EMC²
TECHNICAL NOTES

EMC® RecoverPoint Multi-User Simulator

Technical Notes

P/N 300-013-380
Rev 01

December 24, 2012

These technical notes provide information, required procedures, and best practices that are specific to the installation and usage of the RecoverPoint multi-user simulator environment.

These technical notes include the following topics:

Revision history

Table 1 on page 2 shows the revision history for this document.

Table 1 Revision history

Revision	Date	Description
01	December 2012	First revision

The RecoverPoint multi-user simulator

The RecoverPoint multiuser simulator enables you to get any dev branch (even ones that haven't been pushed yet) and create a simulator out of it.

The following procedures describe how to simulate the RecoverPoint GUI, CLI and Disaster Explorer, and how to populate them with pre-configured groups and splitters.

For more information about the RecoverPoint system, refer to the *EMC RecoverPoint Administrator's Guide*.

Before you begin

Before you begin:

1. Ensure you have UNIX user account.
2. Ensure your UNIX account works by opening Putty and going to **boomer**. When prompted, log in with your **NT username** and **UNIX password**.

   Note: If you can't log into boomer, go to **Password Portal** at https://PasswordPortal.emc.com and reset your UNIX password. For information about EMC PasswordPortal, visit: http://itcentral.corp.emc.com/passwordportal/

3. Install Google Chrome.
4. Find out the name of the branch that you need from Dev, or open a browser to http://boomer/rp/version2branch.html to find the name of the branch that you need.

   Note: If the branch you need is a RecoverPoint 3.5 and earlier branch, you will need to contact Yuri Nudelman or whoever owns the simulator server and ask them to manually create a port for your user.

Creating, compiling and running your own simulator

The steps in this section include:

1. Cloning the branch.
2. Compiling the branch.
3. Running the simulator.

How to create, compile and run your own simulator

Perform this procedure every time you want to simulate a different development branch.

To create, compile and run your own simulator:

1. Clone the branch that you want to simulate from the development server to your local user directory.

Step	What you're doing	How to do it	Troubleshooting / Notes
a.	SSH to the development server	Open Putty and go to **boomer**.	Save **boomer** in your Putty list for later.
b.	Log into the development server	When prompted, log in with your **NT username** and **UNIX password**	If you cant log into **boomer**, go to Password Portal: `https://PasswordPortal.emc.com` and reset your UNIX account.
c.	Navigate to the main branch directory	Type `cd branches`	If you get a "directory does not exist" error, type: `mkdir branches` and then type: `cd branches`

Step	What you're doing	How to do it	Troubleshooting / Notes
d.	Create a local branch This is cloning the required branch to your home directory on the development server. All the compilation servers link to here.	If you're creating a new branch, type **`git clone git://boomer/prod/<branchname>`** If you're updating an existing branch, type: **`git pull`**	If you want multiple instances of a branch, add a folder to the command by typing: **`git clone git://boomer/prod/<branchname><branchversion>`** For example: **`git clone git://boomer/prod/fifa fifa1`** **Note:** The space in the command line signifies the end of what to do and the beginning of where to do it. In this case, clone **fifa** branch to subdirectory **fifa1**. If **git pull** fails, you will need to delete the branch and recreate it (**git clone**). To delete an existing branch, navigate to the branch directory and type: **rm -fr <branchname>**

2. Compile the branch:

Step	What you're doing	How to do it	Troubleshooting / Notes
a.	SSH to the compilation server	From the same putty window type: **`ssh debcs02`**	Save **debcs02** in your Putty list for later.
b.	Answer the prompt	When prompted, type: **`yes`**	
c.	Supply security credentials	Enter your **UNIX password**	If you cant log into **debcs02**, go to Password Portal: **`https://PasswordPortal.emc.com`** and reset your UNIX account.
d.	Navigate to the required branch	Type: **`cd ~/branches/<branchname>`**	

Step	What you're doing	How to do it	Troubleshooting / Notes
e.	Compile the code	If the branch is 4.0 or later, type: **`kmake disaster_explorer_targets`** If the branch is RecoverPoint 3.5 or earlier, type: **`jmake disaster_explorer_targets_depend && jmake disaster_explorer_targets`**	This may take 10-15 minutes if you just cloned an entire branch, or less depending on the last time that you performed a **git pull**. **Note:** If this step fails, talk to Barak (from the UNIX team) and Vadim or Leonid (from the compilation team). Start with Vadim/Leonid.
f.	Set the active branch	Type: **`active_branch <branchname>`**	If this fails, type: **`alias active_branch source /usr/kashya/scripts/active_branch`** and then try again.

