NASTEL®

Intelligence from Integration

Nastel XRay

Upgrade Guide

Version 1.3 to Version 1.4

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Chapter 1: Prerequisites

The following are requirements before upgrading from version 1.3 to 1.4:

- SU31

- Nastel XRay version 1.3 (you cannot upgrade from version 1.2 to 1.4)

- JobScheduler 0.1.12

  o Requires PostgreSQL or MySQL database

  o Requirements deployment of Job Scheduler expert

- Create backups of the following tables:

  o AccessTokens

  o Organization

  o Teams

  o Repositories

  o Users

  o Volumes

  o Dictionaries

Chapter 2: Upgrade Steps

1. Take a backup of all Solr admin data and repos.

2. Stop Tomcat and jKool service.

3. Transfer **jkool-dbapi-solr-1.4.x.tar.gz** to **/opt/nastel/misc/jkool-dbapi**

4. Untar **jkool-dbapi-solr-1.4.x.tar.gz**

   ```
   cd /opt/nastel/misc/jkool-dbapi
   tar -zxvf jkool-dbapi-solr-1.4.x.tar.gz
   ```

5. Modify link **/opt/nastel/misc/jkool-dbapi/current** to **/opt/nastel/misc/jkool-dbapi/jkool-dbapi-solr-1.4.x**.

6. Make sure that both ZooKeeper and Solr are running. Then run DB upgrade:

   ```
   cd /opt/nastel/misc/jkool-dbapi/jkool-dbapi-solr-1.4.x
   bin/jkool-db-upgrade.sh -version 1.3 -pwd <dbAdminPassword> -sh
   <solrhost> -zh <zookeeperhost> -zr solr
   ```

7. Upgrade Autopilot and jKool Services (on every node in a multi-node cluster).

   Stop the Domain Server.

   ```
   cd [AUTOPILOT_HOME]/updates

   [AUTOPILOT_HOME]/bin/pkgman

   [AUTOPILOT_HOME]/updates/AP60_SU31.pkg
   ```

   Start the Domain Server to allow libraries to be updated properly. Then stop it.

   ```
   [AUTOPILOT_HOME]/bin/pkgman [AUTOPILOT_HOME]/updates/JOB_SCHEDULER-
   0.1.12.pkg
   ```

   As in the previous step, start the Domain Server again to allow libraries to be updated properly. Then stop it.

   ```
   [AUTOPILOT_HOME]/bin/pkgman [AUTOPILOT_HOME]/updates/JKOOL_SERVICE-
   1.4.x.pkg
   ```

   As in the previous step, start the Domain Server again to allow libraries to be updated properly. Then stop it.

8. Make sure that both ZooKeeper and Kafka are running. Run the create-kafka-topics script:

   ```
   [AUTOPILOT_HOME]/jkool/scripts/create-kafka-topics.sh
   ```

9. Start the Domain and CEP servers. Then log into Nastel AutoPilot Enterprise Manager to confirm that the service has been installed successfully. Once confirmed, log out.

10. After updating jKool service to 1.4.x, add the following property in global.properties (on every node in a multi-node cluster):

    ```
    property jkool.install.dir={autopilot.home}jkool
    ```

11. Once 1.4 is installed, start the CEP Server.

    In the CEP Enterprise Manager, deploy the following new jKool experts:

a. Stitching Service: In CEP Enterprise Manager, go to **Deploy Expert** > **jKool** > **Stitching Service**. This service used to be part of Compute Service, but it was moved to its own expert.

b. Script Service: In CEP Enterprise Manager, go to **Deploy Expert** > **jKool** > **Script Service**. This is a new service for running jKool/Xray scripts (stored procedures).

c. Scheduler Service: Go to **Deploy Expert** > **Job Scheduler** > **Job Scheduler Service**

12. Replace **xray.war** and **jkool-service.war** to **[*AUTOPILOT_HOME*]/apache-tomcat/webapps**

13. Delete **xray** and **jkool-service** folders under **[*AUTOPILOT_HOME*]/apache-tomcat/webapps**

14. Start Tomcat.

Chapter 3: After Upgrade

Perform the below steps once 1.4 is installed.

1. Deploy new Job Scheduler expert if not already deployed. Nastel XRay uses the Job Scheduler Expert in the background for scheduling.

   a. Go to **Deploy Expert** > **Job Scheduler** > **Job Scheduler Service**

   > 📝 **NOTE**
   > See the article, *How do I use the Job Scheduler Expert with Nastel XRay?*, for instructions on how to install the Job Scheduler Expert.

2. Deploy the new jKool experts, Query and Scheduler services. In the CEP Enterprise Manager:

   a. Go to **Deploy Expert** > **jKool** > **Query Service**. Previously this was part of Client Service, but it has been moved to its own expert.

   b. Go to **Deploy Expert** > **jKool** > **Scheduler Service**. This is needed for using Views.

3. The upgrade will define a new property, **fatpipes.infinispan.tag**, in the **global.properties** file. It is used to identify which Infinispan cluster to join. Each independent installation needs a unique value for this, otherwise distributed caches will conflict. The recommended value is **jKool-<host>**, where *<host>* represents the name of the host that is running the Domain Server.

4. If you were running Storm topologies in the previous XRay version, restart it.

3.1 Updating Python code and dependencies

When Nastel releases new versions of Python, a jKoolMLPython-<version>.zip file will be provided.

1. Unzip jKoolMLPython-<version>.zip into the /opt/nastel/ml directory.
2. If python dependencies require updating, you will be provided with a new .yml file. To update the environment, issue the following commands:

```
conda deactivate

conda env update –name <path to the environment directory> --file <yaml file>

conda activate <path to the environment directory>
```