Eureka Streams

Fedora Installation

Paul Morgan

Eureka Streams Fedora Installation
Edition 0

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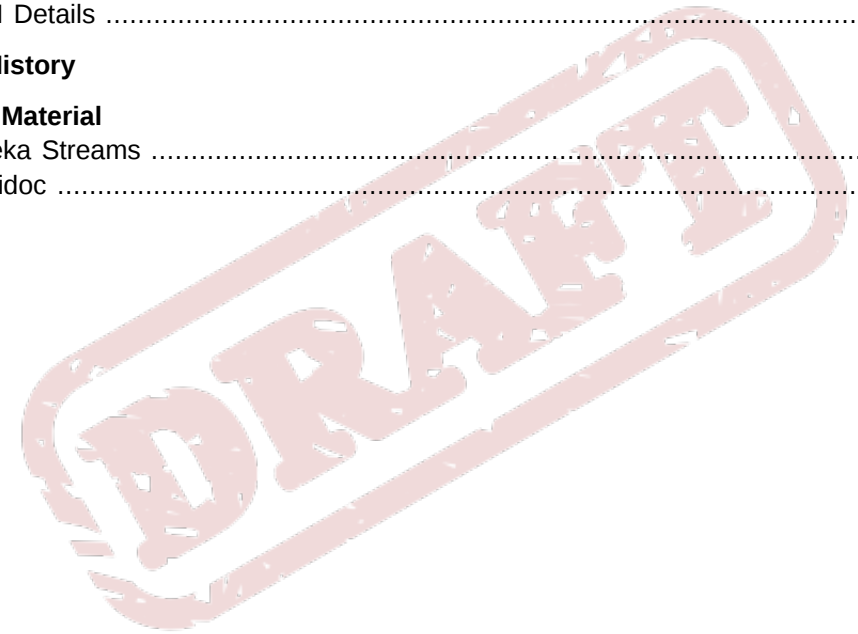
This document provides step-by-step instructions for installing a private instance of Eureka Streams from Lockheed Martin. Eureka Streams combines social features to enable employees within your company or organization to collaborate in new ways. Eureka Streams provides features that bring multiple, disparate sources of content into manageable streams.

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Executive Summary

This chapter provides a high-level overview of the project.

1.1. Scope

This document provides detailed instructions for installing Eureka Streams on Fedora Linux. The instructions probably relate closely to the steps needed to install on other distributions, such as Red Hat Enterprise Linux and Centos.

Installing Fedora Linux is well-documented and is beyond the scope of this document.

1.2. Technologies used

This project incorporates the following technologies:

- Fedora Linux 11
- Eureka Streams
- Memcached
- Java
- Maven
- Postgres

1.3. Challenges and Risks

stub text

1.4. Recommendations

stub text

1.5. Reviewers

Name	Title	Email
Jane Austen	Technical Writer	*jane.austen@example.com*[1]
Compliance Person	Senior Auditor	*compliance.person@example.com*[2]
Another Name	Project Manager	*another.name@redhat.com*[3]
Yet Another	Technical Account Manager	*yet.another@redhat.com*[4]

1.6. Approvers

Name	Title	Email
John Doe	Director of Systems Engineering	*john.doe@example.com*[5]


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Runbook Procedures

2.1. Installation

This installation is based on the instructions at *http://www.eurekastreams.org/build-and-run/*.

2.1.1. Install prerequisite packages

These steps install numerous dependencies.

Note

These steps use **`sudo`** to run commands as **`root`**. You could also run **`sudo -i`** to become **`root`**.

1. Install **`maven2`**

```
sudo yum -y install maven2 maven2-manual
```

2. Install **`memcached`**

```
sudo yum -y install memcached
sudo /sbin/service memcached start
sudo /sbin/chkconfig memcached on
```

3. Install Git

```
sudo yum -y install git-all
```

4. Install Postgres client and server

```
sudo yum -y install postgresql postgresql-server
```

5. Install Java from *http://www.java.com/en*


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Technical Discussion

This section provides technical details about the packaging and deployment of HP PSP components for ISE.

