

File 20120111.1038: Notes from meeting with Dr Martin:

I met with Dr Martin briefly to report progress for the week. I am contractually obligated to finish a white paper for Lockheed on SCAP compliance for the automated guard, but after next week I will be 100 percent on coding for Chapters 3 and 4. I wrote the patent application for digital signatures in Radiant Mercury this week; it will be filed before my last day with the company. I met with the VP of Engineering and with HR last week and secured enough funding through April; the only remaining detail is whether my family will have any health insurance. Security debriefing scheduled for next week. I am making good progress on describing my solution in Chapter 6 and will be done with that part in a week.

Reading Group met this week to discuss ‘Looking Back at the Bell–LaPadula Model’ by David E. Bell, from 2005. The paper explains the reasons for several apparently mystifying decisions in the TCSEC and Trusted Solaris 2.5.1, such as the ‘compatibility’ of ordered security levels in the filesystem, something I always why was backwards from the more logical way. I gave the group a rapid overview of multi-level file systems and the software developer’s perspective on privileged processes. The mystery of why Information Labels (IL) disappeared between Trusted Solaris 2.5.1 and TSOL 8 was finally cleared up. The paper contains still trenchant observations on the practical difficulty of certification and accreditation and the opportunity to place high-assurance gateways in the narrow lines between almost-isolated networks. In 2012, there is no meaningful distinction between the intelligence community, Twitter, and Facebook. One decade’s optimisation is the next’s performance bottleneck.

We discussed CyBOX and IF-MAP protocols for security situational awareness; it might be an extension that I could report through the SCAP interface, later. We talked about covert channels in high assurance and multi-level operating systems. Dr Fléchais is concerned about my lack of progress on coding, as he should be. Dr Fléchais will crack the whip. I should report to him soon.

[not for WAR]

Dr Martin related that students in his Security Principles class this week are having trouble understanding security protocols. I told him about CyBOX; I described it as a protocol for assembling and maintaining security situational awareness. Dr Martin told me in turn about Metadata Access Point, a similar protocol, and I said I’d look it up.

I told Dr Martin about Andrew Paverd’s and Justin’s comments in reading group, and Dr Martin told me some stories about weirdness in old multilevel operating systems. For example, the shutdown process must be higher priority than any other process, but can it terminate classified processes? It opens a crack for covert channels.

I asked when Dr Martin was to leave for Singapore. Early Saturday, he said. I advised not flying on any Airbus A330s, but he said he flies on A380s. I asked about what they are like inside, and Dr Martin said they are surprisingly quiet. It was a design goal. They look different from a 747 when you go upstairs, he said, because the upper deck is full length. It is not true that the wings fall off A380s, only the engines explode. But they carry so many engines that it’s only a minor annoyance until you get to the next airport. Not like A330s, which have a bug in their flight control computers that causes them to dive and fly upside down at times, disconcerting the pilots.

Skype began to give out badly, finally dropping video entirely and losing audio and echo cancelling sync several times. Dr Martin asked me if I believed in the completion dates on the chart at the end of my 20120110.1015 agenda. I said I considered them real and was working to finish for 20th April. Honestly, and this is not for attribution, I said, I don’t know how close I will be to done at the end of the time, but I am treating those dates as real. Dr Martin advised that, not to give me a fallback position, but it is not an uncommon situation, when people get close to the end of their dissertation and they run out of money and have to get a job, that an acceptable thing to have when the time comes is a complete defensive draft, with all the anticipated chapters, sections, and subsections in place, but in want of editing.

Duration of call: 18m26s. No next meeting scheduled until Dr Martin gets back from Singapore.

‘Work hard.’

References