SCIM Use Cases & Concepts

An analysis of RFC 7642

Facilitator: P. Dingle

IETF 112, 11 November 2021

What is RFC 7642 (https://www.rfc-editor.org/rfc/rfc7642.txt)

Internet Engineering Task Force (IETF)
Request for Comments: 7642
Category: Informational
ISSN: 2070-1721

K. LI, Ed.
Alibaba Group
P. Hunt
Oracle
B. Khasnabish
ZTE (TX) Inc.
A. Nadalin
Microsoft
Z. Zeltsan
Individual

September 2015

System for Cross-domain Identity Management:
Definitions, Overview, Concepts, and Requirements

Abstract

This document provides definitions and an overview of the System for Cross-domain Identity Management (SCIM). It lays out the system's concepts, models, and flows, and it includes user scenarios, use cases, and requirements.

Status of This Memo

This document is not an Internet Standards Track specification; it is published for informational purposes.

This document is a product of the Internet Engineering Task Force (IETF). It represents the consensus of the IETF community. It has received public review and has been approved for publication by the Internet Engineering Steering Group (IESG). Not all documents approved by the IESG are a candidate for any level of Internet Standard; see Section 2 of RFC 5741.

- System for Cross-Domain Identity Management: **Definitions, Overview, Concepts & Requirements**
  - Defined 2011-2015

Major Elements

Actors

- Cloud Service Provider
  - CSP
- Enterprise Cloud Subscriber
  - ECS
- Cloud Service User
  - CSU

