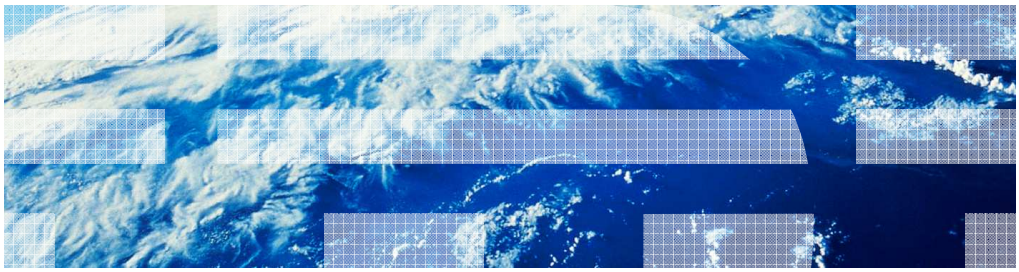
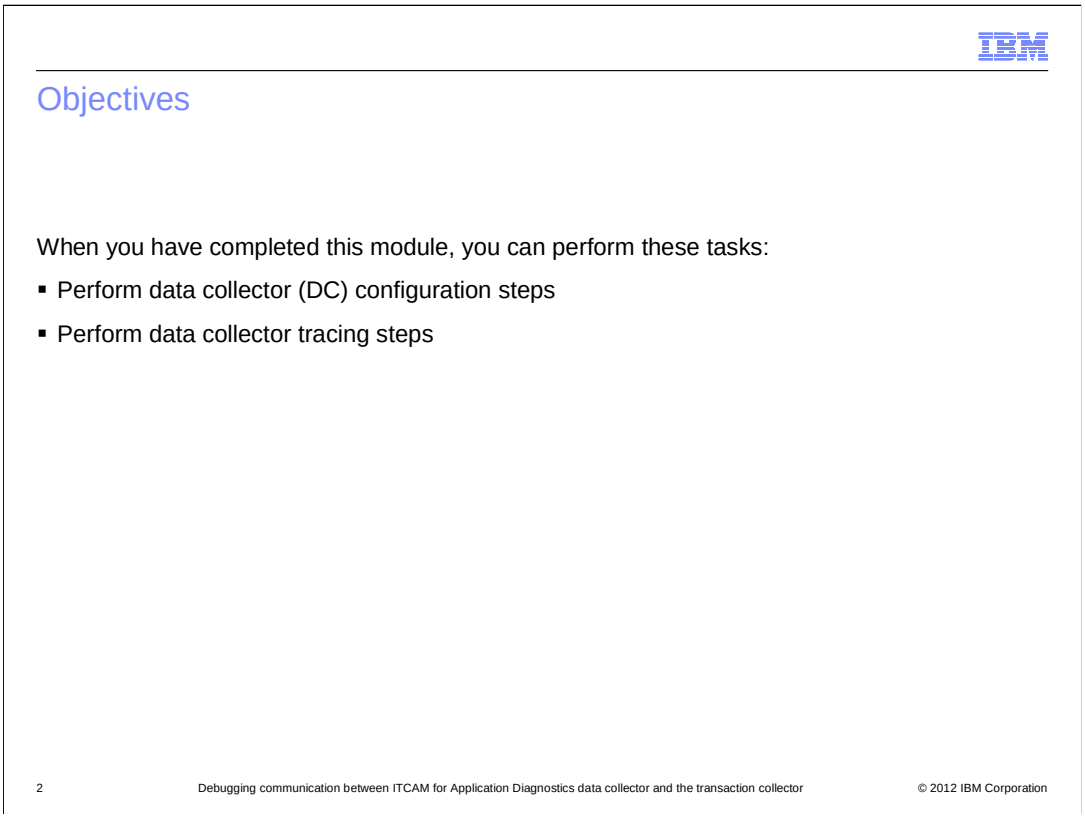
IBM Tivoli Composite Application Manager for Application Diagnostics V7.1

Debugging communication between ITCAM for Application Diagnostics data collector and the transaction collector



IBM Tivoli® Composite Application Manager for Application Diagnostics V7.1, Debugging communication between the Tivoli Composite Application Manager for Application Diagnostics Data Collector and the Transaction Collector.



When you have completed this module, you can perform Data Collector configuration and Data Collector tracing steps.

Outline

- Which application does what
- Data collector configuration steps
- Data collector tracing steps

The products used here are Tivoli Composite Application Manager for Transaction Tracking and Tivoli Composite Application Manager for Application Diagnostics V7.1 or Tivoli Composite Application Manager for WebSphere® V6.1. The steps are meant for Tivoli Composite Application Manager for Application Diagnostics V7.1. They also work for Tivoli Composite Application Manager for WebSphere Application Server V6.1, although the directory paths are different for that version. The configuration and tracing steps described in the next slides are meant to be done on the Data Collector.

