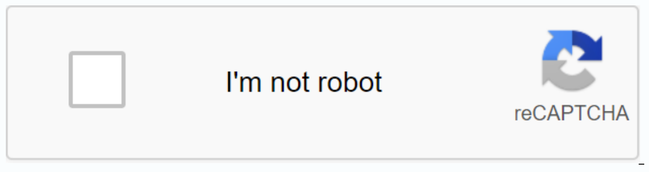

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Spacewalk documentation pdf

I have recently switched to using RPM-based Linux distributions on all my machines as an exercise in learning to manage them. One tool that I really liked on the side of Ubuntu/Debian is the Canonical landscape software. It is free for a limited number of personal machines and allows me to manage them centrally. When I switched to CentOS VMs in my lab, I found the central space somewhat... Missing. Entrance: SpacewalkSpacewalk is an open-sourc management platform for RHEL-derived systems. It does a lot of the same things with landscape, and even more. Unlike landscape, though, the technical bar-for-entry know-how is a fair bit higher, and the documentation is a little less beginner friendly. So I rolled up my sleeves, waded knee-deep into forum posts, the wiki, and StackOverflow questions to learn how to set up my own Spacewalk server and manage my lab VMs with it. So I thought I'd share my discoveries for those who, like me, want to learn to use Spacewalk, but find it scary. This guide is adapted from my Spacewalk documentation to my personal knowledge base. This is my method for installing the Spacewalk server in RHEL7 - this works for CentOS7 and Scientific7. Spacewalk is a system management and automation server for RHEL-based systems. Learn from my mistakes: If you're installing Spacewalk on a VM, make sure you give at least 25GB of space to be safe. I left it in the default 10GB, and the 6GB left-up after installing scientific Linux 7 was not enough space to prepare the Postgres database. Install SpacewalkSpacewalk depends on several EPEL (Extra-Packages for Linux Business) packages, including OpenJDK, so you will make sure that the EPEL repository is installed:#yum install epel-releaseNow, we will install the Spacewalk repository:# rpm -Uvh spacewalkproject/spacewalk-2.9/epel-7-x86_64/00830 557-spacewalk-repo/space walk-repo-2.9-4.el7.noarch.rpmIt's also a good idea to make sure your system is up to date before making any big changes:#yum purely metadata &; yum updateSpacewalk requires a back-end database to store information about packages/systems/etc. By default, it can configure and install PostgreSQL:#yum install spacewalk-organization-postgresqlFinished, install Spacewalk and tell it to automatically configure the back-end postgres:#yum install spacewalk-postgresql (This installs several hundred packages, so it will take a while.) Spacewalk uses HTTP/S to communicate with clients. Port 5222 also opens, which allows the Spacewalk server to forward (or almost direct) commands to client machines through a tunnel. The following commands configure the default firewall in CentOS 7.Enable HTTPS:# firewall-cmd --add-service=https --permanentEnable HTTP:# firewall-cmd --add-service=http --permanentEnable Port 5222:# fire wall-cmd --add-port=5222/tcp --permanent# firewall-cmd--add-port=5222/udp --permanentReload the Firewall:# firewall-cmd --reloadSpacewalk reconnects a FQDN FQDN domain name) for the server to function properly. If you are working in an environment with a local DNS server, configure it this way. If you are not (most are not), modify the /etc/hosts file to include the following or similar to your environment. The /etc/hosts file contains a series of aliases between IP addresses and domain names that are local to the computer on which the file is hosted. Modify it by editing the /etc/hosts file in your favorite text editor. Add the following line:Replace #################### with the local IP of the Spacewalk server computer. Replace {hostname} with the host name of the computer. Replace {yourdomain} with a local domain. Typically, it's a good idea to commandeer it with .local to make sure it doesn't overlap with the actual domain space. Now, run the following command to start the Spacewalk configuration wizard:# spacewalk-setup You must provide the following: An administrator's e-mail address Confirmation to configure apache2 with default SSLA ca certificate password settings for the Spacewalk self-signed certificateOrganization and location information for that certificateContification to enable tftp and xinetdAfter the wizard completes, we can open the Web portal by visiting the host's FQDN. You will receive a certificate error because the certificate is automatically signed from the Spacewalk server computer. This means that the certification authority (which we created during the Spacewalk Setup Wizard) is not registered in the web browser. Add an exception and continue. You will then be prompted to create an administrative user for your organization. After creating the user, it will fall on the Spacewalk portal! Adapted from spacewalk listings to my personal knowledge base. Spacewalk Copyright © 2011-2014 Red Hat, Inc. Copyright © SUSE LLC The text and illustrations in this document are licensed by Red Hat as part of a Creative Commons Attribute-Share Alike 3.0 Unported license (CC-BY-SA). An explanation of CC-BY-SA is available at . According to CC-BY-SA, if you distribute this document or customize it, you must provide the URL for the original version. This document is an adaptation of the original works found at: Red Hat, as the licensor of these documents, waives the right to enforce and agrees not to view Section 4d of CC-BY-SA to the fullest extent permitted by applicable law. 