Device Schema

Version: 1.0 | 01/22/2013

Status:

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# Document History

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| --- | --- | --- | --- |
| Version | Date | Author | Reason for change |
| 1.0 | 01/22/2013 | NVAT | internal release |

# Overview

Device schema defines the configuration, status and list of the commands device supports.

The Key properties of Device Schema are:

1. DeviceType
   1. DeviceConfig
   2. Device Status
   3. DeviceCommands

Example XP200 Device

<V2D-XP200-Device>

<DeviceConfig/>

<DeviceStatus/>

<DeviceCommands/>

</V2D-XP200-Device>

# DeviceConfig

Device Config schema defines the device specific configuration. Based on the config defined device will start the services.

The key properties of DeviceConfig are:

1. SystemConfig : CPU, License, clock, user access
2. ServiceConfig : Telnet, SSH, XMPP, FTP, Streaming services
3. NetworkConfig: Route table, IPAddress, NAT
4. StorageConfig: Hard Disk, NAS
5. AVCodecConfig: source and destination ports. Layout , video lookup tables

Example:

<DeviceConfig>

<SystemElementsConfig>

<AdminServiceConfig>

<Password>admin</Password>

</AdminServiceConfig>

</SystemElementsConfig>

<ServiceElementsConfig>

<XMPPAgentServiceConfig Dirty=*"CLEAN"*>

<Enable>true</Enable>

<XMPPServer>0.0.0.0</XMPPServer>

<XMPPServerPort>5222</XMPPServerPort>

<DeviceName>managementserver</DeviceName>

<DevicePassword>Msadmin1234</DevicePassword>

<Domain>string</Domain>

<ServiceDomain>default</ServiceDomain>

</XMPPAgentServiceConfig>

</ServiceElementsConfig>

<NetworkElementsConfig>

<EthernetPortTableConfig>

<EthernetPortConfig>

<PortID>1</PortID>

<EnableInterface>true</EnableInterface>

<IsPrimary>true</IsPrimary>

<EnableMulticast>true</EnableMulticast>

<MTU>1500</MTU>

<IPConfig>

<UseDHCP>true</UseDHCP>

<IPAddress>169.254.0.1</IPAddress>

<Netmask>255.255.0.0</Netmask>

</IPConfig>

</EthernetPortConfig>

</EthernetPortTableConfig>

</NetworkElementsConfig>

<StorageElementsConfig>

</StorageElementsConfig>

<AVCodecElementsConfig>

<XP200PortConfig Dirty=*"CLEAN"*>

<PortID>1</PortID>

<MaxElementInstanceCount/>

<Info Dirty=*"CLEAN"*>

<StreamType>V2D</StreamType>

<Configurable/>

<PortIOType>StreamSrc</PortIOType>

<MaxEncoderInstanceCount>1</MaxEncoderInstanceCount>

</Info>

</XP200PortConfig>

<XP200PortConfig Dirty=*"CLEAN"*>

<PortID>1</PortID>

<MaxElementInstanceCount/>

<Info Dirty=*"CLEAN"*>

<StreamType>V2D</StreamType>

<Configurable/>

<PortIOType>StreamDst</PortIOType>

<MaxEncoderInstanceCount>1</MaxEncoderInstanceCount>

</Info>

<XP200DisplayConfig Dirty=*"CLEAN"*>

<DisplayType>Remote</DisplayType>

<OverlayType>Manual</OverlayType>

<Override>Monitor</Override>

<OverrideColor>Blue</OverrideColor>

<KeepAspect>true</KeepAspect>

<Aspect>Auto</Aspect>

<HorizontalTransformation>Scale/Source

</HorizontalTransformation>

<HorizontalScale>100</HorizontalScale>

<HorizontalResolution>0</HorizontalResolution>

<VerticalTransformation>Scale/Source

</VerticalTransformation>

<VerticalScale>100</VerticalScale>

<VerticalResolution>0</VerticalResolution>

<HorizontalPosition>Location</HorizontalPosition>

<HorizontalLocation>Left</HorizontalLocation>

<VerticalPosition>Location</VerticalPosition>

<VerticalLocation>Top</VerticalLocation>

<HorizontalOffset>0</HorizontalOffset>

<VerticalOffset>0</VerticalOffset>

<Transparency>0</Transparency>

</XP200DisplayConfig>

</XP200PortConfig>

</AVCodecElementsConfig>

</DeviceConfig>

# DeviceStatus

Device Status schema defines the device specific Status.

