

# **Learning Series - How to record JDBC Transactions of Enterprise Dashboard and Virtualize the same using DevTest Broker**

Service Virtualization Engineering

Exported on Oct 10, 2022

## Table of Contents

No table of contents entries found.

DevTest Broker provides an Java Agent using which you record JDBC transactions done from Enterprise Dashboard and convert it into a virtual service.

#### TESTED WITH: 10.4

#### Pre-Requisites:

DevTest Broker should be up and running. Check pfbroker.log and make sure there are no problems in starting this service.

#### Setting Up Java Instrumentation Agent for ED & IAM

Add the line below to LISA\_HOME/bin/EnterpriseDashboard.vmoptions  
or LISA\_HOME\bin\EnterpriseDashboardService.vmoptions

-

javaagent:C:\Progra~1\CA\DevTest\agent\InsightAgent.jar=url=[tcp://localhost:2009](http://localhost:2009),name=[DRADIS](#)

Here; url refers to the URL of DevTest Broker. Name can be any descriptive identifier. You would find its usage later in the article

It is very important to follow the same syntax as shown above. Using folder names with space or using double quotes may lead to startup failure of ED

Start ED from command prompt from LISA\_HOME\bin, run the command **EnterpriseDashboard.exe** or start it from Windows Services

For IAM, add the following entry to file C:\Program Files\CA\DevTest\IdentityAccessManager\bin\standalone.bat

set "JAVA\_OPTS=-[Dprogram.name](#)=%PROGNAME% -javaagent:"C:\Program Files\CA\DevTest\agent\InsightAgent.jar"=url=[tcp://localhost:2009](http://localhost:2009),name=[IAMCL](#) %JAVA\_OPTS%"

In case of IAM, you can start IAM from windows services

NOTE: Trying to use javagent with Registry fails to start registry.

#### Checking If ED is Connected to Broker

As soon as ED starts, it connects to the broker. There are 5 different ways this can be confirmed.

#### Method 1 - Checking pfbroker log file

```
[DevTest AGENT:BC][INFO][7468][183][ActiveMQ Session Task][Jan 23, 2020 7:56:55 PM]
Agent online: [ID: 69429598][NAME: IAMCL][IP: 169.254.92.143][MC:
org.jboss.modules.Main][PID: 9132]
[DevTest AGENT:BC][INFO][7468][183][ActiveMQ Session Task][Jan 23, 2020 7:57:24 PM]
Agent online: [ID: 2024515099][NAME: DRADIS][IP: 169.254.92.143][MC:
com.install4j.runtime.launcher.WinLauncher][PID: 18332]
```

In this case, I have set javaagent property to both ED and IAM.

Whenever the process that was set with javaagent stops, you would see an entry similar to the one shown below in pfbroker.log file

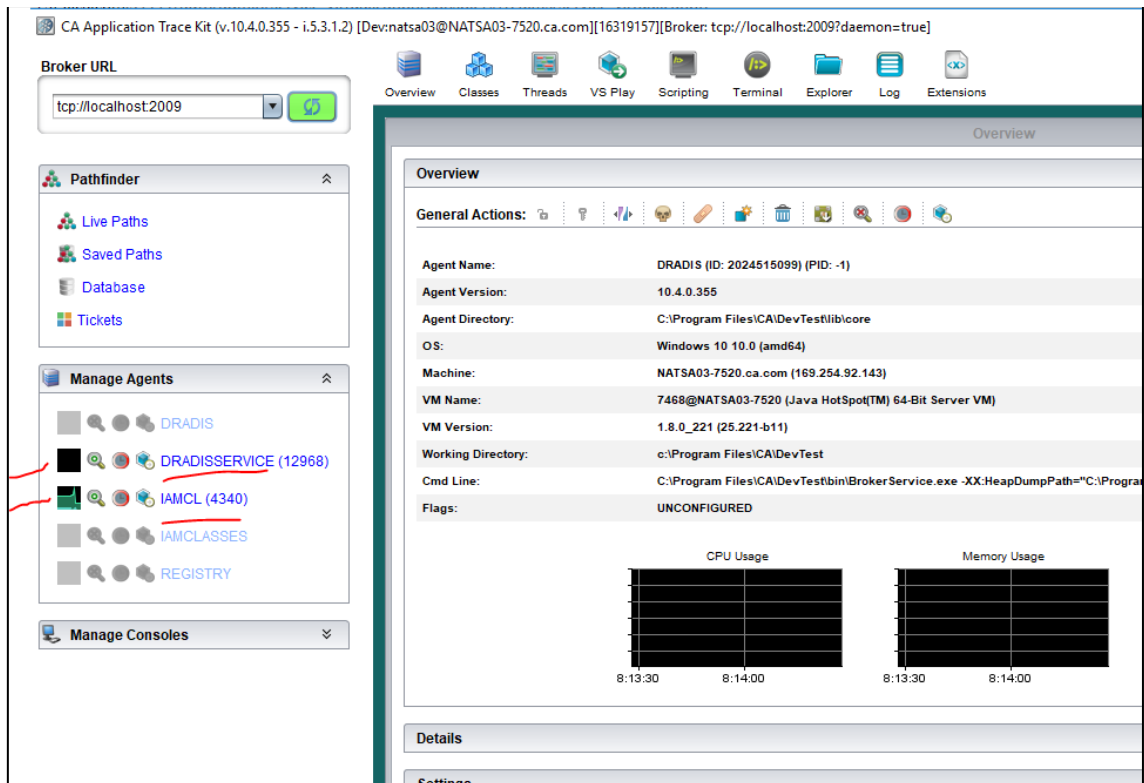
**Agent offline:** [ID: 69429598][NAME: **IAMCL**][IP: 169.254.92.143][MC: org.jboss.modules.Main][PID: 9132]

