*Taste of Training Webinar Series*

# Troubleshooting RPM Package Issues

George Hacker
RHEL Curriculum Manager

# Resolving RPM dependency issues

# Sources of useful information

RPM package metadata
Yum repository metadata
Log file - /var/log/yum.log

# Displaying package dependencies

# yum deplist *PACKAGE*

# rpm -q --requires *PACKAGE*
# rpm -q --provides *PACKAGE*

# Resolving package dependencies

# yum downgrade *PACKAGE*

# rpm -Uvh --oldpackage *PACKAGE*
# rpm -Uvh --force *PACKAGE*

# Using Yum to lock package versions

Install the yum-plugin-versionlock package

# yum versionlock list
# yum versionlock add *WILDCARD*
# yum versionlock delete *WILDCARD*
# yum versionlock clear

# Insert Screenshare Here

# Recovering a corrupt RPM database

# Steps for fixing a corrupt RPM database

1. Remove stale lock files.
2. Backup the RPM database.
3. Verify the RPM database integrity.
4. If necessary, create a dump of the corrupt database file and use it to create an intact version.
5. Rebuild the RPM database indexes.

# Insert Screenshare Here

# Identifying and recovering changed files

# Verifying installed packages

# rpm -V *PACKAGE*
# rpm -Va

Install the yum-plugin-verify package

# yum verify *PACKAGE*
# yum verify-rpm *PACKAGE*

# Recovering changed files

# rpm --setperms *PACKAGE*
# rpm --setugids *PACKAGE*

# yum reinstall *PACKAGE*

# Insert Screenshare Here

# Troubleshooting Red Hat Subscription Management issues

# Accessing software updates from Red Hat

The entitlement process is a three-step process:

1. Products are added to a system.
2. Register the system with Red Hat directly or a Red Hat Satellite server.
3. Attach subscriptions to the system.
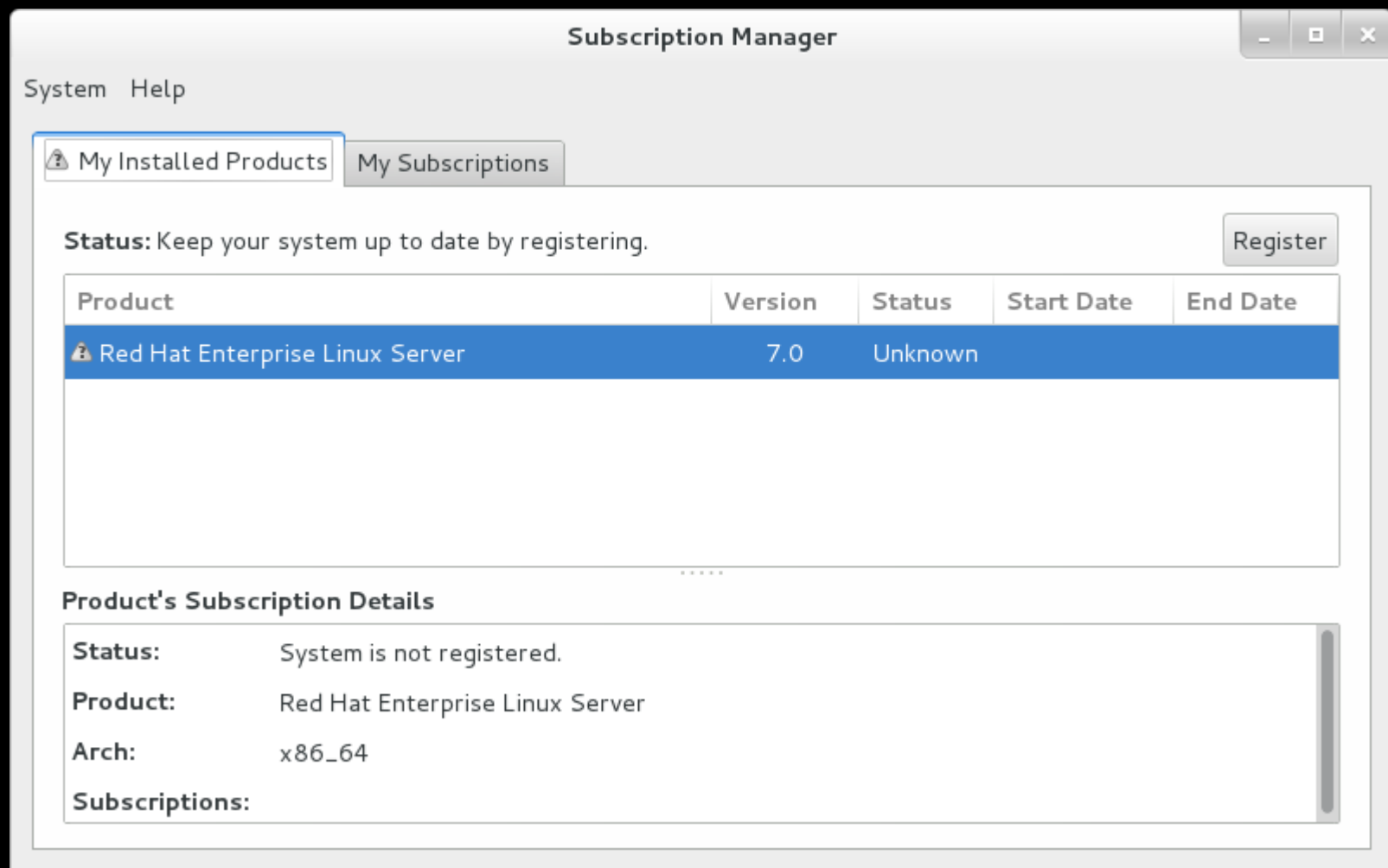
# Connecting to Red Hat Subscription Manager

