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 14\textsuperscript{th})
  • 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 16\textsuperscript{th})
  • 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