I2RS Protocol Simple Example

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Current Datastores

candidate → running → startup

config true;

config false; All operational data exists alongside config=true but there is no datastore defined for config=false data nodes
Current Datastores (Ext. 1)

- Candidate
- Running
- Startup

config true;

intended config

config false;

applied config

operational data

Conceptual intended and actual values are determined by the server as an implementation detail.
module thermostat {
    ...
    leaf desired-temp {
        type int32;
        units “degrees Celsius”;
        description “The desired temperature”;
    }
}

// operational state

leaf actual-temp {
    type int32;
    config false;
    units “degrees Celsius”;
    description “The measured temperature”;
}
}
Thermostat Model

config true;

config false;

Scheduler Client

desired-temp

intended config

Actual temp (operational state)
Thermostat Model + Hold Temp

- Schedule is not deleted by hold-temp button
- Desired temperature

- Config true;
- Config false;

- Desired temperature
- Actual temp (operational state)
RESTCONF Example

RESTCONF Running Datastore Edit

PUT /restconf/data/thermostat:desired-temp

{ "desired-temp": 18 }

RESTCONF Ephemeral Datastore Edit of config=true

PUT /restconf/data/thermostat:desired-temp?datastore=ephemeral

{ "desired-temp": 18 }
Simple Thermostat + ephemeral

module thermostat {
...
  leaf desired-temp {
    type int32;
    ephemeral true;
    units “degrees Celsius”;  
    description “The desired temperature”; 
  }
}

Operational State:
leaf actual-temp {
  type int32;
  config false;
  units “degrees Celsius”; 
  description “The measured temperature”; 
}