



Third Party System Management Integration Solution

Microsoft Windows Deployment Guide for Sun Fire x64 Servers Using Symantec Altiris Deployment Solution 6.8 SP2

Servers supported:

- Sun Fire x64 Servers

A complete, current list of supported Sun servers, service processors, and service processor firmware is available at the following web site:

<http://www.sun.com/system-management/tools.jsp>

Please consult this web site before configuring the Altiris Deployment Solution for Sun Servers.

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Introduction

This whitepaper describes the procedures required to configure Altiris® Deployment Solution 6.8 SP2 for provisioning of Windows 2003 Server to Sun x64 servers. The solution presented in this document requires WinPE 2005 as the automation operating system and PXE as the boot image delivery method. Both 32-bit and 64-bit Windows versions will be discussed.

Supported Systems

The following server types are covered by this document.

- Sun Fire X2100 M2
 - Sun Fire X2200 M2
 - Sun Fire X4100 M2
 - Sun Fire X4150
 - Sun Fire X4200 M2
 - Sun Fire X4450
 - Sun Fire X4600 M2
 - Sun Blade X6220
 - Sun Blade X6250
 - Sun Blade X8400
 - Sun Blade X8420
 - Sun Blade X8440
-

Software Requirements

This section describes the software required to successfully perform the tasks outlined in this document.

- Altiris Deployment Solution 6.8 SP2
- MS SQL 2005
- Windows 2003 Server Enterprise Edition 32-bit

- Windows 2003 Server Enterprise Edition 64-bit
 - Windows 2003 Server R2 Enterprise Edition 32-bit
 - Windows 2003 Server R2 Enterprise Edition 64-bit
 - Windows PE 2005 32-bit
 - Windows PE 2005 64-bit
 - IPMItool 1.8.8 for Microsoft Windows 2003
 - Platform specific Tools & Drivers CD
-

Infrastructure Overview

This section provides an overview of the infrastructure used for the qualification of Sun servers with Altiris DS 6.8 SP2.

Network Topology

The environment consists of two separate networks (or VLANs) – one for the purpose of data provisioning and one for system management. One NIC interface of each server in the infrastructure is connected to the provisioning network. Service processor of each managed node is connected to the management network. The deployment server has access to the management network either directly or through a router.

Note: Connecting service processors to network is optional. In case the service processors are not networked, some of the functionality will be limited. See chapter *IPMI Based Tasks* for details.

Services

The following network services need to be running on the deployment server:

- DHCP server (provisioning network)
 - Altiris Deployment Server and related services
 - Altiris PXE Server and related services
-

Obtaining Device Drivers and Utilities

All required device drivers and utilities are available on the Tools & Drivers CD shipped with your server. Latest versions of the Tools & Drivers CD and additional utilities described in this document can be downloaded from <http://www.sun.com/downloads>.

Preparing the Symantec Altiris Deployment Solution

This chapter describes the necessary configuration steps that need to be carried out to enable Altiris DS 6.8 to provision Sun x64 servers.

Creating a WinPE Automation Environment

Using Altiris Boot Disk Creator and the standard procedure described in [1], install pre-boot operating system files for WinPE 2005 32-bit and 64-bit. The files will be installed to the following location:

```
c:\Program Files\Altiris\Express\Deployment \
Server\Bootwiz\Platforms\Winpe
```

Hereafter this directory is referred to as <WINPE>.

Creating a Default Sun OEM Extension for WinPE Environment

In order to customize the WinPE automation environment in a modular manner without having to modify the original file structure in the <WINPE> directory, it is necessary to create an overlay area that will be merged with the original WinPE directory when a boot image is generated. Detailed instructions on how to create an OEM extension for Altiris DS can be found in [2].

Creating a Sun OEM Extension Directory Structure

1. **Create the following directory structure under the following directory location:**

```
c:\Program Files\Altiris\Express\Deployment \
Server\Bootwiz\oem
```

Hereafter this directory is referred to as <OEM>.

```
Sun
└── WinPE
    ├── x64
    │   ├── BASE
    │   │   ├── AMD64
    │   │   └── system32
    │   └── x86
    │       ├── BASE
    │       │   ├── I386
    │       │   └── system32
```

Integrating Drivers and Tools for LSI RAID Controller Configuration

The following section describes the steps to enable LSI RAID controller configuration from within the WinPE environment. In order to enable the LSI cfggen utility to view and modify RAID settings, the appropriate LSI Logic MPT Windows driver must be loaded. The following procedure describes how to add the driver into Sun OEM extension.

- 1. Create the following directory structure (if you have not done so already) under the following directory location:**

```
c:\Program Files\Altiris\Express\Deployment \
Server\Bootwiz\oem
```

Hereafter this directory is referred to as <OEM>.

```
Sun
└── WinPE
    ├── x64
    │   ├── BASE
    │   │   ├── AMD64
    │   │   │   ├── system32
    │   │   │   └── lsiraid
    │   │   └── LSI
    │   └── x86
    │       ├── BASE
    │       │   ├── I386
    │       │   │   ├── system32
    │       │   │   └── lsiraid
    │       │   └── LSI
```

- 2. Locate the Floppy Pack on the Tools & Drivers CD.**

The path to the archive is <CDROOT>\windows\w2k3\packages\.

3. Unpack the zip file to a directory on the deployment server.

The directory with the unpacked Floppy Pack is hereafter referred to as <FLOPPYPACK>.

4. Copy all files and directories from <FLOPPYPACK>\files to <OEM>\Sun\WinPE\x86\BASE\I386\system32\lsiraid

5. Copy all files and directories from <FLOPPYPACK>\files to <OEM>\Sun\WinPE\x64\BASE\AMD64\system32\lsiraid

6. Create the following files.

```
<OEM>\Sun\WinPE\x64\BASE\AMD64\system32\winpeoem.sif
```

```
<OEM>\Sun\WinPE\x86\BASE\I386\system32\winpeoem.sif
```

7. Enter the following text into each of these files.

```
[OemDriverParams]
OemDriverRoot=""
OemDriverDirs=lsiraid
```

These lines install the driver files required for the WinPE environment to be able to view/manipulate the LSI boot devices.

8. Locate the LSI cfggen.exe utility.

The WinPE version is available on the Tools & Drivers CD shipped with your server or can be obtained from Sun download site as part of the following package:

<http://www.sun.com/download/products.xml?id=471fb433>

This package contains Windows-only files from the Tools and Drivers CD.

