivers are updated using Administrator Command Line Interface (CLI) "updateJDBCDriver" target, the reprovisioning and subsequent restarting of such Nodes previously failed with a NullPointerException. With this fix, the reprovisioning task will now skip such Nodes (that is, Nodes in "Not Installed" state) when executing the "updateJDBCDriver" target, and an informative message is provided indicating the name(s) of the skipped Node(s), as follows: `[AMXAdminTask] INFO - TIBCO-AMX-CLI-000970: Nodes '<NodeName> (internal id: 'NNN')' are not installed yet, JDBC Driver installation has been skipped.`
TAP-16007	Following an upgrade of the underlying jQuery library (used extensively by TIBCO ActiveMatrix Administrator UI) in ActiveMatrix Service Grid 3.4.0, the latest version of Microsoft Internet Explorer (IE 11), fails to load the Administrator. The issue is due to the security constraints introduced in IE 11 which are incompatible with the jQuery version used in 3.4.0. This has now been addressed by changing the jQuery library to a version compatible with IE 11. With this fix, Administrator UI loads as expected on IE 11.

Key	Summary
TAP-15999	During TIBCO ActiveMatrix BPM upgrade, the execution of the TCT CLI scripts fails due to NullPointerException. This is due to the fact that the permission is created without a parent object, and is thus inaccessible during the permission check operation. With this fix, for permissions created without a parent object, there will be no failure; Administrator will log this in the SystemNode.log and proceed with the execution of the stop command as expected.

TAP-15949	If a runtime Node installation fails for any reason, then any subsequent attempt to install the Node again fails as the Platform Application already exists in the Node, and as a result the following error occurs:
	
	`"Error invoking bulk action install on Node: TIBCO-AMX -`
	`ADMIN-012368: The application key already exists!".`
	
	With the fix, the Node installation retry attempt first removes the existing Platform Application, due to which the Node's installation completes successfully.

TAP-15948	In TIBCO ActiveMatrix BPM setup when upgrading a BPM Application, Administrator sets the "Prepare For Undeploy (PFU)" flag to "true" for the components' old versions. Administrator sets the PFU flag back to "false" if "UNCONFIGURE" task fails during upgrade, thus blocking further upgrade. With this fix, Administrator doesn't set the PFU flag back to "false" even if "UNCONFIGURE" task fails, thus allowing further Application upgrade to proceed successfully.
TAP-15946	In TIBCO ActiveMatrix SOA setup (not involving TIBCO ActiveMatrix BPM) when upgrading an SOA Application, Administrator uses the "Prepare For Undeploy (PFU)" mode to remove the old components, which is not needed for SOA Application components. As a result, Administrator fails to remove the old component, which is in START_FAILED state, from runtime. With this fix, the PFU mode is no longer used to remove the old component, which even in START_FAILED state, can be removed successfully from both Administrator and runtime.
TAP-15942	In TIBCO ActiveMatrix SOAP/JMS Binding Type (BT) or JMS Binding Type (BT), the underlying JMS Connection Factory Resource Instance (RI) intermittently fails to start upon Runtime Node or TIBCO Host restart, when Authentication is enabled on the JMS Connection Factory Resource Template (RT), and the JNDI Connection Configuration RT name is a substring of the JMS Connection Factory RT name. This issue has now been fixed and there will be no start failure for newly created JNDI Connection Configuration and JMS Connection Factory Resource Instances. NOTE: For the fix to take effect, all affected Resource Templates and their respective Resource Instances must be removed, re-created, and reinstalled.
TAP-15908	jQuery version used by TIBCO ActiveMatrix has now been upgraded to 3.3.1.

Key	Summary
TAP-14926	The 'source' information for user actions is not displayed in SystemNode logs.
	With this fix, IP, Host and time(UTC zone) printed in `admin-user-action.log` in the needed format.
	For more information, see "Displaying Source Information in Logs for User Actions" topic in *TIBCO ActiveMatrix® Service Grid Administration*.

Known Issues

The table lists known issues in this release of TIBCO ActiveMatrix Service Grid.

Key	Summary
AMRP-5628	**Summary**: The node status does not include custom features during the sequential checks when determining node health. **Workaround**: None
AMRP-5445	**Summary**: If a Node Start action has been performed and the messaging bundle is found to be in a `Stopped` state, the ActiveMatrix Administrator CLI stops responding as the EMS messaging bundle is not loaded in the OSGi. This happens due to a limitation in the ActiveMatrix platform. **Workaround**: Reinstall the node.
AMRP-5043	**Summary**: The timeout value of a promoted service or a component service is not updated when a promoted service or a component service is promoted. **Workaround**: Specify the timeout value using the application-level property. For example, if the name of an application is `weatherApp`, the following property can be specified for the promoted service or component service that is promoted: `java.property.weatherApp.invocationTimeoutInMilliseconds`. For example, the following property sets the timeout value to 2 minutes: `java.property.weatherApp.invocationTimeoutInMilliseconds=12000`
AMRP-4754	**Summary**: If a service provider and a service consumer exist in the same BPM application, undeploying the application might undeploy the service provider even though the service consumer still requires the service provider. **Workaround**: Separate the service consumer and the service provider so that they're both in two separate user applications.

AMRP-4736	**Summary**: You might not be able to start TIBCO® BPM Enterprise as a Windows Service after upgrading to ActiveMatrix release 3.3.0 from release 3.1.5 (or previous releases) or TIBCO® BPM Enterprise release 2.2.0 from release 2.1.0 (or previous releases).
	
	Workaround: If you encounter this issue:
	
	1. Launch a command prompt where `tibcohost.exe` is located.
	2. Uninstall existing TIBCO® BPM Enterprise windows service by executing:
	`tibcohost.exe --uninstall`
	3. Install the windows service again by executing:
	`tibcohost.exe --install`

Key	Summary
AMRP-4013	**Summary**: Acceptor threads for HTTP connectors might consume excessive amounts of CPU. The processing performance of any node that uses an HTTP connector experiencing this issue might be affected when asynchronous IO is involved. **Workaround**: Edit the HTTP Connector resource template to use blocking IO. For more information, see the section "Managing Resource Templates" in *TIBCO ActiveMatrix Service Grid Administration*.
AMRP-3788	**Summary**: The LDAP resource template pool properties are not used when initializing the connection pool. **Workaround**: Configuring the connection pool using system properties specified for the target node applies them to all instances deployed to that node. Refer to the Oracle documentation for more information: http://docs.oracle.com/javase/jndi/tutorial/ldap/connect/config.html.
AMX-18646	**Summary:** The following upgrade path fails: Upgrade from ActiveMatrix Service Grid 3.1.5 to version 3.3.0 by using scripts. Then upgrade from version 3.3.0 to version 3.4.0. Then upgrade from version 3.4.0 to version 3.4.1. **Workaround:** • Before upgrading to ActiveMatrix Service Grid 3.4.1, update `java.heap.size.max=512M` to `java.heap.size.max=1024M` in the `<TIBCO_HOME>/amx/3.4/bin/nodeutil.tra` file. • After performing preceding step, upgrade to version 3.4.1 is successful but some runtime host fails during start after upgrade and the `com.tibco.amx.platform.artifactserver` application in the SystemEnvironment is in the **Start failed** state. In this case, manually start Host and Nodes OR undeploy and deploy the `com.tibco.amx.platform.artifactserver` application.
AMX-18583 AMX-18539	**Summary:** After upgrading from an earlier version with ActiveMatrix Policy Director Governance installed to ActiveMatrix Service Grid 3.4.1, the ActiveMatrix Policy Director Governance application version is not displayed correctly in the Administrator UI. **Workaround:** None. This issue does not have a functional impact; everything works as expected.
AMX-18554	**Summary:** Downgrading from ActiveMatrix Service Grid 3.4.1 to an earlier version by using TIBCO Configuration Tool in the silent mode fails with the following error: `java.lang.RuntimeException: XPathFactory#newInstance() failed to create an XPathFactory for the default object model: http://java.sun.com/jaxp/xpath/dom with the XPathFactoryConfigurationException: javax.xml.xpath.XPathFactoryConfigurationException: java.util.ServiceConfigurationError: javax.xml.xpath.XPathFactory:` **Workaround:** None

Key	Summary
AMX-18536	**Summary:** TIBCO ActiveMatrix BusinessWorks™ Service Engine application deployment fails after upgrade to ActiveMatrix Service Grid 3.4.1. **Workaround:** None

AMX-18474	**Summary:** When invoking SSL enabled SOAP service which refers to the keystore file with DH keysize <1024k, the following error occurs:
	
	`javax.net.ssl.SSLHandshakeException: DH ServerKeyExchange does not comply to algorithm constraints`
	
	Workaround: Update your keystore to use the DH keysize larger than 1024.
	
	OR
	
	Edit `tibcojre64/1.8.0/lib/security/java.security` file and add the desired length to the `jdk.tls.disabledAlgorithms` property by appending DH KeySize < *min keylength* :
	
	`jdk.tls.disabledAlgorithms=SSLv3, TLSv1, TLSv1.1, RC4, DES, MD5withRSA, \`
	`DH keySize < 768`

AMX-18365	**Summary:** When secure SystemHost and RemoteHosts (Host for which JMX port is secured) are successfully upgraded to ActiveMatrix Service Grid 3.4.1, the Administrator UI does not show the updated version of hosts correctly. **Workaround:** When the hosts are secured, SystemNode is configured with TLSv1, which is the supported TLS in versions of ActiveMatrix Service Grid prior to 3.4.0. Starting from ActiveMatrix Service Grid 3.4.0 and later, TLSv1.2 is supported, and all the Hosts are updated to automatically use TLSv1.2 when upgraded to 3.4.1, except the Administrator (SystemNode). When you encounter this issue, run the following command after upgrading to ActiveMatrix Service Grid 3.4.1 to update Administrator (SystemNode) to support TLSv1.2. Navigate to *<TIBCO_HOME>*`/amx/3.4/bin` folder and execute the following command: `tibamx_hostmanager updateAdminToTLSv12 -configHomeLocation <TIBCO_CONFIG_HOME>` • Hosts and Nodes MUST be stopped before running the above command. After running the command, restart Administrator (SystemNode). • The preceding command must be executed only on the machine where SystemNode and SystemNodeReplica (if applicable) is running.
AMX-17606	**Summary:** If you have upgraded from an earlier version of TIBCO ActiveMatrix Service Grid including hotfixes to TIBCO ActiveMatrix Service Grid 3.4.0, when you downgrade from TIBCO ActiveMatrix Service 3.4.0 to the earlier version, you cannot revert the hotfixes applied earlier using **revertPatch** command. **Workaround**: None

