First enterprise-class cloud service for designing electronic systems for mobile devices

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IBM today announced that it is launching IBM High Performance Services for Electronic Design Automation (EDA), the electronic industry's first enterprise-class, secure cloud service, which provides on-demand access to electronic design tools, in partnership with SiCAD, Inc., a Silicon Design Platform provider, with expertise in EDA, design flows, networking, security, platform development, and cloud technologies.

Delivered on SoftLayer infrastructure, the new cloud service supports a pay-as-you-go model and opens up patented tools that were previously used exclusively by IBM Microelectronics to other electronic and semiconductor companies. The IBM Electronics Design Automation (EDA) tools have been used to bring over 100 state-of-the-art projects to market including IBM mainframe and Power microprocessors, interconnects, application-specific integrated circuits (ASICs) and custom projects.

"The proliferation of smartphones, tablets, wearable devices and Internet of Things (IoT) products has been the primary driver for increased demand for semiconductor chips. Companies are under pressure to design electronic systems faster, better and cheaper," said Jai Iyer, Founder and CEO of SiCAD, Inc. "A time-based usage model on a need-basis makes sense for this industry and will spur innovation in the industry while lowering capital and operations expenses."

In the first phase of the launch of an end-to-end design flow, IBM will be delivering three key tools, IBM Library Characterization, to create abstract electrical and timing models required by chip design tools and methodologies; IBM Logic Verification, to simulate electronic systems described using the VHDL and Verilog design languages, and IBM Spice, an electronic circuit simulator used to check design integrity and predict circuit behavior, all on an IBM Platform LSF cluster built on the IBM SoftLayer cloud. The cluster uses physical and network isolation to protect workloads, providing enhanced security to clients. The cloud service uses single-tenant servers, which means that clients don't share servers and firewalls and other techniques are used to secure the clients data.

These industry-tested tools are expected to set new benchmarks in price-performance. This means our clients can do their verification work faster, or with less resources (machines) or they can produce better quality by doing more verification in the same time. Also, LSF delivers very high utilization and throughput on the infrastructure which usually reduces design time.

"Cloud computing has the potential to satisfy scalability requirements in EDA", said Roy Jewell, President, Palma Ceia SemiDesign, a Silicon Valley startup, offering analog and RF IP for emerging WiFi, LTE, and wireline applications. "IBM High Performance Services for EDA, toegther with an experienced deployment partner like SiCAD, should make Cloud adoption for IP and semiconductor design houses, seamless and affordable."

IBM High Performance Services for EDA allow clients the flexibility to scale up or down based on demand. By using IBM High Performance Services, clients can manage peak usage demands, increase design productivity, reduce capital expenditure and increase operational efficiency.

IBM High Performance Service for EDA provides better cost, high performance and enhanced security. The IBM cloud service sets a new lower price point than the other EDA tool vendors, which decreases the cost of design significantly. In addition, with the cloud service, clients no longer need to purchase new hardware, data center technology and IT staff to manage on-premise environments.

With the cloud service, clients no longer need to purchase EDA tool licenses, new hardware, data center infrastructure or staff to manage on-premise environments. IBM High Performance Service for EDA provides high performance tools, security and overall improved price performance offering customers of all sizes more affordable access to EDA tools and decreased cost of designs.

Provided by IBM