

IBM 3090 Series Product Enhancement

As part of announcements in May and June, IBM Corporation brought out new 3090 products including an entry-level 3090, the Model 120E, and enhancements to VM/XA.

The new 3090-120E entry-level, single-processor complex is the first 3090 priced for less than \$1 million. Additionally, under a new graduated software pricing scheme, Model 120E users will be charged less for MVS/XA software than users who have installed the bigger 3090 machines. The Model 120E features 32 megabytes of central storage, 64 megabytes to 128 megabytes of optional expanded storage, and 16 channels, expandable to 24 channels. Model 120E CPU cycle time is 18.5 nanoseconds, slower than the cycle times available for the rest of the 3090 Series. The Model 120E is expected to have .7 to .8 times the instruction execution rate of the 3090 Model 150E operating under MVS/XA, MVS/370, and VM/SP HPO in typical commercial environments. The Model 120E is also expected to have 1.8 to 2.2 times the instruction execution rate of the 4381 Model 13 operating under MVS/XA. The Model 120E is field upgradable to the 3090 Model 150E.

Up to four channels can be optionally configured as byte multiplexer channels. The Model 120E is configured with the 3092 Model 3, a new processor controller introduced with the new mainframe. It uses a single processor and requires only one 3370 DASD or equivalent.

A minimum 120E configuration includes the central processor complex, the 3092 Model 3 Processor Controller, a 3097 Power and Coolant Distribution Unit Model 1 or 2, and one 3089 Power Unit Model 3 or equivalent source of 400 Hz power. Other required hardware includes one 3370 DASD Model A2, two IBM 3180 Model 145 display stations, access to a tape control unit operating in DC interlock mode, and an IBM 3864 Modem Model 2 equipped with Automatic Calling (#5801) or equivalent and a dedicated phone line to be used to access the remote support facility. An optional Vector Facility is also available.

A minimally configured Model 120E sells for \$715,000 and will be available by October 1987. Other required hardware, such as the 3092 Model 3, the 3097, and 3089, is priced separately. The new 3092 Model 3 sells for \$120,000.

In the operating system software area, IBM announced several major VM enhancements. Announcements include enhancements to VM/XA Release 2, VM Inter-System Facilities Release 1 and Release 2, VM/XA Release 1 for Multiple Preferred Guests, IBM 3090 Multiple High Performance Guest Support, and Resource Access Control Facility (RACF) Version 1.8.

VM/XA SP Release 1 supersedes all releases of VM/XA SF and provides a migration path for VM/XA SF users. Enhancements include an interactive environment capable of supporting large numbers of users. It also supports a bimodal CMS which will operate in either System/370 mode with 24-bit addressing or 370-XA mode with 24- or 31-bit addressing. Additionally, program interfaces have been defined to allow the development of applications which are portable between System/370 and 370-XA CMS virtual machines. IBM believes the product enhancements will be an attractive growth path to VM/SP HPO users requiring larger processors running in single-image mode and relief to user growth constraints. The product carries a one-time graduated charge of \$112,500 for Group 30 machines and \$216,000 for Group 40 machines. The monthly license charge is \$4,500. The product will be available in March 1988.

VM/XA System Facility Release 2 enhancements include support for the IBM 3800 Models 3 and 6 using Advanced Function Printing software, IBM 3174 Subsystem Control Unit and various 3270 displays and display printers, and additional CMS license program support. Other enhancements include improvements to object code servicing, program update tapes on request, and partitionable Expanded Storage and Block Paging, a feature that will now be available by third quarter 1987. General product availability was scheduled for June 26. The product carries a basic initial license charge of \$11,220 and a basic monthly license charge of \$4,110.

VM/XA SP Release 2 can now participate in SNA networks and also offers native support for SNA devices. VM/SP Release 2 no longer requires a guest such as VM/SP HPO or VCNA to handle SNA functions. The product carries a graduated one-time charge of \$112,500 for Group 30 machines, and \$216,000 for Group 40 machines. The monthly license charge is \$4,500. The product will be available by first quarter 1989.

VM Inter-System Facilities Release 1 now supports up to four processors in an environment using VM/SP HPO Release 4.2. This means an increased number of users can participate in the same application environment, while the processing complex itself appears to function as one single, large system. The addition of up to four processors is a step towards relieving system growth constraints. Release 1 carries a graduated



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▷ one-time charge of \$63,000 for Processor Group 30 machines and a one-time charge of \$100,800 for Group 40 machines. The monthly license charge is \$2,100. Release 1 became available on June 26, 1987.

VM Inter-System Facilities Release 2 provides support for VM/SP HPO Release 5 and communicates with VM Inter-System Facilities Release 1 running with VM/HPO Release 4.2. Inter-Systems Release 2 can operate in mixed complex operations with Inter-System Release 1. Inter-System Release 2 provides a migration path for users also running Inter-System Release 1 and VM/SP HPO Release 4.2 who wish to upgrade to HPO Release 5. Release 2 has a basic monthly license charge of \$2,100 and a basic one-time charge of \$63,000 for Group 30 machines and \$100,800 for Group 40 machines. The release will be available by fourth quarter 1987.

VM/XA SP Release 1 lets users define up to four preferred guests to be executed concurrently on the same processor complex. Additionally, up to three Virtual = Fixed preferred guests can be defined which will generally operate under the same considerations as Virtual = Real preferred guests. All guest operating systems which are supported by VM/XA as V = R preferred virtual machines are supported as V = F guests. The product will carry a graduated one-time charge of \$112,500 for Group 30 machines and \$216,000 for Group 40 machines. It will be available by third quarter 1988.

The IBM 3090 Multiple High Performance Guest Support product is a required hardware component for 3090 users planning to install MVS/XA SP Release 1 Enhancement for Multiple Preferred Guests. The product also contains extensions to Start Interpretive Execution which improves the performance of VM/XA SP Release 1 preferred guests. A physically partitioned Model 400E or 600E using the product can run VM/XA SP Release 1 on each side to provide support for up to four preferred guests on each side of the processor complex. Features 6851 and 7851 each cost \$60,000. Features 6852, 6853, 7852, and 7853 all cost \$20,000 each. All the components will be available by third quarter 1988.

RACF Version 1.8 enhancements include support for VM/XA SP, Data Security Monitor (DSMON) for VM, and TSO/E user information in RACF data base, in addition to other enhancements. For MVS/only or MVS and VM environments, graduated one-time charges are \$40,365 for Group 40 machines, \$25,230 for Group 30 machines, and \$25,230 for Group 20 machines. The monthly license charge is \$841. For VM only environments, the graduated one-time charge is \$33,360 for Group 40 machines, \$20,850 for Group 30 machines, \$14,595 for Group 20 machines, and \$8,340 for Group 10 machines. The monthly license charge is \$695. RACF/MVS features will be available December 1987, and RACF/VM features will be available March 1988.

For more detailed information about the VM operating system and enhancements, please refer to Volume 3, Report SW35-504MK-401. □