Enabling HP Systems Insight Manager and Novell ZENworks Linux Management to co-exist on the same server

Overview

Business problem

In today's IT environment, installing servers is only the beginning; updating and managing the servers, once deployed, have become major concerns. The need to track the health of the server and to apply updates to the operating system as required are now high priorities to address security and stability issues. Finding a tool to handle all necessary tasks is never easy, if even possible. The issue becomes whether to make different software tools co-exist on a single server or to put every software tool on its own server, a less likely scenario.

HP/Novell solution

For monitoring and managing HP servers, HP Systems Insight Manager (HP SIM) provides comprehensive status information and alerting for HP ProLiant, HP 9000, and HP Integrity servers. HP SIM uses a web-based user interface to manage devices. HP SIM links to HP Insight Management Agents, HP Diagnostics, Array Configuration Utility (ACU), Lights-Out interfaces, and many other HP ProLiant Essentials products.

Note: Information about HP diagnostics, ACU, Lights-out, and ProLiant Essentials can be found at HP.com - ProLiant Management Software, www.hp.com/servers/manage.

HP SIM utilizes a highly secure login via SSL, communicates to devices using industry standards such as WBEM/WMI, SNMP, and HTTP, discovers and links to the open source webmin for Linux, allows command launching from a remote browser or via the command line, and will integrate with many open source management tools. For a complete list of HP SIM features, go to http://www.hp.com/go/hpsim.

Managing a server is only one piece of the puzzle. Updating the operating system and applications is another major piece. Novell offers ZENworks Linux Management (formerly Red Carpet), a powerful and secure software management tool. ZENworks has a daemon and client software that allows putting packages of software into channels so that individual servers can then pull the necessary updates. With the security and management capabilities available, you can break administrators into groups, allowing different access permissions to different groups of servers. An administrator can have the ability to view all servers, but modify only the servers he has access too, and not grant access to anyone else. These abilities to define groups, put packages into channels, define access permissions, and control software updates through a graphical interface, web-based user interface, or command line, make ZENworks Linux Management a very powerful tool. For more information on Novell ZENworks Linux Management visit www.novell.com/zenworks/linuxmanagement

Why HP and Novell

HP and Novell enjoy one of the longest partnerships in the industry, dating from Novell's earliest NetWare offerings to today's cutting-edge solution products and Linux operating systems. HP systems and Novell software are literally made for each other. Close engineering and development collaboration between the two companies means that Novell's software is optimized and certified to run smoothly on HP systems. But the strength of the partnership does not end there. HP and Novell join forces to ensure that their joint customers receive world-class customer support, issue resolution, and customer satisfaction.

Target audience

This document is for system administrators of HP ProLiant severs running Novell Linux who have a need to consolidate their management and software updates onto a single server and want to take advantage of the capabilities offered by HP SIM and Novell ZENworks Linux Management.

Software solution

This paper defines the specific steps required to allow HP SIM and Novell ZENworks Linux Management to co-exist on the same server. At issue is the PostgreSQL database used by both. PostgreSQL creates a single instance on a server and each application added will use that instance. If HP SIM is installed using the default installation scripts after ZENworks Linux Management is installed, then, due to the current installation process for HP SIM, the PostgreSQL information required by ZENworks Linux Management will be overwritten, causing ZENworks to cease functioning. If HP SIM is installed first, then ZENworks will break HP SIM in the same fashion.

Both HP SIM and ZENworks Linux Management use the PostgreSQL database for storing necessary tables of information, and both can co-exist in the same database; however, it is the installation process that will break the first application installed. To solve this problem, it becomes necessary to install the software in a specific order, changing how HP SIM is installed. This will allow both applications to co-exist in the same PostgreSQL database instance.

Planning considerations

These two applications have been found to function properly together on one server running the SLES9 with SP1. However, there are several steps that must be followed to make this possible.

This installation was performed on a dual-processor ProLiant DL360 G3 server and would be identical on any other server.

