

MEMORANDUM FOR: All NWS Regional Headquarters, Regional Maintenance Specialists, Electronic Systems Analysts, and Electronics Technicians [Engineering Handbook (EHB)-13, Series II distribution]

FROM: W/OPS1 - John McNulty 

SUBJECT: Transmittal Memorandum for EHB-13 Series II, Issuance 01-02

1. Material Transmitted:

Engineering Handbook No. 13 Series II, Advanced Weather Interactive Processing System (AWIPS), Section 4.0, Amendment 1 to AWIPS Contractor Interface Note 8, AT&T CSU/DSU and Cisco 2514 Router Relocation.

2. Summary:

Amendment 1 to AWIPS Contractor Interface Note 8 provides instructions on relocating the Cisco 2500 series router and regional wide area network CSU/DSU from the communications room to the CP rack.

3. Effect on Other Instructions:

Discard AWIPS Contractor Interface Note 8. File this amendment in EHB-13, Series II, section 4.0.

AMENDMENT 1 TO AWIPS CONTRACTOR INTERFACE NOTE 8

(for Electronics Systems Analysts)

Bismarck, ND (BIS): KV

W/OST: GE

W/OPS12: FJZ

SUBJECT : Regional CSU/DSU and Cisco 2500 Series Router Relocation

PURPOSE : To provide instructions for the relocation of the regional Cisco 2500 series router and CSU/DSU

AUTHORIZING DOCUMENT : NWS 626, Rev A

SECURITY LEVEL : N/A
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EQUIPMENT AFFECTED : AWIPS communications processor (CP) rack. Rack # 2

SITES AFFECTED : All weather forecast offices (WFO)

REQUIRED ITEMS : 3 - CAT5 cable to connect the relocated CSU/DSU to the Telco RJ45 block, and to connect the relocated router to the office switches/hubs
1 - V.35 cable to connect the 2500 series router to the MCI Larscom CSU/DSU serial port
1 - 1.75 inch BUD filler panel P/N 44831-S

TOOLS AND TEST : Medium sized flat tip and Philip screwdrivers
:

EQUIPMENT REQUIRED

TIME REQUIRED : Approximately 1 hour

EFFECT ON OTHER INSTRUCTIONS : None

VERIFICATION STATEMENT : This procedure was performed and verified at the Bismarck, ND (BIS) WFO

TECHNICAL : **SUPPORT**

For questions or problems regarding these installation instructions or performing this procedure, please contact Franz Zichy at 301-713-1833 x128.

BACKGROUND

In anticipation of the transition to MCI/Worldcom FTS 2001 services, the regional enterprise router and at all WFO sites must be relocated from the communications room to the space allocated on the CP rack no. 2 (figure 1). The relocation will allow the sharing of the T1 Frame Relay access between AWIPS and the regional wide area network (WAN) routers (figure 2). Once the AWIPS network is ready to transition to FTS 2001, an MCI technician will schedule a visit to the site and install a Larscom Access-T 4 port CSU/DSU. The AWIPS AT&T CSU/DSU and TIU will be removed at a later date by an AT&T technician.

PROCEDURE

Depending on the local office LAN configuration, it may be necessary to manufacture at least 3 cables. These cables connect the relocated CSU/DSUs to the Telco RJ45 block and to the two Ethernet ports on the office router. The cables will help reduce the communications down time to less than 5 minutes. If it is necessary to manufacture these cables, follow the procedure in part A. Skip to part B if no additional cables are required.

A. Cable Manufacturing Procedure

Before relocating the Cisco 2500 series router and the CSU/DSU from the communications room to the CP rack, perform the following cable manufacturing procedure:

1. Run 1 (if necessary) CAT5 cable under the floor tiles between the CP rack and the Telco RJ45 block, and 2 CAT5 cables between the CP rack and the office switches/hubs.
2. The CAT5 cable for the CSU/DSU will use pins 1, 2, 4, and 5 straight through. Crimp an RJ45 connector to both ends.
3. The 2 CAT5 cables that will run from the Ethernet ports to the office LAN switches/hubs can either be a standard cross-over or straight through cable. Verify existing cable before manufacturing new ones.