#### Method 2 - From ATK (Agent Tool Kit Tool)

This is a simple UI tool to show agents (yes, any process that has the javaagent configured is called as agent)

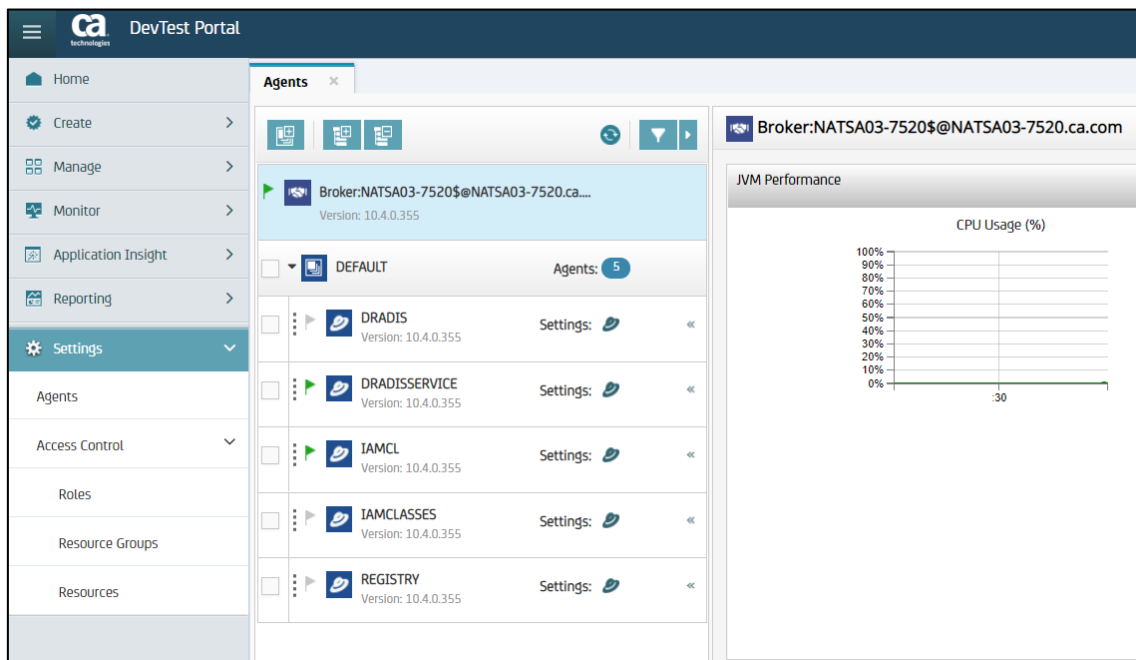
Launch atk.exe from LISA\_HOME\bin folder and you should be able to see the ONLINE agents

## Service Virtualization Engineering – Learning Series - How to record JDBC Transactions of Enterprise Dashboard and Virtualize the same using DevTest Broker ?



### Method 3 - From Portal (Yes)

Just login to Portal and go to Settings -> Agents as shown below. It shows active as well as inactive agents.



