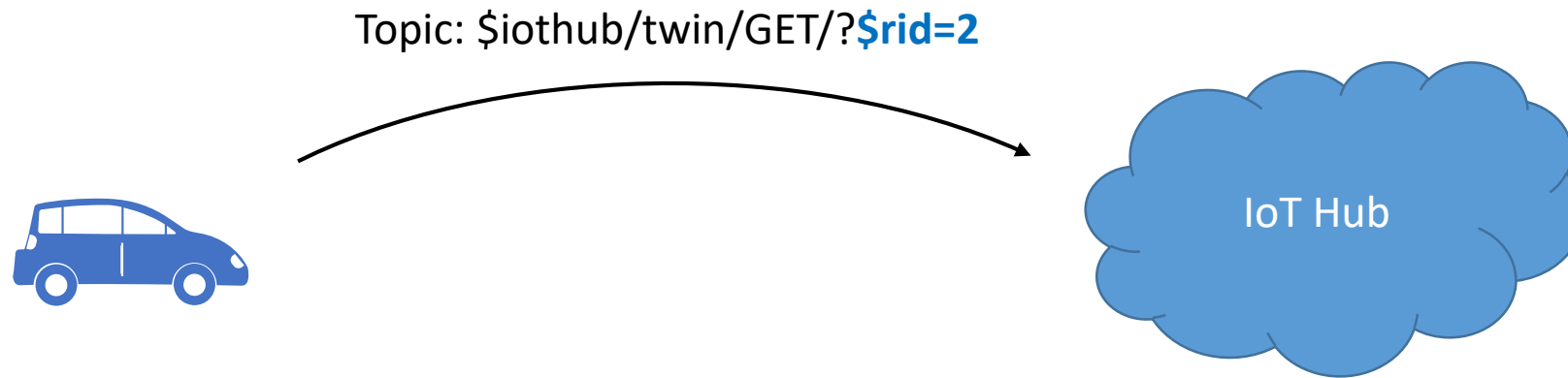# Migration from Azure IoT Hub to AWS IoT Core
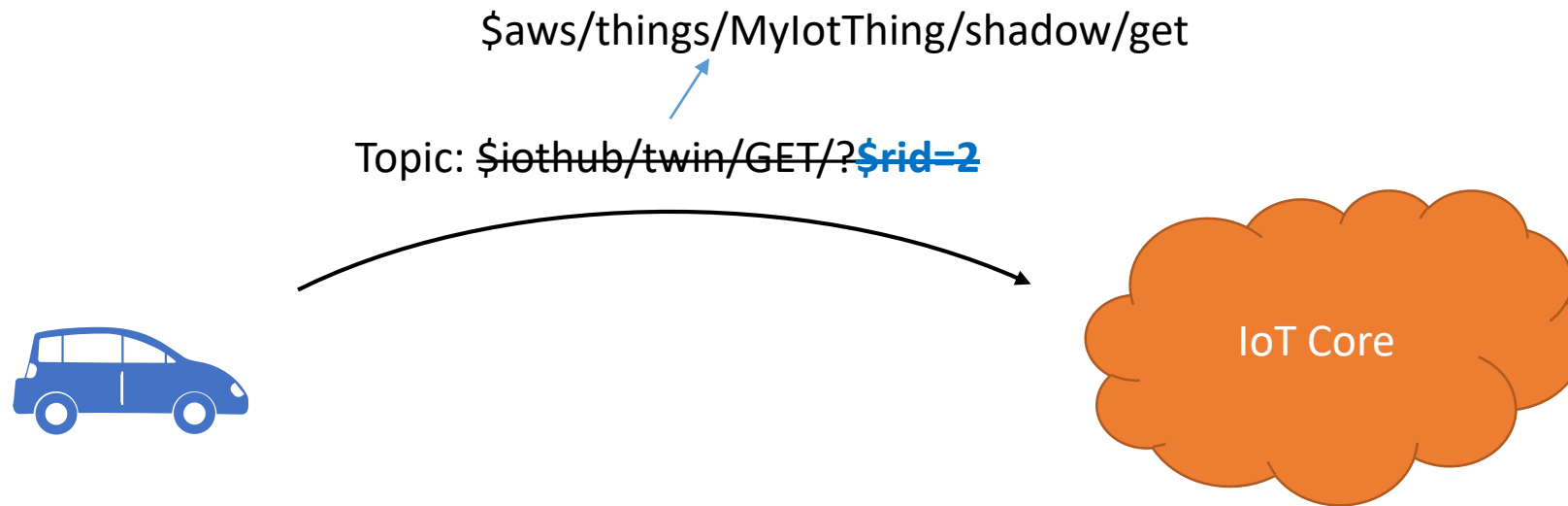
Outline

