“Network Incident Terminology”

draft-ietf-nmop-terminology-01

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History

• “It seems we’re all using terms, but we may have different meanings”
• “We should have a terminology draft”
• Adrian and Nigel said, “We’ll try to put something together”
• draft-davis-nmop-incident-terminology-00 January 2024
  • A bit rough
• draft-davis-nmop-incident-terminology-01 May 2024
  • Added co-authors to inject wider opinions
  • Good enough to work on
• draft-ietf-nmop-terminology-00 May 2024
  • Adopted by NMOP
  • Issues raised in adoption poll
• draft-ietf-nmop-terminology-01 June 2024
  • Mop up “easy” adoption poll issues
What Does this Draft Contain?

• Terms and Definitions
  • System
  • External System
  • Controlled External System
  • Resource
  • Characteristic
  • Value
  • Condition
  • Change
  • Detect
  • Event
  • State
  • Relevance
  • Occurrence
  • Incident
  • Problem
  • Symptom
  • Cause
  • Root Cause
  • Consolidation
  • Alert
  • Alarm
  • Transient
  • Intermittent

• Definitions are:
  • Interdependent
    • We have tried to order them
  • Somewhat terse
    • We want understandable and robust
    • Not detailed or verbose

• Explanatory work flows:
  • These are intended to help, but…
    • ASCII Art creates some limitations
    • The figures capture workflow sequences
      and dependencies between concepts
Addressing the Bigger Issues

• Side meeting on Tuesday
  • 12 in the room
  • Brad and Watson remote

• Worked through the open issues
  • Agreed some
  • Converged a bit on others
  • Discovered some new ones
Some Open Questions (1 of n)

• What is out intended scope?
  • Just the “network layer”
  • All things Internet
  • Include the “customer service”

➢ Possible conclusion
  • We are dealing with “network incidents”
  • We provide a component of the final top-to-bottom monitoring system
  • There is a “policy blob” that consumes information from the network
    • Converts to customer information
    • Out of scope for our work

Discuss now
Some Open Questions (2 of n)

• Who is this for?
  a) Develop terms for consistent use within the IETF
  b) As a) but with the hope that other bodies would use the terms
  c) Try to harmonise with terms already used in other bodies

➢ Possible conclusion
  • Principle target is option a)
  • If b) happens, then it is OK with us
  • We only do c) if we find language that is useful to us
  • Try to re-use term definitions already widespread in RFCs (e.g., “alarm”)
    • Do this by reference if possible

Discuss now
Some Open Questions (3 of n)

• The term “incident” is critically overloaded
  • We see it used in a lot of other SDOs to refer to customer-related issues

➢ Possible conclusion
  • Use the word “fault” where we previously had “incident”
    Fault: An occurrence that is not desired/required (as it may be indicative of a future undesired State).
  • Where...
    Occurrence: A relevant event. A particular relevant change
  • But note that RFC 8632 uses “fault” slightly differently
  • Leave definition of “network incident” to draft-ietf-nmop-network-incident-yang
Some Open Questions (4 of n)

• Defining “Root cause” is at best unhelpful
  • There can be multiple unrelated causes leading to a fault
  • You can never really be sure you have arrived at the root of the tree
  • Causes can be parts of process or even philosophical

Possible conclusion
  • Strengthen the definition of “cause”
  • Remove “root cause”
Some open issues (5 of n)

• We don’t need both “alert” and “alarm”
• RFC 8632 contains a useful definition of “alarm”
Next Steps

• This is kind of urgent
  • We want this to be a normative reference

• Plan
  • New revision “soon” to attempt to capture some of the agreement so far
  • Expect to iterate a lot
    • Spin up threads on the list for each of the open issues and discussion points
    • Try to do this step by step (not all at once)
  • “Working towards a better terminology” ™