

Dialogic® IP Media Server Release 2.5.0

Installing Red Hat Enterprise Linux 5.0 for the Dialogic® IP Media Server

Copyright and Legal Notice

Copyright © 2000-2009 Dialogic Corporation. All Rights Reserved. You may not reproduce this document in whole or in part without permission in writing from Dialogic Corporation at the address provided below.

All contents of this document are furnished for informational use only and are subject to change without notice and do not represent a commitment on the part of Dialogic Corporation or its subsidiaries ("Dialogic"). Reasonable effort is made to ensure the accuracy of the information contained in the document. However, Dialogic does not warrant the accuracy of this information and cannot accept responsibility for errors, inaccuracies or omissions that may be contained in this document.

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH DIALOGIC® PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN A SIGNED AGREEMENT BETWEEN YOU AND DIALOGIC, DIALOGIC ASSUMES NO LIABILITY WHATSOEVER, AND DIALOGIC DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND/OR USE OF DIALOGIC PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF A THIRD PARTY.

Dialogic products are not intended for use in medical, life saving, life sustaining, critical control or safety systems, or in nuclear facility applications.

Due to differing national regulations and approval requirements, certain Dialogic products may be suitable for use only in specific countries, and thus may not function properly in other countries. You are responsible for ensuring that your use of such products occurs only in the countries where such use is suitable. For information on specific products, contact Dialogic Corporation at the address indicated below or on the web at www.dialogic.com.

It is possible that the use or implementation of any one of the concepts, applications, or ideas described in this document, in marketing collateral produced by or on web pages maintained by Dialogic Corporation or its subsidiaries may infringe one or more patents or other intellectual property rights owned by third parties. Dialogic Corporation or its subsidiaries do not provide any intellectual property licenses with the sale of Dialogic products other than a license to use such product in accordance with intellectual property owned or validly licensed by Dialogic Corporation or its subsidiaries. More detailed information about such intellectual property is available from Dialogic Corporation's legal department at 9800 Cavendish Blvd., 5th Floor, Montreal, Quebec, Canada H4M 2V9.

Dialogic Corporation encourages all users of its products to procure all necessary intellectual property licenses required to implement any concepts or applications and does not condone or encourage any intellectual property infringement and disclaims any responsibility related thereto. These intellectual property licenses may differ from

country to country and it is the responsibility of those who develop the concepts or applications to be aware of and comply with different national license requirements.

Dialogic, Dialogic Pro, Brooktrout, Diva, Cantata, SnowShore, Eicon, Eicon Networks, NMS Communications, NMS (stylized), Eiconcard, SIPcontrol, Diva ISDN, TruFax, Exnet, EXS, SwitchKit, N20, Making Innovation Thrive, Connecting to Growth, Video is the New Voice, Fusion, Vision, PacketMedia, NaturalAccess, NaturalCallControl, NaturalConference, NaturalFax and Shiva, among others as well as related logos, are either registered trademarks or trademarks of Dialogic Corporation or its subsidiaries. Dialogic's trademarks may be used publicly only with permission from Dialogic. Such permission may only be granted by Dialogic's legal department at 9800 Cavendish Blvd., 5th Floor, Montreal, Quebec, Canada H4M 2V9. Any authorized use of Dialogic's trademarks will be subject to full respect of the trademark guidelines published by Dialogic from time to time and any use of Dialogic's trademarks requires proper acknowledgement.

The names of actual companies and products mentioned herein are the trademarks of their respective owners.

This document discusses one or more open source products, systems and/or releases. Dialogic is not responsible for your decision to use open source in connection with Dialogic products (including without limitation those referred to herein), nor is Dialogic responsible for any present or future effects such usage might have, including without limitation effects on your products, your business, or your intellectual property rights.

Hardware Limited Warranty

Warranty for Hardware Products: Dialogic Corporation or its subsidiary that originally sold the hardware product to you ("Dialogic") warrants to the original purchaser ("Purchaser") of this hardware product ("Product"), that at the time of delivery the Product supplied hereunder will be free from defects in material and workmanship. This warranty is for the standard period for such Product set out on Dialogic's website at <http://www.dialogic.com/warranties> at the date of purchase, provided the Product remains unmodified, is operated under normal and proper conditions in accordance with its published specifications and documentation, and the system is not opened by unauthorized personnel. The warranty is also void if the defect has resulted from accident, misuse, abuse or misapplication. Any Product which becomes defective during the warranty period and is returned by Purchaser to Dialogic's Authorized Service Center shipping prepaid with a Return Material Authorization (RMA) number (which must be obtained from Dialogic before any return) within thirty (30) days after discovery of the defect, with a written description of the defect, will be repaired or replaced at Dialogic's option. Dialogic will not accept C.O.D. shipments. Dialogic reserves the right to refuse to repair or replace any Product which shows signs of abuse, misuse, neglect or has been altered in any way, including but not limited to Products which have been (i) used in environments which exceed operating tolerances such as supplied voltages and signals or (ii) stored under improper temperature or humidity conditions or (iii) used with equipment, software or interfacing not furnished by Dialogic or (iv) improperly packaged or shipped or (v) harmed by Purchaser or its agents' fault or negligence or (vi) repaired or modified without Dialogic's prior written consent. Purchaser must exercise proper electrostatic discharge (ESD) precautions and pack the Product and the other returned diagnostic information **in the original Dialogic packaging, including the antistatic bag/container and an ESD foam-filled cardboard box.** **Purchaser may void the warranty if the Product is improperly packaged or shipped.** Dialogic will bear the cost to return the repaired or replaced Product to the location specified on the Return Material Authorization (RMA) form by a method it chooses. If the Purchaser desires a specific form of conveyance, the Purchaser must bear the cost of shipment. All risk of loss shall be with the Purchaser during any and all shipments of the Product. Duties and import fees are the responsibility of the Purchaser.

