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## IBM Tivoli Composite Application Manager for Application Diagnostics V7.1.0

### Upgrading a Tivoli Composite Application Manager for J2EE Agent to V7.1.1.0

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This presentation explains the steps for upgrading a Tivoli Composite Application Manager for J2EE agent to V7.1.1.

## Assumptions

This presentation assumes that you have these skills and knowledge:

- Familiarity with ITCAM for Application Diagnostics, including Data Collector and TEMA
- Basic skills on the Oracle/BEA WebLogic application server and its directory structure
  - WebLogic is one of several supported application servers
  - WebLogic is used as an example in this presentation
- Familiarity with the Windows® operating system (you can easily adapt the instructions to a supported Linux®/UNIX® operating system)

This presentation assumes that you are familiar with ITCAM for Application Diagnostics, including Data Collector and TEMA. And it assumes that you have basic skills on the Oracle/BEA WebLogic application server and its directory structure. WebLogic is used as an example in this presentation. It is one of several supported application servers. The examples in this presentation are shown on a Windows operating system. But you can easily adapt the instructions to any supported Linux or UNIX operating system.

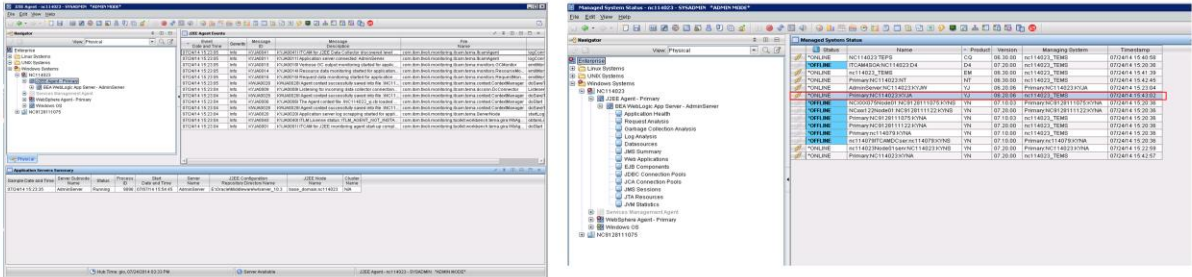
## Objectives

- After you complete this module, you are able to upgrade an ITCAM for J2EE V6 agent to V7.1.1
- Steps are shown for an Oracle/BEA WebLogic application server; but equivalent steps apply to the other supported application servers

After you complete this module, you can upgrade an ITCAM for J2EE V6 agent to V7.1.1. This presentation shows the steps for an agent that is monitoring an Oracle/BEA WebLogic application server. But equivalent steps apply to the other supported application servers.

## Initial state

- You have a working ITCAM for Application Diagnostics V6.1 or 6.2 solution that is monitoring a WebLogic application server
- The monitored application server and related data can be seen in the Tivoli Enterprise Portal console
- In this example, these components are installed on a Windows server:
  - Oracle/BEA WebLogic V10.3.6 application server
  - ITCAM for Application Diagnostics Data Collector (DC) V6.1.0.6.4 for WebLogic
  - ITCAM for J2EE monitoring agent (TEMA) V6.1.0.6.5
  - Tivoli Monitoring V6.3.0.0 infrastructure components



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You start from a working ITCAM for Application Diagnostics V6 solution that is monitoring a WebLogic application server. The monitored application server and related data can be seen in the Tivoli Enterprise Portal console. The environmental details of the ITCAM, Tivoli Monitoring, and WebLogic components are listed on this slide.

## Considerations before an upgrade

- Java™ 7 is supported, starting in the ITCAM for J2EE agent V7.1.1.0
- These application servers/J2SE applications are supported by ITCAM for J2EE agent V7.1.1.0:
  - Apache Tomcat V4, 5, 6, 7
  - JBoss v3, 4, 5
  - Oracle WebLogic Server V9, 10, 12; Oracle WebLogic Portal Server V9 and 10
  - SAP NetWeaver V7.0 (2004s), 7.1, 7.3, 7.4
  - J2SE applications
- These application servers are not supported by the ITCAM for J2EE agent V7.1.1.0; you must still use V6.1 to monitor them:
  - Oracle/BEA Application Server (not WebLogic)
  - Sun JSAS
  - WebSphere® Application Server Community Edition
- ITCAM for J2EE agent V7.1.1.0 requires Tivoli Monitoring V6.2.3 Fixpack 4 and later (including V6.3)
- If you use Managing Server to see deep-dive diagnostics data, the minimum Managing Server version that is needed to support Java 7 is V7.1 Fixpack 3 interim fix 7

Before you start the upgrade process, make sure that the combination of the application server and its Java types and versions, the Tivoli Monitoring components, and the operating system are supported by the ITCAM for J2EE agent V7.1.1.

