Framework for IETF Network Slices
draft-ietf-teas-ietf-network-slices

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What is this draft?

- It's a merger of two documents that had been adopted by TEAS
  - draft-ietf-teas-ietf-network-slice-definition-01
  - draft-ietf-teas-ietf-network-slice-framework-00
  - (Thanks to the Design Team for everything they did to get that far)
- It's a home for terms and concepts related to *IETF* Network Slices
  - Note well:
    - These are not network slices in general
    - These are not "end-to-end network slices"
    - These are not network slices using other technologies
    - It's about slicing networks that use IETF technologies
- It is not a place to document solutions

Status

- It feels like longer, but…
  - We only started work on merging after IETF-110
  - Announced a plan on April 13th
    - Retain all front-page authors
    - The -00 version will be a very simple merge taking all text from both documents, using tags to show where the text came from, and with no new text
    - Revision -01 will be Editor's version that will merge the text by removing duplication and by streamlining, and still no new text
    - Open the gates for normal WG discussion
    - Then start on strategic changes
    - Teleconferences for debate as needed
    - Does the editor drive?
      - I hope you will be suggesting text and ideas
      - Failing that, I will be supplying suggestions and asking for agreement
  - We have had four versions so far

Status (continued)

- -00 (April 14th)
  - Simple inclusion of all text from the two contributing documents
  - Assignment of the text to sections
  - No attempt merge or harmonise the text
- -01 (April 16th)
  - Re-arranged text to rationalise the structure
  - Stylistic edits, and simple editorial and formatting issues
  - No substantive changes have been made

Status (more)

- -02 (May 4th)
  - Selected "Customer" (compare "Consumer", "Client") and made consistent
    - Some debate about preferences, but we have to pick one term
  - Introduced the term "Service Level Expectation (SLE)"
    - Moves "unquantifiable objectives" out of SLO
    - Operator-provided security
    - Geographic restrictions
    - Maximal occupancy
    - Isolation
  - Rewritten text on "Isolation"
  - Changes for realisation of network slices
  - Editorials and re-ordering of end-matter sections
- -03 (May 23rd)
  - Add full definitions of "Customer" and "Provider"
  - Remove discussion of SNMP
  - Small editorials

What now?

- I've been a bit busy
  - Nothing apart from background conversations for two months
- Next big topics
  - Definition of a Network Slice Service
  - Definition of End Points
  - Functional architecture for realising network slices

  … Next slides

Network Slice Service

- How does a Customer request a Network Slice?
  - What are the actions?
  - What information do they supply?
  - What response do they get?
  - How is traffic associated with the slice?
- This is not (must not be?) a data model (see YANG NBI work)
- It should not even need to be an information model
- But it is part of the definition of a network slice
- John Drake suggested text on this some time back
- Need to polish this and put it out for review

Service End Points

- These are the points at which the Network Slice is delivered to the Customer
    - The "points of attachment" between the Customer and the Provider
- John Drake initiated a discussion on this as well
    - There was a good deal of back and forth
    - It felt like we reached a kind of consensus
- Need to dig out the old email thread
    - Convert it to proposed text for the draft
    - Float it for agreement

Realising Network Slice Services

- Part of the definition of a network slice is
  - How is it requested?
  - How are network resources assigned?
  - How is the underlying network partitioned?
- Several drafts approach this from different directions
  - A set of Enhanced VPN (VPN+) drafts
  - Some newer work from Pavan and Tarek
- Some private discussions to try to converge function and terminology
  - Function seems to be "getting there"
  - Terminology is harder
- One challenge is not over-complicating things
- Proposal:
  - Get a scratch "work flow" diagram and text
  - Put it out for wider discussion