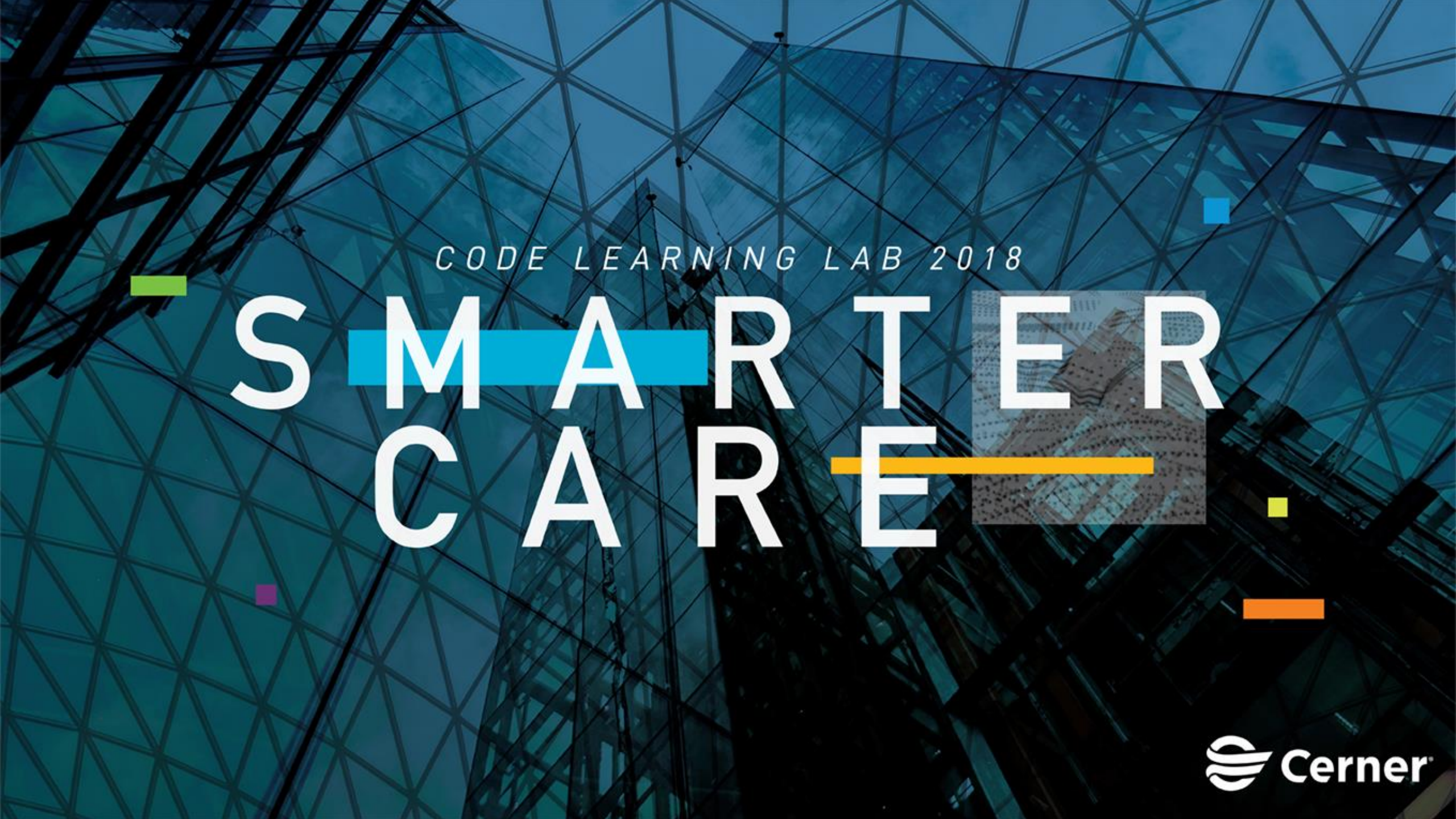
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Building Personnel and Organizations