After unpacking the zip archive, both 32-bit and 64-bit version of the utility are located in the directory windows\w2k3\tools\lsi_cfggen.

9. Copy the following files.

```
cfggen_32bitWinPE.exe to <OEM>\Sun\WinPE\x86\BASE\LSI
```

```
cfggen_64bitWinPE.exe to <OEM>\Sun\WinPE\x64\BASE\LSI
```

10. Regenerate WinPE boot images.

Integrating Drivers and Tools for Sun StorageTEK RAID Controller Configuration

This section describes the steps specific to servers with Sun StorageTEK SAS HBA. In order to enable HDD access and configuration using the the arconf utility to view and modify RAID settings, the appropriate Adaptec driver must be loaded. The following procedure describes how to add the driver into Sun OEM extension.

Instructions Common to the Sun Blade X6250, Sun Fire X4150, and Sun Fire X4450 Platforms

1. **Create the following directory structure (if you have not done so already) under the following directory location:**

```
c:\Program Files\Altiris\Express\Deployment \
Server\Bootwiz\oem
```

Hereafter this directory is referred to as <OEM>.

```
Sun
└─ WinPE
    └─ x64
        └─ BASE
            ├── AMD64
            │   ├── system32
            │   └─ stkraid
            └─ STK
    └─ x86
        └─ BASE
            ├── I386
            │   ├── system32
            │   └─ stkraid
            └─ STK
```

2. **Locate the Sun StorageTEK RAID drivers on the Tools & Drivers CD that shipped with your server.**

Depending which Sun server or blade module you need to integrate, proceed to one of the following two procedures.

Instructions Specific to the Sun Blade X6250 Platform

1. **Locate the Floppy Pack on the Tools & Drivers CD.**

The path to the archive is \windows\w2k3\packages\.

2. **Unpack the zip file to a directory on the deployment server.**

The directory with the unpacked Floppy Pack is hereafter referred to as <FLOPPYPACK>.

3. **Copy all files and directories from <FLOPPYPACK>\files to <OEM>\Sun\WinPE\x86\BASE\I386\system32\stkraid.**

4. **Copy all files and directories from <FLOPPYPACK>\files to <OEM>\Sun\WinPE\x64\BASE\AMD64\system32\stkraid**

5. **Create the following files.**

```
<OEM>\Sun\WinPE\x64\BASE\AMD64\system32\winpeoem.sif
```

```
<OEM>\Sun\WinPE\x86\BASE\I386\system32\winpeoem.sif
```

6. **Enter the following text into each of these files.**

```
[OemDriverParams]
```

```
OemDriverRoot=""  
OemDriverDirs=stkraid
```

Instructions Specific to the Sun Fire X4150 and X4450 Platforms

1. Locate the StorageTEK driver directory on the Tools & Drivers CD.

The drivers reside in one of the two following locations:

- `<CDROOT>\drivers\windows\RAID\StorageTEK` (in case of Sun Fire X4150 Tools & Drivers CD)
- `<CDROOT>\drivers\windows\boot\RAID\StorageTEK` (in case of Sun Fire X4450 Tools & Drivers CD)

The StorageTEK directory is hereafter referred to as `<StorageTEK>`.

2. Copy all files from `<StorageTEK>\32bit` to `<OEM>\Sun\WinPE\x86\BASE\I386\system32\stkraid`
3. Copy all files from the directory `<StorageTEK>\64bit` to `<OEM>\Sun\WinPE\x64\BASE\AMD64\system32\stkraid`

Note: The RAID drivers are identical for Sun Fire X4150 and Sun Fire X4450 servers. Users can choose to use either X4150 or X4450 resource CD to obtain the driver files.

4. Create the following files.

```
<OEM>\Sun\WinPE\x64\BASE\AMD64\system32\winpeoem.sif  
<OEM>\Sun\WinPE\x86\BASE\I386\system32\winpeoem.sif
```

5. Enter the following text into each of these files.

```
[OemDriverParams]  
OemDriverRoot=""  
OemDriverDirs=stkraid
```

6. Obtain the StorageTEK RAID Manager software which is either included on the Tools & Drivers CD for your platform or can be downloaded from Sun Download Center.

7. Run the installer and install the Command Line Tools component on the deployment server.

8. Navigate to the installation directory.

9. Copy all files to `<OEM>\Sun\WinPE\x86\BASE\STK`.

Note: In order to install the 64-bit version of the command line tools perform similar procedure with the 64-bit version of the StorageTEK RAID Manager software. A machine running 64-bit version of Windows is required to be able to run the 64-bit version installer. The binaries then have to be copied over to the deployment server to the directory `<OEM>\Sun\WinPE\x64\BASE\STK`.

10. Copy files `disk.sys` and `partmgr.sys` from

```
<WINPE>\<PLATFORM>\BASE\<ARCH>\system32\drivers to  
<OEM>\Sun\WinPE\<PLATFORM>\BASE\<ARCH> where <PLATFORM> is x86  
or x64 and <ARCH> is i386 or amd64.
```

This is required for the RAID configuration tool to work correctly when creating logical drives.

11. Regenerate WinPE boot images.

Creating a Custom Data Source for Service Processors Credentials (Optional)

Skip this section if your service processors are not connected to network or you do not plan to use out-of-band access to the service processors.

1. **Run MS SQL Server Management Studio, connect to the SQL server used by Altiris DS and create a new database called SunHW.**
2. **Adjust database permissions so that the user associated with the Deployment Server can perform SELECTs on the SunHW database.**
3. **In the SunHW database create a table called sp with the following columns and properties.**

Column	Properties
computer_id	primary key, int, not null
sp_ip	text, not null
login	text, not null
pass	text, not null

4. **Define a custom data source in Altiris DS Deployment Console through Tools -> Options -> Custom Data Sources menu.**

Use the following settings.

Column	Setting
Alias	sunhw
Server	localhost
Database	SunHW
Use Integrated Authentication	true

RAID Controller Configuration Tasks

LSI RAID Configuration

Refer to [6] for detailed instruction how to use LSI `cfggen.exe` tool.

A sample task sequence for configuring a RAID array may look as follows:

1. Run an embedded script in WinPE automation with Sun OEM extension.

```
x:\LSI\cfggen.exe 0 delete noprompt
```

where `x:\` is the WinPE RAM disk.

2. Restart

A reboot is required here. A RAID configuration cannot be deleted before immediately creating a new one without a reboot in between.

