

Thin Links, Part Two

By Hunter Newby



Last month I asserted that physical vulnerabilities are the most understated and misunderstood weakness in all networks including the Internet. In just a few weeks, things

have taken a turn for the worse. I wrote last month's column in mid January. Shortly after, from Jan. 23 to Feb. 5, several more undersea cable outages occurred.

Many news media sources erroneously referred to the cables as "Internet cables" – as if that is all that the cables carry. Such a "dumbed-down" description exposes a lack of understanding and appreciation of the cables and fiber in general and underscores the risks we all face as a result of this ignorance.

In a two-week span, there were multiple cuts on the same cable, or same system. In total there were four separate cables (SeaMeWe4, FLAG, FALCON and DOHA-HALOUL) that were affected, but there were actually numerous separate incidents, or cuts reported on some of those cables.

The cuts/outages occurred in six geographically diverse locations. This defies a logical, natural or even accidental explanation as it took a 7.1 magnitude earthquake to take out as many undersea cables in the Luzon Straight in 2006. These 2008 outages are perhaps the greatest example of Murphy's Law to have ever occurred. (Note: Two ships were detained in relation to two of the cable cuts and one was fined, but it's still unclear what happened to all these cables.)

Here are a few excerpts in chronological order from news media regarding these fiber network cuts.

"Internet Failure Hits Two Continents"

CNN.com

Thu, January 31, 2008

High-technology services across large tracts of Asia, the Middle East and North Africa were crippled Thursday following a widespread Internet failure which brought many businesses to

a standstill and left others struggling to cope.

- Extensive Internet failure has affected much of Asia, the Middle East, North Africa
- Two undersea cables believed damaged, possibly by a ship's anchor
- It has caused major disruptions to business, television and phone services
- Several reports say damaged cable in the Mediterranean could take a week to fix

"Third Undersea Internet Cable Cut in Mideast"

CNN.com

Fri, February 1, 2008

An undersea cable carrying Internet traffic was cut off the Persian Gulf emirate of Dubai, officials said Friday, the third loss of a line carrying Internet and telephone traffic in three days.

- There were concerns in India that an Internet slowdown could affect trading patterns at the country's two major exchanges, the National Stock Exchange (NSE) in Delhi and the SENSEX exchange in Bombay.
- Besides the Internet, the outage caused major disruption to television and phone services, creating chaos for the UAE's public and private sectors.
- The Du internal memo called the situation in Dubai "critical" and stated that the cable's operators did not know when services would be restored.
- State-owned Dubai telecom provider Du and Kuwait's Ministry of Communications estimated Thursday that the problems might take two weeks to fix.

"Firm: Ship's Anchor Cut Mideast Internet Cable"

CNN.com

Friday February 8, 2008

A telecommunications company on Friday blamed a ship anchor for cutting one of three severed undersea cables that snarled Internet traffic throughout the Middle East last week.

- Three undersea Internet cables off Dubai, Egypt to be online in days, officials say
- Cut cables hurt Mideast Web traffic last week, prompting conspiracy theories

• Severed undersea cables quite common and sabotage unlikely, analyst says

• Analyst: "Tin-foil hat crowd" suspects U.S. military or terrorists behind snafu

It is interesting to track how reporting of the story evolves. It begins as the typical "news" that piques all of the requisite sensations. The follow on does much of the same. The last piece is peculiar in that it deviates from the original hype and seems to state that all is well, the incidents were accidents and perfectly normal; everything is under control and that any thoughts to the contrary are "unlikely" and deserving of name-calling.

Sami al-Murshed, head of development at the International Telecommunications Union (ITU) officially was in the "Tin-foil hat crowd."

"We do not want to preempt the results of ongoing investigations, but we do not rule out that a deliberate act of sabotage caused the damage to the undersea cables over two weeks ago. Some experts doubt the prevailing view that the cables were cut by accident, especially as the cables lie at great depths under the sea and are not passed over by ships."

All of this reporting in the news is spectacle and drama. Most disturbing is the lack of meaningful coverage. Given such a tremendous opportunity to bring to the fore the real issues of vulnerability and weakness in the global, physical network infrastructure and armed with real and present facts of loss fresh in everyone's mind, it would make sense to focus on the need for preparedness to avoid such issues in the future. After all, these outages affected tens of millions of people in India, Pakistan, Egypt and Saudi Arabia. Television, telephone and Internet communications were cut off. Businesses were brought to a standstill. Stock markets were threatened. Civilized life essentially was at risk. Yet there was no substantive media coverage.

The impact of these kinds of incidents needs to be reported, studied and recognized by those with the authority, power and budgets to mitigate future risk.

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