Key	Summary
AMX-17411	**Summary**: When the `java.property.com.tibco.amx.decouple.Manual.Nodes` property is set to `true` in the TRA file, the SystemHost is downgraded but the SystemNode fails to downgrade. **Workaround**: 1. Set the following property: `java.property.com.tibco.amx.decouple.Manual.Nodes=false` 2. Restart ActiveMatrix Administrator. 3. Upgrade SystemHost to 3.4.0 and downgrade again.
AMX-17409	**Summary:** Consider that an ActiveMatrix Administrator server is upgraded to 3.4.0 from a prior version and this server is downgraded with a wrong ActiveMatrix Administrator port. In this case, if you do not test the connection to the ActiveMatrix Administrator server before the downgrade, the TIBCO Configuration Tool downgrade process hangs when checking ActiveMatrix Administrator initialization at the "Checking for Admin initialization..." step. **Workaround:** Kill the TIBCO Configuration Tool and provide correct information for ActiveMatrix Administrator configuration. For example, port, SSL information, and so on. Run the downgrade wizard again.
AMX-17393	**Summary**: When SAML Single Sign On configuration is enabled, if you delete the browser cookies, after re-directing from error page to landing page, you are not prompted for login credentials. **Workaround**: Logout from the previous browser session.
AMX-17365	**Summary**: After upgrading to ActiveMatrix 3.4.0, the ActiveMatrix 3.3.0 Hotfix<x> runtime host fails to be downgraded back with the following error: ```product feature com.tibco.amf.sharedresource.extensions.runtime.tibcohost.product.feature 3.3.xx.000 contains a release unit com.tibco.amf.hpa.core.runtime.services.feature 1.5.0.003 that does not exist in the machine model``` **Workaround**: Always select the **Mediation Runtime** option while installing the **Runtime Host** profile for the remote hosts.
AMX-17351	**Summary:** Even after downgrading from 3.4.0 to a lower version and uninstalling 3.4.0, the **Configure TIBCO Service Performance Manager - V2.3** option is available in the TIBCO Configuration Tool. If you click the option, a Null Pointer exception is thrown. **Workaround:** None. Do not click the **Configure TIBCO Service Performance Manager - V2.3** option.
AMX-17343	**Summary:** If one of the EMS servers fails on an Amazon Web Services (AWS) setup, the status of some nodes is shown as `LOST_Contact`. **Workaround:** Reconnect the EMS connections by clicking **Admin Configuration > Admin Server > Transport Configuration tab > Administrator Reconnect**. After the reconnection, all the entities are shown as online.

Key	Summary
AMX-17323	**Summary:** The **TIBCO ActiveMatrix Governance Agent for TIBCO BusinessWorks Notification** screen of the **Create TIBCO ActiveMatrix Policy Director Administrator Server - V3.4** wizard is removed in 3.4.0. However, some shared resources related to this screen (EMS ConnectionFactory, JMS Destination, JNDI Connection) are created in ActiveMatrix Administrator. These shared resources are added as an application property and can be viewed from the ActiveMatrix Administrator UI: • Application name: `com.tibco.ampd.ogp.de` • Properties: `bwJmsSharedResource` and `bwAgentAdapterJmsDestination` **Workaround:** The shared resources created by the screen are not used. You can ignore them.
AMX-17316	**Summary:** After the uninstallation of ActiveMatrix Service Grid 3.4.0, some files and folders are not removed from TIBCO_HOME. For example, the `tibamx_hostmanager.properties` file from the `TIBCO_HOME/amx/3.4/scripts` and `TIBCO_HOME/tct/1.6` directories are not removed. **Workaround:** None
AMX-17226	**Summary:** On IBM AIX, if the **Deploy Log Service** option is selected and you create the ActiveMatrix Administrator server, the following error is displayed: `Error Loading Extension Registry error` **Workaround:** Clear the **Deploy Log Service** option when creating the ActiveMatrix Administrator server.
AMX-17182	**Summary:** In the TIBCO Configuration Tool, host names or DNS names cannot have underscores in their names. As a result, TIBCO Configuration Tool fails if the name of the **Available Group Listener** contains underscores while configuring the `AlwaysOn` Database Setup in SQL Server 2017. **Workaround:** Do not use underscores in the name of the **Available Group Listener** while configuring the `AlwaysOn` Database Setup on SQL Server 2017.
AMX-17144	**Summary:** On Microsoft Windows, when you try to update JRE by using TIBCO Configuration Tool, occasionally the following error occurs: `Caused by: TIBCO-AMX-TOOLS-JREUPDATER-000048: Cannot write to the file. E:\AMX_v43\amx\3.4\scripts\rpflauncher_classpath_3.4.0.tra.` **Workaround:** Run the command two or three times until it succeeds.
AMX-17120	**Summary:** Occasionally, because of manual intervention or execution of certain scripts, the network time of the machine where Active Directory Federation Services (ADFS) or WebApp is hosted might be out of sync and result in authentication failure for response being too old or from future. **Workaround:** The network time of the machine must be synchronized. For Linux, the synchronization must happen with the Network Time Protocol server. For Windows, use the Windows time service. There are standard operating system level procedures for synchronizing the machine network time.

Key	Summary
AMX-16828	**Summary:** If you invoke a REST service binding with an OpenID Policy through a SOAP client such as SoapUI, it always sends an Access Token, which is an opaque token. Access Tokens are not currently supported. **Workaround:** Use the ID Token (which is a JWT token) generated by the Access Token URI to send the request in SoapUI.
AMX-16800	**Summary:** On a replication setup, when upgrading from 3.3.0 to 3.4.0, the primary ActiveMatrix Administrator server does not start correctly after a successful upgrade. **Workaround:** Restart the ActiveMatrix Administrator server.
AMX-16672	**Summary:** Double downgrade is not supported. For example, downgrading from 3.4.0 to 3.3.1 to 3.3.0 fails with the following errors: ```TIBCO-AMX-CLI-000944: Failed to downgrade TIBCO Host instance(s). TIBCO-AMX-CLI-000942: Downgrade TIBCO Host instance <instance name> is not possible.``` **Workaround:** None
AMX-16634	**Summary:** For an upgraded TIBCO host, the `tibcohost describeHost` command incorrectly shows the upgrade status as `None`. **Workaround:** None
AMX-16542	**Summary**: After upgrading TIBCO Business Studio to TIBCO ActiveMatrix 3.4.0, it is no longer supported on the macOS operating system. **Workaround**: None
AMX-16505	**Summary:** On a replicated setup, if one of the servers is downgraded, the version of the TIBCO ActiveMatrix REST BT Administrator Plug-in shows as 3.4.0 instead of showing the older version. **Workaround:** None
AMX-16084	**Summary**: The Service Performance Manager (SPM) dashboard does not work with EMS fault tolerance mode. **Workaround**: None
AMX-16083	**Summary**: If a Java project has errors (faults) configured in RRC and has execution environment as JAVASE-1.6 or lower, DAA generation fails. **Workaround:** To generate the DAA file, make sure that the `RequiredExecutionEnvironment` field in the `Manifest.MF` file is empty. It allows you to create the DAA and deploy it at run time.

Key	Summary
AMX-16017	**Summary:** When 3.4.0 is installed over 3.3.0 with Hotfix 17 applied to it, if all the check boxes (3.3.0, Hotfix 17, and 3.4.0) are selected in the Custom Uninstall dialog box, the following error is displayed during the TIBCO ActiveMatrix SPM Dashboard uninstallation: `ANT Task: TIBCO ActiveMatrix Pre-Uninstallation - ActiveMatrix SPM Dashboard has failed.` **Workaround:** Uninstall the products in the following order: 1. 3.4.0 2. 3.3.0 Hotfix 17 3. 3.3.0
AMX-16016	**Summary**: Downgrading SystemHost from ActiveMatrix 3.4.0 to an earlier version fails if the `CONFIG_HOME` where the SystemHost is present contains other runtime hosts that are bound to a different ActiveMatrix Administrator server instead of the ActiveMatrix Administrator server from the selected `CONFIG_HOME`. **Workaround**: Ensure that all the runtime hosts that are in the selected `CONFIG_HOME` must be bound to the ActiveMatrix Administrator Server from the same `CONFIG_HOME`.

AMX-15975	**Summary:** Even when the command line interface is used, the notification transport update fails with the following error message:
	
	`TIBCO-AMX-ADMIN-021085: Failed to update the notification transport!, Caused by:`
	`TIBCO-AMX-ADMIN-021281: The number of hosts in this enterprise is more than 10.`
	`Please use the Administrator Command Line Interface for updating the Notification Transport.`
	
	Workaround: None

AMX-15840	**Summary**: After upgrading from 3.2.0 to 3.4.0, the Mediation application template shows version as `3.4.0.007` instead of `3.5.0.007`. **Workaround**: None
AMX-15806	**Summary:** When a DAA created in 3.3.0 with `javax.servlet` is run as a composite application in 3.4.0 (**Deployment Artifacts** > right-click the DAA file > **Debug As** > **Composite application**), RAD starts, but fails with Provisioning Node errors. **Workaround:** Re-create the DAA in 3.4.0.
AMX-15775	**Summary**: In 3.4.0, an HTTP connector is created as non-blocking by default. That is, the **Use Non-Blocking IO Sockets** check box on the **Advanced** tab is selected by default. When this check box is selected, the **Acceptor Threads** field on the **General** tab is disabled and 1 is used as the default number of **Acceptor Threads**. For an internal HTTP connector, if the **Use Non-Blocking IO Sockets** check box is cleared and a value greater than 1 is specified in the **Acceptor Threads** field, all except one of the acceptor threads is in a blocked state. **Workaround**: Keep the **Use Non-Blocking IO Sockets** check box on the **Advanced** tab cleared.