3. Run an embedded script in WinPE automation with Sun OEM extension:

```
x:\LSI\cfggen.exe 0 create IM MAX 0 1 noprompt
```

4. Restart

StorageTek RAID Configuration

With Sun OEM extension in place, the Sun StorageTek SAS HBA can be configured in-band using `arconf.exe` tool (part of the OEM extension).

To create or delete logical drives on the controller, create scripts that will be run in WinPE automation environment for example as follows (drive `x:` is the WinPE RAM disk).

1. Delete all logical drives defined on the controller.

```
x:\STK\arconf.exe delete 1 logicaldrive all noprompt
```

2. Create a RAID 1 logical drive containing two disks - 0,0 and 0,1

```
x:\STK\arconf.exe create 1 logicaldrive max 1 0 0 0 1 \
noprompt
```

For detailed information on using the `arconf.exe` utility refer to [7].

IPMI-Based Tasks (Optional)

Power Control Tasks (out-of-band)

Power control tasks provide an alternative to Wake-On-Lan functionality. Chassis power is controlled through the servers' service processor.

This is dependent of the following requirements:

- IPMItool 1.8.8 for Microsoft Windows 2003 binaries must be present on the deployment server and accessible by the Deployment Solution.

- Service processors must be connected to the network and accessible from the deployment server.

The database table that holds service processor credentials must be populated as follows.

Column	Properties
computer_id	Computer ID as assigned to the computer by Altiris DS
sp_ip	IP address of the service processor
login	user name
pass	password (plain text)

The power management task then consists of a script which is run locally on the deployment server and calls ipmitool with parameters obtained from the database using custom tokens as follows:

```
set SPIP=%#sunhw!sp@sp_ip%
set SPLOGIN=%#sunhw!sp@login%
set SPPASS=%#sunhw!sp@pass%

<PATH_TO_IPMITOOL>\ipmitool.exe -H %SPIP% -U %SPLOGIN% -P \
%SPPASS% power on

or alternatively for power-off or power-cycle operation:

<PATH_TO_IPMITOOL>\ipmitool.exe -H %SPIP% -U %SPLOGIN% -P \
%SPPASS% power off

<PATH_TO_IPMITOOL>\ipmitool.exe -H %SPIP% -U %SPLOGIN% -P \
%SPPASS% power cycle
```

Service Processor Configuration Tasks (out-of-band)

Using the procedure described in the previous section, you can execute also other supported IPMItool commands in addition to the power management tasks.

The general usage pattern is as follows, for the list of available commands refer to [4], [5] and IPMItool help (run ipmitool.exe without parameters):

```
set SPIP=%#sunhw!sp@sp_ip%
set SPLOGIN=%#sunhw!sp@login%
set SPPASS=%#sunhw!sp@pass%

<PATH_TO_IPMITOOL>\ipmitool.exe -H %SPIP% -U %SPLOGIN% -P \
%SPPASS% <command>
```

Configuring Windows Deployment for Sun Fire X2100M2 Servers

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Fire X2100 M2 servers. It contains the following sections:

- Known Issues
 - Creating a deployment job
 - Importing Windows operating system files
 - Slipstreaming OEM drivers
 - Configuring unattended installation parameters
-

Known Issues

The server contains two kinds of NICs – Broadcom and nVidia. According to Altiris Knowledge Base article No. 27246 (see [3]), WinPE will not connect to network when booting from network using the nVidia NIC. Use the Broadcom NICs for connecting the server to the deployment infrastructure.

Creating a Deployment Job

To create a deployment job, do the following:

1. **(Optional) Perform the following procedure documented in Chapter 2.**
 - “Power Control Tasks” (Optional)
 2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**
-

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

```
c:\Program Files\Altiris\Express\Deployment \
Server\Deploy\<WINOS>\<i>ARCH</i>
```

where:

- *<WINOS>* represents the Windows image that has been imported in the previous step, e.g. WinOS001
- *<ARCH>* stands either for i386 or amd64 (for 32-bit or 64-bit Windows)

```
$OEM$
|
|---$1
|   |
|   |---Sun
|       |
|       |---X2100M2
|           |
|           |---broadcomNIC
|           |---ethernet
|           |---lsi
|           |---sata_ide
|           |---sataraid
|           |---smbus
|           |---video
|
|---TEXTMODE
```

2. [For 32-bit version of Windows] Copy or extract all the following files.

From ...	To ...
<CDROOT>\drivers\windows\2003_32\chipset\ethernet	\$OEM\$\\$1\Sun\X2100M2\ethernet
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sata_ide	\$OEM\$\\$1\Sun\X2100M2\sata_ide
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sataraid	\$OEM\$\\$1\Sun\X2100M2\sataraid
<CDROOT>\drivers\windows\2003_32\chipset\smbus	\$OEM\$\\$1\Sun\X2100M2\smbus
<CDROOT>\drivers\windows\2003_32\video	\$OEM\$\\$1\Sun\X2100M2\video
<CDROOT>\drivers\windows\broadcomNIC	\$OEM\$\\$1\Sun\X2100M2\broadcomNIC
<CDROOT>\drivers\windows\LSI_RAID\32bit\lsi_2003_32bit.zip	\$OEM\$\\$1\Sun\X2100M2\lsi
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sataraid	\$OEM\$\TEXTMODE

3. [For 64-bit version of Windows] Copy or extract all the following files.

From ...	To ...
<CDROOT>\drivers\windows\2003_64\chipset\ethernet	\$OEM\$\\$1\Sun\X2100M2\ethernet
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sata_ide	\$OEM\$\\$1\Sun\X2100M2\sata_ide
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sataraid	\$OEM\$\\$1\Sun\X2100M2\sataraid
<CDROOT>\drivers\windows\2003_64\chipset\smbus	\$OEM\$\\$1\Sun\X2100M2\smbus
<CDROOT>\drivers\windows\2003_64\video	\$OEM\$\\$1\Sun\X2100M2\video
<CDROOT>\drivers\windows\broadcomNIC	\$OEM\$\\$1\Sun\X2100M2\broadcomNIC
<CDROOT>\drivers\windows\LSI_RAID\64bit\lsi_2003_64bit.zip	\$OEM\$\\$1\Sun\X2100M2\lsi
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sataraid	\$OEM\$\TEXTMODE

4. In the file \$OEM\$\TEXTMODE\txtsetup.oem, comment out the lines beginning with “dll=” in the following sections of that file:

- [Files.SCSI.RAIDCLASS]
- [Files.SCSI.BUSDRV]