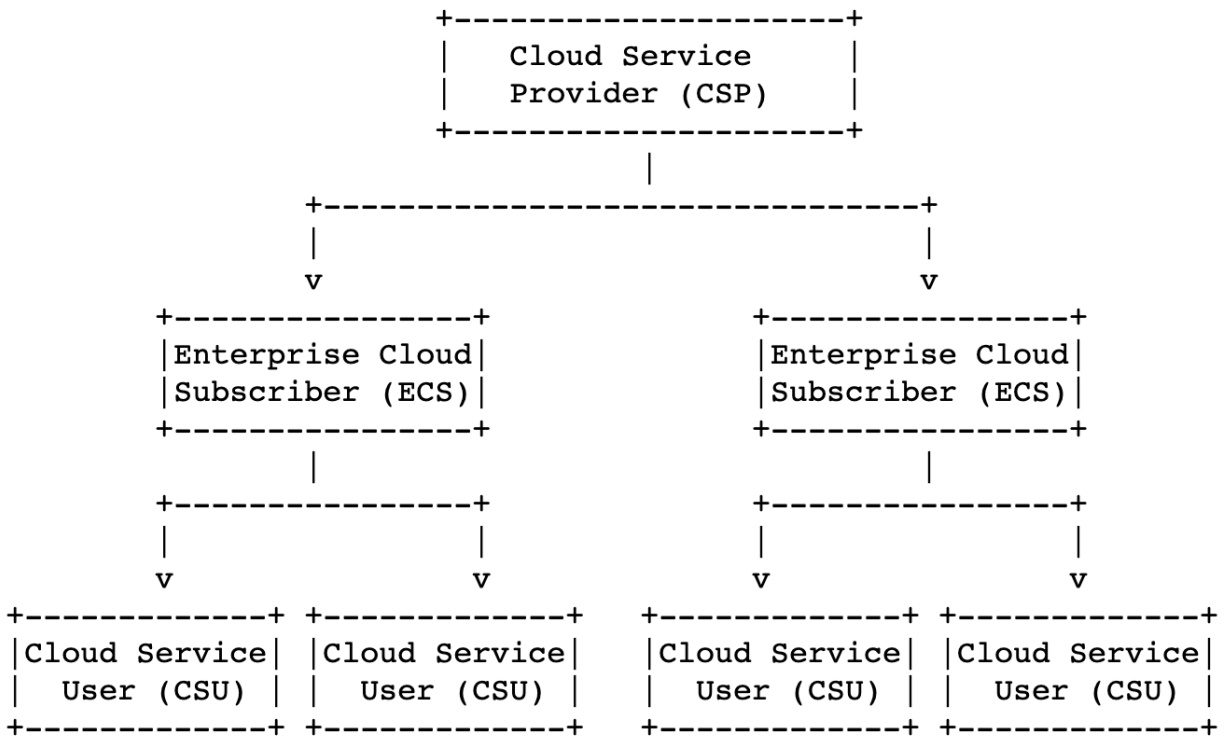


Figure 1: SCIM Actors

Major Elements

Triggers

- Create
- Update
- Delete
- SSO

Modes

- Push
- Pull

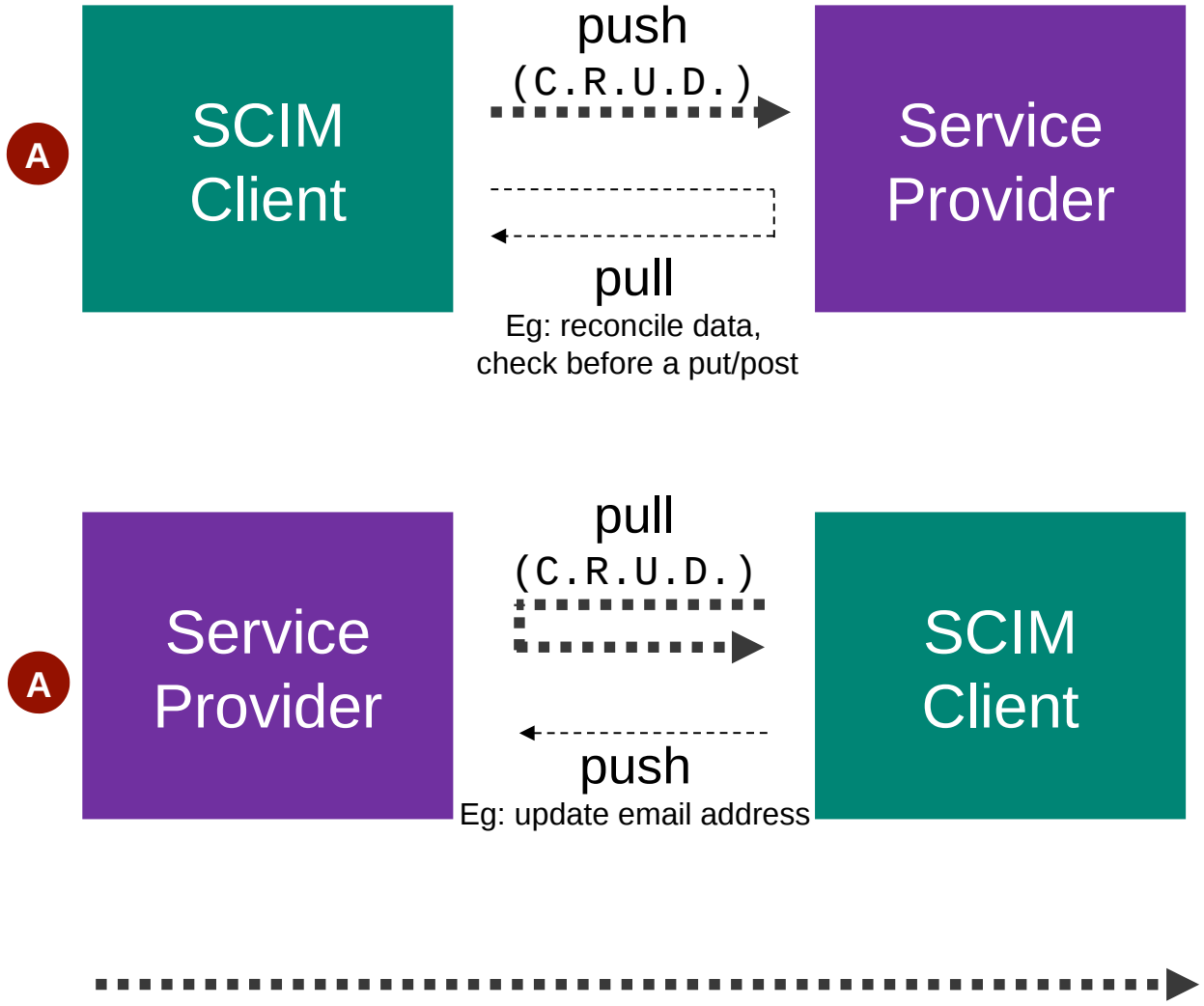
Use Cases

```
CSP->CSP: Create Identity (Push)
CSP->CSP: Update Identity (Push)
CSP->CSP: Delete Identity (Push)
CSP->CSP: SSO Trigger (Push)  .
CSP->CSP: SSO Trigger (Pull)  .
CSP->CSP: Password Reset (Push)
ECS->CSP: Create Identity (Push)
ECS->CSP: Update Identity (Push)
ECS->CSP: Delete Identity (Push)
ECS->CSP: SSO Trigger (Pull)  . .
```

