IBM Installation Instructions

Field Feature Bill of Material

Installation of MAE Extended Functions 3 (FC 5807)
on IBM 3746 Model 9X0 with
Multiaccess Enclosure Feature (FC 3001)

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Before Installation (Steps 1-8)

1.0 Machines Affected

IBM 3746 Model 9X0 with an MAE (FC 3001)

This feature should only be applied on the machine serial for which it is specified.

2.0 Related BMs and ECs

2.1 Prerequisites

(Must be installed prior to this installation)

- All functions require:
    - Microcode Level: EC **F12720** or higher
    - A MAE (FC 3001)
    - MAE Extended functions (FC 5804)
    - A Service Processor type:
        — 7585-P02 (FC 5052) or
        — 6275-560 (FC 5053).
- TN3270e enhancement requires TN3270e Server (feature code 5806).

2.2 Concurrent ECs

(Must be installed together)
None.

2.3 Companion ECs

(May be installed together)
None.

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3.0 BMs to be Installed

Feature BM   Feature Name

42L2442   MAE Extended Functions 3 (FC 5807)

4.0 Preparation

1. Familiarize yourself with the purpose and details of the installation instruction before negotiating machine time with the customer.

2. Obtain the Service Processor Maintenance Password from the customer.

5.0 Programming

None.

6.0 Purpose and Description

The MAE Extended Functions 3 provides the following support:

Parallel Channel
Support for the parallel channel adapter (feature code 3299) to include LCS (TCP/IP), LSA, and MPC+ (APPN HPR, UDP, TCP/IP).

ISDN Primary Rate Access
Support for multiport ISDN Primary Rate Access adapters (feature codes 3298 and 3298).

IPSec

IPSec provides the ability to transport IP traffic between trusted networks over an untrusted network via an IP tunnel. This type of network configuration is often referred to as a Virtual Private Network (VPN).

Network Address Translation (NAT)
NAT provides a mechanism to substitute a public IP address into messages leaving a private network and to restore the private IP address into the reply entering the private network.

Authentication, Authorization and Accounting via TACACS+/RADIUS
TACACS+ and RADIUS servers are used to authenticate PPP connections. With this release, TACACS+ or RADIUS servers can also be used to authorize the network resource available to a PPP user (including tunneled PPP connections) and accounting information on the length of time a service was performed.

Layer 2 Tunneling Protocol (L2TP)
L2TP provides a standards-based method for tunneling PPP across an IP backbone (for example, the Internet) for creating Virtual Private Networks (VPNs).

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4 port ISDN PRI/Channelized T1/J1 daughter card (FN 3251)
> Provides four ports, each one attaching to an ISDN Primary Rate service at T1/J1 speed, or a channelized T1/J1 interface.

4 port ISDN PRI/Channelized E1 adapter (FN 3289)
> Provides four ports, each one attaching to an ISDN Primary Rate service at E1 speed, or a channelized E1 interface.

4 port ISDN PRI/Channelized E1 daughter card (FN 3252)
> Provides four ports, each one attaching to an ISDN Primary Rate service at E1 speed, or a channelized E1 interface.

Virtual Router Redundancy Protocol (VRRP)
> VRRP specifies an IETF standards-based elective protocol that dynamically allows a set of routers running VRRP to serve as backups for each other on a LAN.

Bridging and routing capacity for IP, IPX and AppleTalk
> This enhancement allows IP, IPX and AppleTalk to be bridged on some interfaces and routed on others.

Enhanced performance of IP routing speeds
> The microcode of the MAE has been enhanced to improve the performance of IP routing from 64 bps to 150 Kbps.

APPN Extended Border Node (EBN)
> An APPN Extended Border Node is able to subdivide an APPN network (single Network ID) into smaller sub-networks as well as connect multiple enterprises with different network IDs.

Session Services Extensions (SSE[00])
> SSE allows the &37. to connect to a VTAM Border Node in another APPN network. This means that customers who are migrating SNA networks to APPN will be able to fully migrate their SNI links.

TN3270e Server Enhancements
> Previously, any connection between a TN3270E server and the SNA host required APPN. This enhancement provides support for subarea SNA connections from the TN3270E server to the SNA host, and improved management for tunneled dial connections.

> **Note:** This TN3270e enhancement requires TN3270e Server (feature code 5806).

