

Crossing the Digital Divide (v93)

“All Queued Up”

By Joseph Feigon
For the Observer

The people are upset. Net Neutrality is gone. The media would have you believe consumer choice is history. Internet access will cost more, entertainment options will be filtered, personal privacy will completely vanish. Doom and gloom, time to get my library card renewed.

The future isn't nearly as bleak as some might think. Granted, there are markets where the end-user will find their Internet access slower, or their monthly bill tied to volume, as well as throughput. I'm often asked, why? Two issues, geography (market landscape) and vendor integrity.

Given most of my readers are living a rural life, where we suffer through both limited options of a very small pool of vendors, most of which are lacking something. Change comes slowly when subscriber density is measured in square miles instead of City blocks, however, the reality of decreasing costs is missing.

ISP's (Internet Service Providers) come in many shapes and sizes. In Mendocino County (not all markets, of course), we have the big, the small, and the ugly. An ISP is, for all intents and purposes, a network management company not unlike a business with multiple employees, each with computers, each with specific jobs, all working towards a common goal (sell, service, etc.). An ISP is basically a company of strangers, each subscriber providing their own devices, while relying on the ISP for network management, network security and network performance.

Not unlike businesses, an ISP purchases network services from a telecommunications carrier with access to the Internet (or the bigger ones with wholesale services create their own retail solutions). Smaller businesses, with few employees, will typically purchase Internet access from a regional ISP, or the branch of a nationwide ISP. Larger businesses purchase circuits from one of many carriers with access to the Internet backbone. In the decades I've been in this industry, the cost of high speed, high quality Internet access has gone DOWN, every single year. Most businesses secure these high speed circuits along with a two or three year contract. Any business that commits to more than a 3 year contract is wasting money – prices will go down, there's a lot of competition in the not-so-sexy business of “speeds and feeds”.

So, how does this translate to higher prices for retail Internet service connections? Simply: greed. The bigger companies prey on the unaware retail customer, bundling services (movies, music, phone service, etc.) and gouging where they can because they think they can. The smaller ISP's “over-subscribe” their client base, adding unnecessary bottlenecks to their network in the interest of profit taking. A good ISP *has* to manage their network usage, and needs to add capacity as they grow. A single Gigabit connection to the Internet can easily support 500+ households if properly managed. The same Gigabit backbone connection, cobbled together with poor network implementation, might barely support 200 users, most of whom will think their service subpar.

Any ISP that doesn't utilize intelligent queuing, network QoS (quality of service) and a fair-use policy is destined to fail (or will have an unhappy customer base). If anything, the repeal of Net Neutrality laws should be a call for action: QoS for all! Remember, with minor exception (local

calls to a local phone and cell phone service), everything digital travels the Internet. If an ISP is busy (peak hours, 5-10pm), you might wait 15 seconds for your movie to start, but you wouldn't tolerate the same wait on a phone call, or 911 call. Ask your ISP if they support VoIP, and how they apply QoS across their network. If they don't, or can't, or come up with a slew of buzzwords designed to confuse, find another provider.

Control those things you can, and keep the surprises to a minimum!