Key	Summary
AMX-15756	**Summary**: During installation using the GUI mode, a name cannot be specified for the installation environment. **Workaround**: Install using the Silent installation mode if you want to specify an environment name.
AMX-15614	**Summary:** When creating an ActiveMatrix Administrator server by using TIBCO Configuration Tool, if the Oracle user name has quotes (" ") and hyphen (-), TIBCO Configuration Tool fails to create the ActiveMatrix Administrator server and returns the following error: `Caused by: java.sql.SQLSyntaxErrorException: ORA-00942: table or view does not exist` **Workaround:** Avoid using quotes (" ") and hyphen (-) in the user name.
AMX-15569	**Summary:** The `-ignoreNodeStartupMode` argument of the Host Manager's `startAllHosts` command does not work for a Microsoft Windows NT host. For a Microsoft Windows NT host, it starts a node configured for automatic startup but does not start a node configured for manual startup. **Workaround:** Start Microsoft Windows NT host or service manually.
AMX-15379	**Summary**: If application `App1` with promoted service `Service1` containing a SOAP/HTTP binding `Binding1` is deployed in environment `Env1`, and another application `App1` with promoted service `Service1` containing a SOAP/JMS binding `Binding1` is deployed in environment `Env2`, the TIBCO ActiveMatrix SPM dashboard shows an incorrect binding type for the application `App1` deployed in `Env2`. That is, the dashboard shows the binding type as SOAP/HTTP instead of SOAP/JMS. This issue applies to promoted references as well. Additionally, it applies to all binding types - SOAP/HTTP, SOAP/JMS, and JMS. **Workaround**: None

Key	Summary
AMX-15261	**Summary**: On a machine which has a TIBCO ActiveMatrix 3.3.0 Hotfix installed, while upgrading to TIBCO® BPM Enterprise 4.0.0, the TIBCO ActiveMatrix version is downgraded if all the following options are selected: • **Upgrade ActiveMatrix TIBCO Host Instance** • **Upgrade ActiveMatrix Administrator** • **Upgrade Nodes Hosting TIBCO® BPM Enterprise Instance** • **Upgrade TIBCO® BPM Enterprise Instance Application [Upgrading Database]** **Workaround**: 1. Stop tibcohost. 2. Apply the TIBCO ActiveMatrix 3.3.0 Hotfix again by running the patch manager. 3. Start tibcohost. 4. From ActiveMatrix Administrator, check systemnode and bpmnode. The expected hotfix version is displayed. 5. Launch TIBCO Configuration Tool to upgrade to TIBCO® BPM Enterprise 4.0.0. Select the last two options: **Upgrade Nodes Hosting TIBCO® BPM Enterprise Instance** **Upgrade TIBCO® BPM Enterprise Instance Application [Upgrading Database]**

AMX-13851	**Summary**: If you use Microsoft SQL Server 2012 as an external database server and use its Mirror Mode to establish a connection to a secondary failover database server, TIBCO ActiveMatrix Administrator fails to connect to either database server.
	
	Workaround In addition to providing the JDBC URL of the mirrored servers in SQL Server 2012, you must set the IP and hostname of both the primary and secondary database servers in the hosts file. The location of the hosts file depends on the operating system:
	
	• Windows: `ROOT_DIR\system32\drivers\etc\hosts`
	• UNIX/Linux: `/etc/hosts`
	
	For example, you have two database servers. The primary server's IP is 192.167.71.42 and its hostname is `amx-db42`; the secondary server's IP is 192.167.71.60 and its hostname is `amx-db60`. You would provide the following JDBC URL for these two mirrored primary and secondary servers:
	
	`jdbc:sqlserver://`
	`192.167.71.42:1433;databaseName=db1;failoverPartner=192.167.71.60`
	
	To ensure that ActiveMatrix Administrator successfully connects to both servers and allows for seamless switching between them using SQL statements, you must add the following entries to the hosts file:
	
	`192.167.71.42 amx-db42`
	`192.167.71.60 amx-db60`

Key	Summary
AMX-11970	**Summary**: In a replicated ActiveMatrix Administrator server setup, if you deploy to the system node applications with policies applied on them, the policies are not enforced after upgrade. **Workaround**: First undeploy and then redeploy these applications after upgrading all system nodes.
BJMS-1490	**Summary**: JNDI Resource Template using Custom Property for LDAP Provider URL will not get installed. **Workaround**: Provide URL in the Provider URL field on the Resource Template.
BJMS-1382	**Summary**: If JMS Binding configured with JMS At Least Once Policy is undeployed before the redelivery count is exhausted, and deployed again, the message is not redelivered. **Workaround**: None
BJMS-1374	**Summary**: If JMS Binding is configured with JMS At Least Once Policy and the EMS Provider URL used for connection is fault tolerant, the message is not redelivered in case EMS crashes. **Workaround**: None
BJMS-755	**Summary**: Enterprise Message Service XA Resources from orphaned transactions do not disappear after transaction timeout from Enterprise Message Service server. They are seen on the Enterprise Message Service server as a part of show transactions command. **Workaround**: Re-start the Enterprise Message Service server. As there is no locking in messaging associated with an XA resource, this issue is not serious.
BJMS-736	**Summary**: When a 2.x project containing a JMS binding is migrated to 3.x, the JNDI resource templates required for looking up the destination are not created and the generated warning does not clearly state that JNDI resource templates need to be created. **Workaround**: Manually create JNDI resource templates required for defining inbound and outbound destination configurations.
BJMS-726	**Summary**: On re-starting Enterprise Message Service, for in-flight messages, transaction does not get committed. Re-delivery happens and message is forwarded to the error queue. **Workaround**: Recover the requests from the error queue.
BJMS-718	**Summary**: For JMS binding, the SDS UI allows you to set Context Parameters of type Message. This is not supported for JMS Binding. **Workaround**: Do not use type Message for Context Provisioning related to JMS Binding.
BJMS-636	**Summary**: The show connection command in the TIBCO Enterprise Message Service administration tool `ems-admin` does not contain "ClientID" value for connections created by JMS resource instances for outbound connections. **Workaround**: None

Key	Summary
BJMS-603	**Summary**: ActiveMatrix Administrator does not validate that an application with JMS Transacted One-Way policy set should be deployed on a single node. **Workaround**: Ensure that the JMS binding that has a JMS Transacted One-Way Policy is deployed on the same node as that of component(s), it is wired to.

BJMS-355	**Summary**: When a JMS service is deployed in LB setup over routed queues, the following message is displayed and the service does not start:
	
	`javax.jms.IllegalStateException: Not allowed to use transacted session on routed queues`
	
	Workaround: Enterprise Message Service does not support transactions on routed queue consumers. Enterprise Message Service 6.0 added an explicit check to prevent this. You can restore the old behavior by setting the following configuration parameter:
	
	`allow_unsupported_tx_routed_q_consumers = true`

BJMS-139	**Summary**: If you rename an operation in a WSDL file, JMS bindings on composite services and references are not updated correctly. **Workaround**: Create new JMS binding after renaming the WSDL operation or re-assign the WSDL file to existing JMS binding.
DSS-982	**Summary**: Changing or updating the TIBCO Credential Server (TCS) certificate results in host security failure. **Workaround**: None
DSS-813	**Summary:** While upgrading to ActiveMatrix release 3.3.0, you might see benign errors similar to the following example: `[ERROR]com.tibco.trinity.runtime.base.provider.identity.CipherSupport` **Workaround**: Such errors are harmless and do not mean that the upgrade failed. No action is required.
HKAM-411	**Summary:** On the Solaris operating system, the AMXNode microagents are not shown in the Hawk Display. **Workaround:** None
HKAM-402	**Summary**: After upgrading ActiveMatrix 3.3.0 to ActiveMatrix 3.4.0, when you call the `getConfig` method, the Monitoring Application State is shown as NOT CONFIGURED. **Workaround**: Before upgrading to ActiveMatrix 3.4.0, apply ActiveMatrix 3.3.0 Hotfix 10 or higher.

Key	Summary
HKAM-397	**Summary**: When Hawk ActiveMatrix Plug-in (HKAM) is used for large scale systems, `tibhawkagent` stops automatically with the following error `RV: DrainQueue: out of memory.` **Workaround**: If HKAM is configured with more than 10 hosts, increase memory of `tibhawkagent`. To change memory of `tibhawkagent`: 1. Open `tibhawkagent.tra` located at `<hawk.config.home>/tibco/cfgmgmt/hawk/bin`. 2. Change values of `-XX:MaxPermSize`, `java.heap.size.initial` and `java.heap.size.max` based on number of hosts. For 60 hosts, the following values are recommended: • `java.heap.size.max` = 4 GB • `-XX:MaxPermSize` = 1 GB
HKAM-389	**Summary**: After a Notification Transport Server Configuration update, the TIBCOHost's HKAM rulebases point to the previous Notification Transport Server Configuration. **Workaround**: After a Notification Transport Server Configuration update, you must manually update the TIBCOHost's HKAM rulebases.
HKAM-384	**Summary:** When HKAM is configured on a large scale setup, invoking a method on a Host microagent fails with a timeout. **Workaround:** Change the default HKAM rulebase for host and node. Make it event-driven rather than polling at a fixed interval.
HKAM-374	**Summary**: On Windows Server 2008 R2, if a node belongs to a host created with a Windows NT service, invocation of the following methods on the node microagent fails with a `StatsDataAdapter is null` error: • `changeMonitoringConfig` • `getBindingOperationStats` • `getComponentOperationStats` • `getConfig` **Workaround**: None

Key	Summary

HKAM-373	**Summary:** When QIN update is performed on a host which is already configured with HKAM, the EMS related information in the `hawkems<host_name>.hma` file points to the old notification server.
	
	Workaround: Change the EMS values for `-user`, `-encryptedPassword`, and `-server` of the new notification server manually in the `hawkems-<host_name>.hma` file.
	
	<pre>`<arg>-user</arg>`
	`<arg>${new_username}</arg>`
	`<arg>-encryptedPassword</arg>`
	`<arg>${new_password}</arg>`
	`<arg>-server</arg>`
	`<arg>${new_notification_server_url}</arg>`</pre>

HKAM-343	**Summary**: On Solaris, `hawk.log` shows the following error and method invocation for `CLEventPublisherMicroAgent` does not return any data: `Error loading microagent from com.tibco.hawk.microagent.commonlogging.publisher.CLEventPublisherMicroAgent: java.lang.IllegalArgumentException` **Workaround**: None
HKAM-337	**Summary**: For a node, you cannot view statistics for a WebApp component using the `onComponentOperationStats` Hawk method. **Workaround**: None
HKAM-336	**Summary**: For a node, you cannot view statistics for a WebApp component using the `getComponentOperationStats` Hawk method. **Workaround**: None
HKAM-266	**Summary**: If the ActiveMatrix Administrator server or TibcoHost instance is configured to use SSL-enabled Enterprise Message Service on AIX platform, and Hawk 5.0 is installed, then starting Hawk Agent fails with an error. **Workaround**: Use Hawk 4.9 instead of Hawk 5.0.
HKAM-264	**Summary**: You cannot change the timeout of method invocation for Custom microagent. **Workaround**: None
HKAM-253	**Summary**: Hawk Display shows multiple entries for node Service microagent when rulebases for TibcoHost or nodes are invoked after the TibcoHost or node crash. **Workaround**: Click **Done**, and open the microagent again. Alternatively, restart Hawk Display.
HKAM-251	**Summary**: Continuous error messages are seen in the `hawk.log` file after starting `tibhawkagent.exe` on HAWK 5.0. Hawk 5.0 is unable to run `powershell.exe` used in TibcoHost rulebase. **Workaround**: Prefix `powershell.exe` in the rulebase of the TibcoHost with the absolute path of `powershell.exe`.

