3GPP/PCG#8 Meeting
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Source: **TSG CN Chairman**

Title: **Presentation on 3GPP/IETF Collaboration from IETF#53**

Agenda item: **4.2**

Document for:

Decision	
Discussion	
Information	**X**

The following presentation hilighting the success of the 3GPP/IETF collaboration was given at the IESG plenary at IETF#53 (March 17-22, 2002).

3GPP & IETF: Cooperation between Standards Development Organizations

Stephen Hayes
Allison Mankin
Thomas Narten

3GPP – 3rd Generation Partnership Project

- Standards for 2nd and 3rd Generation Mobile System (i.e., cell phones) based on evolved GSM core networks and the radio access technologies

- Covers GSM, GPRS, WCDMA technologies deployed worldwide (>650 million subscribers worldwide)

- Projected to have >1 billion internet phones by end of 2003

Long Long Ago, In The Year 2000…

- "Rumours" circulate that 3GPP …
  - Wants to use IPv6
  - Wants to use SIP
- IETF folk thinking "maybe we should be talking…"
- 3GPP folk thinking the same???
- IAB, 3GPP start high-level discussions:
  - RFC 3113 "3GPP-IETF Standardization Collaboration"
  - Formal liaisons appointed:
    - Thomas Narten for IETF
    - Ileana Leuca for 3GPP

The Fun Begins!

- Formal liaisons step out of the way

- Technical folk begin talking directly with each other

- Examples

  - IPng

  - SIP/SIPPING

  - ROHC

The Work Starts – Example: IPv6

- Joint interim meeting with 3GPP (Seattle, June, 2001)

- 3GPP describes what they were doing (thanks Jonne!)

- WG ask lots of questions (boy, this cellular stuff is really strange!)

- Meeting a success, but more questions...

- IPng WG Design team formed to draft recommendations to 3GPP

IPng: Follow-up

- Internet Draft "3gpp-advice-00" appears, Nov., 2001
  - 3GPP responds quickly, discussion takes place on IPng mailing list
  - 3GPP adopts IETF recommendations in their specifications (2002)
- draft-ietf-ipv6-cellular-host-00.txt
  - guide to 3GPP cell phone manufacturers on relevant IPv6 RFCs
  - authors active in both 3GPP and IETF, sanity-checked by IETF

Much More to the Story Than Just IPv6

- Primary focus in 3GPP is currently on multimedia

  - Telephony, streaming, audio, video, text, …

- Facilitating protocols:

  - Locate callee, set up calls (SIP and SDP)

  - Voice over RTP/UDP/IP

  - Robust signalling compression (ROHC and SIGCOMP)

  - SIGTRAN and SCTP

  - Security (especially TLS and S/MIME) …

- Dependencies

  - 3GPP dependent on >50 IETF drafts

  - 3GPP dependent on work in 14 IETF WGs

Working Together Takes Effort

- 3GPP has firmer deadlines for making decisions

- 3GPP decisions made at meetings, RFCs MUST be ready to be included

- IETF tends to work at its own pace... (what's a deadline?)

- But, IETF *can* deliver when there is focus/energy from document editors, WG Chairs, ADs, …

- But it does take cycles!!!

Recent Culmination

- 8 RFCs approved by IESG in time for UMTS Release 5
  - SIP (base spec, events, two others)
  - AVT (payload for 3GPP's voice codecs AMR and AMR-WB)
  - MMUSIC (offer-answer, IPv6 support in SDP)
- (Thanks for the fast processing, RFC Editor!)

Why It's Working (IETF View)

- 3GPP wants to use IETF technology

- 3GPP wants IETF to engineer missing pieces

- Desire by IETF to engage 3GPP "customers" for its work

- Technical people working directly with each other

- Folks participating in both 3GPP and IETF

- Active facilitation from leadership (ADs, chairs, etc.)

- Willingness to describe underlying problem rather than just solution

- Willingness to pare requirements down to essence

- Openness to alternate solutions that solve underlying problem

- Confidence built up over time

Lessons learned by the 3GPP in working with the IETF

3GPP Lesson 1

- The organizations have to have a will to cooperate:

  - "Political" agreements at top level facilitate the real work (RFC 3113)

  - Need to understand the priorities and time constraints of the organizations

  - Active facilitation by the leadership (ADs, WG chairs, 3GPP chairs) needed

  - Liaisons are not the way to communicate

3GPP Lesson 2

- Mutual understanding in IETF and 3GPP WGs needed

  – Provide requirements, not solutions

  – "Obvious" requirements in the 3GPP are not necessarily "obvious" requirements in IETF

  – "Obvious" protocol misuse in IETF is not necessarily "obvious" misuse in 3GPP

  – Individuals with one foot in each organization are necessary

  – Restrict scope of applicability when necessary

3GPP Lesson 3

- Adapt to the IETF culture

  - You don't have to wait until a physical meeting to resolve issues (use the mailing lists)

  - Individuals, not companies

  - You don't have to wear ties to get work done

3GPP Lesson 4

- It can work thanks to:
  - Understanding the underlying problem
  - Understanding of the IETF culture
  - Avoidance of dogmatic positions
  - Hard work

Thanks from 3GPP!

Related URLs

- http://www.3gpp.org
- http://www.3gpp.org/TB/Other/IETF.htm (list of IETF dependencies)