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Are you a programmer? You may also be interested in developer documentation and source/rpm download information. Is there any documentation missing or would you just like to see? Is there anything you'd like to understand better? Please feel free to let us know using the mailing list or search us in #spacewalk the irc.freenode.net. Do you know the answer to something and do you think others might find it useful? Feel free to add your own docs and/or additions, it's a wiki you know. Starting Introduction Installation After Installation Guides Core Guides General Documentation Advanced Guides Continuous Maintenance and Administration In-depth Guides Core API Reference Other Documentation Up/Down-stream Documentation Related Technological Resources FAQs General Questions What is the SpaceWalk? How long has the SpaceWalk been? Installation Requires satellite/spacewalk certificate to use Spacewalk? Architecture Future Known Issues & Current Restrictions Installation Issues GUI Issues Configuration Issues Multibyte Issues (UTF8) Input Restrictions Networking Issues Database Issues Oracle XE Issues Support Jabber Berkeley Database Maintenance Communication Appendices Features Features Requests / BrainBox Drivers Installation Roadmap Upgrade Notes Upgrade Upgrade Drivers, successive, step upgrades are recommended to cover multiple update levels, i.e. to get from 0.6 to 0.8 please upgrade through 0.7 (and we recommend testing at each intermediate level as you go) instead of trying to go directly from 0.6 to 0.8. Jump levels are deeply discouraged with the exception of version 0.9 that was never released. If you're looking for instructions on how to upgrade the operating system on which your SpaceWalk is based without upgrading your SpaceWalk, follow the instructions in HowToUpgradeOperationSystem. Release Notes Release Notes Release Notes for each version: Wiki licensing and spacewalk copyright is the upstream community program from which the red hat network satellite product originates. Provides a management interface for software content in servers and desktop computers. 1. Reports This howto is based on documents that can be found on spacewalk's official website to create a basic walkthrough for CentOS users. Spacewalk official website Official Documentation Screenshots and Overview of Spacewalk Project 2. CentOS 5 Server Requirements (i386 or x86_64) 1024 MB of 20 GB of free space, 80 GB A valid domain name (FQDN) - In this example, we use the reserved IANA example.com domain: spacewalk.example.com TIP: The author recommends using CentOS 5 i386, since most of the advantages of the x86_64 architecture are lost to restrictions on the Oracle XE database server. 3. SELinux The Oracle database server required by the Spacewalk server is integrated, and does not play well with SELinux. Edit /etc/sysconfig/selinux and set SELinux to enforcement mode: SELINUX=enforcement Restarting the server is probably the fastest way to apply this change. 4. Firewall The following incoming TCP ports should be open on the Spacewalk server: 69: TFTP (PXE supply) 80: Spacewalk web interface 443: Spacewalk web interface (SSL) 4545: Spacewalk monitoring 5222: If you plan to push actions for 5269 client systems: If you push actions into a Spacewalk Proxy Server 9055: Oracle XE access to the web5. Oracle Database In this spacewalk guide will be installed with an oracle 10g database server; PostgreSQL support as a backend is a work in progress and we will update here whenever it will be a viable option. Oracle Express Edition server works fine, even if it has some limitations: 1 GB of memory (max) - even if more is available 4 GB of disk space (max) 1 database (max) 1 cpu (max) - processing resources equivalent to one CPU will be consumed at the top, even if more than one CPU is available 5.1. Installation To run with SELinux enabled, the oracle user must be under 500. The following two commands create the group and user for oracle before installing the Oracle-xe-univ package: /usr/sbin/groupadd -r dba /usr/sbin/useradd -r -M -g dba -d /usr/lib/ora cle/xe -s /bin/bash oracle On x86_64 systems: beware that you will need a lot of i386 compatibility packages so you need to not have: exclude = *.i386 in /etc/yum.conf; If you have this line the oracle XE installation will fail in a subtle way The following packages are required by the oracle database. This will install BC, plus glibc and libaio in 32bit variant required even for architecture x86_64: yum installation bc glibc.i686 libaio.i386 Download Oracle XE from Oracle's website. You will need to register to download the RPMS. Select the Oracle 10g Express Edition (Universal) database: oracle-xe-univ-10.2.0.1-1.0.i386.rpm You will also need a customer to access the database. Download Oracle Instant Client: i386 client or x86_64 according to your server architecture. Download the following two (2) RPM packets: oracle-instantclient11.2-basic-11.2.0.2.0.ARCH.Rpm oracle-instantclient11.2-sqlplus-11.2.0.2.0.ARCH.Rpm CAUTION: Spacewalk version 1.4 is known to work properly with version 11.2.0.2.0 of oracle instant client. Install the rpm you downloaded to the Spacewalk server: rpm-Uvh oracle-xe-univ-10.2.0.1-1.0.i386.rpm -uvh oracle-instantclient11.2-basic-11.2.0.2.0.*.rpm -Uvh oracle-instantclient11.2-sqlplus-11.2.0.2.0.*.rpm Before configuring the oracle database, oracle, you need to pull some packages from the Spacewalk Yum repository. So we nedd to install repo files: rpm -Uhv rpm -Uhv the following packages from the Spacewalk repository: yum install oracle-lib-compat yum install oracle-xe-seinux ora cle-instantclient-seliny-instantclient-sqlplus-selinux Configure oracle database: /etc/init.d/oracle-xme configure Default values are fine except for http database. Use 9055 instead of 8080. CAUTION: To modify the configuration values, uninstall and reinstall RPMS. 5.2. Customer Configuration You must configure tns name registration for our database. Edit /etc/tnsnames.ora: XE = (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))) (CONNECT_DATA = (SERVICE_NAME = x) Restore default SECURITY ENVIRONMENT SELinux files: /sbin/restorecon -v /etc/tnsnames.ora Check the connection to the Oracle database server: sqlplus system@xe Enter the password for the system user when prompted. You should see the following message: SQL *Plus: Release 10.2.0.1.0 - Production on December 17, 09:41:18 2008 Copyright (c) 1982, 2005, Oracle. All permissions reserved. Connected to: Oracle Database 10g Express Edition Release 10.2.0.1.0 - SQL Production> Type close to exit the client interface. 5.3. Create the spacewalk database user Create the spacewalk database user with the sqlplus command-line interface: sqlplus 'sys@xe as sysdba' SQL> create spacewalk user identified by spacewalk default tablespace users; The user was created. SQL> grant dba to spacewalk. Grant succeeded. Sql> Password SpaceWalk. Change password for spacewalk New password: Retype new password: Password changed SQL> close 5.4. Additional configurations Spacewalk needs more simultaneous connections to its database than is allowed by default (40). The recommended setting by Spacewalk developers is 400. Also, an error in Oracle XE can cause an internal server error (500) in Spacewalk. The following configuration changes will address these issues: sqlplus spacewalk/spacewalk@xe SQL> modify system set processes = 400 scope=spfile; The system's changed. SQL> modify the system set _optimizer_filter_pred_pullup=false scope=spfile; The system's changed. SQL> modify the system set scope=spfile; The system's changed. SQL> close Restart oracle database: /etc/init.d/oracle-xe restart 6. Yum 6.1. EPEL Spacewalk requires packages available from the EPEL repository. Edit /etc/yum.repos.d/epel.repo: [epel] name=Additional packages for Linux 5 - $basearch #baseurl= basearch mirrorlist= projectorject.org/mirrorlist?repo=epel-5&arch=$basearch failovermethod=priority gpgkey= gpgcheck=1 enabled=1 enabled=1 enabled=1 τσαγκάρης editarea gc gc-devel git* jabberd jabberpy* Τζακάρτα-commons-cli jcommon \ jfreechart libapreq2 libgsasl* libntlm* libllm* libalml perl-Algorithm-Diff perl-Apache-DBI \ perl-BerkeleyDB perl-Cache-Cache perl-Class-MethodMaker perl-Class-Singleton \ per -Μετατροπή-BinHex perl-Config-IniFiles perl-Crypt-DES perl-Crypt-GeneratePassword \ perl-DateTime perl-DateTime-Format-Mail perl-DateTime-Format-W3CDTF perl-Error \ perl-FreezeThaw perl-Frontier-RPC perl-GD perl-Git-perl-Μαθηματικά-FFT perl-HTML-TableExtract \ perl-IO-Capture perl-IO-stringy perl-IPC-ShareLite perl-libapreq2 perl-MIME-Lite \ perl-MIME-tools perl-Net-IPv4Addr perl-Net-SNMP perl-Params-Validate perl-Proc-Daemon \ perl-SOAP-Lite perl-TermReadKey perl-Text-Diff perl-Unix-Syslog perl-XML-RSS perl-version \ perlAlgorithm-Diff python-cheetah python-dmidecode python-hashlib python-netaddr PyYAML \ python-simplejson rhino tzdata-java udns* 6.2. Spacewalk The following yum repository contains the basics of spacewalk version 1.4. The rhn-client-tools and rhnlib packages are required by Spacewalk, but