Key	Summary
HKAM-250	**Summary**: When using Hawk 5.0, logs are not generated in the `CONFIG_HOME/hkam/<host_instance_name>/logs` folder. The Hawk Agent shows errors related to `slf4j` in the Hawk logs.
	Workaround: Remove the `slf4j` jars and jars with different versions of `slf4j` from the agent classpath.
HKAM-249	**Summary**: The Stop Reason and Reason Code arguments are not updated for the `onNodeEvent` method after calling `stopNode`.
	Workaround: None
HKAM-242	**Summary**: Hawk 5.0 cannot find Windows PowerShell.
	Workaround: Prefix `powershell.exe` in the rulebase of the TibcoHost with the absolute path of `powershell.exe`.
HKAM-237	**Summary**: On creating a node in the ActiveMatrix Administrator web interface, its rulebase is created in the `CONFIG_HOME/hkam/<host_instance_name>/rulebases` folder. If the node is deleted, the `HAWK.log` file continuously produces errors.
	Workaround: Manually delete the rulebase to avoid error entries in the `HAWK.log` file.
HKAM-193	**Summary**: Hawk ActiveMatrix Plug-in displays some ActiveMatrix applications or components in runtime state as uninstalled, but ActiveMatrix Administrator or nodeutil do not show these applications.
	Workaround: Restart Hawk Agent to clear the cache.
IWAP-725	**Summary**: (TIBCO® BPM Enterprise only) If you change a substitution variable (such as `%%httpConnectorPort%%`) from a hardcoded value (such as 443) or vice versa in an HTTP connector resource template, Workspace and Openspace fail to open and you might see an error similar to the following example in the logs:
	```[ERROR] com.tibco.n2.rtc.ap.ActionProcessor - [ERROR] - {WS_REQUEST_EXCEPTION} - Workspace caught an Exception ¬{extendedMessage=`Invalid Security Context: Missing requested attribute```
	Workaround: Redeploy the application and restart Workspace and Openspace.
IWAP-669	**Summary**: If you add a WebApp component to an imported project created in ActiveMatrix 3.2.0 that already has a WebApp component, every time you select the newly added WebApp component after selecting the original WebApp component the Thread Context Class Loader Type drop-down list in the Properties > Implementations tab is disabled.
	Workaround: Deselect the newly added WebApp component (by selecting any area on the canvas that is not the original WebApp component from the imported project), then select the newly added WebApp component again. The Thread Context Class Loader Type drop-down list is enabled.
IWAP-223	**Summary**: In the `web.xml` file, `resource-ref` elements are not supported.
	Workaround: None

Key	Summary

IWAP-72	**Summary**: The WebApp component does not have an option to modify the Web Application connector during deployment in TIBCO Administrator UI.
	
	Workaround: To configure or change the connector name in TIBCO ActiveMatrix Administrator:
	
	1. In TIBCO Business Studio, open the project containing the Web Application component.
	
	2. Promote the defaultConnector property to a composite level:
	
	   a. Select the `defaultConnector` property on the component.
	
	   b. Right-click and select **Promote**.
	
	3. Make the composite property a substitution variable so it can be substituted in TIBCO Administrator before deployment.
	
	4. Right-click on composite and select **Create DAA**.
	
	5. In ActiveMatrix Administrator, make sure a connector with the same name is created in ActiveMatrix Administrator and deployed on to the node before the Web Application DAA is deployed.

MCR-2002	**Summary**: If you have configured Microsoft SQL Server 2012 as a database for Administrator, invoking a custom DAA might result in harmless exceptions similar to the following examples:
	
	<pre>Caused by: com.microsoft.sqlserver.jdbc.SQLServerException:
	Violation of UNIQUE KEY constraint 'UQ__Mcr2Stat__1C012A471DC5DDE4'.
	Cannot insert duplicate key in object 'dbo.Mcr2StatisticsMetric'.
	The duplicate key value is (93, 21, 22, 3, -1).
	at
	com.microsoft.sqlserver.jdbc.SQLServerException.makeFromDatabaseError
	r(SQLServerException.java:216)
	at
	com.microsoft.sqlserver.jdbc.SQLServerStatement.getNextResult(SQLServ
	erStatement.java:1515)
	at
	com.microsoft.sqlserver.jdbc.SQLServerPreparedStatement.doExecutePrep
	aredStatement
	SQLServerPreparedStatement.java:404)</pre>
	Workaround: None

MCR-1995	**Summary**: If you have configured IBM DB2 as an external database, you might see harmless exceptions similar to the following examples in `SystemNode.log`:
	
	<pre>Retrying database transaction after error: Processing of metric
	requestsIn for event
	com.tibco.governance.amxserviceprobe.ServiceProbeInstruments.ServiceR
	equestIn failed for measure Total and time window Since Started Time
	Window
	Retrying database transaction after error: Processing of metric
	faults for event
	com.tibco.governance.amxserviceprobe.ServiceProbeInstruments.ServiceE
	xecutionTime failed for measure Total and time window Since Started
	Time Window</pre>
	Workaround: Such exceptions are benign and do not require any action.

Key	Summary
MCR-1943	**Summary:** If you have upgraded to ActiveMatrix release 3.3.0 from a prior version and attempt to replicate the upgraded configuration, deploying the replicated configuration might fail. **Workaround:** Replicate your configuration before upgrading to ActiveMatrix release 3.3.0.
MCR-1823, TAP-10602	**Summary**: The value for the uptime displayed in the infrastructure dashboard screens are accounted from the time a request is made to the application by invoking the endpoint or through an internal call from another application. If an application is deployed and not used, the value for uptime is 0. **Workaround**: None
MCR-1422	**Summary**: If nodes are restarted when the SystemNode is down, the Uptime and Since Started statistics are not reset. **Workaround**: Either make sure that the system node is running using admin replication or restart the applications for which incorrect statistics are seen.
MCR-1350	**Summary**: The number of components reported for a given node in the Enterprise Graphical View includes components that belong to the ActiveMatrix Platform Application. The Dashboard component count does not include these components. **Workaround**: None
MCR-1226	**Summary**: The **Endpoint**, **Service**, and **References** tabs display an incorrect value for **Avg Comp Process Time** when extended monitoring is enabled. The value displayed is **Req Comp Time**. **Workaround**: The correct average component processing time is available in the **Components** and **Applications** tabs.
MCR-1205	**Summary**: If the TibcoHost is shutdown while the dashboard is running, the following error message is seen in the SystemNode log files: `[ERROR] org.apache.axis2.engine.AxisEngine - bean:name=govObjFilterServiceMBean` **Workaround**: None. This error can be safely ignored.
MCR-1204	**Summary**: Stopping the TibcoHost instance occasionally causes exceptions to be thrown in the log file. During a graceful stop of TibcoHost instance there might be some exceptions in the log file with the root cause. For example: `Caused by: java.lang.RuntimeException: Statistics aggregator is closing down, rolling back transaction` **Workaround**: Ignore the error.
MCR-1162	**Summary**: Statistics for Web Application components do not display in the dashboard. **Workaround**: None

Key	Summary
MCR-876	**Summary**: Status value is `Unknown` and uptime is empty when the same application is deployed on two nodes across environments. **Workaround**: Change the application name during deployment. The application name must be unique for an enterprise. The dashboard shows the correct status and uptime.
MCR-800	**Summary**: When a component reference is promoted, component reference metrics show zero values. All metrics are shown on the promoted reference and reference endpoint. **Workaround**: View metrics on the promoted reference.
MCR-753	**Summary**: In the **Dashboards > Infrastructure** screens the application request count includes requests counts from all services promoted to application level. In addition, it incorrectly includes reference invocations count from all references promoted to application level. **Workaround**: None
MCR-521	**Summary**: If a node is stopped or started several times while SystemNode is down, the last stop or start time of SystemNode is used to calculate the node's uptime percentage. Other stops and starts are missed and not used in uptime calculation. **Workaround**: Configure the ActiveMatrix Administrator server in fault tolerant mode.
MED-3306	**Summary**: SOA projects created by the AutoMediate Tool might fail to be deployed by the tool if the projects have SOAP over JMS bindings. **Workaround**: Re-create all JMS Connection Factory and Destination resources in TIBCO Business Studio.
MED-2907, MED-2885	**Summary**: The Mediation editor does not reload changes to the XSD unless the project is restarted. **Workaround**: To resolve this: 1. Import all projects into the workspace. 2. Restart TIBCO Business Studio. 3. Run **Project** > **Clean** > **Clean all projects**.
MED-2055	**Summary:** The Transform task does not handle the Byte Order Mark (BOM) in external stylesheet files. **Workaround**: Open the stylesheet in a text editor and save it manually in a format without using BOM.
MED-1827	**Summary**: Deploying a mediation application that uses custom XPath functions and if the custom XPath function plug-in is not deployed, results in errors at the time of deployment. **Workaround**: None

Key	Summary
MED-1739	**Summary**: When adding a PortType with many (about 50+) operations, the validation begins before the mediation flow is fully updated. This causes error markers to appear on the mediation operations when no actual problems exist. **Workaround**: Select **Project > Clear** from the menu bar and the validation restarts. The error markers disappear, unless there are actual problems that remain.
MED-1736	**Summary**: Dragging and dropping a WDSL into a mediation flow results in the following error: `Receive Wrong Transfer data` **Workaround**: None
MED-1703	**Summary**: Creating schema using the **Create** button creates the schema for CMT model plugin wizard but does not set it. **Workaround**: Once the schema is created, you can browse and select the schema in the wizard to set it for both Input and Output Schemas in the plugin wizard.
MED-1652	**Summary**: The message type context property does not specify an unbound message even though the selection list contains all message elements in the WSDL. An unbound message is one that is not used for Input, Output, or Fault parts. **Workaround**: Only select unbound message elements for context properties.
PD-4479 PD-4429	**Summary:** Even after successfully downgrading from 3.4.x (Example: 3.4.0 or 3.4.1) to ActiveMatrix 3.3.0 (with Hotfix 23 and Policy Director Hotfix 02 installed), the following plug-ins show 3.4.x as the version: • TIBCO ActiveMatrix Operations Governance Platform Administrator plug-in • TIBCO ActiveMatrix Administrator Governance Policy Director admin plug-in **Workaround:** This issue does not have a functional impact; everything works as expected.
PD-4435	**Summary**: When the Basic or User nameToken Authentication Governance Control is enforced on the object group with a WebApp and REST binding member, the policy does not work when used as User nameToken Authentication but works when used as Basic Authentication. **Workaround**: None
PD-4431	**Summary**: A policy is not enforced for an application if the application is deployed before deploying the Policy Director Governance server. **Workaround**: None
PD-4423	**Summary**: Logging policy is not supported by the ActiveMatrix Administrator server (with ActiveMatrix Policy Director Governance services) of ActiveMatrix 3.4.0 when the server is configured with SSL-enabled Enterprise Message Service. **Workaround**: None

Key	Summary
PD-4420	**Summary**: On the **Governance** tab of the ActiveMatrix Administrator UI, the applications that have policies applied to them incorrectly show their undeployed policies as `Active`. **Workaround**: None
PD-4371	**Summary:** OpenID Connect authentication is not supported via Policy Director Governance in this release. Consequently, the following operation in TIBCO ActiveMatrix Administrator fails: **Governance** > **New** > **Authentication By OpenID** **Workaround:** None

Key	Summary
PER-1931	**Summary**: Nonce is not supported for messages sent from TIBCO ActiveMatrix BusinessWorks to TIBCO® BPM Enterprise. Therefore, if you use TIBCO ActiveMatrix BusinessWorks as a client to invoke an TIBCO® BPM Enterprise process as service, you might see the following error:

```
PolicyEnforcement Failed to Authenticate the request.
```

Workaround: Modify the WSDL generated by ActiveMatrix to add the following schema, WSDL message, and WSDL input in binding to successfully invoke an TIBCO® BPM Enterprise service from TIBCO ActiveMatrix BusinessWorks.

Schema

```
<xsd:schema elementFormDefault="qualified" targetNamespace="http://
schemas.xmlsoap.org/ws/2002/07/secext">
<xsd:import namespace="http://schemas.xmlsoap.org/ws/2002/07/
utility"/>
<xsd:element name="Security" type="s2:Security"/> <xsd:complexType
name="Security">
<xsd:sequence>
<xsd:element minOccurs="0" maxOccurs="1" name="UsernameToken"
type="s2:UsernameToken"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="UsernameToken">
<xsd:sequence>
<xsd:element minOccurs="0" maxOccurs="1" name="Username"
type="xsd:string"/>
<xsd:element minOccurs="0" maxOccurs="1" name="Password"
type="xsd:string"/>
</xsd:sequence>
</xsd:complexType>
</xsd:schema>
```

WSDL Message

```
<wsdl:message name="PUTSecurity">
<wsdl:part name="Security" element="s2:Security"/>
</wsdl:message>
```

WSDL Input in Binding

```
<soap:header message="tns1:PUTSecurity" part="Security"
use="literal"/>
```

For example:

```
<wsdl:binding name="ProcessPackageProcess_EP"
type="tns1:ProcessPackageProcess">
<soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/
http"/>
<wsdl:operation name="CatchMessageEvent">
<wsdl:documentation/>
<soap:operation style="rpc" soapAction="CatchMessageEvent"/>
<wsdl:input>
<soap:header message="tns1:PUTSecurity" part="Security"
use="literal"/>
<soap:body use="literal" parts="in1"/>
</wsdl:input>
<wsdl:output>
<soap:body use="literal" parts="out1"/>
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
<soap:header message="tns1:PUTSecurity" part="Security"
use="literal"/>
```

Key	Summary
PER-714	**Summary**: Multiple SOAP references deployed in a single node sending different credentials to a single SOAP service protected with Basic Authentication Policy could result in erroneous authentication failures for some of the references even if they are sending valid credentials. **Workaround**: You can either: • Deploy these references in different nodes • Configure these references with different HTTP client resource instance configurations
PER-632	**Summary**: For proper policy enforcement, every composite containing a web application component must have a different context root. **Workaround**: None
PER-609, PER-623	**Summary**: The `UsernameTokenAuthentication` and `WSSProvider` are incompatible policies. These policies have redundant functionality, but they cannot co-exist on the same SOAP service. `UsernameTokenAuthentication` authenticates using only the username token in the WS-Security header. `WSSProvider` authenticates using any available information in the WS-Security header. Both policies remove the WS-Security header from the message after successful authentication. If both policies are in effect at the same service, when the first one (`WSSProvider`) succeeds, the second (`UsernameTokenAuthentication`) must fail, because the WS-Security header is no longer available. This failure causes request messages with proper credentials to fail erroneously. **Workaround**: Do not apply the policies `WSSProvider` and `UsernameTokenAuthentication` together at the same SOAP service.
PER-583	**Summary**: For bundled policies added in this release, if the resource instance(s) used in the policy is reinstalled, policy enforcement fails. **Workaround**: Redeploy the application after reinstalling the resource instance(s).
PER-557	**Summary**: The policy AuthorizationByRole does not support nested groups. Suppose user A is a member of group B, which is a subgroup of group C. If group C has access permission to request an operation, and user A attempts to request that operation, then the request fails. That is members of group B do not inherit access permission from group C. **Workaround**: Configure access permissions directly in each subgroup (in this example, in group B).
PER-49	**Summary**: When configuring an LDAP Authentication resource template in Administrator, the option to generate SAML 1.1 assertion is not supported by platform policies. **Workaround**: When configuring an LDAP Authentication resource template, accept the default setting to generate SAML 2.0 tokens.

Key	Summary
RSBT-784	**Summary**: Open ID authentication is not supported when invoking REST Service Bindings using the Swagger UI. Only basic authentication is supported. **Workaround**: None
RSBT-779	**Summary**: For a REST binding, when using the POSTMAN REST client, the basic or username token authentication policy is not enforced if you do not provide authentication. **Workaround**: None
RSBT-721	**Summary**: In the Swagger UI, if SSL is enabled over a REST binding that uses the self-signed certificate and you send a request over HTTP, it returns the following error: `TypeError: Failed to fetch` **Workaround**: Add the certificate as an exception in the browser.
RSBT-719	**Summary**: In Swagger UI, on selecting parameter `content-type` as `application/bjson`, the schema is not populated with the correct BJSON format. **Workaround**: You can manually form the request payload of type Badgerfish JSON (`application/bjson`) to get a proper response.
RSBT-716	**Summary**: To test an endpoint, when you select the request `content-type` as `application/xml`, an XML request payload is generated in the Swagger UI. The payload does not include the namespace for the elements that are defined in an imported XSD, that is, namespace is not pre-populated in the payload. **Workaround**: Manually provide a namespace for such elements.

RSBT-603	**Summary**: When the Java property `com.tibco.amf.runtime.bindingtype.rest.extendedJsonConversion` is set to `true` for a runtime node in the REST Resource Configuration (`.RRC`) file for a reference binding, and if the POST request contains a JSON array with exactly one JSON element in it (as specified below), the JSON array is treated as a single, non-array element. This results in a `NullPointerException` at runtime when multiple elements are sent as part of the request.
	
	Erroneous usage:
	
	`{"addRequestOperation": {"Arrays":[{"Key":"key1", "Value": "value1"}]}}`
	
	Workaround: In the RRC file, specify multiple elements in the JSON Array element as follows
	
	Correct usage:
	
	`{"addRequestOperation": {"Arrays":[{"Key":"key1", "Value": "value1"}, {"Key":"key2", "Value": "value2"}]}}`
	
	With this change, the Array object is treated as a JSON array at runtime and the `NullPointerException` is not seen.

RSBT-408	**Summary**: A Null Pointer Exception is thrown when a Pass Through Mode sample project is deployed in RAD. **Workaround**: Deploy the project in ActiveMatrix Administrator.

Key	Summary
RSBT-398	**Summary**: A REST service binding is updated after an operation is added to a WSDL. **Workaround**: None
RSBT-391	**Summary**: After renaming an RRC file through the Process Explorer, the name of the file is updated in the reference > **Bindings** tab > **Rest Resource Configuration File** link. **Workaround**: None
RSBT-382	**Summary**: If the RRC file name begins with xml, an error is thrown while generating the Java implementation. **Workaround**: None
RSBT-371	**Summary**: When a context parameter is added or edited, the following message is displayed at the promoted reference: `Regenerated context parameter mappings` When you click the message, the mappings are created but the error message does not disappear. **Workaround**: Clean the project.
RSBT-368	**Summary**: In the RRC file, if an operation name begins with a '/', an exception is thrown. **Workaround**: None
RSBT-363	**Summary**: While creating a REST binding on a promoted service, clicking **Next** does not result in any action. **Workaround**: Click **Finish**.
RSBT-358	**Summary**: The following data types in a generated XSD do not match the data types in the JSON payload: 1. `unsignedByte` mapped to `short` 2. `nonpositiveinteger` mapped to `float` 3. `nonnegativeinteger` mapped to `float` 4. `unsignedshort` mapped to `int` 5. `gYear` mapped to `short` 6. `negativeinteger` mapped to `float` 7. `unsignedlong` mapped to `float` 8. `positiveinteger` mapped to `float` 9. `boolean` mapped to `string` **Workaround**: Edit the XSD file manually to reflect the correct datatypes.

Key	Summary
RSBT-346	**Summary**: Error messages for duplicate resource names or operation names are not displayed immediately when configuring a REST resource configuration (`.rrc`) file. Similarly, the error message does not go away automatically when the duplicate resource names or operation names are removed. **Workaround**: Perform a clean operation.
RSBT-231	**Summary**: While adding a binding, when the pass through mode is enabled, a note or warning indicating that any existing WSDL on the component reference is replaced by the pass through WSDL is not displayed. **Workaround**: None
RSBT-230	**Summary**: The **HTTP Client** textbox is not cleaned up after the resource template is deleted from the **Resource Templates** folder. **Workaround**: None
RSBT-58	**Summary**: If you upload a DAA that includes a REST binding, ActiveMatrix Administrator does not check whether HTTP connector resource instances exist for HTTP connectors defined for the REST binding. Later, when you attempt to deploy this DAA, the deployment fails because of the missing resource instance. **Workaround**: Create an HTTP connector resource instance in the ActiveMatrix Administrator GUI. While configuring the REST binding in TIBCO Business Studio, the name of the resource instance must match the user-specified HTTP connector name.
SDS-7799	**Summary**: While generating a CLI script, if you add a new server, a `Null Pointer Exception` is thrown. **Workaround**: After adding a new server, click on the **Refresh** button.
SDS-7796	**Summary**: When an application with a SSL-enabled HTTP connector tries to connect to a deployment server, the connection fails. **Workaround**: None
SDS-7781	**Summary**: After you successfully migrate SOA projects from ActiveMatrix 2.x to ActiveMatrix 3.4.0 in TIBCO Business Studio, WS_Samples of 2.x result in implementation errors. **Workaround**: None
SDS-7780	**Summary**: After you successfully migrate SOA projects from ActiveMatrix 2.x to ActiveMatrix 3.4.0 in TIBCO Business Studio, DAA generation fails for the `EmployeeVacation (2.x) Sample` project. **Workaround**: None
SDS-7779	**Summary**: After you successfully migrate SOA projects from ActiveMatrix 2.x to ActiveMatrix 3.4.0 in TIBCO Business Studio, SoapException 2.x sample project results in implementation errors. **Workaround**: None

Key	Summary
SDS-7776	**Summary:** After importing a 3.1.5 or 3.2.0 Java sample project in 3.4.0 TIBCO Business Studio, the following error is displayed: ``` JAR file incompatible with JRE/JDK 1.7 due to containing entries with the empty name. ``` **Workaround**: 1. Open the **Problems** view. 2. Look for instances of the following error message: ``` JAR file incompatible with JRE/JDK 1.7 due to containing entries with empty name. ``` One such message is generated for each offending JAR file. 3. Right-click all these messages and select a quick fix to apply.
SDS-7763	**Summary**: When you launch TIBCO Business Studio in a new workspace and click **Help** > **Search** for the first time, a NullPointer exception is returned. **Workaround**: None
SDS-7729	**Summary:** While running Ant files in TIBCO Business Studio, the following error is returned : ``` Launching <projectName><ant.deployment-build.xml' has encountered a problem, Launch configuration <projectName><ant.deployment-build.xml references non-existing project <projectName> ``` This is because of a bug in the Eclipse platform 4.7.1a (https://bugs.eclipse.org/bugs/show_bug.cgi?id=522581). **Workaround:** Run the Ant file using the **Run in the same JRE as the workspace** option in the Create, manage, and run configurations dialog box. Alternatively, change the project containing the build.xml to a Java project by adding `<nature>org.eclipse.jdt.core.javanature</nature>` to the list of `<natures>` in the .project file and then restart Eclipse.
SDS-7725	**Summary**: If the 3.4.0 TIBCO Business Studio is used to load a workspace that has been created using 3.3.0 TIBCO Business Studio, running RAD (Rapid Application Deployment) fails with the following error because the 3.3.0 workspace contains JRE 1.7 information: ``` Unsupported minor version ``` **Workaround**: Change the workspace JRE to Java 1.8.

Key	Summary
SDS-7685	**Summary:** If a Java project uses the Java 8 specific syntax in the code, the DAA file cannot be generated with an execution environment as JavaSE-1.8. However, Java 8 syntax and compilation is supported. **Workaround:** To generate the DAA file with Java 8 code, make sure the `RequiredExecutionEnvironment` field in the `Manifest.MF` file is empty. This allows you to create the DAA and deploy it at run time. • For a newly created project, the `RequiredExecutionEnvironment` field in the `Manifest.MF` file is empty. • For an existing project, if Java 8 specific code is added, remove the `RequiredExecutionEnvironment` entry in the `Manifest.MF` file.
SDS-7680	**Summary:** For a Custom Mediation task, generation of the DAA fails. **Workaround:** While creating the Custom Mediation task, make sure the **RequiredExecutionEnvironment** field in the `Manifest.MF` file is empty. This allows you to create the DAA and deploy it at runtime.
SDS-7669	**Summary**: In the ActiveMatrix Administrator CLI, upgrading the existing application did not update the Contact and Description fields in DAA. **Workaround**: In the `SystemNode.tra` file, set the following property: `java.property.com.tibco.amx.admin.application.update.description.contact.during.upgrade=true`
SDS-7640	**Summary:** When an existing project is imported into a workspace and Java 8 code is added to it, the following error is returned while creating the DAA: `Exporting bundles failed` **Workaround:** To generate the DAA file with Java 8 code, make sure the `RequiredExecutionEnvironment` field in the `Manifest.MF` file is empty. This allows you to create the DAA and deploy it at runtime.

Key	Summary

SDS-6729,
 	
SDS-6992
	Summary: ActiveMatrix projects created in versions prior to 3.2.0 that use Java, Spring or WebApp components encounter an Null Pointer Exception (NPE) dialog when imported into any ActiveMatrix version running on JRE 1.7 or later. This is caused by the incompatibility of JRE 1.7 with the JAR format of the DataBinding JARs generated by ActiveMatrix versions prior to 3.3.0. This may happen if you have upgraded to JRE 1.7 or installed an ActiveMatrix version that includes JRE 1.7, such as version 3.3.0.
	
	Workaround:
	
	1. Open the **Problems** view.
	
	2. Look for instances of the following error message:
	
	`JAR file incompatible with JRE/JDK 1.7 due to containing entries with empty name.`
	
	One such message is generated for each offending JAR file.
	
	3. Right-click on one of these messages and select a quick fix to apply. There are three quick fixes available (all three back up old JARs):
	
	  • Fix JAR for JRE/JDK 1.7 compatibility-This option fixes only the selected JAR (that is, the JAR you clicked to apply the quick fix).
	
	  • Fix all library JARs in project for JRE/JDK 1.7 compatibility-This option fixes all of the offending JARs in the same project as the selected JAR (that is, the JAR you clicked to apply the quick fix).
	
	  • Fix all library JARs in workspace for JRE/JDK 1.7 compatibility-This option fixes all of the offending JARs in the workspace.
	
	4. After applying a quick fix, some errors related to the component class may still be seen. To clean up these errors, select the project that has the errors and select Project > Clean.

SDS-6264	**Summary**: If the Web Application component is added by right clicking on the composite, the Generate Servlet Implementation option is not available under the Quick Fixes option. **Workaround**: Select the Web Application component, right-click, and select Generate Servlet Implementation.
SDS-5866	**Summary**: When one of the nodes participating in a high availability configuration is stopped and an application is deployed via TIBCO Business Studio, the deployment never completes. **Workaround**: Deploy the application from ActiveMatrix Administrator. The application state is in a partially running state instead of running - which is the expected behavior.
SDS-3890	**Summary**: Sometimes, the following message is returned in the error log: `Unbanded EventLoop Exception` **Workaround**: None. Ignore the error.

Key	Summary
SVCP-84	**Summary**: The TIBCO ActiveMatrix Service Performance probe on the Administrator node does not receive self-shutdown notifications sent from TibcoHost. This occurs because the Service Performance Manager probe component on the Administrator node responsible for such communication shuts down before it can send the notification. **Workaround**: None
TAP-16041	**Summary**: In the `deploy-application` target of `application_build.xml` file, if the `force` attribute is set to `true`, then application deployment is successful even if the required resource instance is not available. This issue is applicable if the resource instance required for an application is defined in the policy set. **Workaround**: When deploying an application, set the `force` attribute to `false` in the `deploy-application` target of `application_build.xml` file. Setting the `force` attribute to `false` checks for all dependencies required by an Application.
| TAP-15885 | **Summary**: Accessing ActiveMatrix Administrator Dashboards ( **Dashboard > Infrastructure**) results in the following error:<br><br>```
Dashboard Bundle not Available. Please reload the browser.
TypeError: Cannot read
property 'Container' of undefined
```<br><br>**Workaround**: Access ActiveMatrix Administrator Dashboards using the procedure mentioned in "Accessing Administrator Dashboards" section of the *TIBCO ActiveMatrix Service Grid Administration* guide. |
| TAP-15863 | **Summary** : On Microsoft Windows, when HSQLDB is used and the Log Service is enabled, the following error is intermittently seen in the `CONFIG_HOME\tibcohost \<instance_name>\data_3.2.x\nodes\SystemNode\logs\SystemNode.log` of the ActiveMatrix enterprise:<br><br>```
TIBCO-AMX-HPA-014016: Uncaught exception in thread Thread
[LoggingThread,5,Job_Executor]
java.lang.IllegalStateException: No uri
```<br><br>After this error is seen, **Governance** > **Log Viewer** (logservice) does not work from the ActiveMatrix Administrator UI and the following error is returned:<br><br>```
Loading log service list failed. You have no permission to visit
logviewer or the log service admin plugin is not available.
```<br>**Workaround** : None |
| TAP-15842 | **Summary:** If you create an enterprise that uses a messaging bus and then create an environment that does not use the messaging bus, the **Configure enterprise without a messaging bus** check box on the **Admin Configuration** > **General** tab is disabled.