October 9th, 2018

Justin Knysz, Senior Interface Architect

Jessi Sullivan, Senior Interface Engineer

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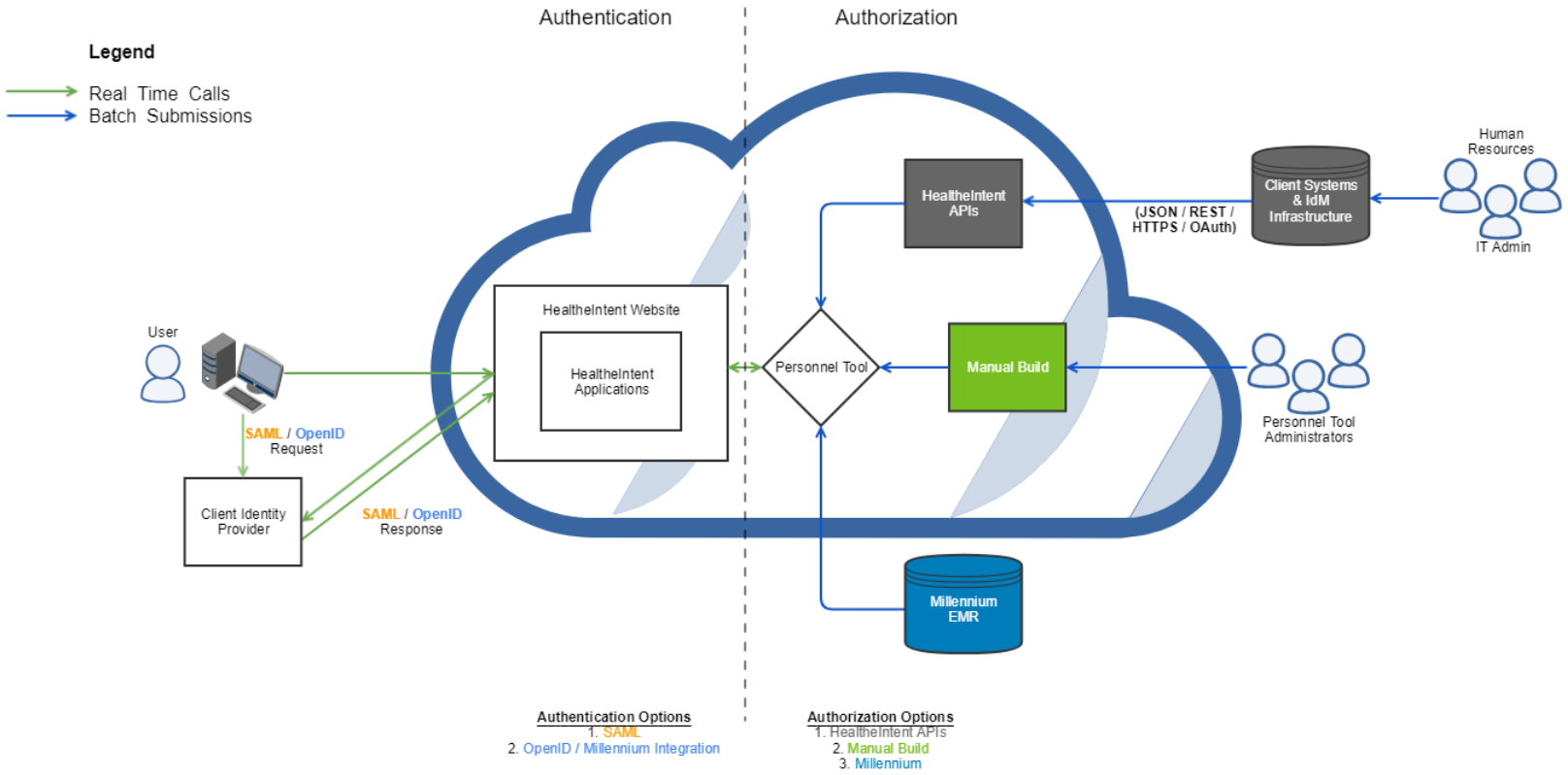
Identity Management in *HealtheIntent*

There are 2 pieces to this in the *HealtheIntent* Platform:

1. *HealtheIntent* needs to accept sign-on requests from Users during **authentication** process
2. Personnel and security data needs to be loaded to define **authorization**