were removed by CentOS as part of CentOS that was changed to the updater [to avoid an old upstream updater behavior of unregulated CentOS units, which placed load on the upstream vendor due to certain names in the hard encoded repository]. To work around this, reinstall the Spacewalk client repo. rpm -Uhv rpm -Uhv . Partial yum repositories If you want to use your Spacewalk server to manage partial yum repositories, we recommend that you create a file named /etc/reposync.conf. Below is an example file used to manage both EPEL and RPMforge i386 repositories. We strongly recommend using the includepkgs directive to protect the base distro packages and limit the occupied disk space: [epel32] name=Extra Packages for Enterprise Linux 5 - i386 baseurl= #mirrorlist= failovermethod=priority gpgkey= gpgcheck=1 enabled=1 includepkgs=bea-stax* cobbler editarea gc gc-devel git* jabberd jabberpy* jakarta-commons-cli jcommon \ jfreechart libapreq2 libgsasl* libntlm* libyaml perl-Algorithm-Diff perl-Apache-DBI \ perl-BerkeleyDB perl-Cache-Cache perl-Class-MethodMaker perl-Class-Singleton \ perl-Convert-BinHex perl-Config-IniFiles perl-Crypt-DES perl-Crypt-GeneratePassword \ perl-DateTime perl-DateTime-Format-Mail perl-DateTime-Format-W3CDTF perl-Error \ perl-FreezeThaw perl-Frontier-RPC perl-GD perl-Git perl-Math-FFT perl-HTML-TableExtract \ perl-IO-Capture perl-IO-stringy perl-IPC-ShareLite perl-libapreq2 \ perl-MIME-tools perl-Net-IPv4Addr perl-Net-SNMP perl-Params-Validate perl-Proc-Daemon \ perl-SOAP-Lite perl-TermReadKey perl-Text-Diff perl-Unix-Syslog perl-XML-RSS perl-XML-RSS \ perlAlgorithm-Diff python-cheetah python-dmidecode python-hashlib python-netaddr PyYAML \ python-simplejson rhino tzdata-java udns* [rpmforge32] name = RPMforge for Linux 5 - i386 baseurl = ggkey = gpgcheck=1 includepkgs=amivisd-new arc cabextract clamav* cladd freeze lha lzop nomarch perl-Archive-Zip perl-Convert-TNEF \ perl-Convert-UUlib perl-MailTools perl-Net-Server ripole unarj zoo 6.4. GPG keys By default, Spacewalk will refuse to distribute unsigned RPMS or RPMS signed with an unknown key. We make sure to have all relevant GPG keys installed: wget mv RPM-GPG-KEY-EPEL /etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL rpm --import /etc/pki/rpm-gpg/rpm-GPG-KEY-EPEL wget mv 37017186.txt /etc/pki/rpm-gpg/rpm-GPG-KEY-redhat-release rpm --import /etc/pki/rpm-gpg/rpm-GPG-KEY-redhat-release wget mv RPM-GPG-KEY-spacewalk /etc/pki/rpm-gpg/rpm-GPG-KEY-spacewalk rpm --import /etc/pki/rpm-gpg/rpm-GPG-KEY-spacewalk wget mv RPM-GPG-KEY.dag.txt /etc /pki/rpm-gpg/RPM-GPG-KEY-dag rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-dag Of course this also implicitly means adding a trust relationship to each of these providers, as yum and RPM will trust any content signed by any of these keys. In particular, the EPEL and DAG files do not issue coordinated updates to competing packages, and this can lead to some dependency resolution problems. Since these files are NOT managed or controlled by CentOS, please ask for help on file 7 support sites. Spacewalk Server 7.1. Install Remove the specspo package if any, since it conflicts with spacewalk. rpm -e specspo Install the following package required by Spacewalk, but do not exist in the list of dependency: yum install perl-XML-LibXML-Common We use yum to bring the rather long list of dependencies for Spacewalk software: yum install spacewalk-oracle yum update 7.2. Configure Configure Spacewalk: LANG=C; spacewalk-setup --disconnected * Oracle environment setting. * Database setup. ** Database: Set up a database connection. DB User? spacewalk DB Password? DB SID; xe DB host name? localhost DB port [1521]; DB [TCP] protocol? ** Database: Check database connection. ** Database: Database filling. Progress: ### GPG and key input. You must enter an e-mail address. Administrator e-mail address? webmaster@example.com * Run initial configuration. * Enable spacewalking. ** Loading a spacewalk certificate. ** Verify certificate locally. ** Enable spacewalking. * Enable tracking. * Configure apache SSL virtual host. You need to set up default apache SSL server for you (saves the original ssl.conf) [Y]; * Jabberd setting. * Create SSL certificates. Certification Authority certificate password? Retype the ca certificate password? Organization? Agency unit example.com [spacewalk.example.com]? E-mail address [webmaster@example.com]? City? Montreal State? Quebec country code (Examples: USA, JP, IN, or type ? to see a list)? CA** SSL: Create a CA certificate. ** SSL: Deploy a certification authority certificate. ** SSL: Create a server certificate. ** SSL: Save SSL certificates. * Develop configuration files. * Update configuration in the database. * I'm setting up a cobbler.. Cobbler requires tftp and xinetd services to be enabled for PXE provider functionality. Enable