Administrating and Configuring Security in Power BI

Agenda

- User Authentication and Identity

- Power BI Tenant Administration

- Row Level Security
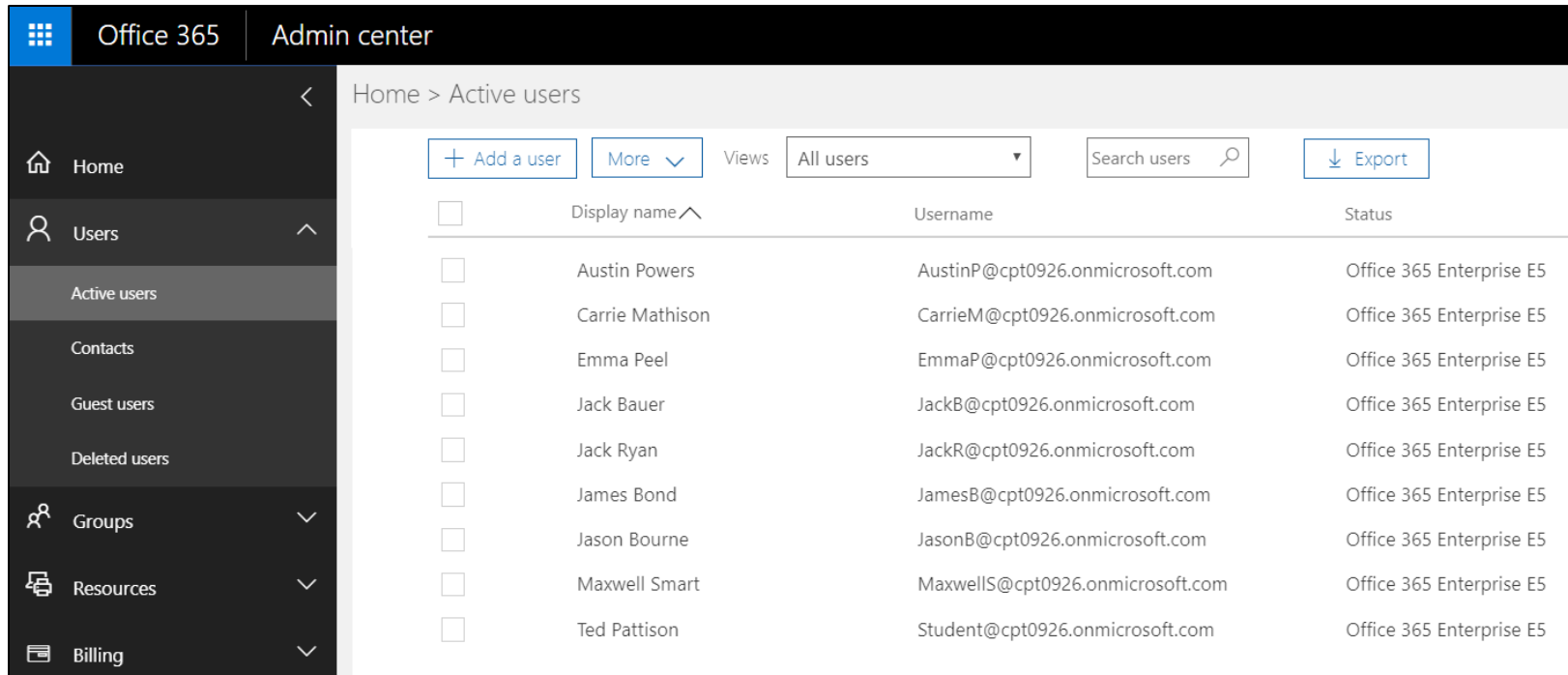
- Dynamic Row Level Security

Power BI Built on Azure Active Directory

- Azure AD manages identity in Microsoft cloud
    - Organization creates user accounts & groups in Azure AD
    - Users accounts and groups created in scope of tenant
    - Azure AD provides user authentication service

- Azure AD manages licensing and permissions
    - Provides users authorized access to Office 365
    - Provides users authorized access to SharePoint Online
    - Provides users authorized access to Dynamics 365
    - Provides users authorized access to Power BI

