

# **ION CentOS Update 6.8 Kernel 642.13.1 for Avaya Secure Access Link (SAL)**

**SAL Appliance Bundle V1.4+**  
**Updated 2/21/2017**

## **Release Notes**



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## Introduction

This document contains the release notes for applying ION OS/Security Updates on the SA56XX-SAL appliance that hosts the Avaya Secure Access Link (SAL) Gateway & Diagnostic Server (ADS) Release.

## ION CentOS 6.8 Update Notes

This update will upgrade the CentOS Operating System and Linux Kernel to resolve any security vulnerabilities and update all other OS components. Updates will only apply to the latest available Linux 6.x base release. The following RPM packages will be updated to bring the OS version to “CentOS 6.8 (final)” and update all components available prior to the date of this document.

### The following OS Installation Packages are applied:

```

alsa-lib-1.1.0-4.el6.i686.rpm
at-3.1.10-48.el6.i686.rpm
audit-2.4.5-3.el6.i686.rpm
audit-libs-2.4.5-3.el6.i686.rpm
authconfig-6.1.12-23.el6.i686.rpm
avahi-libs-0.6.25-15.el6_8.1.i686.rpm
b43-openfwfwf-5.2-10.el6.noarch.rpm
bash-4.1.2-40.el6.i686.rpm
binutils-2.20.51.0.2-5.44.el6.i686.rpm
binutils-devel-2.20.51.0.2-5.44.el6.i686.rpm
ca-certificates-2015.2.6-65.0.1.el6_7.noarch.rpm
cairo-1.8.8-6.el6_6.i686.rpm
centos-indexhtml-6-2.el6.centos.noarch.rpm
centos-release-6-8.el6.centos.12.3.i686.rpm
chkconfig-1.3.49-5-1.el6.i686.rpm
coreutils-8.4-43.el6.i686.rpm
coreutils-libs-8.4-43.el6.i686.rpm
cpio-2.10-12.el6_5.i686.rpm
cpp-4.4.7-17.el6.i686.rpm
cscope-15.6-7.el6.i686.rpm
curl-7.19.7-52.el6.i686.rpm
cvs-1.11.23-16.el6.i686.rpm
cyrus-sasl-2.1.23-15.el6_6.2.i686.rpm
cyrus-sasl-lib-2.1.23-15.el6_6.2.i686.rpm
dash-0.5.5.1-4.el6.i686.rpm
db4-4.7.25-20.el6_7.i686.rpm
db4-cxx-4.7.25-20.el6_7.i686.rpm
db4-devel-4.7.25-20.el6_7.i686.rpm
db4-utils-4.7.25-20.el6_7.i686.rpm
dbus-1.2.24-8.el6_6.i686.rpm
dbus-libs-1.2.24-8.el6_6.i686.rpm
dhclient-4.1.1-51.P1.el6.centos.i686.rpm
dhcp-common-4.1.1-51.P1.el6.centos.i686.rpm
dracut-004-409.el6_8.2.noarch.rpm
dracut-kernel-004-409.el6_8.2.noarch.rpm
e2fsprogs-1.41.12-22.el6.i686.rpm
e2fsprogs-libs-1.41.12-22.el6.i686.rpm
efibootmgr-0.5.4-13.el6.i686.rpm
elfutils-0.164-2.el6.i686.rpm
elfutils-libelf-0.164-2.el6.i686.rpm
elfutils-libelf-devel-0.164-2.el6.i686.rpm
elfutils-libs-0.164-2.el6.i686.rpm
ethtool-3.5-6.el6.i686.rpm
file-5.04-30.el6.i686.rpm