these services [Y/n]? * Restart services. Installation complete. Use a web browser to view to create the Spacewalk administrator account. Enable tracking with the following command: /usr/share/spacewalk/setup/upgrade/rhn-enable-monitoring.pl Place your web browser in to create the satellite administrator account [where example.com is the local DNS domain under your local control] 7.2.1. Activation Key Using the Spacewalk web interface, create a default activation key to register your systems. Navigate to the systems -> activation keys and click create a new key. description/ controls: default key Global default: checked 7.2.2. Channel Configuration To use Spacewalk to manage CentOS servers and desktops, we need to configure and complement software channels. From Spacewalk 1.0, it is now possible to directly bring the contents of yum repositories with the spacewalk-repo-sync utility. By default, packages are forwarded to the /var/satellite directory. Go to Manage -> Configure SpaceWalk -> General if you want to change this value. It is high time to create a channel within the Spacewalk web interface. Go to the channels -> manage software channels and click create a new channel. 7.2.2.1. CentOS 5 Base for i386 Here is an example configuration for centOS 5 Base i386 channel: Basic channel details * Channel name: CentOS 5 Base - i386 * Channel tag: centos5-base-i38 6 * Parent Channel: None * Parental Channel Architecture: IA-32 * Yum Repository Checksum Type: sha1 * Channel Summary: CentOS 5 Base for i386 Architecture Associated Yum Repository * Repository URL: * Tag: * Sync Repo: enabled Security: GPG* GPG G URL key: * GPG key ID: E8562897 * GPG fingerprint key: 473D 66D5 2122 71FD 51CC 17B1 A8A4 47DC E856 2897 Edit /etc/cron.daily/spacewalk_sync.cron: # try to create the lock and check the LOCKFILE=/var/run/spacewalk_sync.lock lockfile -r 0 ${LOCKFILE} 1>/dev/null 2>&1 status=$? if [${status} -ne 0] ;then echo Another instance that is already running. Abort. output 1 fi trap rm ${LOCKFILE} EXIT /usr/bin/spacewalk-repo-sync --channel --channel \ --url \ --type yum --label centos5-base-i386 > /dev/nullchmod 700 /etc/cron.daily/spacewalk_sync.cron chohn root:root /etc/cron.daily/spacewalk_sync.cron TIP: The spacewalk-repo-sync command is used to synchronize channel content with the relevant yum repository. Currently, only the 'yum' method is supported. Any yum-supported repository URL can be used (http://, file://, etc.). The entire contents of the yum repository are transferred to the spacewalk server. Here's an example configuration for the CentOS 5 Updates i386 channel: Basic channel details * Channel name: CentOS 5 Updates - i386 * Channel tag: centos5-updates-i386 * Parent channel: CentOS 5 Base - i386 * Parent Channel Architecture: IA-32 * Yum Repository Control Total Type: sha1 * Channel Summary: CentOS 5 Updates for architecture i386 Associated repository yum * Repository URL: * Tag: centos5-updates-i386 * Sync Repo: enabled security: GPG * GPG key URL: * GPG key ID: E8562897 * GPG fingerprint key: 4 73D 66D5 2122 71FD 51CC 17B1 A8A4 47DC E856 2897Edit /etc/cron.daily/spacewalk_sync.. cron and add these lines: /usr/bin/spacewalk-repo-sync --channel centos5-updates-i386 \ --url \ --type yum --label centos5-updates-i386 > /dev/null7.2.2.3. Spacewalk Client for i386 Here's an example configuration for the Spacewalk Client i386 channel: Basic channel details * Channel name: Spacewalk Client - i386 * Channel tag: spacewalk-client-i386 * Parent channel: CentOS 5 Base - i386 * Native Channel Architecture: IA-32 * Yum Repository Checksum Type: sha1 * Channel Summary: Spacewalk Client for Architecture i386 Related Repository Yum * Repository URL: * Tag: SpaceWalk Client-i386 * Repo synchronization: enabled security: GPG * GPG URL key: * GPG key ID: 430A1C35 * GPG fingerprint key: Edit /etc/cron.daily/spacewalk_sync.cron and add these lines: /usr/bin/spacewalk-repo-sync --channel spacewalk-client-i386 \ --url \ --type yum --label spacewalk-client-i386 > /dev/null7.2.2.4. Additional Enterprise Linux 5 packages for i386 Here is an example configuration for the additional Enterprise Linux 5 i386 channel packages: Basic channel details * Channel name: EPEL5 - i386 * Channel tag: epel5-i3 86 * Parent Channel: CentOS 5 Base - i386 * Parent Channel Architecture: IA-32 * Yum Repository Checksum Type: sha1 * Channel Summary: Additional Enterprise Linux 5 packages for i386 Associated yum repository * Repository URL: * Tag: epel5-i386 * Sync Repo: disabled Security: GPG * GPG URL key: * GPG key ID: 217521F6 * GPG fingerprint key: For this we do not want to bring the whole yum repository. Instead, we would like to bring the packages listed in yum's configuration file under the 'includepkg' directive. To do this, we need to use the reposync utility. With the reposync command, we will