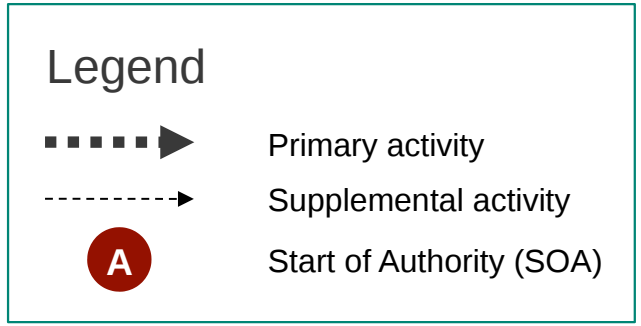
Which one is the Service Provider in RFC 7643 terms?
What if the ECS is the Service Provider? Service providers can’t “push”!

Identity Management has changed in the last 10 years

Hypothesis: Two patterns at the end of the day



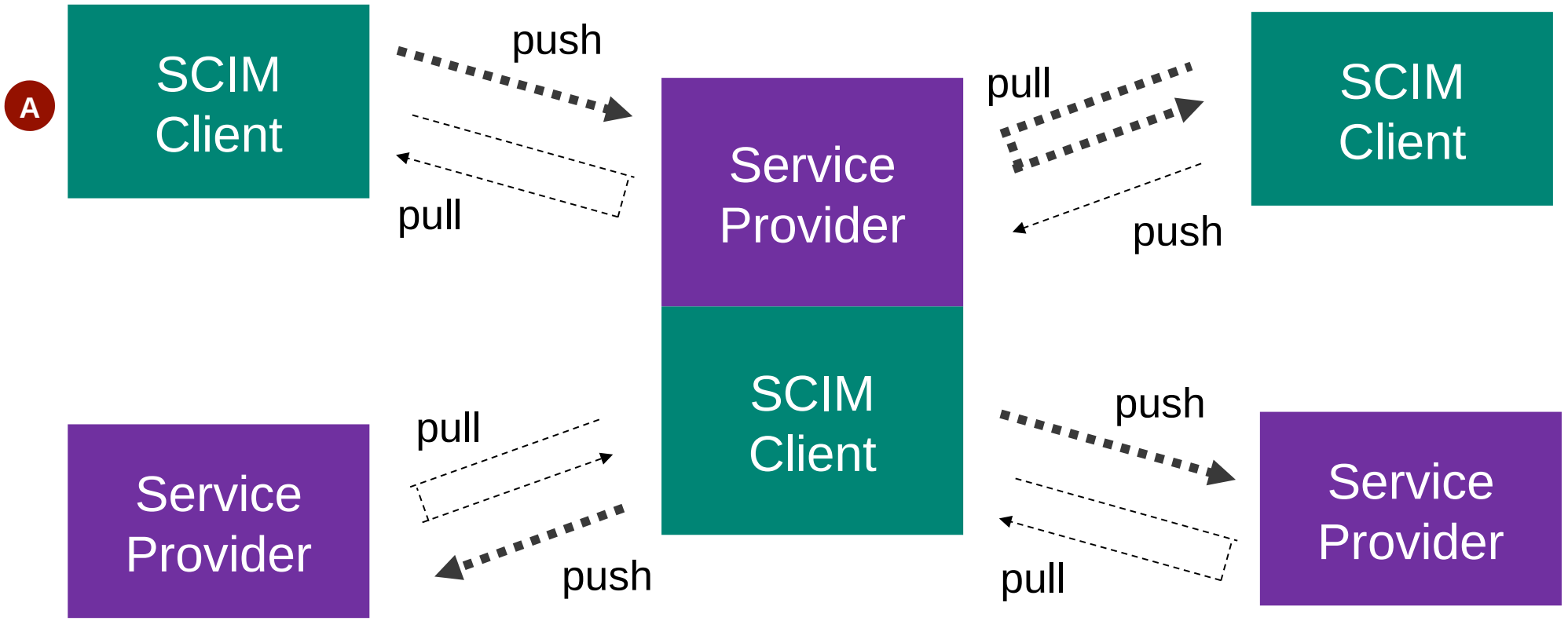
- Push & pull often happen together
  - Could differ by attribute
- Any participant can either be a client or a Service Provider