file-libs-5.04-30.el6.i686.rpm
findutils-4.4.2-9.el6.i686.rpm
flex-2.5.35-9.el6.i686.rpm
fontconfig-2.8.0-5.el6.i686.rpm
fontconfig-devel-2.8.0-5.el6.i686.rpm
freetype-2.3.11-17.el6.i686.rpm
freetype-devel-2.3.11-17.el6.i686.rpm
gawk-3.1.7-10.el6_7.3.i686.rpm
gcc-4.4.7-17.el6.i686.rpm
gcc-c++-4.4.7-17.el6.i686.rpm
gcc-gfortran-4.4.7-17.el6.i686.rpm
l41.el6_7.1.i686.rpm
gdb-7.2-90.el6.i686.rpm
gdbm-1.8.0-39.el6.i686.rpm
libXinerama-devel-1.1.3-2.1.el6.i686.rpm
libxml2-2.7.6-21.el6_8.1.i686.rpm
libXrandr-1.4.2-1.el6.i686.rpm
libXrandr-devel-1.4.2-1.el6.i686.rpm
libXrender-0.9.8-2.1.el6_8.1.i686.rpm
libXrender-devel-0.9.8-2.1.el6_8.1.i686.rpm
libXt-1.1.4-6.1.el6.i686.rpm
libXt-devel-1.1.4-6.1.el6.i686.rpm
libXtst-1.2.2-2.1.el6.i686.rpm
libXv-1.0.9-2.1.el6.i686.rpm
libXxf86vm-1.1.3-2.1.el6.i686.rpm
libXxf86vm-devel-1.1.3-2.1.el6.i686.rpm
lm_sensors-libs-3.1.1-17.el6.i686.rpm
logrotate-3.7.8-26.el6_7.i686.rpm
lsf-4.82-5.el6.i686.rpm
make-3.81-23.el6.i686.rpm
man-1.6f-32.el6.i686.rpm
mesa-dri-drivers-11.0.7-4.el6.i686.rpm
mesa-dri-filesystem-11.0.7-4.el6.i686.rpm
mesa-libGL-11.0.7-4.el6.i686.rpm
mesa-libGL-devel-11.0.7-4.el6.i686.rpm
mesa-libGLU-11.0.7-4.el6.i686.rpm
mesa-libGLU-devel-11.0.7-4.el6.i686.rpm
mesa-private-llvm-3.6.2-1.el6.i686.rpm
module-init-tools-3.9-25.el6.i686.rpm
ncurses-5.7-4.20090207.el6.i686.rpm
ncurses-base-5.7-4.20090207.el6.i686.rpm
ncurses-devel-5.7-4.20090207.el6.i686.rpm
ncurses-libs-5.7-4.20090207.el6.i686.rpm
net-snmp-5.5-57.el6_8.1.i686.rpm
net-snmp-libs-5.5-57.el6_8.1.i686.rpm
net-snmp-utils-5.5-57.el6_8.1.i686.rpm
nspr-4.11.0-1.el6.i686.rpm
nss-3.21.0-8.el6.i686.rpm
nss-softokn-3.14.3-23.3.el6_8.i686.rpm
nss-softokn-freelb-3.14.3-23.3.el6_8.i686.rpm
nss-sysinit-3.21.0-8.el6.i686.rpm
nss-tools-3.21.0-8.el6.i686.rpm
nss-util-3.21.0-2.el6.i686.rpm
ntp-4.2.6p5-10.el6.centos.1.i686.rpm
ntpdate-4.2.6p5-10.el6.centos.1.i686.rpm
openjpeg-libs-1.3-11.el6.i686.rpm
openldap-2.4.40-12.el6.i686.rpm
openssh-5.3p1-118.1.el6_8.i686.rpm
openssh-clients-5.3p1-118.1.el6_8.i686.rpm
openssh-server-5.3p1-118.1.el6_8.i686.rpm
openssl-1.0.1e-48.el6_8.1.i686.rpm
pam-1.1.1-22.el6.i686.rpm
pango-1.28.1-11.el6.i686.rpm
passwd-0.77-7.el6.i686.rpm
pciutils-libs-3.1.10-4.el6.i686.rpm
pcre-7.8-7.el6.i686.rpm
perl-5.10.1-141.el6_7.1.i686.rpm
perl-CGI-3.51-141.el6_7.1.i686.rpm
perl-Compress-Raw-Zlib-2.021-
perl-Compress-Zlib-2.021-141.el6_7.1.i686.rpm
perl-devel-5.10.1-141.el6_7.1.i686.rpm

