

by Zeus Kerravala, Enterprise Research Senior Vice President, [zkerravala@yankeegroup.com](mailto:zkerravala@yankeegroup.com), 617-598-7235

# F5's Application Ready Network Strategy Solves Application Woes



<b>The Bottom Line:</b>	The network plays a significant role in application performance, but deploying all of the application network components can be difficult. F5's Application Ready Network strategy is a prescriptive methodology for deploying an application network technology.
<b>Key Concepts:</b>	Load balancing, WAN optimization, application networking
<b>Who Should Read:</b>	CIO, CTO, operations manager, network manager, data center manager

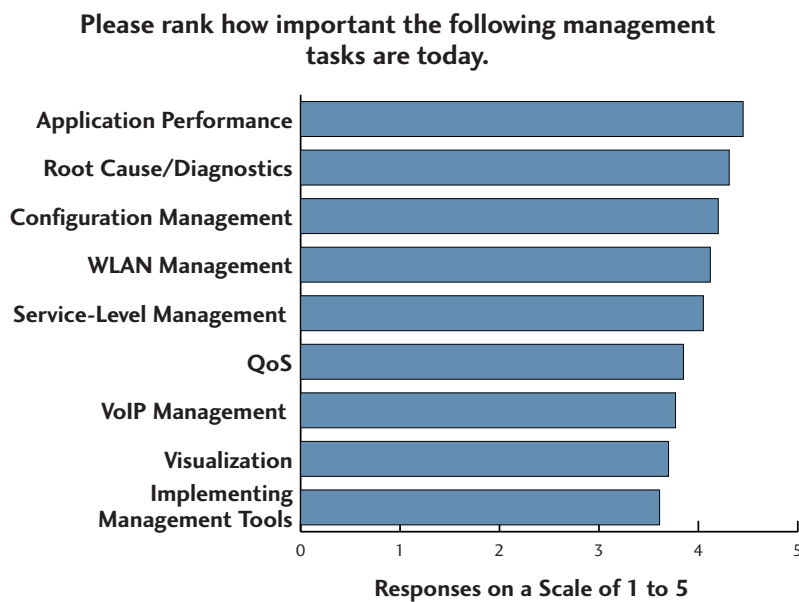
Practice Leader: Eileen Eastman, Chief Research Officer, [eeastman@yankeegroup.com](mailto:eeastman@yankeegroup.com), 617-598-7281

## Applications Have Moved to the Network

Enterprise applications have continued to become more network-centric during the past decade, causing a company's application infrastructure to be located almost anywhere. Years ago, the majority of the infrastructure needed to deliver applications was located in one main data center. Today, most organizations of any significant size could have application data, server functionality, storage and other infrastructure components spread across the company. Also, the majority of users today are located in branch offices or other remote locations, making delivering applications a network function as well.

This trend toward more network-dependent applications has wreaked havoc on network engineers as they have been expected to provide a solution to a problem that's caused by the interplay between the applications and the network. Exhibit 1 shows that today's network manager views application performance as his or her top priority.

**Exhibit 1.**  
**Network Managers Cite Application Performance as Top Concern**



Note: 1 = Low Priority and 5 = High Priority

Source: Yankee Group 2007 Application Management Survey

The magnitude of this problem is not small. The following highlights from our research demonstrate just part of the problem:

- Eighty percent of budgets are used to maintain the status quo—meaning a mere 20% of the budget is used for innovation.
- Approximately 75% of application downtime and 31% of network downtime is caused by human errors. Many of these self-inflicted errors are caused by network managers making real-time changes to tweak the network for specific application environments, causing other problems.
- Ninety percent of IT projects are delivered late or cancelled.
- Users report that, on average, productivity is decreased by 14% due to poor application performance.

