



# Peer Director

Internet Route Traffic Management

Radware's Peer Director was designed to control, manage and optimize Internet Routing. Peer Director enables service providers and large enterprises to control their Internet routing by enforcing policies on traffic redirection across the various Internet links. Administration and Internet connectivity costs are reduced, Internet performance is improved and administrators are empowered with better control of their connectivity links.

## Internet Route Traffic Management

### The Need

Border Gateway Protocol (BGP) is the de-facto standard protocol used today by most large companies with multiple ISP links to route traffic across their network. BGP is intended to route traffic and advise on availability, yet does not take into account performance metrics and loads. Since traffic patterns are constantly changing, BGP is unable to optimize links and efficiently use bandwidth resources. This results in low Internet performance and unpredictable responses.

Today with BGP, there is no visibility or control on ISP performance. There is no way to overcome traffic loads and bursts to ensure performance, and no tool is available to optimize backbone performance. The demand for high availability and link optimization in a multi-homed environment is growing at a tremendous pace. The solution for ISPs and large enterprises to provide cost efficient and improved Internet service is Peer Director.

### Cost Effective Bandwidth Usage

Typically, ISPs and enterprises must estimate and purchase the needed bandwidth to accommodate peak traffic. This is often inefficient and expensive. In addition, there is no way to control and enforce business policies on traffic forwarding. Peer Director saves bandwidth costs by efficiently managing bandwidth usage. This process is achieved by taking the costs of the links into account, as well as the internal policies, while redirecting traffic. Whenever Peer Director detects that one of the links has reached its capacity as defined by the administrator, Peer Director uses a smart algorithm to redistribute the IP traffic more evenly among the links. Users can also configure Peer Director to favor certain ISPs or to favor cheaper bandwidth. Peer Director is the first tool available on the market to provide users with complete control and visibility of the bandwidth used on ISP links.





### Improved Performance

Peer Director introduces new traffic management capabilities in peering environments by monitoring in real-time inbound and outbound traffic load on each available ISP link. Peer Director utilizes Radware's proven proximity algorithms to efficiently and dynamically calculate the best link for each destination. This dynamic calculation optimizes all available links and provides the best available service for outgoing traffic. Based on these statistics and coupled with user-defined policies, Peer Director dynamically redistributes traffic loads between the multiple ISP links by automatically setting the BGP routing parameters on the managed routers. Alternatively, Peer Director can be configured to a semi-automatic mode, whereby the device finds the optimal path and recommends this to the network administrator. End users benefit from improved IP traffic performance by receiving the maximum performance from each link. With Peer Director, enterprises and ISPs enjoy network stability and high availability, providing end-users with the fastest service to their destination.

### Reduced IT Overhead

Until now, network administrators had to manually monitor the traffic load on each Internet link, continuously changing configurations to their BGP routing. This manual operation requires specific BGP expertise and is extremely time consuming. In addition, since the manual updates cannot be performed around the clock and are not based on the full statistical behavior of the links, the results are far from optimal. Peer Director completely removes the need for administrators to manually configure and redirect IP traffic, while still allowing them to define the policies for their connectivity links.

### Ease of Integration

Radware's Peer Director can be deployed either in an in-line or out-of-path network design, non-intrusively maximizing flexibility. In an in-line configuration, Peer Director is connected between the internal network and the local routers. The device optimizes the BGP configuration of the routers and provides full control of their inbound and outbound traffic.

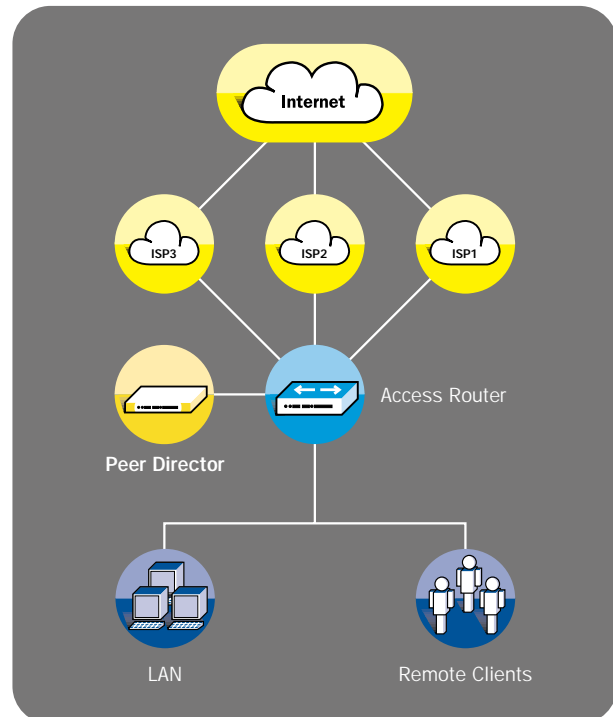
In the out-of-path network design the device does not stand in the path of traffic, but rather outside it, thereby avoiding traffic bottlenecks. Peer Director then configures the BGP of the routers, controlling the load balancing between the links for inbound traffic.

### Control and Measurement of Internet Performance

The statistics reports and graphs generated in both the automatic and semi-automatic mode enables customers to view and control their link performance. Using the data from these reports, every service provider's performance can be evaluated. This is another way in which Peer Director reduces costs, as organizations can match their business goals and Service Level Agreements to the quality of Internet service received - based on Peer Director reports on ISP performance.

### Feature Rich Management Tools

Peer Director is supported and managed by a variety of management platforms including: command line interface, Telnet, Web Based Management support that enables users to configure the device via any standard browser, secure management with Secure Socket Shell (SSH) and Configware - Radware's management software tool.



# Product Specifications



## Peer Director • Internet Route Traffic Management

RISC Processor	MPC 7410 500 MHz (Power PC)
Non-blocking Backplane speed	19.2 Gbps
10/100 ports	16
Gigabit Ethernet slots (GBIC)	5/7
L2 Switching	Wire Speed
RAM	128 MB
VLANs	64
Next Hop Router	10
IP Routing Interfaces	2,000
Routing table entries	32,000
Simultaneous Clients	1,000,000
Simultaneous Sessions	Unlimited
Routing Protocols	OSPF, RIP, RIP II

### Network Management

Configware (SNMP based GUI)  
Web based management  
HP OpenView for Sun Solaris  
SSH  
Command Line Interface  
Telnet

### Standards

10Base-T/100Base-T (IEEE 802.3, 802.3u), 1000Base-SX (IEEE 802.3z), SNMP (1213 MIB-II, 1643 Ethernet, 1493 Bridge), IP, OSPF, RIPv1, RIPv2, TFTP, BootP, Telnet

### 1000Base-SX Ports

Full-duplex Gigabit Ethernet SC fiber connectors

### 1000Base-SX Operating Distance

Shortwave (850 nm) 62.5 micron MM fiber .2 to 275 meters  
50 micron MM fiber .2 to 550 meters

### 10Base-T/100Base-T Ports

10/100 full or half-duplex (auto-negotiation) with RJ-45 connections for UTP ports

### RS-232C Console

DB-9 serial connection, female DCE interface for out-of-band management

### Dimensions

Width: 432mm  
Depth: 475mm  
Height: 44mm (Standard 19. EIA rack or standalone)  
Weight: 3.5 kg

### Environmental

Operating Temperature: 0-40°C  
Humidity (non-condensing) 5% to 95%

### Power

Auto-range supply: 100-250V 50-60Hz

### Certifications

CE, UL, CUL, FCC, VCCI

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