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Sun Fire™ B10n Content Load Balancing Blade Product Notes

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Sun Fire B10n Content Load Balancing Blade Product Notes

This document contains important information about the Sun Fire™ B10n software.

Viewing the Latest Product Notes

Additional issues may arise after the publication of this version of the Product Notes. For the latest information, refer to the version of this document currently available on the following web site:

`http://wwws.sun.com/software/download/network.html`

Updating the B1600 System Controller

Before you install the Sun Fire B10n content load balancing blade in your Sun Fire B1600 chassis, you must first update the system controller (`sc`) firmware. You can download the latest version of the `sc` firmware from the following web site:

`http://wwws.sun.com/software/download/network.html`

You need to set up a TFTP boot server to update the `sc` firmware. See "Setting up a TFTP Server" on page 132 of the *Sun Fire B10n Content Load Balancing Blade Administration Guide.*

You can access all the Sun Fire B1600 documentation from the following web site:

`http://www.sun.com/products-n-solutions/hardware/docs/Servers/`
`Workgroup_Servers/Sun_Fire_b100s/index.html`

▼ To Update the System Controller Firmware

1. At the `sc` **prompt, enter the following command:**

```
sc> flashupdate -s install server -f path SSCn/SC.
```

In the following example, 10.4.128.25 is the IP address for your TFTP boot server and stiletto.1.1/c8/SunFireB1600-sc-v1.1.6.flashSSC0/SC is the path to the file:

```
sc> flashupdate -s 10.4.128.25 -f stiletto.1.1/c8/SunFireB1600-sc-v1.1.6.flash
SSC0/SC
Warning: Are you sure you want to flashupdate the SSC0/SC flash image (y/n)? y
SSC0/SC: Preparing to flashupdate.
flashupdate: erasing segment 36 programming address ffedfffd
SSC0/SC: flashupdate complete.
```

2. Reset the system using `resetsc` **to load the new image.**

Updating B10n Application Software and BSC Firmware

It is important to verify that you have the latest software for the Sun Fire B10n content load balancing blade. Check the following web site for the latest software and documentation:

```
http://wwws.sun.com/software/download/network.html
```

You need to set up a TFTP boot server to update the `sc` firmware. See "Setting up a TFTP Server" on page 132 of the *Sun Fire B10n Content Load Balancing Blade Administration Guide.*

You also need to configure the management IP address and default gateway address. Refer to "Configuring the Networking" on page 44 of the *Sun Fire B10n Content Load Balancing Blade Administration Guide.*

Note – If you are updating both the B10n application software and system controller firmware, be sure to update the B10n application software *first*.

▼ To Update the B10n Software

With the B10n blade in the booted and running state perform the following steps:

1. **Access the Sun Fire B10n console. At the Sun Fire B1600 SC console** `SC>` **type:**

```
sc> console Sn
```

Where *n* is the slot number of the B10n blade

2. **Login to the B10n console.**

```
Login: admin
passwd: admin
```

3. **Verify the boot image and versions:**

```
puma{admin# show system

Boot Options:
================================================================================
Config Type    Config File    Boot Image    Diag Level    Verbose Mode
--------------------------------------------------------------------------------
running                1              1            0             0
next                   1              1            0             0
================================================================================


Image Information Table:
================================================================================
Image    Blade Type    Version        Build Date      Build Time     Size
--------------------------------------------------------------------------------
1        B10n          1.0.h          05/21/03         13:20          3578204
2        B10n          1.0.pre_h      05/19/03         19:00          3578112
diag          Unable to retrieve image information
================================================================================

puma{admin}#
```

The B10n software can be loaded with three different images and booted. The three images are `image 1`, `image 2`, and `diag`. These images denote software versions.

To load to image location 1, the blade expects image `pkgname` to be available in the TFTP server.

4. **Determine which image to update (image 1 or 2), and update the empty or oldest image.**

5. **Update the B10n application software**

```
puma{admin}# update image
```

You can upgrade the software either interactively or noninteractively.

See "To Update the Software Interactively" on page 137 of the *Sun Fire B10n Content Load Balancing Blade Administration Guide.*

▼ To Set the New Image to be the Default Image

1. **Configure the desired Boot Image. At the B10n console type:**

```
puma{admin}# config boot image x
```

Where *x* is the image you just updated

2. **Reboot to activate the new image:**

```
puma{admin} reboot

reboot: Are you sure to continue? [yes|no]yes

Press any key to choose the boot image ...
```

Pressing any key prompts for the image to choose for booting.

3. **Specify the image you configured above 1 or 2**

▼ To Update the BSC Firmware

1. **Escape to the system controller console:**

```
puma{admin} #
```

2. **At the** `sc` **prompt, enter the following command:**

```
sc> flashupdate -s tftp_ip -f path file sn
```

Where *tftp_ip* is the TFTP server IP address, *n* is the slot number, *file* is the file name of the image

In the following example, 192.50.50.201 is the IP address for your TFTP boot server and /tftpboot/ranjith/525-2018-05-t2.a37:

```
sc> flashupdate -s 192.50.50.201. -f /tftpboot/ranjith/525-2018-05-t2.a37 S12
```

3. **Reset the system using** `resetsc` **to load the new image.**

Unsupported Features

In the current release, FTP traffic can be load balanced only at Layer 4. The only Layer 7 protocol load balanced at Layer 7 is HTTP.

The following features are not supported in this release: content load balancing high availability pair failover, path failover, and full SSL proxy interface. These features will be supported in a future release.

Known Problems with the Software

This section outlines the known problems with the current version of the software and describes workarounds to overcome these problems.

