YAPT
Automate provisioning devices

Yet Another Provisioning Tool – Phone Home

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YAPT Use Cases

Provisioning	• Zero Touch provisioning
Verification	• Verify configuration / connectivity after provisioning
RMA	• Automate replacement of device in case of failure

YAPT Provisioning Scenarios

Staging Area

- Use staging area / network to provision devices
- Ship / place devices after provisioning is done

Drop shipping

- Ship device directly to final destination
- Devices being provisioned on site

Phone Home

Automated Secure Provisioning (ASP)
Based upon the YAPT server by Christian Klewar

Enterprise Remote Branch / Campus

SRX / NFX

0 Device configurations are generated

0.1 Authentication for installations

1 Upon initial boot-up, Device's Phone-Home contacts redirect.juniper.net

Internet

Enterprise DC / Cloud

ASP Config Server

Device Config Repository

3 Device handshakes with configuration server and obtains its specific config

redirect.juniper.net

4 ASP instantiates management platform ASP in place for RMAs, upgrades

2 *redirect.juniper.net* passes the address of customer configuration server to the Device

Space & SD / etc

Food

2016 Juniper Network
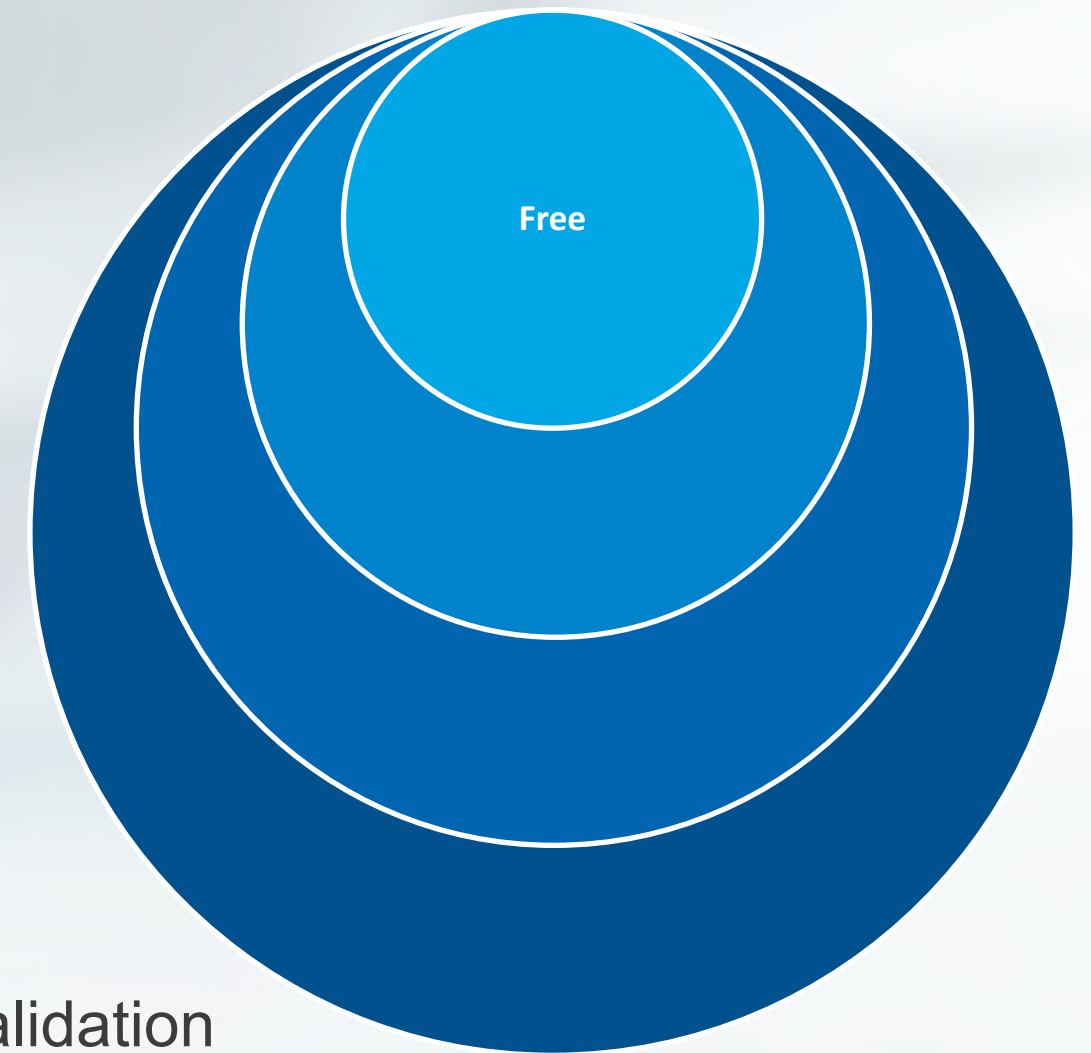