Additional Exclusions: Dialogic will have no obligation to make repairs or replacements to the Product due to causes beyond the control of Dialogic, including, but not limited to, power or air conditioning failure, acts of God, improper interface with other units, or malfunction of any equipment or software used with the Dialogic Product(s). If Dialogic is requested and agrees to make repairs or replacements necessitated by any such causes, Purchaser will pay for such service or replacement at Dialogic's then prevailing rates.

No Other Warranties: DIALOGIC DISCLAIMS AND PURCHASER WAIVES ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY AGAINST LATENT DEFECTS, WITH RESPECT TO ANY DIALOGIC PRODUCT.

No Liability for Damages: IN NO EVENT SHALL DIALOGIC OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, INTERRUPTION OF ACTIVITIES, LOSS OF INFORMATION OR OTHER PECUNIARY LOSS AND DIRECT OR INDIRECT, CONSEQUENTIAL, INCIDENTAL, ECONOMIC OR PUNITIVE DAMAGES) ARISING OUT OF THE USE OF OR INABILITY TO USE ANY DIALOGIC PRODUCT.

Limitation of Liability: DIALOGIC'S MAXIMUM CUMULATIVE LIABILITY SHALL BE LIMITED TO THE AMOUNTS ACTUALLY PAID BY PURCHASER TO DIALOGIC FOR THE SPECIFIC PRODUCT BEING THE OBJECT OF THE CLAIM. PURCHASER RELEASES DIALOGIC FROM ALL AMOUNTS IN EXCESS OF THE LIMITATION. PURCHASER ACKNOWLEDGES THAT THIS CONDITION IS ESSENTIAL AND THAT DIALOGIC WOULD NOT SUPPLY TO PURCHASER IF IT WERE NOT INCLUDED. THIS WARRANTY EXPRESSLY DOES NOT APPLY TO ANYONE OTHER THAN PURCHASER.

About this Publication

This document describes how to install and configure *Red Hat Enterprise Linux 5* for use with the Dialogic® IP Media Server Release 2.5.0. The information in this document is based on *Red Hat Enterprise Linux 5 Update 1*, which is the latest update supported by the Dialogic® IP Media Server.

Dialogic® IP Media Server Release 2.5.0

Release 2.5.0 of the Dialogic® IP Media Server is available as an integrated appliance or as licensed software that you can install. If you choose the latter option, you must properly install and configure Red Hat Enterprise Linux 5 Update 1 on a certified hardware platform.

Although the IP Media Server is available in software form, it cannot be treated as a generic software “application.” The hardware platform and underlying Linux installation must be configured to support the IP Media Server’s real-time performance requirements. The selection of Linux packages that will be co-resident with the IP Media Server software is also required.

This document details the Linux configuration requirements. It also describes and provides references to information on how to automate a custom Linux installation that meets these requirements.

Minimum Server Hardware Requirements

The server on which you install the IP Media Server software must meet the minimum hardware requirements listed in the following table:

Item	Requirements
Processor	Two 64-bit Intel Xeon Processors running at no less than 2.8 GHz, with 800 MHz front side bus, and 2 MB L2 cache
Memory	2 GB ECC DDR-2 SDRAM
Ethernet	Dual 1000baseT Gigabit Ethernet
Disk	At least 30 GB Ultra320 SCSI 10000 RPM hard drive

The IP Media Server can be used as a dedicated telephony media server. Installing other software applications on the same physical device that is configured as the IP Media Server may adversely affect the performance of the IP Media Server.

Tested Server Hardware Platforms

The following server hardware platforms have been qualified with IP Media Server Release 2.5.0:

- ◆ Dell 1950 Dual Quad-Core Rack Mount Server
- ◆ Intel Server Chassis TIGW1U with Intel Server Board S5000PHB

IP Media Server Software Organization

The IP Media Server packages install themselves into a directory structure that roughly follows the guidelines specified in the [Filesystem Hierarchy Standard](#). The IP Media Server binaries and related files are installed in /opt/snowshore/ and temporary output such as log files is written to /var/snowshore/log.

Note: You cannot modify the location of these directories.

Creating an Automated Red Hat Linux Installation

Red Hat Linux installations can be automated using a *kickstart* script and server. The server, which can be accessed via multiple network protocols, exports a copy of the directories contained on the installation CD-ROMs. The *kickstart* script partitions the system, configures the network, selects and installs packages, and also provides for post-install scripting. This last feature can be used to automatically install and configure the Dialogic® IP Media Server software packages.

To create Linux installations using *kickstart* you must:

- 1 Copy the data from the **Red Hat Enterprise Linux 5 Update 1** installation CD-ROMs and make these directories available to other systems over the network.
- 2 Create a boot CD that will be used to bootstrap new systems into the *kickstart* script.
- 3 Create a *kickstart* script to control the installation and make it available to other systems over the network. “Kickstart Script Template” (page 18) contains a *kickstart* script template for IP Media Server installation. Very little editing is required in a few well-marked areas to use the script on your network.

