

**Overview**

A single overarching view of an organization’s IAM posture is often the dream of IAM professionals. This allows for the application of metrics across the organization for identity and access, making audits easier and providing a clear view of the identity and access lifecycle.

As they grow, most organizations add identity and access controls slowly and in a piecemeal manner. Usually, the first addition is either password management or single sign-on. Over time, the organization will add IAM governance and certification. Later, the company will add IT service management (ITSM) software to support the organization’s access policies, processes, and procedures. These actions are taken to design, deliver, operate, and control information technology (IT) services offered to its customers. The challenge is that many of these applications don’t have adequate API libraries and are not compliant with the SCIM standard. SCIM is an open standard for automating the exchange of user identity information between identity domains or IT systems. Tuebora supports companies that have a heterogeneous environment of best-of-breed products with its SCIM Connector Design tool.

**4 Steps to a “SCIM Ready” Application**

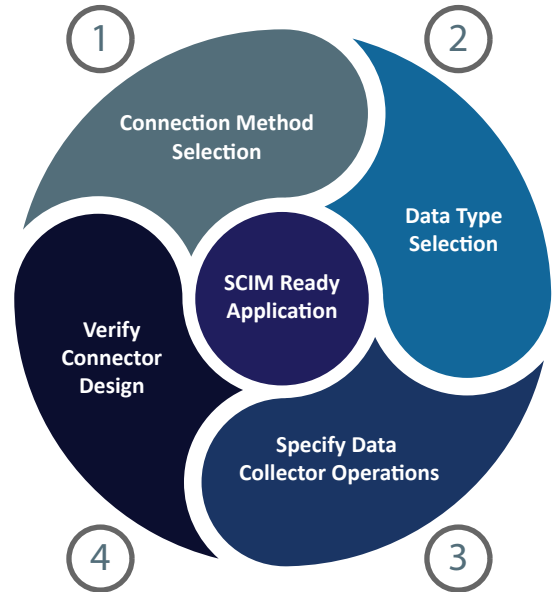


Figure 1 - Using Tuebora SCIM to Create a SCIM-Ready Application

**Meet Tuebora SCIM**

Tuebora’s System for Cross-Domain Identity Management (SCIM) is a GUI-based stand-alone connector design tool that generates SCIM compliant connectors for non-SCIM applications. As a company hires and fires employees, they are added and removed from the company’s employee directory. SCIM could be used to automatically add/delete, (or provision/de-provision), accounts for those users in external systems such as Google Apps for Work, Office 365, or Salesforce.com.

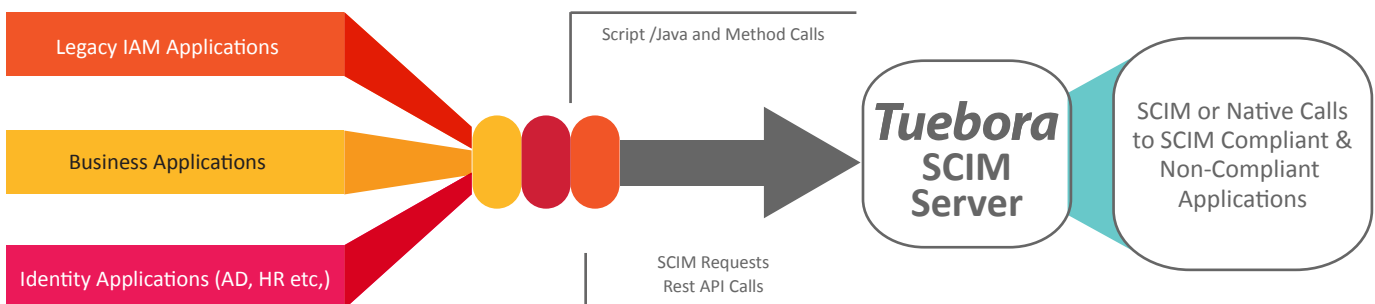


Figure 2 - Tuebora's SCIM Application and Server

SCIM can be used to share information about user attributes, attribute schema, and group membership. Attributes can range from user contact information to Active Directory group membership. Group membership or other attribute values are generally used to manage user permissions. Attribute values and group assignments can change, adding to the challenge of maintaining the relevant data across multiple identity domains.

