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D-Link Dir-655 Router Review

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Test computers

File Server

OS: Vista Ultimate 64-bit
Computer: Desktop running AMD 4800+ x2, 2gb RAM
Test NIC: Onboard NVIDIA nForce wired gigabit, full duplex
HDD: 10k RPM U320 SCSI on Adaptec 39320 PCI controller
Test File: 5.91gb single file, which was a compressed backup

Test Computer 1

OS: Vista Ultimate 32-bit
Computer: HP dv9100 laptop, 2gb RAM, Core 2 Duo 7200 CPU
HDD: 7200 rpm SATA 1.5 onboard notebook drive
Test NICS: Onboard 802.11b/g Wi-Fi, full duplex
                Onboard wired gigabit, full duplex
                D-Link DWA-643 notebook ExpressCard, full duplex

Onboard Wi-Fi

Using the onboard wireless card, I was able to get up to 2.49 MB/sec after four minutes into the transfer.

Onboard 1gb wired NIC

Gigabit to gigabit wired connection got 33.5 MB/sec sustained throughput. It took about 2 ½ minutes to climb to this rate, but once there, maintained it.

D-Link DWA-643

Speed with 11n adapter was 8.62 MB/sec after four minutes, and was still climbing.

Test Computer 2

OS: Vista Ultimate 64-bit
Computer: Desktop running AMD 3800+ x2, 2gb RAM
HDD: 7200 rpm ATA
Test NIC: PCI Realtek RTL8139/810x 100Mbps, full duplex

Onboard 1gb wired NIC

Gigabit to 100Mbps wired maxed out at 8.0 MB/sec, with a sustained transfer rate around 7.8 MB/sec.

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Conclusions

Router Setup

Setup went well and was uneventful. Configuration was simple using IE7 and connecting with 192.168.0.1. I checked D-Link's site for updated firmware, and the test unit was current with v1.02.

Router Security

I was able to actually make the network "invisible" to anybody searching for wireless networks. In other words, you would have to know the network name to even _attempt_ to connect.

The wireless security mode I chose was "WPA-Personal", and the setting was "WPA2 Only". (WEP would not be an option I would consider for a business-class wireless network.) I expected setup to be more difficult than WEP, but was pleasantly surprised that it was just as easy. My onboard HP Wi-Fi NIC had no problems with the higher security level, which was a concern. In other words, you don't need to purchase D-Link's NICs to utilize this security protocol.

Connections

The wireless connections using 11g connection is satisfactory, outperforming other 11g routers. (The other test wireless router used was an Actiontech, and the best file transfer rate from the file server was 1.58 MB/sec using the onboard Wi-Fi of Test Computer 1.)

The wireless connection using the 11n D-Link notebook card was exceptional for wireless. In fact, it outperformed the wired 100Mbps sustained throughput rate. Definitely acceptable for normal medium sized file transfers and daily network activity.

The Wired gigabit to gigabit connection was simply outstanding, maintaining a steady 33.6 MB/sec. Compare this to my Linksys RVS4000 gigabit router, which tops out at around 15 MB/sec, and you begin to see just how good throughput is with this router.

I don't think the wired gb / gb throughput is at all necessary given the current and near future Avenue Dental Care needs. Even with the addition of picture file transfers, this throughput is more than enough.

In the event streaming video, multi-GB file transfers, etc. needs, you have the option of utilizing the wired gigabit capability of this router. Not really a bid deal since the capital cost is minimal…but still, it's nice to know you have the capability available.

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