Red Hat Enterprise Linux tools used to access RHSM:

subscription-manager-gui
subscription-manager

Client systems must be able to access RHSM server and content delivery server via port 443.

# Subscription Manager

System    Help

**My Installed Products**    |    My Subscriptions

**Status:** Keep your system up to date by registering.                          Register

| Product | Version | Status | Start Date | End Date |
|---------|---------|--------|------------|----------|
| ⚠ Red Hat Enterprise Linux Server | 7.0 | Unknown | | |

## Product's Subscription Details

**Status:**          System is not registered.

**Product:**         Red Hat Enterprise Linux Server

**Arch:**            x86_64

**Subscriptions:**

## System Registration

The subscription management service you register with will provide your system with updates and allow additional management.

I will register with:  `subscription.rhn.redhat.com`  | Default

☐ I will use an Activation Key

⚠️ If required, please configure your proxy before moving forward.  | Configure Proxy

Cancel    Next

# System Registration

Please enter your Red Hat account information:

Login: `redhat-account-username`

Password: `•••••••••`

💡 Tip: Forgot your login or password? Look it up
at http://redhat.com/forgot_password

Please enter the following for this system:

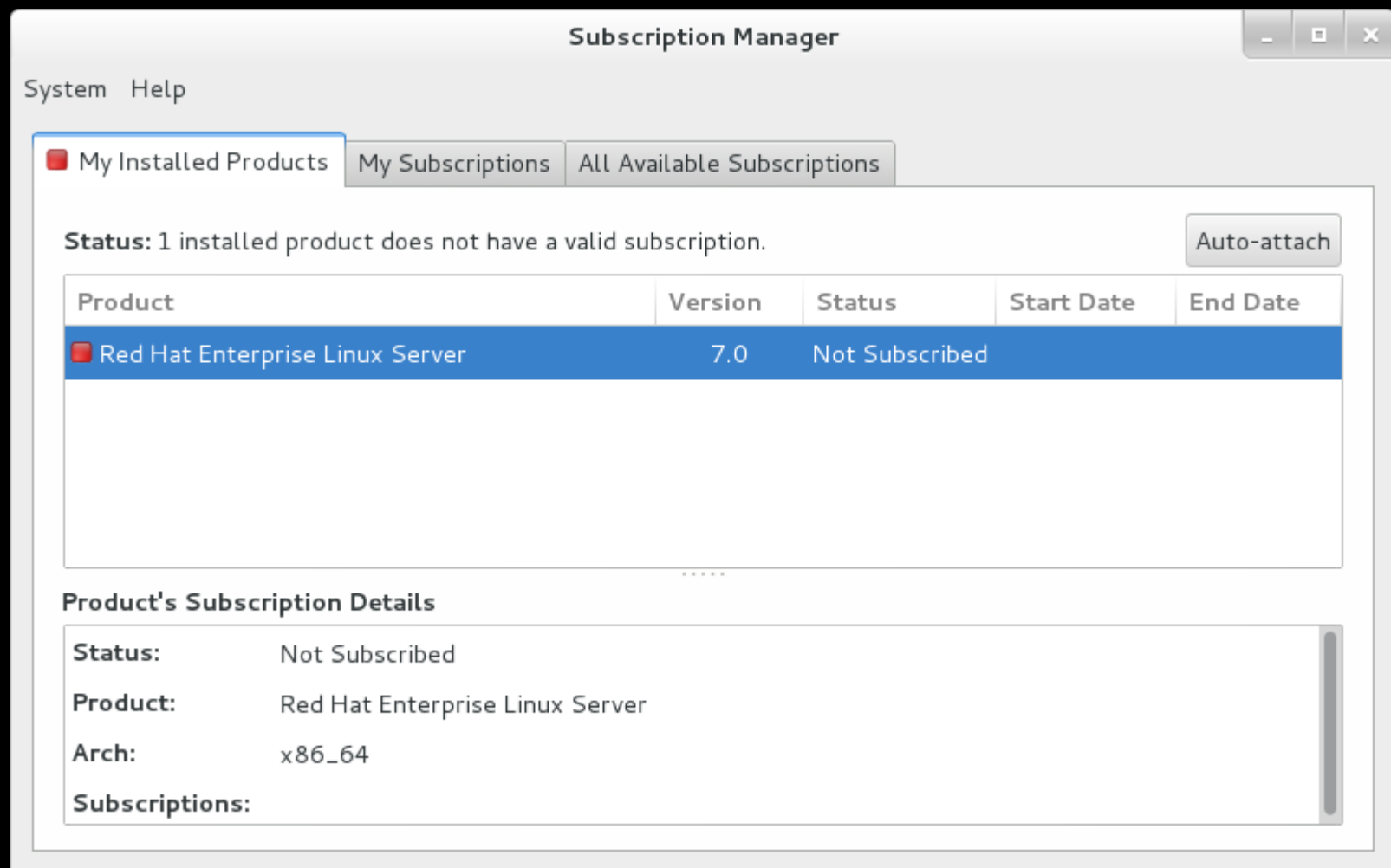System Name: `host.lab.example.com`

☑ Manually attach subscriptions after registration

Cancel    Register

Subscription Manager

System    Help

■ My Installed Products    My Subscriptions    All Available Subscriptions

**Status:** 1 installed product does not have a valid subscription.                    Auto-attach

| Product | Version | Status | Start Date | End Date |
|---------|---------|--------|-----------|----------|
| ■ Red Hat Enterprise Linux Server | 7.0 | Not Subscribed | | |

**Product's Subscription Details**

| | |
|---|---|
| **Status:** | Not Subscribed |
| **Product:** | Red Hat Enterprise Linux Server |
| **Arch:** | x86_64 |
| **Subscriptions:** | |

# Subscription Manager

System    Help