Details on creating a kickstart server and boot CD can be found in the [Red Hat Enterprise Linux: Installation Guide](#). Section 2.5 of that guide describes how to prepare for a network installation. Please note that you must copy the contents of the CD-ROMs as described in that section for a kickstart installation. It is not sufficient to copy the CD-ROM ISO images to a network-accessible location.

Accounting Configuration

To enable accounting you must postgress database action.

For example:

- ◆ chkconfig posgres on
- ◆ service start postgres

Alphabetical List of Required Packages

The following is the inclusive list of packages required for IP Media Server Release 2.5.0 operation.

```
acl-2.2.39-2.1.el5
acpid-1.0.4-5
amtu-1.0.4-4
anacron-2.3-45.el5
apmd-3.2.2-5
apr-1.2.7-11
apr-util-1.2.7-6
aspell-0.60.3-7.1
aspell-en-6.0-2.1
at-3.1.8-82.fc6
atk-1.12.2-1.fc6
atk-devel-1.12.2-1.fc6
attr-2.4.32-1.1
audit-1.5.5-7.el5
audit-libs-1.5.5-7.el5
audit-libs-python-1.5.5-7.el5
authconfig-5.3.12-2.el5
autofs-5.0.1-0.rc2.55
basesystem-8.0-5.1.1
bash-3.1-16.1
bc-1.06-21
beecrypt-4.1.2-10.1.1
bind-libs-9.3.3-10.el5
bind-utils-9.3.3-10.el5
binutils-2.17.50.0.6-5.el5
bluez-gnome-0.5-5.fc6
bluez-hcidump-1.32-1
bluez-libs-3.7-1
bluez-utils-3.7-2
BRKTBOSSetup-5.2.2-20
BRKTBOSSetup-fw-3.2.1-32
bzip2-1.0.3-3
bzip2-libs-1.0.3-3
cairo-1.2.4-2.el5
ccid-1.0.1-6.el5
checkpolicy-1.33.1-2.el5
chkconfig-1.3.30.1-1
chkfontpath-1.10.1-1.1
compat-libstdc296-2.96-138
compat-libstdc33-3.2.3-61
comps-extras-11.1-1.1
conman-0.1.9.2-8.el5
coolkey-1.1.0-5.el5
coreutils-5.97-12.1.el5
cpio-2.6-20
cpp-4.1.2-14.el5
cpuspeed-1.2.1-1.48.el5
```

```
cracklib-2.8.9-3.3
cracklib-dicts-2.8.9-3.3
crash-4.0-4.6.1
crontabs-1.10-8
cryptsetup-luks-1.0.3-2.2.el5
cups-1.2.4-11.14.el5
cups-libs-1.2.4-11.14.el5
curl-7.15.5-2.el5
cyrus-sasl-2.1.22-4
cyrus-sasl-lib-2.1.22-4
cyrus-sasl-plain-2.1.22-4
db4-4.3.29-9.fc6
dbus-1.0.0-6.el5
dbus-glib-0.70-5
dbus-python-0.70-7.el5
Deployment+AF8-Guide-en-US-5.1.0-11
desktop-file-utils-0.10-7
device-mapper-1.02.20-1.el5
device-mapper-multipath-0.4.7-12.el5
dhcdbd-2.2-1.el5
dhclient-3.0.5-7.el5
dhcpv6+AF8-client-0.10-33.el5
diffutils-2.8.1-15.2.2
distcache-1.4.5-14.1
dmidecode-2.7-1.28.2.el5
dmraid-1.0.0.rc13-4.el5
dos2unix-3.1-27.1
dosfstools-2.11-6.2.el5
dump-0.4b41-2.fc6
e2fsprogs-1.39-10.el5
e2fsprogs-libs-1.39-10.el5
ed-0.2-38.2.2
eject-2.1.5-4.2.el5
ElectricFence-2.2.2-20.2.2
elfutils-0.125-3.el5
elfutils-libelf-0.125-3.el5
elfutils-libelf-devel-0.125-3.el5
emacs-common-21.4-19.el5
emacs-leim-21.4-19.el5
enscript-1.6.4-4.1.el5
ethtool-5-1.el5
expat-1.95.8-8.2.1
expect-5.43.0-5.1
fbset-2.1-22
file-4.17-9.0.1.el5
filesystem-2.4.0-1
findutils-4.2.27-4.1
finger-0.17-32.2.1.1
firstboot-tui-1.4.27.3-1.el5
fontconfig-2.4.1-6.el5
fontconfig-devel-2.4.1-6.el5
freetype-2.2.1-19.el5
```

