Information Management Committee June 2012 report

Still not an official commitee. I did not do much this month. I investigated problems encountered measuring the network cable and from the use of CentOS on one of the Spoke computers.

Terms of Reference

During the last meeting it was suggested I focus on pair of policy topics. I have not yet rewrittent the TOR to reflect that. I am not sure "Developing a security policy for access to sensitive documents, taking into account Board turn-over" is even possible. Writing the policy would be simple enough, but enforcement would likely be voluntary.

Network Cable

Description

I have completed 144 measurements on 3 separate samples of network cable:

- Yellow tagged "General Cable 24 AWG" at ~ 162 feet
- Grey "General Cable 24 AWG" at ~ 415 feet
- Blue Scrap Cable "Cat5 Superior Essex" 24 AWG

With two separate instruments:

- Digital Calipers; Park Tool "DC-1". Accuracy 0.02mm < 100mm (20 microns)
- Vernier Calipers; Accuracy 0.05mm (50 microns)

I measured each of the 8 wires 3 times with each instrument.

Results

Cable	DC-1	Vernier
Yellow	480 microns	469 microns
Grey	482 microns	473 microns
Blue	520 microns	510 microns

Average wire diameter. Keep in mind that last digit is not significant.

I found that both pairs of calipers were operating correctly: agreeing with both each others and the manufacturers measurements within their rated accuracy. Not only that, I found that my measurement technique employed when I made my erroneous measurements was sound. I also found that the "scrap" cable (probably made with looser tolerances) did indeed have a slightly larger wire diameter.

I have not been able to find a contrete explanation why my initial measurments were off by at least 60 microns. The battery had been replaced, but a low battery is not supposed to affect accuracy. Before repeating my measurements, I did wipe dirt/grease off the ruler and jaws of the caplipers. My best

guess is that a smudge was in the correct place on the ruler such that the optical sensor registered the graduations in the wrong place.

Spoke computers

Last meeting, my CentOS experiment was cancelled. However, after pulling the USB key from the computer in question, I was able to boot it on a computer at home. The browser history suggests that some spoke participants unsuccessfully tried to play music using that computer. I investigated why they were unsuccessful. I found that things did not "just work" for both political and technical reasons.

CentOS is essentially a US distribution, based on sources from Redhat's Linux distribution. The reason this is important is that the US is one a a few countries that recognise 'software' and 'business method' patents. Patents allow the patent holder to prohibit the use of their invention by competitors in the marketplace, though typically, patent holders are willing to negotiate for royalties. This can be contrasted with copyright law (protecting the crative expression of ideas), where independent development and 'fair dealing' is a defence. It is also distinct from trademark law, which is designed to protect (meaningless) trade-names and logos, to prevent confusion in the marketplace. However, Trademark licensing is often used dictate specific design choices in products displaying the logo.

Political limitations

- At least initially, I refused to install Adobe Flash player because it was proprietary software. I was willing to install if if required, but the project was cancelled before that happened. Without Adobe Flash, many websites (typically operating as software as a service) may not work as expected.

- Youtube, while promoting HTML5 video playback, still requires the use of Adobe Flash if they want to show you an advertisement. This results in a "This video is not available" message.

- DVD (MPEG-2) and h.264 (one of the YouTube HTML5 options) are covered by patents held by MPEG-LA.

- If the DVD makes use of the Content Scrambling System, playback on unlicensed players may be illegal under the Copyright Modernization Act, assented to June 29, 2012. Typically, DVDs making use of CSS are regoin-locked and can selectively disable user controls during the playback of copyright notices and advertisements.

- If appears that one thing that prompted the cancellation of the pilot project is that MP3 playback failed during a session of the Spoke. This is also due to patents (specific numbers to be listed here).

Political and Technical limitations

- The Alberta One Call website requires some obscure web-browser (lastest usage numbers to be inserted here) bundled with Microsoft Windows. This is likely because proprietary technology like ActiveX (has always been a bad idea) and JScript (not bad per se) are in use. (Will be updated once I confirm this.)

- Multi-touch support may be both covered by software patents, and have no implementation for the X Window system (being precise here). (Will be updated once I confirm this)

Technical limitations

- I had a hard time installing to the USB key. Probably some kind of software bug.

- The Gnome On-Screen keyboard does not appear to support 'sticky keys' using direct input (meaning mouse or touch-screen emulation of a mouse). As I believe I mentioned, I wanted to test the Florence Virtual Keyboard, but would have to compile from source (or use a third-party repository). I am assuming patents are not the issue here, since 'Caps Lock' (called shift-lock on the C-64) is clear prior-art.

- I was not able to play-back WebM encoded HTML5 YouTube videos. This was becuase the "good" codec pack included with CentOS 6 is not new enough. WebM playback also relies on the VP8 codec, included in the "bad" codec pack.

- Test machine is not running, may update this list.