Deploying Network Configuration Management and Telemetry Solutions

UTILIZING RESTCONF TO MANAGE DEVICE CONFIGURATION

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Suggested Prerequisite Courses

Getting Started with Software Development Using Cisco DevNet

Consuming Cisco APIs and Understanding Application DevOps

Managing Cisco Networks via Infrastructure as Code

Assessing and Enhancing Applications Using
Cisco DevNet Techniques

Managing Cisco Products Using Advanced API-based Methods

Agenda

RESTCONF and YANG refresher

Managing Cisco IOS-XE static routes
- Collection
- Addition
- Removal

Your Role at Globomantics

YANG Structured Data

Data modeling language
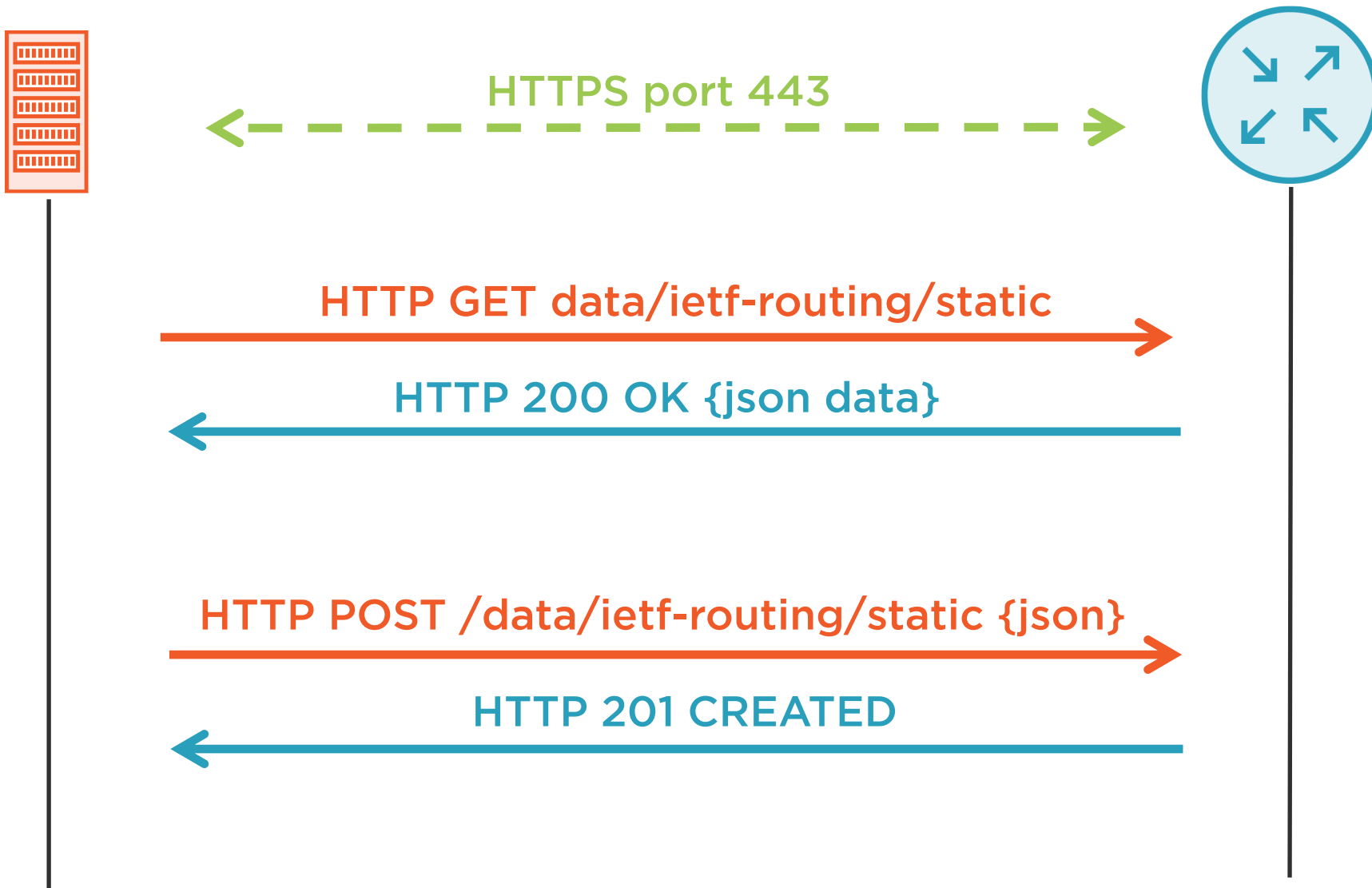
Analogy: ID card

```
grouping driver-license {
  leaf driver-id {
    type uint32;
  }
  leaf first-name {
    type string;
  }
  leaf last-name {
    type string;
  }
  leaf weight-lbs {
    type uint16 {
      range 55..999;
    }
  }
}
```

◄ Grouping can contain leaf elements

◄ Unique ID is a big number

◄ Names can be strings

◄ Could use a "leaf-list" for many names

◄ Driver weight in pounds

◄ Limited to some realistic numbers

RESTCONF Refresher

HTTPS port 443

HTTP GET data/ietf-routing/static

HTTP 200 OK {json data}

HTTP POST /data/ietf-routing/static {json}

HTTP 201 CREATED

Demo

Exploring the IETF routing YANG models

Demo

Using RESTCONF to collect static routes

Demo

Using RESTCONF to add static routes

Challenge: Deleting Static Routes

Identify the "key"

URL encoding!

Demo

Using RESTCONF to remove static routes

Summary

RESTCONF/YANG takes commitment

Many scripts for managing static routes