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Ethernet Configuration

Ethernet configuration consists of several selected ports, where changes are to be applied, and configuration values to be applied to these ports:

```
{
  "select-ports": [
    "Ethernet0",
    "Ethernet1",
    "Ethernet2",
    "Ethernet4",
    "Ethernet6",
    "Ethernet7"
  ],
  "speed": 2500,
  "duplex": "full",
  "enabled": true,
  "poe": {
    "admin-mode": true,
    "power-limit": 60000
  }
}
```

Setting	Values	Description
select-ports	Ethernet0..Ethernet9 Ethernet*	Comma separated zero based port list, starting at Ethernet0 and ending at Ethernet9 for ECS4125. If settings can be applied to all ports, the mask is accepted as Ethernet*.
speed	10, 100, 1000, 2500 for ports 0..7 10000 for ports 8-9	Speed setting in megabits for a range of ports. Uplink SFP ports only accept speed of 10000.
duplex	half, full	Half or full duplex setting. Note: half duplex is only accepted with speeds 10 and 100 for copper ports.
enabled	true, false	Sets port enabled or disabled.
poe -> admin-mode	true, false	Sets PoE enabled or disabled of the port.
poe -> power-limit	unknown ..60000	Sets selected port's output power limit in miliwatts. Lower limit needs to be checked against switch specifications.
media	sfp-forced-100fx sfp-forced-1000sfp <not set>	A feature to force media type for SFP uplink ports. <i>Currently not in use, added for future reference.</i>

Interfaces Configuration

VLANs are configured under Interfaces section.

```
{
  "name": "VLAN2",
  "enabled": true,
  "vlan": {
    "id": 2
  },
  "ethernet": [
    {
      "select-ports": [
        "Ethernet1"
      ],
      "pvid": true,
      "vlan-tag": "tagged"
    },
    {
      "select-ports": [
        "Ethernet5"
      ],
      "vlan-tag": "un-tagged"
    }
  ]
}
```

Setting	Values	Description
name	[a-z0-9_]	Alphanumerical (no spaces) name of the VLAN.
vlan -> id	1..4096	VLAN Id of the configured VLAN.
ethernet -> select-ports	Ethernet0..Ethernet9 Ethernet*	Comma separated zero based port list, starting at Ethernet0 and ending at Ethernet9 for ECS4125. If settings can be applied to all ports, the mask is accepted as Ethernet*.
ethernet -> pvid	true, false	Sets PVID (native port VLAN Id) for selected ports to the Id of configured VLAN.
ethernet -> vlan-tag	tagged, un-tagged	Selects port membership in the configured VLAN.
ipv4 -> addressing	dynamic, static	If this option is present, a L3 VLAN is created. For details of this setting see ucentral schema. <i>Currently not in use, added for future reference.</i>

Unit Configuration

For unit configuration only "usage-threshold" is implemented on ECS4125.

```
"unit": {  
  "leds-active": true,  
  "usage-threshold": 95  
}
```

Setting	Values	Description
usage-threshold	1..99	A PoE power usage threshold to set a warning level in percent.

Appendix

An example of full JSON configuration message

```
{
  "ethernet": [
    {
      "select-ports": [
        "Ethernet0",
        "Ethernet1",
        "Ethernet2",
        "Ethernet4",
        "Ethernet6",
        "Ethernet7"
      ],
      "speed": 2500,
      "duplex": "full",
      "enabled": true,
      "poe": {
        "admin-mode": true,
        "power-limit": 60000
      }
    },
    {
      "select-ports": [
        "Ethernet3"
      ],
      "speed": 1000,
      "duplex": "full",
      "enabled": true,
      "poe": {
        "admin-mode": true,
        "power-limit": 40000
      }
    },
    {
      "select-ports": [
        "Ethernet5"
      ],
      "enabled": false,
      "poe": {
        "admin-mode": false,
        "power-limit": 60000
      }
    },
    {
      "select-ports": [
        "Ethernet8"
      ],
      "speed": 10000,
      "duplex": "full",
      "media": "sfp-forced-1000sfp"
    },
    {
      "select-ports": [
        "Ethernet9"
      ],
      "speed": 10000,
```

```
    "duplex": "full"
  }
],
"interfaces": [
  {
    "name": "VLAN1",
    "vlan": {
      "id": 1
    },
    "ipv4": {
      "addressing": "dynamic"
    },
    "ethernet": [
      {
        "select-ports": [
          "Ethernet0",
          "Ethernet1",
          "Ethernet2",
          "Ethernet3",
          "Ethernet5",
          "Ethernet6",
          "Ethernet7",
          "Ethernet9"
        ],
        "vlan-tag": "un-tagged"
      }
    ]
  },
  {
    "name": "VLAN2",
    "vlan": {
      "id": 2
    },
    "ethernet": [
      {
        "select-ports": [
          "Ethernet1"
        ],
        "vlan-tag": "tagged"
      },
      {
        "select-ports": [
          "Ethernet5"
        ],
        "vlan-tag": "un-tagged"
      },
      {
        "select-ports": [
          "Ethernet6"
        ],
        "vlan-tag": "tagged"
      }
    ]
  },
  {
    "name": "VLAN9",
    "vlan": {
      "id": 9
    },
  },

```

```
"ethernet": [
  {
    "select-ports": [
      "Ethernet8"
    ],
    "vlan-tag": "tagged",
    "pvid": true
  }
],
{
  "name": "VLAN10",
  "vlan": {
    "id": 10
  },
  "ethernet": [
    {
      "select-ports": [
        "Ethernet4",
        "Ethernet9"
      ],
      "vlan-tag": "tagged",
      "pvid": true
    }
  ]
},
],
"metrics": {
  "dhcp-snooping": {
    "filters": [
      "ack",
      "discover",
      "offer",
      "request",
      "solicit",
      "reply",
      "renew"
    ]
  },
  "health": {
    "interval": 60
  },
  "statistics": {
    "interval": 300,
    "types": [
    ]
  }
},
"unit": {
  "leds-active": true,
  "usage-threshold": 95
},
"uuid": 1678263900
}
```