

# ServiceMix NMR 1.0.0

## Overview

ServiceMix NMR 1.0.0 is a brand new JBI container based on OSGi. A lot of work has been done to follow more closely the rules from the JBI 1.0 specification and to have a much better lifecycle processing for various JBI artifacts. A new clustering engine has been developped which allows endpoints to be individually clustered, leveraging the transparent remoting (communications between two endpoints on different JBI containers) but also load-balancing and fail-over. Other features include the backporting of the auditor package from ServiceMix 3, the integration of the transaction manager and a JNDI/OSGi integration.

## Getting the Distributions

### Linux/Mac OS X/Unix Downloads

- [Apache ServiceMix NMR 1.0.0 \(.tar.gz\)](#) PGP SHA MD5
- [Apache ServiceMix NMR 1.0.0 Sources \(.tar.gz\)](#) PGP SHA MD5

### Windows downloads

- [Apache ServiceMix NMR 1.0.0 \(.zip\)](#) PGP SHA MD5
- [Apache ServiceMix NMR 1.0.0 Sources \(.zip\)](#) PGP SHA MD5



#### The above URLs use redirection

The above URLs use the Apache Mirror system to redirect you to a suitable mirror for your download. Some users have experienced issues with some versions of browsers (e.g. some Safari browsers). If the download doesn't seem to work for you from the above URL then try using [FireFox](#)

## Release notes

ServiceMix NMR 1.0.0 is a brand new JBI container based on OSGi. A lot of work has been done to follow more closely the rules from the JBI 1.0 specification and to have a much better lifecycle processing for various JBI artifacts. A new clustering engine has been developped which allows endpoints to be individually clustered, leveraging the transparent remoting (communications between two endpoints on different JBI containers) but also load-balancing and fail-over. Other features include the backporting of the auditor package from ServiceMix 3, the integration of the transaction manager and a JNDI/OSGi integration.

## Migration from ServiceMix 3

Most of the applications developped for ServiceMix 3 can be deployed onto this container, however, due to the OSGi layer underneath, some classloading related issues may arise when migrating an application from ServiceMix 3 because both containers do not behave the same way. Another major change compared to ServiceMix 3 is the changed transactional model which allows the use of transactions for asynchronous exchanges: this change will affect your application if you were leveraging the JCA flow in ServiceMix 3.

## Change log

The following list shows the bug fixes and enhancements included in this release:

- Bug
  - [SMX4NMR-47](#) - A full stack trace is displayed when NPE occurs in the ManagementEndpointRegistry when endpoints are not registered
  - [SMX4NMR-53](#) - Upgrade to kernel 1.1.0
  - [SMX4NMR-54](#) - osgi update command does not stop an endpoint before restarting it
  - [SMX4NMR-57](#) - Exchange.toString() does not include the error
  - [SMX4NMR-58](#) - update spring and spring osgi version used in NMR
  - [SMX4NMR-59](#) - java.lang.IllegalStateException: Alias meta-file does not contain 'ALIAS' attribute: meta:/jbi when try to use jbi shell
  - [SMX4NMR-60](#) - EndpointRegistryImpl is not thread safe
  - [SMX4NMR-61](#) - jbi/list output isn't correct after stop and start jbi deployer bundle
  - [SMX4NMR-70](#) - If an error occurs while dispatching a message, stopping the assembly will wait forever
  - [SMX4NMR-76](#) - When a JBI component is uninstalled, its running state is not remove, which leads to a bad state when re-installing the component
  - [SMX4NMR-77](#) - Uninstalling a bundle for a JBI packaged component does not update the org.apache.servicemix.jbi.management.InstallationService installers
  - [SMX4NMR-78](#) - Uninstalling a bundle for a JBI packaged component does not update the org.apache.servicemix.jbi.management.InstallationService installers
  - [SMX4NMR-79](#) - If the JBI artifact deployed has a MANIFEST.MF which is not the first entry in the jar, it leads to an exception when writing the transformed jar
  - [SMX4NMR-80](#) - Listing of JBI artifacts through ant tasks are not always valid
  - [SMX4NMR-81](#) - Can not deploy a shared library with a class path item equals to ".."
  - [SMX4NMR-82](#) - Once a component has been shut down, restarting it should call Lifecycle#init()
  - [SMX4NMR-83](#) - org.apache.servicemix.specs.jbi-api-1.0 version in the features.xml is not correct

