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DYNAMICS CON LIVE MAY 2024



D365FO Security and Licensing Made 'Easy'

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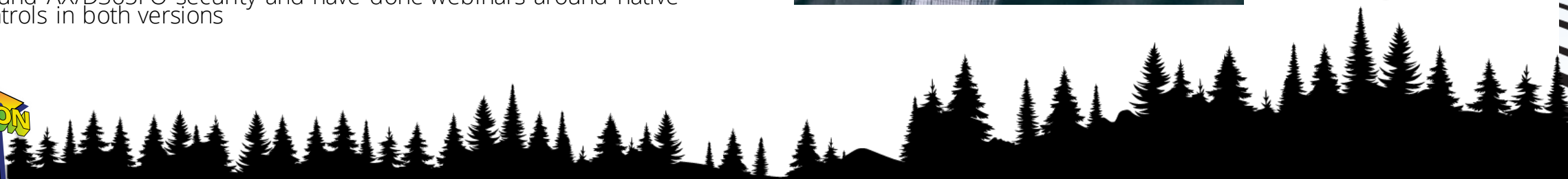
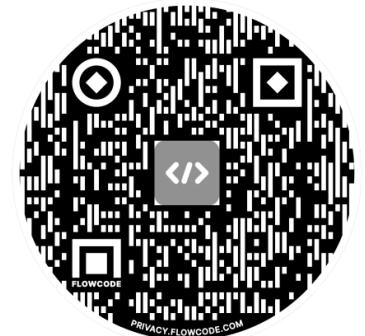
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- Security Course: <http://d365fosecurity.com>
- Book: [Security and Audit Field Manual: Dynamic 365 for Finance & Operations](#)
- [LinkedIn](#)
- [Microsoft MVP Profile](#)

Background:

- Awarded Microsoft MVP in Business Applications in November 2019
- Have worked with AX since 2013
- Have worked with D365FO since 2016
- Have spoken at Summit (US & Europe), Focus, and local chapters around AX/D365FO security and have done webinars around native controls in both versions



Agenda

- Role Based Security
- Security Layers
- Securable Objects
- Security Layer Hierarchy
- Security Setup in UI & AOT
- User Role Assignment & Setup
- User Licensing
- Tools to Help



Security Model Overview



Role Based Security

- Users are assigned to one or more roles
- Pessimistic security model
- Hierarchy based security model
 - Groups of securable objects are put within one security layer
 - Security layers built on top of each other
- Two main categories
 - Security Layers
 - Securable Objects



Security Layers

- Roles
 - Broadest security layer
 - Represent a job function a user would perform
 - Account, Account Payable, etc
 - Made up of any number of sub-roles, duties, or privileges
- Duties
 - Middle security layer
 - Represents a general task a user would perform
 - Approve customer invoices, maintain budget plan, etc
 - Made up of any number of privileges
- Privileges
 - Most granular security layer, where object assignment occurs
 - Represents a very specific process a user would perform
 - Add a BOM Line, Edit Customer, etc

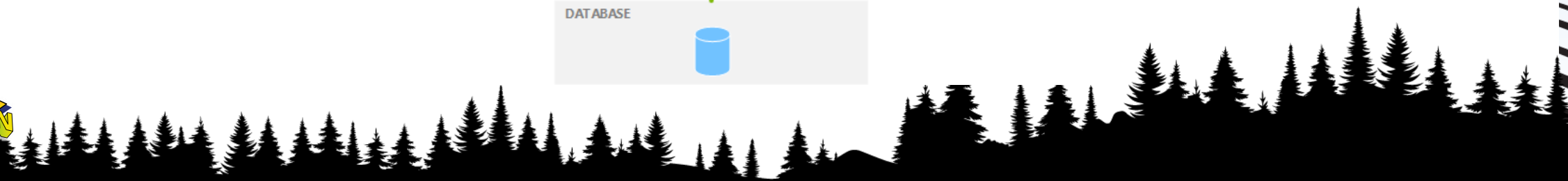
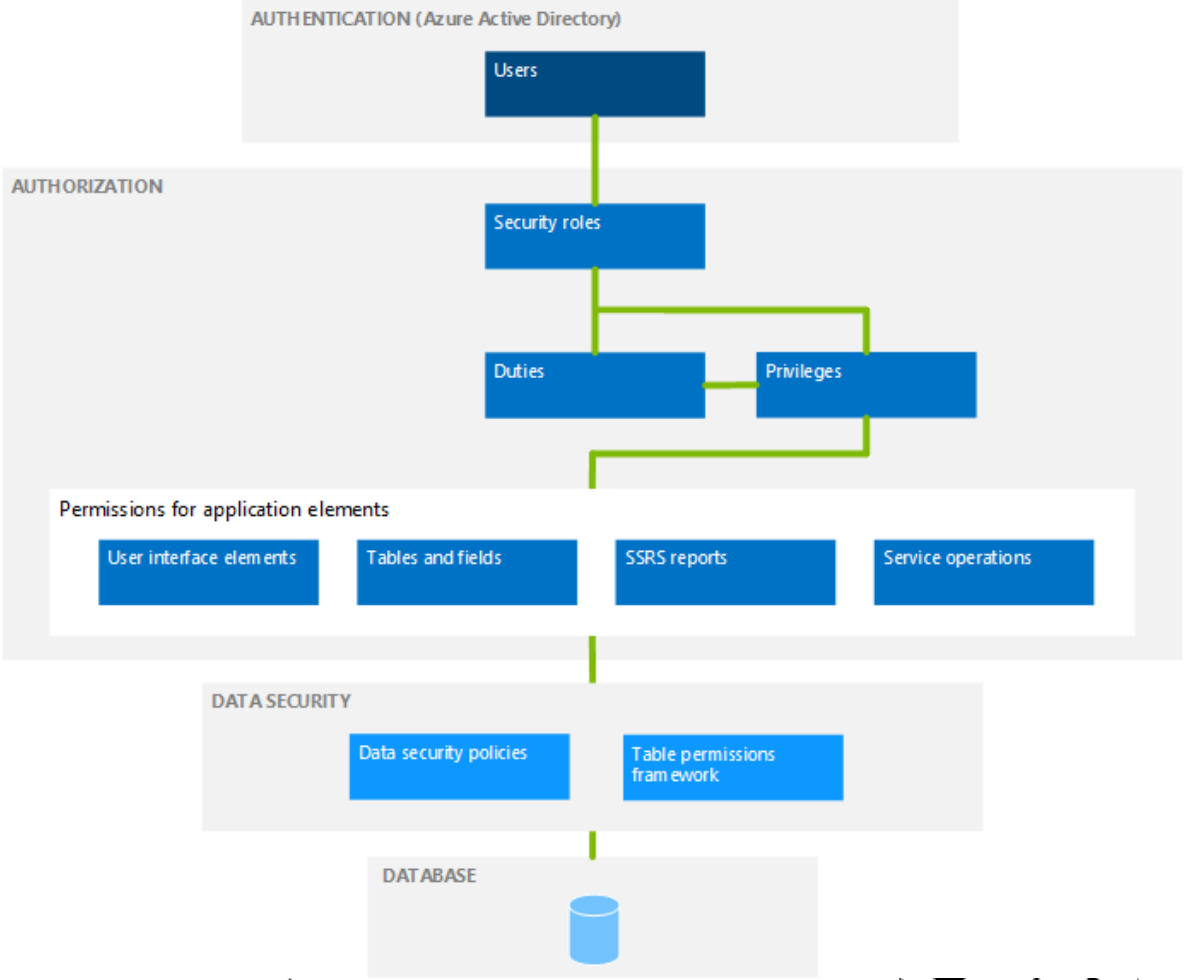


Securable Objects

- Menu Items
 - Displays – linked to forms within D365FO, pages user goes to in UI
 - Outputs – reports users can export
 - Actions – actions users can perform (posting a PO/JE, cutting a check)
- Tables
 - Refers to SQL tables, where data is actually stored
- Data Entities
 - Combines multiple SQL tables to encapsulate a business concept (purchase orders, users, etc)
 - Allows for CRUD operations from external services
 - Does not require X++ knowledge to utilize / consume
- Service Operations
 - Externally facing API endpoints that can be used by external services
 - Requires X++ knowledge to utilize / consume



Hierarchy Based Security Model



Role Setup & Assignment

- Template roles, duties, and privileges are delivered out of the box
- Roles, duties, and privileges are system wide (not per company/legal entity)
- User role assignments can be restricted by legal entity
 - By default, when a user is assigned a role it is assigned to all companies/legal entities in the environment
 - You can restrict this by explicitly granting a legal entity to the user role assignment
 - Once one company/legal entity is assigned to a user role assignment, a user only has that role access in the legal entity(ies) they assign to it
 - SecurityUserRole & OMUserRoleOrganization (SecurityUserRoleCondition) tables



Setting Up Security from User Interface



Setting Up from the UI

- System Administration -> Security -> Security Configuration

Security configuration

Roles Duties Privileges Unpublished objects (1)