download the EPEL packages and create a local yum repository. The spacewalk-repo-sync command will then be used to download packages from this local yum repository. yum install yum-utils createrepoCreate the placeholder for the local yum repository: mkdir -p /var/www/html/pub/CentOS5-i386Edit /etc/cron.daily/spacewalk_sync.cron and add these lines: reposync --repoid=epel32 -c /etc/reposync.com conf -p /var/www/html/pub/CentOS5-i386 -d -l -g -n -q > /dev/null cd /var/www/html/pub/CentOS5 -i386/epel32 createrepo /var/www/html/pub/CentOS5-i386/epel32 > /dev/null /usr/bin/spacewalk-repo-sync --channel epel5-i386 \ --url file:///var/www/html/pub/CentOS5-i386/epel32/ \ --yum type --label epel5-i386 > /dev/null TIP: The reposync command will receive the EPEL for i386 RPMS from the repository configured in the /etc/reposync.conf configuration file. Packages will be downloaded to /var/www/html/pub/CentOS5-i386/jbepel32/. We do not use the '--arch' option from reposync as it may not work properly in some cases. To detect errors in this command, clear -q. 7.2.2.5. RPMforge Enterprise Linux 5 for i386 Here is an example configuration for the RPMforge Enterprise Linux 5 i386 channel: Basic channel details * Channel name: RPMforge EL5 - i386 * Channel Tag: rpmforge-el5-i386 * Parent Channel: CentOS 5 Base - i386 * Parent Channel Architecture: IA-1-232 * Yum Repository Checksum Type: sha1 * Channel Summary: RPMforge Enterprise Linux 5 for i386 architecture Associated yum repository * Repository URL: * Tag: rpmforge-el5-i386 * Sync Repo: Disabled Security: GPG * GPG URL key: * GPG key ID: 6B8D79E6 * GPG fingerprint key: For this channel, we do not want to bring the entire yum repository. Instead, we would like to bring the packages mentioned in yum's configuration (/etc/reposync.conf) file under the 'includepkg' directive. Edit /etc/cron.daily/spacewalk_sync.cron and add these lines: reposync --repoid=rrpforge32 -c /etc/reposync.conf -p /var/www/html/pub/CentOS5-i386 -d -l -g -n -q > /dev/null cd /var/www/html/pub/CentOS5-i386/rpmforge3 create2repo /var/www/html/pub/CentOS5-i386/rpmforge32 > /dev/null /usr/bin/spacewalk-repo-sync --channel rpmforge-el5-i386 \ --url file:///var/www/html/pub/CentOS5-i386/rpmforge32/ \ --type yum --label rpmforge-el5-i386 > /dev/null7.2.2.6. GPG Keys For Spacewalk Convenience Customers, We Place All GPG's Public Keys packets on the web server. The keys will be available from . cp /etc/pki/rpm-gpg/RPM-GPG-KEY-* /var/www/html/pub/7.3. Upgrade You will need to update the yum /etc/yum.repos.d/spacewalk.repo and cron cron configuration file /etc/cron.daily/spacewalk_sync.cron to upgrade from an earlier version of Spacewalk. 8. Spacewalk Client (simple configuration) Each client must be configured to use the Spacewalk server as its source for RPM packets. We temporarily configure the EPEL repository on the client computer to receive the required packets. Edit /etc/yum.repos.d/epel.repo: [epel] name=Extra Packages for Enterprise Linux 5 - $basearch #baseurl= basearch mirrorlist= failovermethod=priority gpgkey= gpgcheck=1 enabled=1 includepkgs=bea-stax* cobbler editarea gc gc-devel git* jabberd jabberpy* jakarta-commons-cli jcommon \ jfreechart libapreq2 libgsasl* libntlm* libyaml perl-Algorithm-Diff perl-Apache-DBI \ perl-BerkeleyDB perl-Cache-Cache perl-Class-MethodMaker perl-Class-Singleton \ perl-Convert-BinHex perl-Config-IniFiles perl-Crypt-DES perl-Crypt-GeneratePassword \ perl-DateTime perl-DateTime-Format-Mail perl-DateTime-Format-W3CDTF perl-Error \ perl-FreezeThaw perl-Frontier-RPC perl-GD perl-Git perl-Math-FFT perl-HTML-TableExtract \ perl-IO-Capture perl-IO-stringy perl-IPC-ShareLite perl-libapreq2 perl-MIME-Lite \ perl-MIME-tools perl-Net-IPv4Addr perl-Net-SNMP perl-Params-Validate perl-Proc-Daemon \ perl-SOAP-Lite perl-TermReadKey perl-Text-Diff perl-Unix-Syslog perl-XML-RSS perl-version \ perlAlgorithm-Diff python-cheetah python-dmidecode python-hashlib python-netaddr PyYAML \ python-simplejson rhino tzdata-java udns*Install the Spacewalk repo: rpm -Uhv are now ready to download the required packages : yum install rn-setup yum-rn-plugin python-dmidecode Now register the client on the Spacewalk server: WARNING: Remember to ALWAYS use the FQDN of your Spacewalk server. rhnreg_ks --serverUrl= --activationkey=<default-activation-key> TIP: Browse the systems -> activation keys on the Spacewalk server web interface to reset the default activation key. In the Spacewalk web interface, go to the system overview ->. Your client system should now be listed. Select it and click the Modify Channel Subscriptions link under System Information. In the Basic