A new feature in V7.1.1 is that Java 7 is now officially supported. Also, support for WebLogic v12 is new in this release. A list of the currently supported application servers is shown here.

Some application servers are no longer supported in the ITCAM for J2EE agent V7.1.1. You will have to continue to use the V6 agent to monitor them.

The ITCAM for J2EE agent V7.1.1 requires Tivoli Monitoring V6.2.3 Fixpack 4 or later. If you use Managing Server to see deep-dive diagnostics data, the minimum Managing Server version that is needed to support Java 7 is V7.1 Fixpack 3 interim fix 7.

## Getting the installation images

- Previous versions of the ITCAM for J2EE agent had two components:
  - ITCAM Agent for J2EE Monitoring Agent (Tivoli Monitoring Infrastructure, also known as J2EE TEMA Agent)
  - ITCAM Agent for J2EE Data Collector (non-Tivoli Monitoring Infrastructure)
- ITCAM for J2EE agent V7.1.1.0 bundles TEMA and Data Collector together in the same installation image
- Identical installation images are available on both Fix Central and Passport Advantage®
  - ITCAM for J2EE agent V7.1.1.0 Refresh Pack 1 installation images are available on Fix Central. In this example (Windows), this image is downloaded: **7.1.1-TIV-ITCAM\_J2EE-Windows-RP001**
  - ITCAM for J2EE agent V7.1.1.0 installation images are also available on Passport Advantage as part of the ITCAM for Applications V7.2.1.1 e-Assembly. See this technote for the part numbers corresponding to the supported platform you need: <http://www-01.ibm.com/support/docview.wss?uid=swg21679593>

Previous versions of the ITCAM for J2EE agent had separate installation images for TEMA and Data Collector. In V7.1.1, the ITCAM for J2EE agent bundles TEMA and Data Collector together in a single installation image. Identical installation images are available on both Fix Central and Passport Advantage. On this slide are the names of the installation images, where to get them, and the part numbers on the Passport Advantage site.

## Overview of the upgrade process

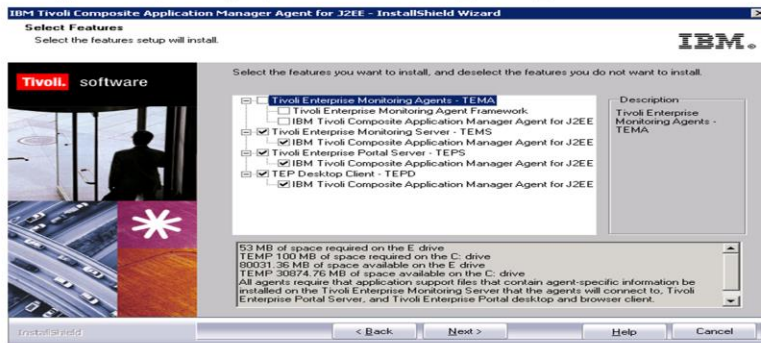
To upgrade the ITCAM for J2EE agent from V6 to V7.1.1.0, perform these actions in this order:

1. Install the ITCAM for J2EE agent V7.1.1.0 support files in your TEMS/TEPS/TEP environment
2. Unconfigure the V6.1 ITCAM for J2EE agent Data Collector for the monitored application server
3. Run the ITCAM for J2EE agent V7.1.1.0 installer in your V6 TEMA environment
4. Configure ITCAM for J2EE agent V7.1.1.0 TEMA
5. Configure ITCAM for J2EE agent V7.1.1.0 Data Collector

To upgrade your ITCAM for J2EE monitoring agent from V6 to V7.1.1, use this sequence of actions. First, install the ITCAM for J2EE agent V7.1.1.0 support files in the Tivoli Monitoring environment. Second, unconfigure the V6.1 ITCAM for J2EE agent Data Collector for the monitored application server. Third, run the ITCAM for J2EE agent V7.1.1.0 installer in your V6 TEMA environment. Finally, configure the ITCAM for J2EE agent V7.1.1.0 TEMA and Data Collector.

## Step one: install the Tivoli Monitoring support files

- Install ITCAM for J2EE agent V7.1.1.0 support files in TEMS/TEPS/TEP environment
- This step is needed because ITCAM for J2EE agent V7.1.1.0 does not support automatic seeding (SDA)
- ITCAM for J2EE agent V7.1.1.0 support files are available in both of these packages:
  - The agent installation image (7.1.1-TIV-ITCAM\_J2EE\_ITM-RP001 on Fix Central)
  - A separate support file package (7.1.1-TIV-ITCAM\_J2EE\_ITM-RP001 on Fix Central)



