Hipster Handbook - Sun Ray Software

Contents

Some notes for installation of Sun Ray Software on OpenIndiana Hipster. Sun Ray Software is used to drive desktop sessions on SunRay Thin Clients (desktop unit: DTU).

NOTE:

This configuration is not supported by OI nor by Oracle.

NOTE:

Since GNOME is replaced by Mate in Hipster, installation is a little bit more difficult. For Sun Ray it is still necessary to use GNOME GDM and some other GNOME applications. But it is possible to use Mate desktop for user session with its applications like pluma or atril.

1   Install Prerequisites

If you have installed new Hipster, it is necessary to install GNOME packages for GDM and its greeter-session. For user session 'Mate Session' will be used, it is no longer necessary to install other packages needed by Gnome Session (only Gnome packages which Mate session still uses).

Install packages from publisher openindiana.org which is nessesary to run SunRay Software. This will do the package sunray-essential for you.

```
# pkg install sunray-essential
```

This will install all necessary packages for using GDM and Sun Ray Software tools on OI Hipster.

2   Install Sun Ray Server Software

Sun Ray Software still can be downloaded at http://edelivery.oracle.com (registration required). Download the Software for Solaris x86-64

Extract the archives.

Install IPS packages of the Sun Ray Software from the local repository

```
# pkg set-publisher -g <extractdirectory>/srs_5.4.5.0-Solaris_11plus.i386/IPS.i386/
↪  sunray
# pkg install SUNWut-srss SUNWut-srwc
```

Due to package dependencies following packages will be installed:

```
SUNWut-srss (sunray)                          5.4.5.0.38-0.0              i--
SUNWuta (sunray)                              4.5.4.0.38-0.0              i--
SUNWutdso (sunray)                            3.5.0.0.2-0.0              i--
SUNWutdsr (sunray)                            3.5.0.0.2-0.0              i--
SUNWutesa (sunray)                            4.5.0.0.44-0.0              i--
SUNWutgsm (sunray)                            4.5.0.0.44-0.0              i--
SUNWuti (sunray)                              4.5.5.0.38-0.0              i--
SUNWutid (sunray)                             4.5.5.0.38-0.0              i--
SUNWutk (sunray)                              4.5.0.0.44-0.0              i--
SUNWutm (sunray)                              4.5.4.0.38-0.0              i--
```

```
SUNWuto (sunray)                                    4.5.4.0.38-0.0                i--
SUNWutps (sunray)                                   4.5.0.0.44-0.0                i--
SUNWutr (sunray)                                    4.5.0.0.44-0.0                i--
SUNWutref (sunray)                                  4.5.0.0.44-0.0                i--
SUNWutscr (sunray)                                  4.5.4.0.38-0.0                i--
SUNWutsrs (sunray)                                  4.5.5.0.38-0.0                i--
SUNWutstk (sunray)                                  4.5.0.0.44-0.0                i--
SUNWutsto (sunray)                                  4.5.0.0.44-0.0                i--
SUNWutstr (sunray)                                  4.5.0.0.44-0.0                i--
SUNWutsvt (sunray)                                  1.1.0.0.3-0.0                 i--
SUNWuttsc (sunray)                                  2.6.4.0.11-0.0                i--
SUNWuttscd (sunray)                                 2.6.4.0.11-0.0                i--
SUNWuttscr (sunray)                                 2.6.4.0.11-0.0                i--
SUNWutu (sunray)                                    4.5.0.0.44-0.0                i--
SUNWutwa (sunray)                                   4.5.2.0.5-0.0                 i--
SUNWutwar (sunray)                                  4.5.0.0.44-0.0                i--
SUNWutwh (sunray)                                   4.5.0.0.44-0.0                i--
SUNWutwl (sunray)                                   4.5.0.0.44-0.0                i--
```

To enable Sun Ray Software utilities to use ISC DHCP server, we take patches located in path `/opt/SUNWut/utils` from the package sunray/oi-adaptions.

```
# pkg install sunray/oi-adaptions
# /opt/SUNWut/utils/apply_patches
```

For using the ISC-DHCP server instead of the Sun DHCP Server:

```
# rm /etc/opt/SUNWut/dhcp
# ln -s /opt/SUNWut/lib/dhcp/isc /etc/opt/SUNWut/dhcp
```

2.1   Note on Java Runtime Environment

The Sun Ray Software needs the Sun/Oracle JRE 1.7 (32 bit) which can be downloaded from the Oracle Website and unpacked in a location where you like, eg. `/opt/SUNWut/jre`. The link `/etc/opt/SUNWut/jre` should set to the JRE install path.

```
# rm /etc/opt/SUNWut/jre
# ln -s /opt/SUNWut/jre/jre1.7.0_80 /etc/opt/SUNWut/jre
```

3   Basic Configuration

You can run `utconfig` and `utadm` the way described in the Sun Ray Software document.

run utconfig and choose the defaults

```
# utconfig
```

For configuring SunRay network on a dedicated network interface, e.g bge1, use the following command. This will configure the ISC DHCP server.

```
# utadm -a bge1
```

NOTE:

If the script seems to hang, press `Enter` or `Y/N`. Some times the YesNo output is not shown. If setup of /etc/inet/dhcpd4.conf failed, unconfigure with 'utadm -d bge1' and remove files in '/etc/opt/SUNWut/net/dhcp/' and the custom line in /etc/network. Then retry the configuration with `utadm -a`

If you have to use a shared network, use the command

```
# utadm -A <sever IP address>
```

run utpolicy

```
# utpolicy -a -z both -m -D
```

Now the Sun Ray server installation is ready to serve your Sun Ray DTU. For more configuration options you can use the Oracle/Sun documentation.

