

Welcome to TIBCO ActiveSpaces® Transactions

ActiveSpaces® Transactions is an in-memory transactional application server that provides scalable high-performance transaction processing with durable object management and replication. ActiveSpaces® Transactions allows organizations to develop highly available, distributed, transactional applications using a standard Java programming model.

TIBCO ActiveSpaces® Transactions provides these capabilities:

- Transactions - high performance, distributed *All-or-None* ACID work.
- In-Memory Durable Object Store - ultra low-latency transactional persistence.
- Transactional High Availability - transparent memory-to-memory replication with instant fail-over and fail-back.
- Geographic Redundancy - Replicate transactions across a WAN with split brain avoidance and reconciliation
- Distributed Computing - location transparent objects and method invocation allowing transparent horizontal scaling.
- Data Grid - secondary object storage, adhoc queries and notification of transactional data changes.

Product Archives

TIBCO ActiveSpaces® Transactions ships in these product archives:

- TIB_AST_<version>_<platform>.tgz - complete product release. Required installation.
- P.AST.JAVASDK-<version>-x86_64.zip - development SDK, which includes the Development Appliance. Optional installation. Only supported on x86_64 hardware platforms.

platform is one of:

- LINUXx86_64 - Red Hat Linux
- SOL64 - Solaris SPARC

Using the TIBCO ActiveSpaces® Transactions SDK

The following steps are required to configure the SDK to use TIBCO ActiveSpaces® Transactions:

1. Download TIBCO ActiveSpaces® Transactions from download.tibco.com.
2. Download the TIBCO ActiveSpaces® Transactions SDK from [DevZone](#).
3. Untar the downloaded product archive

4. Unzip the downloaded TIBCO ActiveSpaces® Transactions SDK.
5. Copy the ISO product image from the product archive into the SDK.

The ISO product image is named *kabira-distrib.iso* and is located in the *appliance* directory in the product installation directory, for example `/opt/tibco/ast/<version>/appliance/kabira-distrib.iso`. The ISO product image must be copied into the *Kabira-Server* directory in the SDK - for example `/opt/ast/sdk/Kabira-Server/kabira-distrib.iso`.

Where to Find Information

See the *Quick Start Guide* in the TIBCO ActiveSpaces® Transactions SDK for quickly getting TIBCO ActiveSpaces® Transactions up and running and configured with your IDE of choice.

The following information is also shipped in the SDK:

- *Installation Guide* - Installation instructions
- *Architect's Guide* - Architectural details
- *Java Developer's Guide* - Programmer documentation
- *Administrators's Guide* - Administration documentation
- *Performance Tuning Guide* - Application performance tuning documentation
- *System Sizing Guide* - Sizing machine resources for TIBCO ActiveSpaces® Transactions applications
- *API reference* - javadoc for all APIs
- *Code snippets* - source code for the programming snippets in the *Developer's Guide*
- *Examples* - source code examples of integrating TIBCO ActiveSpaces® Transactions with common Java technologies, application templates, and channels.

We encourage you to join the TIBCO ActiveSpaces® Transactions development community at [DevZone](#)

We look forward to hearing your feedback to help us improve TIBCO ActiveSpaces® Transactions to meet your application needs.

Product Compatibility

The TIBCO ActiveSpaces® Transactions Data Grid feature is compatible with TIBCO ActiveSpaces® Enterprise Edition 2.0.2.

Supported Platforms

TIBCO ActiveSpaces® Transactions is supported on

- Red Hat Enterprise Linux Server versions 5.4 to 6.2 on 64-bit x86 (x86_64) processors.
- Oracle Solaris 10 8/11 s10s_u10wos_17b in 64 bit mode on SPARC V9 architecture on both Sun and Fujitsu hardware.

The *pstack*, *gdb*, and *sar* packages must be installed when running on Red Hat.

The *ksh* patch - [RHBA-2009:1686-1](#) must be installed when running on a Red Hat 5.4 release.

Red Hat 6.2 ships with a new implementation of malloc that consumes more heap memory by default. Details can be found here - [13.4. GNU C Library \(glibc\)](#). Tuning the *MALLOC_ARENA_MAX* environment variable can reduce memory allocation.

Supported Browsers

TIBCO ActiveSpaces® Administrator supports these browsers. The version number is the minimum version supported.

- Chrome 16
- Firefox 9
- Internet Explorer 9
- Safari 5

Shipped JRE Version

The version number of the JRE shipped with TIBCO ActiveSpaces® Transactions is *1.7.0_09*.

Major Improvements in TIBCO ActiveSpaces® Transactions 2.2.4

- Stability improvements.

Upgrading to TIBCO ActiveSpaces® Transactions 2.2.4

These changes are required to upgrade to this release from 2.2.3.

- No changes required.

Deprecations

The following features were deprecated in this release and will be removed in a future release. Please update your applications and development environment.

- No deprecations.

2.2.4 Resolved Issues

Bug

- [\[FLUENCY-5036\]](#) - DIST: Crash in recovery test when migrating partitions on failover.
- [\[FLUENCY-5190\]](#) - CLASSLOADER: Setting Managed autoboxed array via index crashes.
- [\[FLUENCY-5285\]](#) - KTVM: ktvm natives use wrong exception macros, resulting in a unexpected handler crash.
- [\[FLUENCY-5286\]](#) - DATAGRID: java/lang/IllegalAccessError("no active transaction")
- [\[FLUENCY-5291\]](#) - RT: Crash in detachObject() when restarting a JVM node.
- [\[FLUENCY-5293\]](#) - RT: CGObject::getCardinality() does not handle errors.
- [\[FLUENCY-5305\]](#) - TIMER: inconsistent firing of timer tasks
- [\[FLUENCY-5335\]](#) - DEPLOY: default setting of reset (false) not working
- [\[FLUENCY-5369\]](#) - DIST: Update timer failover to do work in chunks.
- [\[FLUENCY-5371\]](#) - DIST: Concurrent creates may miss getting migrated.
- [\[FLUENCY-5383\]](#) - CLASSLOADER: @ByReference slots can use wrong typecode.

Documentation

- [\[FLUENCY-5280\]](#) - AST: release note update Linux

2.2.3 Resolved Issues

Bug

- [\[FLUENCY-5167\]](#) - CLASSLOADER: recursion crash inspecting JAR file
- [\[FLUENCY-5224\]](#) - CLASSLOADER: Double typespec clashes results in the system spinning.

