IBM 3746 Nways Multiprotocol Controllers Models 900 and 950
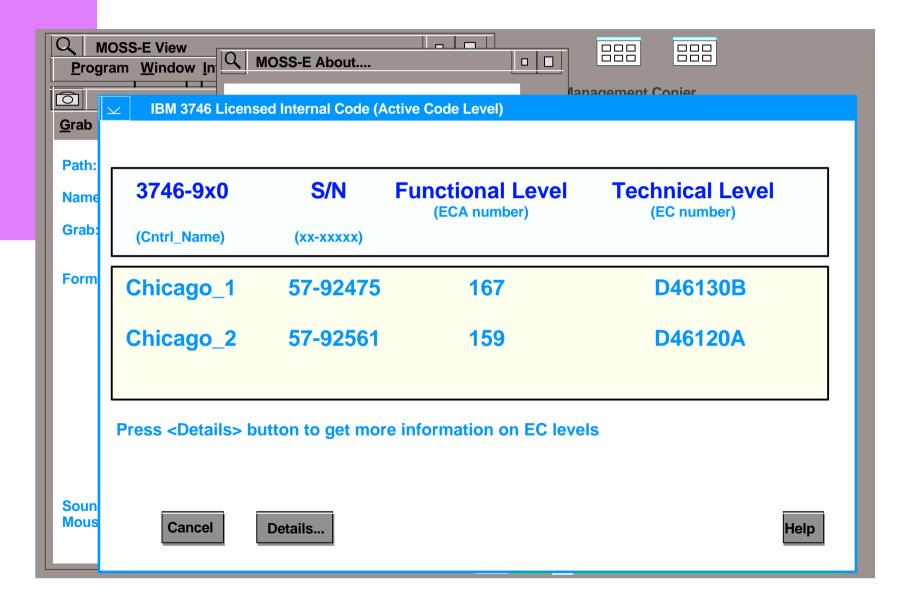
February 3, 1998
(Revision 7)

Microcode EC/ECA Level

IBM 3746 - Microcode ECA/EC Level (MOSS-E View)

IBM

MOSS-E View

Program   Window In

Grab

Path:

Name

Grab:

Form

MOSS-E About....

Management Copier

IBM 3746 Licensed Internal Code (Active Code Level)

3746-9x0	S/N	Functional Level (ECA number)	Technical Level (EC number)
(Cntrl_Name)	(xx-xxxxx)		
Chicago_1	57-92475	167	D46130B
Chicago_2	57-92561	159	D46120A

Press <Details> button to get more information on EC levels

Soun
Mous

Cancel   Details...   Help

IBM 3746 - Features Selection

IBM

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 / FC.5802)	
☐ IP		☐ MAE (FC.5804 / FC.5805)	
☐ X.25		☐ TN3270E Server (FC.5806)	
☐ ISDN	no password		

[OK] [Cancel] [Help]

IBM 3746 - Microcode EC Level

IBM

LICENSED INTERNAL CODE requirements (3746-900, 3746-950)

Last Updated: February 3, 1998

- Assumptions used by CF3745 when configuring CLPs (line weights..) are summarized after the following Licensed Internal Code section (for details, use help key).

- The following describes the functional levels of microcode (ECA), starting with the lates announced ones (possibly not available).

- For each level, only the new supported functions are indicated, as they are cumulative with the functions of all the other levels down in the list (older levels). Once a new level is available, all the new machines (and hardware MES which ship with microcode) are automatically shipped at this level of microcode. The new level is not distributed to the installed 3746-900s and 3746-950s except some levels like the Engineering Change (EC) level D22510K (ECA number 142) of 12/95.

- If the minimum EC level for a requested function is not installed, or planned to be installed, for example as part of an MES(*), order the most current ECA number via the IBM Service representative.

- (*) When an MES is shipped with mcode (see description below), this mcode is shipped at the most current FUNCTIONAL level (ECA number) and TECHNICAL level (EC number)

- The EC number indicated for a given ECA number reflects the technical level of the mcode at the availability date of the ECA.

