

The Compelling Case for Modernizing Your Campus and Branch Office Networks Now

Enterprise networking has become a true challenge for most IT shops.

Vendor lock-in, aging and soon-to-be-unsupported architecture, sprawling switch farms, and aggressive sales cycles all conspire to make it seemingly impossible to innovate in the current network switching landscape.

Pica8 addresses IT's need to reduce the complexity of the switch environment while enhancing functionality. Our unique, powerful open, standards-based approach to white-box networking reduces the number of managed switch network elements by up to 25x per site. Pica8 reduces CapEx and OpEx costs by as much as 80% through simplified deployment and management that supports the flexibility, agility, and scalability today's competitive climate demands.

Founded in 2009, Pica8 has been at the cutting edge of networking, ensuring open white box switches offer the same benefits in enterprise networking as they've afforded in the server world. For too long, organizations have been trapped by brand name gear, costly licensing, and one-size-fits-all code with glacial update cycles. With open white box networking, IT and DevOps teams can put their programming skills to work to tailor a switch network customized to their organization's needs.

Pica8 is committed to unshackling businesses from the confines of their decades-old network architecture, enabling them to manage dozens to hundreds of multivendor open switches – including branch, core, and field offices – as if they were a single, logical, high-bandwidth switch. By building all elements of the network for an open environment, Pica8 has also created a switch universe that caters to the creativity of internal IT and DevOps teams.

While legacy switches follow a self-same model that requires a homogenous blueprint, Pica8 is built on heterogeneity (mix-and-match) and cost effectiveness. Global retailers, service providers, financial institutions,

higher education, aerospace, health care companies, manufacturers, and more have now embraced Pica8 as a viable, cost-effective alternative to their mainstream legacy vendors.

Pica8 promotes enterprise use of business-leading applications such as voice over IP with support for auto-provisioning and new, granular security capabilities that are only available from Pica8.

Pica8 has three distinct solutions that turn a generic white box Ethernet switch environment into a well-orchestrated symphony of switches:

PICOS®

The company's flagship product, a network operating system based on open network standards, is available in both enterprise and software-defined networking (SDN) editions. Operating in an open white box environment, PICOS uses an unmodified Linux kernel, providing a virtual playground for IT and DevOps to create a customized network environment programmed to the organization's needs. Pica8's ability to deliver Zero-Touch Provisioning in an in-band remote environment is just one of many features that make this disaggregated solution one of the easiest to deploy and manage.

CrossFlow™

CrossFlow, Pica8's dual control-plane capability, is unique in the networking industry and provides an open alternative to Intent-based Networking (IBN). It enables IT to control every switch port in a network using Layer 2/Layer 3 protocols and OpenFlow at the same time, giving network managers the granular and dynamic monitoring and control they require across Layer 2/Layer 3 ports. Network operations and security teams can utilize CrossFlow to quickly remediate security issues such as DDoS attacks, zoom in on flows of interest, and redirect them for in-depth analytics – all in real time and without disruption to network traffic and user productivity.

Pica8 Automation Framework + PicaPilot™

Pica8 helps automate and simplify network management in two distinct ways. First, the Pica8 Automation Framework drastically simplifies all the tasks associated with installing and configuring open network switches across a distributed enterprise. Using the framework, once a switch is powered up, it downloads and installs a pre-configured version of PICOS and handles all license management tasks. The framework essentially brings zero-touch provisioning and ONIE (open install environment) to distributed campus networks and global branch office and retail store switch deployments. Second, in an enterprise networking world typically full of complexity, Pica8's PicaPilot application simplifies management of the switch environment by enabling companies to replace aging chassis switches and switch stacks with modern, open switches that can be managed as a single, logical switch. PicaPilot works across a wiring closet or a distributed campus. In short, the Pica8 enterprise switching platform is designed to minimize the amount of labor and number of complications and difficulties IT faces, both today and tomorrow.

GET STARTED TODAY

So, how do you get going with a Pica8 deployment? You can begin with a phased approach – no rip-and-replace required. Pica8 works seamlessly with your current investment in legacy switches, helping you determine which gear is ready to age out and be replaced with a new, innovative approach to network switching. Pica8 also supports virtually any network access control (NAC) solution that may be operational in your network – from Cisco ISE, to Aruba ClearPass, to the PacketFence Open Source project. Needless to say, Pica8 also supports the multitude of authentication use cases found in 802.1x.

Pica8 solutions are compatible with most vendor environments – a full list of supported hardware is available here: <https://www.pica8.com/hardware-compatibility/> – giving you time to test the new environment and get comfortable with its features and functionality. We have both enterprise and software-defined networking software options that blend with your network management strategy. And Pica8 solutions have virtually no scalability limits, which is a welcome change from legacy architectures. For example, in Quick Start Mode, the Pica8 Automation Framework's English-language GUI allows even non-programmers to turn on hundreds of remote switches at the click of a button.

With more than 1,000 customers spanning 40+ countries, Pica8 is well-versed in how our solutions can benefit different industry verticals, enabling organizations of all types to speed the purchase and deployment of this new, modern, best-practices switch environment. We offer a simplified perpetual license program, which saves organizations from ongoing licensing costs and never-ending sales cycles. We also are pioneering world-class 24/7 customer support for an open white-box switch environment.

Based on open standards, using a familiar CLI, and featuring an unmodified Linux kernel, your organization's IT and DevOps teams should feel right at home with our NOS and other highly programmable environments. Security, including policy updates, can be handled across switches from a single command line interface, reducing the need for additional headcount to manage and secure the switch network. The Pica8 Automation Framework and our switch simplification applications make open white box switches so easy to use they can be maintained by any SysAdmin and even deployed by people with no coding experience.

Pica8 offers a truly revolutionary approach to enterprise networking aimed at giving businesses the greatest flexibility and agility possible along with unmatched ease of use, simplicity, and cost efficiency.

So, if you're ready to step out from under the weight of a burdensome and aging legacy switch network, we're ready to help.



Organizations that have complicated campus networking needs want to be able to do new things with their switch architecture more often than every seven years, when they update the infrastructure. Solutions that aim to make the network more flexible and more adaptable without breaking things or making it less secure, those are what enable businesses to pursue new business opportunities more often, more easily, and more quickly. JOHN BURKE, CIO AND PRINCIPAL RESEARCH ANALYST, NEMERTES RESEARCH

Pica8, Inc.

1032 Elwell Court, Suite105, Palo Alto, CA. 94303 USA