**My Installed Products**    My Subscriptions    **All Available Subscriptions**

Show subscriptions active on:  `2016-01-15`  📅  Update           2 applied   Filters

**\* Click to Adjust Quantity**

Red Hat Employee Subscription                                              Both

Employee SKU                                                              Both

60 Day Self-Supported Red Hat Enterprise Linux OpenStack Platform Preview   Virtua

90 Day Self-Supported Red Hat JBoss Enterprise Application Platform with Management Evaluation  Physic

## Subscription Details

Subscription:

SKU:

Service Level, Type:

Subscription Type:

Attach

# Contract Selection

Choose the specific contract to use:

**Subscription:**   Employee SKU

**Total Contracts:**   2

**\* Click to Adjust Quantity**

| Contract | Type | Used / Total | Start Date | End Date | Quantity |
|----------|------|--------------|------------|----------|----------|
| 10169798 | Virtual | 625 / Unlimited | 04/24/2013 | 12/31/2021 | 1 |
| 10169798 | Physical | 2126 / 7500 | 04/24/2013 | 12/31/2021 | 1 |

Cancel     Attach

## Subscription Manager

System  Help

**My Installed Products**  |  My Subscriptions  |  All Available Subscriptions

**Status:** System is properly subscribed through 01/29/2016.

[Auto-attach]

| Product | Version | Status | Start Date | End Date |
|---|---|---|---|---|
| Red Hat Enterprise Linux Server | 7.0 | Subscribed | 11/30/2015 | 01/28/2016 |

**Product's Subscription Details**

| | |
|---|---|
| **Status:** | Covered by contract 10834240 through 01/28/2016 |
| **Product:** | Red Hat Enterprise Linux Server |
| **Arch:** | x86_64 |
| **Subscriptions:** | 60 Day Self-Supported Red Hat Enterprise Linux OpenStack Platform Preview |

# Troubleshooting RHSM problems

Examining log files
Troubleshooting configuration files
Inspecting certificates
Diagnosing network connectivity

# Insert Screenshare Here

# More troubleshooting topics?

Upcoming Red Hat course:

Red Hat Enterprise Linux
Diagnostics and Troubleshooting (RH342)
4-day course with hands-on exercises

# Questions?