Task

- [\[FLUENCY-5238\]](#) - Doc Impact of FLUENCY-5237 3RDPARTY: upgrade to ActiveSpaces 2.0.2

2.2.2 Resolved Issues

Bug

- [\[FLUENCY-4113\]](#) - JAVASE: SIGSEGV with JIT enabled
- [\[FLUENCY-4435\]](#) - DEPLOY: invalid domainnode parameter returns confusing error message
- [\[FLUENCY-4968\]](#) - RT: Crash when using enums in ordered queries.
- [\[FLUENCY-4997\]](#) - DIST: distributed deadlock on disteng::UserPartition
- [\[FLUENCY-4999\]](#) - RUNTIME: startup assertion failure in DEVELOPMENT mode
- [\[FLUENCY-5042\]](#) - CLASSLOADER: invalid @KeyField array audit
- [\[FLUENCY-5057\]](#) - CLASSLOADER: java.lang.NoSuchFieldError
- [\[FLUENCY-5065\]](#) - RUNTIME: hang when transaction statistics enabled
- [\[FLUENCY-5090\]](#) - RUNTIME: getThrottleState() incorrect log message

- [\[FLUENCY-5105\]](#) - RUNTIME: osprxset.cpp:986: failed C++ assertion 'm_setInfo->setStatus == OSSMSetInfo::SetActive'
- [\[FLUENCY-5107\]](#) - NODEAGENT: running pstack against administration causes nodeagent assertion
- [\[FLUENCY-5121\]](#) - CLASSLOADER: JSR/RET are not supported with computeFrames option
- [\[FLUENCY-5130\]](#) - RT: JVM's timerResolutionMilliseconds is not updated on target engine.
- [\[FLUENCY-5132\]](#) - CLASSLOADER: Managed constructors using this(...) can break class formatting
- [\[FLUENCY-5135\]](#) - CLASSLOADER: java.lang.AssertionError: ClassNode lost on com.mysql.jdbc.integration.c3p0.MysqlConnectionTester

Documentation

- [\[FLUENCY-5086\]](#) - TUNING: add section on using timers
- [\[FLUENCY-5103\]](#) - SIZING: Add a warning on separate transactions for memory sizing
- [\[FLUENCY-5109\]](#) - RT: Excessive memory use with redhat 6.2.

Improvement

- [\[FLUENCY-4392\]](#) - RT: improve deadlock back off algorithm
- [\[FLUENCY-4942\]](#) - HA: add temporal support for replicated timers
- [\[FLUENCY-4976\]](#) - RT: avoid free/alloc of memory in OSSlot::setString()
- [\[FLUENCY-5008\]](#) - RUNTIME: @ByReference annotation causes event bus dispatch
- [\[FLUENCY-5087\]](#) - PERFORMANCE: improve performance of large number's of timers
- [\[FLUENCY-5101\]](#) - CLASSLOADER: cost of class not found

New Feature

- [\[FLUENCY-5111\]](#) - CLASSLOADER: add support for JDK 1.7 compilation

Task

- [\[FLUENCY-4987\]](#) - ACTIVESPACES: upgrade AST to AS 2.0.1.40
- [\[FLUENCY-4993\]](#) - Doc Impact of FLUENCY-4987 ACTIVESPACES: upgrade AST to AS 2.0.1.40
- [\[FLUENCY-5047\]](#) - THIRDPARTY: Upgrade to JDK 7
- [\[FLUENCY-5112\]](#) - THIRDPARTY: upgrade ASM to 4.0
- [\[FLUENCY-5136\]](#) - Doc Impact of FLUENCY-5047 THIRDPARTY: Upgrade to JDK 7

2.2.1 Resolved Issues

Bug

- [\[FLUENCY-1140\]](#) - PERF: not scaling to 16 CPUs
- [\[FLUENCY-3468\]](#) - 3RDPARTY : wrong SW3P_ZLIB_VERSION
- [\[FLUENCY-3915\]](#) - CLASSLOADER: audit against array key fields
- [\[FLUENCY-4044\]](#) - DIST: Deadlocks on disteng::TypeEntry instances.
- [\[FLUENCY-4380\]](#) - DEPLOY: mainArguments causes invalid deployment specification to be generated
- [\[FLUENCY-4461\]](#) - RT: Missing code coverage in ktvmngr.cpp module.
- [\[FLUENCY-4472\]](#) - ADMINISTRATION: install switch (c++) missing resolvable hostname error check
- [\[FLUENCY-4498\]](#) - DIST: Need to verify state conflict detection with read committed transactions.
- [\[FLUENCY-4538\]](#) - CLASSLOADER: Managed, autobox array field crash
- [\[FLUENCY-4547\]](#) - RT: allocationSpaceBytes type mismatch not detected
- [\[FLUENCY-4548\]](#) - OSSTATS: array fields reported as sequence in Type.typeSize()
- [\[FLUENCY-4553\]](#) - ASTA: incorrect display Principal value
- [\[FLUENCY-4555\]](#) - CLASSLOADER: crash during access of integer array field.
- [\[FLUENCY-4556\]](#) - CLASSLOADER: ClassCastException on access of Integer[] field.
- [\[FLUENCY-4562\]](#) - Doc Impact of FLUENCY-4548 OSSTATS: array fields reported as sequence in Type.typeSize()
- [\[FLUENCY-4599\]](#) - DATAGRID: Metaspace disconnect occasional hang
- [\[FLUENCY-4634\]](#) - ADMINISTRATOR: has cryptic stack trace and core dump if SW_HOME is not set
- [\[FLUENCY-4644\]](#) - DEPLOY: invalid class path specifications generates bogus KDS file
- [\[FLUENCY-4667\]](#) - QUERY: KeyQuery accepts null for lock mode parameter
- [\[FLUENCY-4674\]](#) - CODELINETOOLS: Remove P.AST.UNINSTALL script from archive
- [\[FLUENCY-4675\]](#) - CODELINETOOLS: P.AST.README file contains inaccurate install instructions
- [\[FLUENCY-4678\]](#) - KDM: returns bogus error message when stopping node
- [\[FLUENCY-4689\]](#) - RT: assertion passing array in additional data
- [\[FLUENCY-4700\]](#) - AST: installer does not include P.AST.* release notes on Solaris
- [\[FLUENCY-4701\]](#) - AST: Solaris release archives do not contain the productversion file
- [\[FLUENCY-4702\]](#) - DIST: reason is lost when doing a create on an inactive partition.
- [\[FLUENCY-4706\]](#) - CLASSLOADER: com.kabira.platform.systemPackages property ignored
- [\[FLUENCY-4710\]](#) - INSTALLER: TIBCOUniversalInstaller error on Soraris
- [\[FLUENCY-4713\]](#) - ADMINISTRATION: creating node in read-only directory results in stack trace
- [\[FLUENCY-4719\]](#) - README: Product download site AST 2.2.0 README poorly formatted
- [\[FLUENCY-4720\]](#) - CLASSLOADER: Investigate handling nested exceptions when creating type descriptors.
- [\[FLUENCY-4732\]](#) - MONITOR: swmon in AST 2.2.0 is the debug version of the monitor executable
- [\[FLUENCY-4740\]](#) - CLASSLOADER: determine if we can close JAR file descriptors

