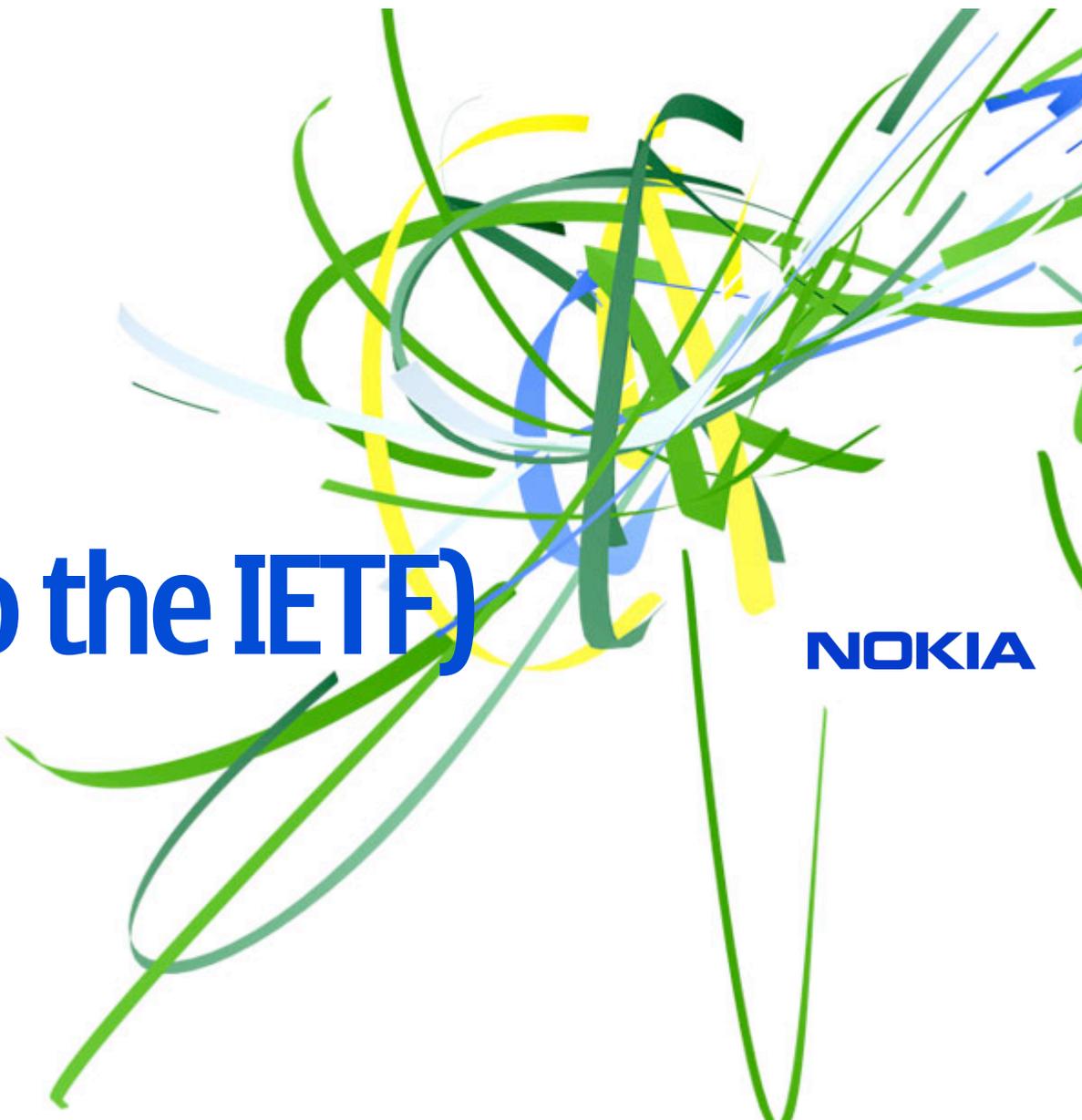


# Next Steps (with regard to the IETF)

Lars Eggert

Microsoft TCP Summit

2007-2-6

The Nokia logo is a stylized, abstract graphic composed of numerous overlapping, curved lines in shades of green, yellow, and blue. The lines are of varying thickness and length, creating a sense of motion and complexity. The overall shape is roughly circular but with many protrusions and indentations, resembling a tangled web or a cluster of organic forms.