- Get device state
- Update device state from device
- Update device state from Cloud
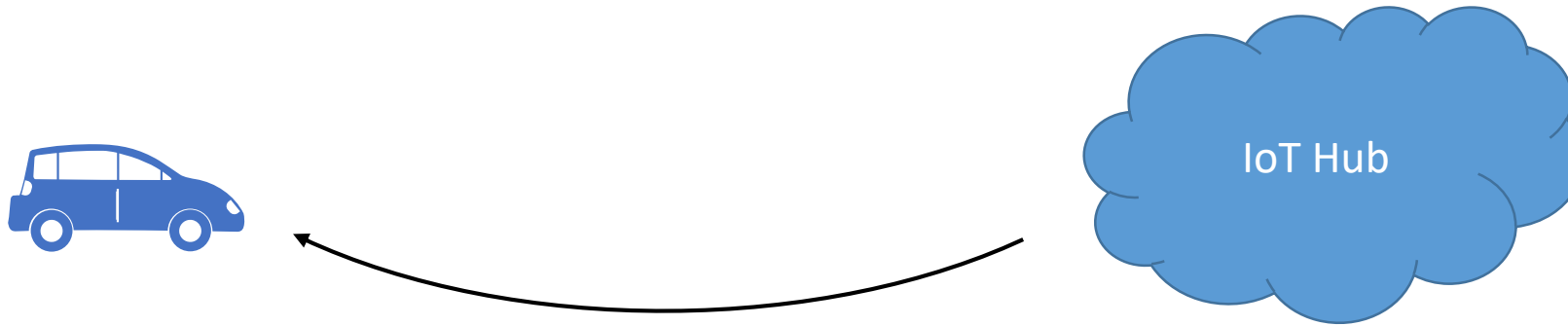- Direct method

Request of get device state in Azure IoT Hub

Topic: $iothub/twin/GET/?**$rid=2**

IoT Hub

Request of get device state in AWS IoT Core

$aws/things/MyIotThing/shadow/get

Topic: ~~$iothub/twin/GET/?~~**$rid=2**

IoT Core

Response of get device state in Azure IoT Hub

IoT Hub

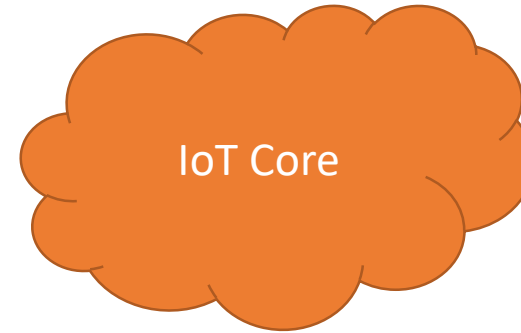Topic: $iothub/twin/res/**200**/?**$rid=2**

Payload:

```
{
    "reported": {
        "lastOilChangeDate": "2016",
        "maker": {
            "makerName": "Fabrikam",
            "style": "sedan",
            "year": 2014
        },
        "state": {
            "reported_maxSpeed": 100,
            "softwareVersion": 1,
            "vanityPlate": "1I1"
        },
        "$version": 7
    }
}
```