Software Channel section, select the CentOS 5 Base - i386 channel and click Confirm. You can subscribe to your system on child channels as soon as you return to the software channel management page. You can now safely disable locally configured yum repositories if a corresponding Spacewalk channel is configured. Edit repo files in /etc/yum.repos.d and make sure that the related sections contain the enabled=09. Using Cobbler to manage Spacewalk Cobbler customers is grouped into Spacewalk from version 0.4. Cobbler is an installation service and is used to simplify the server </default-activation-key> </default-activation-key> Work. We will show how you can use Cobbler inside Spacewalk to provide a new server on your existing network. In the previous steps, we described how to create a CentOS 5 - i386 distribution. I will now explain how to use Cobbler to supply a new server with CentOS 5 - i386. 9.1. Fill in the distribution tree The Spacewalk server must contain the entire kickstart tree for distribution. This tree includes kernel, initrd and repo information. This directory should be readable by apache and tomcat users. mkdir -p /var/iso-images /var/distro-treesDownload the first binary ISO image of the distribution as /var/iso-images/CentOS-5-i386-bin-1.iso. This file contains the required files. mount -o loop /var/iso-images/CentOS-5-i386-bin-1.iso /var/distro-trees/CentOS-5-i386O also /etc/fstab for automatic installation of ISO image at startup: /var/iso-images/CentOS-CentOS-CENTOS-CENTOS-Filton5-i386-bin-1.iso /var/distro-trees/CentOS-5-i386 iso9660 rw,loop=/dev/loop0 0 0 TIP: To keep your distribution tree up to date, download the latest version of the ISO CentOS 5 image on a regular basis. You should also isolate and reposition the ISO image each time a new CentOS 5 ISO image is released. 9.2. Create a new distribution Browse the Spacewalk interface and select Systems -> Kickstart -> Distributions. Click the create new distribution link. Distribution label: CentOS-5-i386 Tree Path: /var/distro-trees/CentOS-5-i386 Base Channel: CentOS 5 Base - i386 Installer Generation: Red Hat Enterprise Linux 5Click on the Create Kickstart Distribution button. 9.3. Create a new kickstart profile To successfully install our distribution, we need a kickstart file. This is a simple text file that contains a list of items, each identified by a keyword, that answers questions from the anaconda installer. Navigate to the Spacewalk interface and select Systems -> Kickstart. Click on the link 'create a new kickstart profile'. Tag: CentOS-5-i386 Channel Base: CentOS Base 5 - i386 Bootable Tree: CentOS-5-i386 Virtualization Type: No Clicks on Next button. On the next screens, leave the default download location and select a password for the root user. Navigate to the Spacewalk interface and select Systems -> Kickstart Profile ->. Select the profile 'CentOS-5-i386'. On the Operating System tab, turn on both 'centos5-updates-i386' and 'spacewalk-client-i386' channels. Other children's channels can also be activated. 9.4. TFTP Server The kickstart profile is exposed to the network via TFTP. Make sure that the xinetd service is running: /etc/init.d/xinetd statusTFTP port (69) on the Spacewalk server will need to accept connections from 9.5. Network Configuration You need a DHCP server that correctly defines the file name and variables of the next server. If you are using the DHCP daemon, edit /etc/dhcpd.conf and add these options to your configuration: pxelinux.0 file name; next server <spacewalk server= ip= address=>; You will need to reload </spacewalk> </spacewalk> DHCP service to enforce this change. The servers you provide should be able to resolve the host name of the Spacewalk server. Make sure that there is an entry for the Spacewalk server host name on the relevant DNS servers. 9.6. Client server While a server without an operating system will move to possible startup modes until it reaches the PXE startup method, a server with an operating system already installed may not reach the PXE boot method. Place the PXE startup method at the top of the list of startup methods in the server BIOS to make sure that the server has the opportunity to be tested via PXE. At startup, the client server will be presented with a screen that shows the option 'CentOS-5-i386'. Select to start installing the client server automatically. CAUTION: Client disks will be reformed and CentOS 5 - i386 will be reinstalled on the client server. After you install the client server, log on to the server with the root password that you previously configured. Turn off locally configured yum repositories by editing repo files in /etc/yum.repos.d. Make sure the relevant sections contain the string: enabled=0After browse the Spacewalk interface and select Systems. Select the newly installed client server. On the Details screen -> Overview, click the 'Modify channel subscriptions' link. Set the appropriate channels for the newly managed server. 