Output From the `show arp` Command

The following example shows a typical output from the `show arp` command:

```
LINK LEVEL ARP TABLE
destination      gateway              flags Refcnt  Use           Interface
---------------------------------------------------------------------
192.50.50.11     00:03:af:26:73:07405   0        35330           iq0
192.50.50.12     00:03:af:26:97:fb405   1        16653           iq0
---------------------------------------------------------------------
```

In the ARP table the gateway and flags columns are improperly shown. In the example above, `405` in the first line `should be aligned under the flags heading`.

Problem: Specific Sequence Required

System may panic if the content load balancing module (`clbmod`) is added to a "down" `ce` interface

Workaround

Be sure the ce interface is "up" before you load `clbmod`.

Note – If the B10n software from the Solaris 8 7/03 Software Supplement CD is loaded onto an unsupported platform and the system is rebooted, the following message is displayed: "can't load module: No such file or directory."

Problem: Configuration State Shows as `Prog` Instead of `Done`

When the B10n blade is rebooted with a configuration that has a large number of servers in one or more services, then the `Conf` (configuration) state for some of the servers shows up as `PROG` instead of `DONE` even though these servers are up and have the module loaded. This is not a problem because the B10n blade still load balances traffic to these servers.

Workaround

To change the configuration state to `DONE`, disable and then enable each service in which one or more of these servers are present.

Known Problems With the Documentation

This section corrects errors in the *Sun Fire B10n Content Load Balancing Blade Administration Guide.*

Incorrect Information

Pages 24 and 26 include information for powering on or off a range of content load balancing blades. This information is incorrect. You can only power on or off one blade at a time.

On page 27, "Forcing the Power Off," says the use the `-s` option. This is incorrect. The correct option to force the power off is the `-f` option.

Incorrect Procedure

On page 85, the procedure for creating a load balancing group is incorrect:

▼ To Create a Default Load Balancing Group

● **As admin in config mode, create a default load balancing group:**

```
puma(config){admin}# service lb-group default service_name service server {ip_addr|
host_name}:port:protocol:weight:active [{ip_addr | host_name}:port:protocol:weight:active...] rule rule_name
[scheme {round-robin | wt-round-robin | static}]
```

Note – Use the following correct procedure instead:

▼ To Create a Default Load Balancing Group

● **As admin in config mode, type the** service lb-group default **command, using the parameters needed:**

```
puma(config){admin}# service lb-group default service_name server {ip_addr |
host_name}:port:protocol:weight:active [{ip_addr| host_name}:port:protocol:weight:active...] [scheme {round-
robin|wt-round-robin|static}]
```

Updated Output

Several examples of screen output in the *Sun Fire B10n Content Load Balancing Blade Administration Guide* changed after that manual went to press. Following are the updated examples:

The example output for the `show network` command on page 37 in Chapter 3 has changed to the following:

```
puma{admin}# show network

Default Gateway                           : Not Configured
Hostname                                  : puma
DNS Primary                               : Not Configured
DNS Secondary                             : Not Configured
DNS Suffix                                : Not Configured
Server monitor interval                   : 3
Server monitor retries                    : 5

Network Interface Table:
================================================================================
If     IP Address       Mask               MAC Address          Status  Link  Path
--------------------------------------------------------------------------------
0      192.101.101.100  255.255.255.0      00:03:ba:2c:73:7e  Up        Up    Up
1      192.100.100.53   255.255.255.0      00:03:ba:2c:73:7f  Up        Up    Up
================================================================================

System VLAN Table:
================================================================================
VLAN Type                                 VLAN ID      Status
--------------------------------------------------------------------------------
Management                                1            Disabled
Data                                      1            Disabled
================================================================================

puma{admin}#
```

The example output for the show vlan command on page 128 in Chapter 5 has changed to the following:

```
puma{admin}# show vlan

System VLAN Table:
===============================================================================
VLAN Type                                    VLAN ID     Status
-------------------------------------------------------------------------------
Management                                   1           Disabled
Data                                         1           Disabled
===============================================================================

Service VLAN Table:
===============================================================================
Service Name                                 VLAN ID     Status
-------------------------------------------------------------------------------
svc1                                         1           Disabled
svc10                                        1           Disabled
svc2                                         1           Disabled
tcp-corrupt                                  1           Disabled
===============================================================================

puma{admin}#
```

The example output for the `show system` command on page 135 in Chapter 6 has changed to the following:

```
puma{admin}# show system

Boot Options:
================================================================================
Config Type    Config File    Boot Image    Diag Level    Verbose Mode
--------------------------------------------------------------------------------
running                1              1             0             0
next                   1              1             0             0
================================================================================


Image Information Table:
================================================================================
Image    Blade Type    Version       Build Date      Build Time    Size
--------------------------------------------------------------------------------
1        B10n          1.0.h         05/21/03        13:20         3578204
2        B10n          1.0.pre_h     05/19/03        19:00         3578112
diag        Unable to retreive image information
================================================================================

puma{admin}#
```

Troubleshooting

You may notice the following behaviors, which might be interpreted as being problems. However, they are normal behaviors.

VIP Is Not Checked

If another system in the subnet is configured with the IP address used in the VIP of a service configured on B10n the networking for that system will not work because the clients and routers will learn one machine's MAC and the other machine will not receive any traffic on that VIP.

Workaround

Because this is normal behavior, the only workaround is to ensure that you do not use duplicate VIP addresses.

`commit` Allowed Though No Changes

The B10n software still allows the commit command even though no changes have been made to the configuration.

Workaround

This problem causes no ill effects, so it can be noted and ignored.