Undo Redo Create new Show all levels Delete Duplicate Copy View permissions Audit trail

Roles ↑

Accountant
Accounting manager
Accounting supervisor
Accounts payable centralized payments clerk
Accounts payable clerk
Accounts payable manager
Accounts payable payments clerk
Accounts payable positive payment clerk
Accounts receivable centralized payments clerk
Accounts receivable clerk
Accounts receivable manager
Accounts receivable payments clerk
Applicant anonymous (external)
Auditor

ACCOUNTANT

Description

Documents accounting events and responds to accounting inquiries

AOT name

LedgerAccountant

Security policy context string

References ↑

Duties +
Parent roles
Privileges +
Sub roles
Tables +



UI – Security Object Access

- Object assignment occurs mostly in the privileges area
- Find the privilege you would like to modify, select the object type, the finally the object itself to modify its access

The screenshot displays the 'Security configuration' interface, specifically the 'Privileges' tab. The interface is divided into three main sections:

- Privileges List:** A list of privileges is shown on the left. The privilege 'ACCEPT A REQUEST FOR QUOTATION' is selected and highlighted in blue.
- Privilege Details:** The details for 'ACCEPT A REQUEST FOR QUOTATION' are shown in the center. The description is empty. The AOT name is 'PurchRFQFormLetter_AcceptP...'. The 'References' section is expanded, showing 'Display menu items +', which is also highlighted in blue.
- Object Selection and Access:** On the right, the 'Display menu items' object type is selected. A list of objects is shown, with 'PURCHRFEEDITLINES' selected. Below this, the access level is set to 'Grant' (indicated by a blue radio button).

At the bottom right of the interface, there is a 'References' section that is currently empty, displaying a message: 'We didn't find anything to show here.'



Unpublished Objects

- When making a security change, is not immediately active
- Goes to an 'Unpublished Objects' area for review before publishing

Security configuration

Roles Duties Privileges Unpublished objects (1)

Publish all Publish selection

✓	Object type ↑	Name	Deleting
	Role	Accountant	<input type="checkbox"/>

Where are Security Changes Stored?

- Security changes made in UI are stored as data in the database

Security configuration

Roles Duties Privileges Unpublished objects (1)

Publish all Publish selection

✓	Object type ↑	Name	Deleting
	Role	Accounting manager	<input type="checkbox"/>

IDENTIFIER	DATA	ORIGINALDISKDATA
LedgerAccountant	<AxSecurityRole xmlns:i="http://www.w3.org/2001/XML...	<AxSecurityRole xmlns:i="http://www.w3.org/2001/X...
LedgerAccountingManager	<AxSecurityRole xmlns:i="http://www.w3.org/2001/XML...	<AxSecurityRole xmlns:i="http://www.w3.org/2001/X...



How to Migrate Security Changes?

- Security changes can be exported/imported via an XML file
- Found in System Administration -> Security Configuration -> Data tab -> Import/Export

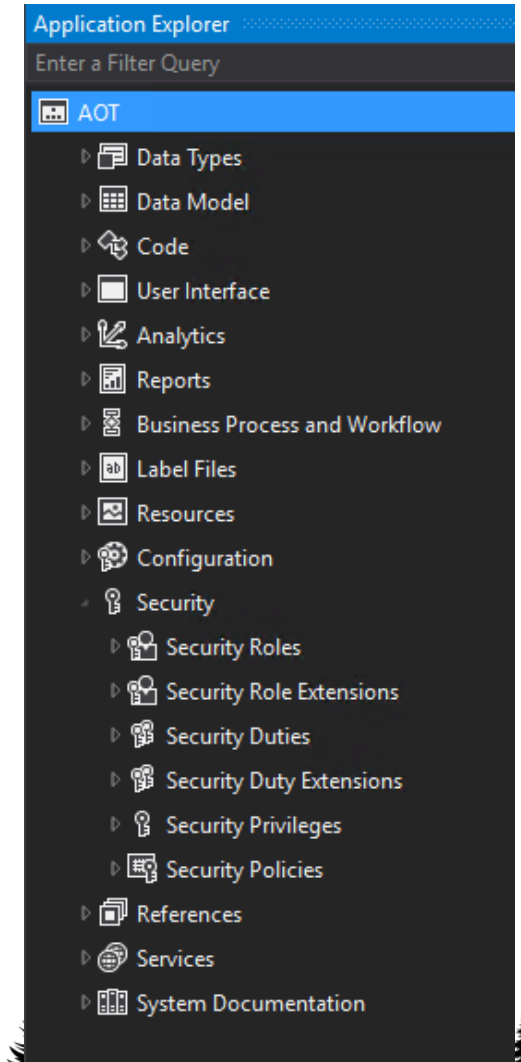
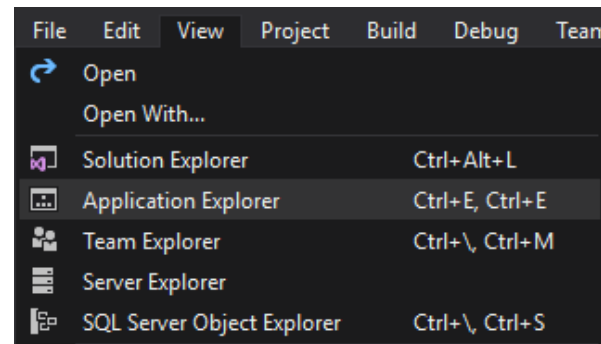


Setting Up Security from AOT



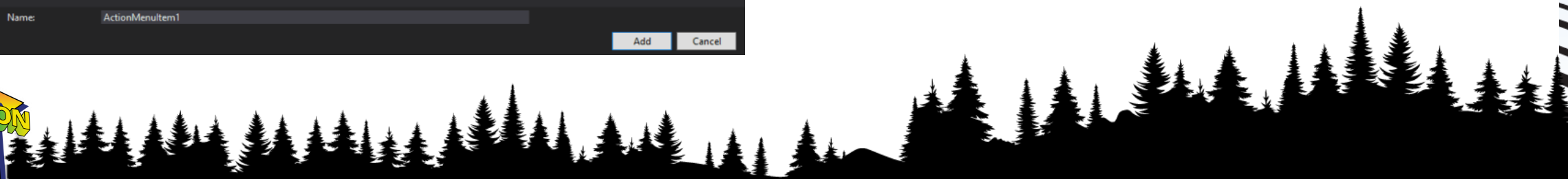
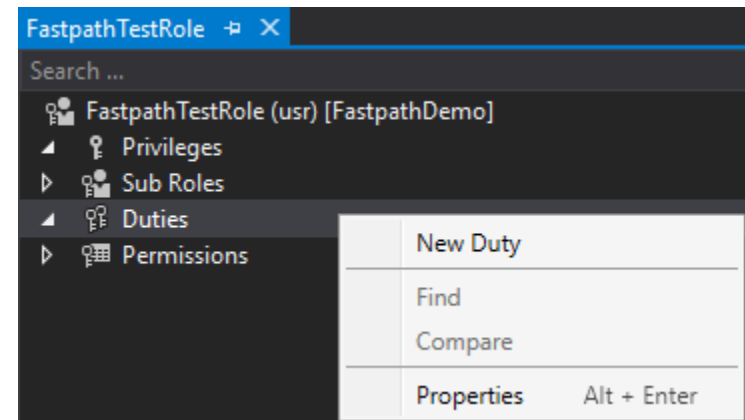
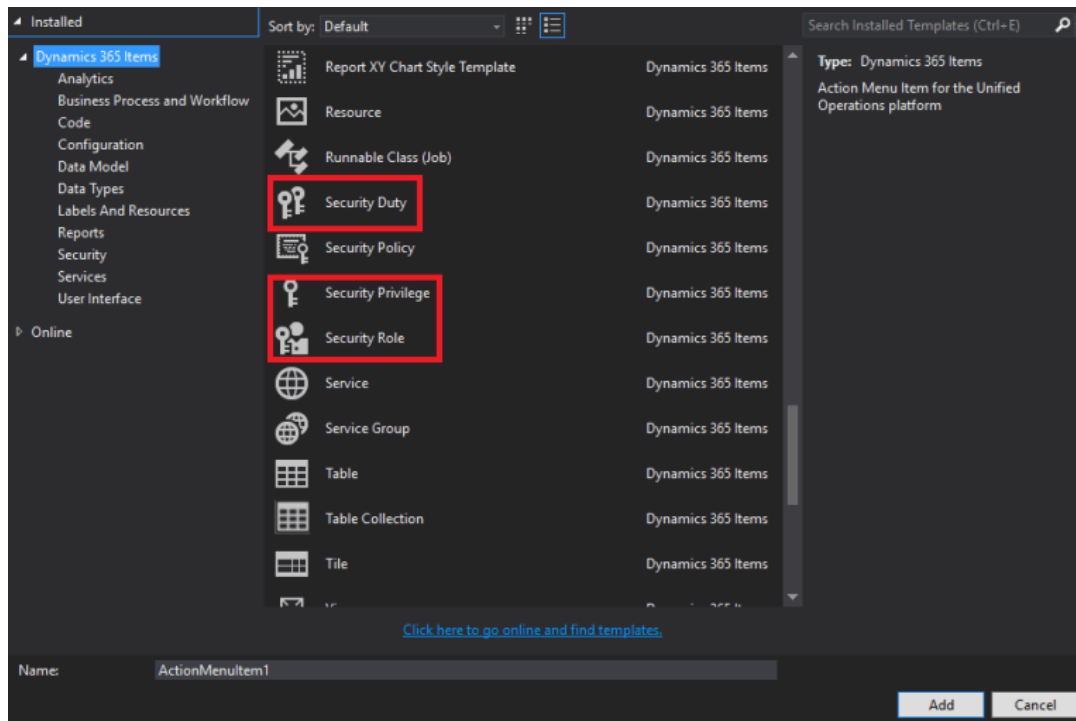
How to Access AOT