3.1. PSP Software

To download the PSP software:

1. Visit *http://www.hp.com/servers/psp*
   a. Follow the link for **Downloads**
   b. Choose RHEL 5 Server x86_64
2. The HP site delivers three parts
   a. Download Part 1 (XML file) as **`psp.xml`**
   b. Download Part 2 (tarball) with name intact
   c. Download Part 3 (MD5 checksum) and save as **`md5sum.txt`** in the *same* directory as tarball
3. Verify integrity of the download

```
md5sum -c md5sum.txt
```

Expected output:

```
psp-8.31.rhel5.x86_64.en.tar.gz: OK
```

Important

This is not a true integrity check since it lacks a digital signature, but it is the best we can do at the moment.

4. Extract the tarball to inspect its contents
   a. Extract the distribution tarball

```
[pmorgan@x200 hp-psp]$ tar xvzf psp-8.31.rhel5.x86_64.en.tar.gz
compaq/
compaq/csp/
compaq/csp/linux/
compaq/csp/linux/cpqacuxe-8.30-5.0.noarch.rpm.tar.gz
compaq/csp/linux/cpq_cciss-3.6.20-30.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/e1000-8.0.16-1.src.rpm.tar.gz
compaq/csp/linux/e1000e-1.0.15-1.src.rpm.tar.gz
compaq/csp/linux/fibreutils-2.5-4.x86_64.rpm.tar.gz
compaq/csp/linux/hpacucli-8.30-5.0.noarch.rpm.tar.gz
compaq/csp/linux/hpahcisr-1.2.1-9.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/hpdiags-8.3.0-14.linux.x86_64.rpm.tar.gz
compaq/csp/linux/hp-fc-enablement-1.1-9.noarch.rpm.tar.gz
compaq/csp/linux/hp-health-8.3.1.2-2.rhel5.x86_64.rpm.tar.gz
```

```
compaq/csp/linux/hp-ilo-8.3.0-118.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/hp-lpfc-8.2.0.22-8.noarch.rpm.tar.gz
compaq/csp/linux/hpmouse-1.1.2-33.noarch.rpm.tar.gz
compaq/csp/linux/hponcfg-2.2.0-5.noarch.rpm.tar.gz
compaq/csp/linux/hp-OpenIPMI-8.3.1-15.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/hp_qla2x00src-8.02.23-1.noarch.rpm.tar.gz
compaq/csp/linux/hp_qla2x00src-mezz-8.02.23-1.noarch.rpm.tar.gz
compaq/csp/linux/hpsmh-3.0.2-77.x86_64.rpm.tar.gz
compaq/csp/linux/hp-smh-templates-8.3.0.9-13.noarch.rpm.tar.gz
compaq/csp/linux/hp-snmp-agents-8.3.0.27-24.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/hpvca-2.2.1-3.linux.rpm.tar.gz
compaq/csp/linux/mptlinux-4.00.13.07-1.rhel5.x86_64.rpm.tar.gz
compaq/csp/linux/netxtreme2-5.0.17-1.src.rpm.tar.gz
compaq/csp/linux/nx_nic-4.0.406-5.src.rpm.tar.gz
compaq/csp/linux/qla4xxx-5.01.01.04-1.src.rpm.tar.gz
compaq/csp/linux/tg3-3.99h-1.src.rpm.tar.gz
compaq/csp/linux/hppldu-1.0.26-1.tar.gz
compaq/csp/linux/hppldu-librpms-1.0.26-1.tar.gz
compaq/csp/linux/install830.sh
compaq/csp/linux/bp000666.xml
compaq/csp/linux/hppldu_v831.rhel5.txt
```

b. Extract additional tarballs

```
find compaq/ -regex '.*tar.gz' -exec tar xvf {} \;
```

c. Some of the packages appear from the name to conflict, so check the packager for each:

```
{
for rpm in $(ls *rpm); do
  echo " ========= $rpm ==========="
  rpm -qip $rpm
done
} 2> /dev/null | tee /tmp/pkg-descriptions | less
```

Note

See the relevant appendix for the complete **`pkg-descriptions`** file.