JUNIPER
NETWORKS

Methods and Features

- YAPT (ASP) is unique as a provisioning solution, addressing the following feature requirements for wide-area remote-branch deployments
    - Phone-Home Server to respond as the Config Server to request redirected from the Juniper Phone Home Redirect service; YAPT can implement the Activation Code to ensure the Device requesting config is where it should be, in the right hands
    - Outbound SSH (OSSH) support for case where Device calls into the Config Server (esp. behind NAT where response from Config Server fails and does not reach the Device)
    - X.509 Certificate Support for PKI-based IPsec tunneling in the Branch device: Secure pass-through of X.509 Cert from CA
- YAPT can also serve as Bench or Campus server for initial provisioning
    - Can serve as the solution to expedite staged and field deployments locally
    - Supports DHCP, TFTP and REST, as well as OSSH and SRX/NFX Phone-Home
- YAPT is Extensible, leveraging RabbitMQ Message Bus and Plug-In Service Module -based architecture
    - New modules can easily be added to extend services / features

PS Service: Jumpstart base solution for Engagement
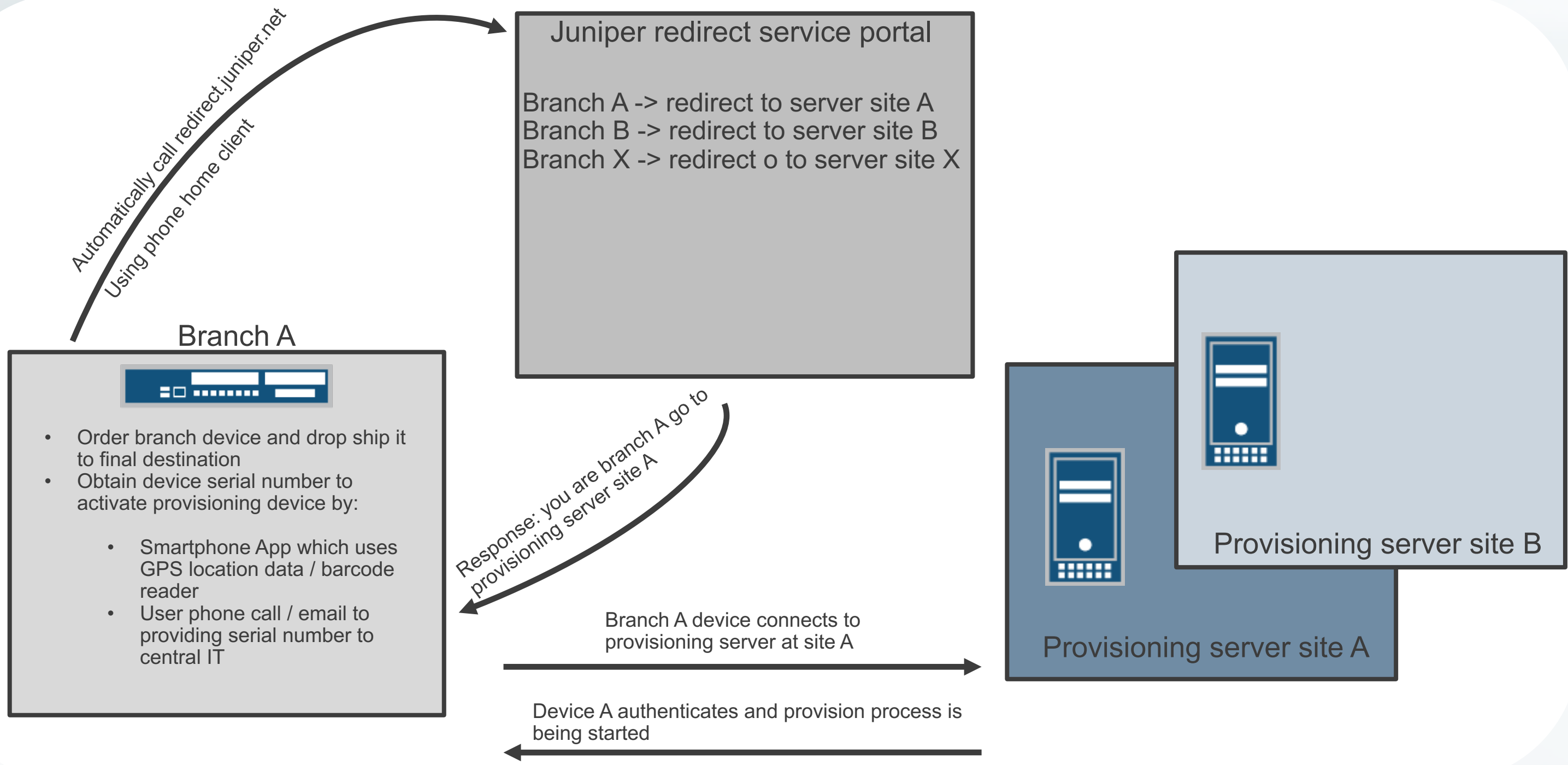*Basic Deployment & Support: Insertion for Value-Add Services*