- Can be found in development environment by RDP-ing to it (if hosted in Azure) or a local VM
 - Will have modified version of Visual Studio
 - Go to View -> Application Explorer



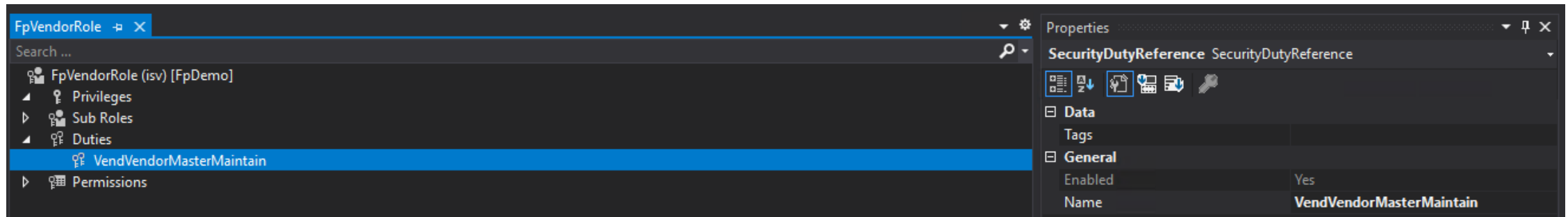
AOT – Create Security

- Creating a role/duty/privilege



AOT – Associate Security Layers

- Associating duty -> role



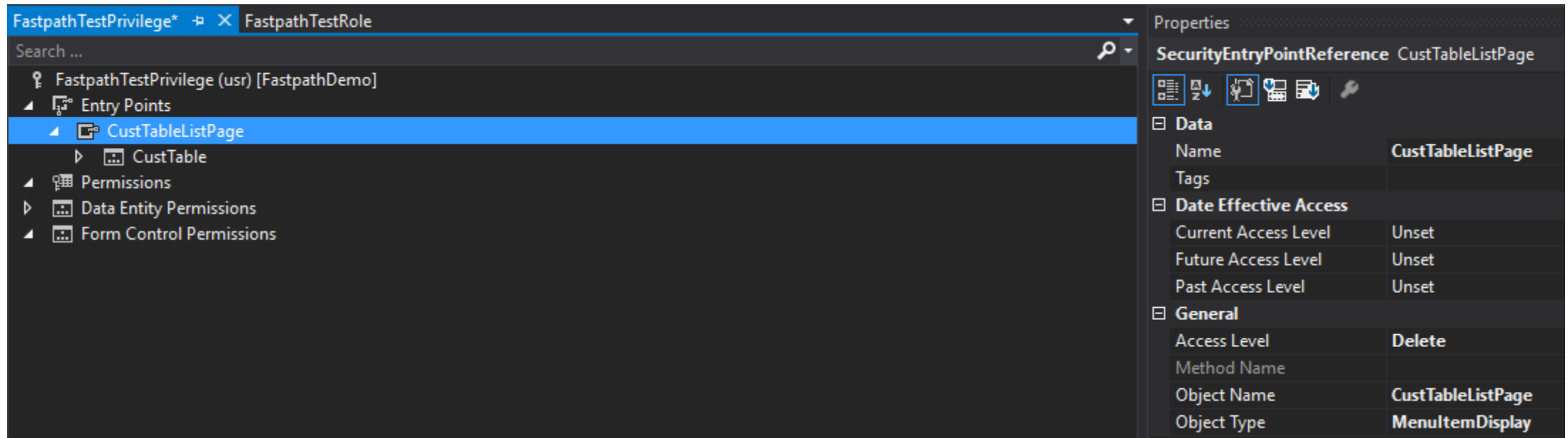
The screenshot displays the Dynamics 365 Security Center interface. On the left, a navigation pane shows the hierarchy: FpVendorRole (isv) [FpDemo] > Privileges > Sub Roles > Duties > VendVendorMasterMaintain (highlighted). On the right, the Properties pane for 'SecurityDutyReference' is open, showing the 'General' tab with the following details:

Property	Value
Enabled	Yes
Name	VendVendorMasterMaintain



AOT – Object Access

- At privilege level, Properties window will change for object access

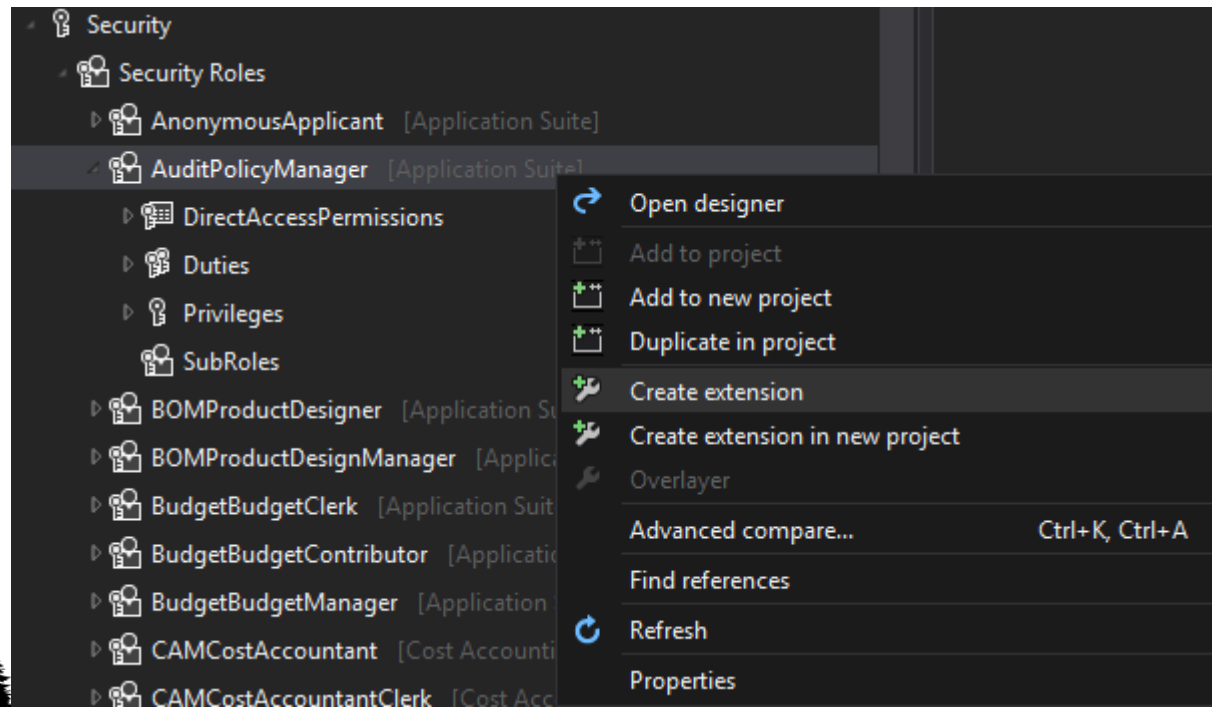


The screenshot displays the Dynamics CRM interface. The left pane shows a tree view under 'FastpathTestPrivilege (usr) [FastpathDemo]' with 'CustTableListPage' selected under 'Entry Points'. The right pane shows the 'Properties' window for 'SecurityEntryPointReference CustTableListPage'. The 'General' section is expanded, showing the following details:

Property	Value
Name	CustTableListPage
Tags	
Date Effective Access	
Current Access Level	Unset
Future Access Level	Unset
Past Access Level	Unset
General	
Access Level	Delete
Method Name	
Object Name	CustTableListPage
Object Type	MenuItemDisplay

