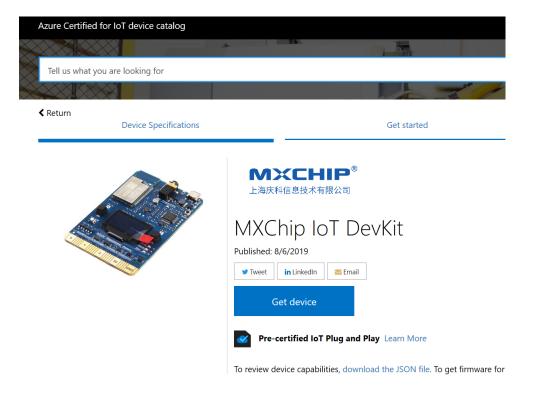
# Plug and Play DTDL description language example



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Jan 2019

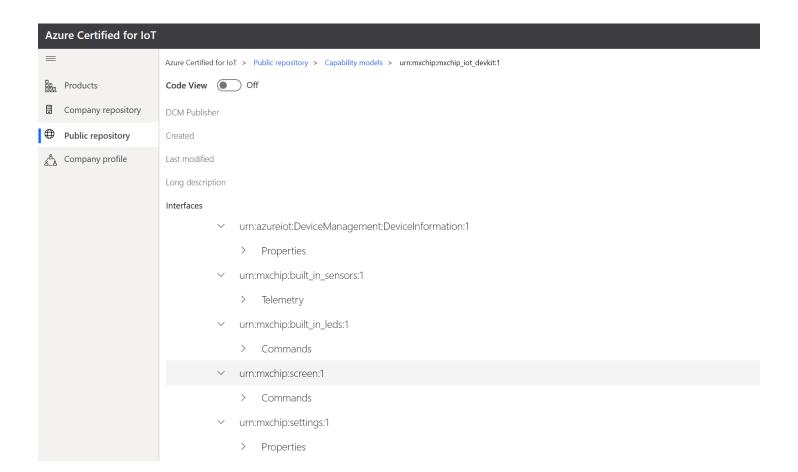
#### Example with MXCHIP

https://catalog.azureiotsolutions.com/details?title=MXChip-IoT-DevKit&source=all-devices-page



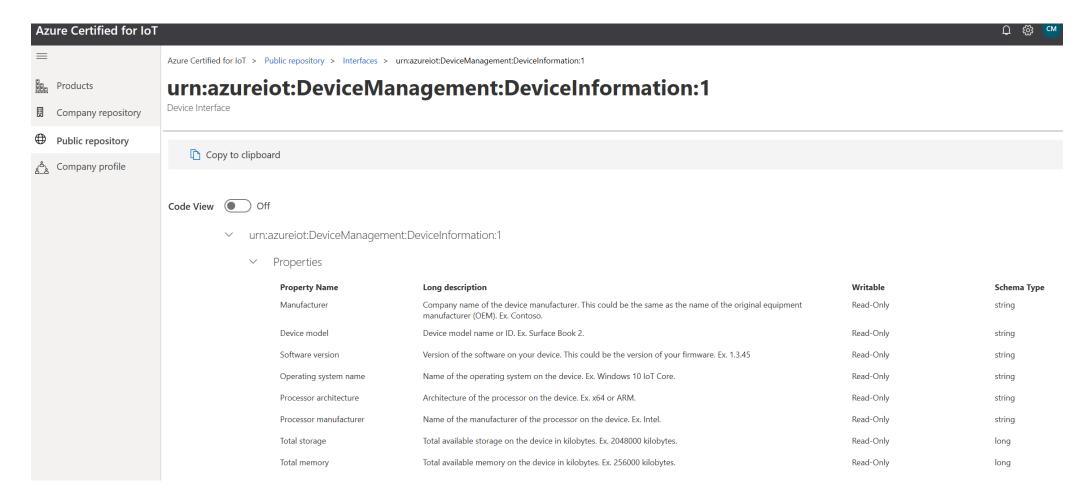
#### Example: Capability model urn:mxchip:mxchip\_iot\_devkit:1

https://preview.catalog.azureiotsolutions.com/globalRepository/capabilityModels/urn:mxchip:mxchip iot devkit:1



```
"@context": "http://azureiot.com/v1/contexts/IoTModel.json",
"@id": "urn:mxchip:mxchip_iot_devkit:1",
"@type": "CapabilityModel",
"displayName": "MXChip IoT DevKit",
"implements": [
   "name": "deviceinfo".
    "schema": "urn:azureiot:DeviceManagement:DeviceInformation:1"
                                                                      Interface 1
    "name": "sensors"
    "schema": "urn:mxchip:built_in_sensors:1"
                                                   Interface 2
    "name": "leds",
   "schema": "urn:mxchip:built_in_leds:1"
                                              Interface 3
    "name": "screen",
    "schema": "urn:mxchip:screen:1"
                                          Interface 4
    "name": "settings".
    "schema": "urn:mxchip:settings:1"
                                          Interface 5
```

