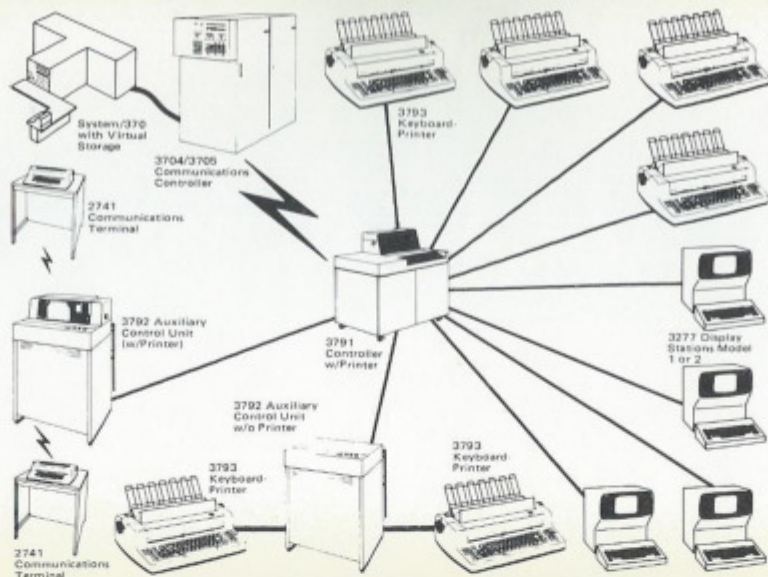# IBM

3790

IBM 3790
Communications System

3790 Communications System Description

The IBM 3790 Communications System is a host-programmable, operator-oriented terminal system.

The 3790 consists of the following units:
- 3791 Controller Models 1 and 2
- 3792 Auxiliary Control Unit
- 3793 Keyboard-Printer

The 3790 is a communications-based system which provides for the clustering of up to 16 stations. These stations may include IBM 3277 Display Stations, Models 1 or 2, a 120-line-per-minute printer, and the 3793 Printer Keyboards.

3791 Controller Description

The 3791 is a host-programmable communications controller that controls multiple terminals of the 3790 system. The terminals attach to the 3791 through customer-provided cables at distances from 50 to 2000 feet.

The 3791 attaches the terminals of the 3790 system to a System/370 (Model 125 and above) with virtual storage. Attachment is by means of an IBM 3704 or 3705 Communications Controller.

3791 Basic Features

- Field Effect Transistor (FET) random access memory
- Integrated disk unit using IBM diskettes
- Synchronous data link control interface to host system
- Operator panel for function and data selection using a rotary switch and hexadecimal Light Emitting Diode (LED) display

3791 Special Features

- 1200 baud integrated modem or external modem
- Up to 10 megabytes of disk storage in the 3791 Model 1, or 30 megabytes in the 3791 Model 2
- Line printer provides up to 120 lpm, 132 print positions, and a 48- or 96-character font
- Security keylock

- Attaches up to eight IBM 3277 Display Stations Model 1 or Model 2
- Attaches up to three IBM 3792 Auxiliary Control Units
- Attaches up to four IBM 3793 Keyboard-Printers

3792 Auxiliary Control Unit Description

The 3792 Auxiliary Control Unit provides the capability of clustering work stations at distances of up to 2000 feet from the 3791 Controller.
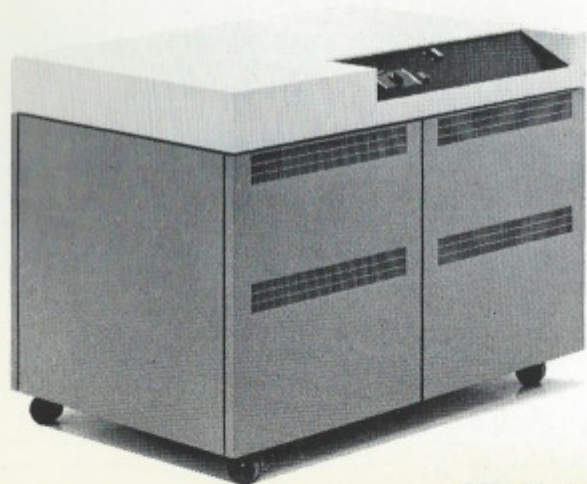
3792 Basic Features