Azure AD User Accounts and Licensing

- ## User account created within scope of tenant
  - ### Office 365 admin create accounts and assigns licenses

Multifactor Authentication

- ## Enabled through admin portal
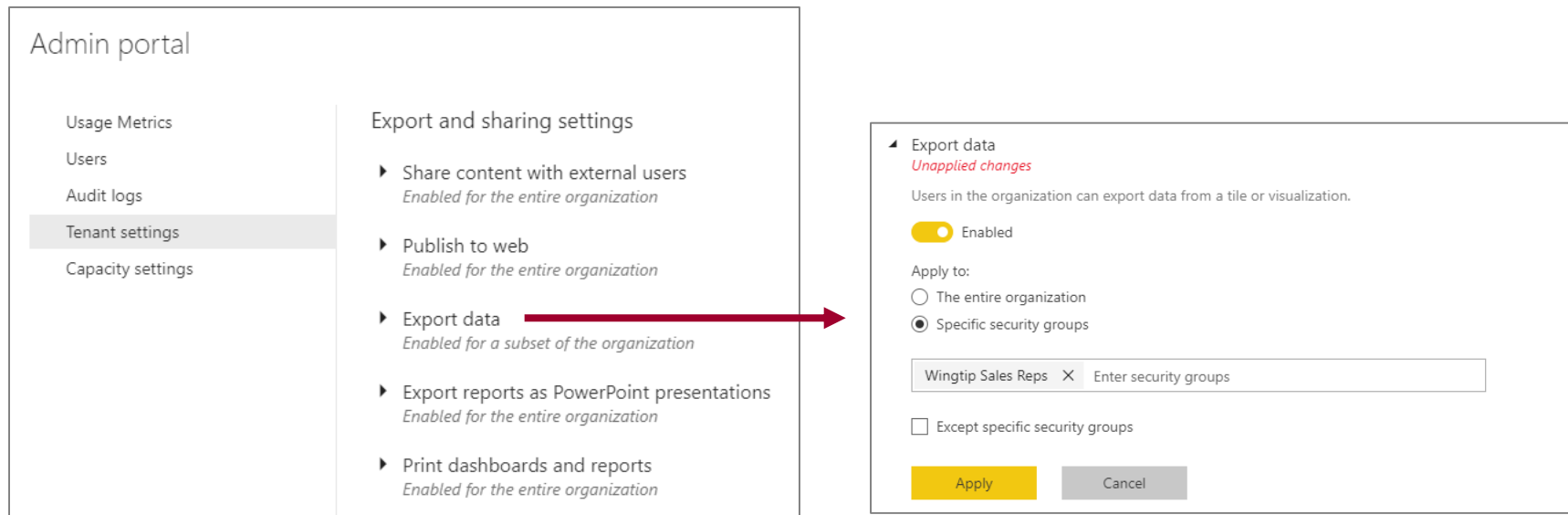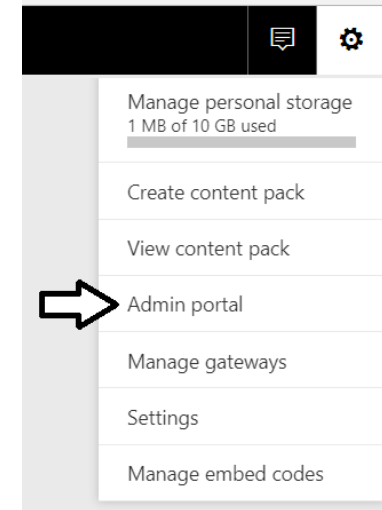 - ### Requires Office 365 or Azure AD Premium

Agenda

- ✓ User Authentication and Identity
- ➢ Power BI Tenant Administration
- • Row Level Security
- • Dynamic Row Level Security

Power BI Admin Portal

- Power BI Admins control tenant-level settings
  - Control whether users can self-register for Power BI
  - Control who can publish to web
  - Control who can export & share content
  - Control who can create content packs

