Upgrade the Cisco Diagnostic Bridge to Version 1.8

Summary

This document describes how to migrate to Cisco Diagnostic Bridge 1.8 from an earlier version. Version 1.8 includes significant changes from earlier releases:

- ASP.NET Core 2.1.1 Runtime (or a later 2.1.x branch release) is required.
- For Open Virtual Appliance (OVA) deployments, the MySQL server database must be external to the Diagnostic Bridge host.

Requirements

- The Diagnostic Bridge software must already be deployed.
- (OVA) You must be able to back up the database to a location that is external to the Diagnostic Bridge host.
- (OVA) You must store Diagnostic Bridge data on a MySQL server database that is external to the Diagnostic Bridge host.

MSI or Binary Deployments

1. Download the latest version of the ASP.NET Core 2.1.x Runtime from:

   https://www.microsoft.com/net/download/dotnet-core/2.1

   - Windows: Choose both **"ASP.NET Core Installer"** and **".NET Core Installer"**. Be sure to select the correct version (x64 or x86) for your installation.
   - Other platforms: Choose **ASP.NET Core Binaries**, or follow the Package Manager instructions in order to install the runtime.

2. Perform the Diagnostic Bridge update normally.

OVA Deployments

OVA deployments involve the completion of four tasks.

Task A: Back up the configuration & database of the existing Diagnostic Bridge OVA:

1. Log in to the Diagnostic Bridge with SSH or VMWare console.

   The default user is **admin**, and the default password is **Cisco123**. (It is assumed that these were changed by the Customer.)

   If this is the first login, you are prompted to change the password at this time.

2. Elevate privileges to the root user:

   ```
   su - root
   ```

   You are prompted to enter the current admin password.

3. Stop the Diagnostic Bridge service:

   ```
   /bin/systemctl stop rc-local.service
   ```

4. Run mysqldump in order to create a file of the entire database:

   ```
   mysqldump --user=root --password=Cisco123 --add-drop-database --add-drop-table --all-databases > bridge-db.sql
   ```

   Note: Login details and database tables can be found on /DiagnosticBridge/etc/static-settings.json.

   Default: "Database": {"ProviderName": "MySQL", "ConnectionString": "server=localhost;database=protactive;uid=root;pwd=Cisco123"

5. Compress the configuration files into a single archive for easy transfer:

   ```
   tar -cvzPf bridge-backup.tgz /DiagnosticBridge/etc
   ```

6. Secure Copy (scp) the database and configuration backups to your local laptop:

   ```
   scp bridge-backup.tgz myuser@mycomputer.mycompany.com:
   scp bridge-db.sql myuser@mycomputer.mycompany.com:
   ```

7. If you intend to use the same IP Address for the new Diagnostic Bridge, shut down or suspend the existing Bridge.

Task B: Install the new version 1.8 OVA as a new deployment.

Note: The steps in this section are a ***summary*** of the process, which is unchanged from previous versions of the Diagnostic Bridge. Refer to the User Guide for additional details.

1. Download the OVA from cisco.com:

   https://upload.cisco.com/cgi-bin/swc/fileexg/main.cgi?CONTYPES=Cisco_Diagnostic_Bridge

2. Network transfer the OVA to your vSphere environment.
3. Deploy the OVA to vSphere and launch it.
4. On the vSphere console, log in to the Diagnostic Bridge and perform these configuration steps:
   - Set an admin password (you are prompted to do this on first login).
   - Enter the IP address, net mask, and gateway of the LAN connection.
   - Enter the DNS server and local hostname.
   - Enter the default route.
   - Enter the NTP server.
   - Enter any applicable proxy settings to get out of the intranet.
5. Adjust firewall blocks (if any) in order to allow the OVA to reach the public Internet.
6. Optionally, sign and install a valid SSL certificate.
7. Optionally, provision a local bridge user for API access.
8. Ensure that the Diagnostic Bridge is stopped:

   ```
   /bin/systemctl stop rc-local.service
   ```

Task C: Restore the database to your own MySQL Server.

Note: The version 1.8 OVA no longer contains a MySQL Server instance. You must provide your own MySQL instance separately from the OVA. These steps assume that you have a MySQL Server on a Linux platform.

1. Log in to your MySQL Server with SSH or VMWare console.
2. Secure Copy (scp) the database backup from your local laptop:
   ```
   scp myuser@mycomputer.mycompany.com:bridge-db.sql /tmp
   ```
3. Run mysql in order to import the database backup:
   ```
   mysql --user=myDBuser --password=myDBpassword < /tmp/bridge-db.sql
   ```
   Note: Login details and database tables can be found on /DiagnosticBridge/etc/static-settings.json.
   Default: "Database": {"ProviderName": "MySQL", "ConnectionString": "server= your_external_db;database=protactive;uid=root;pwd=Cisco123"

Task D: Restore the Diagnostic Bridge configuration to the new OVA.

1. Log in to the Diagnostic Bridge with SSH or VMWare console.
   The default user is **admin**, and the default password is **Cisco123**.
   If this is the first login, you are prompted to change the password at this time.
2. Elevate privileges to the root user:
   ```
   su - root
   ```
   You are prompted to enter the current admin password.
3. Secure Copy (scp) the configuration backup from your local laptop:
   ```
   scp myuser@mycomputer.mycompany.com:bridge-backup.tgz /tmp
   ```
4. Stop the Diagnostic Bridge service:
   ```
   /bin/systemctl stop rc-local.service
   ```
5. Uncompress the configuration file archive:
   ```
   tar -xvzPf /tmp/bridge-backup.tgz
   ```
6. In the nano editor, open the file /DiagnosticBridge/etc/static-settings.json and modify the configuration to point to the new database.
   Edit the ConnectionString so that it references the Customer's MySQL server, username, and password.
7. Start the Diagnostic Bridge service:
   ```
   /bin/systemctl start rc-local.service
   ```

You have now completed the OVA deployment.