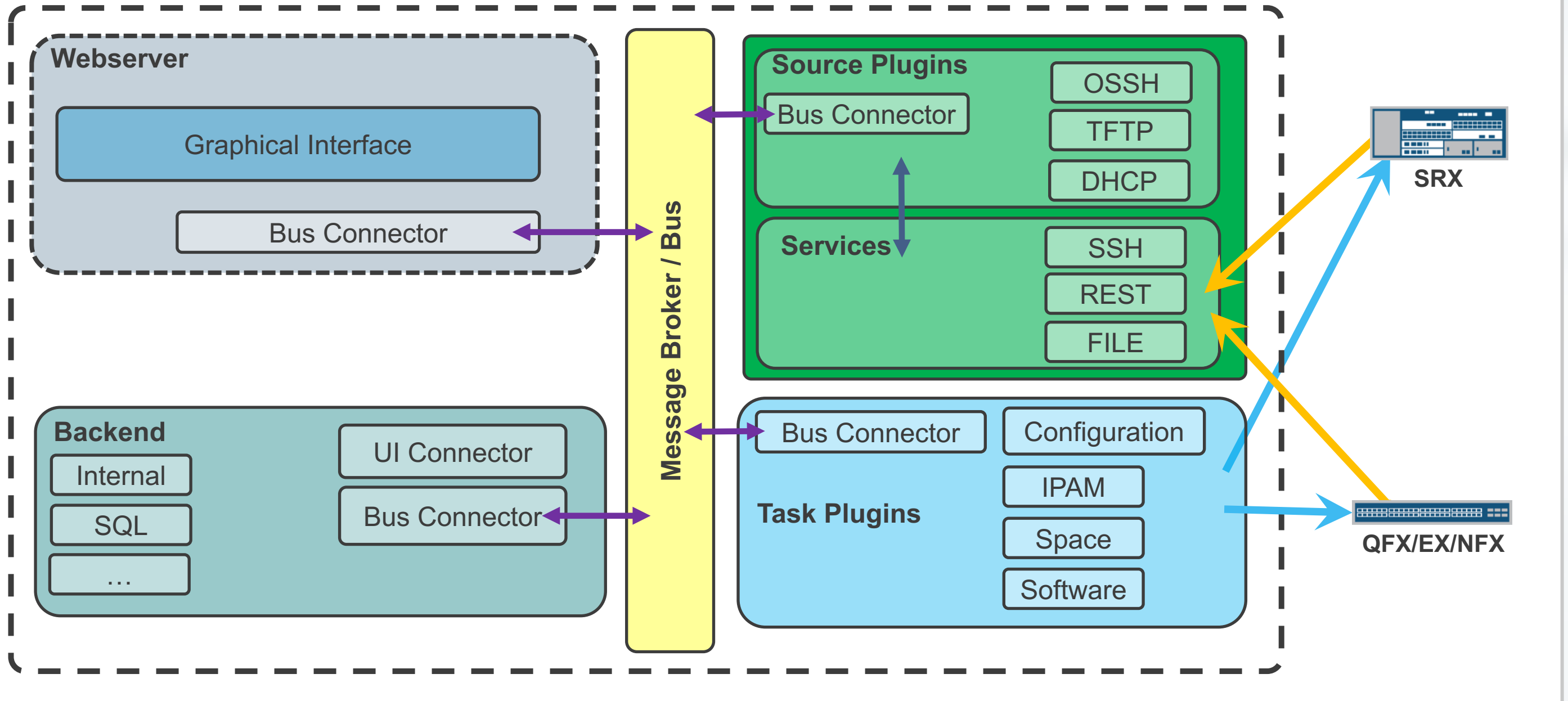Juniper Services Engagement for Customer Intimacy (Stickiness)

