IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS

Version 1.1

Quick Start Guide

Get started with a typical installation for InfoSphere Optim Query Capture and Replay for DB2 on z/OS.

Product overview

InfoSphere® Optim™ Query Capture and Replay for DB2 on z/OS® is built on the IBM® InfoSphere Guardium® platform, and provides the ability to capture workloads, and to replay the captured workloads to analyze and compare the accuracy and execution time of the replayed SQL statements. Use the product web console to capture and replay workloads on DB2® for z/OS databases.

1 Step 1: Access the software and documentation

To download the electronic images of IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS Version 1.1, go to Shopz on www.ibm.com: https://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp.

This product offering includes:
- IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS 1.1 DVD
- Program Directory for IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS
- IBM InfoSphere Optim Query Capture and Replay for z/OS 1.1 Product Key CD
- IBM InfoSphere Optim Query Capture and Replay S-TAP™ for DB2 on z/OS Tape
- IBM Capture Replay Controller for z/OS Tape
- IBM InfoSphere Guardium V9 Base Product Image DVD
- IBM InfoSphere Guardium V9 Product Manuals DVD
- IBM InfoSphere Guardium Virtual Machine Activation Kit V9 DVD
- IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS Quick Start Guide (GC19-3753-00) and Installation Guide (GC19-3754-00) PDFs. Download these PDFs from IBM Publications Center at: http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss.

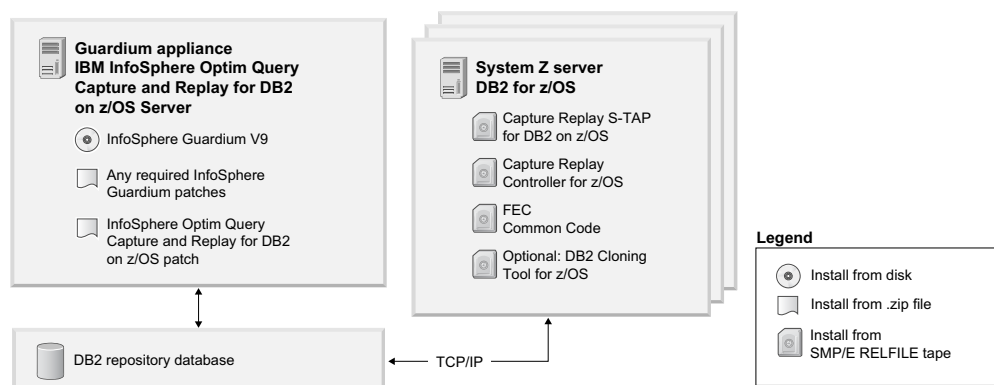## 2 Step 2: Evaluate the hardware and system configuration

InfoSphere Optim Query Capture and Replay is an appliance solution that bundles an operating system and all necessary software. You can install the product on a physical appliance or on a VMware server such as VMware ESX. The installation program installs a Red Hat Linux Version 5.8, 32-bit, operating system on your server or virtual machine, and then installs the Guardium software. For detailed system requirements, see the system requirements at: http://www.ibm.com/support/docview.wss?uid=swg27035716

For information about how to set up a VMWare environment, see Appendix B: How to Create the Virtual Image in the Installing section of the InfoSphere Guardium information center, or in the *IBM InfoSphere Guardium Software Appliance Installation Guide* which is on the IBM InfoSphere Guardium Virtual Machine Activation Kit V9 DVD.

3 Step 3: Review the base architecture

The InfoSphere Optim Query Capture and Replay software package includes the software components and a software license.

4 | **Step 4: Overview of an InfoSphere Optim Query Capture and Replay for DB2 on z/OS installation**

The following overview describes the required steps for installing and configuring InfoSphere Optim Query Capture and Replay. To install the product, follow the detailed instructions in the *IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS Installation Guide* PDF. The instructions are also available in the IBM InfoSphere Optim Query Capture and Replay information center at: http://publib.boulder.ibm.com/infocenter/caprep/v1r1/index.jsp.

High-level overview of the installation process:

1. **Tip:** Review and fill out the installation planners to get an overview of the required input for each installation step.

   The planners are available in the installation guide PDF or from the information center.

