NAS Advanced Systems

Product Enhancement

National Advanced Systems expanded maximum main memories on both the AS/8000 and AS/9000 Series of mainframe processors, and also extended the maximum number of channels possible on the AS/9000. Additionally, NAS also released four new microcode-assist functions, which NAS calls extended control program support or ECPS:VM. NAS announced the enhancements on August 27, 1985. The new products were made immediately available after the August announcement. NAS increased memory capacity on the AS/8023, AS/8043, AS/8053, and the AS/8063 from 8 to 32 megabytes to 16 to 64 megabytes. Maximum memory on the AS/8083, the largest processor in the series, was increased from 16 to 32 megabytes to 32 to 128 megabytes.

On the AS/9000 Series, NAS expanded main memories on the AS/9040 and AS/9050 from 8 to 48 megabytes to 8 to 64 megabytes. All the expanded memory options make use of 256K-bit memory chips. Besides the memory expansions, NAS increased maximum channel capacity on the AS/9070 and AS/9080 from 32 channels to 48 channels. The expanded channel capacities let users take advantage of MVS/XA, IBM's expanded architecture mode.

At the software level, NAS released four microcode-assist functions that are said to give the AS/8000 Series a performance boost when operating under virtual-machine operating systems. The four functions are called Control Program Assist, Expanded Virtual Machine Assist, Virtual Integrated Time Assist, and Shadow Table Bypass Assist. The addition of the microcode assist gives the AS/8000 Series full functions and features of the equivalent IBM 4300 Series, an NAS spokesperson explained.

The enhancements were intended to expand the growth path for AS/8000 users. The top-of-the-line AS/8083, for instance, is now equal to the performance of an IBM 3081, according to NAS estimates. An NAS spokesperson said the AS/8000 Series, with its new expanded maximum memory capacities, provide users with a performance range of up to 15 MIPS (millions of instructions per second). All the processor upgrades can be performed in the field.

NAS, a wholly owned subsidiary of National Semiconductor Corporation, markets IBM plug-compatible mainframes obtained from Hitachi. Processors within the AS/80X3 Series are marketed as plug-compatible replacements for IBM 3083 level mainframes, or roughly the low end of the IBM 308X Series. The AS/8023, the entry-level model, is marketed as a plug-compatible replacement for the IBM 4381. Processors within the AS/9000 Series have been marketed as plug-compatible replacements for IBM's medium to high-end processors within the 308X Series.

PRICING

Memory expansions for both the AS/8000 and AS/9000 Series cost $95,000 per 8-megabyte increment. Channels for the AS/9000 Series are priced at $123,000 for each channel group consisting of eight channels. □