When installing the operating system, ensure the necessary database components and additional software have been installed. Software components are:

- Kernel source
- Python

- Mozilla (downloadable from the web)
- Sun J2RE Java™ runtime (downloadable from the web)
- PostgreSQL database (option during install)

Once the server and software are installed, register the Java plugin with Mozilla by creating a link in the Mozilla plugins directory to the J2RE plugin using the commands:

> **cd /opt/Mozilla/lib/plugins**
> **ln -s /usr/java/j2re1.4.2_05/plugin/i386/ns610-gcc32/libjavaplugin_oji.so**

Because HP SIM 4.2 depends on a specific version of PostgreSQL, HP SIM must be installed manually to work with the installed version. Follow these steps to manually install HP SIM and ZENworks:

1. Once PostgreSQL has been installed, you can continue with the install of ZENworks Linux Management. Accept the defaults to all prompts except for:

   a. Answer **NO** to install online
   b. Answer **YES** to leave rug and rcd modules after installation

2. After installation completes, run **/usr/sbin/rce-init** (logged in as user root) to configure ZENworks Linux Management. Verify that the ZENworks console can be accessed by using Mozilla to go to the URL https://localhost. On first login, you will be asked to create an admin id/password.
3. Download the Linux version of HP SIM from the web at www.hp.com/go/hpsim .
4. Copy the SIM installer T2416BA_4.02.00_Linux.bin (this may differ as new revisions are released) to a new directory – for example, the directory **/root/SIM.**
5. Extract the SIM files needed for install using the command:

   > **./T2416BA_4.02.00_Linux.bin --confirm --keep --target <dir>**

6. When asked if you want to continue the installation script, answer **NO**. The --keep option instructs the installer not to clean up the extracted files and extracts the files to the mxserver subdirectory.
7. After the installer exits, navigate to the mxserver directory and install the HP SIM RPMs:

   > **cd /root/SIM/mxserver**
   > **rpm -Uvh hpsim***

8. After installation finishes, run the command

   > **/opt/mx/bin/mxinitconfig –a**
   > (this will do an integrity check and initialize the database)

Once the initialization process is complete, you can then access the HP SIM console by using Mozilla and going to the URL: http://localhost:280. This can take up to 5 minutes for the services to start to render the user interface.

HP SIM should now be fully functional, but ZENworks Linux Management is broken. To fix ZENworks:

- Open the HP SIM PostgreSQL config file using the editor of your choice:

  > **/var/lib/pgsql/data/pg_hba.conf**

9.   and open the ZENworks PostgreSQL config file:

   /usr/share/rcserver/pg_hba.conf

10. Copy the last three lines (all starting with "local") from the ZENworks configuration file **/usr/share/rcserver/pg_hba.conf** to the end of the HP SIM configuration file **/var/lib/pgsql/data/pg_hba.conf.**

After the copy is done, the HP SIM configuration file **/var/lib/pgsql/data/pg_hba.conf** should look like:

```
# This file is used for PgSQL configuration
# This is the configuration file for PgSQL 7.3
local  insight_v1_0  mxadmin password
host   insight_v1_0  mxadmin 127.0.0.1 255.255.255.255 password
host   insight_v1_0  mxadmin 10.1.1.72 255.255.255.255 password
local  template1    postgres  ident  postgres
local  rcserver-1-4  all      ident  rcmanager
local  rcserver  all      ident  rcmanager
```

Save **/var/lib/pgsql/data/pg_hba.conf** and restart PostgreSQL:

   rcpostgresql restart

Using the Mozilla web browser, verify access to ZENworks Linux Management

   https://localhost

and HP SIM

   http://localhost:280

Summary

This paper was created using HP SIM 4.2 and Novell ZENworks Linux Management 6.6. As future revisions come out, it is planned to address the changes and update this paper. This allows HP SIM to run using the version of PostgreSQL that is shipped in the Linux operating system, and therefore be able to co-exist on the same server with ZENworks Linux Management.

For more information

HP Systems Insight Manager	http://www.hp.com/go/hpsim
HP ProLiant Server Management and HP ProLiant Essentials	http://www.hp.com/servers/manage
HP + SUSE	http://www.hp.com/go/suse
HP + Novell	http://www.hp.com/go/novell
HP Open Source + Linux	http://www.hp.com/go/linux

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