freetype-devel-2.2.1-19.el5
ftp-0.17-33.fc6
gawk-3.1.5-14.el5
gcc-4.1.2-14.el5
GConf2-2.14.0-9.el5
gd-2.0.33-9.3.fc6
gdb-6.5-25.el5
gdbm-1.8.0-26.2.1
gettext-0.14.6-4.el5
ghostscript-8.15.2-9.1.el5
ghostscript-fonts-5.50-13.1.1
giflib-4.1.3-7.1.el5.1
gif-utils-4.1.3.7.1 el5.1
glib2-2.12.3-2.fc6
glib2-devel-2.12.3-2.fc6
glibc-2.5-18
glibc-common-2.5-18
glibc-devel-2.5-18
glibc-headers-2.5-18
gmp-4.1.4-10.el5
gnome-python2-gconf-2.16.0-1.fc6
gnu-efi-3.0c-1.1
gnupg-1.4.5-13
gnutls-1.4.1-2
gpm-1.20.1-74.1
grep-2.5.1-54.2.el5
groff-1.18.1.1-11.1
grub-0.97-13
gtk2-2.10.4-19.el5
gtk2-devel-2.10.4-19.el5
gzip-1.3.5-9.el5
hal-0.5.8.1-25.el5
hdparm-6.6-2
hesiod-3.1.0-8
htmlview-4.0.0-1.el5
httpd-2.2.3-11.el5
hwdata-0.211-1
ifd-egate-0.05-15
ImageMagick-6.2.8.0-3.el5.4
info-4.8-14.el5
initscripts-8.45.17.EL-1
iproute-2.6.18-4.el5
ipsec-tools-0.6.5-8.el5
iptables-1.3.5-1.2.1
iptables-ipv6-1.3.5-1.2.1
iptstate-1.4-1.1.2.2
iputils-20020927-43.el5
irda-utils-0.9.17-2.fc6
irqbalance-0.55-6.el5
isdn4k-utils-3.2-50.1
jpackage-utils-1.7.3-1jpp.2.el5
jwhois-3.2.3-8.el5

kbd-1.12-19.el5
kernel-2.6.18-53.el5
kernel-devel-2.6.18-53.el5
kernel-headers-2.6.18-53.el5
kexec-tools-1.101-194.4.el5
keyutils-libs-1.2-1.el5
kpartx-0.4.7-12.el5
krb5-libs-1.6.1-17.el5
krb5-workstation-1.6.1-17.el5
ksh-20060214-1.4
kudzu-1.2.57.1.15-1
less-394-5.el5
lftp-3.5.1-2.fc6
libacl-2.2.39-2.1.el5
libaio-0.3.106-3.2
libattr-2.4.32-1.1
libcap-1.10-26
libdrm-2.0.2-1.1
libevent-1.1a-3.2.1
libFS-1.0.0-3.1
libgcc-4.1.2-14.el5
libgcrypt-1.2.3-1
libgpg-error-1.4-2
libgssapi-0.10-2
libhugetlbfs-1.0.1-1.el5
libhugetlbfs-lib-1.0.1-1.el5
libICE-1.0.1-2.1
libIDL-0.8.7-1.fc6
libidn-0.6.5-1.1
libjpeg-6b-37
libjpeg-devel-6b-37
libjs-1.5-0.pm.9
libmng-1.0.9-5.1
libmng-devel-1.0.9-5.1
libnl-1.0-0.10.pre5.4
libnotify-0.4.2-6.el5
libpcap-0.9.4-11.el5
libpng-1.2.10-7.0.2
libpng-devel-1.2.10-7.0.2
libselenium-1.33.4-4.el5
libselenium-python-1.33.4-4.el5
libsemanage-1.9.1-3.el5
libsepol-1.15.2-1.el5
libSM-1.0.1-3.1
libstdc4.1.2-14.el5
libsysfs-2.0.0-6
libtermcap-2.0.8-46.1
libtermcap-devel-2.0.8-46.1
libtiff-3.8.2-7.el5
libtool-ltdl-1.5.22-6.1
libusb-0.1.12-5.1
libuser-0.54.7-2.el5.2

