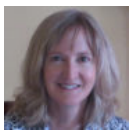
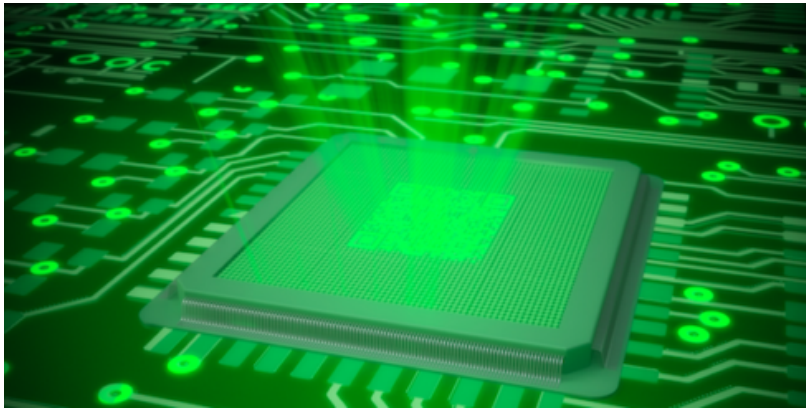


Cavium & Pica8 Combine ASIC & Network Operating System



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[Cavium](https://www.sdxcentral.com/listings/cavium-networks/) and [Pica8](https://www.sdxcentral.com/listings/pica8/) are combining an [ASIC](https://www.sdxcentral.com/term/application-specific-integrated-circuits-asics/) with a network operating system (NOS) to support [software defined networking \(SDN\)](https://www.sdxcentral.com/sdn/definitions/what-the-definition-of-software-defined-networking-sdn/). Cavium will put Pica8's [OpenFlow](https://www.sdxcentral.com/sdn/definitions/what-is-openflow/)-based PicOS NOS on Cavium's XPliant switch chip, allowing users to create customized SDN environments, while at the same time avoiding vendor lock-in.

The combination is meant to address the inflexibility of systems vendors' own ASICs; it's also a way for Cavium to try to broaden the appeal of XPliant as an alternative to [Broadcom](https://www.sdxcentral.com/listings/broadcom/), which dominates the market for merchant switching chips.

Cavium says XPliant combined with PicOS, slated for general availability in the first quarter of 2016, would be the missing building block in providing full programmability of SDN environments. Customers would be able to specify their switching characteristics, NOS, and SDN applications to meet specific business needs.

"The missing link has been a programmable switch ASIC pipeline to compliment the idea of software defined infrastructure," says [IDC](http://idc.com) analyst Brad Casemore. "Now Cavium's XPliant switch with PicOS fills that need."

Eric Hayes, Cavium's vice president of switch platforms, says, "In all operating systems, someone has to do the work to port the OS to the silicon. I can now offer a shrink-wrap OS on top of the chip. They can get both silicon and software now, all tested and working."

The combination has found a customer in [Hewlett Packard Enterprise](http://hpe.com), which has begun integrating Cavium and Pica8 into its the [Virtual Application Networks \(VAN\)](https://www.sdxcentral.com/hpe/networking/) SDN controller and the Altoline family of switches.