What is Targeting

• Enables the ability to explicitly route SCIM operations to specific applications via a common gateway or hub
  – Currently handled indirectly via URLs or schema extensions
• Defined as extension to SCIM 1.0
• Schema extensions to link accounts between targets
• Draft available: draft-hunt-scim-targeting-00
Directory Provisioning

Cloud Service Provider
Finance App

CRM App

Cloud Directory

IDM Hub

IDM Admin

from Independentid.org
Extended SCIM Topology
SCIM Hub

• Important for directory-centric (single-silo) Cloud Providers
• May support different application types
  – directory-centric: apps implicitly provisioned by presence of entry in central directory/repository
  – apps provisioned by SCIM
  – protocol conversion (to App connectors)
• May provide identity administration
• May act as provisioning firewall to applications
Targeting Spec Summary

• Defines
  – New Target Resources
    • Logically defines apps that may be provisioned
  – New explicit “target” routing
    • Currently handled implicitly via
      – domain names in end-points
      – site specific schema additions
        » E.g. presence of uidNumber,gidNumber -> NIS Account
  – User extensions
    • accountRef – stores links to associated User accounts in specific Targets

• 100% backwards compatible
  – simplecloud.info SCIM 1 is just a “spoke”
Basic Targeting

/Targets/{target_id}/{scim-endpoint-url}

- Routes an operation at a specific target identified by {target_id}.
- {scim-endpoint-url} any valid SCIM 1.0 relative
- Example:
  /Targets/crm/Users/2819c223-7f76-453a-919d-413861904646
  /Targets/crm/Groups/00300000005N2Y6AA
  /Targets/crm/ServerProviderConfigs
  /Targets/crm/Schemas
Other Target Operations

- `/Targets/`  
  - Returns available target identifiers
- `/Targets/{target_id}`  
  - Returns information about `{target_id}`
- `/Targets/{target_id}/ServiceProviderConfigs`  
  - Returns configuration information about `{target_id}`
- `/Targets/{target_id}/Schemas`  
  - Returns schema information about `{target_id}`
Targeting Entity Changes

• /ServiceProviderConfig [extended]
  – Normal config +
  – Spoke vs Proxy vs Hub

• /Targets/{target_id} [new]
  – target identifier
  – tenancy id – one tenancy per target
  – discovery information e.g. OAuth?

• /Users/{object_id}
  – New accountRefs complex attribute
User with Targeted Refs

"id": "2819c223-7f76-453a-919d-413861904646",
"userName": "bjensen@example.com"

"urn:scim:schemas:extensions:targeted:1.0":{
   "accountRefs": [
      {
         "targetId": "mail",
         "Display": "Cloud Email Service",
         "references": [
            {"type": "User", "value": "bjensen@example.com", "primary": true},
            {"type": "User", "value": "b.jensen@example.com"}
         ]
      },
      {
         "targetId": "crm",
         "Display": "Customer Relationship Management Service",
         "references": [
            {"type": "User", "value": "2819c223-7f76-453a-919d-413861904646"}
         ]
      }
   ]
}
Extended ServerProviderConfig

{
  "schemas": ["urn:scim:schemas:core:1.0","urn:scim:schemas:extensions:targeted:1.0"],
  "documentationUrl": "http://example.com/help/scim.html",
  "patch": {
    "supported": true
  },
  "bulk": {
    "supported": true,
    "maxOperations": 1000,
    "maxPayloadSize": 1048576
  },
  "filter": {
    "supported": true,
    "maxResults": 200
  },
  ...
  "urn:scim:schemas:extensions:targeted:1.0": [ 
    { 
      "type": "hub"
    }
  ]
}
Targets Object

{
    "schemas": [
        "urn:scim:schemas:core:1.0",
        "urn:scim:extensions:targeted:1.0"
    ],
    "id" : "mail",
    "type" : "spoke",
    "description" : "SMTP/IMAP Email service"
<< Other info TBD >>
}

3/29/12
IETF#83
Discussion

• Thank you!