Warning

Some of the components are specific, *out-of-date* versions of vendor packages; others, *uncertified* replacements for certified drivers.

Based on the above, the most interesting components *on initial review* seem to be:

- **cpqacuxe**: HP Array Configuration Utility

```
Name        : cpqacuxe                     Relocations: (not relocatable)
Version     : 8.30                              Vendor: Hewlett-Packard Company
Release     : 5.0                           Build Date: Wed 08 Jul 2009 10:14:24 PM EDT
Install Date: (not installed)               Build Host: Prowl.americas.hpqcorp.net
Group       : Applications/System           Source RPM: cpqacuxe-8.30-5.0.src.rpm
Size        : 12284428                         License: See cpqacuxe.license
```

```
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/linux
Summary     : HP Array Configuration Utility
Description :
The HP Array Configuration Utility is the web-based disk array
configuration program for Array Controllers.
```

- **hpacucli**: HP Command Line Array Configuration Utility

```
Name        : hpacucli                     Relocations: (not relocatable)
Version     : 8.30                              Vendor: Hewlett-Packard Company
Release     : 5.0                           Build Date: Wed 08 Jul 2009 06:14:52 PM EDT
Install Date: (not installed)               Build Host: Prowl.americas.hpqcorp.net
Group       : Applications/System           Source RPM: hpacucli-8.30-5.0.src.rpm
Size        : 15748051                         License: See hpacucli.license
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/linux
Summary     : HP Command Line Array Configuration Utility
Description :
The HP Command Line Array Configuration Utility is the disk
array configuration program for Array Controllers.
```

- **hpdiags**: hp Insight Diagnostics

```
Name        : hpdiags                      Relocations: (not relocatable)
Version     : 8.3.0                             Vendor: (none)
Release     : 14                            Build Date: Mon 10 Aug 2009 04:53:48 PM EDT
Install Date: (not installed)               Build Host: linux-X64
Group       : Applications/System           Source RPM: hpdiags-8.3.0-14.src.rpm
Size        : 64303983                         License: commercial
Signature   : (none)
URL         : http://www.hp.com/linux
Summary     : hp Insight Diagnostics
Description :
Identifies and exercises system components.
```

- **hp-health**: HP System Health Application and Command Line Utilities

```
Name        : hp-health                    Relocations: (not relocatable)
Version     : 8.3.1.2                           Vendor: Hewlett-Packard Company
Release     : 2                             Build Date: Thu 17 Sep 2009 03:21:17 PM EDT
Install Date: (not installed)               Build Host: bld72.sdg.adapps.hp.com
Group       : System Environment            Source RPM: hp-health-8.3.1.2-2.src.rpm
Size        : 1506986                          License: 2008 Hewlett-Packard Development
 Company, L.P.
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/go/proliantlinux
Summary     : HP System Health Application and Command Line Utilities
Description :
This package contains the System Health Monitor for all hp Proliant systems
with ASM, ILO, & ILO2 embedded management asics.  Also contained are the
command line utilities.
```

- **hp-ilo**: HP iLO Channel Interface Driver

```
Name        : hp-ilo                       Relocations: (not relocatable)
```

```
Version     : 8.3.0                             Vendor: Hewlett-Packard Company
Release     : 118.rhel5                      Build Date: Fri 26 Jun 2009 01:10:10 PM EDT
Install Date: (not installed)                Build Host: rhel5ebuild
Group       : System Environment/Kernel      Source RPM: hp-ilo-8.3.0-118.rhel5.src.rpm
Size        : 1910611                           License: GNU Public License
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/go/proliantlinux
Summary     : HP iLO Channel Interface Driver
Description :
This is the Hewlett-Packard integrated Lights-Out (iLO) system management
controller channel interface device driver. This driver establishes a channel
from the iLO 2 controller to an application such that the application can
communicate directly to the iLO 2 controller.
```