- Operator panel provides function selection and data display

using a rotary switch and hexadecimal LED display

3792 Special Features

- Communications multiplexer provides dial-in capability for one or two start/stop lines for IBM 2741 Communications Terminals using either integrated line adapters or Electronic Industries Association (EIA) modem interface
- Attaches up to four IBM 3793 Keyboard-Printers
- Attaches a line printer with 80 or 132 print positions. 48-character set prints 120 lines-per-minute. 96-character set prints 80 lines-per-minute
- Security keylock
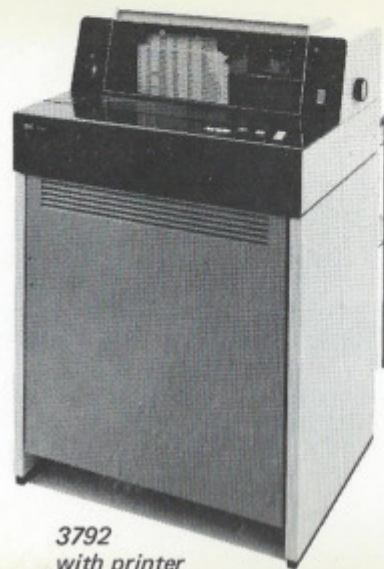
3791 Model 1
without printer

3791 Model 1
with printer

3793

3791 Model 2
with printer

3792
with printer

3277

3793 Keyboard-Printer Description

The IBM 3793 Keyboard-Printer is a SELECTRIC I/O II device with special indicators and keys provided for customized applications.

3793 Special Features

- Pin Feed
- Power Line Keylock

System Program Support

The 3790 Communications System will be supported by Synchronous Data Link Control (SDLC):
- Switched line
- Leased line
- 3704/3705 with Network Control Program
- Host support is DOS/VS VTAM, OS/VS1 VTAM, or OS/VS2 VTAM

Programs which operate in the host System/370 and complement the 3790 Communications System are:
- Subsystem Support Services
- User Application Program Support

- Function Support Program

The subsystem support services provide facilities to enable the customer to:
- Create operational 3790 system functions
- Transmit the 3790 system functions from the host to the 3791 Controller
- Maintain the 3790 system functions

The user application program support will be used by the customer to write industry-oriented application programs. These application programs are transmitted to the 3791 Controller where they are made operational through interpretive routines.

The Function Support Program will be used to exercise and test compiled programs on the host system prior to transmission and loading into the 3791 Controller.

System Serviceability

The 3790 system incorporates the latest service techniques and integrated service approach. Serviceability features and documentation, in conjunction with spare field-replaceable units (FRUs), have been designed to complement each other in effecting rapid fault-isolation and repair.

Serviceability features include:
- Rapid removal, replacement, and adjustment of all FRUs
- Large Scale Integration (LSI) functionally packaged for minimum FRUs
- Integrated service manual provides a complete service library

- Problem Determination Guide which will assist the customer in identifying the failing unit within the system
- MAP charts
- Resident unit exercisers
- Automatic checkout routines verify controller operation at each Initial Program Load (IPL)
- Error recording
- Error messages displayed on 3793 or 3277
- Communication wrap tests
- Offline diagnostic package

System Reliability

- Soft error recovery on input/output (I/O) operations
- Error checking on I/O operations

System Technology

- VTL/TTL
- Field Effect Transistor (FET)
- Belt Printer

FE Career Path

The 3790 system is a "Data Recording" FE career path product.

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