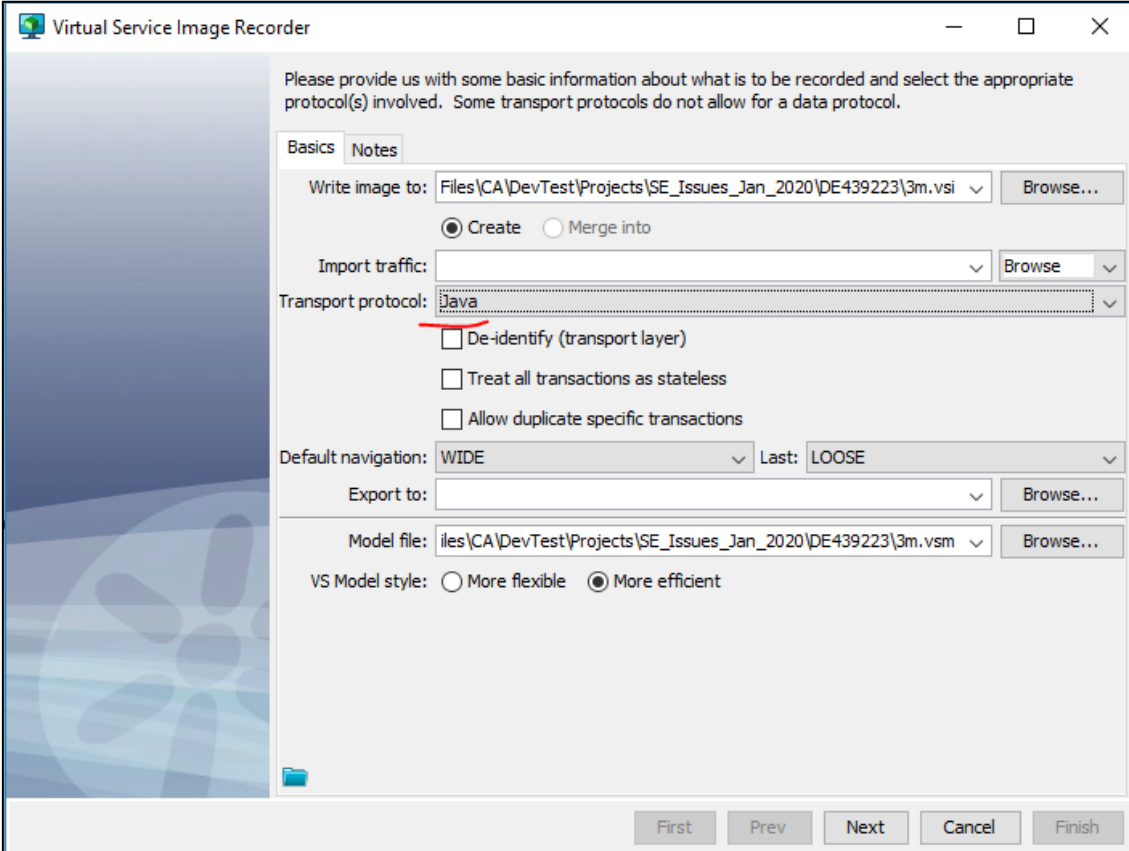
### Method 4 - Using PF Invoke API

<http://localhost:1505/lisa-pathfinder-invoke/api/v1/agents>

**NOTE:** This is what the portal uses internally

### **Method 5 - Using Workstation**

Created a VS by recording. Choose java as protocol.