- [\[FLUENCY-4744\]](#) - KDM: Restarting domain manager with managed nodes crashes
- [\[FLUENCY-4754\]](#) - DOMAIN: addnode outputs suprious "switchadmin"
- [\[FLUENCY-4768\]](#) - DATAGRID: signal 11 SpaceManager::createSystemSpaces()
- [\[FLUENCY-4781\]](#) - RT: Crash if multiple object pages need to be free'd during a READ_COMMITTED_SNAPSHOT commit.
- [\[FLUENCY-4782\]](#) - DIST: Crash if enablePartition() is executed in a READ_COMMITTED_SNAPSHOT transaction.
- [\[FLUENCY-4783\]](#) - DIST: Cascade failures may miss removing replica nodes.
- [\[FLUENCY-4784\]](#) - RUNTIMESTATISTICS: transaction lock statistics broken
- [\[FLUENCY-4785\]](#) - ADMINISTRATION: install switch reports incorrect shared memory size
- [\[FLUENCY-4802\]](#) - ASTA: mouse over ballon help on node start button
- [\[FLUENCY-4803\]](#) - NODEAGENT: node restart crash
- [\[FLUENCY-4806\]](#) - RT: JNI/JDWP access to shared memory outside of a transaction crashes.
- [\[FLUENCY-4810\]](#) - Doc Impact of FLUENCY-4472 ADMINISTRATION: install switch (c++) missing resolvable hostname error check
- [\[FLUENCY-4815\]](#) - Doc Impact of FLUENCY-4548 OSSTATS: array fields reported as sequence in Type.typeSize()
- [\[FLUENCY-4822\]](#) - Doc Impact of FLUENCY-4784 RUNTIMESTATISTICS: transaction lock statistics broken
- [\[FLUENCY-4823\]](#) - MONITOR: missing DISPLAY environment variables fails with mysterious stack trace
- [\[FLUENCY-4827\]](#) - DIST: cschan.cpp:2556: failed C++ assertion 'pktType == CSBuffer::PktRejectMalformed'
- [\[FLUENCY-4840\]](#) - JAVASERVICE: jniutils.cpp:138: failed C++ assertion 'env->ExceptionCheck() == JNI_FALSE'
- [\[FLUENCY-4849\]](#) - ADMINISTRATION: display node delineated output inconsistent
- [\[FLUENCY-4853\]](#) - DISTRIBUTION: assertion in DIstributionConfigManager
- [\[FLUENCY-4855\]](#) - ASTA: login fails
- [\[FLUENCY-4860\]](#) - STATISTICS: JNI Cache statistics do not display properly in ASTA
- [\[FLUENCY-4862\]](#) - DIST: FATAL|12756|oscdr.cpp(491)|Invalid increment of 4 bytes
- [\[FLUENCY-4869\]](#) - SNAPSHOT: Document "installpath" in admin guide.
- [\[FLUENCY-4871\]](#) - HA: java.lang.NullPointerException: Object not found on remote node B
- [\[FLUENCY-4876\]](#) - SNAPSHOT: no error reported if permission failure
- [\[FLUENCY-4879\]](#) - ADMINISTRATION: switchadmin still used in error messages
- [\[FLUENCY-4904\]](#) - SNAPSHOT does not return version information for BE-X snapshot
- [\[FLUENCY-4908\]](#) - ASTA: unknown statistics type displaying Method Execution statistics
- [\[FLUENCY-4918\]](#) - SNAPSHOT: error generated if pstack not installed
- [\[FLUENCY-4921\]](#) - STATS: object stats may not clear all statistics.
- [\[FLUENCY-4925\]](#) - RUNTIME: hang in ClassLoader.initRuntimeTDCache
- [\[FLUENCY-4945\]](#) - CLASSLOADER: missing @Managed annotated on @Asynchronous methods not detected
- [\[FLUENCY-4956\]](#) - ASTA: node details screen not displayed

Documentation

- [\[FLUENCY-2403\]](#) - TUNING: add memory management details
- [\[FLUENCY-4540\]](#) - HA: document the behavior of partition mappers and inheritance
- [\[FLUENCY-4551\]](#) - ADMINISTRATION: improve JVM-specific deployment directories documentation
- [\[FLUENCY-4669\]](#) - 3RDPARTY: release note name of the java package incorrect
- [\[FLUENCY-4677\]](#) - 3RDPARTY: 3rd party missing in AST 2.2.0
- [\[FLUENCY-4712\]](#) - ADMINGUIDE: incorrect SW_HOME location in BE-X Administration Guide
- [\[FLUENCY-4727\]](#) - CONFIG: com.kabira.platform.switchconfig
- [\[FLUENCY-4728\]](#) - CONFIG: com.kabira.platoform.switchconfig.ConfigurationListener
- [\[FLUENCY-4729\]](#) - ADMINISTRATION: com.kabira.platform.management.Target javadoc
- [\[FLUENCY-4737\]](#) - DEPLOY: merge deployment information currently in admin/architect's guide
- [\[FLUENCY-4738\]](#) - INSTALL: note about /usr/ucb applies to all install modes
- [\[FLUENCY-4905\]](#) - ADMIN: uses administrator role name

Improvement

- [\[FLUENCY-1214\]](#) - OSSTATS: Type::typeSize() reports bounded array as unbounded sequence
- [\[FLUENCY-1296\]](#) - ADMINISTRATOR: add servicename to usage message
- [\[FLUENCY-2319\]](#) - OSSTATS: add reporting for local mutex stats in every engine
- [\[FLUENCY-3218\]](#) - RT: move OSTypeDescriptor statistics to a separately allocated struct
- [\[FLUENCY-4304\]](#) - RUNTIMESTATISTICS: Expose cache statistics functionality.
- [\[FLUENCY-4381\]](#) - DEPLOY: generated artifacts shouldn't be removed on error
- [\[FLUENCY-4499\]](#) - Doc Impact of FLUENCY-3855 HA: optionally allow setMapper to detect previously unpartitioned objects
- [\[FLUENCY-4517\]](#) - SNAPSHOT: needs to include registry information
- [\[FLUENCY-4696\]](#) - SNAPSHOT: add OS information to snapshot archive
- [\[FLUENCY-4703\]](#) - Doc Impact of FLUENCY-4304 RUNTIMESTATISTICS: Expose cache statistics functionality.
- [\[FLUENCY-4704\]](#) - Doc Impact of FLUENCY-2319 OSSTATS: add reporting for local mutex stats in every engine
- [\[FLUENCY-4746\]](#) - ADMINISTRATION: Obscure error message from "display switch" on stopped node.
- [\[FLUENCY-4750\]](#) - ADMINGUIDE: improve details on relationship between nodes/applications/jvms.
- [\[FLUENCY-4751\]](#) - ADMINGUIDE: update/remove event subscriber documentation
- [\[FLUENCY-4761\]](#) - KDM: improve/clarify MDNS not running messages
- [\[FLUENCY-4779\]](#) - DEPLOY: clean up deployment messages
- [\[FLUENCY-4799\]](#) - DEPLOY: improve SSL initialization failure messages
- [\[FLUENCY-4819\]](#) - NODE: display node command requires ssh keys to be configured

- [\[FLUENCY-4825\]](#) - RUNTIME: type descriptor memory footprint
- [\[FLUENCY-4874\]](#) - SNAPSHOT: improve snapshot connection failure message
- [\[FLUENCY-4875\]](#) - SNAPSHOT: permission error gives unclear message
- [\[FLUENCY-4877\]](#) - RUNTIME: add the mutex instance number to MLock mutex names
- [\[FLUENCY-4929\]](#) - OSSTATS: simplify Type.typeSize() signature
- [\[FLUENCY-4934\]](#) - Doc Impact of FLUENCY-4929 OSSTATS: simplify Type.typeSize() signature
- [\[FLUENCY-4935\]](#) - OSSTATS: improve Types.memoryUsage() report
- [\[FLUENCY-4941\]](#) - ADMINISTRATION: Add a facility for obtaining the active principal during administrative target execution.
- [\[FLUENCY-4946\]](#) - Doc Impact of FLUENCY-4941 ADMINISTRATION: Add a facility for obtaining the active principal during administrative target execution.
- [\[FLUENCY-4958\]](#) - Doc Impact of FLUENCY-4935 OSSTATS: improve Types.memoryUsage() report

Task

- [\[FLUENCY-4915\]](#) - SUBSCRIBER: mark administration target as private

Known Issues

A summary of the known issues in this release is below.

