

Supercharging

availability, performance, and management

F5's Vice President of Product Management and Marketing, ERIK GIESA, sat down with F5 World's Editor in Chief Tracy Thompson to discuss what every business decision maker needs to know about data center virtualization.

Q What's driving the need for data center virtualization?

A We know that if business continuity is a key objective of an organization, it means that operations are up and running 24/7. Best practices suggest using geographic redundancy to establish multiple data centers or sites located in different geographic regions, each with replicated applications and data. Do you need to replicate everything? No, not necessarily, just those things that are deemed mission-critical. Some organizations will feel that the bulk of their applications and data are mission-critical, whereas others will have a smaller subset.

Q How do you implement geographic redundancy?

A You can implement geographic redundancy in a number of ways. You could choose to deploy multiple sites and use something like Veritas' (Symantec's) smart location or EMC's replication storage to duplicate applications and data, which is a significant investment. Today, most IT folks still build redundant sites



Virtualization lights the path toward smarter data centers.

The benefits of virtualization boil down to better operational efficiency, says F5's Erik Giesa.

as a backup and manually manage data replication and failover to the secondary site when needed. So they have their site sitting there inert as an insurance policy, but also as a nonperforming asset. By virtualizing data center resources at both sites, you can turn nonperforming assets (with the exception of a disaster) into an ongoing available asset that will function in a distributed scenario to achieve maximum reliability and performance regardless of location.

Q What do you have to consider to virtualize your data center?

A A key part of the answer to this question is the architecture itself. It starts with the application. Can this application be deployed in a manner that it can be

virtualized? Does it support clustering, or are there tools that help it support clustering so that each application instance recognizes state? If that's the case, that application is a great candidate for virtualization within the broader context of the application delivery network framework. Can the underlying applications be replicated in real time between redundant sites so that they can resolve requests at any site at any time, ensuring that the data is current? If you can't replicate the data in real time, there might still be an opportunity to virtualize redundant sites if the data being served doesn't require up-to-the-minute freshness. There are a lot of scenarios where that does make sense. What day-old data is acceptable? Ultimately, you have

Additional resources

Read the entire interview on Data Center Virtualization by visiting: www.f5.com/solutions/technology/pdfs/dc_virtualization_wp.pdf

iRule. Do you?

New iRules editing tool available for F5's growing DevCentral technical community.

to look at the underlying application infrastructure to determine what you can virtualize. The same is true for virtualizing connectivity and links.

Q What are the benefits of data center virtualization?

A From an architecture standpoint, there are so many benefits to virtualizing your resources that deliver applications. The savings are profound, such as better use of infrastructure, 99.999% availability, and simplified management—it really boils down to better operational efficiency.

With virtualization, there's efficiency in the underlying hardware requirements. In essence, you need less hardware or less expensive hardware to do the same work. You can get five times the performance for a third of the cost when you compare a midrange system to a modest server farm. If I can put 10 of those low-cost servers in a virtualized resource pool, I've got five to 10 times the power of the most powerful midrange system at a third of the cost. By virtualizing my servers, I not only realize a tremendous cost savings, but I have a much better architecture for availability and ongoing maintenance. If I need to bring one server down it doesn't impact the others, and I can gracefully add in and take out systems to support my underlying architecture.

For things like ongoing maintenance and management, there are significant efficiencies to be realized. For redundant active-active data centers that are managed by an intelligent DNS system, I can very easily bring down one data center for maintenance without affecting the other data centers or impacting users.

The benefits of virtualization really run the gamut—ongoing maintenance and management, reduction of hardware acquisition costs, and better architecture for availability, security, and performance. This is why virtualization is really becoming the standard for how you design your IT resources for the future.

And regardless of where you're starting out, F5 offers solutions that function as architectural building blocks to virtualize your resources. With F5, you can leverage the benefits of virtualization and keep your applications secure, fast, and available in the most operationally efficient manner. *

With more than 10,000 registered users, F5's popular DevCentral online technical community (<http://devcentral.f5.com>) offers several new tools and resources designed to enhance and accelerate productivity and innovation for customers using F5 products. Of special note is DevCentral's new iRules editor, an industry-first network rule editor that accelerates iRule development.

"Prior to DevCentral's launch nearly three years ago, there was no online community or forum where application architects and networking and security professionals could share practical, real-world information for building solutions that enable applications to work in concert with the underlying network," says Jeff Browning, F5's director of product management, integration tools. "We're excited to enhance the tools we provide and expand the ways that people can utilize these resources."

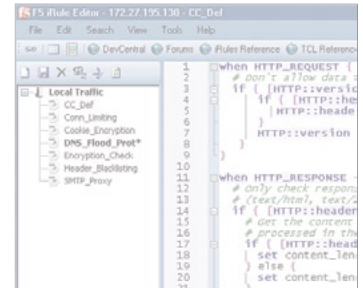
Industry-first network rule editor accelerates F5 iRule development

F5's iRules offer a new approach to optimizing how the underlying network accommodates the needs of enterprise applications and protocols. F5 customers, for example, use iRules to overcome application development obstacles, allowing the network to be a more active and dynamic participant in the successful delivery of applications. With the new iRule editor, developers can create and deploy iRules faster with editorial functionality, drawing on

such features as:

- ▶ Highlighted iRule commands and events
- ▶ Auto-complete functionality
- ▶ Template support integrated with DevCentral Codeshare for rapid development and point-and-click sharing with the DevCentral community
- ▶ Pre-deployment syntax checking for reduced errors and faster troubleshooting
- ▶ Integrated iRule deployment and performance optimization utilities
- ▶ Online support via DevCentral

"The new iRules editor speeds development of iRules with templates that guide the development of custom commands ... hyperlinked commands for fast access to documentation, the ability



to share useful iRules with other community members through DevCentral CodeShare, and synchronization for importing or exporting iRules commands," says Paula Musich of eWeek magazine. "The iRules editor can also be used to facilitate collaboration among F5 customers who share expertise in vertical markets, encouraging innovation in the community of F5 users."

New iRule editor available for download

Designed to make it even easier to develop iRules, this freely downloadable application provides features and functionality for any customer. *

Additional resources

The new iRule editor is available for free download at DevCentral. Here are some useful links:

Editor Overview, Download, and Tutorials: <http://devcentral.f5.com/Default.aspx?tabid=85> (DevCentral membership required for download)

iRule Editor Video Overview: <http://media.devcentral.f5.com/dcmmedia/20060605-iRuleEditor.wmv>