Power BI Audit Log

Agenda

- ✓ User Authentication and Identity
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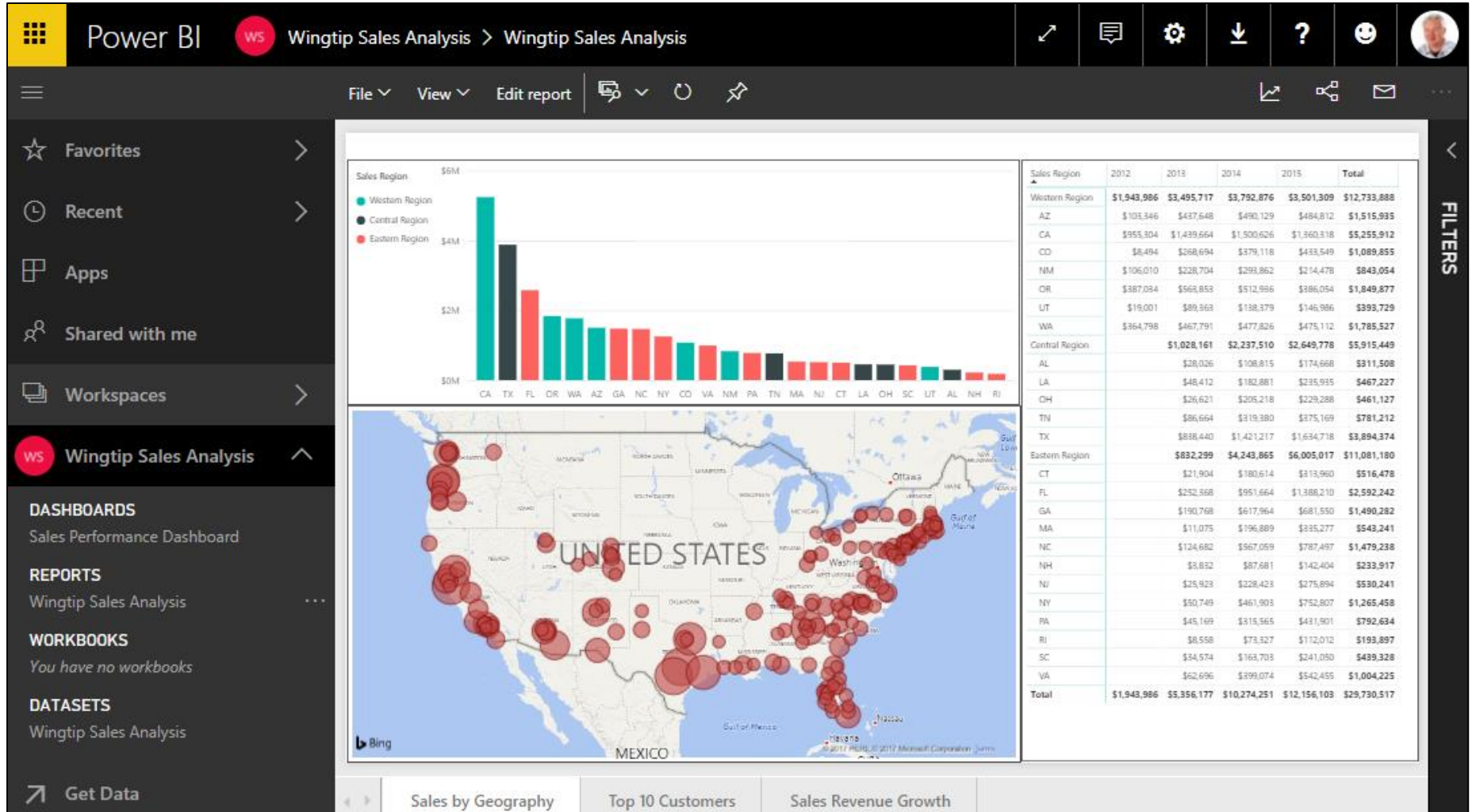- • Dynamic Row Level Security

What Is Row-level Security (RLS)

- Security Scheme based on Named Roles
  - Roles are defined using Power BI Desktop
  - Each role is scoped to the dataset within a PBIX project

