# Fuzion Broadband Aggregation Router DIR-605



### **Cloud Management**

- Centrally manage your Broadband access anywhere through a secure Internet portal
- Live and historical reporting: network and user status, logs, usage graphs
- Cloud portal automatically monitors traffic and status to make flow enhancements for load balancing
- Cloud portal can detect Broadband provider problems and failover to other functioning Broadband connections

### **Broadband Aggregation**

- Aggregate bandwidth of multiple Broadband Internet connections for faster download and upload speeds and capacity
- Single or Multiple ISP providers and broadband types: DSL modem, cable modem, fiber-based Broadband services, even T1

# DIR-605 Fuzion™ Broadband Aggregation Router

### Overview

The D-Link® DIR-605 Fuzion™ Broadband Aggregation Router and Service provide small and medium businesses with Cloud-managed Broadband aggregation bringing increased and scalable Internet capacity as well as failover protection at a lower cost of ownership than T1 service. Both downstream and upstream capacities aggregate.

Multiple low-cost Broadband lines are effectively pooled to function as a single, faster, and more reliable Internet connection. Multiple Broadband service types (DSL, Cable, etc) can be mixed to enhance reliability of Internet connectivity. This provides businesses with flexible options to accommodate Internet services that are available at the business location. This flexibility makes it ideal for most any installations, including main or remote branches and even SOHO work-at-home offices.

As businesses outgrow their Internet bandwidth a common upgrade consideration is T1 service. But the jump in total costs to install and operate T1 is beyond the budgets of many small and medium businesses. The Fuzion Broadband Aggregation Router and service provides an affordable alternative that is easy to manage through a centrally accessible portal.

### Easy Setup

The Fuzion Broadband Aggregation Router and Service are simple to set up using a web browser and Internet connection to connect to a secure Internet portal. An online setup wizard leads the administrator through the process.

### Administer Anywhere

The Fuzion Broadband aggregation portal gives users the power to administer their Fuzion routers from anywhere. Access is as simple as opening a web browser and logging into your online account at fuzion.dlink.com. Make security changes, add and remove individual network users, view graphical reports and much more – all from your office or while on the road. You can receive alerts via email or HTTP.

### Secure Access

All traffic exchanged with the Fuzion portal is securely encrypted. Wireless LAN access is secured by WPA/WPA2.

### Reduce Cost of Ownership

The Fuzion Broadband Aggregation Router provides everything an administrator needs to remotely manage your Broadband aggregation service at local or remote locations, reducing the hassle of maintaining costly on-site IT support.

### **End User Benefits**

### Reliable, flexible, fast, low-cost connectivity

Businesses currently relying on a single Internet connection risk losing all connectivity if they experience a network outage. By aggregating low-cost Broadband connections using different connection types and from different providers, Fuzion can quickly and easily provide faster bi-directional connectivity and increased up-time.





# Internet Connectivity for Business Class Environments

- Increase speed using cost effective and accessible Broadband connections
- Increase performance and reliability with multi-WAN load balancing and failover
- Scalable to meet growing bandwidth requirements
- Great alternative to T1 with lower TCO and failover benefits
- Centrally accessible statistics and graphical reports

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The level of reliability can be further increased by adding different connection types from different network providers since it is unlikely that all connections will fail at the same time. Fuzion intelligently monitors status of each line and quickly adjusts routing to the available lines if a service provider's line should become unavailable. The only impact to Fuzion customers in the case of a line outage is slower speed until the line is actively restored.

This faster, more resilient connection enables customers to deploy new applications with confidence such as VoIP, off-site data backup, video conferencing and hosted applications.

#### How It Works

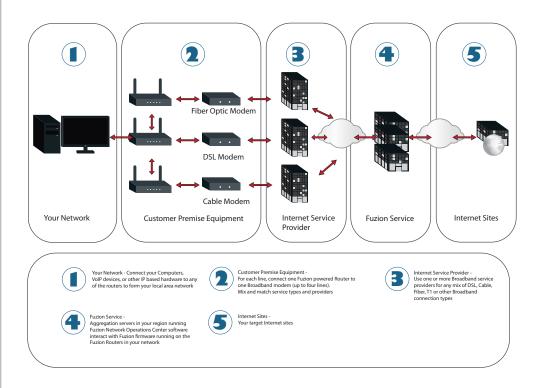
The customer's ISP will supply appropriate modems for each line. Fuzion routers are installed (one per line/modem) and collaborate to pool their capacity. All traffic is relayed to a Fuzion aggregation server which recombines the traffic and sends to the Internet.