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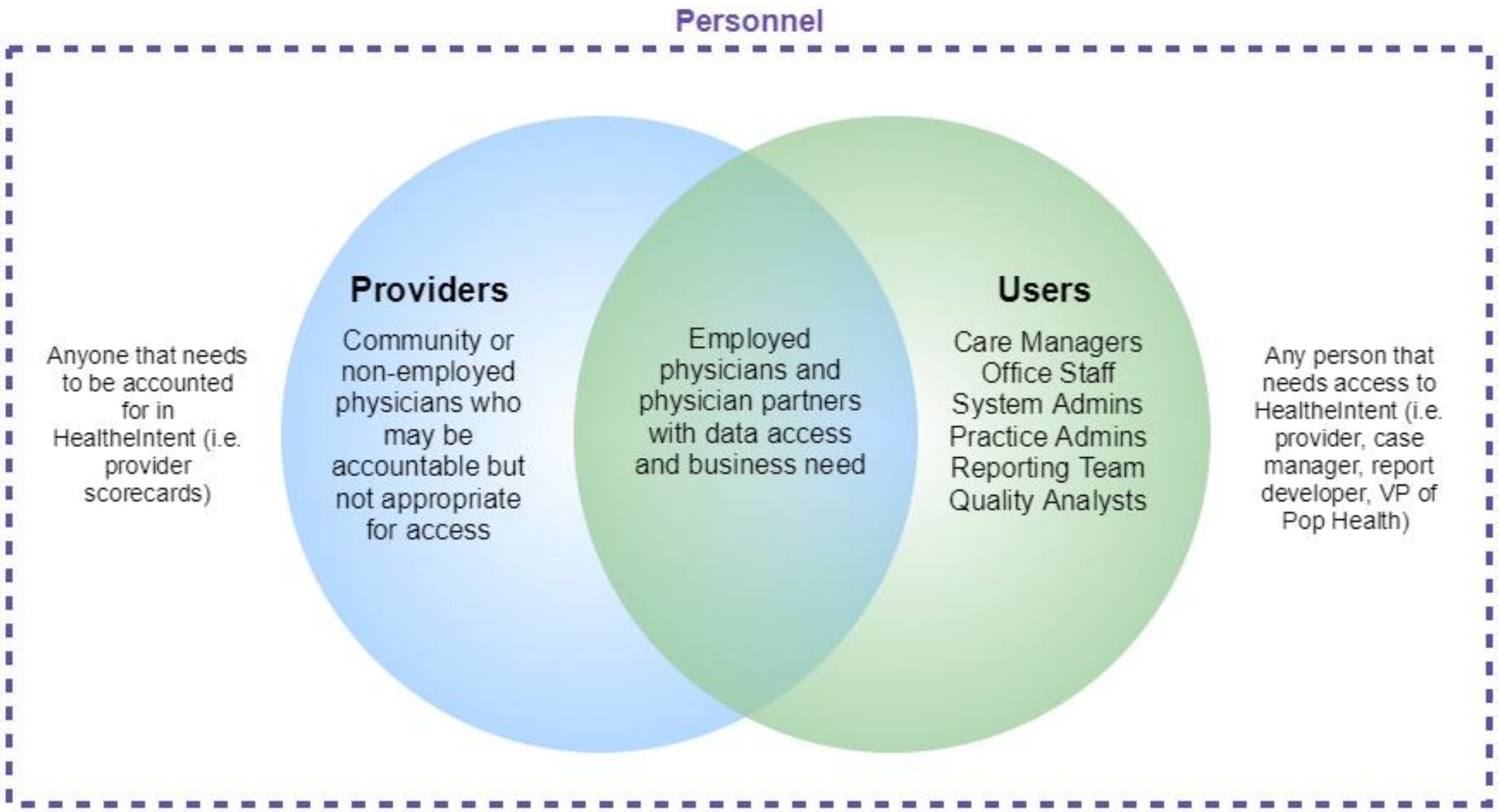
Who Are Your Personnel?