- Role defined using one or more DAX expressions
  - DAX expressions restrict which rows are accessible
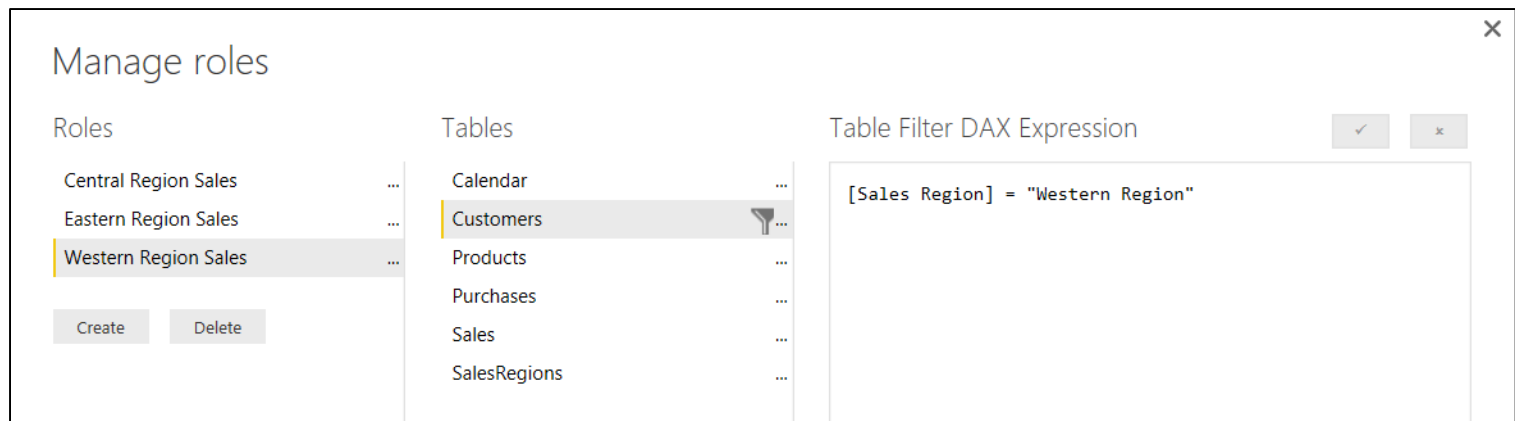
Common RLS Scenario