4. For the purpose of these procedures, the newly manufactured cables are identified as follows:

Cable A	CP rack to Telco RJ45 block
Cable B	CP rack to LAN switches/hubs (E0)
Cable C	CP rack to LAN switches/hubs (E1)

B. Router and CSU/DSU Relocation Procedure

1. At the front of the CP rack, remove the 3 1/2 inch BUD filler panel above the top most Cisco 4000 router.
2. In the communications room, remove the cables that connect to the router's Ethernet ports, and attach **cables B** and **C** to the switches/hubs.
3. In the communications room, power down and disconnect the Cisco 2500 series router (regional WAN router). Slide the router into the space of the CP rack where the BUD filler panel in step 1 was removed.
4. In the back of the CP rack, connect **cables B** and **C** to the Ethernet ports on the rear of the router.
5. In the communications room, power down and disconnect the regional WAN CSU/DSU and move it to the top shelf underneath the 4000 Cisco router in the CP rack as shown in figure 1.
6. Connect **cable A** between the relocated CSU/DSUs and the Telco RJ45 block.
7. Connect the appropriate cable between the CSU/DSU and Cisco 2500 series router.
8. Plug in and power up the CSU/DSUs and Cisco 2500 series router.
9. Once the units are powered up, test them to verify if all connections are functioning properly. For example, ping other devices within the WAN/LAN. Test both sides of the Ethernet ports to ensure that systems outside the local office are accessible.
10. If there is an opening above the 2500 series Cisco router, cover it with a 1 3/4" BUD filler panel P/N 44831-S.
11. At a later date, an MCI technician will install a 19 inch rack mountable Larscom Access-T 4 port CSU/DSU underneath the Cisco 4000 router (figure3). Connect the

V.35 cable between the regional WAN 2500 series router (top of CP rack) and the newly installed Larscom CSU/DSU.

This completes the router and CSU/DSU relocation procedure.

