ARCHITECTURE PROPOSALS

Authors:
Laurent Toutain <Laurent.Toutain@imt-atlantique.fr>
Ivan Martinez <ivan-marino.martinez-bolivar@imt-atlantique.fr>
ARCHITECTURE

Device role

Core/app role

YANG DATA MODEL

Coreconf,…

INTERNAL REPRESENTATION OF RULES

INTERNAL REPRESENTATION OF RULES

OAM

Compound ACK

LPWAN@IETF115
COMPRESSION RULE
Security Questions:

• Security considerations:
  – Avoid a device to manipulate other devices in the core
  – Device MUST only manipulate its own rules
  – Avoid a device to write a specific part of the rule in the core/app
    • Current r/w protection mechanisms are based on YANG leaves
    • Not enough to avoid to change the TV when FieldID is App prefix.
Securing management exchange

• Securing management exchange:
  – What are the IP addresses of dev and core/app instances?
  – Define an optional security layer
  – Propose compression rules management protocol.
Mesh Network – draft-martinez-lpwan-meshed-rules-00.txt

Approach in Arch draft:
• A Set of Rules per Instance / Session
• In a mesh it means multiplying by the number of rules since a node may be Dev or App

Open question:
• How do we identify the role of a device without defining several Set of Rules per device?