

# PRESS RELEASE



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## **SOLARFLARE LICENSES PIONEERING XTREMESCALE™ TECHNOLOGIES FOR NEURAL-CLASS NETWORKS**

### **Solarflare licenses the use of XtremeScale IP for use in certain networking products**

IRVINE, CA— June 6, 2017 —Solarflare, a pioneer in the development of neural-class networks, today announced that in its commitment to protect its intellectual property, it has successfully licensed select intellectual properties for use in specific networking products. The patented technologies which are being licensed to Exablaze form the foundation of proven and market share leading Solarflare products for connecting servers in financial services, and are components of a broad suite of neural-class networking IP which comprise Solarflare XtremeScale Technology.

According to Ahmet Houssein, Vice President of Marketing at Solarflare, “The XtremeScale technology licensed by Exablaze is a small piece in our extensive IP portfolio for neural-class networks characterized by their need for ultra-low latency.”

### **Solarflare XtremeScale™ Technology**

XtremeScale ASICs, Software Defined NICs, FPGAs and software extension from Solarflare are designed from the ground-up for neural-class networks. The result is a new-class of products with the ultra-high-performance packet processing and connectivity of expensive network processors, and the low-cost and power of general purpose networks. There are six capabilities needed in neural-class networks which can be found today only in products built with the XtremeScale technology:

1. **Ultra High Bandwidth** – In 2017, Solarflare will provide high frequency trading, CDN and cloud service provider applications with port throughput up to 100Gbps and bi-directional packet performance of 60 million packets per second, backed by “cut-through” technology establishing a direct path between VMs and NICs to improve CPU efficiency.
2. **Ultra Low Latency** - Data centers are distributed environments with thousands of cores that need to constantly communicate with each other. Solarflare kernel bypass technologies provide sub-one microsecond latency with industry standard TCP/IP.
3. **Ultra Scale Connectivity** - A single densely-populated server rack easily exceeds over 1,000 cores. Solarflare can interconnect the cores to each other for distributed applications with NICs supporting 2,048 virtual connections.

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4. **Software Defined** – Using well-defined APIs, network acceleration, monitoring and security can be enabled and tuned, for thousands of separate vNIC connections, with software-defined NICs from Solarflare.
5. **Hardware-Based Security** - Approximately 90% of network traffic is within a data center. With thousands of servers per data center, Solarflare can secure entry to each server with hardware-based firewalls.
6. **Instrumentation for Telemetry** - Network acceleration, monitoring and hardware security is made possible by a new class of NIC from Solarflare which captures network packets at line speeds up to 100Gbps.

## About Neural-Class Networks

A “Neural Network” is a distributed, scale-out computing model that enables a branch of artificial intelligence called deep learning which is emerging as the core of next-gen applications software. Deep learning algorithms use huge neural networks, consisting of many layers of neurons (servers), to process massive amounts of data for instant facial recognition, voice recognition, language translation, and hundreds of other AI applications.

“Neural-Class Networks” are computing environments which may not be used for artificial intelligence, but share the same distributed scale-out architecture, and massive size. Neural-class networks can be found in the data centers of public cloud service providers, stock exchanges, large retailers, insurance providers and carriers, to name just a few.

## About Solarflare

Solarflare is pioneering server connectivity for neural-class networks. From silicon to firmware to software, Solarflare provides a comprehensive, integrated set of technologies for distributed, ultra scale, software defined datacenters.

The Solarflare XtremeScale Architecture is a design framework which includes a comprehensive suite of features for ultra scale environments: High bandwidth, ultra low latency, ultra scale connectivity, software defined, secure with hardware firewalls, and instrumented for line-speed telemetry.

Solarflare solutions have earned a sterling reputation in financial services and are used by virtually every major global exchange, commercial bank and hedge fund. This exacting, regulated performance uniquely qualifies our solutions for use in ultra-scale applications in IoT, big data and artificial intelligence where low latency, robust security and insightful telemetrics are critical.

Solarflare solutions are available from leading distributors and value-added resellers, as well as from major global manufacturers. Solarflare is headquartered in Irvine, California, and operates R&D facilities in Cambridge, UK and New Delhi, India.