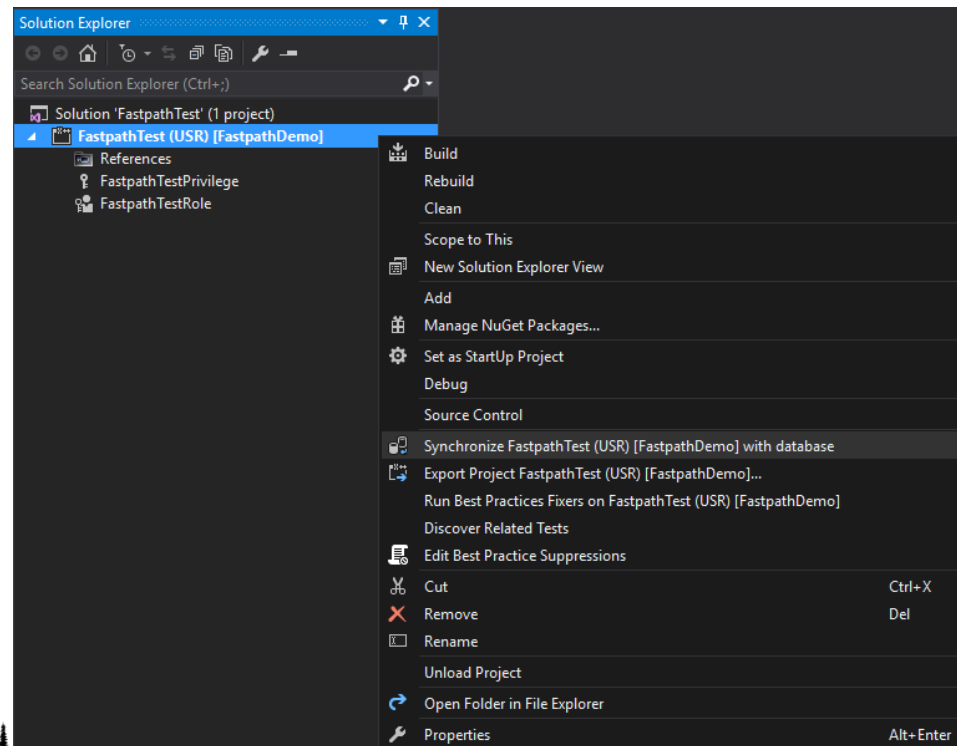
Overlayer vs Extension

- You are unable to directly modify out of box security (overlaying) due to Microsoft's locking of models
- Instead, you must create an 'extension'



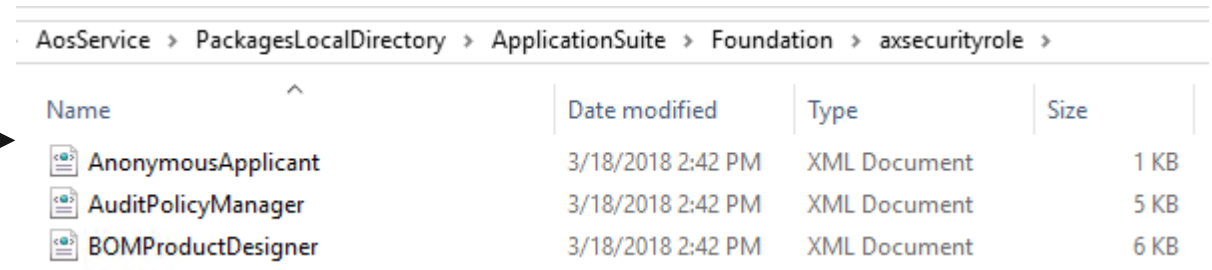
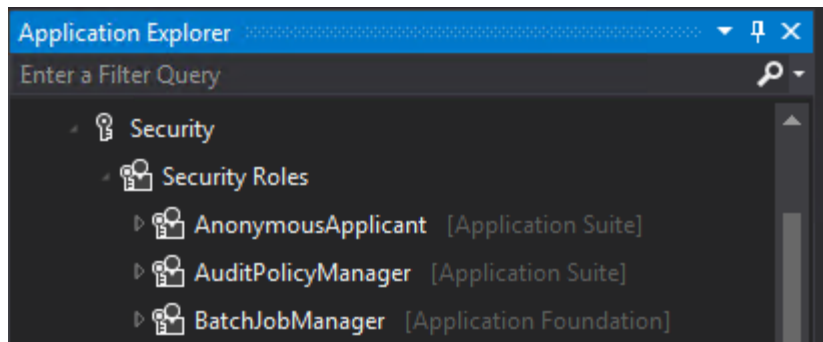
AOT – Synchronize Database

- Changes made to security in AOT do not go live immediately
- You must 'synchronize' the changes at the project level



Where are Security Changes Stored?

- Stored as 'development artifacts'
- XML files

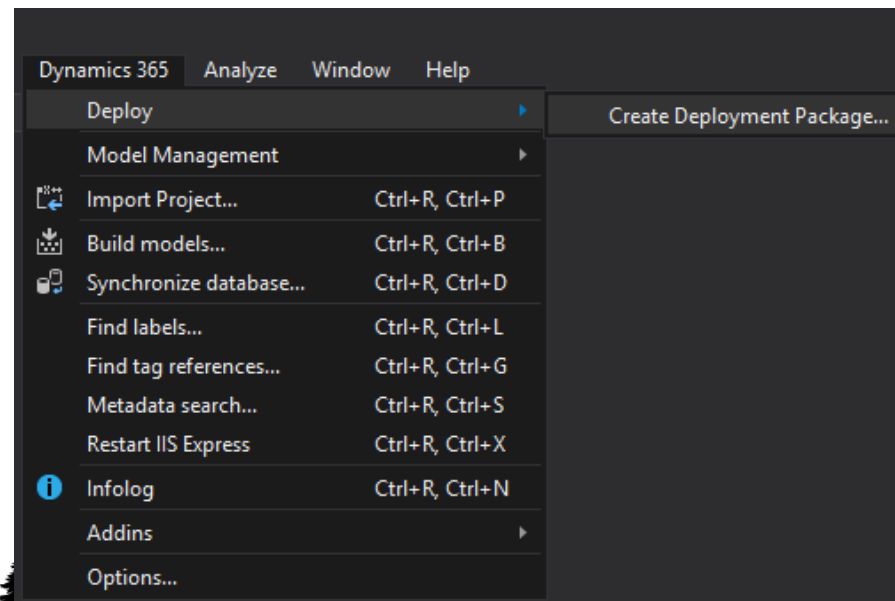


A screenshot of a file explorer window showing the path: AosService > PackagesLocalDirectory > ApplicationSuite > Foundation > axsecurityrole. The window displays a table of files:

Name	Date modified	Type	Size
AnonymousApplicant	3/18/2018 2:42 PM	XML Document	1 KB
AuditPolicyManager	3/18/2018 2:42 PM	XML Document	5 KB
BOMProductDesigner	3/18/2018 2:42 PM	XML Document	6 KB

Security Code Build

- [Best practice is to use ALM model of the build server and code promotion](#)
- Since security changes in AOT are code artifacts you can build a deployable package with the changes and move these to another environment



