



Ethernet Routing Switch (ERS) Ethernet Switch (ES): How to recover a switch if Agent is not found

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Background:

This bulletin is in response to an issue where the runtime image is no longer valid or found. In some cases the error is caused by a unit experiencing a power glitch when the flash is being written to. It is the intent of this bulletin to show the procedure to repair the switch on-site.

NOTE: Units exhibiting the symptoms described in this bulletin should NOT be returned through the RMA process. They should be corrected in the field.

The list of model numbers that may experience this issue are:

Product Code	Product Description or Next Level Group Name
AL2001016	BPS2000 10/100 PLCY SW -48VDC
AL2001A15	BPS2000 10/100 PLCY
AL4500A01-E6	4526FX (NO PC)
AL4500A02-E6	4550T (NO PC)
AL4500A03-E6	4526T (NO PC)
AL4500A04-E6	4548GT (NO PC)
AL4500A05-E6	4524GT (NO PC)
AL4500A12-E6	4550T-PWR (NO PC)
AL4500A13-E6	4526T-PWR (NO PC)
AL4500A14-E6	4548GT-PWR (NO PC)
AL4500A15-E6	4524GT-PWR (NO PC)
AL2500A01-E6	2526T (NO PC)
AL2500A02-E6	2550T (NO PC)
AL2500A11-E6	Ethernet Routing Switch 2526T-PWR - 24 port 10/100BaseT
AL2500A12-E6	2550T-PWR (NO PC)
AL1001A08	3510-24T NO POWER CORD
AL1001A01	BS 5510-48T NO PC
AL1001A02	BS 5510-24T NO PC
AL1001A03	BS5510-48T NO POWER CORD
AL1001A04	BS5510-24T NO PC
AL1001A09	5510-48T PER PORT - NO PC
AL1001A10	5510-24T PER PORT - NO PC
AL1001A05	BS5520-48T PWR NO PC
AL1001A06	BS5520-24T PWR NO PC

AL1001A07	5530-24TFD NO POWER CO
AL2012A45	BSTK 325-24T 10/100 NO PC
AL2012A46	BSTK 325-24G 10/100/1000 NO PC
AL4412001	BAYSTACK 380-24T 10/100/1000BT SWITCH
AL4512001	BAYSTACK 380-24F 1GE SWITCH
AL2012A27	BAYSTACK 420-24T STACKABLE ENET
AL2012A39	Baystack 420-24T Switch
AL2012041	BSTK 425-24T STCKBL 10/100/1000 SWITCH
AL2012044	BAYSTACK 425-48T 10/100/1000 SWITCH
AL2001020	BS460-24T-PWR 24-PORT DTE-PWR SWITCH
AL2012033	BSTK 470-48T STCKBL SWITCH NO PC
AL2012A34	BSTK 470-48T STCKBL SWITCH NO
AL2012A37	BayStack 470-24T Switch
AL2012A47	BSTK 470-48T-PWR STACKABLE SWITCH NO PC
AL2012A48	BSTK 470-24T-PWR SWITCH-NOPC
AL2012A51	ES 470-48T-PWR SWITCH NO PC

Product Code	Product Description or Next Level Group Name
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AL2001A19	OPTERA METRO 1200 ESM NO PC
AL2001A19-E5	OPTERA METRO 1200 NO PWR CORD
AL2001023	OPTERA METRO 1450 ESM DUAL DC INPUT -48V
AL2001024	OPTERA METRO 1400 ESM DUAL DC INPUT -48V
AL2001A21	OPTERA METRO 1450 ESM NO PC
AL2001A22	OPTERA METRO 1400 ESM NO PC
AL2001A21-E5	OPTERA METRO 1450 NO PWR CORD
AL2001A22-E5	OPTERA METRO 1400 ESM NO PC

Analysis:

In some cases during a software upgrade the switch has been turned off before the software agent has been completely written to flash. In this case the Switch will report an error like the one below.

Press Control-C to Enter Diag

```

Test ROM Config      - PASSED
Test FANs            - PASSED
Test Internal Loopback - PASSED
Test ASIC1 Registers - PASSED
Test ASIC2 Registers - PASSED
Test PHY Registers   - PASSED
Test USB Registers    - PASSED
Agent code verification fails !
    
```

Recommendations:

To correct the issue, the unit must be power cycled and Control-C entered from the console port after the power on self test (POST) has started to run. The POST has started if "Testing main memory " is displayed on the screen. Refer to the following screen display.