- **`hponcfg`**: RILOE II/iLo online configuration utility

```
Name        : hponcfg                       Relocations: (not relocatable)
Version     : 2.2.0                              Vendor: Hewlett-Packard Company
Release     : 5                              Build Date: Tue 02 Jun 2009 11:35:56 PM EDT
Install Date: (not installed)                Build Host: nt179237.ind.hp.com
Group       : Utilities/System               Source RPM: hponcfg-2.2.0-5.src.rpm
Size        : 200492                            License: Proprietary
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/go/ilo
Summary     : hponcfg - An RILOE II/iLo online configuration utility
Description :
Hponcfg is a command line utility that can be used to configure iLO/RILOE II from with in
 the operating system without requiring a reboot of the server.
```

- **`hpsmh`**: HP System Management Homepage

```
Name        : hpsmh                         Relocations: (not relocatable)
Version     : 3.0.2                              Vendor: Hewlett-Packard Company
Release     : 77                             Build Date: Sat 20 Jun 2009 12:45:38 PM EDT
Install Date: (not installed)                Build Host: linux
Group       : Applications/System            Source RPM: hpsmh-3.0.2-77.src.rpm
Size        : 43065778                          License: COPYRIGHT 2004-2009 Hewlett-Packard
 Development Company, L.P.  All rights reserved.
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/linux
Summary     : HP System Management Homepage
Description :
The HP System Management Homepage v3.0.2.77
```

- **`hp-snmp-agents`**: Insight Management Agents(SNMP) for HP ProLiant Systems

```
Name        : hp-snmp-agents                Relocations: (not relocatable)
Version     : 8.3.0.27                           Vendor: Hewlett-Packard Company
Release     : 24                             Build Date: Tue 28 Jul 2009 12:52:56 PM EDT
Install Date: (not installed)                Build Host: bld73.sdg.adapps.hp.com
Group       : System Environment             Source RPM: hp-snmp-agents-8.3.0.27-24.src.rpm
Size        : 5428602                           License: 2008 Hewlett-Packard Development
 Company, L.P.
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com/go/proliantlinux
Summary     : Insight Management Agents(SNMP) for HP ProLiant Systems
```

```
Description :
This package contains the SNMP server, storage, and nic agents for all
hp Proliant systems with ASM, ILO, & ILO2 embedded management asics.
```

Note

The above components are binary-only and do not require building.

These additional components appear interesting, but possibly invasive:

- **`fibreutils`**: Complimentary programs and scripts for HP supported FC HBAs

```
Name        : fibreutils                    Relocations: (not relocatable)
Version     : 2.5                                Vendor: Hewlett-Packard Company
Release     : 4                             Build Date: Tue 25 Nov 2008 11:42:36 AM EST
Install Date: (not installed)               Build Host: deimos.mro.cpqcorp.net
Group       : Applications/System           Source RPM: fibreutils-2.5-4.src.rpm
Size        : 161229                           License: Proprietary
Signature   : (none)
Packager    : Hewlett-Packard Company
URL         : http://www.hp.com
Summary     : Provides complimentary programs and scripts for HP supported FC HBAs
Description :
This RPM has the following components:

* Miscellaneous scripts and programs to compliment HP supported FC drivers:

lssd
lssg
adapter_info
probe-luns
hp_rescan
hp_system_info
scsi_info
sysfs_scandisk
sysfs_scan_rport
```

Note

This component may provide redundant functionality with standard tools provided by **`sg3_utils`**, **`lspci`**, **`dmidecode`**, and other packages.

3.2. Test installation of PSP components

This section describes how to test the installation of interesting PSP components in an isolated environment with no impact on other environments.

3.2.1. Goals of test installation

The goals of a test installation procedure:

- Build in an isolated environment
- Determine whether components are buildable

- Determine build dependencies
- Determine run-time dependencies

3.2.2. Procedure for test installation

1. Copy the binary PSP packages to **`lunch18`**
2. Attempt to install without yum

```
[pmorgan@lunch18 ~]$ sudo rpm -Uvh *rpm
error: Failed dependencies:
        libGLU.so.1()(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libXaw.so.7()(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libXmu.so.6()(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5 is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5()(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5(CXXABI_1.2) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5(CXXABI_1.2)(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5(GLIBCPP_3.2) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5(GLIBCPP_3.2)(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libstdc++.so.5(GLIBCPP_3.2.2)(64bit) is needed by hpdiags-8.3.0-14.x86_64
        libsensors.so.3()(64bit) is needed by hp-snmp-agents-8.3.0.27-24.x86_64
        net-snmp is needed by hp-snmp-agents-8.3.0.27-24.x86_64
```