D365FO User Licensing



Security



Licensing

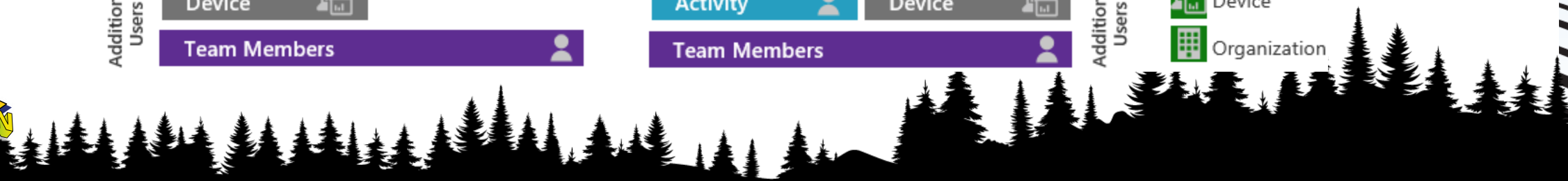
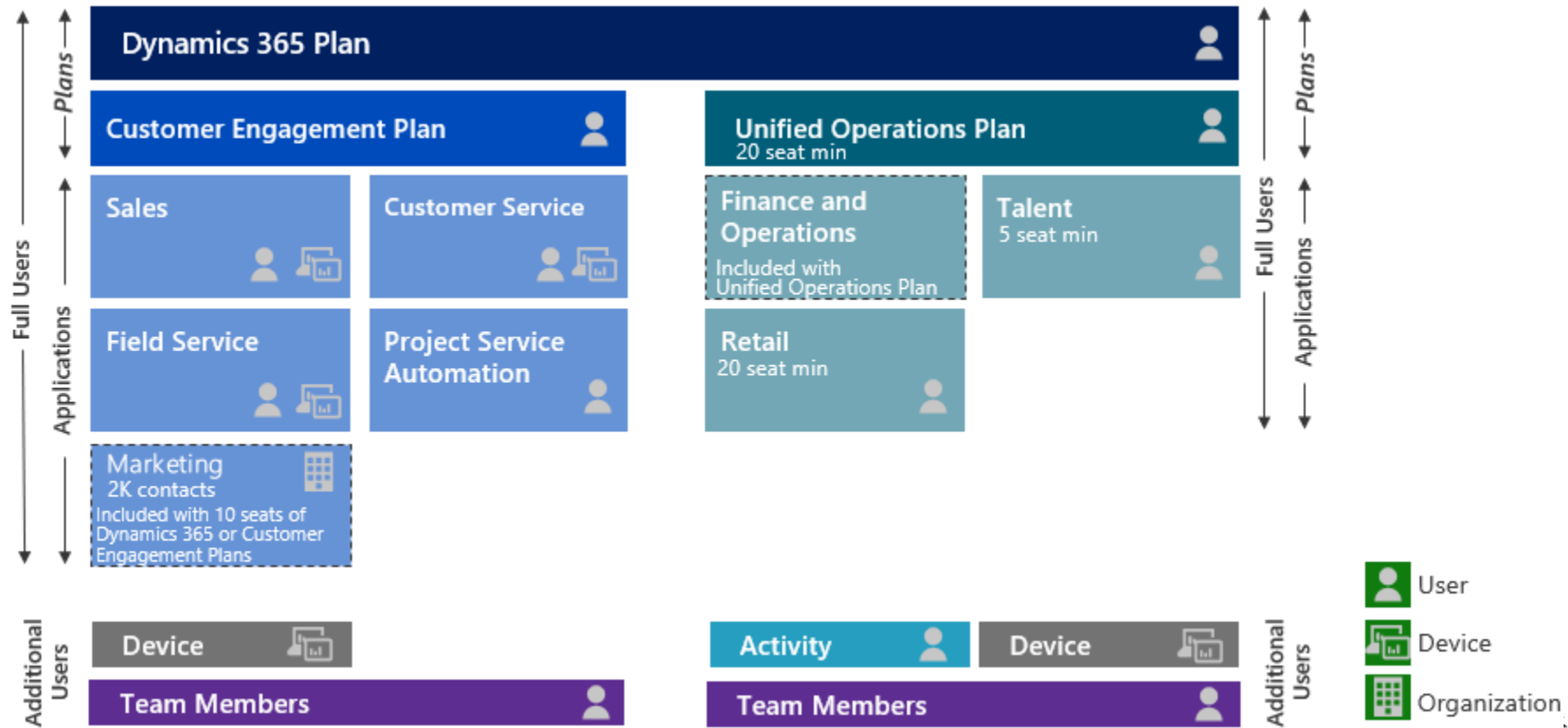


User Licensing in D365FO

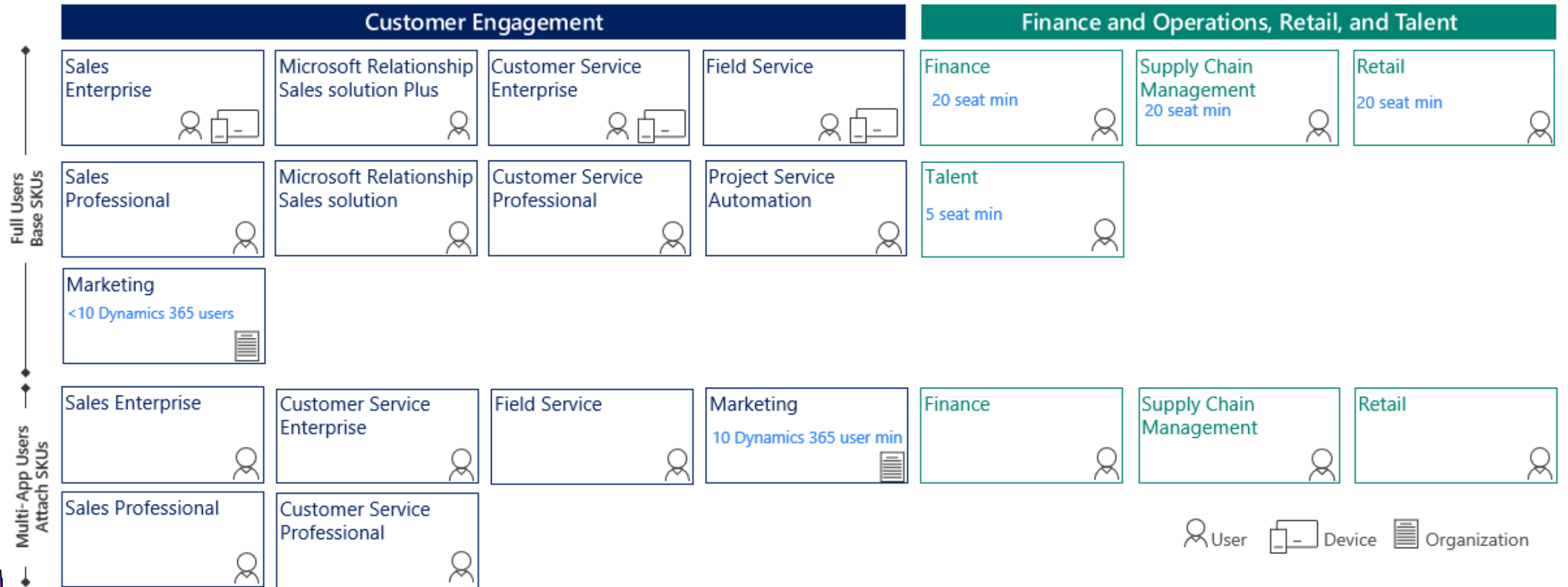
- Based on what a user is assigned, not what a user consumes / utilizes
- Three different license types:
 - Operations (Finance, Supply Chain Management, Retail, Talent)
 - Activity
 - Team Member
- Two different licensing methodologies currently used
 - Entry Point Based Licensing
 - Privilege Based Licensing



Pre-October 2019 Licensing Model

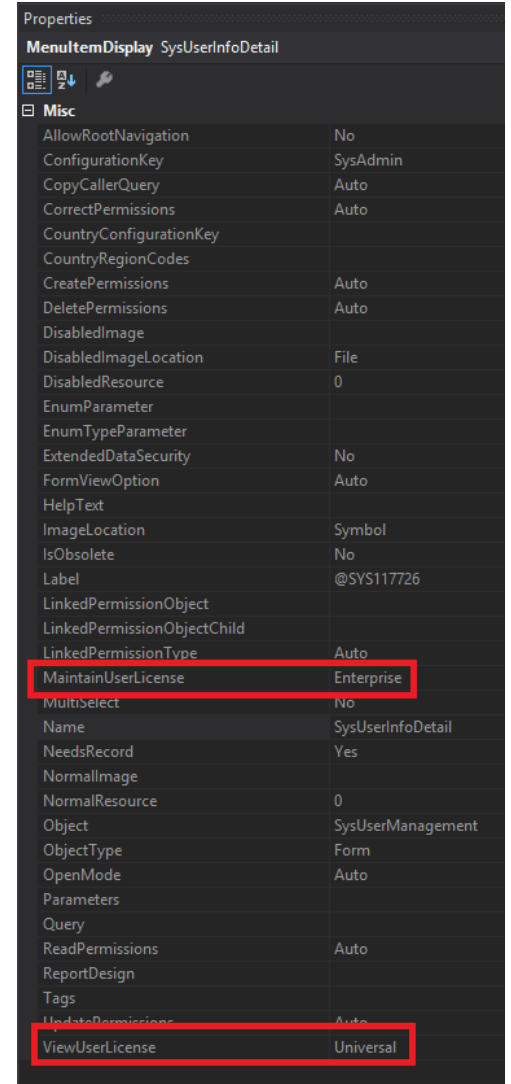


Post-October 2019 Licensing Model



Entry Point Based Licensing

- Based on access to entry points (menu items etc)
- Each entry point has two parameters
 - Maintain User License – used if access is Created, Update, Delete
 - View User License – used if access if Read
- It only takes one access at a higher license level for the user/role to require that higher license level



The screenshot shows the Properties window for 'SysUserInfoDetail' in Dynamics 365. The 'Misc' section is expanded, displaying a list of properties and their values. Two properties are highlighted with red boxes: 'MaintainUserLicense' with a value of 'Enterprise' and 'ViewUserLicense' with a value of 'Universal'.