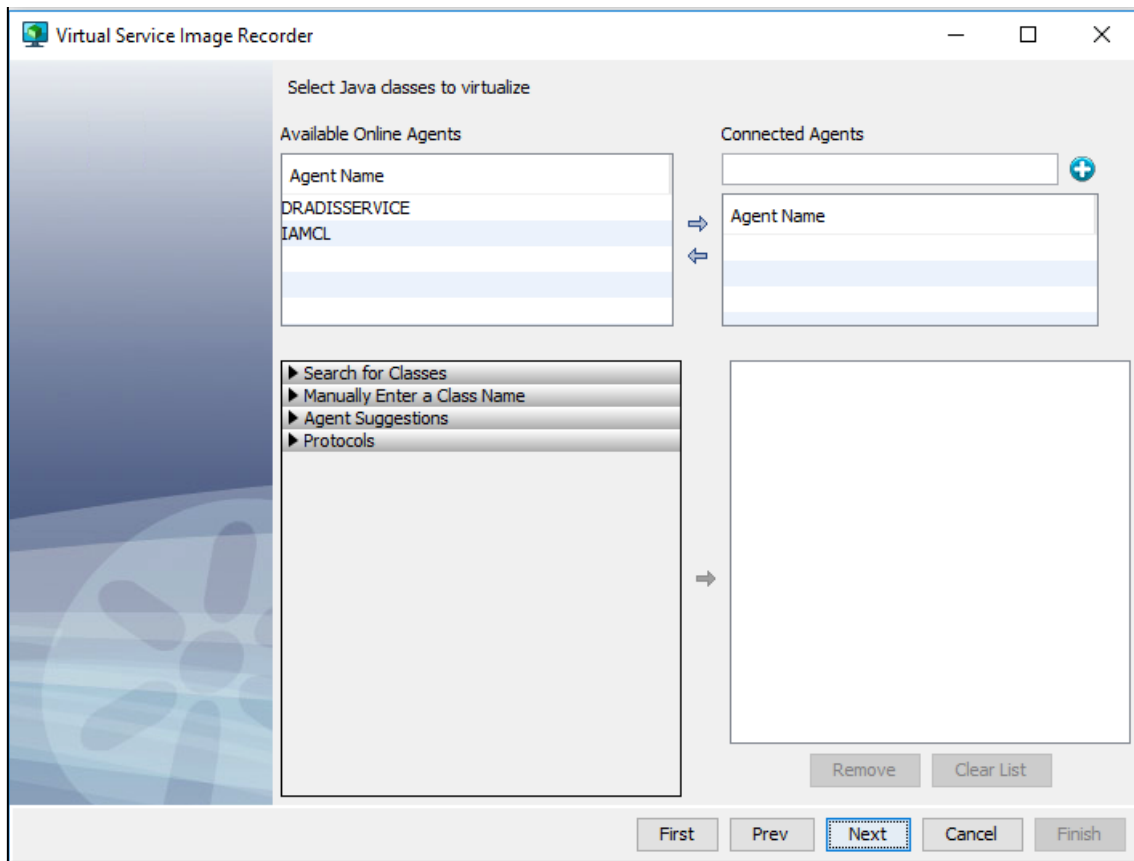


The screenshot shows the 'Virtual Service Image Recorder' window. It has a 'Basics' tab selected. The window contains the following fields and options:

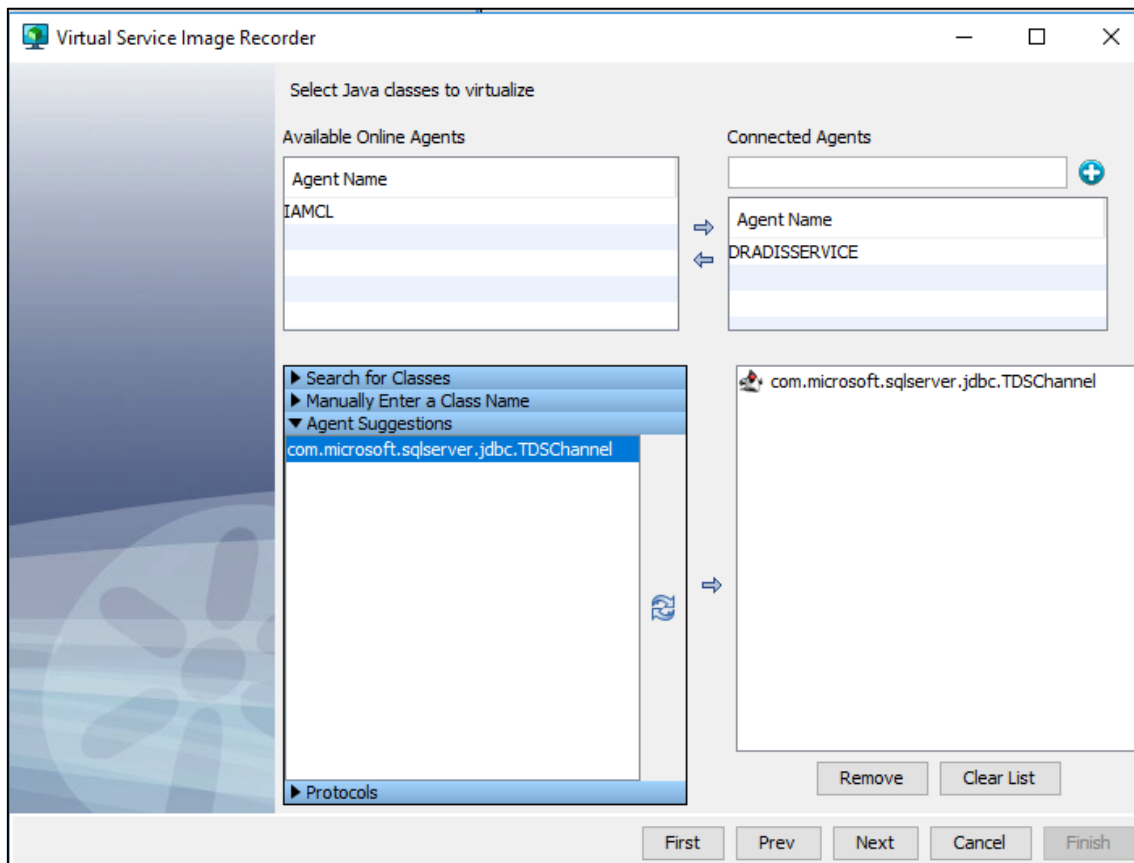
- Write image to:** Files\CA\DevTest\Projects\SE\_Issues\_Jan\_2020\DE439223\3m.vsi (with a 'Browse...' button)
- Import traffic:** (empty dropdown with a 'Browse' button)
- Transport protocol:** Java (dropdown menu, with a red line under the text)
- ☐ De-identify (transport layer)
- ☐ Treat all transactions as stateless
- ☐ Allow duplicate specific transactions
- Default navigation:** WIDE (dropdown) **Last:** LOOSE (dropdown)
- Export to:** (empty dropdown with a 'Browse...' button)
- Model file:** iles\CA\DevTest\Projects\SE\_Issues\_Jan\_2020\DE439223\3m.vsm (with a 'Browse...' button)
- VS Model style:** ☐ More flexible ☒ More efficient