libutempter-1.1.4-3.fc6
libvolume+AF8-id-095-14.9.el5
libwnck-2.16.0-4.fc6
libwvstreams-4.2.2-2.1
libX11-1.0.3-8.0.1.el5
libXau-1.0.1-3.1
libXcursor-1.1.7-1.1
libXdmp-1.0.1-2.1
libXext-1.0.1-2.1
libXfixes-4.0.1-2.1
libXft-2.1.10-1.1
libXi-1.0.1-3.1
libXinerama-1.0.1-2.1
libxml2-2.6.26-2.1.2
libxml2-python-2.6.26-2.1.2
libXrandr-1.1.1-3.1
libXrender-0.9.1-3.1
libXres-1.0.1-3.1
libxslt-1.1.17-2
libXt-1.0.2-3.1.fc6
libXxf86vm-1.0.1-3.1
lm+AF8-sensors-2.10.0-3.1
lockdev-1.0.1-10
logrotate-3.7.4-7
logwatch-7.3-5
lrzsz-0.12.20-22.1
lsof-4.78-3
lvm2-2.02.26-3.el5
lynx-2.8.5-28.1
m2crypto-0.16-6.el5.1
m4-1.4.5-3.el5.1
mailcap-2.1.23-1.fc6
mailx-8.1.1-44.2.2
make-3.81-1.1
MAKEDEV-3.23-1.2
man-1.6d-1.1
man-pages-2.39-10.el5
mcstrans-0.2.6-1.el5
mdadm-2.5.4-3.el5
mesa-libGL-6.5.1-7.5.el5
mgetty-1.1.33-9.fc6
microcode+AF8-ctl-1.17-1.42.el5
mingetty-1.07-5.2.2
minicom-2.1-3
mkbootdisk-1.5.3-2.1
mkinitrd-5.1.19.6-19
mktemp-1.5-23.2.2
mlocate-0.15-1.el5
mod+AF8-perl-2.0.2-6.3.el5
mod+AF8-ssl-2.2.3-11.el5
module-init-tools-3.3-0.pre3.1.34.el5
mozldap-6.0.4-1.el5

```
mtools-3.9.10-2.fc6
mtr-0.71-3.1
nano-1.3.12-1.1
nash-5.1.19.6-19
nc-1.84-10.fc6
ncurses-5.5-24.20060715
ncurses-devel-5.5-24.20060715
net-snmp-5.3.1-19.el5
net-snmp-libs-5.3.1-19.el5
net-tools-1.60-73
NetworkManager-0.6.4-6.el5
newt-0.52.2-9
nfs-utils-1.0.9-24.el5
nfs-utils-lib-1.0.8-7.2.z2
notification-daemon-0.3.5-8.el5
nscd-2.5-18
nspr-4.6.5-3.el5
nss+AF8-db-2.2-35.1
nss+AF8-ldap-253-5.el5
nss-3.11.7-1.3.el5
nss-tools-3.11.7-1.3.el5
ntp-4.2.2p1-7.el5
ntsysv-1.3.30.1-1
numactl-0.9.8-2.el5
OpenIPMI-2.0.6-5.el5.4
OpenIPMI-libs-2.0.6-5.el5.4
openldap-2.3.27-8
openssh-4.3p2-24.el5
openssh-clients-4.3p2-24.el5
openssh-server-4.3p2-24.el5
openssl-0.9.8b-8.3.el5+AF8-0.2
ORBit2-2.14.3-4.el5
pam+AF8-ccreds-3-5
pam+AF8-krb5-2.2.14-1
pam+AF8-passwdqc-1.0.2-1.2.2
pam+AF8-pkcs11-0.5.3-23
pam+AF8-smb-1.1.7-7.2.1
pam-0.99.6.2-3.26.el5
pango-1.14.9-3.el5
pango-devel-1.14.9-3.el5
paps-0.6.6-17.el5
parted-1.8.1-12.el5
passwd-0.73-1
patch-2.5.4-29.2.2
pax-3.4-1.2.2
pciutils-2.2.3-4
pcmciautils-014-5
pcre-6.6-1.1
pcsc-lite-1.3.1-7
pcsc-lite-libs-1.3.1-7
perl-5.8.8-10
perl-String-CRC32-1.4-2.fc6
```

perl-URI-1.35-3
php-5.1.6-15.el5
php-cli-5.1.6-15.el5
pinfo-0.6.9-1.fc6
pkgconfig-0.21-1.fc6
pkinit-nss-0.7.3-1.el5
pm-utils-0.99.3-6.el5.17
policycoreutils-1.33.12-12.el5
popt-1.10.2-47.el5
portmap-4.0-65.2.2.1
postgresql-8.1.9-1.el5
postgresql-docs-8.1.9-1.el5
postgresql-libs-8.1.9-1.el5
postgresql-server-8.1.9-1.el5
ppp-2.4.4-1.el5
prelink-0.3.9-2.1
procmail-3.22-17.1
procps-3.2.7-8.1.el5
psacct-6.3.2-41.1
psmisc-22.2-5
pygobject2-2.12.1-5.el5
pyOpenSSL-0.6-1.p24.7.2.2
python-2.4.3-19.el5
python-elementtree-1.2.6-5
python-sqlite-1.1.7-1.2.1
python-urlgrabber-3.1.0-2
pyx86config-0.3.31-2.fc6
PyXML-0.8.4-4
qt-3.3.6-23.el5
quota-3.13-1.2.3.2.el5
rdate-1.4-6
rdist-6.1.5-44
readahead-1.3-7.el5
readline-5.1-1.1
readline-devel-5.1-1.1
redhat-logos-4.9.16-1
redhat-lsb-3.1-12.3.EL
redhat-menus-6.7.8-2.el5
redhat-release-5Server-5.1.0.2
redhat-release-notes-5Server-9
rhel-instnum-1.0.7-1.el5
rhn-check-0.4.16-1.el5
rhn-client-tools-0.4.16-1.el5
rhnlib-2.2.5-1.el5
rhnsd-4.6.1-1.el5
rhn-setup-0.4.16-1.el5
rhpl-0.194.1-1
rmt-0.4b41-2.fc6
rng-utils-2.0-1.14.1.fc6
rootfiles-8.1-1.1.1
rpm-4.4.2-47.el5
rpm-libs-4.4.2-47.el5

```
rpm-python-4.4.2-47.el5
rp-pppoe-3.5-32.1
rsh-0.17-37.el5
rsync-2.6.8-3.1
sed-4.1.5-5.fc6
selinux-policy-2.4.6-104.el5
selinux-policy-targeted-2.4.6-104.el5
sendmail-8.13.8-2.el5
sendmail-cf-8.13.8-2.el5
setarch-2.0-1.1
setools-3.0-3.el5
setserial-2.17-19.2.2
setup-2.5.58-1.el5
setuptools-1.19.2-1
shadow-utils-4.0.17-12.el5
slang-2.0.6-4.el5
smartmontools-5.36-3.1.el5
sos-1.7-9.1.el5
specspo-13-1.el5
sqlite-3.3.6-2
squid-2.6.STABLE6-4.el5
startup-notification-0.8-4.1
strace-4.5.16-1.el5.1
stunnel-4.15-2
sudo-1.6.8p12-10
svrcore-4.0.4-3.el5
symlinks-1.2-24.2.2
sysfsutils-2.0.0-6
sysklogd-1.4.1-40.el5
syslinux-3.11-4
system-config-network-tui-1.3.99-2.el5
system-config-securitylevel-tui-1.6.29.1-1.el5
SysVinit-2.86-14
talk-0.17-29.2.2
tar-1.15.1-23.0.1.el5
tcl-8.4.13-3.fc6
tcp+AF8-wrappers-7.6-40.4.el5
tcpdump-3.9.4-11.el5
tcsh-6.14-12.el5
telnet-0.17-38.el5
termcap-5.5-1.20060701.1
time-1.7-27.2.2
tmpwatch-2.9.7-1.1.el5.1
traceroute-2.0.1-2.el5
tree-1.5.0-4
ttmkfdir-3.0.9-23.el5
tzdata-2007d-1.el5
udev-095-14.9.el5
unix2dos-2.2-26.2.2
unixODBC-2.2.11-7.1
unzip-5.52-2.2.1
urw-fonts-2.3-6.1.1
```