Response of get device state in AWS IoT Core

IoT Core

Topic: ~~$iothub/twin/res/~~~~200~~~~/?~~~~$rid=2~~

$aws/things/MyIotThing/shadow/get/accepted

Payload:

```json
{
    "state": {
        "reported": {
            "lastOilChangeDate": "2016",
            "maker": {
                "makerName": "Fabrikam",
                "style": "sedan",
                "year": 2014
            },
            "state": {
                "reported_maxSpeed": 100,
                "softwareVersion": 1,
                "vanityPlate": "1I1"
            }
        },
    },
    "metadata": {
        ......
    },
    "version": 7,
    "timestamp": 1592957061
}
```
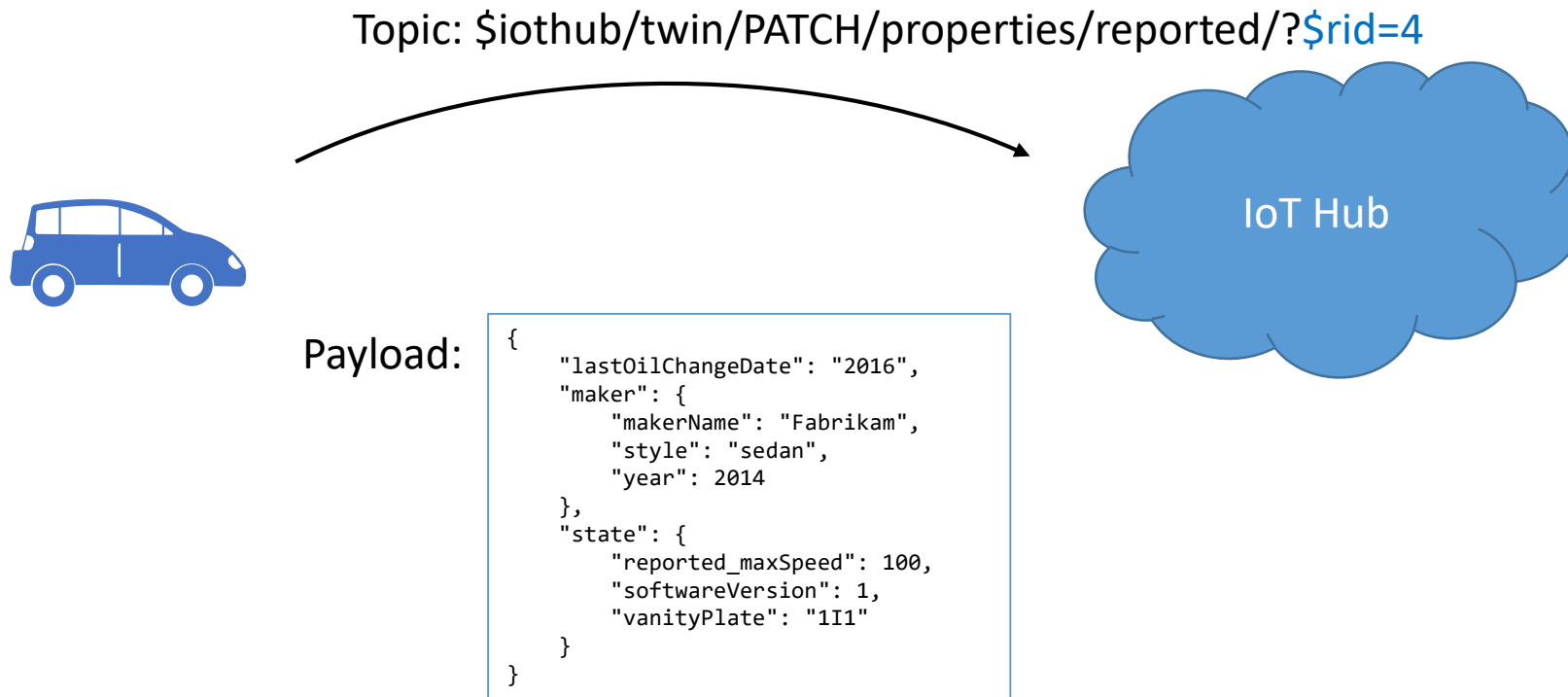
Outline

- Get device state
- Update device state from device
- Update device state from Cloud
- Direct method