Which application does what

- **Tivoli Composite Application Manager for Transactions Tracking** provides reports on web transaction propagation across the hops (horizontal view)
- **Tivoli Composite Application Manager for Application Diagnostics and WebShere Application Server** provide in-depth data
  - Example: resources and trace data for transactions processed in the hop (vertical view)
- **Transaction Tracking Application Programming Interface (TTAPI)** bridges the products so that it is possible to see how the transactions hop between servers, and in each hop, how the transaction is started by providing deep-dive data

The following two products are used, each performing its own functions to view and analyze transactions. Tivoli Composite Application Manager for Transactions Tracking provides a horizontal view and Tivoli Composite Application Manager for Application Diagnostics provides a vertical view. The Transaction Tracking Application Programming Interface (TTAPI) is the process that bridges the two products so transactions can be seen in both horizontal and vertical views.

Data collector configuration steps (1 of 2)

Step 1: Location of the Tivoli Composite Application Manager for Transaction Collector
- Identify the system where the Transaction Collector is installed and running. You must know the host system name for input later.

Step 2: Check TTAPI configuration
- cd to the **$DC_HOME\<version>\runtime\<was.node.svr>\custom** folder
- Open the **toolkit_custom.properties** file in any editor
- Look for these lines, if missing add them:
  com.ibm.tivoli.itcam.dc.ttapi.enable=true
  com.ibm.tivoli.itcam.dc.ttapi.ttas.transport=tcp:<ip_addr>:5455
  (where <ip_addr> is the IP address of the system identified in step 1)

Step 3: Confirm basic network connectivity
- Telnet from the DC to the TT system identified in step 1 on port 5455
  telnet <TT-system> 5455
- If successful, a blank screen displays
- If unsuccessful, a timeout or error message displays

These are the steps to configure or enable the Tivoli Composite Application Manager for Application Diagnostics Data Collector to send data to the Tivoli Composite Application Manager for Transactions Tracking Transaction Collector component. Perform each step carefully, verify the port number in step two, and, if used, in step three. The Transaction Collector port is 5455 and should be available and listening on the system identified in step one.

Data collector configuration steps (2 of 2)

- Step 4: Check TTAPI libraries
  - The **dc.java.properties** file should contain an entry with the path to the ttapi directory
    - Example:
      native.lib.path=C:/IBM/ITM/TMAITM6/wasdc/7.1/toolkit/lib/win32;C:/IBM/ITM/TMAITM6/wasdc/7.1.0.2/toolkit/lib/win32/ttapi
  - The **server.xml** file should contain an entry with a reference to the ttapi library being used.
    - UNIX® example:
      Djava.library.path=/websphere/admin/lib/mma:/opt/ITCAMDC/sol293/yn/wasdc/7.1.0.2/toolkit/lib/sol293/ttapi
    - UNIX example:
      native.lib.path=C:/IBM/ITM/TMAITM6/wasdc/7.1.0.2/toolkit/lib/win32;C:/IBM/ITM/TMAITM6/wasdc/7.1.0.2/toolkit/lib/win32/ttapi

The TTAPI libraries are defined in the **dc.java.properties** and the **server.xml** files. The **dc.java.properties** file is located in the **runtime** directory of the Data Collector. The **server.xml** file is located under the WebSphere configuration directory. In both these files, check the references to the Transaction Tracking Application Programming Interface (TTAPI) libraries being used. If they are missing, the communication between the Data Collector and the Transaction Collector fails.

Tracing steps

Step 5: Enable the trace for TTAPI integration
- Trace the TTAPI and DC integration and put all the tracing information in a log file
- To do that, perform these steps:
  1. Open the file **$DC_HOME/runtime/<was.node.server>/cynlogging.properties**
  2. Add these two lines:

```
#ttapi tracing
CYN.trc.shared.datacollector.ttapi.TTAPIUtil.level=DEBUG_MAX
CYN.trc.shared.datacollector.ttapi.TTAPIUtil.logging=true
```

  3. Save and exit the file
  4. Restart the WebSphere Application Server

Step 6: Collect the trace log
- The default trace log is written to this directory:
- **$DC_HOME/logs/CYN/logs** directory (for a V7.1 system)
- Compress this log file and when asked, send it to the IBM support team

If you have configured the Data Collector to communicate to the Transaction Collector correctly, and it still fails, then you might want to turn on tracing. Follow the steps listed to enable tracing.

Note: You must stop and start the WebSphere Application Server to get the trace log file.

For a Version 7.1 system, by default, the trace log file is in the **$DC_HOME/logs/CYN/logs** directory.

Compress this log and send it to the IBM support team or attach it to your problem management record (PMR). In addition to this file, run the Data Collector **cyn_collector.sh** script and send the output file the script creates. The IBM support team reviews the script and gets back to you with the next steps.

Summary

Now that you completed this module, you can perform these tasks:

- Perform data collector configuration steps
- Perform data collector tracing steps

Now that you have completed this module, you can perform Data Collector configuration and Data Collector tracing steps.

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