Diagnostic Version X.X.X.X
Press Control-C to Enter Diag

```
Test ROM Config      - PASSED
Test FANs            - PASSED
Test Internal Loopback - PASSED
Test ASIC1 Registers - PASSED
Test ASIC2 Registers - PASSED
Test PHY Registers   - PASSED
Test USB Registers   - PASSED
Agent code verification fails!
```

```
>> Break Recognized - Wait...
Press 'a' to run Agent code
Press 'd' to download Agent code
Press 'e' to display errors
Press 'c' to clear log message
Press 'i' to initialize config flash
Press 'p' to run POST tests...
```

To recover a unit that fails to load the agent, (enter "d") . and follow the instructions on the console.

```
Press 'a' to run Agent code
Press 'd' to download Agent code
Press 'e' to display errors
Press 'c' to clear log message
Press 'i' to initialize config flash
Press 'p' to run POST tests...
```

NOTE: The TFTP server must be located on the local segment.

Download Agent Code

```
Enter Port Number      [ <any> ]:
Enter Speed: 10, 100, 1000 [ <any> ]:
Enter Local IP Address [ 0.0.0.0 ]: 10.10.10.15 (IP given to Switch)
Enter Server IP Address [ 0.0.0.0 ]: 10.10.10.1 (IP of local TFTP server)
Enter Subnet Mask [ 255.255.255.0 ]:
Enter Filename:         boss_1234.img
```

```
Wait..
TFTP: Sending Open: .aaaaa.a
TFTP: Open
.....
.....
Len= 0x20795E= 2128222. (@1200000)
Agent Version= 5.0.0.0 ModelMask= 0x1C
Program y/N [ N ]: (Press y)
Erasing - Wait 56 sec..
Programming - Wait 96 sec..
```

Press 'a' to run Agent code
 Press 'c' to run Cascade external loopback test
 Press 'd' to Download agent code
 Press 'e' to display Errors
 Press 'i' to Initialize config/log flash
 Press 'p' to run POST tests
 Press 'r' to Receive cascade test packets
 Press 's' to Send cascade test packets..

(Press a)

Starting Agent Code..

Decompressing the image ...
 Target Name: vxTarget
 User: target
 Attaching network interface idtip0... done.
 Attaching network interface lo0... done.

Completing initialization...

NOTE: Units exhibiting the symptoms described in this bulletin should NOT be returned through the RMA process. They should be corrected in the field.

Required Actions:

Correct per recommendation above.

Attachments:

There are no attachments for this bulletin

Products and Releases:

The information in this bulletin is intended to be used with the following products and associated releases:

PRODUCT	RELEASE
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 2500-Ethernet Rtnng Swt 2526T	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 2500-Ethernet Rtnng Swt 2526T-PWR	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 4500-Ethernet Rtnng Swt 4526FX	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 4500-Ethernet Rtnng Swt 4550T	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 5000-Ethernet Rtnng Swt 5510-24T	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 5000-Ethernet Rtnng Swt 5510-48T	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 4500-Ethernet Rtnng Swt4548GT-PWR	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 5000-Ethernet Rtnng Swt5530-24TFD	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 2500-Ethrnt Rtnng Swt 2550T	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 2500-Ethrnt Rtnng Swt 2550T-PWR	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 4500-Ethrnt Rtnng Swt 4548GT	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 4500-Ethrnt Rtnng Swt 4550T-PWR	
Ethernet Rtnng Switch-Ethrnt Rtnng Swt 5000-Ethrnt Rtnng Swt5520-24T PWR	

Ethernet Rtnng Switch-Ethrnt Rtnng Swt 5000-Ethrnt Rtnng Swt5520-48T PWR	
Ethernet Switch-BPS 2000-10/100 PLCY SWITCH -48VDC	
Ethernet Switch-BPS 2000-BPS2000 10/100 -48VDC EUED	
Ethernet Switch-BPS 2000-Business Policy Switch 2000	
Ethernet Switch-325-Ethernet Switch 325-24G	
Ethernet Switch-325-Ethernet Switch 325-24T	
Ethernet Switch-400-Ethernet Switch 425-24T	
Ethernet Switch-400-Ethernet Switch 425-48T	
Ethernet Switch-460-Ethernet Switch 460-24T PWR	
Ethernet Switch-470-Ethernet Switch 470-24T	
Ethernet Switch-470-Ethernet Switch 470-24T PWR	
Ethernet Switch-470-Ethernet Switch 470-48T	
Ethernet Switch-470-Ethernet Switch 470-48T PWR	
Optical Ethernet-Metro 1000-Optical Metro 1200	
Optical Ethernet-Metro 1000-Optical Metro 1400	
Optical Ethernet-Metro 1000-Optical Metro 1450	

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REFERENCE:
PRE-REQUIRED PATCH:
PATCH ID:
FIXED RELEASE: N/A

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Nortel recommends any maintenance activities, such as those outlined in this bulletin, be completed during a local maintenance window.

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