For each issue the following is provided:

- Description of issue
- Workaround (if any)
- Plans for resolution

Key	Summary	Public Issue Description
		Intermittent data grid errors are seen when shutting down a node. They look something like:
		2012-09-14 15:14:31.567
	DATAGRID:	[shutdown-hook-job] INFO
	Exception	runtime.cluster.om.daoprotector - Disconnecting from
	com.tibco.as.space	metaspace
	e.ASEException:	2012-09-14 15:14:32.050 [y3uk-
	INVALID_OBJECT	policy3uk.0.\$smtimeouts.CachePoller] DEBUG
	CT	runtime.service - CACHEPOLLER : policy3uk-
	(metaspace invalid) during jvm	policy3uk.0.\$smtimeouts.CachePoller, Polling... 0, <=
	termination.	1347632072050
		2012-09-14 15:14:32.074 [y3uk-
		policy3uk.0.\$smtimeouts.CachePoller] ERROR
		root - java.lang.RuntimeException:
		com.tibco.as.space.ASEException: INVALID_OBJECT
		(metaspace_invalid)
		2012-09-14 15:14:32.074 [y3uk-
		policy3uk.0.\$smtimeouts.CachePoller] ERROR

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```
root -      at
com.tibco.cep.runtime.service.rmi.RemoteFilterRunner.invoke(SourceFile:116)
2012-09-14 15:14:32.074 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.service.rmi.RemoteFilterRunner.entrySet(SourceFile:46)
2012-09-14 15:14:32.074 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.service.dao.impl.tibas.ASControlDao.entrySet(SourceFile:481)
2012-09-14 15:14:32.074 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.service.cluster.scheduler.impl.DefaultCachePoller.getExpiredKeys(DefaultCachePoller.java:111)
2012-09-14 15:14:32.074 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.service.cluster.scheduler.impl.DefaultCachePoller.run(DefaultCachePoller.java:82)
2012-09-14 15:14:32.074 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.session.BEManagedThread.execute(BEManagedThread.java:458)
2012-09-14 15:14:32.089 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.session.BEManagedThread.run_repeating(BEManagedThread.java:436)
2012-09-14 15:14:32.089 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.session.BEManagedThread.run(BEManagedThread.java:299)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root - Caused by: com.tibco.as.space.ASException:
INVALID_OBJECT (metaspace_invalid)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
Native.API_Space_InvokeMembers(ApiSpace.cpp:481)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
Native.Java_com_tibco_as_space_impl_NativeImpl_spaceInvokeMembers(JRemoteService.cpp:62)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.as.space.impl.NativeImpl.spaceInvokeMembers(Na
```

```

tive Method)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.as.space.impl.ASSpace.invokeAll (ASSpace.java:7
76)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.as.space.impl.ASSpace.invokeSeeders (ASSpace.ja
va:740)
2012-09-14 15:14:32.090 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.as.space.impl.ASSpace.invokeSeeders (ASSpace.ja
va:734)
2012-09-14 15:14:32.094 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.as.kit.rmi.InvocationHelper.buildAndInvoke
(SourceFile:140)
2012-09-14 15:14:32.094 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      at
com.tibco.cep.runtime.service.rmi.RemoteFilterRunner.inv
oke (SourceFile:111)
2012-09-14 15:14:32.097 [y3uk-
policy3uk.0.$smtimeouts.CachePoller] ERROR
root -      ... 7 more
2012-09-14 15:14:32.317
[      shutdown-hook-job] INFO
runtime.cluster.om.daoprovder - Disconnected from
metaspace

```

These errors can be ignored.

This will be corrected in a future release.

The **Print** button on the node **Statistics** tab does not work.

There is no work-around for this issue.

This will be corrected in a future release.

Running with debug builds generates warnings like these when starting a node.

```

Warning: SIGINT handler expected:libjvm.so+0x710e10
found:0x0000000000000001
Signal Handlers:
SIGSEGV: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfefeff,
sa_flags=0x10000004
SIGBUS: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfefeff,
sa_flags=0x10000004
SIGFPE: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfefeff,
sa_flags=0x10000004

```

[FLU](#)
[ENC](#)
[Y-](#)
[4930](#) [ASTA: print](#)
[statistics not](#)
[working](#)

[FLU](#)
[ENC](#)
[Y-](#)
[4852](#) [JAVASE: running](#)
[with debug](#)
[generates](#)
[warnings about](#)
[signal handlers](#)

```

SIGPIPE: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGXFSZ: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGILL: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGUSR1: SIG_DFL, sa_mask[0]=0x00000000,
sa_flags=0x00000000
SIGUSR2: [libjvm.so+0x711210], sa_mask[0]=0x3ffbf0b,
sa_flags=0x10000004
SIGHUP: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGINT: SIG_IGN, sa_mask[0]=0x00000000,
sa_flags=0x00000000
SIGTERM: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGQUIT: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004

```

Warning: SIGPIPE handler expected:libjvm.so+0x70e3e0
found:0x0000000000000001

Signal Handlers:

```

SIGSEGV: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGBUS: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGFPE: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGPIPE: SIG_IGN, sa_mask[0]=0x00001000,
sa_flags=0x10000000
SIGXFSZ: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGILL: [libjvm.so+0x70e3e0], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGUSR1: SIG_DFL, sa_mask[0]=0x00000000,
sa_flags=0x00000000
SIGUSR2: [libjvm.so+0x711210], sa_mask[0]=0x3ffbf0b,
sa_flags=0x10000004
SIGHUP: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGINT: SIG_IGN, sa_mask[0]=0x00000000,
sa_flags=0x00000000
SIGTERM: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004
SIGQUIT: [libjvm.so+0x710e10], sa_mask[0]=0x7ffbfef,
sa_flags=0x10000004

```

These warnings can be ignored.

This will be corrected in a future release.

[FLU](#) [JDWP: Setting a](#)
[ENC](#) [field in a](#)
[Y-](#) [Managed object](#)
4813 [without an active](#)

Setting a field in a managed object without an active transaction in a Java debugger causes errors.

For example, if **mo** is managed object, doing the following in a

[transaction results](#) debugger:
[in 'Unexpected
JDWP Error: 115'](#) set mo.m_id = 456

causes these errors to be reported.