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X2100M2\broadcomNIC;\Sun\X2100M2\ethernet;\Sun\X2100M2\lsi;\Sun\X2100M2\sata_ide;\Sun\X2100M2\sataraid;\Sun\X2100M2\smbus;\Sun\X2100M2\video"

[OEMBootFiles]
txtsetup.oem
idecoi.dll
nvatabus.sys
nvraid.cat
nvraid.inf
nvraid.sys
nvraidco.dll

[MassStorageDrivers]
"NVidia RAID CLASS DRIVER (required)" = OEM
"NVidia nForce Storage Controller (required)" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X2100M2\broadcomNIC;\Sun\X2100M2\ethernet;\Sun\X2100M2\lsi;\Sun\X2100M2\sata_ide;\Sun\X2100M2\sataraid;\Sun\X2100M2\smbus;\Sun\X2100M2\video"
```

```
[OEMBootFiles]
txtsetup.oem
idecoi.dll
nvatax64.sys
nvraid.cat
nvraidco.dll
nvrpx64.inf
nvrpx64.sys
```

```
[MassStorageDrivers]
"NVidia RAID CLASS DRIVER (required)" = OEM
"NVidia nForce Storage Controller (required)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Fire X2200 M2 Servers

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Fire X2200 M2 servers. It contains the following sections:

- Known Issues
- Creating a deployment job
- Importing Windows operating system files
- Slipstreaming OEM drivers
- Configuring unattended installation parameters

Known Issues

The server contains two kinds of NICs – Broadcom and nVidia. According to Altiris Knowledge Base article No. 27246 (see [3]), WinPE will not connect to network when booting from network using the nVidia NIC. Use the Broadcom NICs for connecting the server to the deployment infrastructure.

Creating a Deployment Job

To create a deployment job, do the following:

1. **(Optional) Perform the following procedure documented in Chapter 2.**
 - “Power Control Tasks” (Optional)
2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

```
c:\Program Files\Altiris\Express\Deployment \
Server\Deploy\<WINOS>\<i>ARCH</i>
```

where:

- *<WINOS>* represents the Windows image that has been imported in the previous step, e.g. WinOS001
- *<ARCH>* stands either for i386 or amd64 (for 32-bit or 64-bit Windows)

```
$OEM$
|
|---$1
|   |
|   |---Sun
|       |
|       |---X2200M2
|           |
|           |---broadcomNIC
|           |---ethernet
|           |---lsi
|           |---sata_ide
|           |---sataraid
|           |---smbus
|           |---video
|---TEXTMODE
```

2. [For 32-bit version of Windows] Copy all the following files.

From ...	To ...
<CDROOT>\drivers\windows\2003_32\chipset\ethernet	\$OEM\$\\$1\Sun\X2200M2\ethernet
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sata_ide	\$OEM\$\\$1\Sun\X2200M2\sata_ide
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sataraid	\$OEM\$\\$1\Sun\X2200M2\sataraid
<CDROOT>\drivers\windows\2003_32\chipset\smbus	\$OEM\$\\$1\Sun\X2200M2\smbus
<CDROOT>\drivers\windows\2003_32\video	\$OEM\$\\$1\Sun\X2200M2\video
<CDROOT>\drivers\windows\broadcomNIC	\$OEM\$\\$1\Sun\X2200M2\broadcomNIC
<CDROOT>\drivers\windows\LSI_RAID\32bit	\$OEM\$\\$1\Sun\X2200M2\lsi
<CDROOT>\drivers\windows\2003_32\chipset\ide\winxp\sataraid	\$OEM\$\TEXTMODE

3. [For 64-bit version of Windows] Copy all the following files.

From ...	To ...
<CDROOT>\drivers\windows\2003_64\chipset\ethernet	\$OEM\$\\$1\Sun\X2200M2\ethernet
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sata_ide	\$OEM\$\\$1\Sun\X2200M2\sata_ide
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sataraid	\$OEM\$\\$1\Sun\X2200M2\sataraid
<CDROOT>\drivers\windows\2003_64\chipset\smbus	\$OEM\$\\$1\Sun\X2200M2\smbus
<CDROOT>\drivers\windows\2003_64\video	\$OEM\$\\$1\Sun\X2200M2\video
<CDROOT>\drivers\windows\broadcomNIC	\$OEM\$\\$1\Sun\X2200M2\broadcomNIC
<CDROOT>\drivers\windows\LSI_RAID\64bit	\$OEM\$\\$1\Sun\X2200M2\lsi
<CDROOT>\drivers\windows\2003_64\chipset\ide\winxp\sataraid	\$OEM\$\TEXTMODE

4. In the file \$OEM\$\TEXTMODE\txtsetup.oem, comment out the lines beginning with “dll=” in the following sections of that file:

- [Files.SCSI.RAIDCLASS]
- [Files.SCSI.BUSDRV]

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X2200M2\broadcomNIC;\Sun\X2200M2\ethernet;\Sun\X2200M2\lsi;\Sun\X2200M2\sata_ide;\Sun\X2200M2\sataraid;\Sun\X2200M2\smbus;\Sun\X2200M2\video"

[OEMBootFiles]
txtsetup.oem
idecoi.dll
nvatabus.sys
nvraid.cat
nvraid.inf
nvraid.sys
nvraidco.dll

[MassStorageDrivers]
"NVidia RAID CLASS DRIVER (required)" = OEM
"NVidia nForce Storage Controller (required)" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X2200M2\broadcomNIC;\Sun\X2200M2\ethernet;\Sun\X2200M2\lsi;\Sun\X2200M2\sata_ide;\Sun\X2200M2\sataraid;\Sun\X2200M2\smbus;\Sun\X2200M2\video"
```

```
[OEMBootFiles]
txtsetup.oem
idecoi.dll
nvatax64.sys
nvraid.cat
nvraidco.dll
nvr dx64.inf
nvr dx64.sys
```

```
[MassStorageDrivers]
"NVidia RAID CLASS DRIVER (required)" = OEM
"NVidia nForce Storage Controller (required)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Fire X4100 M2 and X4200 M2 Servers

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Fire X4100 M2 and X4200 M2 servers. It contains the following sections:

- Known Issues
 - Creating a deployment job
 - Importing Windows operating system files
 - Slipstreaming OEM drivers
 - Configuring unattended installation parameters
-

Known Issues

The server contains two kinds of NICs – Intel and nVidia. According to Altiris Knowledge Base article No. 27246 (see [3]), WinPE will not connect to network when booting from network using the nVidia NIC. Use the Intel NICs for connecting the server to the deployment infrastructure.

