

How Cisco IT Designed a Separate Network to Test Cisco Alpha Equipment

Special production-level network tests and validates product behavior in a safe environment.

BUSINESS BENEFITS

- Fewer bugs in products shipped to customers
- Less downtime due to poorly tested products
- Enhanced confidence in new products and technology
- Less need for testing by Cisco

“Never in my wildest dreams did I imagine that the engineering network was used for testing.”

– Kevin Smith, Cisco network operations manager for San Jose

At Cisco, reducing customer-found defects (CFDs) is a top priority and is an initiative mandated by CEO John Chambers.

Although formal testing methods can, and do, isolate many problems, Cisco has always understood that no amount of testing can compare to seeing device and software behavior in a large-scale working network.

Cisco product engineering methodologies require field trials with live traffic for preproduction products. But Cisco IT was not willing to put these alpha products on its production network; they needed a separate network—one with live traffic yet safely separated from the production network. The challenge was to create a network that could serve to test products in a real-world situations but without slowing down Cisco business operations should network products fail during routine testing and debugging.

To that end, Cisco’s Intelligent Network Systems Emerging Technologies (INSET) group designed the IT Alpha network to test new products in new configurations that change weekly. The IT organization created a barrier, distinguishing and protecting the Cisco production network from the IT Alpha network.

INSET’s results are invisible to Cisco customers: Better validation means better performance in enterprise and service provider networks; fewer customer problems, and far fewer technical assistance calls. It also often means fuller and richer features.

Today, INSET finds an average of 111 bugs every month, 333 a quarter. Bringing these bugs to the attention of product engineers, and getting them fixed before customers encounter them, is what the INSET team is all about.

One of the INSET team’s most important and valuable functions is finding bugs before the product ships. Bugs are expensive, and INSET’s work saves money and resources for both Cisco and its customers.

Product quality improves significantly with testing on a production-level network.

Case Study: http://www.cisco.com/web/about/ciscoitwork/case_studies/routing_dl6.html

FOR MORE INFORMATION

To read the entire case study or for additional Cisco IT case studies on a variety of business solutions, visit Cisco on Cisco: Inside Cisco IT www.cisco.com/go/ciscoit

NOTE

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