- The alphabetic index (A, B,...) complementing the EC number is incremented when a new technical level starts shipping.

- Starting with ECA 167,the operator can display the active ECA and EC numbers of the 3746-9x0(s) connected to the Service Processor

- See Announcement Letters 194-128, 194-276, 195-103, 195-224, 196-032, 196-145, 197-037, 197-227 and 197-330 for additional information.

IBM 3746 - Microcode EC Level (ECA xxx)

IBM

EC Level :   Fxxxxxx   ECA number :   xxx   Availability :   10/30/98

Functions :

- **Shipped on CDROM only: requires a CDROM-capable Serv Processor**
  For a service processor with Optical Disk drive, see ECA 170

- **Automatically shipped with MES containing feature number 5802**
  More information will be provided at a later date

- **Functional improvements:**
  - **3746-900 and 3746-950 connectivity increase: more than 120 lines controlled by the NNP (up to 240)**
  - **3746 NN connectivity increase: more than 15000 APPN/DLUR data sessions (up to 30000). Requires CBSP Type 3 and NNP Type 2**

EC Level :   F12430x   ECA number :   xxx   Availability :   06/12/98

Functions :

- **Shipped on CDROM only: requires a CDROM-capable Serv Processor. For a service processor with Optical Disk drive, see ECA 170**

- **If not installed, automatically shipped with the first MES containing one of the following feature numbers: 3001, 3286, 3288, 3289, 3520, 5805, 5806, RPQ 7L1345**

- **More information will be provided at a later date**

IBM 3746 - Microcode EC Level (ECA 175)

EC Level : F12380x   **ECA number :** 175   **Availability :** 12/12/97

Functions :

- **Shipped on CDROM only: requires a CDROM-capable Serv Processor. For a service processor with Optical Disk drive, see ECA 170**

- **If not installed, automatically shipped with the first MES containing one of the following feature numbers: 3000, 3287, 3294, 3295, 5016, 5022, 5027, 5028, 5030, 5033, 5051, 5052, 5122, 5123, 5203, 5216, 5523, 5623, 5631, 5632, 5800, 5804**

- **This ECA may be ordered only for INSTALLED 3746s running at a lower ECA number/EC level and requiring microcode function(s) which are not orderable via feature code.**

- **Functional improvements:**
  - **CCM : copy function for Frame Relay DLCIs**
  - **APING from Service Processor to APPN/HPR PUs**

- **CD-ROM support: Dual level of code (active and non-active)**
    Reduced interruption time for mcode upgrade
    On-line product publications

IBM 3746 - Microcode EC Level (ECA 170)

EC Level : D46130I (*)   **ECA number :** 170   **Availability :** 11/30/97

(*)   (older levels no longer orderable)

Functions :

- Shipped on OPTICAL DISK only (for SP with Optical Disk Drive). For Serv Processors configured for CD-ROM support, see ECA 175
- If not installed, automatically shipped with the first MES containing one of the following feature numbers: 3287, 5016, 5022, 5027, 5028, 5030, 5033, 5122, 5123, 5203, 5216, 5523, 5623, 5631, 5632, 5800
- This ECA may be ordered only for INSTALLED 3746s runningat a lower ECA number/EC level and requiring microcode function(s) which are not orderable via feature code, such as the functional improvements of older ECAs (167 and before)
- Note that feature number 5800 (3746 Extended Functions 1) must be ordered to operate any of the following functions originally available with ECA 167:
  - 3746-NCP internal IP coupling (requires NCP V7R6)
  - Dynamic windowing enhancements for Frame Relay/ISDN (NCP 7.6)
  - X.25 traffic controlled by the NNP (independent from NCP)
    - 3746-controlled traffic: SNA/DLUR, APPN, HPR and IP
    - PVCs and SVCs
    - X.25 port: sharing between 3746 NN, 3746 IP and NCP ODLC traffic
    - NPM support (NPM V2R3 + PTFs)
  - HPR MLTG support over TR, Ethernet, SDLC, Frame Relay and X25
  - Bandwidth Reservation System (BRS): 3746 PPP lines (IP traffic)
  - Frame Relay switching (FRFH): 3746 lines controlled by the NNP
  - CIR for 3746 frame relay lines controlled by the NNP Bandwidth Reservation System at DLCI level: IP, APPN, HPR
  - PRI Euro-ISDN (LIC16/FC.5216) enhancements (3746-900/NCP V7R5+)
    - Automatic back-up of frame relay link over ISDN (non- disruptive for NCP to NCP connections)
    - Support of LIC16 for NPM (NPM V2R3 + PTFs)