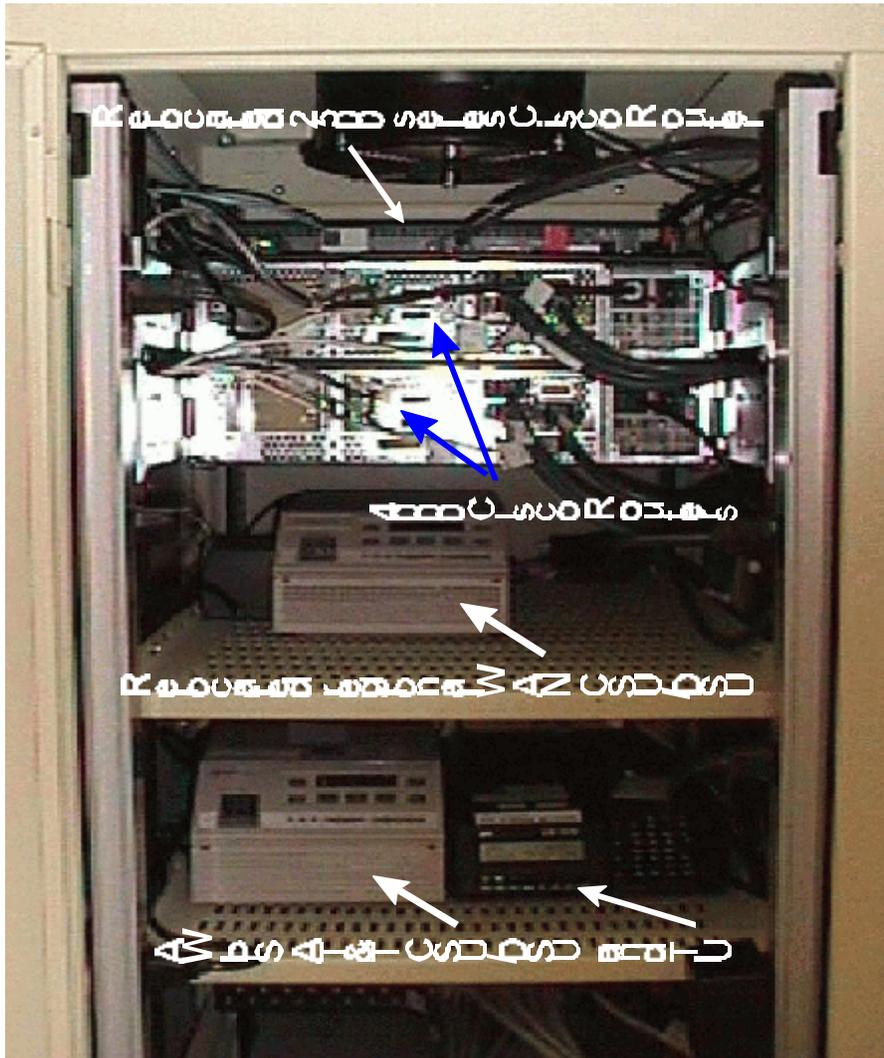


Figure 2

CONUS WFO Shared Access Configuration

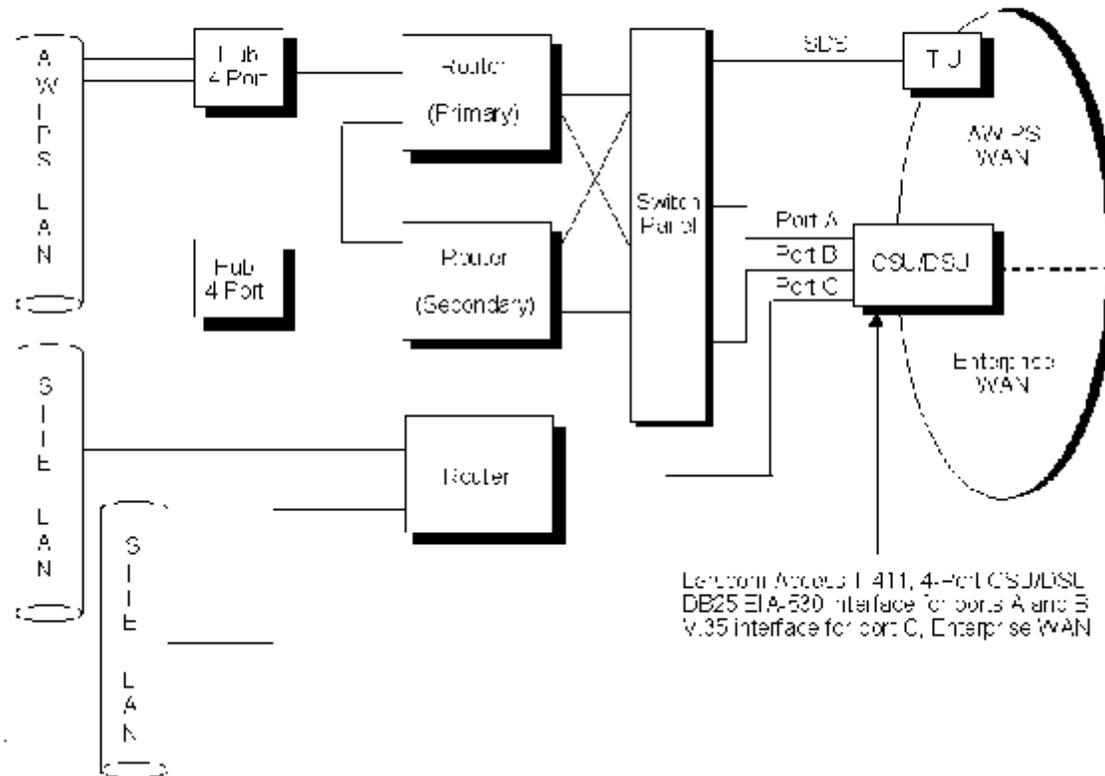
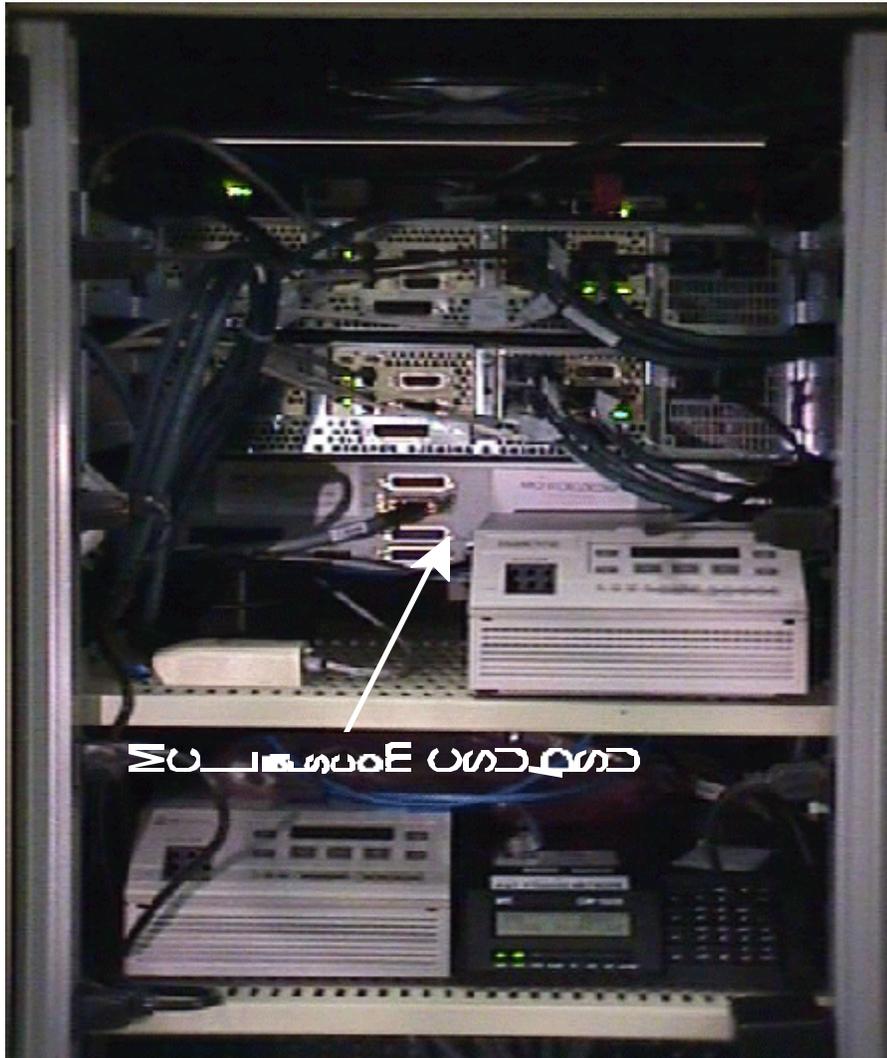