Workaround: None |
| TAP-15834 | **Summary**: When using the Microsoft Edge browser, when creating an Object Group of Policy Director Governance by specifying the search criteria to find the matched group members, if you click the **+** button to build the search criteria, the **attribute** and **operator** drop-downs are not populated with the correct values.

Workaround: None |

Key	Summary
TAP-15833	**Summary**: When using the Microsoft Edge browser, when building the search criteria to find the matched group members, the **X** button does not clear the drop-down boxes used to specify the search criteria. **Workaround**: None
TAP-15827	**Summary**: If you have upgraded to ActiveMatrix 3.4.0, and then created a new Host or Node, some default loggers are missing on the newly created Host or Node. **Workaround:** Before creating the new Host, copy the `DefaultLogConfiguration.properties` file on every TibcoHost instance on which the ActiveMatrix Administrator server is running. Copy the file from `<TIBCO_HOME>\administrator\3.4\templates\` and paste it into `<CONFIG_HOME>\admin\amxadmin\private\<instanceName>\`.
TAP-15822	**Summary**: You cannot deploy an ActiveMatrix 3.4.0 DAA on ActiveMatrix 3.3.1 Administrator, ActiveMatrix 3.3.0 Administrator or ActiveMatrix 3.3.0 Hotfix 23 Administrator that uses Java 8. **Workaround**: None
TAP-15817	**Summary**: When using the Microsoft Edge browser on Windows 10, the Metrics Collection Runtime dashboard is not displayed. **Workaround**: None
TAP-15664	**Summary:** On Solaris Sparc, **Get Admin Information** use test of Enterprise Deployment Health Check fails with the following error: `Couldn't obtain phys addr` **Workaround:** None
TAP-15645	**Summary:** When a TIBCO ActiveMatrix enterprise has customized system host and system node names (for example: SystemNode1, SystemNode2, or AdminNode) and the system node does not fully start in a TIBCO ActiveMatrix enterprise, the following error message is displayed on the TIBCO ActiveMatrix Administrator web page: `404 page not found` Prior to TIBCO ActiveMatrix 3.3.0 Hotfix 13, when a user tried to access a TIBCO ActiveMatrix Administrator web page while it is still loading or the user specified a wrong URL (but with correct IP address and port number), a "`404 page not found`" HTTP error response was returned. Starting with TIBCO ActiveMatrix 3.3.0 Hotfix 13, in the same situation, a new 404 page is displayed. This new 404 page automatically redirects the user to the login page once TIBCO ActiveMatrix Administrator is fully initialized and ready for service. However, this feature applies only to environments where the System Nodes use the default node names, that is, SystemNode and SystemNodeReplica. For System Nodes with customized node names, the old behavior ("`404 page not found`" error page) remains. **Workaround:** Periodically, refresh the ActiveMatrix Administrator web page to determine whether ActiveMatrix Administrator was completely initialized and is ready for service.