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Experiencing HealtheIntent

- Organizations and Personnel Groups determine 2 things in HealtheIntent:
  - Security
  - Platform processing and features, such as attribution and scorecards

- **Organizations** enable access to patient records, based upon administrator or member relationships

- **Personnel Groups**
  - **Whitelist** groups grant access to individual solutions
    - Examples: registries_whitelist, analytics_whitelist
  - **Administrator** groups provide access to all features and data
    - Examples: system_administrators, registries_administrators
  - **Solution** groups support specific functionality
    - Examples: attributable_personnel, scorable_personnel, analytics_data_authors

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Personnel Tool

- View and manage personnel authorization data in the HealtheIntent platform for your organization
- Create, edit, and delete personnel members, personnel groups, organizations, and organization classes

https://wiki.cerner.com/display/healtheintentHPSV/HealtheIntent+Personnel+Tool+Help

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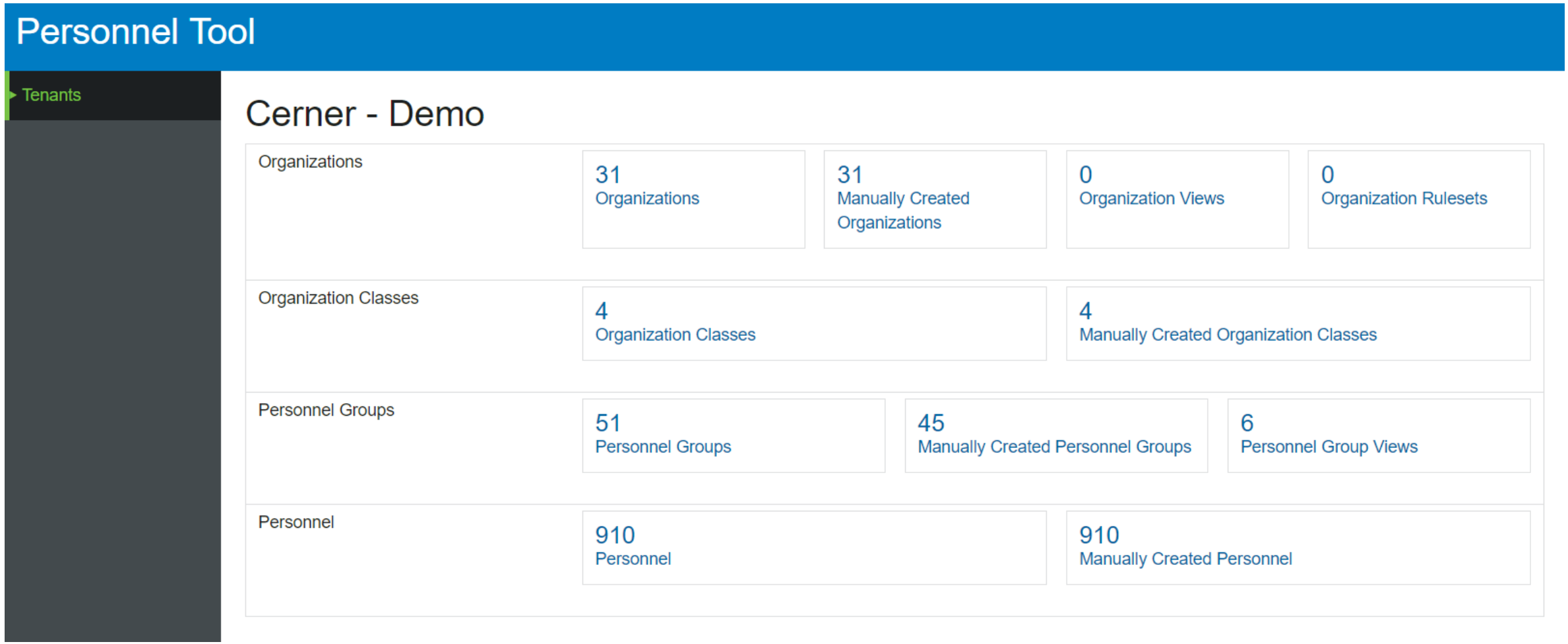
Personnel Tool – Overview



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Example User – Provider

John Zoidberg

Title	--
Addresses	2901 Rockhurst Blvd Kansas City MO 64115 USA
Phone Numbers	Work: 816-333-2017
Email Addresses	
Aliases	SPI: 4212006437 (2.16.840.1.113883.4.6) SPI: AA1255547 (2.16.840.1.113883.4.814) USER: JZ12345 (21429fd8-1872-49c2-b903-6d0ef2bab906)
Personnel IDs	

Memberships

Edit Memberships for John Zoidberg

Personnel Groups (5)

Search

- Attributable Personnel
- Family Medicine
- Record Whitelist
- Registries Whitelist
- Scorable Personnel