3.1   GDM

the GDM service has to be enabled. lightdm should not run however.

```
# svcadm enable graphical-login/gdm
# svcadm disable graphical-login/lightdm
```

3.2   GDM greeter

On greeter login choose session `Mate`, `Gnome` is not available for user session on OpenIndiana.

3.3   Some Panel applets crash

If some panel applets crash at session startup, e.g. clock, trash, timeslider, change panel property - background and select 'no'. The default is 'backgroundimage'.

3.4   Login Screen (gdm-greeter) won't reapear after logout

After logout the gdm-login won't reappear. That's why the script in `/opt/SUNWut/lib/gdm/revivesrsession` is installed, and is called by the `/etc/opt/SUNWut/gdm/SunRayPostSession/helpers/revivesession` helper script.

3.5   Multihead group configuration

Up 16 SunRay Thin Clients can be grouped to a multihead setup, where multiple monitors will be used for a single user session. For two clients this can be done with:

```
$ /opt/SUNWut/bin/utxconfig -m on -R 2x1 -S 0,1
```

Since GTK 3.10 multi screen setup is not supported anymore. The command line option `--display` whith a dot value greate 0 will not work any more (e.g.: earlier the command `firefox --display=:11.1` has started firefox on the second display).

metacity or marco will manage only the default screen. For multihead setup it is now necessary to enable 'xinerama' mode, so that the Window manager expands the screen across all DTU's in a group.

```
$ opt/SUNWut/bin/utxconfig -x on
```

Refer to the original documentation from Oracle for configuration in general: Multiple Monitor Configurations

3.6 Configure ISC DHCP server manually

Sun Ray Server on Hipster has to use DHCP scripts for `isc-dhcp-server` like on Linux. Instead of using `utadm` for configuration, it is possible to configure DHCP manually. Here an example:

Key	Value
Sunray Server Hostname:	oi-sr-bge1
Sunray Server IF name:	bge1
SunRay Server LAN domain name:	sunray.lan
Sunray Server IP address:	192.168.128.1
DNS servers:	192.168.128.6, 192.168.128.1

`/etc/inet/dhcpd4.conf` contains:

```
ddns-update-style none;

# option definitions common to all supported networks...
option domain-name "sunray.lan";
option domain-name-servers 192.168.128.6, 192.168.128.1;
option subnet-mask 255.255.255.0;
option broadcast-address 192.168.128.255;
option routers 192.168.128.2;
option space SunRay;
option SunRay.Intf code 33 = text;
option SunRay.Intf "bge1";
option SunRay.AuthSrvr code 21 = ip-address;
option SunRay.AuthSrvr 192.168.128.1;
option SunRay.AltAuth code 35 = array of ip-address;
option SunRay.AltAuth 192.168.128.2;
option SunRay.FWSrvr code 31 = ip-address;
option SunRay.FWSrvr 192.168.128.2;
option SunRay.NewTVer code 23 = text;
option SunRay.NewTVer "11.1.7.0_38_2016.10.27.13.09";
option SunRay.AuthPort code 22 = integer 16;
option SunRay.AuthPort 7009;
option SunRay.LogHost  code 24 = ip-address;
option SunRay.LogHost 192.168.1.2;
option SunRay.LogKern code 25 = integer 8;
option SunRay.LogKern 6;
```

```
option SunRay.LogNet code 26 = integer 8;
option SunRay.LogNet 6;
option SunRay.LogUSB code 27 = integer 8;
option SunRay.LogUSB 6;
option SunRay.LogVid code 28 = integer 8;
option SunRay.LogVid 6;
option SunRay.LogAppl code 29 = integer 8;
option SunRay.LogAppl 6;
option SunRay.sunray-servers code 68 = text;
option SunRay.sunray-servers "oi-sr-bge1.sunray.lan";
option SunRay.sunray-config-servers code 67 = text;
option SunRay.sunray-config-servers "oi-sr-bge1.sunray.lan";


default-lease-time 86400;
max-lease-time 86400;
authoritative;

class "sun" {
  match if substring (option vendor-class-identifier, 0, 4) = "SUNW";
}


log-facility local7;

host sr1.sunray.lan {
  hardware ethernet 00:14:4f:57:a0:c1;
  fixed-address 192.168.128.50;
  vendor-option-space SunRay;
}

subnet 192.168.128.0 netmask 255.255.255.0 {
pool {
    allow members of "sun";
    range 192.168.128.51 192.168.128.59;
}
}
```

Vendor specific DHCP options are described in the Sun Ray Software: Alternate Client Initialization Reqs Using DHCP document.

4 RDP client

Sun Ray Server Sofware delivers a own RDP client `uttsc`. The client `uttsc` is not compatible with the current authentication protocols of MS Windows versions, so we do not want to support it on OpenIndiana in the future.

A good replacement is `xfreerdp`. You can install this

```
# pkg install desktop/remote-desktop/freerdp
```