10. Using Spacewalk to manage configuration files You can use Spacewalk to manage configuration files. All you need is a config channel and one or more files/directories on it. 10.1. Create a new config channel First you need to create a configuration channel. Go to the Spacewalk interface and select Configure -> Configuration Channels. Click the 'create new settings channel' link. Here is an example: Name *: SSH Keys Tag *: ssh-keys Description *: Channel to manage ~/.ssh/authorized_keys With the channel created you can add one or more files/directories to it. Go to Configure -> Configuration Channels and select the channel you created before. Now click Create a new layout or directory file and edit the fields accordingly. 10.2. Allowing systems to manage files through Spacewalk You created the configuration channel and added files to it. Now you also need to allow your systems to have files managed through Spacewalk. Go to 'Configuration -> Systems -> Target Systems' and you'll see all registered on spacewalk. Select the system you want to enable configuration management and click on 'Enable spacewalk configuration management'. Spacewalk will try to add the right commission and install all the necessary packages in the system. Caution: If you see the error 'Could not register on the Spacewalk Tools channel.' then you will need to install all necessary packages manually. Log on to the client system and run the following command: yum install rhncfg rhncfg-actions rhncfg-client Now allow the installation of configuration files from the repository in the running system: hn-actions-control --enable-deploy Your system is now ready. Go back to the Spacewalk interface and you'll see the system in 'Configuration -> Systems -> Management Systems' With OSAD updates made by the Spacewalk interface run almost immediately to customers. It also serves all other functions of the SpaceWalk. So you don't have to wait for the program made by Spacewalk. 11.1. Client Installation Install the 'osad' package: yum install osadOpen /etc/sysconfig/rhn/osad.conf and change the line starting with osa_ssl_cert to: osa_ssl_cert = /usr/share/rhn/RHN-ORG-TRUSTED-SSL-CERTDownload the trusted certificate: cd /usr/share/rhn/ wget CAUTION: Remember to ALWAYS use the Spacewalk server's FQDn. To start osad you may need to install python-hashlib: yum install python-hashlibNow you just need to start the osad demon: service osad start TIP: You can force Spacewalk to recognize a client's OSA status. To do this, go to the web interface and go to the host overview page on the client computer. On the right side of the page, you'll see a section that displays the OSA status of the client. Sending a ping to the client will update its status to 'online'. From now on your updates are going to run almost immediately. 12, 2014, in New Scenario to synchronize repos Davidson Paulo <davidsonpaulo at= gmail.com=>made a better scenario for managing and synchronizing repos (thanks for the great project :). Looking for a configuration file and synchronizing all the mirros listed there. for example) The script itself 12.1. Configuration file Configuration file (/etc/sysconfig/spacewalk-repo-sync) uses this syntax: [Channel Name] [Repository URL] [Method]Here is a sample job: centos-5-updates-i386 yum centos-5-extras-i386 yum centos-5-base-i386 yum epel-5-i386 yum12.2. Scenario And here's the script that does the hard work (I'll replace the old one with it soon) : #spacewalk-repo-sync #Repository sync utility for Spacewalk #Writers: Davidson Paulo <davidsonpaulo at= gmail.com=>## This is free software. You are free to use it and distribute it under # the terms of the GNU General Public License v3+ ## Variables config=/etc/sysconfig/spacewalk-repo-sync lockfile=/var/run/spacewalk-repo-sync.lock ## Functions syncrepo() { echo /usr/bin/spacewalk-re spo-sync --channel $1 --url $2 --type $3 /usr/bin/spacewalk-rep o-sync --channel $1 --url $2 --type $3 } ## Main routine # try to create the lock and check the result lock file -r 0 ${lockfile} 1>/dev/null 2>&1 status=$; if [${status} -ne 0] ; then echo Another instance already running. Abort. output 1 fi # Remove $lockfile when</davidsonpaulo> </davidsonpaulo> </davidsonpaulo> pressed trap rm ${lockfile} EXIT # Read $config and run /usr/bin/spacewalk-repo-sync for each repository if [-f $config] ? then while reading line ? The $line syncrepo became < <(egrep -v '^([[[[[[[[[[[[[[space:]#+$)' $config) otherwise echo Config file $config does not exist. output 1 fi | tee -a $log output 0Se save as /usr/bin/spacewalk-repo-sync, for example, and do: $ chmod +x /usr/bin/spacewalk-repo-syncNow, whenever you need to synchronize your repos once you run this script. you can also add it to cron. CAUTION: This scenario works fine and is easier to manage than the previous way described in this guide. I intend to replace some parts of this guide with this scenario.