Property	Value
AllowRootNavigation	No
ConfigurationKey	SysAdmin
CopyCallerQuery	Auto
CorrectPermissions	Auto
CountryConfigurationKey	
CountryRegionCodes	
CreatePermissions	Auto
DeletePermissions	Auto
DisabledImage	
DisabledImageLocation	File
DisabledResource	0
EnumParameter	
EnumTypeParameter	
ExtendedDataSecurity	No
FormViewOption	Auto
HelpText	
ImageLocation	Symbol
IsObsolete	No
Label	@SYS117726
LinkedPermissionObject	
LinkedPermissionObjectChild	
LinkedPermissionType	Auto
MaintainUserLicense	Enterprise
MultiSelect	No
Name	SysUserInfoDetail
NeedsRecord	Yes
NormalImage	
NormalResource	0
Object	SysUserManagement
ObjectType	Form
OpenMode	Auto
Parameters	
Query	
ReadPermissions	Auto
ReportDesign	
Tags	
UpdatePermissions	Auto
ViewUserLicense	Universal

Licensing Change in 10.0.34

- In 10.0.34 new feature flag introduced
 - DisableReadGrantTeamMemberLicense
- Forces all Read logic to require 'Team Member' license

```
using Microsoft.Dynamics.ApplicationPlatform.Flighting;
using Microsoft.Dynamics.AX.Metadata.Core.MetaModel;
using System;
using System.Collections.Generic;
using System.Globalization;
using System.Linq;

namespace Microsoft.Dynamics.AX.Security.Management
{
    internal struct MenuItemLicenseProperties : IEquatable<MenuItemLicenseProperties>
    {
        public UserLicenseType MaintainUserLicense { get; set; }

        public UserLicenseType ViewUserLicense { get; set; }

        public UserLicenseType ComputeForGrant(AccessGrant grant, out bool allDenied)
        {
            allDenied = false;
            if (((AccessGrant) ref grant).Invoke == 1 || ((AccessGrant) ref grant).Delete == 1 || ((AccessGrant) ref grant).Create == 1 || ((AccessGrant) ref grant).Correct == 1 || ((AccessGrant) ref grant).U;
                return this.MaintainUserLicense;
            if (((AccessGrant) ref grant).Read == 1)
            {
                if (!FlightingHelper.IsFlightEnabled("DisableReadGrantTeamMembersLicense") && (this.ViewUserLicense == 4 || this.ViewUserLicense == 7))
                {
                    this.ViewUserLicense = (UserLicenseType) 6;
                    return this.ViewUserLicense;
                }
            }
            if (((IEnumerable<AccessGrantPermission>) (object) grant).All<AccessGrantPermission>((Func<AccessGrantPermission, bool>) (g => g == 2)))
            {
                allDenied = true;
                return (UserLicenseType) 0;
            }
        }

        public bool Equals(MenuItemLicenseProperties other) => other.ViewUserLicense == this.ViewUserLicense && other.MaintainUserLicense == this.MaintainUserLicense;

        public override string ToString() => string.Format((IFormatProvider) CultureInfo.InvariantCulture, "M: {0} V: {1}", (object) this.MaintainUserLicense, (object) this.ViewUserLicense);
    }
}
```

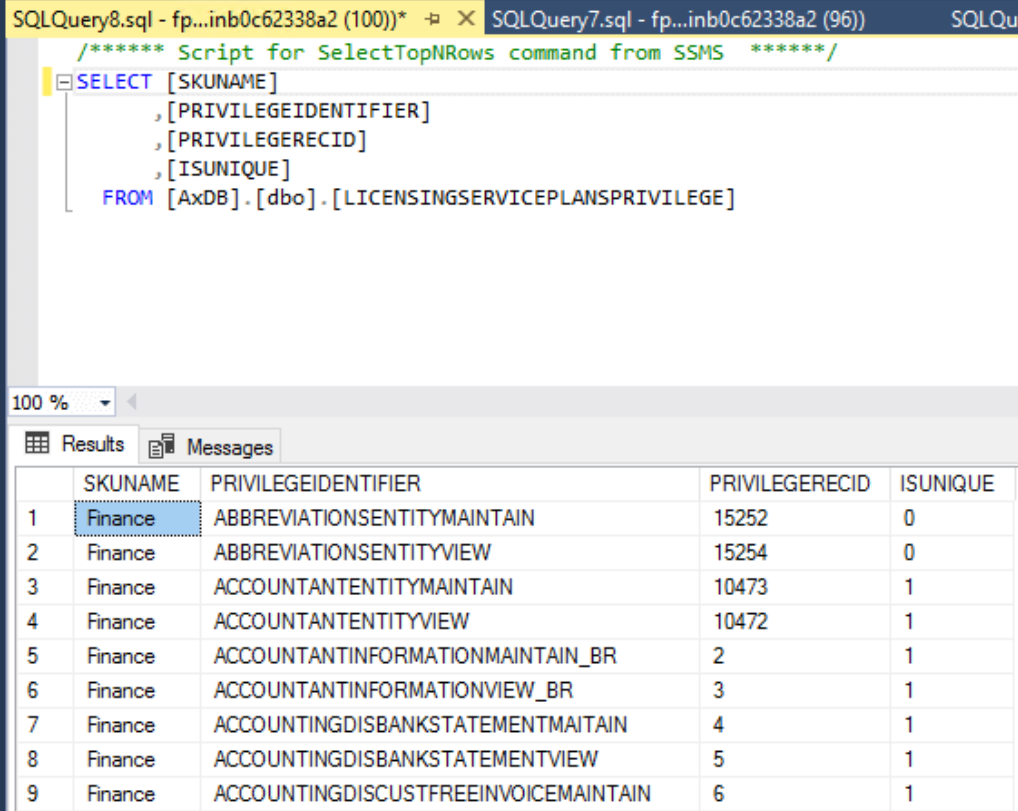

Privilege Based Licensing

- Categorizes 'Operations' license into SKUs:
 - Finance
 - Supply Chain Management
 - Retail
 - Project Operations
- Based on which privileges a user is assigned



Privilege Based Licensing

- Microsoft has designated certain privileges to require a particular license type
- Associations can be found in the LicensingServicePlansPrivilege table
- If user is assigned a privilege with IsUnique = 1 then that license is required
 - If multiple licenses are required will follow a base/attach model
- If IsUnique = 0 then **any** license listed will satisfy license requirement



The screenshot shows a SQL query window with the following text:

```
SQLQuery8.sql - fp...inb0c62338a2 (100)* X SQLQuery7.sql - fp...inb0c62338a2 (96) SQLQu  
/***** Script for SelectTopNRows command from SSMS *****/  
SELECT [SKUNAME]  
      , [PRIVILEGEIDENTIFIER]  
      , [PRIVILEGERECID]  
      , [ISUNIQUE]  
FROM [AxDB].[dbo].[LICENSINGSERVICEPLANSPRIVILEGE]
```

Below the query window is a results grid with the following data:

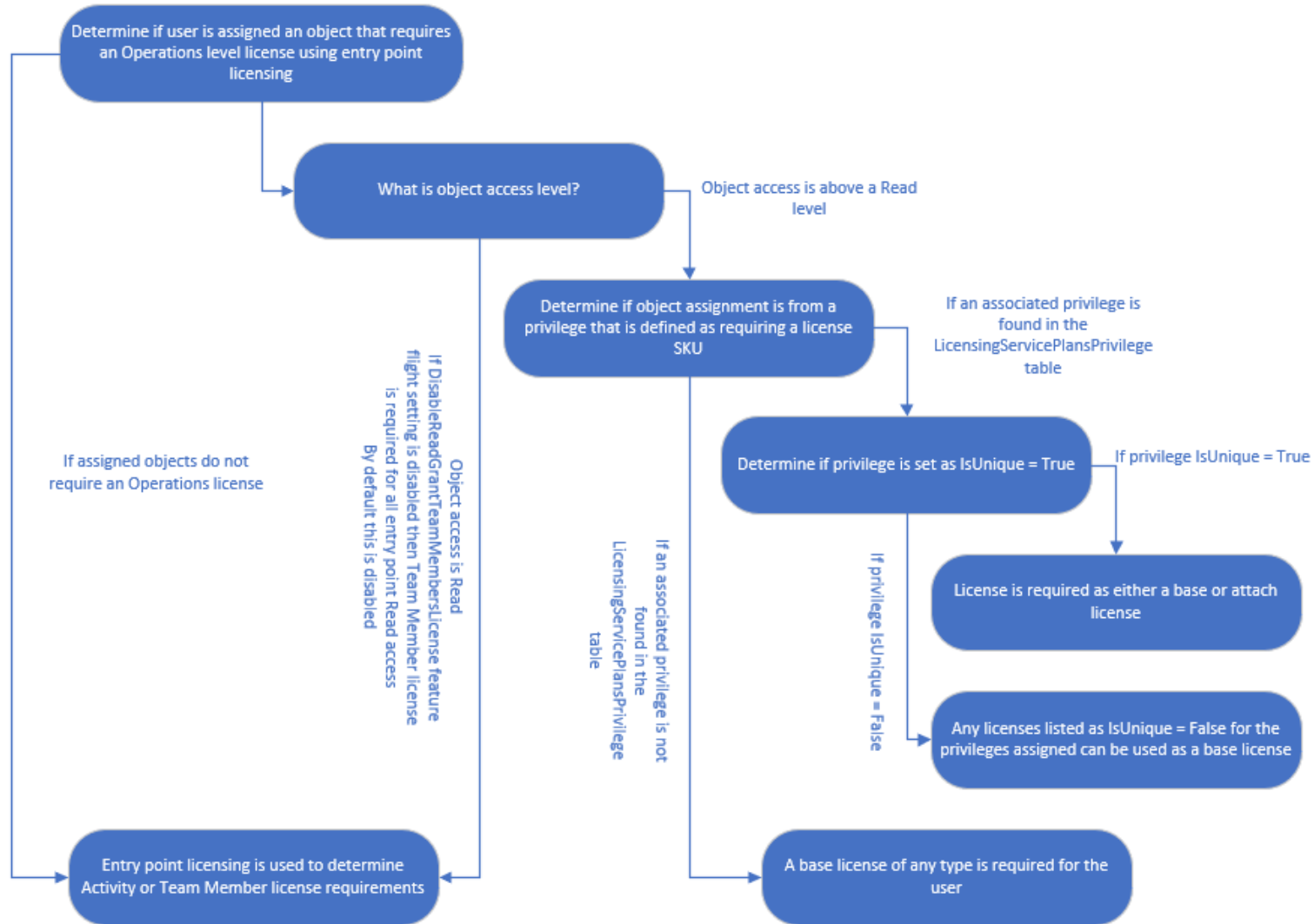
	SKUNAME	PRIVILEGEIDENTIFIER	PRIVILEGERECID	ISUNIQUE
1	Finance	ABBREVIATIONSENTITYMAINTAIN	15252	0
2	Finance	ABBREVIATIONSENTITYVIEW	15254	0
3	Finance	ACCOUNTANTENTITYMAINTAIN	10473	1
4	Finance	ACCOUNTANTENTITYVIEW	10472	1
5	Finance	ACCOUNTANTINFORMATIONMAINTAIN_BR	2	1
6	Finance	ACCOUNTANTINFORMATIONVIEW_BR	3	1
7	Finance	ACCOUNTINGDISBANKSTATEMENTMAINTAIN	4	1
8	Finance	ACCOUNTINGDISBANKSTATEMENTVIEW	5	1
9	Finance	ACCOUNTINGDISCUSTFREEINVOICEMAINTAIN	6	1