At the bottom, there are navigation buttons: First, Prev, Next, Cancel, and Finish.

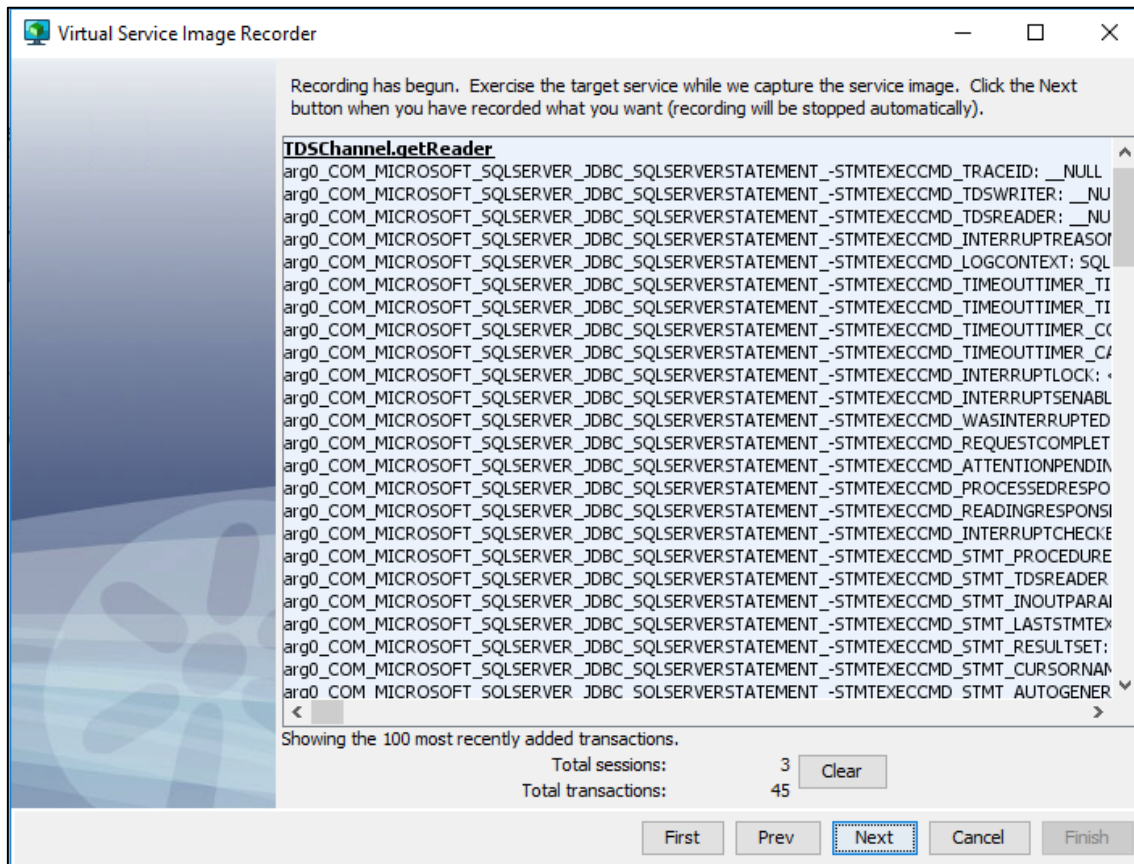
You would see online agents appear in next screen