3. Attempt to use **`yum`** to pick up dependencies

```
sudo yum localinstall --nogpgcheck *rpm
```

Actual output

```
 --snip--
Installing for dependencies:
 compat-libstdc++-33
             i386   3.2.3-61         ise-rhel-5.3-x86_64                 232 k
 compat-libstdc++-33
             x86_64 3.2.3-61         ise-rhel-5.3-x86_64                 227 k
 libXaw      x86_64 1.0.2-8.1        ise-rhel-5.3-x86_64                 328 k
 libXmu      x86_64 1.0.2-5          ise-rhel-5.3-x86_64                  63 k
 libXpm      x86_64 3.5.5-3          ise-rhel-5.3-x86_64                  44 k
 lm_sensors  x86_64 2.10.7-4.el5     ise-rhel-5.3-x86_64                 528 k
 mesa-libGLU x86_64 6.5.1-7.7.el5    ise-rhel-5.3-x86_64                 226 k
 net-snmp    x86_64 1:5.3.2.2-5.el5  ise-rhel-5.3-x86_64                 716 k
 --snip--
Running Transaction
  Installing     : lm_sensors                                       [ 1/17]
  Installing     : libXmu                                           [ 2/17]
  Installing     : net-snmp                                         [ 3/17]
  Installing     : libXpm                                           [ 4/17]
  Installing     : libXaw                                           [ 5/17]
  Installing     : mesa-libGLU                                      [ 6/17]
  Installing     : compat-libstdc++-33                              [ 7/17]
Detected Red Hat Enterprise Linux AS/ES/WS/SERVER 5
Created hpsmh user and group...
  Installing     : hpsmh                                            [ 8/17]

*******************************************************
* System Management Homepage installed successfully with *
* default configuration values.   To change the default  *
* configuration values,  type the following command at   *
```

```
* the root prompt:                                          *
*                                                          *
* /opt/hp/hpsmh/sbin/smhconfig                             *
*                                                          *
************************************************************


This RPM is not supported on RHEL 5.3 or greater

error: %pre(fibreutils-2.5-4.x86_64) scriptlet failed, exit status 1
error:   install: %pre scriptlet failed (2), skipping fibreutils-2.5-4
  Installing     : hp-ilo                                          [10/17]
Please read the Licence Agreement for this software at

         /opt/hp/hp-ilo/hp-ilo.license

By not removing this package, you are accepting the terms
of the included licenses.

The man page, hp-ilo(4), describes how to enable and use
the hp-ilo device driver.
  Installing     : hponcfg                                         [11/17]
  Installing     : compat-libstdc++-33                             [12/17]
  Installing     : cpqacuxe                                        [13/17]
  Installing     : hpacucli                                        [14/17]
  Installing     : hp-health                                       [15/17]
Please read the Licence Agreement for this software at

         /opt/hp/hp-health/hp-health.license

By not removing this package, you are accepting the terms
of the "HP Proliant Essentials Software End User License Agreement".
 ================================================================================
 NOTE: In order to activate the software contained in this package, you must
      type '/etc/init.d/hp-health start' as 'root' user.
 ================================================================================
The hp-health RPM has installed successfully.
  Installing     : hp-snmp-agents                                  [16/17]
Please read the Licence Agreement for this software at

         /opt/hp/hp-snmp-agents/hp-snmp-agents.license

By not removing this package, you are accepting the terms
of the "HP Proliant Essentials Software End User License Agreement".
Installing /opt/hp/hp-snmp-agents/nic/etc/HPcmanic.pp SELinux policy module
 ================================================================================
 NOTE: In order to activate the software contained in this package, you must
      type '/sbin/hpsnmpconfig' as 'root' user.
      Once configuration is completed start the agents by typing
      /etc/init.d/hp-snmp-agents start
 ================================================================================
  Installing     : hpdiags                                         [17/17]
Stopping hpsmhd: [  OK  ]
Starting hpsmhd: [  OK  ]

Installed: cpqacuxe.i386 0:8.30-5.0 fibreutils.x86_64 0:2.5-4 hp-health.x86_64 0:8.3.1.2-2
 hp-ilo.x86_64 0:8.3.0-118.rhel5 hp-snmp-agents.x86_64 0:8.3.0.27-24 hpacucli.i386
 0:8.30-5.0 hpdiags.x86_64 0:8.3.0-14 hponcfg.noarch 0:2.2.0-5 hpsmh.x86_64 0:3.0.2-77
Dependency Installed: compat-libstdc++-33.i386 0:3.2.3-61 compat-libstdc++-33.x86_64
 0:3.2.3-61 libXaw.x86_64 0:1.0.2-8.1 libXmu.x86_64 0:1.0.2-5 libXpm.x86_64 0:3.5.5-3
 lm_sensors.x86_64 0:2.10.7-4.el5 mesa-libGLU.x86_64 0:6.5.1-7.7.el5 net-snmp.x86_64
 1:5.3.2.2-5.el5
Complete!
 --snip--
```

