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Ken Desforges, IS Director, City of Diamond Bar, California

City of Diamond Bar Gives Its Vendors Secure, Reliable Access to Applications with F5 FirePass SSL VPN

The City of Diamond Bar, a young, southern California city of 60,000 residents, provides a host of online services. Residents can buy transit passes online, for example, while businesses can access Geographical Information System and licensing services. As many small cities do, the City of Diamond Bar contracts out for most of its applications and services. This means IT works with dozens of vendors for support. It faces two big challenges: provide secure, reliable remote access for vendors and the city personnel who manage them, and ensure that constituents can tap into the City of Diamond Bar’s e-government applications as needed. Using F5 solutions, the city has met its security, reliability, and availability objectives across the board while simultaneously cutting costs and improving support services.

Business Challenges

As the City of Diamond Bar built up its support processes over the years, it enabled vendors to dial into the city’s IPsec-based VPN and remotely access the servers housing their applications. It also gave remote access privileges to city managers responsible for overseeing the vendors. But the IPsec VPN solution had its weak spots. Shortcomings included the inability to check user machines for viruses, worms, or other malicious code before granting access to the city’s network, and the impossibility of ensuring a vendor couldn’t hop from its server to any other in the infrastructure.

Separately, as the City of Diamond Bar established its e-government presence, it also wanted to guarantee that constituents could reach the city website whenever they wanted. To do that, the city wanted to create redundant paths to the Internet.

Solution

The city first addressed its security risk. SSL VPN technology, just emerging at the time, seemed a viable alternative to IPsec-based VPNs, says Ken Desforges, IS Director for the City of Diamond Bar. As the city scoped out

Overview

Industry

Local government

Challenges

- Provide more secure remote access for vendor partners and employees
- Improve availability of e-government services

Solution

- FirePass SSL VPN
- BIG-IP Link Controller

Benefits

- Reduced security risks
- Improved vendor support processes
- Lower telephone fees
- Better service delivery

that potential, it selected competitive products from F5, Avenail (now part of SonicWall), Juniper Networks, and Whale Communications (since acquired by Microsoft) to test. After conducting a thorough evaluation of the four products, the city determined that only the F5 FirePass® SSL VPN solution passed its muster. “We ran the devices through real-world tests, and FirePass was the clear winner,” he says.

FirePass offered what no competitor at the time could: the ability to support Unix terminal emulation services for one of the city’s finance systems. “F5 was the only vendor that offered that functionality, and that was the deciding factor,” Desforges says.

The city now uses FirePass to provide secure remote access to 45 major vendors and more than 50 city employees. The product has performed so flawlessly, the maintenance and update process has gone so seamlessly, and customer support has worked so smoothly that turning to F5 for its Internet connectivity load balancing was a natural, Desforges says.

For the past year, the city has been using F5 BIG-IP® Link Controller™ to balance traffic to its website across two circuits—one from the local phone company and the other from a cable provider—simultaneously. In addition, a second BIG-IP Link Controller provides failover.

Benefits

With F5 products, the City of Diamond Bar has improved its security posture and built a stable and dynamic e-government presence while lowering its costs and enabling better service and support from its vendors.

Reduced security risk

Since implementing FirePass SSL VPN, the City of Diamond Bar has not encountered any security problems, Desforges says. “I can’t say it’s entirely one product’s success story, but FirePass certainly has helped,” he adds. “The remote access control provided by FirePass SSL VPN is a key shield in our defense.”

To gain access, support teams fire up their web browsers, connect to FirePass, and enter their credentials. Before granting access, FirePass

“Overall, I’d give FirePass SSL VPN an A+ and BIG-IP Link Controller an A, and in my world, that’s pretty darn good.”

verifies that the user machines are patched, protected, and compliant with city policy. Once FirePass authorizes the connections, icons for the appropriate servers appear and terminal services connections to the vendor servers initiate. The support staff gets local administrative privileges on that machine and no other; they do not have domain access authority, explains Isaac Aziz, Network Engineer for the City of Diamond Bar.

The process for remote employee connectivity is similar. “They can access the SSL VPN from their homes, offices, hotels—from wherever they have the need—and get directly to the full network or just to their particular workstation as needed,” Aziz explains.

With FirePass has come peace of mind, Desforges adds.

“If you’re worried about security, you get exceptional benefit if you can provide external, non-trusted entities network access in a safe and secure way, granularly, and only provide them access to what they absolutely need. FirePass allows us to do that very cleanly,” he says.

Improved relationships with support vendors

By replacing slow dial-up modem lines with high-speed Internet connections, the city has given its application support vendors the ability to access their servers much faster and more easily at a lower cost to the city. By eliminating the dial-up analog lines, the city is saving up to \$1,500 per month in telephone fees, Desforges says.

As vendors work on large-scale projects, knowing they have secure, hassle-free

access to the city’s resources as needed has been a boon for them. No more failed connections—resulting in serious time savings and productivity gains on major upgrades or implementations that require access for hours at a time each day, Desforges says. He cites one recent project, for example, that entailed continual access as the vendor implemented and worked the kinks out of 453 functional requirements in a new integrated community development system.

“One of the biggest impacts of FirePass SSL VPN is that it’s a solid, reliable, stable platform. We have not had a single complaint from any of the vendors about using the solution—it being difficult or it forcing them to do things that are outside of their scope or policy—so that has been good for us,” Desforges says.

Better e-government service

Meanwhile, being able to balance traffic loads across multiple Internet paths has dramatically increased availability of the city’s website, from which the City of Diamond Bar provides an array of services. As part of its e-government initiative, the city provides its business constituents access to business license applications, zoning permits, Geographical Information Systems data, and other information companies need for operating in the City of Diamond Bar. At the same time, residents can check on construction updates, sign up to receive emergency alerts, or order transit passes, for example.

As a measure of customer service, IT uses an external service that constantly pings the city’s web servers. “If the city website is down for more than 15 minutes, I want to know about it,” says Desforges, adding that the service pages him if the site is unreachable for more than a quarter of an hour.

Prior to installing BIG-IP Link Controller, Desforges says he was paged four to six times per month. Now, his pager remains silent. “I haven’t gotten a single call in the last year,” he says. “By balancing loads across redundant circuits, we have dramatically improved website availability.”

Ultimately, as the traffic volume grows and the city's support needs change, Desforges says he can envision F5 BIG-IP® Local Traffic Manager™ (LTM) playing a role within the city network as well.

"We have a number of intelligent traffic signals being added to the city and we're adding irrigation controller technology, all of which rides on IP and will talk to the network. As more and more of these types of appliances get added by the city, there'll be a constant tug of war for traffic and bandwidth prioritization," he explains.

When it comes to that, the BIG-IP LTM will stand in good stead. "Overall," Desforges says, "I'd give FirePass SSL VPN an A+ and BIG-IP Link Controller an A, and in my world, that's pretty darn good."

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