```

```

gdbm-devel-1.8.0-39.el6.i686.rpm
gettext-0.17-18.el6.i686.rpm
141.el6_7.1.i686.rpm
gettext-libs-0.17-18.el6.i686.rpm
141.el6_7.1.i686.rpm
ghostscript-fonts-5.50-23.2.el6.noarch.rpm
git-1.7.1-4.el6_7.1.i686.rpm
141.el6_7.1.i686.rpm
glib2-2.28.8-5.el6.i686.rpm
141.el6_7.1.i686.rpm
glibc-2.12-1.192.el6.i686.rpm
glibc-common-2.12-1.192.el6.i686.rpm
glibc-devel-2.12-1.192.el6.i686.rpm
glibc-headers-2.12-1.192.el6.i686.rpm
gmp-4.3.1-10.el6.i686.rpm
gnupg2-2.0.14-8.el6.i686.rpm
gnutls-2.8.5-19.el6_7.i686.rpm
grep-2.20-3.el6_7.1.i686.rpm
grub-0.97-94.el6_7.1.i686.rpm
grubby-7.0.15-7.el6.i686.rpm
gstreamer-plugins-base-0.10.29-2.el6.i686.rpm
gzip-1.3.12-22.el6.i686.rpm
27.el6.centos.1.i686.rpm
hmacalc-0.9.12-2.el6.i686.rpm
hwdata-0.233-16.1.el6.noarch.rpm
initscripts-9.03.53-1.el6.centos.1.i686.rpm
iproute-2.6.32-54.el6.i686.rpm
iptables-1.4.7-16.el6.i686.rpm
iptables-ipv6-1.4.7-16.el6.i686.rpm
iputils-20071127-21.el6.i686.rpm
krb5-libs-1.10.3-57.el6.i686.rpm
less-436-13.el6.i686.rpm
libblkid-2.17.2-12.24.el6.i686.rpm
libcom_err-1.41.12-22.el6.i686.rpm
libcurl-7.19.7-52.el6.i686.rpm
libdrm-2.4.65-2.el6.i686.rpm
libdrm-devel-2.4.65-2.el6.i686.rpm
libfontenc-1.1.2-3.el6.i686.rpm
libgcc-4.4.7-17.el6.i686.rpm
51.el6.centos.noarch.rpm
libgfortran-4.4.7-17.el6.i686.rpm
libgomp-4.4.7-17.el6.i686.rpm
libgudev1-147-2.73.el6_8.2.i686.rpm
libpcap-1.4.0-4.20130826git2dbcaal.el6.i686.rpm
libpciaccess-0.13.4-1.el6.i686.rpm
libpng-1.2.49-2.el6_7.i686.rpm
libpng-devel-1.2.49-2.el6_7.i686.rpm
292.el6.noarch.rpm
libselinux-2.0.94-7.el6.i686.rpm
libselinux-utils-2.0.94-7.el6.i686.rpm
libsemanage-2.0.43-5.1.el6.i686.rpm
libSM-1.2.1-2.el6.i686.rpm
libSM-devel-1.2.1-2.el6.i686.rpm
libss-1.41.12-22.el6.i686.rpm
7.2.el6_6.noarch.rpm
libssh2-1.4.2-2.el6_7.1.i686.rpm
libstdc++-4.4.7-17.el6.i686.rpm
libstdc++-devel-4.4.7-17.el6.i686.rpm
libudev-147-2.73.el6_8.2.i686.rpm
libuser-0.56.13-8.el6_7.i686.rpm
libuuid-2.17.2-12.24.el6.i686.rpm
libvisual-0.4.0-10.el6.i686.rpm
9.20090921gitdf3cb4.2.el6.i686.rpm
libX11-1.6.3-2.el6.i686.rpm
libX11-common-1.6.3-2.el6.noarch.rpm
libX11-devel-1.6.3-2.el6.i686.rpm
libXau-1.0.6-4.el6.i686.rpm
libXau-devel-1.0.6-4.el6.i686.rpm
libxcb-1.11-2.el6.i686.rpm
libxcb-devel-1.11-2.el6.i686.rpm
libXcomposite-0.4.3-4.el6.i686.rpm

perl-ExtUtils-Embed-1.28-141.el6_7.1.i686.rpm
perl-ExtUtils-MakeMaker-6.55-
perl-ExtUtils-ParseXS-2.2003.0-
perl-Git-1.7.1-4.el6_7.1.noarch.rpm
perl-IO-Compress-Base-2.021-
perl-IO-Compress-Zlib-2.021-
perl-libs-5.10.1-141.el6_7.1.i686.rpm
perl-libwww-perl-5.833-3.el6.noarch.rpm
perl-Module-Pluggable-3.90-141.el6_7.1.i686.rpm
perl-Pod-Escapes-1.04-141.el6_7.1.i686.rpm
perl-Pod-Simple-3.13-141.el6_7.1.i686.rpm
perl-Test-Harness-3.17-141.el6_7.1.i686.rpm
perl-Test-Simple-0.92-141.el6_7.1.i686.rpm
perl-version-0.77-141.el6_7.1.i686.rpm
pinentry-0.7.6-8.el6.i686.rpm
pixman-0.32.8-1.el6.i686.rpm
plymouth-0.8.3-27.el6.centos.1.i686.rpm
plymouth-core-libs-0.8.3-
plymouth-scripts-0.8.3-27.el6.centos.1.i686.rpm
policymoreutils-2.0.83-29.el6.i686.rpm
poppler-0.12.4-10.el6.i686.rpm
poppler-utils-0.12.4-10.el6.i686.rpm
portreserve-0.0.4-11.el6.i686.rpm
procps-3.2.8-36.el6.i686.rpm
psmisc-22.6-19.el6_5.i686.rpm
python-2.6.6-66.el6_8.i686.rpm
python-devel-2.6.6-66.el6_8.i686.rpm
python-libs-2.6.6-66.el6_8.i686.rpm
python-pycurl-7.19.0-9.el6.i686.rpm
python-urlgrabber-3.9.1-11.el6.noarch.rpm
ql2400-firmware-7.03.00-1.el6_5.noarch.rpm
ql2500-firmware-7.03.00-1.el6_5.noarch.rpm
redhat-logos-60.0.14-12.el6.centos.noarch.rpm
redhat-rpm-config-9.0.3-
rpm-4.8.0-55.el6.i686.rpm
rpm-build-4.8.0-55.el6.i686.rpm
rpm-libs-4.8.0-55.el6.i686.rpm
rpm-python-4.8.0-55.el6.i686.rpm
rsync-3.0.6-12.el6.i686.rpm
selinux-policy-3.7.19-292.el6.noarch.rpm
selinux-policy-targeted-3.7.19-
setup-2.8.14-20.el6_4.1.noarch.rpm
sgml-common-0.6.3-33.el6.noarch.rpm
shadow-utils-4.1.5.1-5.el6.i686.rpm
sqlite-3.6.20-1.el6_7.2.i686.rpm
sudo-1.8.6p3-24.el6.i686.rpm
system-config-firewall-base-1.2.27-
systemtap-2.9-4.el6.i686.rpm
systemtap-client-2.9-4.el6.i686.rpm
systemtap-devel-2.9-4.el6.i686.rpm
systemtap-runtime-2.9-4.el6.i686.rpm
sysvinit-tools-2.87-6.dsfl.el6.i686.rpm
tar-1.23-15.el6_8.i686.rpm
tcpdump-4.0.0-
systemtap-libs-7.6-58.el6.i686.rpm
telnet-0.17-48.el6.i686.rpm
time-1.7-38.el6.i686.rpm
tmpwatch-2.9.16-6.el6.i686.rpm
tzdata-2016f-1.el6.noarch.rpm
tzdata-2016j-1.el6.noarch.rpm
udev-147-2.73.el6_8.2.i686.rpm
unzip-6.0-4.el6.i686.rpm