Fuzion routers at the customer's office are interconnected via Ethernet and divide traffic among the available lines. Devices on a customer's LAN use a Fuzion Virtual Router Address (VRA) as the default gateway and DNS. An available Fuzion router will take ownership of the VRA and should it fail, one of the other routers will quickly take over. Thus, existing sessions will remain unaffected, except for a period of

a few seconds while the service is recalibrated. Fuzion also includes a distributed DHCP server, which will automatically configure compatible host machines for network access. The DHCP server runs on the VRA router and replicates any changes to the other routers, which may be utilized to take over in the case of a VRA router failure.

### **Service Considerations**

Fuzion works with almost any ISP. Performance depends upon the connectivity between the Fuzion servers and other ISPs. Connectivity between the ISPS's involved is important as it will determine end-user performance. However, in general it is expected that any existing broadband lines can be aggregated with satisfactory results and when dealing with widely disparate speeds and latencies, Fuzion has a real-time packet resequencing capability that puts downstream packets that arrive out of order back into the original sequence.





# Fuzion Managed Aggregation Router and Service Specifications

## Versatile Broadband Compatibility

- 2, 3 or 4 Broadband lines (DSL, Cable, FIOS, T1) up to 20 Mbps of aggregated speed
- 3G / 4G and other Wireless connections recommended to be aggregated in placed in failover mode, to provide transparent resilience. Due to inherent speed and latency fluctuations of each cellular data networks, we do not recommend using Fuzion for bonding multiple wireless connections
- Installation Wizard takes new customers through a graphical step by step user interface helping them set up the routers correctly, ensures values are set to reasonable defaults and allows any application / port forwardings to be set up
- Application Agnostic
  - Supports common protocols: UDP, TCP, ICMP and PPTP over GRE
  - Install guides available for VPNs Watchguard, Checkpoint, Juniper, Draytek, Sonicwall, Cisco

### **Protocol Forwarding Support**

• Customers may set-up port forwarding when hosting web servers, mail servers etc. Alternatively, certain protocols (PPTP/GRE/IPSec) can be forwarded to specific devices, making the installation simple for end-users and at the same time conserves valuable IP addresses

# Real-time balancing and packet resequencing

- Fuzion automatically performs checks on the speed of the broadband connections and adaptively adjusts how much traffic goes down each line
- · Automatic packet resequencing on the downstream

### **Customer Alerts**

• Fuzion allows Customers to define the Alerts they receive when certain events happen (for example when a router goes down). Customers may choose to receive an email or generate a HTTP post to be pro-actively notified of an event.

Interface		
Ethernet	• 1 x 10/100 Mbps WAN Ports • 4 x 10/100 Mbps LAN Ports	•802.3, 802.3u
Wireless	• 802.11n 300 Mbps (2.4GHz Band) <sup>2</sup>	Backward compatible with 802.11 b/g
Security		
Portal Security	• HTTPS	
Wireless Security	<ul> <li>Wi-Fi Protect Setup (WPS)</li> <li>Wi-Fi Protected Access – Personal (WPA-PSK)</li> <li>Wi-Fi Protected Access – Enterprise (WPA-EAP)</li> </ul>	<ul> <li>Wi-Fi Protected Access version 2 – Personal (WPA-PSK)</li> <li>Wi-Fi Protected Access version 2 – Enterprise (WPA-EAP)</li> <li>Wired Equivalent Privacy (WEP)</li> </ul>
Firewall	Network Address Translation (NAT)     Fuzion Packet Security	<ul><li>Port Address Translation (PAT)</li><li>No NAT (routed blocks)</li></ul>
System Features		
Features	Static/ Dynamic IP     PPPoE/ L2TP/ PPTP	• NAT/PAT
Networking	• DHCP Server/ Client	
System Management		
Web-based Configuration User Interface	• HTTP	
LEDs	Power     WLAN (Wireless Connection)	• LAN (10/100) • Internet Status



# Fuzion Broadband Aggregation Router DIR-605

ysical & Environment		
FCC	• Class B	
Dimensions (D x W x H)	•7.8" x 5" x 1.2" (198.1mm x 127mm x 30.5mm)	
Weight	+ 0.6 lbs (272.2 grams)	
Power Supply	• External Power Supply Unit DC5V/1.2A	
rranty and Service Information	on	
Warranty	• 1-Year Limited	
dering Information		
<u>Part Number</u>	<u>Description</u>	
DIR-605	• DIR-605 Fuzion Aggregation Router	
DS-830	• 1 Year D-Link Fuzion Renewal Subscription for DIR-605	

For more information

**D-Link Systems** | 17595 Mt. Herrmann Street | Fountain Valley, CA 92708 | 800.326.1688 | dlink.com



<sup>1</sup> Year Limited Warranty available in USA and Canada only.
2 Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range. Wireless range and speed rates are D-Link RELATIVE performance measurements based on the wireless range and speed rates of a standard Wireless G product from D-Link. Maximum throughput based on D-Link Wireless N devices.

All references to speed are for comparison purposes only. Size and shape are subject to change without notice and actual product appearance may differe from that depicted herein. See inside package for warranty details.