Fast Token Ring (FasTR) over ATM adapters
> FasTR is a configuration tool for enhancing the ATM adapters of the MAE, and enabling point-to-point 155 Mbps token ring connections.

Reporting facility for MAE processors
> From the command line, the user can monitor the percentage (0-100) of processor utilization versus idle time. Utilization data is captured in a simple SNMP MIB table.

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7.0 Installation Time

To be reported as MES installation.

FFBM	Machine Hrs.	System Hrs.	Nbr of CEs
42L2442	0.5	0.0	1

8.0 Tools/Material Required

None.

Installation (Steps 9-12)

9.0 Safety

Not applicable.

10.0 Details of Installation.

10.1 Verify the Level of the Code Installed

Refer to the SPIM or the Service User's Guide shipped with the service processor, verify that the code installed is at EC **F12720** or above.

Use the procedure: **Displaying the EC Level of Code installed on the Hard Disk**. If the EC of the code installed is prior to F12720, use the installation instructions to install the new level of code shipped.

10.2 Verify if the Prerequisite Software Features are Installed

___ 1. If not already logged, enter the **Service Processor Maintenance Password** (Default is IBM3745).

___ 2. Double click on the **Service Processor** object icon.

___ 3. Click on **"Configuration Management"**.

___ 4. Double click on **"Manage 3745/3746-900 installation/Removal"**

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__ 5. On the Controller Installation menu:
Select the 3746-900 on which the feature should be installed by clicking on the **<3746-900>** line, then click on **Select Feature** button.
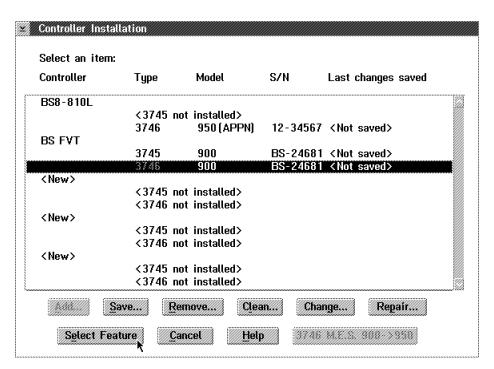
Controller Installation

Select an item:

Controller	Type	Model	S/N	Last changes saved
BS8-810L				
	<3745 not installed>			
	3746	950 (APPN)	12-34567	<Not saved>
BS FVT				
	3745	900	BS-24681	<Not saved>
	3746	900	BS-24681	<Not saved>
<New>				
	<3745 not installed>			
	<3746 not installed>			
<New>				
	<3745 not installed>			
	<3746 not installed>			
<New>				
	<3745 not installed>			
	<3746 not installed>			

Add   Save...   Remove...   Clean...   Change...   Repair...

Select Feature   Cancel   Help   3746 M.E.S. 900 >950

Figure 1. Controller Installation

__ 6. On the **Features Selection** display, verify that **MAE (FC 5804)** is selected and if your customer wants to use the TN3270e Server enhancements, verify that **TN3270E Server (FC 5806)** is also selected.
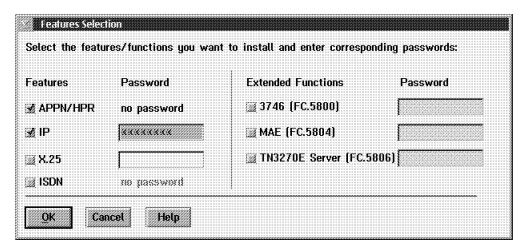
Features Selection

Select the features/functions you want to install and enter corresponding passwords:

Features	Password	Extended Functions	Password
☑ APPN/HPR	no password	☐ 3746 (FC.5800)	
☑ IP	<<<<<<<<	☑ MAE (FC.5804)	
☐ X.25		☑ TN3270E Server (FC.5806)	
☐ ISDN	no password		

OK   Cancel   Help

Figure 2. Features Selection

__ 7. Click on **Cancel** to exit.

10.3 Returning the Machine to the Customer

Inform the Customer or his representative, that the 3746-9x0 is now ready to support the MAE Extended Functions 3.

11.0 Test Procedures

No test required.

12.0 Field Updating

None.

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After Installation (steps 13-15)

13.0 Publications Update

None

14.0 Parts Disposition

Not applicable

15.0 Machine Records

- Install the new **MACHINE HISTORY** supplied.
- Report installation and quality problems using existing procedures.

End of instructions.

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