Transaction ID

draft-ietf-netconf-transaction-id-05

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draft-ieft-netconf-transaction-id-05 changes vs. -03

- Minimal changes

- Corrected namespace for reference to elements in ietf-yang-push
- Updated security considerations
- Added several normative RFC references

Related Drafts

- draft-ietf-*trace*, draft-ietf-netconf-configuration-tracing-01
  - Separation of concerns now clear and useful
- draft-ietf-netconf-privcand-04
  - privcand-04 allows transaction-id style conflict detection to be used
  - privcand-04 allows aborting privcand transactions with conflicts
- draft-lopez-opsawg-yang-provenance-03
  - Defines similar mechanism for cryptographic checksums over YANG data trees

Next Steps

- ~~Alignment with trace drafts~~
- ~~Alignment with privcand draft~~
- ~~Basic (partial) implementation~~
- Are we Done? Time for Last Call?
- Further Implementation experience

Txid Features

- Only relevant for config true
- Works with Running, candidate, or privcand
- Reliable and parallel editing, removes need for locks
- Considerably more efficient management protocol
- Echo detection in yang-push

Simulated Results

- Real world management application running 1h in lab:
  - 569 => 378 roundtrips, down 34% (network load, delay)
  - 1002 kB => 547 kB, down 45% (network load, processing)
- No datastore locking
- No window of vulnerability to clashing configurations

Thank you