## Well known: Interface urn:mxchip:built\_in\_sensors:1

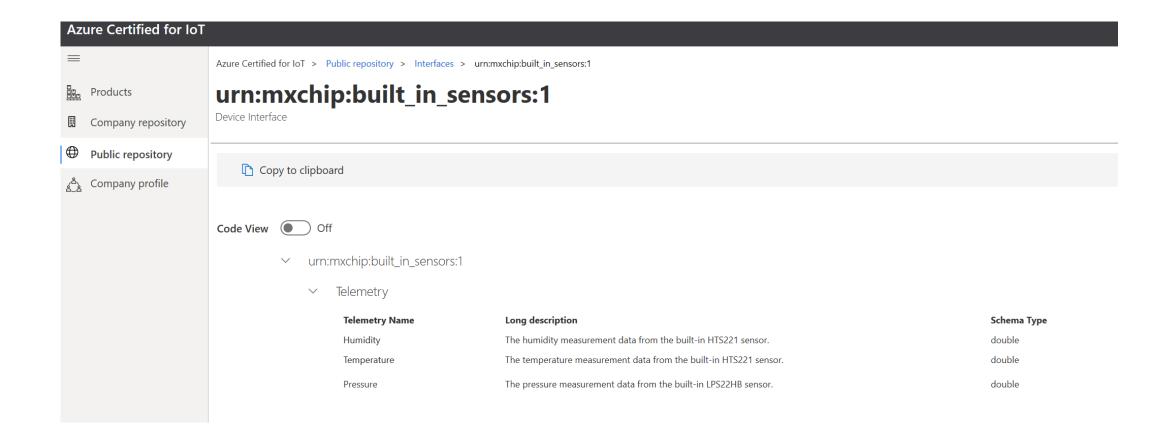


```
"@tyne" · "Intenface"
  "displayName": "Device Information",
  "contents": [
      "@type": "Property",
     "name": "manufacturer",
     "displayName": "Manufacturer",
     "schema": "string",
     "description": "Company name of the device manufacturer. This cou
ld be the same as the name of the original equipment manufacturer (OEM)
. Ex. Contoso."
   },
     "@type": "Property",
     "name": "model",
     "displayName": "Device model",
     "schema": "string",
     "description": "Device model name or ID. Ex. Surface Book 2."
      "@type": "Property",
     "name": "swVersion",
     "displayName": "Software version",
     "schema": "string",
     "description": "Version of the software on your device. This coul
d be the version of your firmware. Ex. 1.3.45"
      "@type": "Property",
     "name": "osName",
     "displayName": "Operating system name",
     "schema": "string",
     "description": "Name of the operating system on the device. Ex. W
indows 10 IoT Core."
   },
```

```
"@type": "Property",
      "name": "processorArchitecture",
      "displayName": "Processor architecture",
      "schema": "string",
      "description": "Architecture of the processor on the device. Ex.
x64 or ARM."
      "@type": "Property",
      "name": "processorManufacturer",
      "displayName": "Processor manufacturer",
      "schema": "string",
      "description": "Name of the manufacturer of the processor on the
device. Ex. Intel."
    },
      "@type": "Property",
      "name": "totalStorage",
      "displayName": "Total storage",
      "schema": "long",
      "displayUnit": "kilobytes",
      "description": "Total available storage on the device in kilobyte
s. Ex. 2048000 kilobytes."
      "@type": "Property",
      "name": "totalMemory",
      "displayName": "Total memory",
      "schema": "long",
      "displayUnit": "kilobytes",
      "description": "Total available memory on the device in kilobytes
 Ex. 256000 kilobytes."
  "@context": "http://azureiot.com/v1/contexts/IoTModel.json"
```

