• Problem + Solution Recap
• Simulated Results
• In the Works
Problem #1
get-config slow + costly for change detection

Client

Server

get-config

data

get-config

data

Compare. No change.
Problem #2
YANG Push needs echo-cancellation

Client

YP subscribe

ok

update

Server

edit-config

ok

update

Client

edit-config

Server
Problem #3
Vulnerability to clashing changes

Client
get-config
get-config
get-config
Compare. No change.

Server
data
data

Client
get-config
data

Server
data

Client
get-config
edit-config
No change. Go ahead.

Server
data

Client
data

Server
ok

Undetected config clash.
Simplistic, Top-Level TXID Solution

No change. Massive effort.

TXID?

TXID 4711

SAME

No change. Small effort.
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 outside `<edit-config>` until `<commit>`
- No window of vulnerability to clashing configurations
In the Works

• Add text for ETAG integration with YANG Push
• Prototype implementation for verifying and broadening results