usbutils-0.71-2.1
usermode-1.88-3.el5
util-linux-2.13-0.45.el5
valgrind-3.2.1-6.el5
vconfig-1.9-2.1
vim-common-7.0.109-3.el5.3
vim-enhanced-7.0.109-3.el5.3
vim-minimal-7.0.109-3.el5.3
vixie-cron-4.1-72.el5
vsftpd-2.0.5-10.el5
wget-1.10.2-7.el5
which-2.16-7
wireless-tools-28-2.el5
wireshark-0.99.6-1.el5
words-3.0-9
wpa+AF8-supPLICANT-0.4.8-10.1.fc6
wvdial-1.54.0-5.2.2.1
Xaw3d-1.5E-10.1
Xerces-c-2.3.0-37
xmlsec1-1.2.9-8.1
xorg-x11-fileSystem-7.1-2.fc6
xorg-x11-fonts-IS08859-1-75dpi-7.1-2.1.el5
xorg-x11-font-utils-7.1-2
xorg-x11-PROTO-devel-7.1-9.fc6
xorg-x11-xfs-1.0.2-4
ypbind-1.19-8.el5
yp-tools-2.9-0.1
yum-3.0.1-5.el5
yum-metadata-parser-1.0-8.fc6
yum-rhn-plugin-0.5.2-3.el5
yum-security-1.0.4-3.el5
yum-updatesd-3.0.1-5.el5
zip-2.31-1.2.2
zlib-1.2.3-3
zlib-devel-1.2.3-3

Kickstart Script Template

This file is also available for download. Please contact Dialogic Technical Support for download information.

```
# Kickstart script template for installing a baseline Red Hat
# Enterprise Linux 5 platform for use as a SnowShore Media Server.
# Users must customize the script for system root password and
# the location of the Red Hat Linux packages.
#
# It is assumed that the user is familiar with Linux kickstart and
# has already created the required directory structure using the
# CD-ROMs. See section 2.5 of the "Red Hat Enterprise Linux Installation"
# guide for instructions on this step.
#
# SnowShore A1-G2 Media Server 2.5 Kickstart Configuration
# This version is for MS 2.5 RHEL5_U1 using packages on a Kickstart CDROM.
#
#System language
lang en_US
#Language modules to install
langsupport en_US
#System keyboard
keyboard us
#System mouse
mouse genericwheelp/2
#System timezone
timezone America/New_York
#Root password
rootpw --iscrypted $1$awLyD2w/$NAzk22RGpVtPuQXbaWpP0/
#Reboot after installation
reboot
#Use text mode install
text
#Skip use of installation number
key --skip
#Install Red Hat Linux instead of upgrade
install
# Mount cdrom for installation
cdrom
#System bootloader configuration
bootloader --location=mbr --append "console=ttyS1,9600 console=tty0" --
    md5pass=$1$t5WeZAiB$rw6wvW8H651GLeHASUHEd.
#Clear the Master Boot Record
zerombr yes
#Partition clearing information
clearpart --all --initlabel
#Disk partitioning information
part /boot --fstype ext3 --size 101
part / --fstype ext3 --size 4000
part swap --size 1992
part /var --fstype ext3 --size 1 --grow
#System authorization information
auth --useshadow --enablemd5
#Network information
```

```
network --bootproto=dhcp --device=eth0
#network --bootproto=dhcp --device=eth1
#Firewall configuration
firewall --disabled
#Do not configure XWindows
skipx
#Disable security enhanced Linux features
selinux --disabled
#Configures YUM repository as a source for package install
#repo --name /mnt/cdrom/Server/repodata/repomd.xml --baseurl
#
#Package install information
%packages
basesystem
acl
acpid
amtu
anacron
apmd
apr
apr-util
aspell
aspell-en
at
atk
atk-devel
attr
audit
audit-libs
audit-libs-python
authconfig
autofs
bash
bc
beecrypt
bind-libs
bind-utils
binutils
bluez-gnome
bluez-hcidump
bluez-libs
bluez-utils
bzip2
bzip2-libs
cairo
ccid
checkpolicy
chkconfig
chkfontpath
compat-libstdc++-296
compat-libstdc++-33
comps-extras
conman
coolkey
coreutils
cpio
cpp
```