- [SMX4NMR-84](#) - JBI deployer puts component in start state when installed via install-component ant task. (It should be in Shutdown state till start-component is called.)
- [SMX4NMR-88](#) - JBI deployer puts service assembly in start state when installed via deploy-service-assembly ant task. (It should be in Shutdown state) Same holds true for the SU that is deployed as part of the SA.
- [SMX4NMR-90](#) - When shared libraries reference classes inside the zip of the SL, those are not loaded
- [SMX4NMR-97](#) - The JBI components classloader sometime fails to load classes or resources
- [SMX4NMR-99](#) - org.apache.servicemix.jbi.deployer.artifacts.ServiceAssemblyImpl.init() needs to do transition from start state to stop first before shutdown.
- [SMX4NMR-100](#) - org.apache.servicemix.jbi.deployer.impl.ComponentInstaller.uninstall() doesn't call bootstrap.init() and cleanup() which is required as per JBI specs.
- [SMX4NMR-101](#) - The message exchange pattern's URI does not comply with the spec
- [SMX4NMR-104](#) - Each time the OSGi bundle is started / stopped, the JBI artifact is installed / uninstalled
- [SMX4NMR-105](#) - When installing a JBI artifact, the JBI->OSGi deployer sometimes throw a ZipException
- [SMX4NMR-108](#) - Stopping / Starting the OSGi bundle for a service assembly does not restart the SA (the previous running state is lost)
- [SMX4NMR-109](#) - When a component is stopped and restarted, service assemblies are stopped, but not restarted
- [SMX4NMR-110](#) - Starting a service assembly which has a non started component should fail
- [SMX4NMR-115](#) - Do not use spring proxies for tracking endpoints and other NMR lists
- [SMX4NMR-116](#) - Avoid deadlock when shutting down a SA while receiving a sync exchange for it
- [SMX4NMR-117](#) - Refactor the InternalReference to allow references to be serializable
- [SMX4NMR-118](#) - Allow configurable shutdown timeout that ensures that a SA can be stopped by canceling sync requests
- [SMX4NMR-120](#) - Add missing dependencies to assembly pom
- [SMX4NMR-121](#) - JBI components are not able to target NMR endpoints anymore
- [SMX4NMR-122](#) - Wrong TCCL is used when operating service units
- [SMX4NMR-123](#) - When going through the TransactionManager, the TCCL is changed to the transaction manager classloader
- [SMX4NMR-130](#) - Lifecycle issues when using OSGi package service assemblies

• **Improvement**

- [SMX4NMR-55](#) - Ensure a clean shutdown of service assemblies
- [SMX4NMR-62](#) - Use a StringSource instead of a DOMSource when making an exchange rereadable or using copy to ensure it is serializable
- [SMX4NMR-63](#) - Use a static TransformerFactory when converting sources for performance
- [SMX4NMR-64](#) - Use a static converter for speed improvements
- [SMX4NMR-65](#) - Switch the Endpoint.SERVICE\_NAME property value to the string representation of the qname for ease of use
- [SMX4NMR-66](#) - Refactor ServiceEndpoint implementations
- [SMX4NMR-68](#) - Parse interfaces supported by endpoints using the wsdl description
- [SMX4NMR-71](#) - When a component sends a new exchange, the DeliveryChannel should select the NMR channel corresponding to this endpoint instead of the one for the component's endpoint
- [SMX4NMR-72](#) - The ExchangeCompletedListener should only catch done/error exchanges when they are delivered, not sent
- [SMX4NMR-73](#) - Throw an exception when sending a message to a closed channel
- [SMX4NMR-75](#) - Upgrade to xbean 3.5
- [SMX4NMR-85](#) - Improve JBI->OSGi transformation speed
- [SMX4NMR-86](#) - Thread pools created by the EndpointRegistryImpl for ChannelImpl can not be managed / configured
- [SMX4NMR-87](#) - Queues created by ComponentContextImpl for DeliveryChannelImpl can not be managed / configured
- [SMX4NMR-95](#) - Allow the customization of the OSGi manifest when transforming a JBI artifact to an OSGi bundle
- [SMX4NMR-96](#) - The transaction manager given to JBI components should implement RecoverableTransactionManager
- [SMX4NMR-119](#) - Add command completion for jbi lifecycles commands

• **New Feature**

- [SMX4NMR-17](#) - Implement the needed JMX mbeans for deployment / installation / management of JBI artifacts
- [SMX4NMR-18](#) - JBI ant tasks
- [SMX4NMR-20](#) - Implement SA connections
- [SMX4NMR-22](#) - Port the audit feature from ServiceMix 3
- [SMX4NMR-25](#) - JMS clustering
- [SMX4NMR-56](#) - Handle external endpoints
- [SMX4NMR-89](#) - Implement the JBI bootstrap mechanism
- [SMX4NMR-94](#) - JNDI integration
- [SMX4NMR-131](#) - Create interceptor example using EndpointListener from NMR eventing api.

• **Task**

- [SMX4NMR-16](#) - Full JBI 1.0 compatibility
- [SMX4NMR-50](#) - Make sure that shutting down the jbi layer cleanly shuts down all the JBI artifacts deployed (using both JBI and OSGi packaging)
- [SMX4NMR-69](#) - Use managed dependencies instead of specifying the versions in all poms
- [SMX4NMR-74](#) - Change the distribution to include ant tasks and the kernel to have a fully operational minimal jbi container
- [SMX4NMR-91](#) - Create an example showing how to access the NMR from an osgi bundle to send exchanges
- [SMX4NMR-92](#) - Create an example showing how to write an NMR endpoint
- [SMX4NMR-102](#) - Move transactions support from the features project to the NMR
- [SMX4NMR-107](#) - Use EasyMock for mock testing
- [SMX4NMR-111](#) - Make sure the JBI plugin can be used to deploy jbi artifacts onto the NMR

• **Test**

- [SMX4NMR-126](#) - Cluster engine tests fails on Hudson – forked test times out in 60 seconds
- [SMX4NMR-127](#) - ChannelImplTest.testDispatchAsync failed on my box caused by time issue

## Known issues

- [SMX4NMR-128](#) - JBI Cluster Engine unit tests stall intermittently