Key	Summary
TAP-15563	**Summary:** After upgrading ActiveMatrix Administrator from 3.1.5 to 3.4.0, you can start or stop a host from the ActiveMatrix Administrator GUI. However, 3.1.5 hosts that are not upgraded yet, cannot be started or stopped from the ActiveMatrix Administrator GUI. **Workaround:** Start or stop the host by using the `tibcohost` command.
TAP-15523	**Summary**: TIBCO ActiveMatrix Administrator > **Infrastructure** > **Health Check** page does not open in Internet Explorer. However, it displays a link to open the page in a new tab. **Workaround**: Open `http://localhost:8120/amxadministrator/amxmonitor.jsp` in a new tab to view the Health Check page.
TAP-15503	**Summary**: In the Google Chrome browser, when creating an Object Group of Policy Director Governance by specifying the search criteria to find the matched group members, if you click the **+** button to build the criteria, the **attribute** drop-down box is not populated with the correct values. **Workaround**: None
TAP-15488	**Summary**: In TIBCO ActiveMatrix Administrator, some description fields do not work with Chrome 66.0.3359.139 or higher versions. **Workaround**: None
TAP-15420	**Summary**: In TIBCO ActiveMatrix Administrator, when you navigate to **Infrastructure** > **Enterprise Status** > **Application** tab and click **Download Logs**, the requested application logs are not downloaded and the following error is displayed: `Cause: java.util.concurrent.TimeoutException.` **Workaround**: None
TAP-15060	**Summary**: After successfully downgrading to a previous version, you must uninstall the higher version. **Workaround**: None
TAP-14874	**Summary:** After reconnecting to EMS, ActiveMatrix Administrator shows the correct status but the Action History continues to show "In Progress(n)". **Workaround:** None

TAP-14772	**Summary:** Even when the Notification transport update was completed successfully using the ActiveMatrix Administrator CLI, the following error message was displayed:
	
	`TIBCO-AMX-ADMIN-021085: Failed to update the notification transport!, Caused by:`
	`TIBCO-AMX-ADMIN-021281: The number of hosts in this enterprise is more than 10.`
	`Please use the Administrator Command Line Interface for updating the Notification Transport.`
	Workaround: None

Key	Summary
TAP-14766	**Summary**: Ideally, in TIBCO ActiveMatrix, you should update the Notification Transport for all TIBCOHosts in the enterprise. If a particular TIBCOHost has to be updated using the `hosts` option from ActiveMatrix Administrator CLI, you must update the SystemHost's Notification Transport first, and then proceed with updating the Notification Transport for other TIBCOHosts. If SystemHost is not updated first, while updating Remote TIBCOHosts, ActiveMatrix Administrator CLI might show the update as having been completed successfully, but the TIBCOHosts might not be updated. **Workaround**: Update the Notification Transport for the SystemHost first.
TAP-14699	**Summary**: When the Java property `java.property.com.tibco.amx.decouple.Manual.Nodes` is not set to `true` in the `tibcohost.tra` file, the status of a Manual Node is marked as Stopped even when it is Running (Node process remains in task manager). **Workaround**: None
TAP-14242	**Summary**: When you log in to ActiveMatrix Administrator server using SSL-enabled LDAP authentication realm, returns a non-fatal `ClassNotFoundException` in the SystemNode log. **Workaround**: None
TAP-14052	**Summary**: The uninstall action does not work as expected with a wildcard if the given feature versions have strict (1.0.0) and qualified strict (1.0.0.01) versions together. In a wildcard behavior, the following behavior is observed: If the user has two versions for the same featureId in the form of 1.0.0 (Strict version without qualifier) and 1.0.0.001 (Strict version with qualifier), precedence is given to 1.0.0.001 only and 1.0.0 is not uninstalled. **Workaround**: To uninstall 1.0.0 explicitly, perform the same action again.
TAP-13994	**Summary**: The Hostname in the Management URL of a TibcoHost instance gets replaced with the Hostname of its source TibcoHost, when TibcoHost Instance is installed successfully. **Workaround**: None
TAP-13942	**Summary**: On the \<Host\> -> \<ResourceInstance\> page and **Shared Objects -> Resource Templates -> Resource Instances** tab, environment or duplicate node information is not displayed. **Workaround**: On the **Details** pane of \<Host\> -> \<ResourceInstance\> page and **Shared Objects > Resource Templates > Resource Instances** tab, navigate to the tree view in the left side pane. This tree view provides the exact node name: `<Environment Name>_<node name>`.

Key	Summary
TAP-13910	**Summary**: While exporting Logging Appenders, one logging appender `<CustomName>_Root` is exported when the following conditions are met: • host name of the replicated admin server is changed from the default SystemHostReplica to a custom name. • Include System Objects option is NOT selected. **Workaround**: None
TAP-13828	**Summary**: When installing or uninstalling a node, the most recent state of the node is displayed in the **Action History** column and not in the **Node State** column. For example, after uninstalling a node, the **Node State** is **Not Installed** while the action is in progress. This happens when there are incomplete tasks for action, but the node state has already changed. **Workaround**: Refer to the most recent state displayed in the **Action History** column instead of the **Node State** column.
TAP-13777	**Summary**: If the TibcoHost name in the ActiveMatrix Administrator GUI and run time is different and the TibcoHost name from the ActiveMatrix Administrator GUI is specified in the CLI data, the install/start/uninstall actions fail. **Workaround**: None
TAP-13696	**Summary**: If a Management URL is unreachable and you try to unregister the TibcoHost, a warning message about the unreachable URL is not displayed. **Workaround**: None
TAP-12878	**Summary**: If you import a resource template into an upgraded user application that did not previously contain a resource template (that is, if no resource templates had previously been imported into the application), the scope of the imported resource template is automatically set to Global, rather than Application. This occurs even if you specify Application scope in the CLI. **Workaround**: After the resource template is imported (to Global scope), change its scope as required (to Application scope, for example) in the ActiveMatrix Administrator UI. To do this: 1. Go to **Shared Objects** > **Resource Templates**. 2. Select the imported resource template. 3. Click **Change Scope**, and change the scope to the Application or Environment level as required.

Key	Summary
TAP-12860	**Summary**: If you have a main process and a subprocess application and one or more dependent main process applications deployed in ActiveMatrix version 3.1.5 (and any TIBCO® BPM Enterprise version between 1.3.0 and 2.1.0), then upgrade the BPM platform version to TIBCO® BPM Enterprise 2.2.0 (ActiveMatrix 3.3.0), and subsequently attempt to upgrade the subprocess, you will see a warning similar to the following example: ```TIBCO-AMX-ADMIN-012430: Provided capability 'com.example.my.subprocess.pe.capability' provided by component 'MySubAppProcessFlow' cannot be removed. It is being used by the following components:Component 'MyMainAppProcessFlow' from application 'com.example.my.mainapp.process``` This warning is issued erroneously and can be safely ignored. The subprocess is upgraded successfully and the main processes runs as expected, provided the subprocess maintains the same major version number as before. **Workaround**: None
TAP-12858	**Summary**: The logging configuration of a node, host, or application (which is stored in the node, host, or application's `log4j.xml`; for example, `node-log4j.xml`) might enter into an inconsistent state if the node, host, or application uses a JMS appender that is configured with an SSL-enabled EMS server. In this case, the logging configuration uses an HTTP URL to refer to a keystore that's hosted on the Administrator. This HTTP URL is the internal HTTP connector URL of the Administrator. Changing the configuration of the internal HTTP connector (for example, to enable SSL or change the port number) causes the URL configured in the logging configuration (`log4j.xml`) to become invalid or out of sync. The logging configuration of each affected node, host, or application needs to be updated or it will fail to connect to EMS. Currently this is not done automatically. **Workaround**: You must manually save and apply the logging configuration for each node, host, or application that uses a JMS appender. To do this: 1. In the ActiveMatrix Administrator UI, go to the logging configuration for the node, host, or application that is in the situation described above. 2. Change a value in the logging configuration that makes the node, host, or application go out of sync. Then, click **Save**. 3. To push the new logging configuration with a new HTTP URL, to the node, host, or application, click **Apply**.
TAP-12738	**Summary**: If you delete a binding using the ActiveMatrix Administrator UI, it is still visible in the SPM dashboard with a `Down` status. This occurs because the Delete notification for the ActiveMatrix binding component is not being emitted. **Workaround**: None
TAP-12714	**Summary**: ActiveMatrix Administrator does not properly undeploy applications with missing feature dependencies. **Workaround**: To avoid this issue, go to **Node** > **Configuration** > **Features** and remove the feature with Marked for Install and a blank value for Type.

Key	Summary
TAP-12702	**Summary**: If you use TIBCO Configuration Tool to edit the ActiveMatrix Administrator database settings, the following harmless error might appear in `SystemNode.log`: `Could not open Hibernate Session for transaction.` **Workaround**: None
TAP-12319	**Summary**: When deploying an application, ActiveMatrix Administrator automatically installs resource instances if there are resource templates with scope to the application. If the resource template installation fails, then application deployment also fails. For example, if the HTTP connector has a port conflict, it fails to start. **Workaround**: For HTTP connector port conflicts use substitution variables to assign different port numbers for each node to avoid port conflicts. Then, uninstall the application and redeploy it.
TAP-12087	**Summary**: Making changes to the configuration of a JDBC service resource template that is a dependency for a running application might cause that application to enter a Stopped state. **Workaround**: Manually restart the stopped application.
TAP-10830	**Summary**: When wiring a reference to a service in the same application that has a SOAP binding using an HTTP Connector that does not exist results in the following exception: `Error generating the WSDL for binding SOAPService_Binding1, Caused by: Could not find resource instance with name httpConnector when generating WSDL for binding SOAPService_Binding1 on service NewService` **Workaround**: Create the HTTP connector before creating the application.

TAP-10800	**Summary**: When creating an Administrator server with an Oracle database the following error messages are seen in the SystemNode log files:
	
	`SystemNode 30 Jul 2012 16:42:48,287 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - Unsuccessful: create index AdmnCnfig_sttsNtifictinTrnsprt on "ADMINCONFIG" ("NTFCTNTRNSPRT_STTSNTFCTNTRNS_D")`
	`SystemNode 30 Jul 2012 16:42:48,287 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - ORA-00955: name is already used by an existing object`
	`SystemNode 30 Jul 2012 16:42:48,303 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - Unsuccessful: create index AMXdminsrPrfrncs_prvisnvslctin on "AMXADMINUSERPREFERENCES" ("PRVISNVSLCTIN_PRVISNVSLCTIN_ID")`
	`SystemNode 30 Jul 2012 16:42:48,303 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - ORA-00955: name is already used by an existing object`
	`SystemNode 30 Jul 2012 16:42:48,319 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - Unsuccessful: create index ApplicationFolder_childFolders on "APPLICATIONFOLDER" ("APPLICATIONFOLDER_PARENT_E_ID")`
	`SystemNode 30 Jul 2012 16:42:48,319 [WAR-Deployer-Thread] [ERROR] org.hibernate.tool.hbm2ddl.SchemaUpdate - ORA-01408: such column list already indexed`
	
	Workaround: These errors can be safely ignored as the indexes are created.