2. **On the IBM InfoSphere Optim Query Capture and Replay for DB2 on z/OS server:** Install and configure InfoSphere Guardium.

   a. Install the Guardium appliance.

   Install the Guardium appliance, set passwords for the CLI, ADMIN, and ACCESS MANAGER users, and configure the Guardium appliance for your environment. You install the Guardium appliance by using the system command line, and you configure the installation by using the Guardium Command Line Interface (CLI). A typical installation, including system reboots, takes a minimum of 45 minutes.

   b. Install the license key.

   The InfoSphereOptim Query Capture and Replay license enables the capture and replay feature on the Guardium appliance. You can use the command line to install the license, or use the Guardium web console at `https://`*guardium_hostname_or_ip*`:8443/sqlguard` to install the software license.

   c. Install InfoSphere Optim Query Capture and Replay and required patches.

   InfoSphere Optim Query Capture and Replay is installed as a patch on the Guardium appliance, and provides the web console user interface for DB2-to-DB2 for z/OS capture and replay. Use the Guardium Command Line Interface to install any required software patches and to install InfoSphere Optim Query Capture and Replay as a patch on the InfoSphere Guardium appliance.

   d. Install the Capture and Replay - DB2-to-DB2 policy.

   A Guardium policy is a filter that defines the information that is included in the workloads that you capture.

3. **On each DB2 for z/OS database server that you will use for capturing or replaying workloads:**

   a. **Optional:** Install IBM Cloning Tool for DB2 on z/OS

   IBM InfoSphere Optim Query Capture and Replay supports using the cloning tool to create a copy of your capture database that represents the state of the database just before the capture begins.

   Use SMP/e to install, and TC/z to customize.

   b. Install and customize Capture Replay S-TAP for DB2 on z/OS and Capture Replay Controller for z/OS.

   Capture Replay S-TAP for DB2 on z/OS is a lightweight software component that runs on the database server and is used by the Guardium appliance to collect local and network traffic to that database. Capture Replay Controller is a lightweight software controller that controls the collection feature of the Capture Replay S-TAP for DB2 on z/OS component.

   Use SMP/e to install the components. Use TC/z to customize the Capture Replay S-TAP for DB2 on z/OS component. You must manually configure the Capture Replay Controller for z/OS component.

4. **Optional:** Configure InfoSphere Capture Replay for web console authentication.

   To use InfoSphere Capture Replay with multiple users, you must configure it for web console authentication by adding a repository database. Then, configure authentication for the users and groups of that database.

5   Step 5: Capture, replay, and create a report for a workload

You can now use the product web consoles to capture workloads from one database, replay them on other databases, and compare workloads.

Tip: Before you start capturing a workload, clone the capture database on the database server that hosts your replay database. You can use a tool such as DB2 Cloning Tool for z/OS. Cloning the database ensures that the replayed workload more closely simulates the captured workload.

1. Open the Capture and Replay web console at:

   `https://`*`guardium_hostname_or_ip`*`:8443/dsweb/console/ocr/index.jsp`

2. From the task launcher, configure the database connections and privileges for the subsystems from which to capture the target workload, and on which you plan to replay the workload.

   a. Click **Add database connections** and add database connections for the DB2 for z/OS subsystems that you configured for capture and replay.

   b. Click **Manage capture and replay database privileges** and grant capture and replay privileges to the user IDs that you plan to use for capturing and replaying workloads on the subsystems.

3. Capture a workload. From the Task Launcher, click **Capture a DB2 workload**.

4. Transform the workload.

   a. When the workload is captured, from the Capture and Replay page, select the SQL Workloads tab.

   b. Select the captured workload and click **2. Transform**.

5. Select the new replay-ready workload and click **3. Replay**.

6. After the workload replays, select the new replayed workload and click **4. Report** to create a report that lets you compare the execution of the two workloads.

More information

For more information, see the following resources:
- Information roadmap at: http://www.ibm.com/developerworks/data/roadmaps/roadmap_caprep.html
- Troubleshooting information at: http://publib.boulder.ibm.com/infocenter/caprep/v1r1/topic/ com.ibm.datatools.capturereplay.troubleshooting.doc/topics/cr_ts_troubleshooting.html
- Product support at: http://www.ibm.com/support/entry/portal/Overview/Software/Information_Management/ InfoSphere_Optim_Query_Capture_and_Replay

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