Organizations (4)

Search

Administrator Of (0)	Member Of (2)	Member and Administrator Of (2)
	Freeman Foundation Hospital	Knysz Clinic
	Sullivan Organization Hospital	Rapp Regional Clinic

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Example User – Registries Administrator

Phillip Fry

Title	--
Addresses	3001 Main St. Kansas City MO 64117 USA
Phone Numbers	Work: 816-333-8669
Email Addresses	
Aliases	USER: PF78654 (21429fd8-1872-49c2-b903-6d0ef2bab906)
Personnel IDs	

Memberships

Edit Memberships for Phillip Fry

Personnel Groups (3)

Search

Personnel Tool Whitelist
Registries Admin
Scorecard Admin

Organizations (3)

Search

Administrator Of (3)
Knysz Clinic
Rapp Regional Clinic
Sullivan Organization Hospital

Member Of (0)

Member and Administrator Of (0)

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User Example – Analytics User

Zapp Brannigan

Title	--
Addresses	2700 Mizzou Ave Columbia MO 60045 USA
Phone Numbers	Work: 816-549-8624
Email Addresses	
Aliases	USER: ZB78563 (21429fd8-1872-49c2-b903-6d0ef2bab906)
Personnel IDs	

Memberships

Edit Memberships for Zapp Brannigan

Personnel Groups (3)

Search

Analytics Content Authors
Analytics Data Authors
Analytics Whitelist

Organizations (0)

Search

Administrator Of (0)

Member Of (0)

Member and Administrator Of (0)

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Example User – Care Manager

Leela Turanga

Title	--
Addresses	2850 Kansas Ave Kansas City KS 64109 USA
Phone Numbers	Work: 913-222-7456
Email Addresses	
Aliases	USER: LS617456 (21429fd8-1872-49c2-b903-6d0ef2bab906)
Personnel IDs	

Memberships

Edit Memberships for Leela Turanga

Personnel Groups (4)

Search

- Analytics Whitelist
- Assignable Care Managers
- Record Whitelist
- Registries Whitelist

Organizations (4)

Search

Administrator Of (0)	Member Of (4)	Member and Administrator Of (0)
	Freeman Foundation Hospital	
	Knysz Clinic	
	Rapp Regional Clinic	
	Sullivan Organization Hospital	

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Personnel Data Elements

- Contact Information
- Aliases -- USER, SPI (NPI), etc.
- Demographics
- Group Membership
- Organization Membership

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Assigning Authority

Entity Type	Alias Type	Assigning Authority
Organization	SOI	2.16.840.1.113883.4.814 (DEA)
Organization	SOI	2.16.840.1.113883.4.6 (NPI)
Organization	TAX	2.16.840.1.113883.4.2 (TIN/ITIN)
Personnel	SPI	2.16.840.1.113883.4.814 (DEA)
Personnel	SPI	2.16.840.1.113883.4.6 (NPI)
Personnel	TAX	2.16.840.1.113883.4.2 (TIN/ITIN)
Personnel	USER	Identity provider realm ID

https://wiki.cerner.com/display/healtheintentHP/Overview+of+Alias+Assigning+Authority

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Personnel APIs

- Allows personnel, personnel group and organizations to be transmitted to Personnel Tool
  - Can control ability to edit within the Personnel Tool

https://docs.healtheintent.com/api/v1/personnel/

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Accessing the Personnel APIs

- Request a System Account
  - Need a Cerner system account to make calls to Personnel APIs
  - Includes a bearer token and a set of OAuth credentials: consumer key and consumer secret
- Account Request: https://cernercentral.com/system-accounts/
  - Account Description - Client Name: Example Client; Platform/Service Name: HealtheIntent APIs; Solution Name: Personnel Load; Cerner Contact: IdM Contact
  - Production System - Yes
  - Cerner Client - Yes
  - Millennium System - No
- CernerCare Account (required to request a system account): https://cernercare.com/accounts/create

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Personnel API Authentication

Bearer Token

- Bearer token of system account
- The URL of the protected endpoint you wish to access

