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Seaway NCP Targets Data Center

Also at Network Processors Conference, Seaway Networks disclosed its first product, called the Network Content Processor (NCP). The chip is designed for Layer 4-7 applications and provides TCP termination as well as upper-layer processing. While other TCP processor vendors are targeting storage applications, Seaway is instead going after data-center applications such as web switches and firewalls.

The NCP supports up to 5Gbps of full-duplex TCP termination, enough for four Gigabit Ethernet ports or two OC-48 ports. Achieving this performance, however, requires the assistance of two external PowerPC processors. A third PowerPC CPU can be attached for upper-layer content processing, such as implementing NAT or a firewall.

Although the external PowerPC chips add cost (about \$150 each), this method has advantages. The speed of the external CPUs can be adjusted depending on performance; in a 2xGbE configuration, the second CPU can be omitted entirely. In this configuration, the second NCP port can be connected to a Hifn chip for IPsec or SSL acceleration. This architecture also allows customers to develop upper-layer software on a familiar PowerPC CPU.

This flexibility makes Seaway's architecture suited to a variety of data-center devices. Unlike storage-focused TCP chips, the NCP supports millions of connections and a high setup rate, two requirements for data-center equipment. With limited competition in this segment, Seaway should have some success, particularly if it can develop a more-integrated follow-on product. The company has not disclosed price and availability for the NCP; we expect the chip to sample in 1H03. —LG

Full coverage of Seaway's NCP appears in our recent report, [**A Guide to Storage and TCP Processors**](#).