Configuring RLS in the Power BI Desktop

Configuring RLS in the Power BI Service

RLS Enforcement

DEMO

Configuring Row-level Security

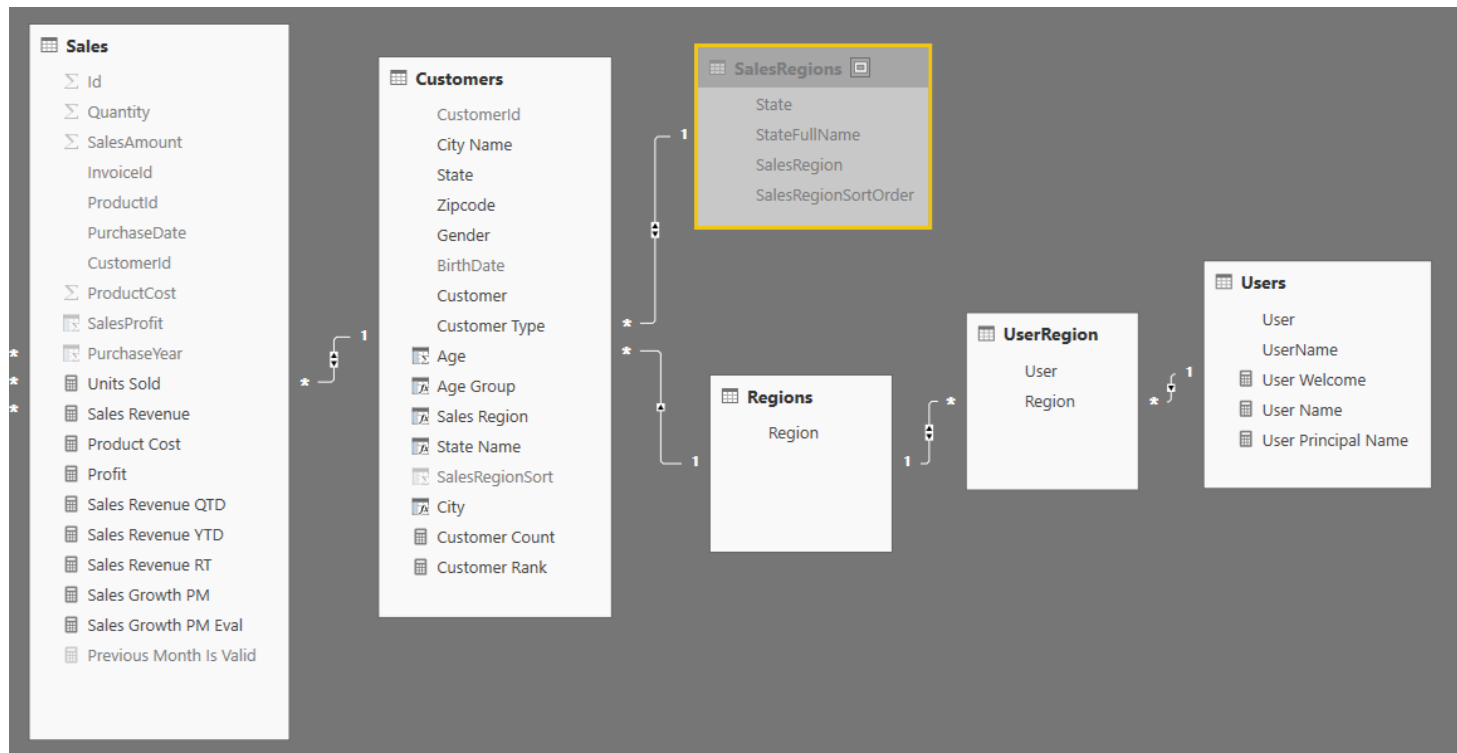# Agenda

- ✓ User Authentication and Identity
- ✓ Power BI Tenant Administration
- ✓ Row Level Security
- ➢ Dynamic Row Level Security

Dynamic RLS

- ## Design pattern for data-driven security
  - RLS set up to use login name of current user
  - Permission assignments are included as part of dataset
  - Implemented using bi-directional cross-filtering

