

# Synopsys and Teradici

## Combination of Tools, IP and Services Help Launch Startup



**“We received first samples in early December, and immediately had critical high-speed interconnect IP and processor cores running successfully. Within another week, our most complex logic was fully operational. Having access to Synopsys’ industry leading tools, IP, and services enabled Teradici to achieve first silicon success.”**

*–Maher Fahmi, VP Silicon Engineering*

Fabless startup Teradici’s TERA chipset enables centralized computing to span a standard enterprise network from the datacenter to the desktop, delivering a true PC experience over Internet Protocol networks. Teradici’s PC-over-IP™ technology relies on advanced display compression algorithms and I/O bridging to guarantee a high performance, uncompromised end-user experience. To help get their innovative products to market, Teradici selected Synopsys for access to the industry’s most complete portfolio of tools, intellectual property (IP) cores and services.

As with most multi-million gate SoCs, area and power were primary considerations in the design and implementation of the TERA1 Host and Portal Processors. To ensure the robustness of the chip’s power network, Synopsys consultants performed extensive static and dynamic IR drop analysis and fixing. IP was also critical: Synopsys provided Teradici with the industry’s lowest power, smallest footprint PCI Express endpoint controller and PHY IP. In addition, Synopsys was the only company that offered a native 4-port USB 2.0 PHY IP in the target process, an integrated solution that saved chip area and power consumption.

### Synopsys Solution

- Key Galaxy™ Design Tools: DC Ultra™, DFT Compiler, PrimeTime® SI, PrimeRail
- Key Discovery™ Verification Tools: VCS® MX, HSPICE®, Formality®
- DesignWare® IP: PCI Express, USB 2.0 (digital cores and PHY IP), Ethernet GMAC
- Synopsys Professional Services: Netlist-to-GDSII design services
- Pilot Design Environment

### Cooperation Benefits

The combination of Teradici’s breakthrough technology and engineering expertise with Synopsys’ tapeout-proven tools, IP and services resulted in functional first silicon. Within three weeks of receiving initial samples of their chip, Teradici successfully ran a full-day demo for one of their largest customers, who in turn were capable of demonstrating a complete working system to their end customer only one month later.

