



YANG Model for Scheduled Attributes

[draft-ietf-tvr-schedule-yang](#)

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Changes since IETF 119

- [draft-ietf-netmod-schedule-yang-02 - A Common YANG Data Model for Scheduling](#)

This document defines a common schedule YANG module, `ietf-schedule.yang`, which is designed to be applicable for scheduling information such as event, policy, services, or resources based on date and time.

The groupings were updated based on feedback from IETF 119. For example, timezone configuration was removed, now it's UTC only.

- Moved link attributes into a single schedule.
- Moved link destination into schedule.
- Adjusted some types to be more generic.

Design of the Model

- TVR schedule grouping
 - Module ietf-tvr-schedule uses groupings from ietf-schedule draft
- TVR Node YANG Module
 - Module ietf-tvr-node.yang is a device model and designed to manage a single node with scheduled attributes.
- TVR Topology YANG Module
 - Module ietf-tvr-topology.yang describes a network topology with a time-variant availability schedule.

Module ietf-tvr-schedule.yang – grouping tvr-schedule

```
list schedules {
  key schedule-id;
  leaf schedule-id {
    type uint32;
    description
      "Identifies the schedule.";
  }
  choice schedule-type {
    description
      "Choice of schedule type.";
    case period {
      description
        "A schedule with a single instance.";
      uses schedule:period-of-time;
    }
    case recurrence {
      description
        "A schedule with recurrence. The time is defined in UTC
        format.";
      uses schedule:recurrence-utc;
    }
  }
  container attr-value {
    description
      "Attribute value(s). This container should be augmented
      with attributes that apply to the current interval.";
  }
  description
    "list of schedules.";
}
```

A list of schedules identified by a "schedule-id"

A series of periods

Schedule with recurrence. UTC only.



Module ietf-tvr-node.yang

```
module: ietf-tvr-node
  +--rw node-schedule
    +--rw node-id?          yang:dotted-quad
    +--rw node-power-schedule
      | +--rw power-default?  boolean
      | +--rw schedules* [schedule-id]
      |   +--rw schedule-id          uint32
      |   | ...
      |   +--rw attr-value
      |     +--rw power-state?  boolean
    +--rw interface-schedule
      +--rw interfaces* [name]
        +--rw name          union
        +--rw default-available?  boolean
        +--rw default-bandwidth?  yang:gauge64
        +--rw attribute-schedule
          +--rw schedules* [schedule-id]
            | ...
            +--rw attr-value
              +--rw available?  boolean
              +--rw bandwidth?  yang:gauge64
              +--rw neighbor?   yang:dotted-quad
```

Dotted-quad?

Gauge64? use te-types?



Module ietf-tvr-topology.yang

```
module: ietf-tvr-topology
  +--rw topology-schedule
    +--rw nodes* [node-id]
      | +--rw node-id      inet:uri
      | +--rw available
      |   +--rw default-node-available?  boolean
      |   +--rw schedules* [schedule-id]
      |     | ...
      |     +--rw attr-value
      |     +--rw node-available?  boolean
    +--rw links* [source-node source-link-id]
      +--rw source-node      inet:uri
      +--rw source-link-id   string
      +--rw available
        +--rw schedules* [schedule-id]
          | +--rw schedule-id      uint32
          | | ...
          | +--rw attr-value
          |   +--rw link-available?  boolean
          |   +--rw bandwidth?      yang:gauge64
          |   +--rw delay?          uint32
          |   +--rw destination-node? inet:uri
        +--rw default-link-available?  boolean
        +--rw default-bandwidth?      yang:gauge64
        +--rw default-delay?          uint32
```

Compatibility with RFC 8345?

Next Steps

- Reviews and comments are welcome
- Editorial changes
- Additional attributes?

THANKS!