```

```

libXcursor-1.1.14-2.1.el6.i686.rpm
libXcursor-devel-1.1.14-2.1.el6.i686.rpm
libXdamage-1.1.3-4.el6.i686.rpm
libXdamage-devel-1.1.3-4.el6.i686.rpm
libXdmpc-1.1.1-3.el6.i686.rpm
libXdmpc-devel-1.1.1-3.el6.i686.rpm
libXext-1.3.3-1.el6.i686.rpm
libXext-devel-1.3.3-1.el6.i686.rpm
2.el6.noarch.rpm
libXfixes-5.0.1-2.1.el6.i686.rpm
libXfixes-devel-5.0.1-2.1.el6.i686.rpm
libXfont-1.5.1-2.el6.i686.rpm
libXft-2.3.2-1.el6.i686.rpm
0.5.beta.20091007git.el6.i686.rpm
libXft-devel-2.3.2-1.el6.i686.rpm
0.5.beta.20091007git.el6.i686.rpm
libXi-1.7.4-1.el6.i686.rpm
libXi-devel-1.7.4-1.el6.i686.rpm
37.el6.noarch.rpm
libXinerama-1.1.3-2.1.el6.i686.rpm

upstart-0.6.5-16.el6.i686.rpm
urw-fonts-2.4-11.el6.noarch.rpm
util-linux-ng-2.17.2-12.24.el6.i686.rpm
vim-minimal-7.4.629-5.el6.i686.rpm
wget-1.12-8.el6.i686.rpm
xinetd-2.3.14-40.el6.i686.rpm
xml-common-0.6.3-33.el6.noarch.rpm
xorg-x11-drv-ati-firmware-7.6.1-
xorg-x11-font-utils-7.2-11.el6.i686.rpm
xorg-x11-proto-devel-7.7-13.el6.noarch.rpm
xz-4.999.9-0.5.beta.20091007git.el6.i686.rpm
xz-libs-4.999.9-
xz-lzma-compat-4.999.9-
yum-3.2.29-75.el6.centos.noarch.rpm
yum-plugin-fastestmirror-1.1.30-
zip-3.0-1.el6_7.1.i686.rpm