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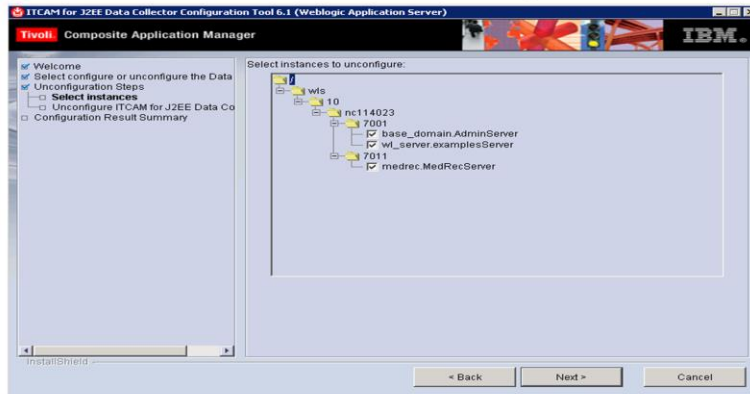
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The next few slides show the upgrade steps in more detail. First, you must install the ITCAM for J2EE agent V7.1.1.0 support files in your Tivoli Monitoring environment. This step is needed because ITCAM for J2EE agent V7.1.1.0 does not support automatic seeding. The ITCAM for J2EE agent V7.1.1.0 Tivoli Monitoring support files are available in both the agent installation image and in a separate support file package.



## Step two: unconfigure Data Collector V6.1

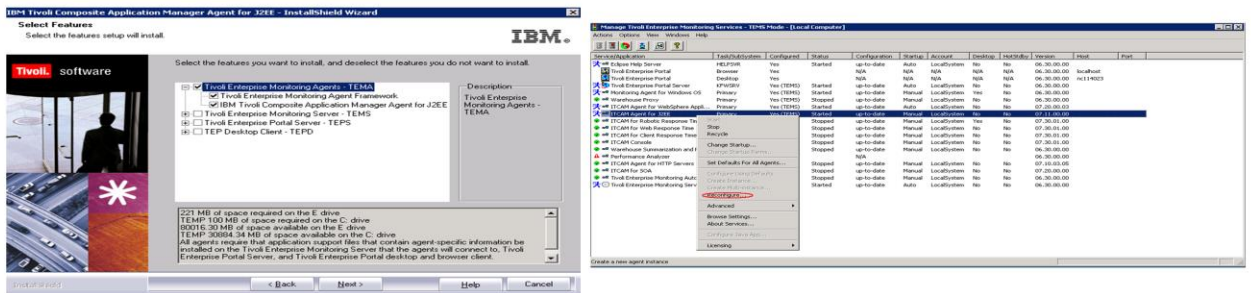
- Unconfigure the V6.1 ITCAM for J2EE agent Data Collector for the previously instrumented application servers (WebLogic in this example)
- You must use the unconfiguration tool in V6.1 Data Collector to perform this task
- Restart the application servers after Data Collector unconfiguration



The second step is to unconfigure the V6.1 ITCAM for J2EE agent Data Collector for the previously instrumented application servers. You must use the unconfiguration tool in the V6.1 Data Collector to perform this task. Restart the application servers after the Data Collector is unconfigured.

## Step three: install the ITCAM for J2EE agent V7.1.1.0

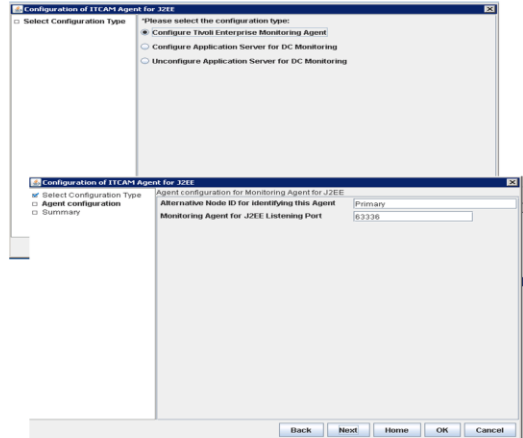
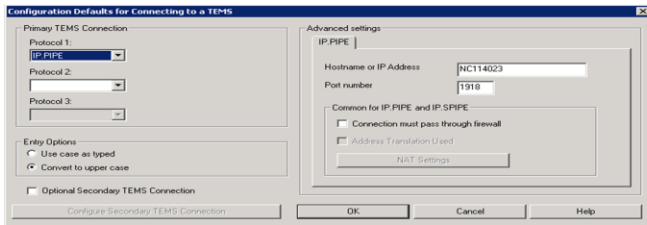
- Run the ITCAM for J2EE agent V7.1.1.0 installer in your V6 TEMA environment and complete the installation
- The agent GUI configurator is automatically started at the end of the installation; but you can also start it later from the MTEMS



The third step is to install the ITCAM for J2EE agent V7.1.1.0. Run the installer in the V6 TEMA environment and complete the installation. The agent GUI configurator is automatically started at the end of the installation; but you can also start it later, as shown in the screen capture.