Key	Summary
TAP-10767	**Summary**: HTTP Connector resource instances that are referenced by properties whose names are not specific, such as HttpInboundConnectionConfig or httpConnector, are not recognized by Administrator as HTTP Connectors while displaying information. As a result these HTTP Connectors are not displayed in the Administrator UI as dependencies where expected. Also, you can delete any such HTTP Connector even when it has dependent applications. **Workaround**: Use property names such as HttpInboundConnectionConfig or httpConnect to refer to HTTP Connectors resource instances. Additionally when deleting HTTP Connector resource instances, manually check whether other applications are dependent on it.
TAP-10751	**Summary:** Executing the scripts generated by the DDL Script Generator for Microsoft SQL Server displays errors reporting a failure to create foreign key constraints. Also, even if the generated scripts are not used, error messages are seen in the SystemNode log file logged in `SystemNode.log` regarding failure to create foreign key constraints. **Workaround**: None. These errors can be ignored as a failure to create foreign key constraints do not impact product functionality.
TAP-10663	**Summary:** Heterogeneous environments with mixed JREs are not supported. Sun JRE is not compatible with IBM JRE when it comes to storing secret keys in a Java keystore. This causes a problem when the server running on Sun JRE stores a user name and password in its global identity keystore and a host and node running on IBM JRE attempts to access that user name and password. The reverse, Administrator JRE would have the same problem. **Workaround**: Ensure that, TibcoHost instances, and nodes are all using JREs provided by the same vendor.
TAP-7644	**Summary**: You might see the following error message when undeploying an application: `[ERROR] com.tibco.amf.admin.server.axis2.RPCMessageReceiver – Error occurred in Administrator... about to throw AxisFault for this exception` **Workaround**: Refresh the browser. This error message can be safely ignored.
TAP-7571	**Summary**: Users who have permissions only to view an application and an environment but do not have permissions to view a node are not able to see the list of selected nodes when distributing an application. **Workaround:** Permissions to view the node have to be explicitly granted by a superuser.
TAP-7423	**Summary**: You might see errors in dashboard dialog box when using the Dashboard. **Workaround:** Click **OK** to proceed using the Dashboard. This error message can be safely ignored.

Key	Summary
TAP-6584	**Summary**: When the extended monitoring is enabled the two new periodic windows (24 hours and 7 days) do not show on some Dashboard tabs. **Workaround**: Refresh the browser.
TAP-5653	**Summary**: Updating the value of a substitution variable for the Timeout property in a JMS or SOAP/JMS binding in a deployed application does not take effect after the application is redeployed. **Workaround**: Undeploy and deploy the application.
TAP-4890	**Summary**: In the dashboards, a text filter is ignored when you maximize or minimize a gadget. **Workaround:** Re-enter the text filter.
TAP-4645	**Summary**: On the **Dashboards** > **Infrastructure** screens, resource instances cannot be filtered by promoted reference or promoted service. **Workaround**: In the Application Screen, check properties of the reference or service bindings.
TOOL-1895	**Summary:** If you update JRE by using the TIBCO Configuration Tool, the `TIBCOConfigurationTool.ini` and `TIBCOBusinessStudio.ini` files are not updated with new JRE HOME. Because of this, launching TIBCO Configuration Tool and TIBCO ActiveMatrix Business Studio fails. **Workaround:** None
WSBT-1149	**Summary:** Web service reliable messaging does not work in TIBCO ActiveMatrix Service Grid 3.4.0. **Workaround:** None
WSBT-1134	**Summary**: In case of SOAP bindings, context parameters of Type "`Message`" can be defined using "`Message/Part`" from the WSDL used by the binding. These message context parameters can be used for declared unbound SOAP headers. The body of a SOAP message is also defined using "`Message/Part`" configuration from the WSDL used by the binding. Using the same "`Message/Part`" configuration for the SOAP header and the SOAP body results in incorrect behavior while generating the SOAP message, that is, either the `<Header>` or the `<Body>` element might be empty. This applies to SOAP request, SOAP response and SOAP fault messages. For example, if the body of the SOAP response is configured with `Message="GetSOAPResponse"/Part = "param1"` in the WSDL and the context parameter of Type "`Message`" is defined with the same Message/Part Definition "`GetSOAPResponse/param1`", the generated SOAP response message might contain empty `<Header>` or `<Body>` element. **Workaround**: None. However, if distinct "`Message/Part`" pairs are used for SOAP header and body, this issue does not occur. For example, if the body of the SOAP response is configured with `Message="GetSOAPResponse"/Part = "param1"` in the WSDL and the context parameter of Type "`Message`" is defined with `Message/Part Definition "GetSOAPHeader/headerparam1"`, the generated SOAP response message contains both `<Header>` and `<Body>` elements.

Key	Summary
WSBT-1112, WSBT-1117	**Summary**: For SOAP bindings containing all in-only operations, the **Enable Response Message Validation** field in ActiveMatrix Administrator and TIBCO Business Studio is not applicable. **Workaround**: At present, this field is not disabled for SOAP bindings containing all in-only operations and, if selected, does not have any effect.
WSBT-888	**Summary**: Substitution Variables are not available for all the fields in SOAP Service and Reference Bindings. On the Service side, Substitution Variables are supported for the following fields: • Enable Request Message Validation • Enable Response Message Validation • Sender Identified Expression On the Reference side, Substitution Variables are supported for the following fields: • Enable Request Message Validation • Enable Response Message Validation • Filespec of Endpoint URL **Workaround**: None
WSBT-881	**Summary**: Policies and policy sets cannot be added, edited, or deleted via the ActiveMatrix Administrator UI. Policy set properties can be viewed but not added, edited, or deleted. **Workaround**: Edit policy sets and properties in TIBCO Business Studio.
XPD-5331	**Summary**: Deploying DAAs or applications with the following characteristics in TIBCO® BPM Enterprise 2.2.0 runtime might result in a `No request message is found to add the user name token` error at runtime: • The DAA or application was created in TIBCO Business Studio prior to version 3.6.0. • The DAA or application contains a Web Service invocation (that is, the application is a consumer) • The application has a User nameToken policy type in its security **Workaround:** Open the project in TIBCO Business Studio 3.6.0, build the DAA, and upgrade the existing application.
XPD-1858	**Summary**: When you open a native file browse dialog box on RedHat Linux for the first time, it crashes. **Workaround:** Type the path to the file in the text control.

TIBCO Documentation and Support Services

How to Access TIBCO Documentation

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

The website is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The following documentation for TIBCO ActiveMatrix® Service Grid is available on the TIBCO ActiveMatrix® Service Grid product documentation page.

Use of the following features, installation profiles and development tools requires a TIBCO ActiveMatrix Service Grid license:

- TIBCO ActiveMatrix Policy Director Governance, TIBCO ActiveMatrix SPM Dashboard, and TIBCO ActiveMatrix SPM Runtime Server profiles; and

- TIBCO ActiveMatrix Service Grid development tools for Java, Webapp and Spring components.

Customers with only a TIBCO ActiveMatrix Service Bus license are not licensed to use these features, tools or profiles.

The following documents form the documentation set:

- *TIBCO ActiveMatrix Service Grid Concepts*: Read this manual before reading any other manual in the documentation set. This manual describes terminology and concepts of the platform. The other manuals in the documentation set assume you are familiar with the information in this manual.

- *TIBCO ActiveMatrix Service Grid Development Tutorials*: Read this manual for a step-by-step introduction to the process of creating, packaging, and running composites in TIBCO Business Studio.

- *TIBCO ActiveMatrix Service Grid Composite Development*: Read this manual to learn how to develop and package composites.

- *TIBCO ActiveMatrix Service Grid Java Component Development*: Read this manual to learn how to configure and implement Java components.

- *TIBCO ActiveMatrix Service Grid Mediation Component Development*: Read this manual to learn how to configure and implement Mediation components.

- *TIBCO ActiveMatrix Service Grid Mediation API Reference*: Read this manual to learn how to develop custom Mediation tasks.

- *TIBCO ActiveMatrix Service Grid Spring Component Development*: Read this manual to learn how to configure and implement Spring components.

- *TIBCO ActiveMatrix Service Grid WebApp Component Development*: Read this manual to learn how to configure and implement Web Application components.

- *TIBCO ActiveMatrix Service Grid REST Binding Development*: Read this manual to learn how to configure and implement REST components.

- *TIBCO ActiveMatrix Service Grid Administration Tutorials*: Read this manual for a step-by-step introduction to the process of creating and starting the runtime version of the product, starting TIBCO ActiveMatrix servers, and deploying applications to the runtime.

- *TIBCO ActiveMatrix Service Grid Administration*: Read this manual to learn how to manage the runtime and deploy and manage applications.

- *TIBCO ActiveMatrix Service Grid Hawk ActiveMatrix Plug-in*: Read this manual to learn about the Hawk plug-in and its optional configurations.

- *TIBCO ActiveMatrix Service Grid Policy Director Governance Custom Actions*: Read this manual to learn how you can configure and enforce policies for ActiveMatrix and external services hosted in third party containers, using TIBCO ActiveMatrix Policy Director Governance.

- *TIBCO ActiveMatrix Service Grid Service Performance Manager API Reference*: Read this manual to learn how to use the SPM APIs.

- *TIBCO ActiveMatrix Service Grid Error Codes*: Read this manual to know more about the error messages and how you could use them to troubleshoot a problem.

- *TIBCO ActiveMatrix Service Grid Installation and Configuration*: Read this manual to learn how to install and configure the software.

- *TIBCO ActiveMatrix Service Grid Security Guidelines*: Read this manual to learn more about security guidelines and recommendations for TIBCO ActiveMatrix Service Grid.

- *TIBCO ActiveMatrix Service Grid Release Notes*: Read this manual for a list of new and changed features, steps for migrating from a previous release, and lists of known issues and closed issues for the release.

How to Contact TIBCO Support

Get an overview of TIBCO Support. You can contact TIBCO Support in the following ways:

- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support website.

- 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 TIBCO Support website. If you do not have a user name, you can request one by clicking **Register** on the website.

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