OAuth 1.0a

- OAuth access token URL: https://api.cernercare.com/oauth/access
- Your system account ID (consumer key)
- Your system account secret (consumer secret)
- The URL of the protected endpoint you wish to access

https://docs.healtheintent.com/#authentication

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Structuring API Calls

Ruby

```ruby
require 'httparty'

HTTParty.get(
  'https://cernerdemo.api.us.healtheintent.com/personnel/v1/personnel?formattedName=Dr&orderBy=givenName',
  headers: {
    'Content-Type' => 'application/json',
    'Authorization' => '<auth_header>'
  }
)
```

Shell

```shell
curl -X GET -H 'Authorization: {auth_header}' -H 'Accept: application/json' 'https://cernerdemo.api.us.healtheintent.com/personnel/v1/personnel?formattedName=Dr&orderBy=givenName'
```

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Structuring API Calls (Continued)

- GET
  - List and/or query resources
    - Retrieve a single personnel, group or organization
    - Retrieve a list of personnel, groups or organizations
    - Retrieve all valid personnel mnemonics
- POST
  - Create new resources
    - Create new personnel, group or organization
- PUT
  - Update resources
    - Update personnel, groups or organizations
    - Add personnel to groups (create personnel group members)
- DELETE
  - Delete resource
    - Deletions are permanent, even if the resource is added back with the same attributes, a new ID is generated
    - Any data tied to the old ID in downstream systems is orphaned
      - Remove personnel and personnel group members, groups or organizations

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Example API Flow – “New” User

1. GET by USER/SPI alias to see if they already exist
   a) If exists, compare response against source, PUT to update if something is in source that isn’t in response
   b) If doesn’t exist, POST
2. GET personnel group to see if user is already a member
   a) If doesn’t exist, PUT

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API Actions – Personnel

- Retrieve a List of Personnel
- Create a personnel
- Retrieve a Single Personnel
- Update a Personnel
- Remove a Personnel

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API Actions – Personnel Groups

- Retrieve a List of Personnel Groups
- Create a Personnel Group
- Retrieve a Single Personnel Group
- Update a Personnel Group
- Remove a Personnel Group
- Retrieve a List of Personnel Group Members.
- Add a Personnel Group Member
- Remove a Personnel Group Member
- Retrieve All Valid Mnemonics

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API Actions – Organizations

- Retrieve a List of Organizations
- Create an Organization
- Retrieve a Single Organization
- Update an Organization
- Remove an Organization
- Retrieve a List of Organization Administrators
- Add an Organization Administrator
- Remove an Organization Administrator
- Retrieve a List of Organization Members
- Add an Organization Member
- Remove an Organization Member

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API Actions – Documentation

- Personnel
- Personnel Groups
- Organizations

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Knowledge Check

You are contacted to add 3 new users to HealtheIntent. What is your first step?

A. Do a POST to create them
B. Do a PUT to update them
C. Do a GET to verify whether they already exist

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Knowledge Check

2 of the users existed but do not have all the memberships in the request. 1 user does not exist. What is your next step?

A. Do a PUT to update and create all the users

B. Do a PUT to update the 2 existing users with their additional info, and a POST to create the remaining user

C. Do a DELETE to delete the existing users, and recreate them all using POST with all their information

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Knowledge Check

You receive a phone call saying a specific user needs their access revoked. What do you do?

A. Ignore the request. Not your problem.
B. Do a PUT to remove all Groups and Organizations from the user
C. Do a DELETE to delete the user resource

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Knowledge Check: Extra Bonus Round

When creating users/groups/orgs and you receive the HealtheIntent ID back as a part of the 201 - OK response, should you record/keep track of those Identifiers? Why or why not?

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Questions?
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Accessing the Personnel APIs

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  - Production System - Yes
  - Cerner Client - Yes
  - Millennium System - No
- CernerCare Account (required to request a system account): https://cernercare.com/accounts/create

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Additional Resources

- Identity Federation Reference Pages

- Configure Personnel in the *HealtheIntent* Security Model
- Configure Personnel Groups in the *HealtheIntent* Security Model
- Configure Organizations in the *HealtheIntent* Security Model
- Configure Organization Classes in the *HealtheIntent* Security Model

- https://docs.healtheintent.com/
  - https://docs.healtheintent.com/api/v1/personnel/
  - https://docs.healtheintent.com/api/v1/personnel/#personnel-groups
  - https://docs.healtheintent.com/api/v1/organization/

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