```
main[1] com.sun.jdi.InternalException: Unexpected JDWP
Error: 115
  mo.m_id = 456 = null
main[1] WARNING in native method: JNI call made with
exception pending
WARNING in native method: JNI call made with exception
pending
WARNING in native method: JNI call made with exception
pending
...
```

There is no work-around for this issue.

This may be resolved in a future release.

Using **valueOf** to update an item in an array of **Long** in a Managed Object fails with a **ClassCastException**. For example, this snippet fails with:

java.lang.ClassCastException: [J cannot be cast to [Ljava.lang.Long;

```
import com.kabira.platform.Transaction;
import com.kabira.platform.annotation.Managed;

public class Bug
{
    public static void main(String[] args)
    {
        new Transaction()
        {
            public void run()
            {
                Unhappy clown = new Unhappy();
                System.out.println(clown.longs[0]);
            }
        }.execute();
    }

    @Managed
    static class Unhappy
    {
        Long longs[] = new Long[1];
        Unhappy()
        {
            longs[0] = Long.valueOf(42);
        }
    }
}
```

[FLU](#) [CLASSLOADER](#)
[ENC](#) : [autoboxing and](#)
[Y-](#) [valueOf](#)
[4537](#) [ClassCastExcepti](#)
[on](#)

There is no work-around for this issue.

This will be resolved in a future release.

Specifying a space in the **jvmname** option in the deployment tool will cause the JVM to fail to start. For example:

```
java -jar astdeploy.jar adminport=5555 jvmname='hello
app' Hello
INFO: astdeploy.jar version: [TIBCO ActiveSpaces(R)
Transactions 2.2.0 (build 120415)] starting at [Thu Apr
26 09:57:34 PDT 2012]
INFO: node version: [TIBCO ActiveSpaces(R) Transactions
2.1.2 (build 120416)]
INFO: Starting application [Hello] ...
INFO: Component [Hello] started on JVM [hello app].
Unrecognized option: app
Failed to create a new JVM. Are the specified vm options
valid?
```

[FLU](#)
[ENC](#)
[Y-](#)
[4503](#) [DEPLOY: white
space in jvmname
option fails](#)

The work-around is to not use spaces in JVM names.

This will be resolved in a future release.

The shared memory monitor does not handle java arrays with multiple dimensions, i.e. running the following example:

```
import com.kabira.platform.Transaction;
import com.kabira.platform.annotation.Managed;
```

```
@Managed
class Foo
{
    public char[][] m_char;
    Foo()
    {
        m_char = new char[5][5];
        char val = 'a';
        for (int i = 0; i < 5; i++)
        {
            for (int j = 0; j < 5; j++)
            {
                m_char[i][j] = val;
                val++;
            }
        }
    }
}
```

[FLU](#)
[ENC](#)
[Y-](#)
[4489](#) [SWMON: Cannot
display multi-
dimensional
arrays.](#)

```
public class Demo
{
    public static void main(String[] args)
    {
        new Transaction("Create")
        {
            public void run()
```

```

        {
            new Foo();
        }
    }.execute();
    System.out.println("Main: done");
}
}

```

Then running the monitor and navigating to the foo instance will result in a

Address out of bounds error displayed for **m_char**.

A workaround is to use **swdiag** to display the object data.

This will be corrected in a future release.

Attempting to create a managed object with keys defined using reflection fails with a duplicate key exception.

[FLU RT: Creating
ENC key'd instances
Y- via reflection
4474 fails.](#)

There is no work-around for this issue.

This will be resolved in a future release.

Changing the order of items in dialog boxes that support drag & drop does not managed the reset and delete button states correctly. The reset button is not enabled, and in some cases the delete button is incorrectly enabled.

[FLU ASTA:
ENC reset/delete
Y- buttons handled
3956 incorrectly
following drag &
drop](#)

The work-around is to close and re-open the dialog.

This issue will be resolved in a future release.

The object update latency reported for distributed and partitioned objects does not include the network latency.

[FLU RUNTIMESTATI
ENC STICS: object
Y- update latency
3859 does not include
partitioned
objects](#)

There is no work-around for this issue.

This will be corrected in a future release.

Attaching JProfiler 6.2.4 to a running AST JVM caused a SEGV crash due to a library symbol conflict between JProfiler and DataGrid.

[FLU DATAGRID:
ENC Crash during
Y- JProfiler startup
3678](#)

Resetting the data grid in the development appliance is not working. This prevents the shape of data grid backed managed objects from changing. When a data grid back managed object's shape is changed, the next time the data grid is accessed it will fail with an exception like this:

[FLU DATAGRID: grid
ENC reset not working
Y-
3515](#)

```
[A] Java main class sandbox.Flushing.main exited with an exception.
```



```
[A] com.kabira.platform.ResourceUnavailableException:
Error occurred defining space for type
[sandbox.MyDataGridObject]. Error [TIBAS_SYS_ERROR
(space_def_mismatch -
space name=sandbox MyDataGridObject)].
[A]      at
com.kabira.platform.Transaction.prepare(Native Method)
[A]      at
com.kabira.platform.Transaction.execute(Transaction.java
:304)
[A]      at sandbox.Flushing.main(Flushing.java:29)
[A]      at
sun.reflect.NativeMethodAccessorImpl.invoke0(Native
Method)
[A]      at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethod
AccessorImpl.java:39)
[A]      at
sun.reflect.DelegatingMethodAccessorImpl.invoke(Delegati
ngMethodAccessorImpl.java:25)
[A]      at
java.lang.reflect.Method.invoke(Method.java:597)
[A]      at
com.kabira.platform.MainWrapper.invokeMain(MainWrapper.j
ava:49)
```

The only work-around for this issue is to restart the Development Appliance

This will be resolved in a future release.

[FLU](#)
[ENC](#) [DATAGRID:](#)
[Y-](#) [spurious output to](#)
[3436](#) [stdout](#)

Certain log messages from the data grid library will display to the console, and cannot be disabled. The "member left:", "ip_address:", and "Connected metaspace ..." messages should be ignored. This will be corrected in a future release.

[FLU](#) [ASTA: numeric](#)
[ENC](#) [and data columns](#)
[Y-](#) [in tables not](#)
[3408](#) [sorted correctly](#)

Tables displaying numeric and date data are not sorted correctly. They are currently sorted in character sort order.

There is no work around for this issue.

This will be resolved in a future release.

ActiveSpaces Transactions Administrator does not work with IE 8. The administrator is known to work with:

[FLU](#)
[ENC](#) [ASTA: does not](#)
[Y-](#) [work with IE 8](#)
[3407](#)

- Chrome
- Fire Fox
- Safari

The work-around for this issue is to use another browser.

<p><u>FLU</u> <u>ENC</u> <u>Y-</u> <u>3342</u></p> <p><u>HA: Determine how to handle "orphan" objects and partitions.</u></p>	<p>This may be resolved in a future release.</p> <p>Partition objects that are not created on a node associated with the partition, are correctly created on the active node for the partition, but they do not receive any updates when the object changes. This implies that an application accessing this object will read stale data. When the object is updated, the data inconsistency will be detected and the object refreshed.</p> <p>This can be worked around by explicitly flushing these objects using the com.kabira.platform.swbuiltin.ObjectServices.flush() method on these objects.</p>
<p><u>FLU</u> <u>ENC</u> <u>Y-</u> <u>3293</u></p> <p><u>DATAGRID: class load for key restore requires a transaction</u></p>	<p>This will be resolved in a future release.</p> <p>If the class-load action for a keyed, grid-backed type occurs outside any transaction context, and there are instances of the type to be restored from the data grid, a java.lang.NoClassDefFoundError may be thrown.</p> <p>This occurs as AST will automatically restore any instances of keyed types that are found in the data grid. Currently, this restore action requires a transaction. This restriction will be removed in a future release.</p>
<p><u>FLU</u> <u>ENC</u> <u>Y-</u> <u>3225</u></p> <p><u>DATAGRID: cardinality for flushable types updated at prepare time</u></p>	<p>Cardinality for data grid backed managed objects that are not always cached in shared memory does not include any objects created in the current transaction - it only returns the cardinality for completed transactions.</p> <p>There is no work-around for this inconsistency with non-data grid backed managed objects.</p>
<p><u>FLU</u> <u>ENC</u> <u>Y-</u> <u>3181</u></p> <p><u>DATAGRID: invalid query not failing</u></p>	<p>This will be resolved in a future release.</p> <p>When running a query against a space, certain illegal query filters will not fail as expected. Specifically, a query filter that consists of a single token will find zero elements, rather than returning an error. An example of a such a filter would be <i>query space name=foo filter=abc</i>.</p> <p>There is no work-around for this issue.</p>
<p><u>FLU</u> <u>ENC</u> <u>Y-</u> <u>3163</u></p> <p><u>KM: Using multiple tabs in Development Appliance fails to open</u></p>	<p>This will be resolved in a future release.</p> <p>In certain cases, ActiveSpaces Transactions Administrator will not open in multiple tabs in the Development Appliance.</p> <p>The work-around is to use multiple windows, or to access ActiveSpaces Transactions Administrator from a client browser.</p>

instead of the browser shipped in the Development Appliance.

This issue will be resolved in a future release.

The Domain Manager's configuration cache incorrectly converts negative timezone offsets in a node's installation time to a positive offset. For example a node installation timezone offset of -0030 is converted to 0030. This may cause configuration restore to incorrectly restore, or not, configuration to a node.

FLU KDM:
ENC configuration
Y- restore: incorrect
3073 date conversion
when timezone
offsets of -00xx

There is no work-around for this issue.

This will be corrected in a future release.

It is not possible to remove a node using the domain manager.

Attempt to do so will fail with the following error message:

```
switchadmin servicename=domainmanager domainnode=replica  
stop switch
```

FLU KDM: cannot
ENC remove switch
Y- using domain
2855 manager

```
guest@kabira-server:~$ switchadmin  
servicename=domainmanager domainnode=replica stop remove
```

Invalid response data stream received from remote node.

The work around is to execute the remove directly to the target node without the domain manager.

This will be resolved in a future release.

The **-showversion** JVM option will cause the Fluency JVM to fail during startup.

FLU JAVASERVICE:
ENC JVM fails to start
Y- if given the -
2509 showversion JVM
option

There is no work-around for this issue.

This will be corrected in a future release.

switchadmin display switch and Kabira Manager do not include the node description if service discovery is not running.

With MDNS running here is the output from **display switch**.

FLU SWITCHADMIN
ENC : display switch
Y- does not show
2491 node description
if MDNS not
running

```
switchadmin adminport=2001 display switch
```

Node administration for primary:

```
Host: localhost  
Administration Port: 2001  
Service Name: "primary"  
Node Name: "primary"
```

```

Engine fluency::fluency
  State: running
  Build type: DEVELOPMENT
  Contains JVM: No

Principals: guest
Active Principal: guest

Application: kabira/fluency
Node Path: /opt/kabira/run/fluency/nodes/primary
Installation Path: /opt/kabira/kis
Node Description: Fluency Development

```

Here is the output without MDNS running.

```
switchadmin adminport=2001 display switch
```

```
Node administration for primary:
```

```

Host: localhost
Administration Port: 2001
Service Name: "None"
Node Name: "primary"

```

```

Engine fluency::fluency
  State: running
  Build type: DEVELOPMENT
  Contains JVM: No

```

```

Principals: guest
Active Principal: guest

```

```

Application: kabira/fluency
Node Path: /opt/kabira/run/fluency/nodes/primary
Installation Path: /opt/kabira/kis

```

There is not work-around for this issue.

This will be corrected in a future release.

If the MDNS daemon is disabled, no error message is displayed to the user when using **servicename** with **switchadmin**. **switchadmin** just returns a non-zero error code. For example:

[FLU SWITCHADMIN](#)
[ENC : no error message](#)
[Y- reported if MDNS](#)
[2482 disabled](#)

```

switchadmin servicename=xxxx display switch
echo $?
1

```

An error message will be returned in a future release.

[FLU JAVASE: JDWP](#)
[ENC can hang during](#)
[Y- stepping in](#)
[2446 debugger](#)

A Java debugger can hang if the *wrong* transaction is chosen by the JDWP library when changing threads while single stepping through a method in a transaction. When the wrong transaction is selected, the debugger will hang on the next single step.

The work-around is to not switch threads while single stepping through a method in a transaction.

This will be resolved in a future release.

Attempting to start a node through KDM will fail. For example, executing this command:

```
switchadmin hostname=kabira-server adminport=2000  
domainnode=replica username=guest password=guest start  
switch
```

will fail with:

Invalid response data stream received from remote node.

FLU
ENC
Y-
2426

KDM: cannot
start node through
KDM

The work around is to send the command directly to the node being started, by passing KDM. For example:

```
switchadmin hostname=kabira-server adminport=2003  
username=guest password=guest start switch  
    Waiting for application to start  
    Components started  
    Loading configurations  
    Auditing security configuration  
    Host: kabira-server  
    Administration Port: 2003  
    Service Name: "replica"  
    Node Name: "replica"
```

This will be resolved in a future release.

Intermittent JVM crashes like the following are seen when using the Java debugger to inspect variables after hitting a breakpoint.

```
# Internal Error  
(/opt/kabira/users/nightly.core/javase/jdk/linux/src/hot  
spot/src/share/vm/runtime/jniHandles.cpp:62), pid=11002,  
tid=1076173136  
# Error: assert(Universe::heap() -  
>is_in_reserved(obj), "sanity check")
```

JAVASE: Error:
FLU assert(Universe::h
ENC ead()-
Y- >is_in_reserved(o
2273 bj), "sanity
check")

There is no work-around for this issue.

This problem will be resolved in a future release.

FLU
ENC
Y-
2205

KM: command
logging button not
enabled using IE

The command logging button in the KM options screen is not enabled when using IE.

<u>FLU</u> <u>ENC</u> <u>Y-</u> <u>2179</u>	<u>KM: dialog box disappears on IE when incorrect login information specified</u>	<p>The only work-around is to use a different browser then IE.</p> <p>This will be resolved in a future release.</p> <p>The login dialog disappears when incorrect username and/or password information is specified when using IE.</p> <p>The work-around is to reopen KM in a different browser window or to use a different browser than IE.</p> <p>This will be resolved in a future release.</p>
<u>FLU</u> <u>ENC</u> <u>Y-</u> <u>1982</u>	<u>FLUENCY: visualvm cpu monitor does not work</u>	<p>The CPU monitor in VisualVM does not currently work with the ActiveSpaces Transactions JVM. It reports <i>Not supported for this JVM</i>.</p> <p>There is currently no work-around for this issue.</p> <p>This will be resolved in a future release.</p>
<u>FLU</u> <u>ENC</u> <u>Y-</u> <u>1981</u>	<u>PERF: visualvm profiling tools do not work</u>	<p>Java CPU profiling in NetBeans, VisualVM (which uses the NetBeans profiling classes), and Eclipse does not currently work with Fluency. This style of profiling uses the JVM Tools Interface to rewrite classes, injecting profiling code. The problems appear to be due to implementation bugs in these profiling agents where they do not take into account that there may be other class loaders in the same JVM doing class rewriting.</p>
		<p>A commercial product, JProfiler 1.6 from ej-technologies.com was found to function correctly.</p>
<u>FLU</u> <u>ENC</u> <u>Y-</u> <u>1925</u>	<u>JAVASERVICE: invalid JVM options causes node to crash</u>	<p>Invalid JVM options causes the node to crash. For example (note duplicate -Xms options):</p> <pre>2010-01-21 13:21:08.162242 KVM INFO 31637 ktvmmgr.cpp(1655) Creating a JVM</pre> <p>VM options:</p> <pre>- Dcom.kabira.application.class.path=/opt/kabira/run/fluency/nodes/primary/classpaths/snippets_jar3 -Xms256m -Xms512m -</pre>
		<pre>agentlib:jdwp=transport=dt_socket,address=63315,server=y ,suspend=n -Dcom.kabira.application.detach=true - Djava.system.class.loader=com.kabira.platform.classloader.ClassLoader</pre>