### Example: Interface Telemetry urn:mxchip:built\_in\_sensors:1

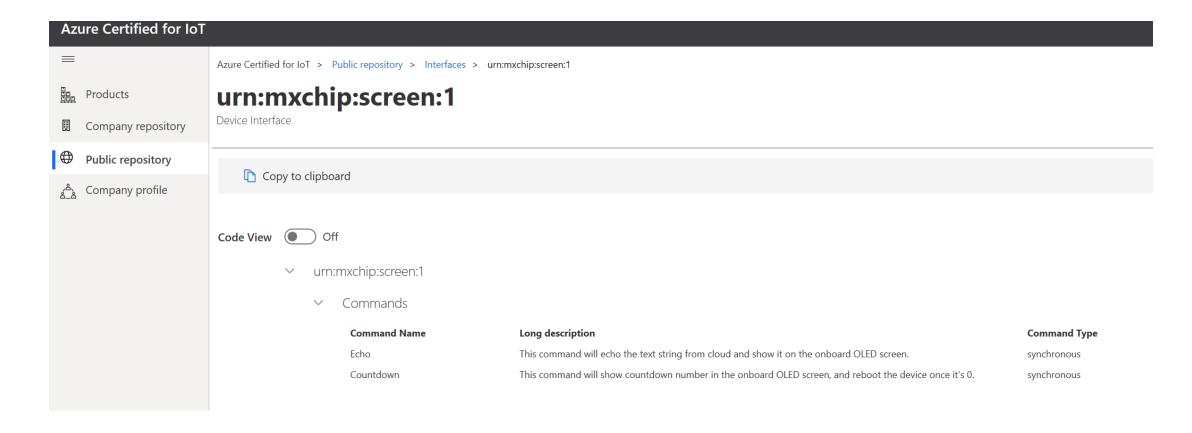
https://preview.catalog.azureiotsolutions.com/globalRepository/interfaces/urn:mxchip:built\_in\_sensors:1



```
"@id": "urn:mxchip:built_in_sensors:1",
"@type": "Interface",
"displayName": "mxchip_sensor",
"contents": [
    "@type": "Telemetry",
   "name": "humidity",
   "displayName": "Humidity",
   "comment": "The humidity measurement data from the built-in HTS221 sensor.",
   "schema": "double"
    "@type": "Telemetry",
   "name": "temperature",
   "displayName": "Temperature",
   "comment": "The temperature measurement data from the built-in HTS221 sensor ",
   "schema": "double"
   "@type": "Telemetry",
   "name": "pressure",
   "displayName": "Pressure",
   "comment": "The pressure measurement data from the built-in LPS22HB sensor."
   "schema": "double"
"@context": "http://azureiot.com/v1/contexts/IoTModel.json"
```

#### Example: Interface Command urn:mxchip:screen:1

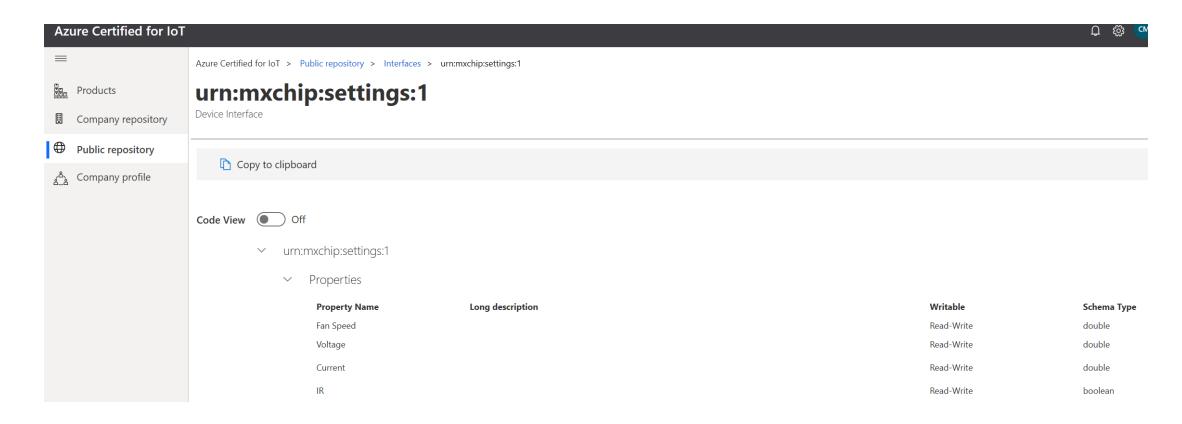
https://preview.catalog.azureiotsolutions.com/globalRepository/interfaces/urn:mxchip:screen:1



```
"@id": "urn:mxchip:screen:1",
"@type": "Interface",
"displayName": "mxchip_screen",
"contents": [
    "@type": "Command",
    "description": "This command will echo the text string from cloud and show it on the onboard OLED screen.",
    "name": "echo",
   "displayName": "Echo",
    "commandType": "synchronous",
    "request": {
      "name": "text",
     "schema": "string"
    },
    "response": {
     "name": "echoResponse",
     "schema": {
        "@type": "Object",
        "fields": [
            "name": "echo",
            "schema": "string"
    "@type": "Command",
    "description": "This command will show countdown number in the onboard OLED screen, and reboot the device once it's 0.",
   "name": "countdown",
    "displayName": "Countdown",
    "commandType": "synchronous",
    "request": {
      "name": "number",
      "schema": "integer"
"@context": "http://azureiot.com/v1/contexts/IoTModel.json"
```

#### Example: Interface Property urn:mxchip:settings:1

https://preview.catalog.azureiotsolutions.com/globalRepository/interfaces/urn:mxchip:settings:1



#### Interface 5

```
'@id": "urn:mxchip:settings:1",
"@type": "Interface",
"displayName": "mxchip_settings",
"contents":
    "@type": "Property",
   "name": "fanSpeed",
    "displayName": "Fan Speed",
    "writable": true,
    "schema": "double"
    "@type": "Property",
    "name": "voltage",
    "displayName": "Voltage",
    "writable": true,
    "schema": "double"
    "@type": "Property",
    "name": "current",
    "displayName": "Current",
    "writable": true,
    "schema": "double"
    "@type": "Property",
    "name": "irSwitch",
    "displayName": "IR",
    "writable": true,
    "schema": "boolean"
"@context": "http://azureiot.com/v1/contexts/IoTModel.json"
```