Group D Profile Presentation

Profiles scope

- Definition of profile vs. framework
  - Profile is list of answers (f/w is the questions)
  - Refines the f/w
  - Assist a designer of a CKMS, given the f/w
- Profiles can be created/based on risk situation / sector
  - Implies verticals, and coupled requirements (financials, federal, ….)
- **Profiles can also be based on the key usage scenarios** (archiving, network security, …)
  - More natural as it focuses on the purpose of the system rather than it being used by a vertical
  - The vertical may then add specific reqs to this
  - Scope of the CKMS will also influence the profile
  - Regulatory aspects? (may influence e.g. key compromise recovery)

Profile Scope cont.

- **Profile should leverage** (and may be composed of) **existing specifications** (NIST and others)
- **Certain physical components** may be in scope
  - But this is the ***keys***, not the *application data* protected by the CKMS (out of scope)

Profile "Depth" and Relationship to Compliance

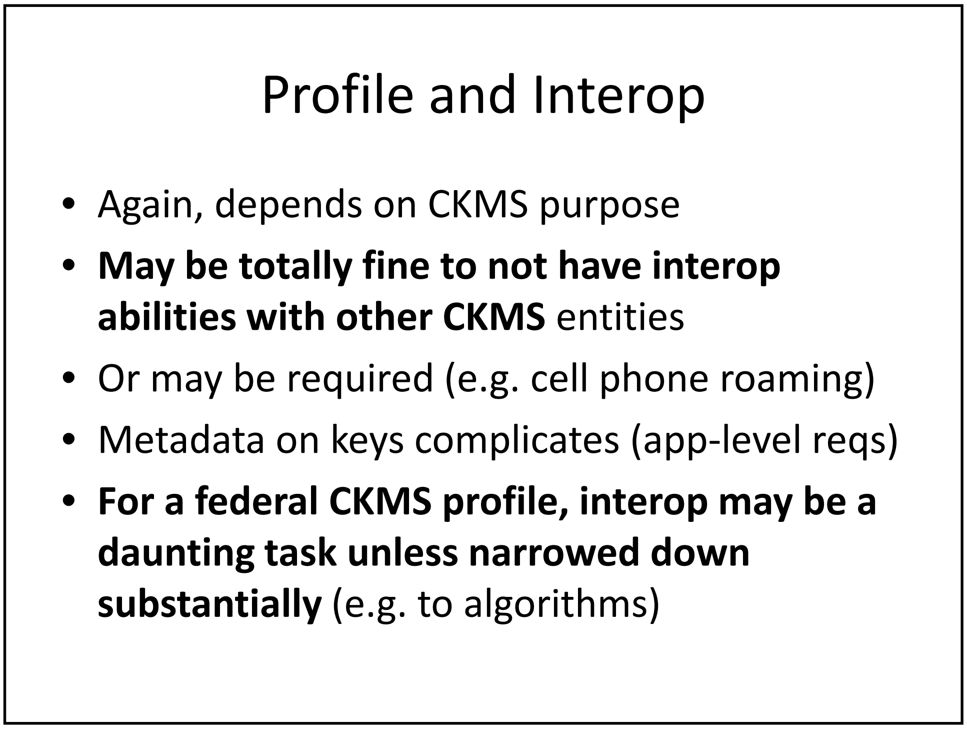
- CC PPs/TOEs?
  - Costly, time-consuming
- **NIST profile may be seen as a "map" through the f/w**
  - May have multiple "paths" -> levels (loosely analogous to FIPS 140)
  - Concern is that the validation of a CKMS may be vastly more complex than validation of a CM
- **Compliance may be more to the design document level than the implementation level**

Profile Conformance

- **Profile is by nature more prescriptive on security requirements but would tend to stay away from general system requirements** (e.g. regarding performance)
- **Self-certification of CKMS as a whole may suffice** since claims can be associated with, e.g., conformance / certification to underlying standards

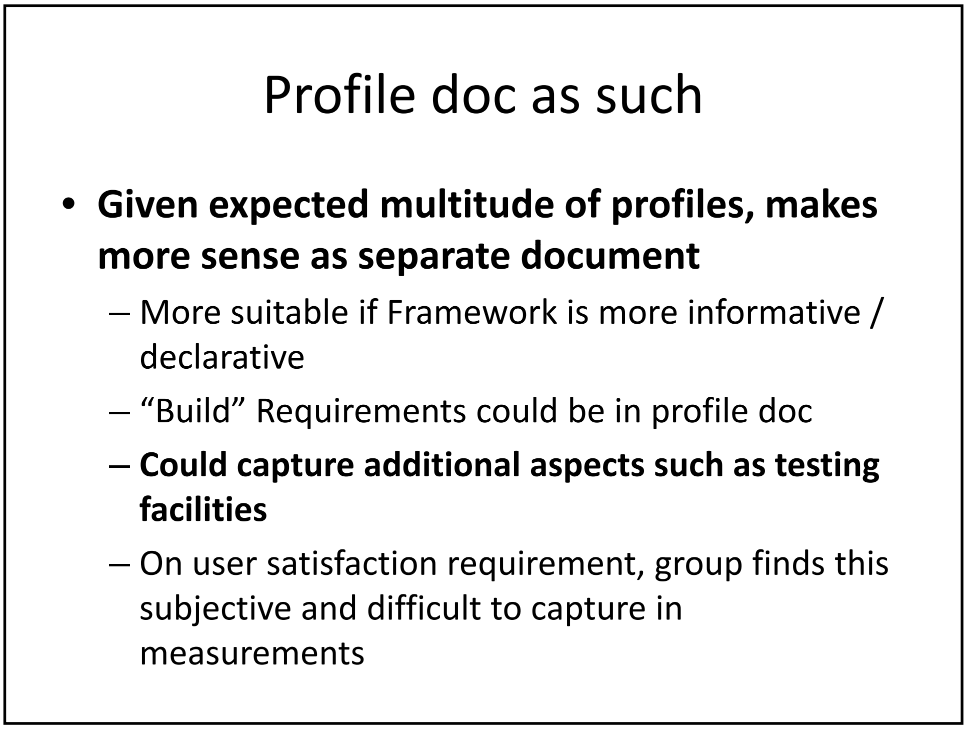
Examples of existing CKMSs

- Could be used as starting points for profile work
- Include: ATM CKMs, Cell phone CKMs, PKI CAs, Storage (1619…), OASIS, …
- Architectures may range from hierarchical, peer-peer (implying diversity of authorities)



Profile and Interop

- Again, depends on CKMS purpose
- **May be totally fine to not have interop abilities with other CKMS** entities
- Or may be required (e.g. cell phone roaming)
- Metadata on keys complicates (app-level reqs)
- **For a federal CKMS profile, interop may be a daunting task unless narrowed down substantially** (e.g. to algorithms)



Profile doc as such

- **Given expected multitude of profiles, makes more sense as separate document**
  - More suitable if Framework is more informative / declarative
  - “Build” Requirements could be in profile doc
  - **Could capture additional aspects such as testing facilities**
  - On user satisfaction requirement, group finds this subjective and difficult to capture in measurements