cpuspeed
cracklib
cracklib-dicts
crash
crontabs
cryptsetup-luks
cups
cups-libs
curl
cyrus-sasl
cyrus-sasl-lib
cyrus-sasl-plain
db4
dbus
dbus-glib
dbus-python
Deployment_Guide-en-US
desktop-file-utils
device-mapper
device-mapper-multipath
dhcdbd
dhclient
dhcpv6_client
diffutils
distcache
dmidecode
dmraid
dos2unix
dosfstools
dump
e2fsprogs
e2fsprogs-libs
ed
eject
ElectricFence
elfutils
elfutils-libelf
elfutils-libelf-devel
emacs-common
emacs-leim
enscript
ethtool
expat
expect
fbset
file
filesystem
findutils
finger
firstboot-tui
fontconfig
fontconfig-devel
freetype
freetype-devel
ftp
gawk
gcc

GConf2
gd
gdb
gdbm
gettext
ghostscript
ghostscript-fonts
giflib
filib-utils
glib2
glib2-devel
glibc
glibc-common
glibc-devel
glibc-headers
gmp
gnome-python2-gconf
gnu-efi
gnupg
gnutls
gpm
grep
groff
grub
gtk2
gtk2-devel
gzip
hal
hdparm
hesiod
htmlview
httpd
hwdata
ifd-egate
ImageMagick
info
initscripts
iproute
ipsec-tools
iptables
iptables-ipv6
iptstate-1.4
iputils
irda-utils
irqbalance
isdn4k-utils
jpackage-utils
jwhois
kbd
kernel
kernel-devel
kernel-headers
kexec-tools
keyutils-libs
kpartx
krb5-libs
krb5-workstation

ksh
kudzu
less
lftp
libacl
libaio
libattr
libcap
libdrm
libevent
libFS
libgcc
libgcrypt
libgpg-error
libgssapi
libhugetlbfs
libhugetlbfs-lib
libICE
libIDL
libidn
libjpeg
libjpeg-devel
libjs
libmng
libmng-devel
libnl
libnotify
libpcap
libpng
libpng-devel
libselinux
libselinux-python
libsemanage
libsepol
libSM
libstdc++
libsysfs
libtermcap
libtermcap-devel
libtiff
libtool-ltdl
libusb
libuser
libutempter
libvolume_id
libwnck
libwvstreams
libX11
libXau
libXcursor
libXdmcp
libXext
libXfixes
libXft
libXi
libXinerama
libxml2

libxml2-python
libXrandr
libXrender
libXres
libxslt
libXt
libXxf86vm
lm_sensors
lockdev
logrotate
logwatch
lrzsz
lsof
lvm2
lynx
m2crypto
m4
mailcap
mailx
make
MAKEDEV
man
man-pages
mcstrans
mdadm
mesa-libGL
microcode_ctl
mingetty
minicom
mkbootdisk
mkinitrd
mktemp
mlocate
mod_perl
mod_ssl
module-init-tools
mozldap
mtools
mtr
nano
nash
nc
ncurses
ncurses-devel
net-snmp
net-snmp-libs
net-tools
NetworkManager
newt
nfs-utils
nfs-utils-lib
notification-daemon
nscd
nspr
nss_db
nss_ldap
nss

nss-tools
ntp
ntsysv
numactl
OpenIPMI
OpenIPMI-libs
openldap
openssh
openssh-clients
openssh-server
openssl
ORBit2
pam_ccreds
pam_krb5
pam_passwdqc
pam_pkcs11
pam_smb
pam
pango
pango-devel
paps
parted
passwd
patch
pax
pciutils
pcmciautils
pcre
pcsc-lite
pcsc-lite-libs
perl
perl-String-CRC32
perl-URI
php
php-cli
php-common
php-pdo
php-pgsql
pinfo
pkgconfig
pkinit-nss
pm-utils
policycoreutils
popt
portmap
postgresql
postgresql-docs
postgresql-libs
postgresql-server
ppp
prelink
procmail
procps
psacct
psmisc
pygobject2
pyOpenSSL

python
python-elementtree
python-sqlite
python-urlgrabber
pyxf86config
PyXML
qt
quota
rdate
rdist
readahead
readline
readline-devel
redhat-logos
redhat-lsb
redhat-menus
redhat-release-5Server
redhat-release-notes-5Server
rhel-instnum
rhn-check
rhn-client-tools
rhnlib
rhnsd
rhn-setup
rhpl
rmt
rng-utils
rootfiles
rpm
rpm-libs
rpm-python
rp-pppoe
rsh
rsync
sed
selinux-policy
selinux-policy-targeted
sendmail
sendmail-cf
setarch
setools
setserial
setup
setuptools
shadow-utils
slang
smartmontools
sos
specspo
sqlite
squid
startup-notification
strace
stunnel
sudo
svrcore
symlinks