## Trend Impact

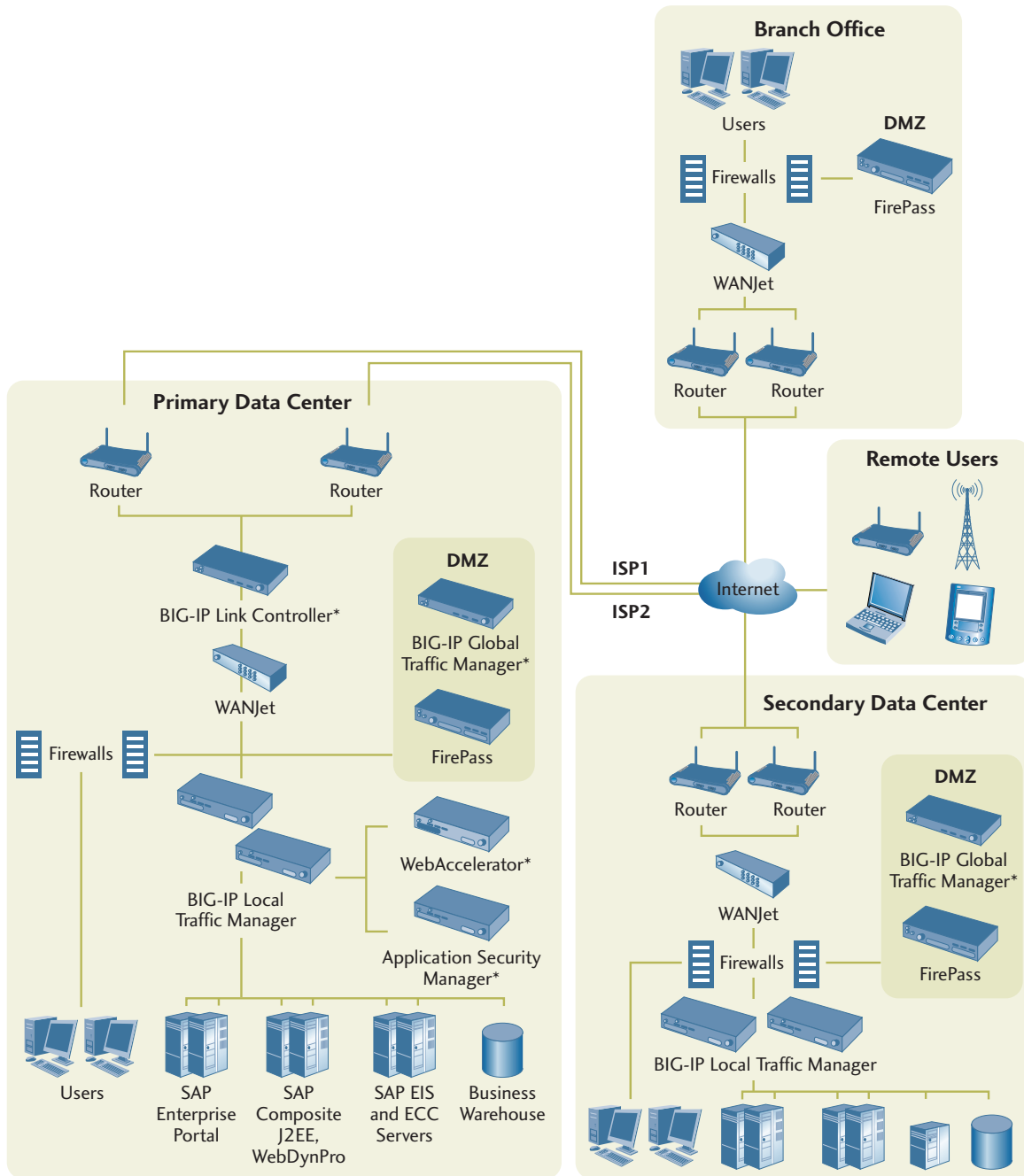
Yankee Group's Anywhere Enterprise™ vision is built on the foundation that any application can be delivered to any device on any network. As this vision becomes reality, the dependency on the network will only become even greater, putting even more burden on network managers. The dependency and interplay between applications and networks have given rise to several point product solutions that each promise to solve part of the application performance problem, but not all of it.