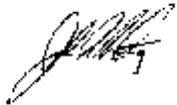
Figure 3



REPORTING MODIFICATION

Report the completed modification on a WS Form A-26 Maintenance Record, according to instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), part 2, and appendix H. A sample A-26 form is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	Perform Modification I.A.W. Contractor Interface Note 8
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Relocate CSU/DSUs and 2514 Cisco router
17a	Mod. No.	CI8



John McNulty
Chief, Maintenance, Logistics, and Acquisition Division

ATTACHMENT A

WS FORM A-26 (4/94)		WS FORM A-26 (4/94)				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE			Document Number G 49978				
ENGINEERING MANAGEMENT REPORTING SYSTEM MAINTENANCE RECORD													
General Information		1. Open Date 12 / 26 / 00		Time 0900	2. Initials JMM		3. Response Priority (check one) <input type="radio"/> Immediate <input type="radio"/> Low <input type="radio"/> Routine <input checked="" type="radio"/> Not Applicable		4. Close Date 12 / 26 / 00		Time 1000		
5. Description Relocate Equipment I.A.W. AWIPS Contractor Interface Note 8													
Equipment Information		6. Station ID CTP	7. Equipment Code AWIPS		8. Serial Number 001		9. TM M	10. AT M	11. How Mal. 999				
12. EQUIPMENT OPERATIONAL STATUS TIMES		a. Fully Operational <input type="text"/>		b. Logistics Delay <input type="text"/>		Partly Operational		c. All Other <input type="text"/>		d. Logistics Delay <input type="text"/>		Not Operational	e. All Other <input type="text"/>
13. Parts Failure Information										14. Work Load Information			
Block #	a. ASN		b. NSN		c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.	Type	Staff Hrs.		
1										a. Routine			
2										b. Non-routine			
3										c. Travel			
4										d. Misc.	1:00		
5										e. Overtime			
Miscellaneous Information		15. Maintenance Comments Relocated CSU/DSUs and 2500 series Cisco Router I.A.W. AWIPS Contractor Interface Note 8.									16. Initials JMM		
17. SPECIAL PURPOSE REPORTING		a. Mod. No. C18	b. Mod./Act./Deact.Date 12/26/00		c.		d.		e.				
18. CONFIGURATION MGMT. REPORTING (use as directed)		ASN		Vendor Part Number (New Part)		Serial Number (Old Part)		Serial Number (New Part)					