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “LSI RAID Configuration”
2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

```
c:\Program Files\Altiris\Express\Deployment \
Server\Deploy\WINOS\<ARCH>
```

where:

- <WINOS> represents the Windows image that has been imported in the previous step, e.g. WinOS001
- <ARCH> stands either for i386 or amd64 (for 32-bit or 64-bit Windows)

```
$OEM$
```

```
|—$1
|   |—Sun
|       |—X4100M2
|           |—amd
|           |—ami
|           |—ati
|           |—lsi
|           |—nvidia
|—TEXTMODE
```

2. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

```
<CDROOT>\windows\w2k3\packages\DriverPack_1_3_3.zip
```

3. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called <DRIVERPACK> in the following examples.

4. [For 32-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> directory.

From ...	To ...
<DRIVERPACK>\32-bit\amd	\$OEM\$\\$1\Sun\X4100M2\amd
<DRIVERPACK>\32-bit\ami	\$OEM\$\\$1\Sun\X4100M2\ami
<DRIVERPACK>\32-bit\ati	\$OEM\$\\$1\Sun\X4100M2\ati
<DRIVERPACK>\32-bit\lsi	\$OEM\$\\$1\Sun\X4100M2\lsi
<DRIVERPACK>\32-bit\nvidia	\$OEM\$\\$1\Sun\X4100M2\nvidia
<DRIVERPACK>\32-bit\lsi	\$OEM\$\TEXTMODE
<DRIVERPACK>\32-bit\RIS\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

5. [For 64-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> directory.

From ...	To ...
<DRIVERPACK>\64-bit\amd	\$OEM\$\\$1\Sun\X4100M2\amd
<DRIVERPACK>\64-bit\ami	\$OEM\$\\$1\Sun\X4100M2\ami
<DRIVERPACK>\64-bit\lsi	\$OEM\$\\$1\Sun\X4100M2\lsi
<DRIVERPACK>\64-bit\nvidia	\$OEM\$\\$1\Sun\X4100M2\nvidia
<DRIVERPACK>\64-bit\lsi	\$OEM\$\TEXTMODE
<DRIVERPACK>\64-bit\RIS\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4100M2\amd\8131\IOAPIC;\Sun\X4100M2\amd\cpu;\Sun\X4100M2\ami;\Sun\X4100M2\ati;\Sun\X4100M2\lsi;\Sun\X4100M2\nvidia\ETHERNET;\Sun\X4100M2\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k332.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (32-bit)" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4100M2\amd\8132\IOAPIC;\Sun\X4100M2\amd\cpu;\Sun\X4100M2\ami;\Sun\X4100M2\lsi;\Sun\X4100M2\nvidia\ETHERNET;\Sun\X4100M2\nvidia\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k364.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (64-bit)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Fire X4150 and X4450 Servers

This chapter explains how to configure your Symantec Altiris environment to support the monitoring of Sun Fire X4150 and X4450 servers. It contains the following sections:

- Creating a deployment job
 - Importing Windows operating system files
 - Slipstreaming OEM drivers
 - Configuring unattended installation parameters
-

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “StorageTEK RAID Configuration”
 2. Perform the Scripted Operating System Deployment procedure documented in this chapter.
-

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

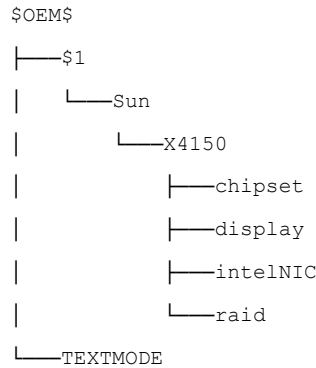
To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

c:\Program Files\Altiris\Express\Deployment \ Server\Deploy*<WINOS>**<ARCH>*

where:

- *<WINOS>* represents the Windows image that has been imported in the previous step, e.g. WinOS001
- *<ARCH>* stands either for i386 or amd64 (for 32-bit or 64-bit Windows)



2. [For 32-bit version of Windows] Copy or extract all the following files from the Tools & Drivers CD.

From ...	To ...
<CDROOT>\drivers\windows\Chipset\win2003	\$OEM\$\\$1\Sun\X4150\chipset
<CDROOT>\drivers\windows\Display\2003_32	\$OEM\$\\$1\Sun\X4150\display
<CDROOT>\drivers\windows\IntelNIC\2003\2003_32	\$OEM\$\\$1\Sun\X4150\intelNIC
<CDROOT>\drivers\windows\RAID\StorageTEK\2003_32	\$OEM\$\\$1\Sun\X4150\raid and \$OEM\$\TEXTMODE

3. [For 64-bit version of Windows] Copy or extract all the following files.

From ...	To ...
<CDROOT>\drivers\windows\Chipset\win2003	\$OEM\$\\$1\Sun\X4150\chipset
<CDROOT>\drivers\windows\Display\2003_64	\$OEM\$\\$1\Sun\X4150\display
<CDROOT>\drivers\windows\IntelNIC\2003\2003_64	\$OEM\$\\$1\Sun\X4150\intelNIC
<CDROOT>\drivers\windows\RAID\StorageTEK\2003_64	\$OEM\$\\$1\Sun\X4150\raid and \$OEM\$\TEXTMODE

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4150\chipset;\Sun\X4150\display;\Sun\X4150\intelNIC;\Sun\X4150\raid"

[OEMBootFiles]
txtsetup.oem
arcsas.sys
arcsas.inf
arcsas.cat
arc.sys
arc.inf
arc.cat
adpenc.inf
adpenc.cat

[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller" = OEM
"Adaptec RAID Controller" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4150\chipset;\Sun\X4150\display;\Sun\X4150\intelNIC;\Sun\X4150\raid"

[OEMBootFiles]
txtsetup.oem
arcsas.sys
arcsas.inf
arcsas.cat
arc.sys
arc.inf
arc.cat
adpenc.inf
adpenc.cat

[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller (x64 device drivers)" = \
OEM
"Adaptec RAID Controller (x64 device drivers)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Fire X4600 M2 Servers

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Fire X4600 M2 servers. It contains the following sections:

- Creating a deployment job
- Importing Windows operating system files
- Slipstreaming OEM drivers
- Configuring unattended installation parameters

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “LSI RAID Configuration”
2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

To slipstream Sun OEM drivers into Windows, do the following.