Recently, F5 Networks became the first vendor to outline a comprehensive application networking strategy that ranges from the data center to the branch. The solution addresses the various points in the network where application network technology can exist. The Application Ready Network (ARN) is designed to help network and IT managers understand the specific points in the network where application performance problems and security threats can occur. F5's ARN is a holistic network architecture built on a set of application-specific policies designed to secure and optimize applications. The ARN bridges the gap between the network and applications, and optimizes performance for a wide variety of applications as well as reduces the overall time to deploy the application. The ARN also incorporates a wide variety of technologies including load balancing, security, WAN optimization and other forms of traffic management.

Citrix and Cisco are the only two other vendors with a product portfolio broad enough to develop a competing application-specific strategy; but to date, neither vendor has done so. We expect in the next 12 to 24 months to see similar prescriptive offerings from both Cisco and Citrix, and perhaps a best-of-breed vendor that builds a similar strategy through partnerships.

Exhibit 2 shows an ARN for an SAP environment. In this case, the network or IT manager would know specifically what to deploy and how to configure those products in an SAP environment, taking much of the guesswork out of the deployment.

**Exhibit 2.**  
**An F5 Application Ready Network for SAP**



\*Available as a module on the BIG-IP LTM system

Source: F5 Networks and Yankee Group

Historically, application network technologies have been sold as point products by best-of-breed vendors and were designed to solve a very specific application problem. Some products could take months to be adapted to specific application environments and did not always interoperate with other point product vendors, causing further problems. Additionally, when another technology was introduced into the environment, it could cause a problem by “breaking” the solution that was already in place.

By using an ARN, the deploying organization will realize several benefits including:

- More efficient use of bandwidth (In some cases, customers have reported a greater than 60% improvement in network utilization.)
- Increased availability of applications
- Up to a 30% improvement in application deployment times
- Order of magnitude improvement of applications such as SAP and Exchange
- Reduced troubleshooting times
- A 10% improvement in worker productivity

## Bottom Line

The net result of architectures such as F5's ARN is higher application uptime with less administrative overhead and faster deployment times. This can help remove much of the strain on IT departments today and lead directly to productivity improvements by corporate workers.

## Recommendations for F5

For F5 to strengthen its ARN, we recommend the following:

- **Continue the acquisition or development of new products that address other points in the network.** As the data center continues its march toward becoming fully virtual, various new technologies will be needed to optimize the performance of those virtual devices.
- **Broaden the ARN to include enterprise mobility.** According to the Yankee Group *Anywhere Enterprise—Large: 2008 US Mobile Professional Blended Lifestyle Survey*, there are currently 55 million mobile workers in the United States (defined as those who spend more than 20% of their time out of the office). These workers also use a variety of different devices ranging from laptops to smart phones. Therefore, securing and optimizing mobile endpoints will become increasingly more difficult for IT departments.
- **Make the ARN an industry initiative, not just an F5 one.** Application performance is not just an application problem nor is it a network problem. F5 makes network equipment that improves the performance of applications, but ISVs need to keep the network in mind when designing applications. Expanding the scope of the ARN to include ISVs could greatly improve the performance of future applications.

## Recommendations for Enterprises

For companies currently in the process of evaluating application infrastructure, we recommend the following:

- **Look for solutions that are end to end.** Many of the point products are great, but it's important to understand that application performance can be improved in many different locations. Products should include LAN-, WAN- and data center-oriented products as well as security technology.
- **Understand the vendor's level of application relevancy.** Application performance is not just a network problem. Challenge the vendor to understand exactly how the solution optimizes the performance of specific applications such as SAP, Exchange, SharePoint and Oracle. If the vendor cannot demonstrate this to you, the burden of optimization for specific environments will fall on you.
- **Put the vendors in a bake off.** Because most of the point products provide some application performance improvement, many customers purchase products after testing only a single vendor. Bring in multiple vendors and test them for both breadth and performance. Additionally, ask for proof points from the vendors and make them prove the performance numbers that they claim. Many vendors claim performance numbers that are not accurate in live production environments.