Configuring Cross-direction Filtering
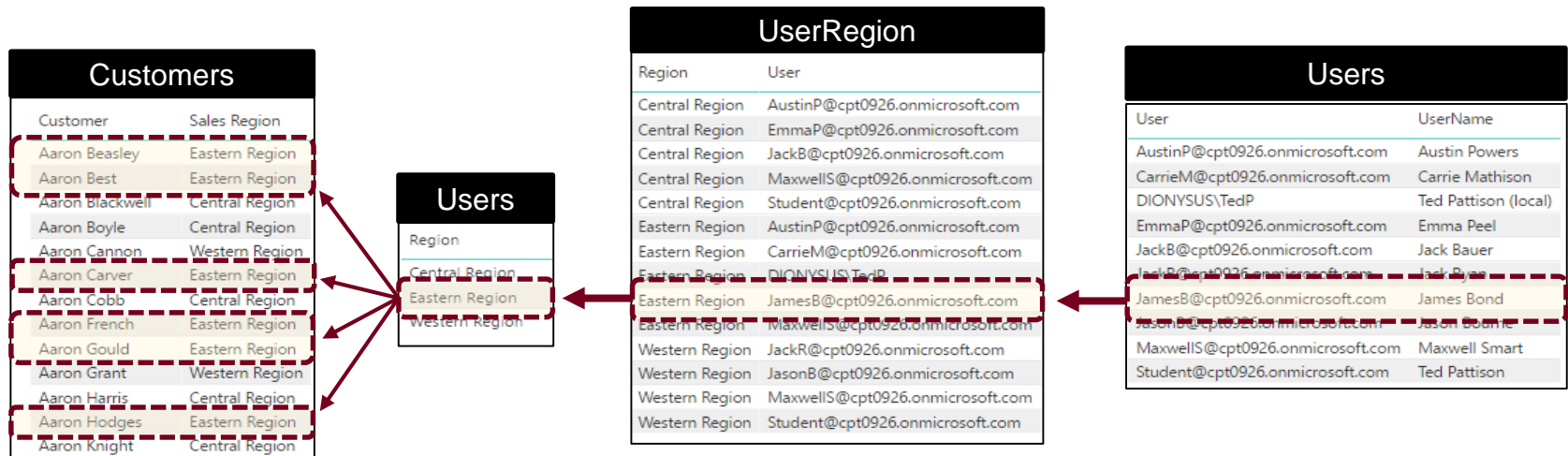
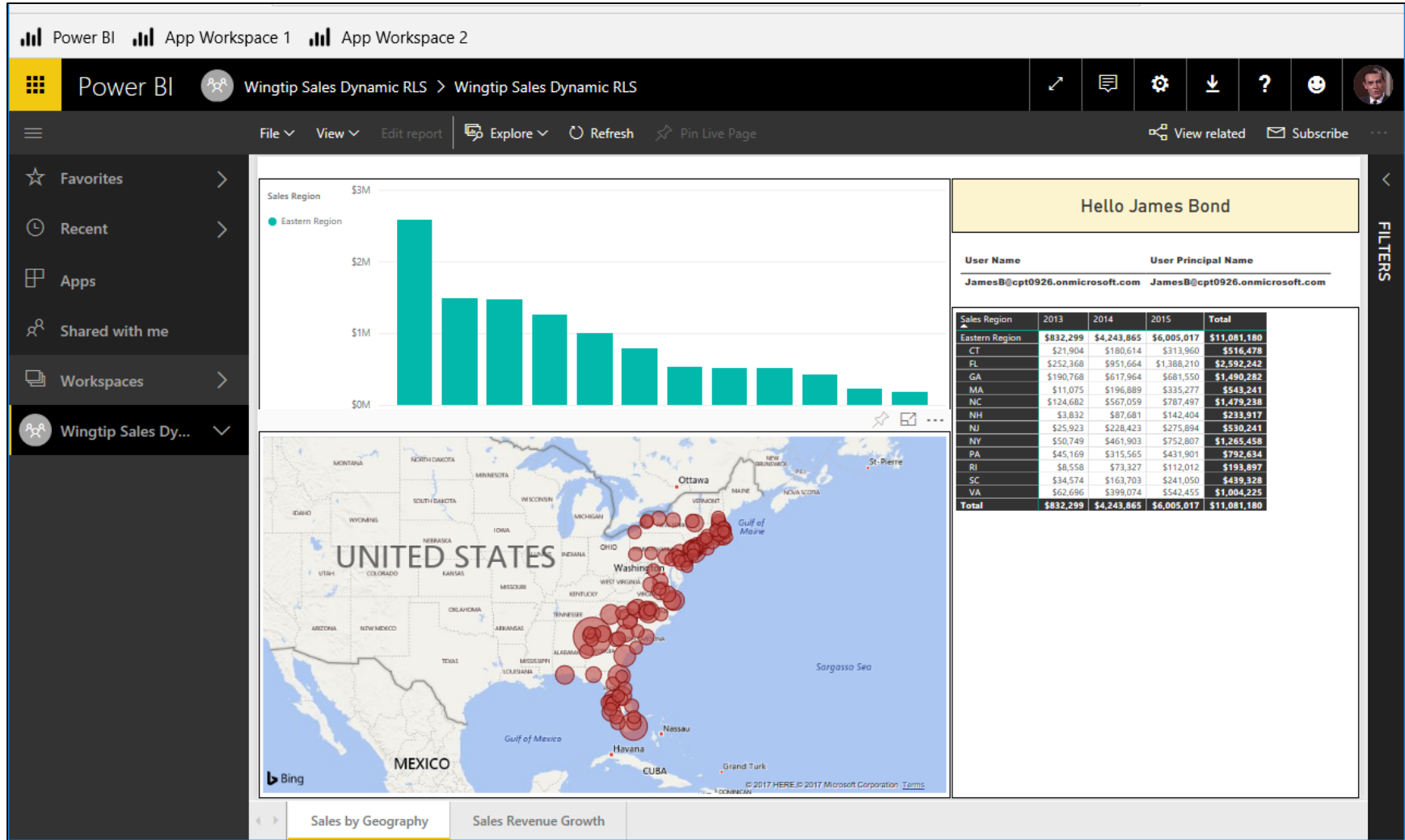# Dynamically Tracking the Current User
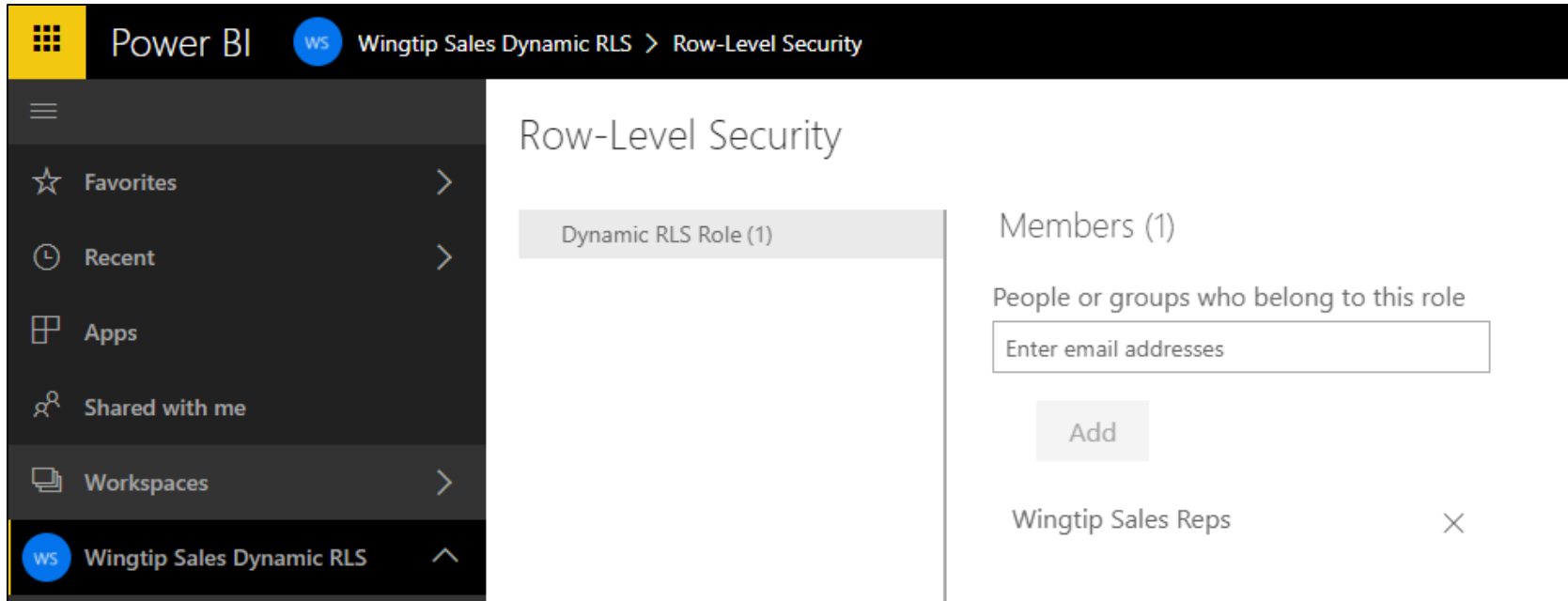
All Users Must Be Added To a Role

Dynamic RLS Table Filtering

Dynamic RLS Enforcement

DEMO

Configuring Dynamic Row-level Security

Summary

- ✓ User Authentication and Identity
- ✓ Power BI Tenant Administration
- ✓ Row Level Security
- ✓ Dynamic Row Level Security