IBM 3746 - Microcode EC Level (ECA 167)

EC Level : D46130B (*)   **ECA number :** 167   **Availability :** 06/30/97

(*)   (older levels no longer orderable)

Functions :

- **See ECA 170 for functions available in feature 5800 (3746 Extended Functions 1)**

- **Functional improvements:**
  - 3746 NN connectivity increase: more than 4000 PUs (up to 5000) and more than 12000 APPN/DLUR data sessions (up to 15000)
  - CCM: configuration checking versus installed configuration (CDF-E)
  - Display of the 3746 microcode level (ECA, EC) at MOSS-E console

IBM 3746 - Microcode EC Level (ECA 157-159)

EC Level : D46120A (*)   **ECA number :** 159   **Availability :** 12/20/96

Functions :
    (*)   **(older levels no longer orderable)**

- **IP over leased lines (PPP) and Frame Relay lines**
- **NPM support: ports/stations (APPN/HPR), Processor/Storage/TIC3 utilization (3746-900)**
- **Frame Relay line and DLCI sharing: NCP (V7R5), 3746 NN and 3746 IP)**

EC Level : D46120 (*)   **ECA number :** 157   **Availability :** 11/29/96

Functions :
    (*)   **(older levels no longer orderable)**

- **Connectivity increase: 4000 PUs + 12000 APPN/DLUR data sessions per 3746 NN**
- **Second Expansion Enclosure (FC #5016): 6 processors (total 16)**
- **Network Node Processor Memory Expansion (FC #5027)**
- **Service Processor Memory Expansion (FC #5028)**
- **EMEA only: LIC16 (FC #5216) for Euro.ISDN Primary Support by NCP V7R5 (3746-900)**
- **FR BAN for INN flows (remote 372x connected to 2210 or 2216)**
- **Back-up Network Node Processor (FC #5022)**
- **Optimization of processor storage utilization: increased APPN and DLUR connectivity (more PUs/sessions per processor)**
- **Selective load of microcode (APPN/HPR, IP) by category of processors : CLP, TRP2, (CB)TRP2**
- **NNP no longer required for DCAF TCP/IP consoles on service LAN**

IBM 3746 - Microcode EC Level (ECA 155)

IBM

EC Level :   D46100A (*)   ECA number :   155   Availability :   09/20/96

Functions :

(*)   (older levels no longer orderable)

- **ONLY for machines/MES with NNP/IP/Enet**

- **Ethernet interfaces (FC #5631, FC #5632): APPN/DLUR, HPR, IP....**

- **3746 IP Routing (FC #5033) over ESCON, Token-Ring, Ethernet**

- **3746 HPR/ANR over ESCON, TR, Ethernet, SDLC, Frame Relay**

- **3746 APPN/DLUR over Frame Relay (BNN and BAN).**
  - **Max connectivity in 3746-950: 500 PUs per CLP**
  - **3746-900: 1000 PUs per CLP, including**
  - **NCP-controlled Frame Relay/X.25 PUs**

- **APPN/DLUR perf improvement by 30-40% in transactions/sec**

- **Port sharing:**
  - **ESCON port: traffic for 3746 NN, 3746 IP, NCP-A, and NCP-B**
  - **TIC3 port: traffic for 3746 NN, 3746 IP, and one NCP**

