A YANG Network Data Model of Network Inventory Allowance

draft-wzwb-ivy-network-inventory-entitlement

IVY WG, IETF#118
November 2023

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Entitlement/license Allowance Inventory

- This is an extended model for **Allowance Inventory**
- The current allowance data is for Network Element (NE) and SW/HW components

**Diagram:**

- Base Network Inventory: `ietf-network-inventory`
- References by "leafref"
- Augment ‘network-elements’
- “ietf-network-inventory-sw-ext”
- `ietf-network-inventory-allowance-entitlement`
- `ietf-network-inventory-topology`
Modeling

- **Goal**: A list of global allowance data in the management scope for monitoring, for example, devices and controllers

- **Observation**: draft-palmero-ivy-dmalmo has definitions of entitlement, and supports high-level abstraction of entitlements to assets including hardware, software, applications, or services.

```
module: ietf-network-inventory-allowance
  +--ro allowances
      +--ro allowance* [allowance-id]
          +--ro allowance-id       string
          +--ro allowance-type?    string
          +--ro mfg-name?          string
          +--ro serial-number?     string
          +--ro allowance-data?    union
          +--ro active?            boolean
          +--ro issue-date?        uint64
          +--ro expiration-date?   uint64
          +--ro in-use?            boolean
          +--ro expired?           boolean
          +--ro valid?             boolean
          +--ro network-elements-ref* string
          +--ro ne-components-ref*  string

augment /ni:network-elements/ni:network-element:
  +--ro allowance-ref* -> /allowances/allowance/allowance-id
augment /ni:network-elements/ni:network-element/ni:components/ni:component:
  +--ro allowance-ref* -> /allowances/allowance/allowance-id
```

Relationship Between NEs and components

The allowances of NEs and components
ALMO Entitlement Model Overview Comparison

- **ALMO**: A high-level lifecycle management and operations model that aggregates asset data from different data sources (e.g. reports on critical issues or errata, security advisory, End of Life, etc) and not limited to the data from devices deployed on the network.

- **Network inventory allowance**: The allowance information of NEs managed by the controller on the network domain.

- **Observation**: Collaboration and consistency between the **high level model** and the **network realization model** is necessary.

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The almo-entitlement model is an extension of the ietf-almo model. To implement the entitlement model, the ietf-almo base model must be implemented.
Next Step

• Solicit WG adoption
• Will work on the consistency with draft draft-palmero-ivy-dmalmo
• Welcome reviews and comments