- Open-Source – Free basic solution

- Freemium: (Jumpstart)
  Add Support and Ease of Operation
  - Cloud-served (hosted option),
  - Supported (JTAC / PS)

- Premium/Ultimate: (Engagement Upsell)
  Value-Added Enterprise Services
  - Develop configuration and initial build & test
  - Automated Tailored Test Environment – ongoing validation
  - Process Integration – connection to business processes and IT tools (i.e. J-EDI)

Free

2016 Juniper Network
JUNIPER NETWORKS

Phone Home Capabilities (PHS / PHC)

Automatically call redirect.juniper.net

Using phone home client

Juniper redirect service portal

Branch A -> redirect to server site A
Branch B -> redirect to server site B
Branch X -> redirect o to server site X

Branch A

- Order branch device and drop ship it to final destination
- Obtain device serial number to activate provisioning device by:

  - Smartphone App which uses GPS location data / barcode reader
  - User phone call / email to providing serial number to central IT

Response: you are branch A go to provisioning server site A

Branch A device connects to provisioning server at site A

Device A authenticates and provision process is being started

Provisioning server site B
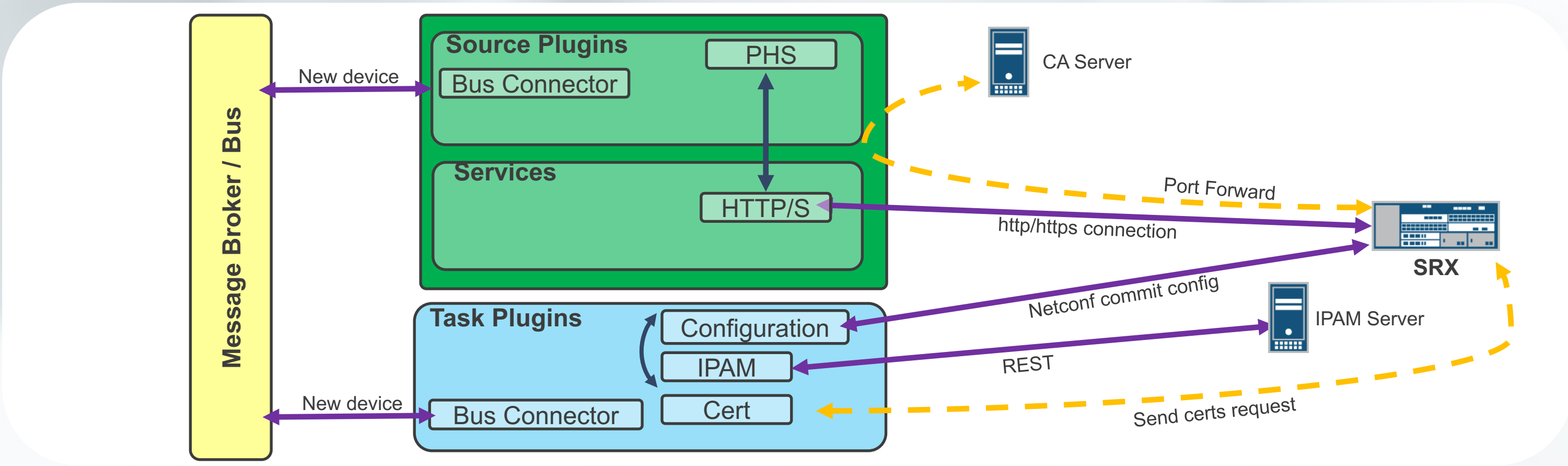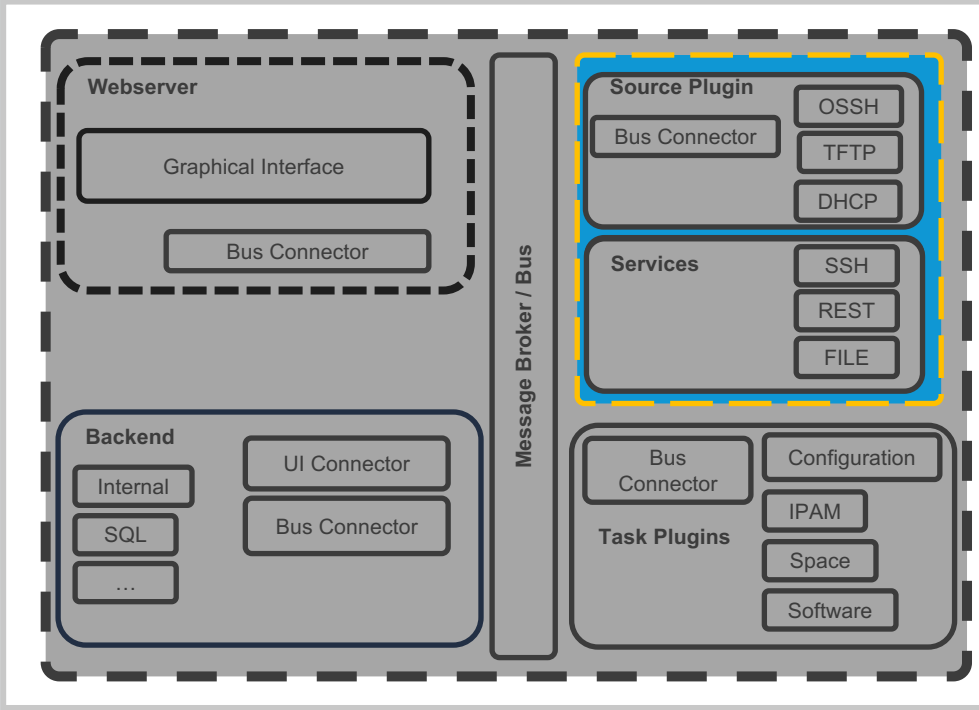
Provisioning server site A

YAPT - Architecture

Services / Source Plugins (PHS)