**NOKIA**

# General Remarks

- very pleased to see interest to bring experimental congestion control to the IETF
- there is similar interest on the IETF side
- the timing is good: transport area has cycles
- this talk summarizes the approach
  - or actually, my understanding of it - comments welcome

# IETF RFC Types - Brief Overview

- **Informational RFC**
  - “we would like to inform the community about this”
- **Experimental RFC**
  - “we think this may eventually become a recommended mechanism, and would like people to play with it”
- **Standards Track RFC**
  - Proposed Standard: “your stack should implement this”
  - Draft Standard: “your stack should REALLY implement this”
  - Full Standard: “you need this to be on the Internet”
- **only Standards Track RFCs are recommendations by the IETF**
  - Experimental & Informational come from the authors or WG

# Step One - Document Current Stack Behavior

- document what subset of RFCs and other mechanisms current stacks implement & why
  - which SHOULDs are ignored & why
  - which additional mechanisms have been implemented & why
  - lessons learned
- existing examples:
  - deployed TCP reactions to ICMP soft errors
  - FreeBSD: SYN cookie extensions
- future examples?
  - Linux: delayed-ACK suppression during slow-start
  - Vista: impact of enabling ECN, window-scaling, etc.

# Step One - Document Current Stack Behavior

- **goal: documentation**
  - to inform the community
  - Internet drafts with intended status Informational RFC
  - even without further interest to move this forward in the IETF
  - Sally's guidelines need not apply - meant for Experimental
- it will be important to be clear about the goal
  - don't write something that sounds like a standards-track proposal
- there are several ways to publish Informational RFCs
  - will get to that

# Step Two - “Experimental” Specifications

- goal: mechanisms that may eventually progress onto the standards track
  - “we think this may eventually become a recommended mechanism, and would like people to play with it...”
    - “...under supervision on the global Internet”
    - “...in scenarios that are restricted in the following ways”
  - technical specification to guide implementers
  - discussion & data to convince the community that this may in fact eventually move towards the Standards Track
    - Sally’s draft describes guidelines for this

# Step Three - What to Progress?

- gather experience with Experimental mechanisms
- compare according to currently undefined metrics
  - work item for the research community
- goal: prepare a case that (some evolution of) an Experimental mechanism should be recommended for global deployment by the IETF
  - followed by Standards Track specification, etc.
- what forum will coordinate this activity?
  - proposal: IRTF research group(s) with input from the IETF

# Step Four - Moving to the Standards Track

- simply to early to say how we will handle this

# Three Different Routes to RFC Publication

## 1) through a WG ← recommended

- present draft to WG, get it adopted as work item, get consensus for publication, AD review, IESG review

## 2) through an AD

- present draft to AD, get agreement for “shepherding”, AD review, IESG review

## 3) through the RFC Editor

- submit directly to RFC Editor, editorial board review, IESG review “light”
- since the goal is community exposure, going through a WG seems to be the most suitable way forward

# Author Guide in a Nutshell

- write draft(s)
  - guidelines on the IETF site
    - <http://www.ietf.org/ietf/1id-guidelines.html>
    - <http://edu.ietf.org/editors>
- socialize in private
  - get some feedback from folks with IETF experience
  - folks in the room, transport area directorate, WG chairs, etc.
- announce & present to transport area
  - persistence helps - may take some time to convince the WG

# In Closing

- there is significant interest among the IETF transport community to bring new experimental TCP mechanisms forward in the IETF/IRTF
- with a longer-term goal of moving some towards the standards track, after sufficient experience has been gained
- there is similar interest to have informational documents or presentations on current stack behavior