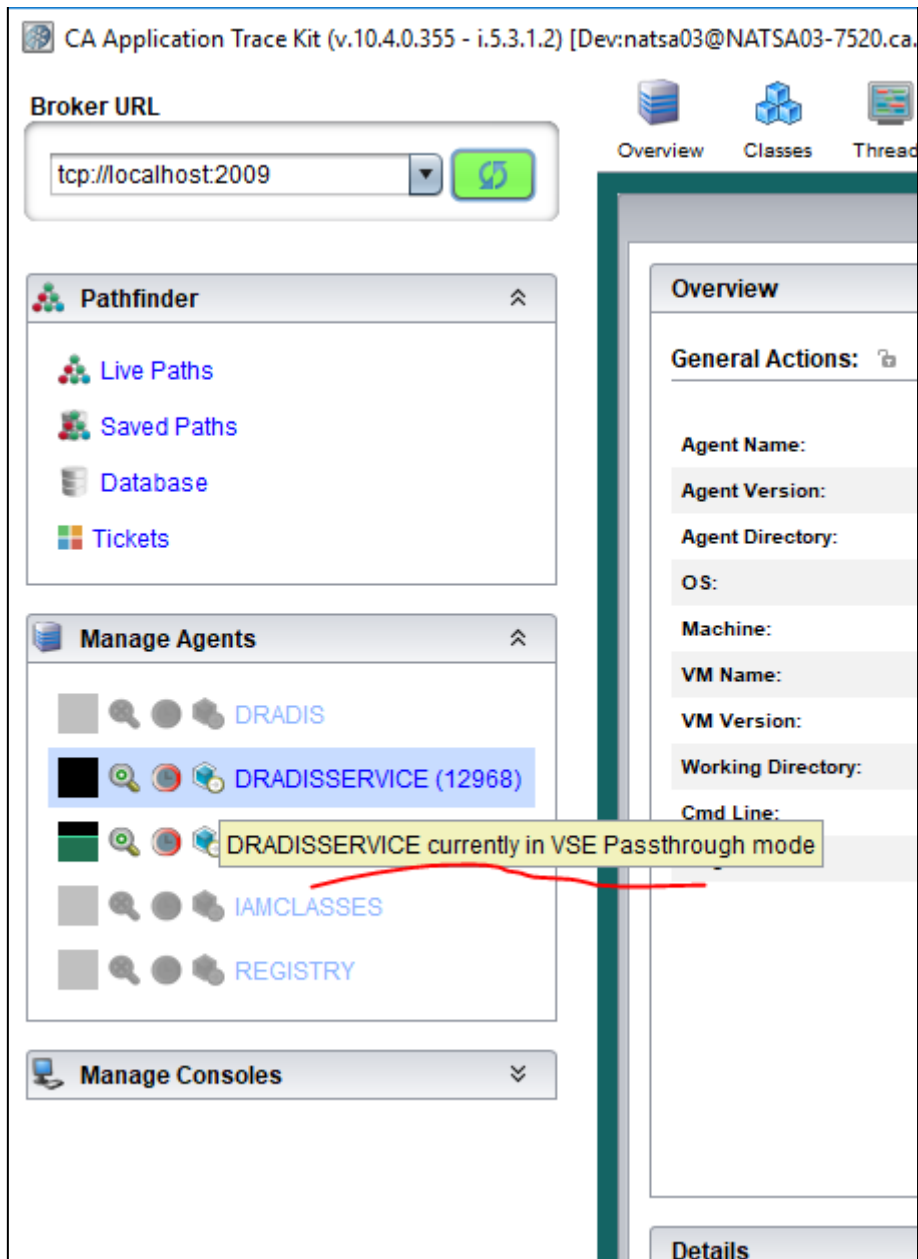
Choose agent, move it to right and choose class from 'Agent Suggestions'



In the next screen you would see JDBC traffic being captured and you can move further and finish the VS



**Now that you have just done the recording and the VS not deployed, you would be able to see that the agent is in passthrough mode in ATK**



As soon as you deploy the VS that was recorded, you would see that the status of agent changes to PLAYBACK mode