- PHS service listening for inbound http/s connections

- PHS service authenticates device / detect device type

- Source plugin "phs" normalizes received data and sends to Message Broker
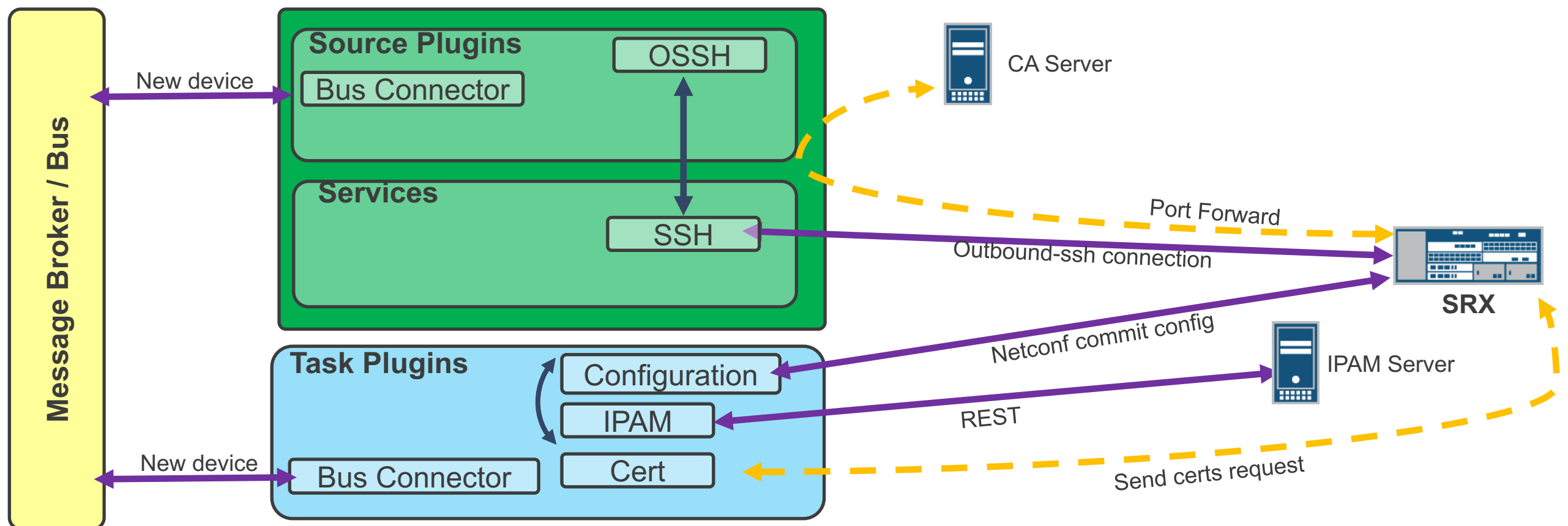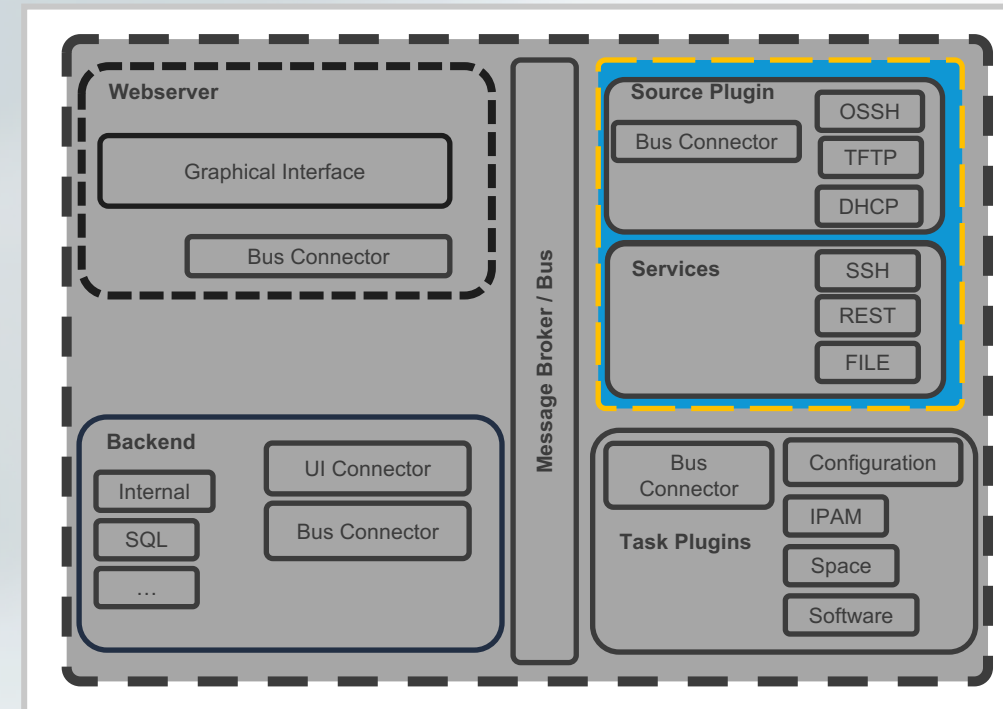
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