Request of update device state in Azure IoT Hub

Topic: $iothub/twin/PATCH/properties/reported/?$rid=4

IoT Hub

Payload:
```
{
    "lastOilChangeDate": "2016",
    "maker": {
        "makerName": "Fabrikam",
        "style": "sedan",
        "year": 2014
    },
    "state": {
        "reported_maxSpeed": 100,
        "softwareVersion": 1,
        "vanityPlate": "1I1"
    }
}
```

Request of update device state in AWS IoT Core

$aws/things/MyIotThing/shadow/update

Topic: ~~$iothub/twin/PATCH/properties/reported/?~~$rid=4

Payload:

```json
{
    "state": {
        "reported": {
            "lastOilChangeDate": "2016",
            "maker": {
                "makerName": "Fabrikam",
                "style": "sedan",
                "year": 2014
            },
            "state": {
                "reported_maxSpeed": 100,
                "softwareVersion": 1,
                "vanityPlate": "1I1"
            }
        }
    }
}
```

IoT Core

Response of update device state in Azure IoT Hub

IoT Hub

Topic: $iothub/twin/res/204/?$rid=4&$version=8

Response of update device state in AWS IoT Core

IoT Core

Topic: ~~$iothub/twin/res/~~204/?~~$rid=4~~&~~$version=8~~

$aws/things/MyIotThing/shadow/update/accepted

Outline

- Get device state
- Update device state from device
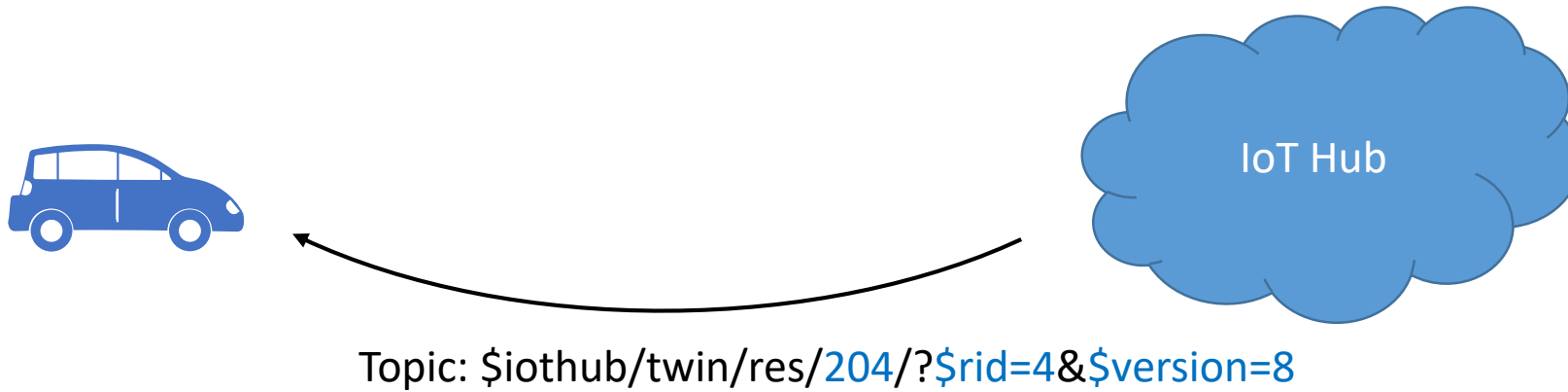- Update device state from Cloud
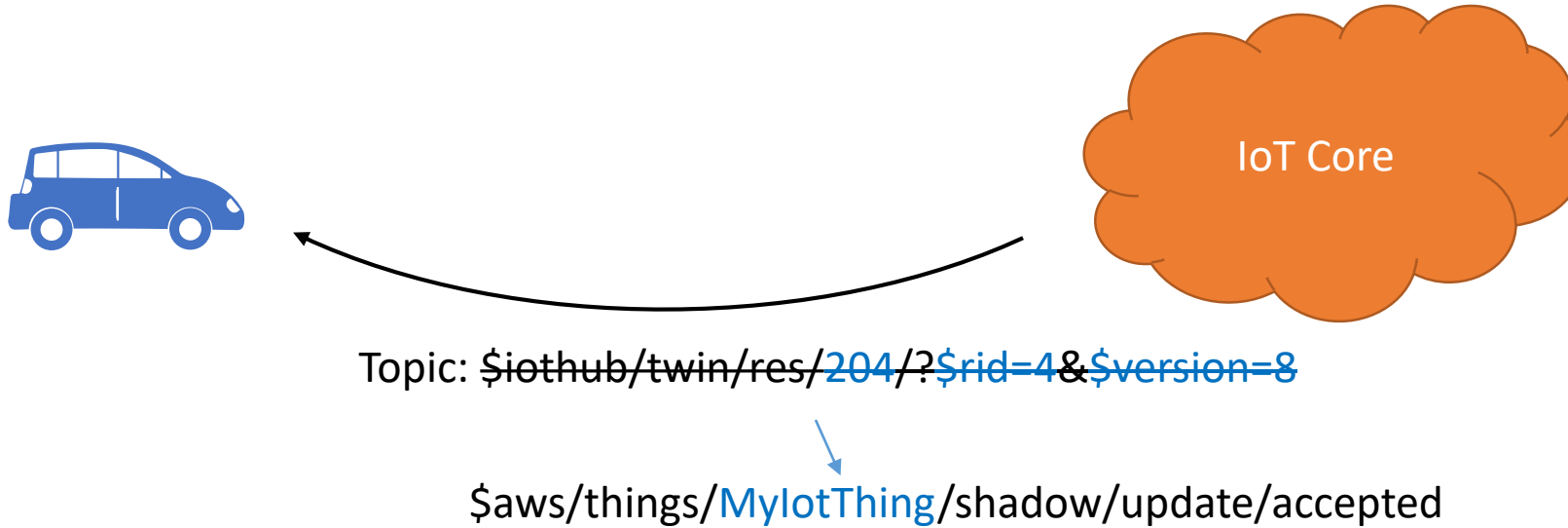- Direct method
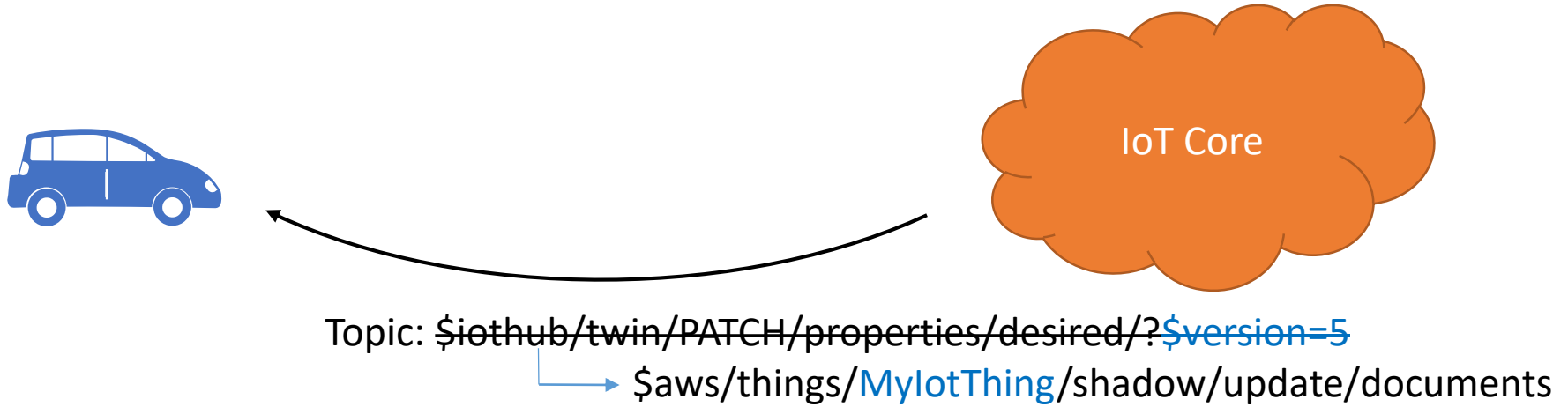
update device state from Azure IoT Hub