```
-Dcom.kabira.platform.buildType=DEVELOPMENT
-Dcom.kabira.platform.management.port=2001
...
```

```
2010-01-21 13:21:08.199367|KVM|INFO
|31637|notifiers.cpp(130)|installNotifiers called with
VMID 31621
2010-01-21
13:21:08.236792|USR|FATAL|31637|engine.cpp(74)|An
illegal call to exit() was detected in process 31621
with active engine instances. You must use the stop()
method in swbuiltin to terminate engines.
```

This will be handled more gracefully in future releases.

There is a shared memory leak of approximately 200 kilobytes, seen when JVMs are launched, stopped and then left stopped. Some of this leak also remains even after the JVM is removed.

FLU JAVASERVICE:
ENC iterative JVM
Y- start/stop memory
1922 leak

This is only an issue in the development process where many JVMs are deployed (one for each launch of the application from the deploy tool).

This will be resolved in a future release.

Fluency supports preventing undetected deadlocks when accessing objects protected by a monitor within a transaction. However, undetected deadlocks are not detected when using a monitor with an array accessed in a transaction.

FLU JAVASE:
ENC synchronized
Y- arrays not
1876 supported.

The work-around is to ensure that monitors are not used to protect arrays accessed in a transaction.

This issue will be resolved in a future release.

The report distribution administration command does not support the delimiter option. If a delimiter is specified it is quietly ignored.

FLU DIST: report
ENC configuration
Y- does not support
1830 the delimiter
option

There is currently no work-around for this issue.

This will be resolved in a future release.

When starting the VMWare image in ESX the format of the hosts file may be incorrect. For example it may contain:

```
127.0.0.1 localhost
```

FLU
ENC VMWARE:
Y- bogus hosts file
1554

```
fluency-server.localdomain fluency-server
```

```
# The following lines are desirable for IPv6 capable
hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
```



```
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
ff02::3 ip6-allhosts
```

Notice the line break after localhost.

The work-around is to update the host file to remove the line break.
For example:

```
127.0.0.1 localhost fluency-server.localdomain fluency-
server

# The following lines are desirable for IPv6 capable
hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
ff02::3 ip6-allhosts
```

This will be resolved in a future release.

FLU EVENTSERVIC
ENC E: 'switchadmin
Y- displayfilter event
1522 type=event'
displays the same
event several
times, once per
language

If there are multiple languages defined for a given event, "swtichadmin displayfilter event" will return multiple rows for that event - one for each language.

There is no work-around for this issue.

This will be corrected in a future release.

FLU SWITCHADMIN
ENC : client dependent
Y- on x.509
1278 certificates in
SW_HOME

The switchadmin command-line utility requires access to the KTP X509 credentials stored under the KTP distrib directory. Consequently, the client requires the SW_HOME environment variable to point to that KTP distrib area in order to establish secure network connections to KTP nodes.

This dependency will be removed in a future release.

FLU VMWARE:
ENC update vmware
Y- images to work
1133 with VMware
server products
(Server/ESXi)

The Fluency VMWare image has known problems working with the VMware server products (Server/ESXi).

The work-around is to use the VMWare reader product for this Fluency VMWare image.

This issue will be resolved in a future release.

FLU CLASSLOADER
ENC : inherited fields
Y- used in keys are

An inherited field used in a Java key will not be audited for "final"-ness.

1129 not audited for
"final"

For instance, the following should not be legal:

```
public class A {  
  
    int i;  
}  
  
@Managed  
@Key(name = "test", fields = {"i"})  
public class B extends A { }
```

Normally, an `IllegalAccessError` exception is thrown if a `REQUIRED` transactional instance is modified in an operation without an active transaction. However, if a method is compiled by JIT, and then executed outside of a transaction, it won't throw an `IllegalAccessError` exception.

FLU JAVASE: JIT
ENC compiled methods
Y- don't throw
958 `IllegalAccessError`
if `REQUIRED`
context set.

This is a low priority bug because it takes a bit of work to execute a method "correctly" (i.e. within a transaction) long enough for JIT to kick in, then illegally execute it outside of a transaction. Normal testing will throw the exception on illegal usage since the interpreter is running at startup.

A workaround
is to use `-Xint` to disable JIT during testing.

This issue will be resolved in a future release.

It is possible to stop/remove the Domain Manager node that runs the Kabira Manager application. If this happens the Kabira Manager client becomes non-responsive. The Domain Manager node should not be stopped using KM.

FLU KM: node
ENC running KM can
Y- be
619 stopped/removed

The workaround is to restart the Domain Manager node if this happens.

Stopping the Domain Manager node using KM will be prevented in a future release.

FLU VMWARE:
ENC keyboard
Y- mapping is
547 hardcoded to
USA

The keyboard layout in the VMware image is set to "USA" and cannot be changed.

A mechanism for configuring the keyboard layout will be available in a future release.

FLU VMWARE:
ENC keyboard
Y- mapping (caps
545 lock) disabled

On Linux hosts, VMware will occasionally break the keyboard mapping of the host machine such that the control and caps lock keys no longer function.

A workaround is to run "setxkbmap".

Arrays of enums stored in a ManagedObject store a null as the first value in the enum declaration.

For example, the following assert will fail.

[FLU](#) [CLASSLOADER](#)
[ENC](#) [: can't store a null](#)
[Y-](#) [reference in a](#)
[544](#) [Java enum array](#)

```
enum Relic { BELL, BOOK, CANDLE };

class Holder extends ManagedObject
{
    Relic[] m_relic;
    void foo()
    {
        m_relic = new Relic[10];
        assert( m_relic[0] == null );
        // m_relic[0] is actually set to BELL
    }
}
```

This problem will be corrected in a future release.

VMware may display "Your version of VMWare Tools is out of date" or a similar warning message.

[FLU](#) [VMWARE:](#)
[ENC](#) [VMWare tools](#)
[Y-](#) [out-of-date](#)
[543](#)

This message seems to be dependant on the version of VMware and the host operating system.

This message may be safely ignored.

Arrays of strings in a ManagedObject store a null as an empty string.

For example, the following assert will fail.

[FLU](#) [CLASSLOADER](#)
[ENC](#) [: can't store a null](#)
[Y-](#) [reference in a](#)
[542](#) [Java String array](#)

```
public class StringHolder extends ManagedObject
{
    String[] m_string;
    void foo()
    {
        m_string = new String[10];
        assert( m_string[0] == null );