sysfsutils
sysklogd
syslinux
system-config-network-tui
system-config-securitylevel-tui
SysVinit
talk
tar
tcl
tcp_wrappers
tcpdump
tcsch
telnet
termcap
time
tmpwatch
traceroute
tree
ttmkfdir
tzdata
udev
unix2dos
unixODBC
unzip
urw-fonts
usbutils
usermode
util-linux
valgrind
vconfig
vim-common
vim-enhanced
vim-minimal
vixie-cron
vsftpd
wget
which
wireless-tools
wireshark
words
wpa_supplicant
wvdial
Xaw3d
Xerces-c
xmlsec1
xorg-x11-filesystem
xorg-x11-fonts-IS08859-1-75dpi
xorg-x11-proto-devel
xorg-x11-xfs
ypbind
yp-tools
yum
yum-metadata-parser
yum-rhn-plugin
yum-security
yum-updatesd
zip

```

zlib
zlib-devel
%post --nochroot
#!/bin/sh
# The newly installed system is mounted on /mnt/sysimage
CHROOT=/mnt/sysimage
#
# Install SnowShore A1-G2 Media Server packages
# Create temporary directories to mount the remote MS files and to
# un-tar them
echo "Started RHEL5_U1 Installation - " > /mnt/sysimage/tmp/snowshore_pkg_install.log
2>&1
date >> /mnt/sysimage/tmp/snowshore_pkg_install.log 2>&1

#added the snow and snow_operator groups to the MS
cat /etc/group >/etc/group.tmp
echo snow:x:2001: >>/etc/group.tmp
echo snow_operator:x:2002: >>/etc/group.tmp
mv /etc/group.tmp /etc/group

mkdir -p /mnt/sysimage/tmp/ssinst > /mnt/sysimage/tmp/postinstall.log 2>&1
#mkdir -p /mnt/sysimage/tmp/sstemp >> /mnt/sysimage/tmp/postinstall.log 2>&1
mkdir -p /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Mount the CDROM to perform the installation...
mount -t iso9660 -r /tmp/cdrom /mnt/sysimage/tmp/ssinst >>
    /mnt/sysimage/tmp/postinstall.log 2>&1

cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/SnowShore/SNOWG2PKG*.tar.gz
    /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/SnowShore/G2Check
    /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/SnowShore/dump_license_node_id.sh
    /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/SnowShore/ms_backup.sh
    /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/SnowShore/ms_restore.sh
    /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
cp --preserve=timestamps /mnt/sysimage/tmp/ssinst/config/pg_hba.conf
    /mnt/sysimage/usr/share/pgsql/pg_hba.conf.sample >>
    /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Uncompress SnowShore rpm tarball
cd /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
tar -xzf SNOWG2PKG*.tar.gz >> /mnt/sysimage/tmp/postinstall.log 2>&1
umount /mnt/sysimage/tmp/ssinst >> /mnt/sysimage/tmp/postinstall.log 2>&1
rmdir /mnt/sysimage/tmp/ssinst >> /mnt/sysimage/tmp/postinstall.log 2>&1
#cd /
#
# Package installation must be performed in a chroot environment so rpm can verify
# dependencies and install successfully.
chroot $CHROOT /bin/rpm -ivh /tmp/install_1/SNOW*.rpm >>
    /mnt/sysimage/tmp/snowshore_pkg_install.log 2>&1
#
# Now that the SnowShore directory has been created copy over the G2Check & shell scripts.
mv -f /mnt/sysimage/tmp/install_1/G2Check /mnt/sysimage/opt/snowshore/bin >>
    /mnt/sysimage/tmp/postinstall.log 2>&1

```

```
mv -f /mnt/sysimage/tmp/install_1/dump_license_node_id.sh
    /mnt/sysimage/opt/snowshore/bin >> /mnt/sysimage/tmp/postinstall.log 2>&1
mv -f /mnt/sysimage/tmp/install_1/ms_backup.sh /mnt/sysimage/opt/snowshore/bin >>
    /mnt/sysimage/tmp/postinstall.log 2>&1
mv -f /mnt/sysimage/tmp/install_1/ms_restore.sh /mnt/sysimage/opt/snowshore/bin >>
    /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Place SnowShore tarball in rpm directory so this version shows up in the web UI.
mv -f /mnt/sysimage/tmp/install_1/SNOWG2PKG*.tar.gz /mnt/sysimage/opt/snowshore/rpm >>
    /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Remove sstemp directory and its contents
rm -rf /mnt/sysimage/tmp/install_1 >> /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Remove unwanted daily cron jobs.
rm -f /mnt/sysimage/etc/cron.daily/00-logwatch >> /mnt/sysimage/tmp/postinstall.log 2>&1
rm -f /mnt/sysimage/etc/cron.daily/makewhatis.cron >> /mnt/sysimage/tmp/postinstall.log
    2>&1
rm -f /mnt/sysimage/etc/cron.daily/rpm >> /mnt/sysimage/tmp/postinstall.log 2>&1
rm -f /mnt/sysimage/etc/cron.daily/slocate.cron >> /mnt/sysimage/tmp/postinstall.log
    2>&1
rm -f /mnt/sysimage/etc/cron.daily/prelink >> /mnt/sysimage/tmp/postinstall.log 2>&1
rm -f /mnt/sysimage/etc/cron.daily/yum.cron >> /mnt/sysimage/tmp/postinstall.log 2>&1
#
# Remove unwanted weekly cron jobs
rm -f /mnt/sysimage/etc/cron.weekly/makewhatis.cron >>
    /mnt/sysimage/tmp/postinstall.log 2>&1
echo "Completed RHEL5_U1 Installation - " >> /mnt/sysimage/tmp/snowshore_pkg_install.log
    2>&1
date >> /mnt/sysimage/tmp/snowshore_pkg_install.log 2>&1
```