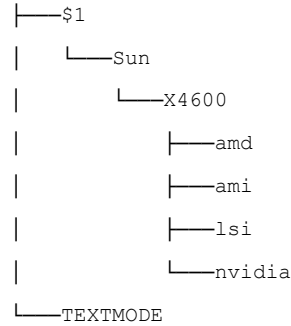
1. **Create the following directory structure at the specified location.**

```
c:\Program Files\Altiris\Express\Deployment \
Server\Deploy\<WINOS>\<i>ARCH</i>
```

where:

- *<WINOS>* represents the Windows image that has been imported in the previous step, e.g. WinOS001
- *<ARCH>* stands either for i386 or amd64 (for 32-bit or 64-bit Windows)

\$OEM\$



2. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

```
<CDROOT>\windows\w2k3\packages\DriverPack_1_2_2.zip
```

3. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called *<DRIVERPACK>* in the following examples.

4. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

```
<CDROOT>\windows\w2k3\packages\FloppyPack_1_2_2.zip
```

5. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called *<FLOPPYPACK>* in the following examples.

6. [For 32-bit version of Windows] Copy all the following files and directories from the *<DRIVERPACK>* directory.

From ...	To ...
<DRIVERPACK>\32-bit\amd	\$OEM\$\\$1\Sun\X4600M2\amd
<DRIVERPACK>\32-bit\ami	\$OEM\$\\$1\Sun\X4600M2\ami
<DRIVERPACK>\32-bit\lsi	\$OEM\$\\$1\Sun\X4600M2\lsi
<DRIVERPACK>\32-bit\nvidia	\$OEM\$\\$1\Sun\X4600M2\nvidia
<DRIVERPACK>\32-bit\lsi	\$OEM\$\TEXTMODE
<FLOPPYPACK>\files\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

From ...	To ...
<FLOPPYPACK>\lsi\i386	\$OEM\$\TEXTMODE\

**7. [For 32-bit version of Windows] Modify the file
\$OEM\$\TEXTMODE\txtsetup.oem.**

Line to modify ...	Modify to ...
d1 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \lsi\i386	d1 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \
d3 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \lsi\AMD64	Delete
d4 = "AMI Virtual Floppy Driver", \x4x00.tag, \ami\i386	Delete
d5 = "AMI Virtual Floppy Driver", \x4x00.tag, \ami\AMD64	Delete

**8. [For 64-bit version of Windows] Copy all the following files and directories
from the <DRIVERPACK> directory.**

From ...	To ...
<DRIVERPACK>\64-bit\amd	\$OEM\$\\$1\Sun\X4600M2\amd
<DRIVERPACK>\64-bit\ami	\$OEM\$\\$1\Sun\X4600M2\ami
<DRIVERPACK>\64-bit\lsi	\$OEM\$\\$1\Sun\X4600M2\lsi
<DRIVERPACK>\64-bit\nvidia	\$OEM\$\\$1\Sun\X4600M2\nvidia
<DRIVERPACK>\64it\lsi	\$OEM\$\TEXTMODE
<FLOPPYPACK>\files\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem
<FLOPPYPACK>\lsi\amd64	\$OEM\$\TEXTMODE\

**9. [For 64-bit version of Windows] Modify the file
\$OEM\$\TEXTMODE\txtsetup.oem.**

Line to modify ...	Modify to ...
d3 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \lsi\AMD64	d3 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \
d1 = "LSI Logic Fusion-MPT SAS Storport Driver", \x4x00.tag, \lsi\i386	Delete
d4 = "AMI Virtual Floppy Driver", \x4x00.tag, \ami\i386	Delete
d5 = "AMI Virtual Floppy Driver", \x4x00.tag, \ami\AMD64	Delete

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4600M2\amd\8132\IOAPIC;\Sun\X4600M2\amd\cpu;\Sun\X4600M2\ami;\Sun\X4600M2\lsi;\Sun\X4600M2\nvidia\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsipseud.inf

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Storport Driver" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X4600M2\amd\8132\IOAPIC;\Sun\X4600M2\amd\cpu;\Sun\X4600M2\ami;\Sun\X4600M2\lsi;\Sun\X4600M2\nvidia\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k3am64.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Storport Driver" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Blade X6220 Module Servers

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Blade X6220 Server Modules. It contains the following sections:

- Creating a deployment job
 - Importing Windows operating system files
 - Slipstreaming OEM drivers
 - Configuring unattended installation parameters
-

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “LSI RAID Configuration”
 2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**
-

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

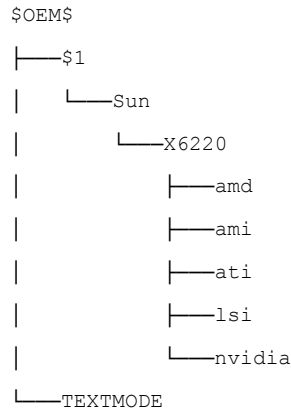
To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

c:\Program Files\Altiris\Express\Deployment \ Server\Deploy*<WINOS>*\<ARCH>

where:

- <WINOS> represents the Windows image that has been imported in the previous step, e.g. WinOS001
- <ARCH> stands either for i386 or amd64 (for 32-bit or 64-bit Windows)



2. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

<CDROOT>\windows\w2k3\packages\DriverPack_1_3_3.zip

3. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called <DRIVERPACK> in the following examples.

4. [For 32-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> directory.

From ...	To ...
<DRIVERPACK>\32-bit\amd	\$OEM\$\\$1\Sun\X6220\amd
<DRIVERPACK>\32-bit\ami	\$OEM\$\\$1\Sun\X6220\ami
<DRIVERPACK>\32-bit\ati	\$OEM\$\\$1\Sun\X6220\ati
<DRIVERPACK>\32-bit\lsi	\$OEM\$\\$1\Sun\X6220\lsi
<DRIVERPACK>\32-bit\nvidia	\$OEM\$\\$1\Sun\X6220\nvidia
<DRIVERPACK>\32-bit\lsi	\$OEM\$\TEXTMODE
<DRIVERPACK>\32-bit\RIS\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

5. [For 64-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> directory.