Base / Attach Licensing Combinations

Dynamics 365 base licenses per user	Dynamics 365 attach licenses per user										
	Commerce	CS Ent	CS Pro	Field Svc	Finance	HR	Proj Oper.	RA	Sales Ent	Sales Pro	SCM
Business Central Essentials			•							•	
Business Central Premium			•							•	
Commerce		•	•	•	•	•	•		•	•	•
Customer Service Enterprise (CS)				•					•	•	
Customer Service Professional (CS)											
Field Service		•	•					•	•	•	
Finance	•	•	•	•		•	•		•	•	•
Guides											
Human Resources (HR)		•	•	•			•		•	•	
Microsoft Relationship Sales solution Plus (MRSs Plus)		•	•	•		•	•				
Project Operations (Proj Oper.)		•	•	•		•			•	•	
Remote Assist (RA)											
Sales Enterprise		•	•	•							
Sales Premium		•	•	•		•	•				
Sales Professional			•								
Supply Chain Management (SCM)	•	•	•	•	•	•	•		•	•	



User Licensing Methodology



License Reporting



View Permissions Report

View permissions

License

Finance

Filter

✓	Role	Sub role	Duty	Privilege ↑	Resource type	Context \ Resource	Read	Update	Create	Delete	Correct	Invoke	License ▾
	Accountant		Manage fixed asset impairment	Generate asset impairment recognition test result	Menu item display	ASSETIMPAIRMENTRECOGNITION_JP	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment recognition test result	Menu item display	ASSETIMPAIRMENTRECOGNITION ...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment recognition test result	Menu item display	ASSETIMPAIRMENTRECOGNITION ...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment recognition test result	Menu item display	ASSETIMPAIRMENTRECOGNITIONT...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment recognition test result	Menu item display	ASSETIMPAIRMENTRECOGNITIONT...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment review	Menu item display	ASSETIMPAIRMENTCARRYINGCRN ...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment review	Menu item display	ASSETIMPAIRMENTTESTRESULTENT...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Manage fixed asset impairment	Generate asset impairment review	Menu item display	ASSETIMPAIRMENTTRANSANALYSI...	Grant	Grant	Grant	Grant	Grant	Grant	Finance
	Accountant		Maintain sales tax transactions	Generate domestic sales tax for customer expor...	Menu item display	PLCUSTINVOICEJOURNALSAD	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain sales tax transactions	Generate domestic sales tax for customer expor...	Menu item action	PLCUSTINVOICEJUREDITTAX_TAXIN	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain sales tax transactions	Generate domestic sales tax for customer expor...	Menu item action	PLCUSTINVOICEJUREDITTAX_TAX ...	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain electronic documents	Generate electronic documents	Menu item display	LEDGERRRGEOPERATIONGROUPIN ...	Grant	Grant	Grant	Grant	Grant	Unset	Operations
	Accountant		Maintain sales tax transactions	Generate Italian Modello 770 Report	Menu item output	TAXREPORT770EXPORT_IT	Grant	Grant	Unset	Unset	Unset	Unset	Finance
	Accountant		Manage fixed asset impairment	Generate journal line for asset impairment trans...	Menu item action	ASSETCREATEJOURNAL_IMPAIRME ...	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Manage fixed asset impairment	Generate journal line for asset impairment trans...	Menu item action	ASSETMULTIJOURNALIMPAIRMENT...	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain fixed asset transacti ...	Generate journal line for asset impairment trans...	Menu item action	ASSETCREATEJOURNAL_IMPAIRME ...	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain fixed asset transacti ...	Generate journal line for asset impairment trans...	Menu item action	ASSETMULTIJOURNALIMPAIRMENT...	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain sales tax transactions	Generate OB declaration	Menu item action	TAXREPORT_EVATNL	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Maintain sales tax transactions	Generate Spanish VAT report	Menu item action	TAXREPORT_ES	Grant	Grant	Grant	Grant	Grant	Unset	Finance
	Accountant		Inquire into customer invoice ...	Generate tax document report	Menu item output	CZTAXDOCUMENTTABLE_CUST	Grant	Grant	Grant	Grant	Grant	Unset	Operations
	Accountant		Inquire into collections status	Generate tax document report	Menu item output	CZTAXDOCUMENTTABLE_CUST	Grant	Grant	Grant	Grant	Grant	Unset	Operations

Licenses During User Role Assignment

Finance and Operations Search for a page

Edit + New Delete Import users Maintain versions Batch import User options Options

Personalize **Page options** **Share**

Always open for editing Personalize this page Add to workspace Security diagnostics Advanced filter or sort Record info Go to Get a link Create a custom alert Manage my alerts

Users

Brad : Brad Sutton

User details

User ID	User name	Provider	Email	Telemetry ID	Company	Person
Brad	Brad Sutton	https://sts.windows.net/	Brad@contosoax7.onmicroso...	{E8623DD4-FC9B-4CB6-A7B2 ...	USMF	Brad Sutton

User's roles

+ Assign roles Remove role Assign organizations

- Roles
 - Budget clerk
 - Budget manager
 - Employee
 - Manager
 - System user

Assign roles to user

Select additional roles to assign to this user

COPY SETTINGS FROM USER OR GROUP

ID Include organizations Yes

✓ Role name ↑	Label	License
Accountant	Accountant	Finance
Accounting manager	Accounting manager	Finance
Accounting supervisor	Accounting supervisor	Finance
Accounts payable centra...	Accounts payable ce...	Finance
Accounts payable clerk	Accounts payable clerk	Finance
Accounts payable mana ...	Accounts payable m ...	Finance
Accounts payable paym ...	Accounts payable pa...	Finance
Accounts payable positi ...	Accounts payable po...	Activity
Accounts receivable cen ...	Accounts receivable ...	Finance
Accounts receivable clerk	Accounts receivable ...	Finance
Accounts receivable ma ...	Accounts receivable ...	Finance
Accounts receivable pay ...	Accounts receivable ...	Finance
Applicant anonymous (e...	Applicant anonymou...	None
Auditor	Auditor	Finance
Batch job manager	Batch job manager	Operations
Budget contributor	Budget contributor	Team Members
BusinessConnector Role	BusinessConnector R...	None
Buying agent	Buying agent	Activity
CDS Virtual Entity anyo ...	CDS Virtual Entity an ...	None
CDS virtual entity applic ...	CDS virtual entity ap ...	None
CDS Virtual Entity authe ...	CDS Virtual Entity aut...	None
Chief executive officer	Chief executive officer	Operations
Chief financial officer	Chief financial officer	Operations
Collections agent	Collections agent	Finance
Collections manager	Collections manager	Finance
Compensation and bene...	Compensation and b...	Operations
Contractor	Contractor	Operations
Cost accountant	Cost accountant	SCM
Cost accountant clerk	Cost accountant clerk	SCM

User License Counts Reports

- Workspaces
 - System administration
 - Data management
 - Optimization advisor
- Users
 - Users
 - Online users
 - User groups
 - User requests
- Security
 - Assign users to roles
 - Security configuration
 - Security diagnostics for task recordings
 - External roles
 - Segregation of duties
- Workflow
 - Workflow parameters
 - Workflow infrastructure configuration
 - User workflows
 - User workflow parameters
- Inquiries
 - Database
 - Batch jobs

- Data cache
 - User log
 - License**
 - User License Counts
 - User License Counts History
 - Security
- Setup
 - License configuration
 - Server configuration
 - Batch group
 - Entity Store
 - Power BI
 - Deploy Power BI files
 - Configure performance tool
 - System parameters
 - Database log setup
 - Client performance options
 - Personalization
 - Office app parameters
 - Configure cross-company data sharing
 - Azure Active Directory applications
 - Key Vault parameters
 - B2B Invitation Configuration
- Data cache
 - Data cache
- Email
 - Email
- Periodic tasks
 - Data expansion tool
 - Notification clean up
 - Batch job history clean-up.
 - Batch job history clean-up (custom).

