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Sensory Networks

Sensory Networks was founded in 2002 to develop hardware acceleration technology for network security applications. In 2003, Sensory secured \$4.2 million in venture capital from three prominent Australian venture funds. In February 2004, the company received a \$1.7 million federal government grant for its chip design research into ways to prevent network security attacks. Investors include JAFCO Investment (Asia), DB Capital Partners (Deutsche Bank Group), Ericsson-Deutsche Technology Fund, Technology Venture Partners, Allen & Buckeridge. The company is based in California and London, with Asia Pacific headquarters and R&D labs located in Sydney, Australia.

Sensory is an OEM licensing company producing a range of platforms and accelerators for Antivirus, Antispam, Content Filtering, Firewall and Intrusion Detection Systems/Prevention, Antispyware, Network Monitoring and other Content Security applications based on its patent-pending NodalCore Security Processor technology. NodalCore hardware acceleration products include a range of chipsets, accelerated software libraries, PCI acceleration cards and appliance platforms.

The NodalCore platform is built around Sensory's proprietary security technology, which embeds a suite of security primitives into network silicon for identifying, analyzing and preventing network threats at true network speeds. Sensory argues that NodalCore-X delivers a cost to performance ratio that far exceeds other alternatives. For approximately the same cost as moving from a single to dual processor appliance architecture, NodalCore-X routinely delivers a performance boost of 20x or more.

NodalCore-X Security Processors (SPUs) are based on a stream-based data processing model. A stream is a flow of data through the device and can include entire data files, network streams, single network packets, e-mail messages, or any self-contained sequence of bytes. NodalCore-X-based systems can maintain up to 4 billion concurrent streams.

Streams are processed within one or more data processing channels within the NodalCore-X SPU. Channels can perform pattern matching, content decoding, decompression and message digesting; with multiple parallel channels all processing data simultaneously. Functionality is dependant upon the choice of device and license specified.

The adaptive NodalCore-X Security Processor (SPU), Sensory's second generation parallel coprocessor for content security applications, is designed to offload and accelerate bottleneck operations involved with high performance network security applications.

The new NodalCore-X architecture features greater and more rapid extensibility with network downloadable custom hardware engines, coupled with a higher speed internal bus. NodalCore-X includes a greater portfolio of data processing and analysis modules including an enhanced CorePAKT pattern matching engine (PME). The new CorePAKT

PME now processes both powerful regular expressions and also a Massive Memory Architecture (MMA) that can accommodate millions of entries, facilitating wire speed content scanning applications. The processor features up to 1.6Gbps regular expression pattern matching throughput (depending on SPU model). The architecture also supports low bandwidth, high speed incremental database updates, suitable for applications containing extremely large databases of signatures.

The NodalCore Security Processing Unit is enabled by Xilinx Virtex-II Pro and Virtex-4 Platform FPGAs. By employing FPGAs, network equipment using NodalCore can dynamically adapt, all while maintaining wirespeed. Xilinx Virtex-II Pro devices include multiple PowerPC CPUs and multi-gigabit serial transceivers.

NodalCore C-Series accelerators are designed as a PCI64/66 card to be incorporated into existing security appliance form factors to offload and accelerate bottleneck operations in signature-based network security applications. NodalCore C-Series accelerators are suited to a diverse range of signature-based security applications including anti-virus, anti-spyware/anti-malware, anti-spam, email & web filtering, content security, and pattern matching. NodalCore C-Series accelerators can be used in network security appliances such as firewalls, Unified Threat Management Appliances, Network Gateways, Mail Transfer Agents, and Web Proxies.

NodalCore I-Series accelerators feature 4x programmable 10/100/1000 network interfaces for the acceleration of network security applications such as network intrusion detection and network intrusion prevention. NodalCore I-Series accelerators provide an accelerated security framework for network security applications by utilizing an Intel IXP2400 NPU for 2.4Gbps packet header processing and the NodalCore SPU for deep packet inspection. Target appliances include network IDS/IPS, Network Antivirus and Anomaly Detection.

Sensory has relationships with several ODMs, including Nexcom, Lanner Electronics and Astaro, who offer security appliances accelerated by Sensory NodalCore.

Application Partners develop accelerated applications and solutions such as accelerated Antivirus, Antispam, Content Filtering, Intrusion Detection and Prevention, Network Monitoring, Firewall, Anti-Spyware/Malware, P2P traffic management, and more. Application partners include DSPAM for anti-spam filtering; Clam Antivirus; Bleeding Snort for catching 0-day attacks and for detecting Spyware, Malware, rogue P2P, and future forms of attack.

Competitors include Cavium and Hifn.

Matt Barrie, Co-founder & CEO (Previously VP, Asia Pacific and Director of Packet Storm within the Information Security Group of Kroll-O'Gara and co-founder and VP of Products at Dilithium Networks. Also a lecturer in Information Security and Cryptography at the Department of Electrical and Information Engineering, University of Sydney.)

Stephen Gould, VP of Engineering (previously Principal Engineer at Dilithium Networks)

Darren Williams, Ph.D., Co-founder & VP of Software (previously lectured for 5+ years in Computer Science at the Basser Dept. of Computer Science at the University of Sydney)

Nicholas de Jong, VP of Products (previously Chief Security Analyst and lead consultant in New York City for Securify)

Mark McCoy, VP of Global Sales (previously VP of Sales for ActivCard)

Tim Beck, Director of Strategic Sales and Alliances (previously Director of WW OEM Sales at Britestream and VP of WW Sales at Solidum)

Cheryl Poland, Director of Strategic Sales (previously responsible for the North American operations at Everbee Networks and held executive positions at Corrent, Lumeta, and NetBoost, which was acquired by Intel)

Roland Arlt, Business Development Manager (previously co-founded Cloudmark, where he was responsible for corporate development and assisting in the initial fund-raising efforts)

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