        //
        // m_string[0] will return a valid string of
length 0
        //
    }
}
```

This problem will be corrected in a future release.

[FLU](#) [DIST: Arrays of](#)

There is no support for arrays of Managed Objects as return values or

<u>ENC Y-426</u>	<u>ManagedObject not supported as distirbuted parameter/return type</u>	<p>parameters in this release. Attempting to execute a method with a return type or parameters of this type on a remote node will cause an unsupported operation exception to be thrown.</p> <p>There is no work-around for this issue.</p> <p>This limitation will be removed in a future release.</p>
<u>FLU ENC Y-287</u>	<u>KM: Browser refresh logs you out</u>	<p>Using Kabira Manager with any browser, when you reload the current page by any means (for example, clicking on the browser's "Reload" button, or pressing ctrl-R), Kabira Manager logs you out of all nodes and returns you to the original login screen.</p> <p>This issue will be fixed in a future release.</p>
<u>FLU ENC Y-271</u>	<u>ASTA: apache processes not stopped when remove switch used</u>	<p>Stopping a domain manager node using switchadmin remove switch does not stop the Apache server processes.</p> <p>The work-around is to use switchadmin stop switch before switchadmin remove switch, or to manually kill the Apache server processes.</p>
<u>FLU ENC Y-161</u>	<u>VMWARE: OS should use Host OS Time Zone</u>	<p>This will be resolved in a future release.</p> <p>The timezone in the VMware image is set to "US/Pacific" and cannot be changed.</p>
		<p>A mechanism for configuring the timezone will be available in a future release.</p>
		<p>An invalid value to a system property when starting jconsole, for example:</p> <pre>Error: Invalid com.sun.management.jmxremote.port number: 192.168.71.128:9876</pre>
<u>FLU ENC Y-84</u>	<u>JAVASERVICE: Invalid com.sun.management.jmxremote.port number crashes node</u>	<p>Brings down the Fluency node with this message:</p> <pre>2008-10-09 14:36:49.629085 KVM INFO 10069 ktvmmgr.cpp(1241) Creating a JVM VM options: - Dcom.sun.management.jmxremote.port=192.168.71.128:9876 - Dcom.sun.management.jmxremote.authenticate=false - agentlib:jdwp=transport=dt_socket,address=16106,server=y ,suspend=n - Djava.system.class.loader=com.kabira.platform.classload er.ClassLoader</pre>

```
-Dkabira.engine.buildType=PRODUCTION
```

Class path:

```
/opt/kabira/kis/distrib/kabira/component/ktvm/java/ktvm.jar
/opt/kabira/kis/3rdparty/generic/bcel/5.2/bcel-5.2.jar
/opt/kabira/run/fluency-dev/nodes/primary/classpaths/scratch_Main5
java/swbuiltin.jar
java/kis.jar
java/appstats.jar
java/event.jar
java/scheduler.jar
java/switchadmin.jar
java/logger.jar
java/diskmonitor.jar
java/ktvmadmin.jar
java/netchannel.jar
java/ha.jar
java/kdds.jar
java/ktvmnotifier.jar
```

Initial load classes:

```
com.kabira.platform.ktvmnotifier.RequestWaiter
```

```
2008-10-09 14:36:49.642968|KVM|INFO
|10069|notifiers.cpp(43)|installNotifiers called with
VMID 10069
2008-10-09
14:36:50.526578|USR|FATAL|10088|engine.cpp(73)|An
illegal call to exit() was detected in process 10069
with active engine instances. You must use the stop()
method in swbuiltin to terminate engines.
```

This error will be handled without bringing the node down in a future release.

fluency.jar fails to resolve Fluency node services running on the server appliance hosted on Mac OS X.

[FLU](#) [DEPLOY: client](#)
[ENC](#) [fails to resolve](#)
[Y-63](#) [services on](#)
[macosx](#)

The work-around is to use host names and port numbers instead of service names.

This will be resolved in a future release.

[FLU](#) [VMWARE: Error](#)
[ENC](#) [Loading HGFS](#)
[Y-60](#) [Mount when](#)
[starting VMware](#)
[image](#)

When starting the Development Appliance, several error messages are visible, including

```
Cannot mount filesystem - Protocol Error
```

```
Mounting HGFS shares:
```

```
failed
```

These messages can be safely ignored.

The dynamic generation of RMI stub classes introduced with JDK 5 is not currently supported on Fluency. The *rmic* tool must be used.

FLU CLASSLOADER
ENC : RMI server
Y-51 starts ... then fails

Please see

<http://java.sun.com/javase/6/docs/technotes/guides/rmi/relnotes.html>

■. This will be fixed in a future release.

Attempting to integrate the NetBeans profiler with Fluency causes this fatal exception:

```
[primary] Profiler Agent: Initializing...
[primary] Profiler Agent:
Options: >/opt/kabira/run/fluency-dev/deploy/profiler-
server-linuxamd64/lib,5140<
[primary] Profiler Agent: Initialized succesfully
[primary] Error occurred during initialization of VM
[primary] java.lang.IllegalStateException: recursive
invocation
[primary]         at
java.lang.ClassLoader.initSystemClassLoader(ClassLoader.
java:1303)
[primary]         at
java.lang.ClassLoader.getSystemClassLoader(ClassLoader.j
ava:1286)
[primary]         at
java.lang.ClassLoader.defineClass1(Native Method)
[primary]         at
java.lang.ClassLoader.defineClass(ClassLoader.java:620)
[primary]         at
java.security.SecureClassLoader.defineClass(SecureClassL
oader.java:124)
[primary]         at
java.net.URLClassLoader.defineClass(URLClassLoader.java:
260)
[primary]         at
java.net.URLClassLoader.access$000(URLClassLoader.java:5
6)
[primary]         at
java.net.URLClassLoader$1.run(URLClassLoader.java:195)
[primary]         at
java.security.AccessController.doPrivileged(Native
Method)
[primary]         at
java.net.URLClassLoader.findClass(URLClassLoader.java:18
8)
[primary]         at
java.lang.ClassLoader.loadClass(ClassLoader.java:306)
[primary]         at
sun.misc.Launcher$AppClassLoader.loadClass(Launcher.java
:276)
[primary]         at
java.lang.ClassLoader.loadClass(ClassLoader.java:251)
[primary]         at
java.lang.ClassLoader.loadClassInternal(ClassLoader.java
:319)
```

CLASSLOADER
:
FLU java.lang.IllegalSt
ENC ateException:
Y-7 recursive
invocation

```
[primary]          at java.lang.Class.forName0 (Native
Method)
[primary]          at
java.lang.Class.forName (Class.java:247)
[primary]          at
java.lang.SystemClassLoaderAction.run (ClassLoader.java:2
015)
[primary]          at
java.security.AccessController.doPrivileged (Native
Method)
[primary]          at
java.lang.ClassLoader.initSystemClassLoader (ClassLoader.
java:1311)
[primary]          at
java.lang.ClassLoader.getSystemClassLoader (ClassLoader.j
ava:1286)
[primary]
[primary] Current thread is 139832737576688
[primary] Dumping core ...
[primary] Caught fatal signal 6 (Aborted)
[primary] utl_dump_stack: Start of stack trace for pid
10825
```

There is no work-around for this failure.

This issue appears to be a NetBeans profiler issue.