- Batch job ready to post
- Database
 - Database
- Alerts
 - Alerts
- Email processing
 - Email processing
 - Maintain diagnostics validation rule
 - Schedule diagnostics validation rule
 - Run performance test



User License Counts Report

Dynamics 365 for Finance and Operations User Count Report

Page 8 of 19

Excluding device users

1/10/2018

Application version: 7.0.4709.41129

2:00 AM

gofastpath.com

Access License Type	Access License Type
Operations	63

Alias	Network domain	User name
TED@contosoax7.onmicrosoft.com	https://sts.windows.net/	TED
Security Role	Access License Type	
Dispatcher	Team Members	
System user	Team Members	
Transportation coordinator	Operations	

Alias	Network domain	User name
STAN@contosoax7.onmicrosoft.com	https://sts.windows.net/	STAN
Security Role	Access License Type	
Employee	Team Members	
Accountant	Operations	
System user	Team Members	

Alias	Network domain	User name
SIMON@contosoax7.onmicrosoft.com	https://sts.windows.net/	SIMON
Security Role	Access License Type	
Employee	Team Members	
Retail operations manager	Operations	
Retail store IT	Operations	
System user	Team Members	



User License Estimator Report

USER	FINANCE	SUPPLY CHAIN MANAGEMENT	RETAIL	PROJECT
Fastpath Service Account fastpathservice@gofastpath.com https://sts.windows.net/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

dat

USER	FINANCE	SUPPLY CHAIN MANAGEMENT	RETAIL	PROJECT
RetailServiceAccount RetailServerSystemAccount@ynamics.com https://sts.windows.net/	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PSUS

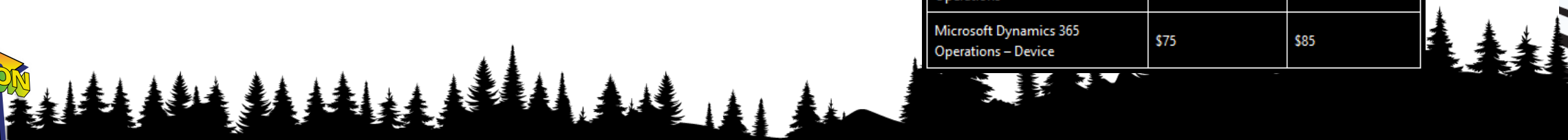
USER	FINANCE	SUPPLY CHAIN MANAGEMENT	RETAIL	PROJECT
PSUS Admin AdminPSUS@contosoax7.onmicrosoft.com https://sts.windows.net/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AprilPSUS AprilPSUS@contosoax7.onmicrosoft.com https://sts.windows.net/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
bradpsus bradpsus@contosoax7.onmicrosoft.com https://sts.windows.net/	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IngaPSUS IngaPSUS@contosoax7.onmicrosoft.com https://sts.windows.net/	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Licensing Price Update

- Takes effect October 1st 2024
- Does not impact Activity, Team Member
- Does not impact license minimums

Product	Price before October 1, 2024	Price as of October 1, 2024 ²
Microsoft Dynamics 365 Sales Enterprise	\$95	\$105
Microsoft Dynamics 365 Sales Device	\$145	\$160
Microsoft Dynamics 365 Sales Premium	\$135	\$150
Microsoft Microsoft Relationship Sales ³	\$162	\$177
Microsoft Dynamics 365 Customer Service Enterprise	\$95	\$105
Microsoft Dynamics 365 Customer Service Device	\$145	\$160
Microsoft Dynamics 365 Field Service	\$95	\$105
Microsoft Dynamics 365 Field Service Device	\$145	\$160
Microsoft Dynamics 365 Finance	\$180	\$210
Microsoft Dynamics 365 Supply Chain Management	\$180	\$210
Microsoft Dynamics 365 Commerce	\$180	\$210
Microsoft Dynamics 365 Human Resources	\$120	\$135
Microsoft Dynamics 365 Project Operations	\$120	\$135
Microsoft Dynamics 365 Operations – Device	\$75	\$85



Tools / Services to Help



Free Tools – D365FO Admin Toolkit

- [More info here!](#)

- Features include:

- User self-service assignment / revoking of SysAdmin
- SysAdmin assignment logging
- Export System Configuration
- Auto-disable users

My view ▾
Security Toolkit - SysAdmin Change
SysAdmin Assignment Change Reason :

Finance and Operations Preview System administration > Alex Meyer's Security Toolkit > SysAdmin Log

Options

SysAdmin Changes Log

Standard view ▾

Filter

Start Date: 11/13/2023 End Date: 12/14/2023

Date Time	User	Reason	Action	Modified By
12/13/2023 3:15:47 PM	BROOKE	Testing SysAdmin Revoke	Revoked	Admin
12/12/2023 6:42:05 PM	test	Testing SysAdmin Assignment	Assigned	test
12/12/2023 6:41:38 PM	test	Testing SysAdmin Revoke	Revoked	test
12/12/2023 6:12:06 PM	ALICIA	test	Assigned	Admin
12/12/2023 6:11:48 PM	ALICIA		Revoked	Admin

- ✓ D365FO Admin Toolkit
 - ✓ System Administrator
 - Assign / Revoke SysAdmin
 - ✓ Environment
 - Export System Configuration
 - ✓ Inquiries and Reports
 - SysAdmin Assignment Report
 - ✓ Setup
 - Configuration Setup

Finance and Operations Preview System administration > Users > Users

Edit + New Delete Import users Maintain versions Batch import User options Options

Users

Standard view ▾

Filter

User ID	User name	Email	Company	Person	Telemetry ID	Last Login	Enabled
Admin	Admin	me@alexitguyoutlook.onmicrosoft.com	DAT	Julia Funderburk	{715C5450-A08B-4791-92...	1/30/2024 4:34:40 PM	✓
ALICIA	ALICIA	ALICIA@contosoax7.onmicrosoft.com	USMF	Alicia Thomber	{9314EDD0-BFC2-4E27-A...		✓
APRIL	APRIL	APRIL@contosoax7.onmicrosoft.com	USMF		{E67372B1-AB55-4674-8F...		✓



Security and Licensing Help

- ISVs
 - Fastpath / Delinea
 - XPLUS
- Consulting
 - Protiviti
 - [D365FO Template Roles](#)
 - [Microsoft Consulting Solutions](#)
 - Security Risk Analysis
 - Security Implementations / Redesigns
 - User License Analysis
 - D365FO Implementation Help



Resources



Resources

[D365FO Role-based Security](#)

[Introduction to Microsoft Dynamics 365 licensing](#)

[Security Roles & Licensing Whitepaper](#)

[Determining User Licenses in D365FO](#)

[Privilege License Excel File](#)

[Hidden Feature Flag Changing How User Licensing is Performed in D365FO](#)

[Setting Up Security in Dynamics 365 for Finance and Operations – Part I – From the User Interface](#)

[Setting Up Security in Dynamics 365 for Finance and Operations – Part II – From the AOT](#)

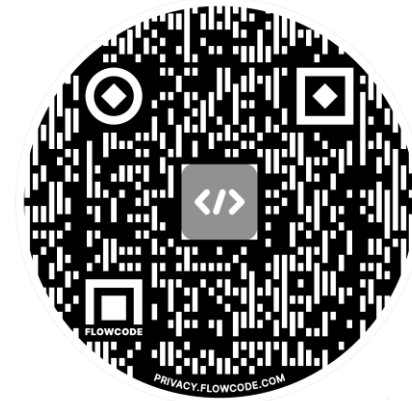
Blog Posts:

- [Current State of D365FO User License December 2020](#)
- [Current State of D365FO User Licensing October 2020](#)
- [Current State of D365FO User Licensing August 2020](#)
- [Current State of D365FO User Licensing July 2020](#)
- [Current State of D365FO User Licensing May 2020](#)
- [October 2019 User License Update to D365FO](#)
- [Current State of User Licensing in D365FO PU31](#)



Thank You / Questions?

- Contact Info:
- Email: alex.itguy@outlook.com
- Blog: <http://d365foblog.com>
- Security Course: <http://d365fosecurity.com>
- Book: [Security and Audit Field Manual: Dynamic 365 for Finance & Operations](#)
- [LinkedIn](#)
- [Microsoft MVP Profile](#)



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