IoT Hub

Topic: $iothub/twin/PATCH/properties/desired/?$version=5

Payload:
```
{
    "settings": {
        "desired_maxSpeed": 110
    },
    "$version": 5
}
```

update device state from AWS IoT Core

IoT Core

Topic: ~~$iothub/twin/PATCH/properties/desired/?~~~~$version=5~~

$aws/things/MyIotThing/shadow/update/documents
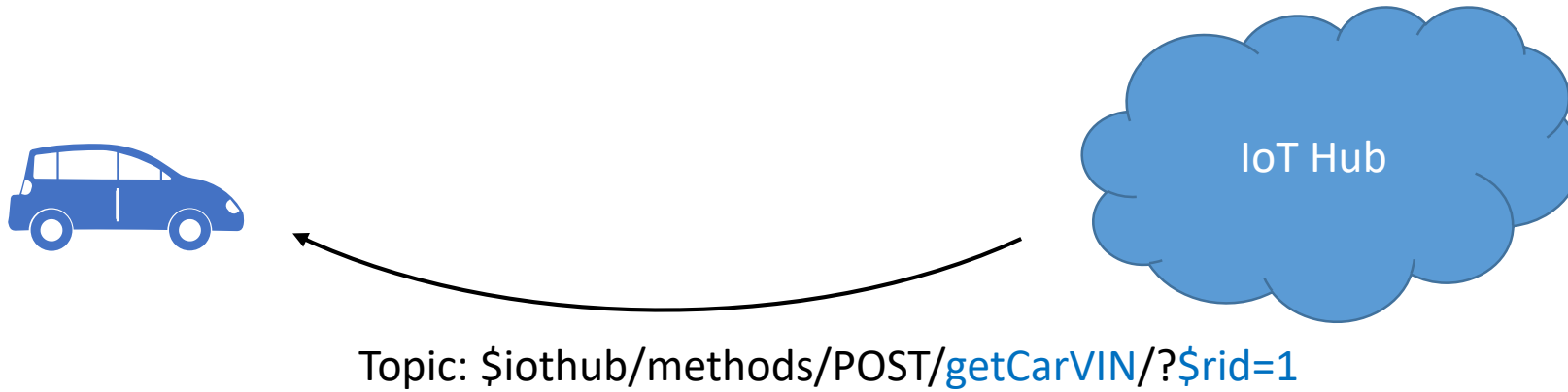
Payload:

```
{
    "previous": {
        ......
    },
    "current": {
        "state": {
            "desired": {
                "settings": {
                    "desired_maxSpeed": 120
                }
            },
            "reported": {
                ......
            }
        },
        "metadata": {
            ......
        },
        "version": 5
    },
    "timestamp": 1592926795
}
```
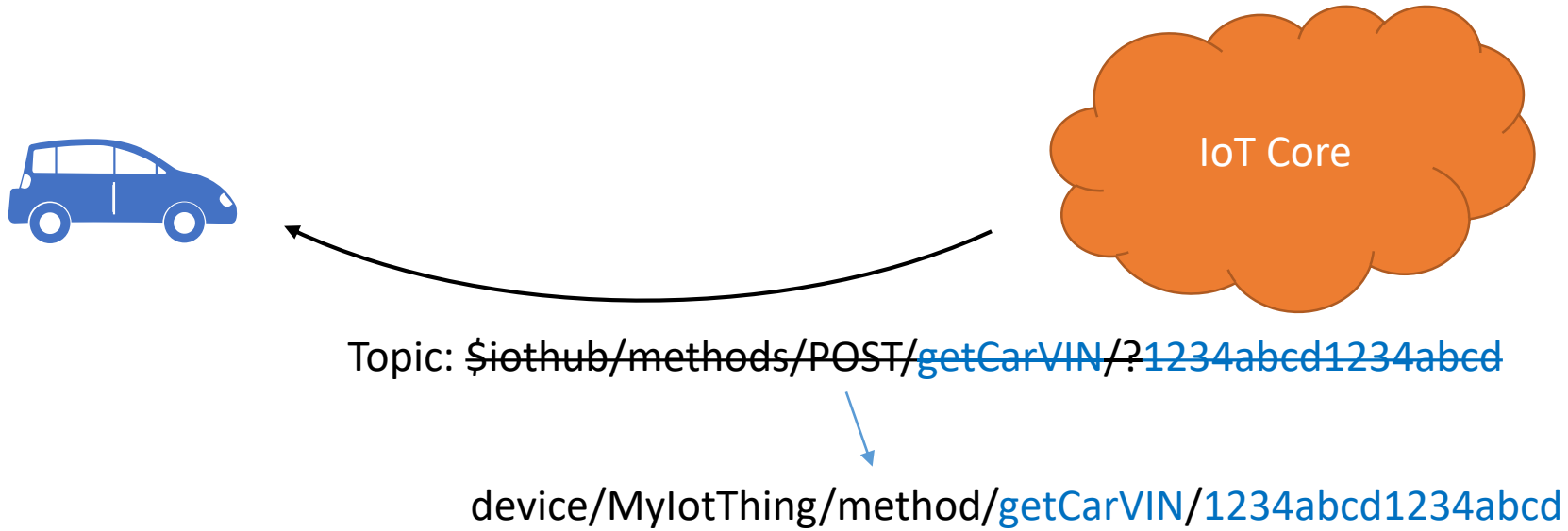
Outline