From ...	To ...
<DRIVERPACK>\64-bit\amd	\$OEM\$\\$1\Sun\X6220\amd
<DRIVERPACK>\64-bit\ami	\$OEM\$\\$1\Sun\X6220\ami
<DRIVERPACK>\64-bit\lsi	\$OEM\$\\$1\Sun\X6220\lsi
<DRIVERPACK>\64-bit\nvidia	\$OEM\$\\$1\Sun\X6220\nvidia
<DRIVERPACK>\64-bit\lsi	\$OEM\$\TEXTMODE
<DRIVERPACK>\64-bit\RIS\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X6220\amd\8131\IOAPIC;\Sun\X6220\amd\cpu;\Sun\X6220\ami;\Sun\X6220\ati;\Sun\X6220\lsi;\Sun\X6220\nvidia\ETHERNET;\Sun\X6220\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k332.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (32-bit)" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X6220\amd\8131\IOAPIC;\Sun\X6220\amd\cpu;\Sun\X6220\ami;\Sun\X6220\lsi;\Sun\X6220\nvidia\ETHERNET;\Sun\X6220\SMBUS"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k364.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (64-bit)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Blade X6250 Server Modules

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Blade X6250 Server Modules. It contains the following sections:

- Creating a deployment job
 - Importing Windows operating system files
 - Slipstreaming OEM drivers
 - Configuring unattended installation parameters
-

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “StorageTEK RAID Configuration”
 2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**
-

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

To slipstream Sun OEM drivers into Windows, do the following.

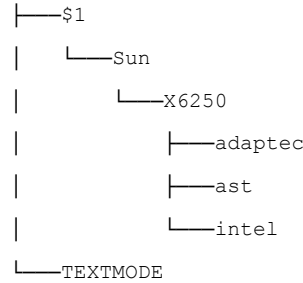
1. Create the following directory structure at the specified location.

c:\Program Files\Altiris\Express\Deployment \
 Server\Deploy*<WINOS>*\<ARCH>

where:

- <WINOS> represents the Windows image that has been imported in the previous step, e.g. WinOS001
- <ARCH> stands either for i386 or amd64 (for 32-bit or 64-bit Windows)

\$OEM\$



2. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

<CDROOT>\windows\w2k3\packages\DriverPack_1_3_3.zip

3. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called <DRIVERPACK> in the following examples.

4. Locate the Driver Pack on the Tools & Drivers CD.

The path to the archive is at the following location:

<CDROOT>\windows\w2k3\packages\FloppyPack_1_2_2.zip

5. Unpack the file to a directory on the deployment server.

The directory into which you unpacked the archive will be called <FLOPPYPACK> in the following examples.

6. [For 32-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> or <FLOPPYPACK> directories.

From ...	To ...
<DRIVERPACK>\32-bit\adaptec	\$OEM\$\\$1\Sun\X6250\adaptec
<DRIVERPACK>\32-bit\ast	\$OEM\$\\$1\Sun\ X6250\ast
<DRIVERPACK>\32-bit\intel	\$OEM\$\\$1\Sun\ X6250\intel
<FLOPPYPACK>\files\adaptec\i386	\$OEM\$\TEXTMODE
<FLOPPYPACK>\files\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

7. [For 64-bit version of Windows] Copy all the following files and directories from the <DRIVERPACK> or <FLOPPYPACK> directories.

From ...	To ...
<DRIVERPACK>\64-bit\adaptec	\$OEM\$\\$1\Sun\X6250\adaptec
<DRIVERPACK>\64it\ast	\$OEM\$\\$1\Sun\ X6250\ast
<DRIVERPACK>\64it\intel	\$OEM\$\\$1\Sun\ X6250\intel
<FLOPPYPACK>\files\adaptec\amd64	\$OEM\$\TEXTMODE
<FLOPPYPACK>\files\txtsetup.oem	\$OEM\$\TEXTMODE\txtsetup.oem

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X6250\adaptec;\Sun\X6250\ast;\Sun\X6250\intel\chipset;\Sun\X6250\intel\nic"