The key properties of DeviceStatus are:

1. SystemStatus: CPU, Memory, NTP, clock, user access
2. ServiceStatus : Telnet, SSH, XMPP, FTP, Streaming services
3. NetworkStatus: IPAddress, NAT
4. StorageStatus: RAID, NAS status
5. AVCodecStatus: video status and Layout status

Example:

<DeviceStatus>

<SystemElementsStatus>

<CPUStatus>

<Parameters>

<Parameter name="Uptime" type="String">55 days, 1 hour, 33

mins, 13 secs</Parameter>

<Parameter name="LoadAverage" type="Float">

0.42</Parameter>

</Parameters>

</CPUStatus>

</SystemElementsStatus>

<ServiceElementsStatus>

<XMPPAgentServiceStatus>

<Parameters>

<Parameter name="Status" source="health"

type="Boolean">False</Parameter>

</Parameters>

</XMPPAgentServiceStatus>

</ServiceElementsStatus>

<NetworkElementsStatus>

<EthernetPortTableStatus>

<EthernetPortStatus>

<ParametersList>

<Parameters>

<Parameter name="LAN" type="UnsignedInteger">1</Parameter>

<Parameter name="MTU Size" type="Integer">1500</Parameter>

<Parameter name="Status" source="configuration"

type="Boolean">True</Parameter>

<Parameter name="IPAddress" type="String">10.51.50.68</Parameter>

<Parameter name="Netmask" type="String">255.255.252.0</Parameter>

<Parameter name="Broadcast" type="String">10.51.51.255</Parameter>

<Parameter name="HardwareAddress"

type="String">00:50:56:88:66:E9</Parameter>

<Parameter name="Name" type="String">XP200-68</Parameter>

<Parameter name="Primary" source="configuration"

type="Boolean">True</Parameter>

<Parameter name="RxBytes" source="counter" type="UnsignedInteger"

units="bytes">2494929298</Parameter>

<Parameter name="TxBytes" source="counter" type="UnsignedInteger"

units="bytes">244752426</Parameter>

<Parameter name="RxPackets" source="counter" type="UnsignedInteger"

units="number">35281360</Parameter>

<Parameter name="TxPackets" source="counter" type="UnsignedInteger"

units="number">2103298</Parameter>

<Parameter name="RxErrors" source="counter" type="UnsignedInteger"

units="number">245</Parameter>

<Parameter name="TxErrors" source="errorcounter"

type="UnsignedInteger" units="number">0</Parameter>

<Parameter name="LinkDetected" type="String"></Parameter>

<Parameter name="AutoNegotiate" type="String"></Parameter>

<Parameter name="Speed" type="String"></Parameter>

<Parameter name="Duplex" type="String"></Parameter>

<Parameter name="LinkPartner" type="String"></Parameter>

</Parameters>

</ParametersList>

</EthernetPortStatus>

</EthernetPortTableStatus>

</NetworkElementsStatus>

<StorageElementsStatus>

</StorageElementsStatus>

<AVCodecElementsStatus>

<XP200PortStatus>

<PortID>1</PortID>

<InstanceInfo>

<PortInstance>

<ID/>

</PortInstance>

</InstanceInfo>

</XP200PortStatus>

<XP200PortStatus Dirty=*"CLEAN"*>

<PortID>2</PortID>

<XP200DisplayStatus>

<Parameters>

<Parameter name="Source" type="String">Remote</Parameter>

<Parameter name="Background" type="String">None</Parameter>

<Parameter name="Max Horiz Res" type="Integer">0</Parameter>

<Parameter name="Max Vert Res" type="Integer">0</Parameter>

<Parameter name="Source Horiz Res" type="Integer">0</Parameter>

<Parameter name="Source Vert Res" type="Integer">0</Parameter>

<Parameter name="Horiz Res" type="Integer">0</Parameter>

<Parameter name="Vert Res" type="Integer">0</Parameter>

<Parameter name="Horiz Scale" type="Integer">0</Parameter>

<Parameter name="Vert Scale" type="Integer">0</Parameter>

<Parameter name="Horiz Offset" type="Integer">0</Parameter>

<Parameter name="Vert Offset" type="Integer">0</Parameter>

<Parameter name="Transparency" type="Integer">100</Parameter>

<Parameter name="Remote LUT" type="String">????</Parameter>

<Parameter name="Display LUT" type="String">????</Parameter>

<Parameter name="Local LUT" type="String">No LUT

Detected</Parameter>

<Parameter name="Local Interface" type="String">Analog

SOG</Parameter>

<Parameter name="Vert. Freq." type="Float">0.000</Parameter>

<Parameter name="Horiz. Freq." type="Float">0.000</Parameter>

<Parameter name="Horiz. Lines" type="Integer">0</Parameter>

<Parameter name="Stereo?" source="truth"

type="Boolean">False</Parameter>

</Parameters>

</XP200DisplayStatus>

</XP200PortStatus>

</AVCodecElementsStatus>

</DeviceStatus >

# DeviceCommands

Device Commands defines the list of the commands supported by device.

The key properties of DeviceStatus are:

1. SystemCommands: Reboot, Shutdown, Upgrade , RevertToDefault and SaveToFlash

Example:

<DeviceCommands>

<SystemElementsCommand>

<RebootCommand/>

<UpgradeSoftwareCommand>

<UpgradeURL/>

</UpgradeSoftwareCommand>

</SystemElementsCommand>

</DeviceCommands>