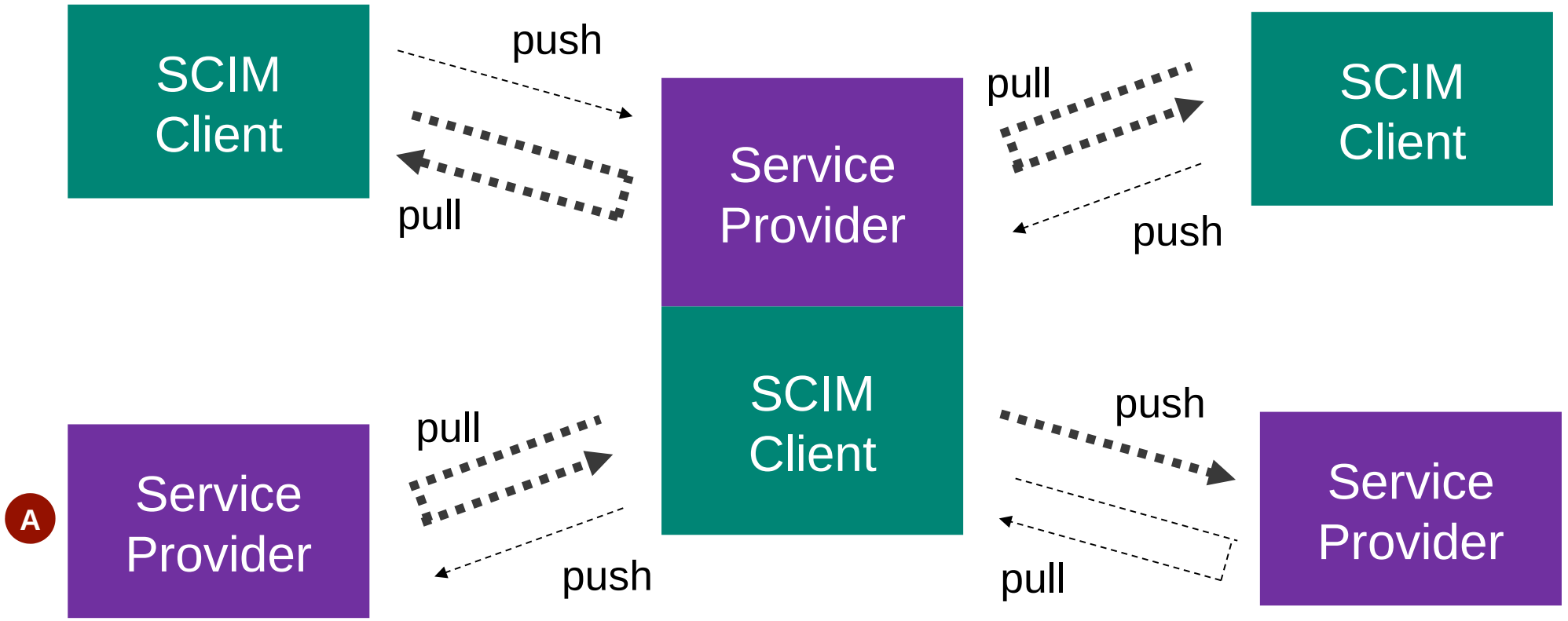
Service Provider as Provisioning Hub

SCIM Client as Provisioning Hub

Multi-Role Data Distribution



Multi-Role Data Distribution



What could we do in a new draft?

- Define & use in context the terms from RFC 7643/7644
  - Service Provider
  - Client
  - Resource
  - Provisioning Domain
  - Resource Type
- Modernize the Use Cases
  - Multi-directional interactions
  - Ephemeral/time-sensitive uses
  - Large Group management
  - Use of /me
  - Search
- Modernize the Concepts
  - Bi-directionality
  - Start of Authority & data flow
  - Incremental & partial attribute exchange
  - Extensibility & custom schema
  - Synchronization
- Success Criteria
  - Easy to Read
  - Decreases time needed to understand the protocol & schema documents
  - Explains nuance that does not belong in a normative document

Interested?

- Give feedback on direction
- Contact Nancy to volunteer as an Editor
- Help us review drafts

Photo credit: https://flickr.com/photos/51550312@N08/4733445650