3. Run the simulator:

Step	What you're doing	How to do it	Troubleshooting / Notes
a.	Log into a simulator machine root dir	Type: **`ssh 10.76.11.97 -l root`** When promped, enter the Password: **`q`**	
b.	Log into your user environment	Type: **`su - <username>`**	To check that you are the currently logged in user, type: **`whoami`** or **`id`**
c.	Navigate to the required branch	Type: **`cd ~/branches/<branchname>`**	
d.	Run the simulator installation script	Type: **`build/install_simulator.tcsh`**	
e.	The first time you run a branch: Register your user on the simulator machine	**If you are installing a 4.0 or later branch**, and this is your first time logging into the simulator, answer **yes** when prompted with the question: **`The user <username> is not registered on current machine. Would you like to auto-register it? ([Y]es/[N]o)`**	**For 3.5 and earlier branches**, there is no auto-registration of users. If after running the simulator installation script you see the output: **Base port is** with no port number displayed, the process has failed and you will have to contact Yuri or whoever owns the simulator server and ask them to manually create a port for your user.
f.	Answer the prompts	When prompted, enter the password: **`q`**	

Step	What you're doing	How to do it	Troubleshooting / Notes
g.	Navigate to the web server simulator directory	Type: `cd /simulator/<username>`	

h.	Run the simulator	Type:
		`./run_simulator.tcsh`
		Note: Leave the process running in the background. **Do not close the window**.
			When you see the following output:
			`Kashya Simulator - development`
			`Running programs`
			The simulator is running.

4. Now you can:

- "Populate the simulator" on page 8
- "Open the RecoverPoint GUI" on page 9
- "Open the RecoverPoint CLI" on page 10
- "Open the Disaster Explorer" on page 11

Populating the simulator with groups, splitters and settings

When the simulator is created, it is not populated with groups, splitters, volumes, etc.

After performing the steps 1-3 in "How to create, compile and run your own simulator" on page 4 you can populate the simulator with simulated environmental and user data from the sample settings file **base_config.cli**.

Populate the simulator

To populate the simulator:

1. Open a new **Putty** window and enter the simulator IP into the browser address bar:

   10.76.11.97

2. Login to your simulator as username: **root** password: **q**

3. Type:

   su - <username>

4. Enter your **UNIX password**
5. Type:

   cd /simulator/<username>

6. Type:

./run_cli.pl admin 111 < sample_settings/base_config.cli

Opening the RecoverPoint GUI

After performing the steps 1-3 in "How to create, compile and run your own simulator" on page 4 you can open the RecoverPoint GUI.

Use the following procedure to access either the Unisphere for RecoverPoint (4.0 and later) GUI or the RecoverPoint Classic (3.5 and earlier) GUI.

Open the RecoverPoint GUI

To open the GUI:

1. Open **Google Chrome** browser.
2. Select the **GUI** you want to open:
   - To display the EFX GUI, enter the following into the browser address bar:

     `https://ip/<username>/efx`

     For example:

     `https://10.76.11.97/perela/efx`

     Note: Ensure the connection is **`https`** and not **`http`**.

   - To display the RecoverPoint classic GUI, enter the following into the browser address bar:

     `https://ip/<username>`

     For example:

     `https://10.76.11.97/perela`

     Note: Ensure the connection is **`https`** and not **`http`**.
3. Click the **Proceed Anyway** button to accept the cerificate error.
4. In the RecoverPoint splash screen, log into the GUI with username: **admin** and password: **admin**

   Note: After entering your user credentials into the RecoverPoint splash screen, a pop-up dialog box may appear prompting you for credentials again. If a pop-up dialog box appears, enter username: **admin** and password: **admin**.

Opening the RecoverPoint CLI

After performing the steps 1-3 in "How to create, compile and run your own simulator" on page 4 you can open the CLI.