[OEMBootFiles]
txtsetup.oem
arcsas.sys
arcsas.inf
arcsas.cat

[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller (32-bit)" = OEM
```

Parameters for 64-bit Unattended Installation

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X6250\adaptec;\Sun\X6250\ast;\Sun\X6250\intel\chipset;\Sun\X6250\intel\nic"

[OEMBootFiles]
txtsetup.oem
arcsas.sys
arcsas.inf
arcsas.cat

[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller (64-bit)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Configuring Windows Deployment for Sun Blade X8400, X8420, and X8440 Server Modules

This chapter explains how to configure your Symantec Altiris environment to support Windows deployment for Sun Blade X8400, X8420, and X8440 Server Modules. It contains the following sections:

- Creating a deployment job
- Importing Windows operating system files
- Slipstreaming OEM drivers
- Configuring unattended installation parameters

Creating a Deployment Job

To create a deployment job, do the following:

1. **Perform the following procedure documented in Chapter 2:**
 - “Power Control Tasks” (Optional)
 - “LSI RAID Configuration”
2. **Perform the Scripted Operating System Deployment procedure documented in this chapter.**

Scripted Operating System Deployment

Perform the following tasks to configure the scripted OS deployment.

Importing Windows Operating System Files

Perform the standard procedure for importing OS files as documented in the Altiris DS documentation [1].

Slipstreaming Sun OEM Drivers

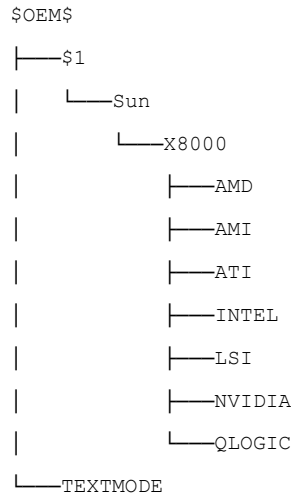
To slipstream Sun OEM drivers into Windows, do the following.

1. Create the following directory structure at the specified location.

c:\Program Files\Altiris\Express\Deployment \ Server\Deploy*<WINOS>*\<ARCH>

where:

- <WINOS> represents the Windows image that has been imported in the previous step, e.g. WinOS001
- <ARCH> stands either for i386 or amd64 (for 32-bit or 64-bit Windows)



2. [For 32-bit version of Windows] Copy all the following files from the resource CD.

From ...	To ...
<CDROOT>\support\drivers\w2k3spl\x86\AMD	\$OEM\$\\$1\Sun\X8000\AMD
<CDROOT>\support\drivers\w2k3spl\x86\AMI	\$OEM\$\\$1\Sun\X8000\AMI
<CDROOT>\support\drivers\w2k3spl\x86\ATI	\$OEM\$\\$1\Sun\X8000\ATI
<CDROOT>\support\drivers\w2k3spl\x86\INTEL	\$OEM\$\\$1\Sun\X8000\INTEL
<CDROOT>\support\drivers\w2k3spl\x86\LSI	\$OEM\$\\$1\Sun\X8000\LSI and \$OEM\$\TEXTMODE
<CDROOT>\support\drivers\w2k3spl\x64\LSI\txtsetup.oem	\$OEM\$\TEXTMODE
<CDROOT>\support\drivers\w2k3spl\x86\NVIDIA	\$OEM\$\\$1\Sun\X8000\NVIDIA
<CDROOT>\support\drivers\w2k3spl\x86\QLOGIC	\$OEM\$\\$1\Sun\X8000\QLOGIC

3. [For 32-bit version of Windows] Modify the file \$OEM\$\TEXTMODE\txtsetup.oem.

Line to modify ...	Modify to ...
#d1 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\i386	Uncomment
#d2 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\IA64	Uncomment
#LSI_SAS_32 = "LSI Logic Fusion-MPT SAS Driver (Server 2003 32-bit)",lsi_sas	Uncomment
#LSI_SAS_IA64 = "LSI Logic Fusion-MPT SAS Driver (Server 2003 IA64)",lsi_sas	Uncomment
d1 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\i386	d1 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\
d2 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\IA64	d2 = "LSI Logic Fusion-MPT SAS Storport Driver",\lsi_sas.tag,\

4. [For 64-bit version of Windows] Copy or extract all the following files.

From ...	To ...
<CDROOT>\support\drivers\w2k3spl\x64\AMD	\$(OEM)\\$1\Sun\X8000\AMD
<CDROOT>\support\drivers\w2k3spl\x64\AMI	\$(OEM)\\$1\Sun\X8000\AMI
<CDROOT>\support\drivers\w2k3spl\x64\ATI	\$(OEM)\\$1\Sun\X8000\ATI
<CDROOT>\support\drivers\w2k3spl\x64\INTEL	\$(OEM)\\$1\Sun\X8000\INTEL
<CDROOT>\support\drivers\w2k3spl\x64\LSI	\$(OEM)\\$1\Sun\X8000\LSI and \$(OEM)\TEXTMODE
<CDROOT>\support\drivers\w2k3spl\x64\NVIDIA	\$(OEM)\\$1\Sun\X8000\NVIDIA
<CDROOT>\support\drivers\w2k3spl\x64\QLOGIC	\$(OEM)\\$1\Sun\X8000\QLOGIC

Configuring Unattended Installation Parameters

Separate installation parameters are required for 32-bit or 64-bit unattended installation.

Parameters for 32-bit Unattended Installation for the Sun Blade X8400 and X8420

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```
[Unattended]
OemPnpDriversPath="\Sun\X8000\AMD;\Sun\X8000\AMI;\Sun\X8000\ATI
\X8400_X8420;\Sun\X8000\INTEL;\Sun\X8000\LSI;\Sun\X8000\QLOGIC"

[OEMBootFiles]
txtsetup.oem
```

```

lsi_sas.inf
lsi_sas.sys
lsipseud.inf

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (Server 2003 32-bit)" = OEM

```

Parameters for 32-bit Unattended Installation for the Sun Blade X8440

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```

[Unattended]
OemPnpDriversPath="\Sun\X8000\AMD;\Sun\X8000\AMI;\Sun\X8000\ATI
\X8440;\Sun\X8000\INTEL;\Sun\X8000\LSI;\Sun\X8000\NVIDIA\X8440\
smbus;\Sun\X8000\QLOGIC"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsipseud.inf

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (Server 2003 32-bit)" = OEM

```

Parameters for 64-bit Unattended Installation for the Sun Blade X8400 and X8420

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```

[Unattended]
OemPnpDriversPath="\Sun\X8000\AMD;\Sun\X8000\AMI;\Sun\X8000\ATI
\X8400_X8420;\Sun\X8000\INTEL;\Sun\X8000\LSI;\Sun\X8000\QLOGIC"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k3am64.cat

[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (Server 2003 x64)" = OEM

```

Parameters for 64-bit Unattended Installation for the Sun Blade X8440

Import the following fragment of a configuration file when creating the Scripted OS Deployment job in Altiris DS:

```

[Unattended]
OemPnpDriversPath="\Sun\X8000\AMD;\Sun\X8000\AMI;\Sun\X8000\ATI
\X8440;\Sun\X8000\INTEL;\Sun\X8000\LSI;\Sun\X8000\NVIDIA\X8440\
smbus;\Sun\X8000\QLOGIC"

[OEMBootFiles]
txtsetup.oem
lsi_sas.inf
lsi_sas.sys
lsinodrv.inf
s2k3am64.cat

```

```
[MassStorageDrivers]
```

```
"LSI Logic Fusion-MPT SAS Driver (Server 2003 x64)" = OEM
```

Note: The MassStorageDrivers section may vary depending on the driver version used. The correct values can be obtained from the txtsetup.oem file shipped with the RAID driver, section [scsi].

Slipstreaming Windows 2003 Server R2 Files

The procedure for slipstreaming Windows 2003 Server R2 files into an unattended Windows 2003 Server installation is described at Microsoft TechNet portal:

http://technet2.microsoft.com/WindowsServer/en/library/0c7a22fc-317a-43fb-9b85-18acfd65f2831033.aspx#BKMK_2

References

Ref	Source	Hyperlink
[1]	<i>Altiris Deployment Solution 6.8 SP2 Admin Guide</i>	http://www.altiris.com/upload/deployment_adv_002.pdf
[2]	Adding OEM extensions to the DS 6.8 Boot Disk Creator Environment, Altiris Juice article	http://juice.altiris.com/article/775/adding-oem-extensions-to-the-ds-6-8-boot-disk-creator-environment
[3]	Computers using nVidia nForce NICs cannot connect to the network in WinPE, Altiris Knowledge Base Article	https://kb.altiris.com/display/1n/kb/article.asp?aid=27246
[4]	<i>Embedded Lights Out Manager Administration Guide For the Sun Fire X2200 M2 and Sun Fire X2100 M2 Servers</i>	http://docs.sun.com/source/819-6588-13/index.html
[5]	<i>Integrated Lights Out Manager (ILOM) Administration Guide for ILOM 1.1.1</i>	http://docs.sun.com/source/820-0280-12/index.html
[6]	<i>x64 Servers Utilities Reference Manual</i>	http://docs.sun.com/source/820-1120-16/index.html
[7]	<i>Uniform Command-Line Interface User's Guide</i>	http://docs.sun.com/source/820-2145-11/index.html