- Get device state
- Update device state from device
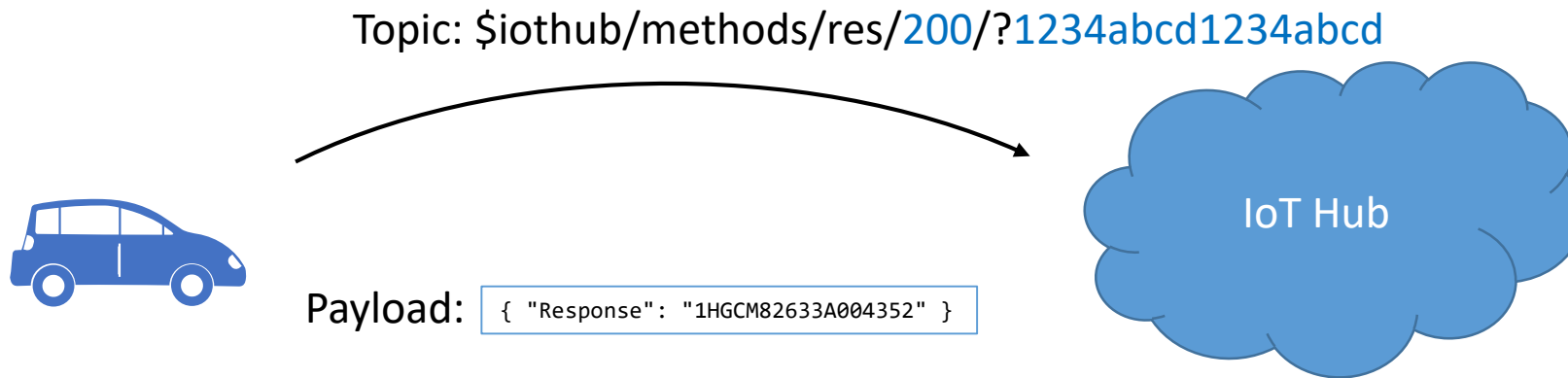- Update device state from Cloud
- Direct method

Request of direct method in Azure IoT Hub

Topic: $iothub/methods/POST/getCarVIN/?$rid=1

Request of direct method in AWS IoT Core

IoT Core

Topic: ~~$iothub/methods/POST/~~getCarVIN~~/?1234abcd1234abcd~~

device/MyIotThing/method/getCarVIN/1234abcd1234abcd

Response of direct method in Azure IoT Hub

Topic: $iothub/methods/res/200/?1234abcd1234abcd

Payload: `{ "Response": "1HGCM82633A004352" }`

IoT Hub

Response of direct method in AWS IoT Core

device/method/res/200/1234abcd1234abcd

Topic: ~~$iothub/methods/res/~~~~200~~~~/?~~~~1234abcd1234abcd~~

Payload: `{ "Response": "1HGCM82633A004352" }`

IoT Core