4. Check disk usage in **`/opt`**

```
[pmorgan@lunch18 ~]$ sudo du -lsh /opt
119M    /opt
```

3.2.3. Test configuration

Dave Shouse provided configuration settings for the test installation.

Equinix

SNMP trap destination is 6.3.5.202

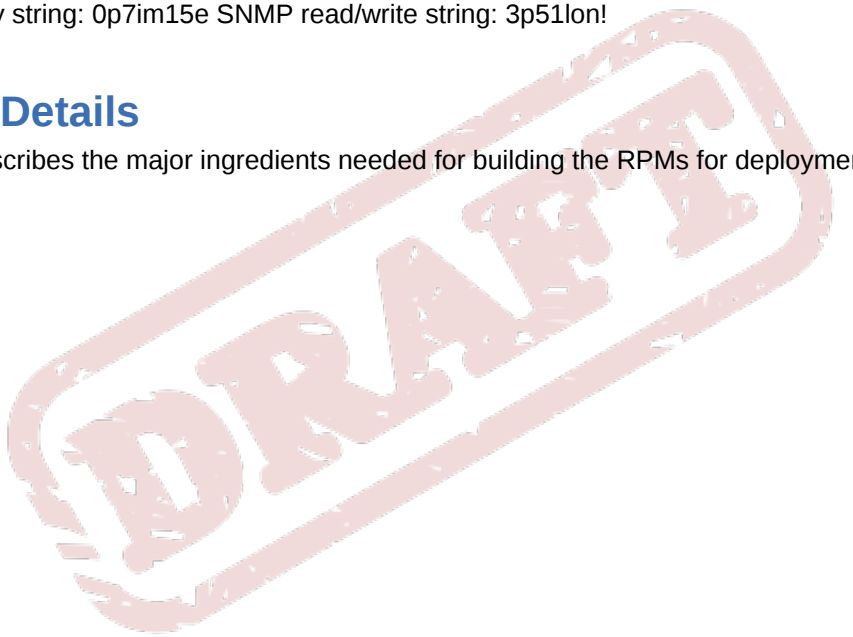
Telx SNMP trap destination is 6.4.5.202

Community strings for both environments

SNMP read only string: 0p7im15e SNMP read/write string: 3p51lon!

3.3. RPM Details

This section describes the major ingredients needed for building the RPMs for deployment.



Appendix A. Revision History

Revision 0 Fri Aug 13 2010 Paul Morgan *pmorgan@redhat.com*

Initial creation of book by publican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Appendix B. Reference Material

B.1. Eureka Streams

Eureka Streams official site

http://www.eurekastreams.org

Github

http://github.com/lmco/eurekastreams

Wikipedia

http://en.wikipedia.org/wiki/Eureka_Streams

B.2. Asciidoc

Asciidoc website

http://www.methods.co.nz/asciidoc/index.html

Asciidoc cheat sheet

http://powerman.name/doc/asciidoc


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