## Step four: configure ITCAM for J2EE agent V7.1.1.0 TEMA

- Enter configuration information for the connection to Tivoli Enterprise Monitoring Server
- Specify the value 63336 for the J2EE agent listening port



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Upgrading a Tivoli Composite Application Manager for J2EE Agent to V7.1.1.0

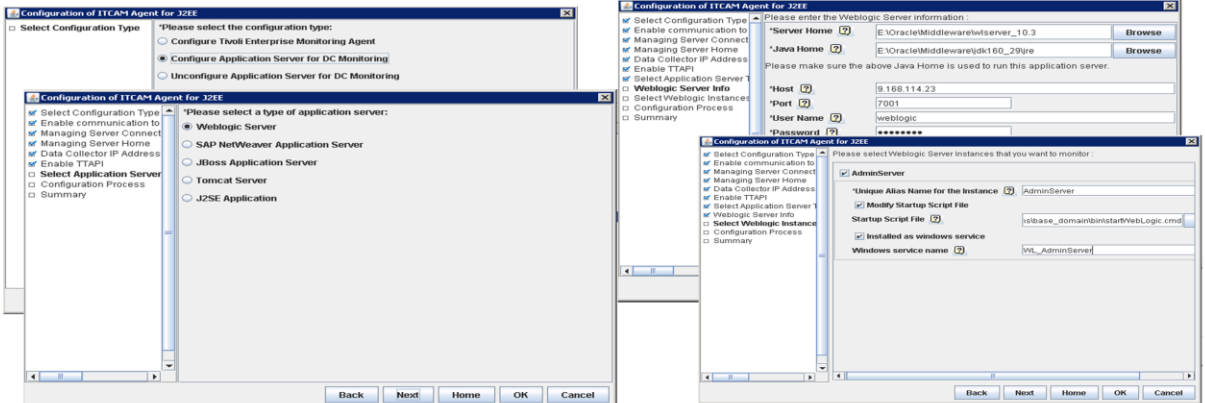
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The fourth step is to configure V7.1.1.0 TEMA. You must first enter configuration information for the connection to Tivoli Enterprise Monitoring Server. Then, set the TEMA alternative node name and listening port.

Use the value 63336 for the TEMA listening port.

## Step five: configure ITCAM for J2EE agent V7.1.1.0 Data Collector

- Go through the configurator screens and enter all of the requested information
- Select the application server type and enter the information that is specific to your application server
- Restart the application server after the Data Collector configuration



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Finally, configure Data Collector V7.1.1.0 for the application server to be monitored, a WebLogic application server in this example. Go through the configurator screens and enter all of the requested information. In particular, select the application server type and enter all of the required information that is specific to your application server. You must restart the application server after the Data Collector configuration.

## Verify that the upgrade completed successfully

- In the Tivoli Enterprise Portal navigation tree, check that the application server is running and data is displayed on related workspaces
- If Managing Server communication is enabled, check that the J2EE data collector is also listed in Managing Server Visualization Engine (VE)
- If J2EE Data Collector cannot connect to TEMA, make sure that the TEMA listening port that is defined in DC\_HOME/runtime/<app server instance>/kwjdc.properties is the same as the TEMA listening port configuration value: **com.ibm.tivoli.kwj.agentport=63336**
- For troubleshooting J2EE agent configurator issues (on Windows, in this example), look in these files:
  - itcam\_config.log and itcam\_config.trc in <ITM\_HOME>\TMAITM6\j2eedc\7.1.1.0.0\installer\logs\
  - installRAS.log and installRAS.trc in <ITM\_HOME>\TMAITM6\logs\

At this point, the upgrade process is complete. You can verify that everything is working as expected by looking in the Tivoli Enterprise Portal navigation tree and checking to ensure that the application server is displayed as running and its data is shown in the related workspaces. If Managing Server communication is enabled, also check that the J2EE Data Collector is listed in Managing Server Visualization Engine.

If J2EE Data Collector cannot connect to TEMA, make sure that the TEMA listening port that is defined in the Data Collector properties file matches the port that you entered during TEMA configuration. For troubleshooting J2EE agent configurator issues, look in the log and trace files. The file names and paths on Windows are provided here.

## Summary

- Now that you completed this module, you can upgrade an ITCAM for J2EE agent from V6.1 or 6.2 to V7.1.1.
- You saw the steps for an Oracle/BEA WebLogic application server; but equivalent steps apply to the other supported application servers

Now that you completed this module, you are able to upgrade an ITCAM for J2EE agent from V6 to V7.1.1. You saw the steps for a WebLogic application server; but equivalent steps apply to the other supported application servers.

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