- **NetView Topology Manager (3746 APPN/HPR): 3746 local topology**

- **Network Management (3746 IP): SNMP (NetView/AIX), Telnet, CCM**

- **CCM: 3746 on-line configuration changes, including ESCON, with**
  - **automatic deactivation/activation of impacted resources**
  - **Delete/Copy/Search functions**
  - **3746-900 with NNP: ESCON Gen. Assist. replaced by CCM**

- **Year 2000 support (applicable also to 3745 Models xxA)**

- **Network Node Processor installation option: no loading of the APPN/HPR microcode in the 3746-900 processors**

IBM 3746 - Microcode EC Level (ECA 144-146)

IBM

EC Level : D22560D (*)   ECA number :   146   Availability :   03/29/96

Functions :
(*)   (older levels no longer orderable)

- **3746 NN support: LIC11, DLUR for LIC11/LIC12, 4 LIC per CLP, CLP back-up, 16 versus 4 host link stations per ESCP2, 3000 versus 150 LU sessions per TRP2, 2000 versus 1000 adjacent nodes per 3746 NN, 6000 versus 3000 LU-LU sessions per 3746 NN**
- **X.25 Support - FC #5030 (3746-900/NCP V7R4) - including mcode**
- **Non-ERP support over TIC3 for CNN ANR (3746-900/NCP V7R4)**
- **3746-900: 3000 versus 1000 station (aggregate number of PUS over Frame Relay + Virtual Circuits over X.25)**

EC Level : D22560A (*)   ECA number :   144   Availability :   01/26/96

Functions :
(*)   (older levels no longer orderable)

- **3746 NN support (3746-900, 3746-950): APPN over LIC12, TIC3, and ESCON. DLUR over TIC3.**
- **Network Node Processor - FC #5022 - microcode shipped in MES**
- **EGA integrated to MOSS-E (3746-900/NCP)**
- **2000 versus 500 PUs on (CB)TRP2 (3746/NCP)**

IBM 3746 - Microcode EC Level (ECA 138-142)

IBM

EC Level : D22510K (*)   ECA number :   142   Availability : 12/20/95

Functions :

(*)   (older levels no longer orderable)

- Automatically shipped to all the installed 3746-900s.
- V.24 interface (LIC11) support at speeds up to 28.8 kbps (V.35 modems)
- Native IP routing over ESCON channels (3746-900/NCP V7R3)
- Frame Relay frame swithcing between 3745 & 3746-900 (NCP V7R4)
- ISDN Terminal Adapter (BRI/PRI) attachment (3746-900/V7R2)
- CLP: 1000 stations (aggregate number of PUs over Frame Relay Virtual Circuits over X.25), in addition to 1000 SDLC PUs.

EC Level : D22510J (*)   ECA number :   138   Availability : 08/25/95

Functions :

(*)   (older levels no longer orderable)

- CLP: Frame Relay BAN and Frame Relay SAP multiplexing (3746-900/NCP V7R3)

IBM 3746 - Microcode EC Level (ECA 134-137)

IBM

| EC Level : | D22510I (*) | ECA number : | 137 | Availability : | 06/30/95 |

Functions :

(*)   (older levels no longer orderable)

- CLP: X.25 (3746-900/NCP V7R3/NPSI V3R8)
- NPM 6-900/NCP V7R3)
- ISDN Terminal Adapter (BRI/PRI) attachment (3746-900/V7R2)
- CLP: 1000 stations (aggregate number of PUs over Frame Relay + Virtual Circuits over X.25), in addition to 1000 SDLC PUs

| EC Level : | D22510D (*) | ECA number : | 134 | Availability : | 09/13/94 |

Functions :

(*)   (older levels no longer orderable)

- CLP: Frame Relay (3746-900/NCP V7R2)
- CLP: up to 120 versus 100 active lines
- CLP: up to 1,000 versus 500 active PUs