## Summary

The ability to monitor and measure all IAM activity from a single platform, without having to worry about whether or not applications are SCIM compliant, should be a goal of every organization. Clients (Tuebora, Sailpoint, RSA, Oracle, or any other IAM vendor's application) can send SCIM requests to Tuebora SCIM Server. This makes automation of joiner-leaver-mover activities simple, and those activities can be tied to specific behaviors that are discovered using machine learning. The advantages of using Tuebora's SCIM Tool are:

- Fewer cycles spent developing connectors. This represents a significant cost in overall implementation.
- All IAM vendors expect you to know their proprietary language/schema to write connectors. With Tuebora, you are not required to be SME before you can write a connector.
- There is no proprietary language/protocol to learn. Tuebora's tool GUI simplifies connector development process and facilitates standardized integration to all applications.

Connector	Interaction	Connector Mode	Operations Supported
<input type="checkbox"/> Active Directory	LDAP	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Enable Account</li> <li>Get Account</li> <li>Get Group</li> <li>Update Group</li> <li>Delete Account</li> <li>Update Account</li> <li>Find Accounts</li> <li>Find Groups</li> <li>Add Member to Group</li> <li>Disable Account</li> <li>Unlock Account</li> <li>Reset Password</li> <li>Create Group</li> <li>Delete Member from Group</li> </ul>
<input type="checkbox"/> BOSS (Home Grown)	JDBC (SQL Server)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Grant Role to Account</li> <li>Disable Account</li> <li>Revoke Role for Account</li> <li>Enable Account</li> </ul>
<input type="checkbox"/> Finacle	HTTP (SOAP)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Find Accounts</li> <li>Disable Account</li> <li>Grant Access</li> <li>Get Account</li> <li>Revoke Access</li> </ul>
<input type="checkbox"/> Linux Accounts	Script (Other)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Find Accounts</li> <li>Add Account to Group</li> <li>Disable Account</li> <li>Get Group</li> <li>Remove Account from Group</li> <li>Get Account</li> <li>Find Groups</li> </ul>
<input type="checkbox"/> Okta	HTTP (REST)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Enable Account</li> <li>Create Group</li> <li>Add Account to Group</li> <li>Find Applications</li> <li>Assign Application to Group</li> <li>Delete Account</li> <li>Get Account</li> <li>Get Group</li> <li>Remove Account from Group</li> <li>Assign Application to Account</li> <li>Revoke Application from Group</li> <li>Disable Account</li> <li>Find Accounts</li> <li>Find Groups</li> <li>Get Application</li> <li>Revoke Application from Account</li> </ul>
<input type="checkbox"/> Odoo	JDBC (Postgres)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Find Accounts</li> <li>Find Roles</li> <li>Disable Account</li> <li>Reset Password</li> <li>Grant Role to Account</li> <li>Get Account</li> <li>Get Role</li> <li>Revoke Role for Account</li> </ul>
<input type="checkbox"/> Office 365	Script - Powershell	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Get Account</li> <li>Revoke Licenses for Account</li> <li>Find Groups</li> <li>Disable Account</li> <li>Find Accounts</li> <li>Update License Metadata assigned to Account</li> <li>Add Account to Group</li> <li>Enable Account</li> <li>Grant Licenses to Account</li> <li>Get Group</li> <li>Remove Account from Group</li> </ul>
<input type="checkbox"/> Oracle EBS	JDBC (Oracle)	Read ⇄ Write	<ul style="list-style-type: none"> <li>Create Account</li> <li>Find Accounts</li> <li>Add Account to Group</li> <li>Disable Account</li> <li>Get Group</li> <li>Remove Account from Group</li> <li>Get Account</li> <li>Find Groups</li> <li>Get Account</li> </ul>

Figure 3 – Partial List of Tuebora SCIM Application Connectors and Functional Capabilities