```

**The following OS Kernel Installation Packages are applied:**

```

dracut-004-409.el6_8.2.noarch.rpm
dracut-kernel-004-409.el6_8.2.noarch.rpm
kernel-2.6.32-642.13.1.el6.ION.i686.rpm
kernel-firmware-2.6.32-642.13.1.el6.ION.i686.rpm
kernel-headers-2.6.32-642.13.1.el6.ION.i686.rpm
kernel-devel-2.6.32-642.13.1.el6.ION.i686.rpm

```

**The following Java Installation Package(s) are applied:**

```

jre-7u80-linux-i586.rpm

```

## ION Security Update Process

### What You Need

- Release notes (this document)
- Downloadable installation file: **ION-CentOS68-13.1.tgz**. (See **Network Installation Steps** Section)
- The Security Appliance (SA56xx-SAL) **must** have a minimum of 300MB of free disk space.
- ION Agent Firmware 1.3.0-B98 or newer must be installed.
- ION Security Update 5 must be installed.
- Recommended PATCH: "PATCH 11/15/2016...". Upgrade file: "agent-1.3.0-B98-PCH-11-15-2016.tgz"

## ION CentOS 6.8 Update Installation Process

The ION Security Update Installation file must be downloaded from the ION Servers. This file includes the required OS packages and ION installation scripts to successfully perform security update on the ION SAL Gateway Appliance.

### Network Installation Steps

**NOTE:** This procedure requires that the ION Appliance be connected to the public network in order to access the ION servers.

1. Connect to the AUX (Serial) port of the ION Appliance. This is not required but preferred as a system restart is required at the end of the installation. The installation will complete successfully either way.
2. Log into the Security Appliance with master level user access.
3. Run the command: `salupgrade <Enter>`
4. Enter the URL of the ION server and file to retrieve as shown in the example below.

```
Ser6130649999>salupgrade
--- Upgrade SAL Software via Network ---
Enter URL/filename to be retrieved
blank to skip, or CTRL+A to abort: http://updates.ion-networks.com/SAL/ION-CentOS68-13.1.tgz
```

**NOTE:** It may take a couple of minutes to transfer the file to the Appliance depending on the speed of your Internet connection. The ION-CentOS68-13.1.tgz package is approximately 300MB in size. No transfer progress is displayed during the download.

5. Once the file has been transferred, the installation will start automatically.

The upgrade will take approximately **15 minutes** to complete.

**NOTE:** There may be a temporary pause at times during the upgrade. Do not interrupt the upgrade while in progress.

**NOTE:** In the event that the following message is displayed on the screen, please contact ION Networks Support at [ion.networks.support@apitech.com](mailto:ion.networks.support@apitech.com) with the exact message:

```
-----
ERROR: Code 1551001 - Upgrade Aborted.
      Please Contact ION Networks Support.
-----
```

At the end of the installation, you will be prompted to reboot. The system will automatically reboot after 20 seconds if user does not respond.

**NOTE:** The system must be rebooted to apply Kernel changes. If you are currently logged in via SSH, the terminal window will be killed and you will need to allow time for the system to boot back up



before being able to log back in.

## Local Installation Steps

This section applies to existing Appliances that **do not** have access to the public network.

Network installation is the preferred and simplest method to apply the latest Security Update which requires the ION Appliance to be connected to the public network. However, if this is not possible, it must be downloaded separately and transferred to the Appliance before performing Local Installation steps.

**NOTE:** This method uses the “SALUPG” command which currently runs in silent mode providing no screen output until the upgrade is complete. The upgrade takes approximately 15 minutes to complete.

Some progress messages are displayed on the console (ION Interface). You can either connect directly to the AUX port or bring up a second SSH window to port 2022 in order to see these messages.

