

BIG-IP Link Controller®

F5's Sales Brief – 24 x7 Fault-tolerant and Optimized ISP Connectivity

The BIG-IP Link Controller seamlessly monitors availability and performance of WAN ISP connections to intelligently manage bi-directional traffic flows to a site, providing fault tolerant and optimized Internet access.

Business Benefits

- Eliminates cost of downtime due to ISP outages
- Boosts bandwidth savings and lowers ISP bills
- Intelligent traffic routing for optimum link performance
- Eliminates BGP multi-homing barriers

Link Controller 1500 Platform



Top Challenges

Business Challenge	Technical Challenge	F5 Solution
Guarantee 24 x 7 fault-tolerant connectivity	Link health monitoring Link failover using BGP ISP peered connection	Composite monitors for intelligent health monitoring Seamless and instantaneous failover to back up link
Guarantee service levels for mission-critical applications	Bandwidth oversubscription Bandwidth contention	Rate Shaping eliminates application contention Compression boosts available bandwidth
Optimize content routing for faster Internet service and a better user experience	Map link usage to business policies, geography, and/or user identity Link underutilization over long distances Reduced link throughput	Directs traffic over the least expensive link Programmatic control of link routing via iRules Topology-based routing maps link usage to geography and user location Optimized TCP/IP stack eliminates TCP/IP inefficiencies over the link
Upgrade to next generation networks	Translation between IPv6 and IPv4 networks	IPv6 gateway eliminates forklift upgrades and provides an easier migration path from IPv4 to IPv6

Target Markets

Target markets include **small to medium enterprises** that have mission-critical applications and need a cost-effective way of providing highly available and optimized ISP connectivity to their employees, partners, and customers.

Available Products

The BIG-IP Link Controller is available on the 1500 platform, and as an add-on module for integration with these BIG-IP platforms: 520*, 540*, 1000*, 2400*, 5100, 5110, 1500, 3400, 6400, and 6800.

***These platforms need hardware upgrades to run BIG-IP Global Traffic Manager. Please contact your F5 representative for details**

More Information

BIG-IP Link Controller product add-on modules: <http://www.f5.com/products/bigip/modules/index.html>

BIG-IP Link Controller white paper: <http://www.f5.com/products/bigip/modules/index.html>

Feature/Benefits

Top Features	Benefits	Business Impact
Reliable ISP connectivity	Guarantees 24 x 7 fault-tolerant ISP connectivity to applications	Eliminate cost of downtime No loss of productivity
Intelligent load balancing	Ensures traffic is directed over the best possible link and ISP, maintaining the highest quality of service and speed for users	Minimize bandwidth investments Maximize bandwidth usage
Health monitoring	Composite monitors detect critical ISP outages and intelligently routes traffic	Reduce TCO since no IT intervention is required Reduce management overhead
Link optimization	Rate Shaping prioritizes link bandwidth for critical applications Compression maximizes available link bandwidth	No additional bandwidth spending Reduce capital expenditures
Advanced link management	Topology-based routing provides independence from ISP peering disputes iRules helps define policies based on application type, client identity etc to distribute traffic over links that have the best performance	Reduce management overhead by eliminating ISP dependencies Improve operational efficiency and flexibility

Customer Example

Problem

A large ecommerce business' web portal application was hogging all the bandwidth. In the event of a primary link failure, the web portal application would consume all the bandwidth on their back up link, starving their email application. About 70% of their business was done via email, so this was causing lost orders and consequently, a big loss in revenue. They considered adding more bandwidth, but realized that the more bandwidth they had, the more bandwidth their web application was going to use.



F5 Solution

Using the BIG-IP Link Controller, they were able to solve this problem by ensuring that the web application didn't use all the bandwidth on the back up link. With the combination of **Rate Shaping and iRules**, they were able to create a custom policy that guaranteed a sustained amount of bandwidth to their email application. There were no more lost orders, which increased their profitability and spared them the cost of adding more bandwidth.

Top Competitors	Radware, Foundry	
F5 Advantage	<ul style="list-style-type: none"> • Composite health monitors • Unlimited load balancing modes • IPv6 gateway • Intelligent SNAT • iRules for programmatic control • Rate Shaping to reserve bandwidth • Compression to optimize bandwidth 	<ul style="list-style-type: none"> • Topology-based routing that matches business policies • Optimized TCP/IP stack • TMOS architecture

Discovery Questions

- Have you considered multiple ISPs for high availability?
- Is your ISP meeting your bandwidth and reliability guarantees for Service Level Agreements?
- Are some of your mission-critical applications getting starved out of bandwidth?
- Are you considering adding extra ISP lines or bandwidth to solve performance problems?
- Is your business losing money from ISP downtime?
- Are you considering BGP as a multi-homing option?