

Modeling Entitlements (and features)

draft-mcd-ivy-entitlements-inventory-00

Marisol Palmero (mpalmero@cisco.com)

Camilo Cardona (camilo@ntt.net)

Diego Lopez (diego.r.lopez@telefonica.com)

From DMALMO to just Entitlements

- DMALMO (Data Model for Assets Lifecycle management and operations) a full framework for managing all aspects of assets in their lifecycle.
 - Including the flexibility to link assets from different models (e.g. IETF or Openconfig).
- ietf-network-inventory-entitlements-features (name to be refined)
 - simplification of the model,
 - aims to add entitlement inventory to the Network Inventory drafts defined in IVY.

Modeling entitlements is still complex (given their nature)

- An entitlement grants specific **holders** the right to access **features** of one or more assets. The **use of these features may be restricted** in various ways, such as by duration, usage limits, or predefined conditions.
- We need to define:
 - Features
 - Usage limitations (e.g., on both features and resources)
 - Holders (e.g., users, organizations, etc.) -> very simple modeling

What we need from the chairs/AD and the group

- Allow us to include the definition of feature on the group charter.
- A feature is defined in ietf-network-inventory-entitlements-features on the scope of commercial restricted features.

What questions are we trying to answer?

- What entitlements are owned?
- How are entitlements restricted to some assets and holders?
- What entitlements are assigned or installed on each assets?
- What constraints do the current entitlements impose in the asset's features?
- Do entitlement impose any kind of global restrictions? What are they?
- What are the restrictions that each asset due to the entitlements it holds?

What questions we are NOT covering

- What are the implications of purchasing a specific entitlement?
- Which entitlement should I acquire to get a specific feature?
- Is entitlement migration feasible?

What features will be allowed if I install an entitlement in specific device?

- Features or restrictions that depend on holders (e.g users). We are not covering this in the current version of this document, but it could be done if we expand the modeling of the holder's identification.

Overview of the draft

- Includes the model (very first rough draft)
 - The model is already validated and applied
- Our definition of feature and usage limit is simple but extensible.
- Includes an example of a use case of a device on a “pay as you grow” mode, with a port not supporting breakout and with a BW limitations. The model is validated using yanglint.
- Includes an examples of how a script can process the model to answer the questions previously formulated.

What we are missing

- Lots of editing.
- We are going to include other examples of typical entitlement scenarios
 - Pay as you grow router with entitlements that partition themselves
 - Typical device with feature under entitlement levels.
 - Etc.

Questions