

Myth-Busting: The Network Layer

Stuart Kendrick, *Allen Institute*

Chris Shaiman, *Watchguard*

Who should attend

Sys admins and network engineers involved in operating IT environments or trouble-shooting client/server problems. *Heads-up: we recommend that you perform [homework](#) prior to attending class.*

Description

Like every other nook in human culture, our industry has its share of urban legends. In this class, you split into teams, you pick an adventure, and you practice a methodology to measure what really happens. Then we come together as a class, each team reports its results, and we discuss what is surprising plus how the underlying technology actually works. By the end of the day, you've repeated this cycle several times, have experience employing the methodology, and are ready to apply these techniques back at the office. The methodology involves running one or more of (3) open-source scripts -- *cycle-iperf*, *cycle-wget*, *cycle-file-copy* -- used to measure network throughput. Web server throughput, and file server throughput respectively.

Chris and I deploy ~100K worth of gear to this class, to provide the laboratory in which you and your laptop get to play.

Exercises

- NIC Offloading: is more always better?
- Jumbo Frames: do they improve throughput?
- LACP: what is it good for?
- Crossing the WAN: do fatter pipes mean greater throughput?
- Packet loss is always bad ... right?
- VPN tunnels: increased encryption means lower throughput?
- Firewalls: do they slow us down?

Preview the [deck](#) to get a feel for how your day will look; do your [homework](#) a few weeks prior; come join us for hands-on, interactive, team-oriented, myth busting.

Course Requirements

You must bring your own laptop with the [Myth-Busting Toolkit](#) installed plus several Cat 5/6 cables. Optionally, you can bring a mini-switch (see the homework for details), which will enable you to perform the fancier labs.

Take back to work

Practice in sanity-checking technological claims, deeper understanding of common technologies.

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