Inter-SDO collaboration

And Open Source
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Current situation

- There are MANY Standards Organizations
  - At best guess, fewer than in the late 1980’s
- And there are more topics that cross traditional boundaries
  - The boundaries between control, management and operational support are becoming very fuzzy
  - And more than ever solutions need to draw on all of these
Standards competition

› Our slogans tend to get in our way
  – We don’t do APIs
  – We are the pre-eminent standards body
› And equally, our knowledge of our skills gets in the way
  – If we re-did this, we could make it better
› And in many cases our search for relevance creates complications
  – The number of SDOs seeking a piece of the SDN activity, to draw on the interest, is borderline absurd
We need to collaborate

- Different Standards bodies have different skills
  - ITU does circuit and optical VERY well
  - IETF does network protocols very well
    - And some applications protocols
  - W3C understands the web better than anyone
  - IEEE understands the media like Ethernet very well

- So we need to work together to address real needs
  - It is important that the models reflect the technologies
    - So when IETF models Ethernet, it needs IEEE help
Comprehensive solutions

- More than ever before, customers expect solutions
  - Where all the pieces come together
  - The BSS can drive the OSS
  - The OSS can drive Network management and SDN Control
  - The control components can drive the disparate network components
  - And packets flow through the result effectively
- And this requires collaboration from even more groups than before
Given that no one group has all the needed expertise
Given that each group has valuable contributions
We need to collaborate
And we need to do so on the basis on mutual respect
  – We all need to be careful not to simply try to replace each other
  – But rather to build upon each others work
Which is often complicated by differences in
  – Document availability rules
  – Intellectual Property rules
Cooperation and Collision

Sometimes groups manage to work well together
- ETSI NFV has been very clear that their job is to lay out an architecture and look for gaps where new standards are needed; NOT to define new standards
- IETF recently handed the Ethernet MIB back to IEEE where it belongs

And sometimes they don't work too well together
- The IETF and ONF have significant difficulty using each others work
- Open Source focus on code and freedom can create conflicts with standards bodies
One of the ways that we can work together is in building strong Information Models

If we can build structures that enable abstraction and reuse
- It will be much easier to build upon each other’s work
- It will be much easier to understand what we each have done
- And the results will fit together much better

This is natural for some groups, and a very big step for others
- The current IETF focus on YANG models reflects this growing need
Open Source

- Open Source is not new
  - It has been very important to standards success for a very long time
    - TCP/IP was delivered in UNIX
    - Open Source C compilers were available before there were standards for it
  - And many current systems rely on it
- Current Open Source techniques help build communities
Standards and Open Source

- Standards do well when informed by early implementation
  - Open Source can provide this
- Open source needs reliable ways to work with other tools
  - Standards can provide this
- They are not duplicates
  - Code is NOT a protocol spec; a protocol spec is NOT code
- Again, we need mutual respect
  - And care in handling the differences in Intellectual Property approaches