Open the RecoverPoint CLI

To open the CLI:

1. Create a new SSH session with the simulator. Open a new **Putty** window and enter the simulator IP into the browser address bar:

   10.76.11.97

2. Log into the simulator as a root user:

   When prompted, supply: username: **root** password: **q**

3. Switch to your user, by typing:

   su - <username>

   Note: You may or may not need to enter your **UNIX password.**

4. Navigate to your user env on the simulator by typing:

   cd /simulator/<username>

5. Access the left or right cluster via the CLI, and log in as an **admin** user by typing:

   ./run_cli.pl <username = SE,admin…> <111|222>

   For example:

   ./run_cli.pl admin 111

Opening the Disaster Explorer

After performing the steps 1-3 in "How to create, compile and run your own simulator" on page 4 you can access the Disaster Explorer.

Open the Disaster Explorer

To access the DE:

1. Create a new SSH session with the simulator. Open a new **Putty** window and enter the simulator IP into the browser address bar:

   10.76.11.97

2. Log into the simulator as a root user:

   When prompted, supply: username: **root** password: **q**

3. Switch to your user, by typing:

   su - <username>

   Note: You may or may not need to enter your **UNIX password.**

4. Navigate to your user env on the simulator by typing:

   cd /simulator/<username>

5. Access the left or right cluster via the CLI, and run the disaster explorer by typing:

   ./run_cli.pl <DE> <111|222>

   For example:

   ./run_cli.pl DE 111

Tips and tricks

The following tips and tricks can help you work in a UNIX environment:

- You can move between servers in one putty window by typing **ssh <servername>** (e.g. **ssh debcs02**)
- The command **exit** takes you back one server.
- The command **whoami** tells you which user is currently connected.
- To speed up your procedures. Copy the commands from the procedure > place your cursor focus on the command prompt > right-click (to paste the text) > Enter
- To remove a branch from your user directory type:

  ```
  rm -fr <branchname>
  ```

  For example:

  ```
  rm -fr fifa1
  ```

- To see the contents of a directory, type: **ls**
- To see the contents of a directory with properties, type: **ls -l**

Process at-a-glance

This section briefly runs through the end to end process. It is intended to be used as a quick reference after you are well acquainted with the process, as described in detail in the following sections of these Technical Notes.

Note: The entire process should take no more than 15-20 minutes, including compilation time. Excluding compilation time, it should take no more than 5 minutes.

1. Clone branch:
   a. Putty to **boomer,** log in with **NT username** and **UNIX password**
   b. **cd branches**
   c. Clone branch:
      – If new branch: **git clone git://boomer/prod/<branchname>**
      – If updating existing branch: **git pull**
2. Compile branch:
   a. **ssh debcs02**, enter your **UNIX password**
   b. **cd ~/branches/<branchname>**
   c. Compile branch:
      – 4.0 or later: **kmake disaster_explorer_targets**

- 3.5 or earlier: **jmake disaster_explorer_targets_depend && jmake disaster_explorer_targets**

d. **active_branch <branchname>**

3. Run simulator:
   a. **ssh 10.76.11.97 -l root** (Enter password: **q**)
   b. **su - <username>**
   c. **cd ~/branches/<branchname>**
   d. **build/install_simulator.tcsh (Enter password: q)**
   e. **cd /simulator/<username>**
   f. **./run_simulator.tcsh**
   g. Leave command prompt window open with process running in the background.
4. Populate simulator:
   a. Putty to **10.76.11.97** (username: **root** password: **q)**
   b. **su - <username>** (Enter **UNIX password)**
   c. **cd /simulator/<username>**
   d. **./run_cli.pl admin 111 < sample_settings/base_config.cli**
5. Open one of the RecoverPoint management applications:
   - **Open the GUI:**
     a. Open Google Chrome:
     - For EFX GUI, enter: **https://ip/<username>/efx**
     - For 3.5 and earlier GUI, enter: **https://ip/<username>**

     b. Click **Proceed Anyway**
     c. Log in with username: **admin** and password: **admin**
   - **Open the CLI:**
     a. Putty to **10.76.11.97** (username: **root** password: **q**)
     b. **su - <username>** (enter your **UNIX password**)
     c. **cd /simulator/<username>**
     d. ./run_cli.pl <username = SE,admin…> <111 | 222> (e.g. **./run_cli.pl admin 111**)
   - **Open Disaster Explorer:**

a. Putty to **10.76.11.97** (username: **root** password: **q**)

b. **su - <username>** (enter your **UNIX password**)

c. **cd /simulator/<username>**

d. **./run_cli.pl <DE> <111|222>** (e.g. **./run_cli.pl DE 111**)