### Example output:

```
02/02/17 15:08:51 7CC4 {I} [T1:24] Upgrade SAL Software via local file
02/02/17 15:09:12 B07F {I} [x] ION Security Update 5 Installed.
02/02/17 15:09:12 5F99 {I} [x] ION Agent 1.3.0-B98 Installed.
02/02/17 15:09:12 8A99 {I} All Prerequisites have been met. Continue with
02/02/17 15:09:12 AC44 {I} .. Upgrade...
02/02/17 15:09:12 3D94 {I} Creating Update Dir /root/ion.centos68/...
02/02/17 15:09:14 7810 {I} Upgrading Java...
02/02/17 15:09:14 A597 {I} Updating JAVA version to 1.7.0-80...
02/02/17 15:09:32 24BF {I} Updating PATH and BASHRC for root and saluser...
02/02/17 15:09:32 63FC {I} Applying Yum Local Updates...
02/02/17 15:09:32 F92A {I} Create Yum Repository...
02/02/17 15:10:28 74CE {I} Start Yum Update(1)...
02/02/17 15:18:33 BB28 {I} Applying Kernel Updates...
02/02/17 15:20:45 B96B {I} Post Kernel Updates...
02/02/17 15:20:48 6277 {I} Applying Required ION Updates...
02/02/17 15:20:48 90E3 {I} Update LD_LIBRARY_PATH...
02/02/17 15:20:48 26D8 {I} Disable cpulimit for new Kernel...
02/02/17 15:20:48 7431 {I} Log File: /tmp/ioncentos68.20170202_150912.log
02/02/17 15:20:48 E508 {I} Update PATCH Version information...
02/02/17 15:20:48 EE1C {I} -----
02/02/17 15:20:48 E63C {I} Please wait, reboot required.
02/02/17 15:20:48 EDC8 {I} -----
```

A full detailed log is written to an installation log file: `/tmp/ioncentos68.yyyymmdd_hhmmss.log`

### Network Download Steps using a Client PC:

1. From a Client PC, open a browser window and navigate to the following URL:  
<http://updates.ion-networks.com/sal/ION-CentOS68-13.1.tgz> .

**NOTE:** Depending on your browser settings, the download will either start automatically or prompt to save the file.

2. Allow the file to be saved on your hard drive.

### Configure the Appliance to Allow FTP to transfer the Installation file:

3. Log into the Security Appliance with master level user access.
4. Type the following command to Set Network Services: **SNS <Enter>**.
5. Press **<Enter>** through each parameter to get to "FTP on External Port"
6. Use the **<Spacebar>** to select "Enable" (if not already enabled) and press **<Enter>**.
7. Continue to press **<Enter>** through to remaining parameters until the system prompt is returned.
8. Type the following command to configure the FTP Parameters: **SNP 3 <Enter>**.
9. Press **<Enter>** through each parameter to get to "—Client 1 —", then **<Enter>** to get to "User Name".
10. Enter a Username for FTP access and press **<Enter>**.
11. Provide a Password and press **<Enter>**.
12. Re-Enter the Password to confirm and press **<Enter>**.
13. Continue to press **<Enter>** through to remaining parameters until the system prompt is returned.

**Transfer the installation file to the Appliance:**

14. FTP the installation file to the Appliance using an FTP Client (Windows FTP, FileZilla, etc.). Use the FTP credentials created in Steps 10-12 above.

**NOTE:** Binary mode must be set before transferring the file. The default file location for FTP will be /opt/ion/home/ccldev which is the ION Home directory.

15. To verify the file, type the following command from the ION menu on the Appliance: **DIR <Enter>**.

**Perform Local Installation:**

1. Connect to the AUX (Serial) port of the ION Appliance. This is not required but preferred as the SALUPG is a silent mode installation and the Appliance will require a reboot at the end of the installation and will kill the existing terminal window if not connected to the AUX port. The installation will complete successfully either way. Alternatively, you can SSH to port 2022 to get to the ION menu. However, refer to the Note below.
2. Log into the Security Appliance with master level user access.
3. Run the command: **salupg ION-CentOS68-13.1.1.tgz <Enter>**

**NOTE:** The "SALUPG" command currently runs in silent mode providing no screen output until the upgrade is complete. The upgrade takes approximately **15 minutes** to complete and will automatically reboot.

Some progress messages are displayed on the AUX port console (ION Menu). You can either connect directly to the AUX port or bring up a second SSH window to port 2022 in order to see these messages. Alternatively, to see full detail, you can bring up a second SSH to port 22 and look at the upgrade log located in /tmp using "tail -f" Linux command.