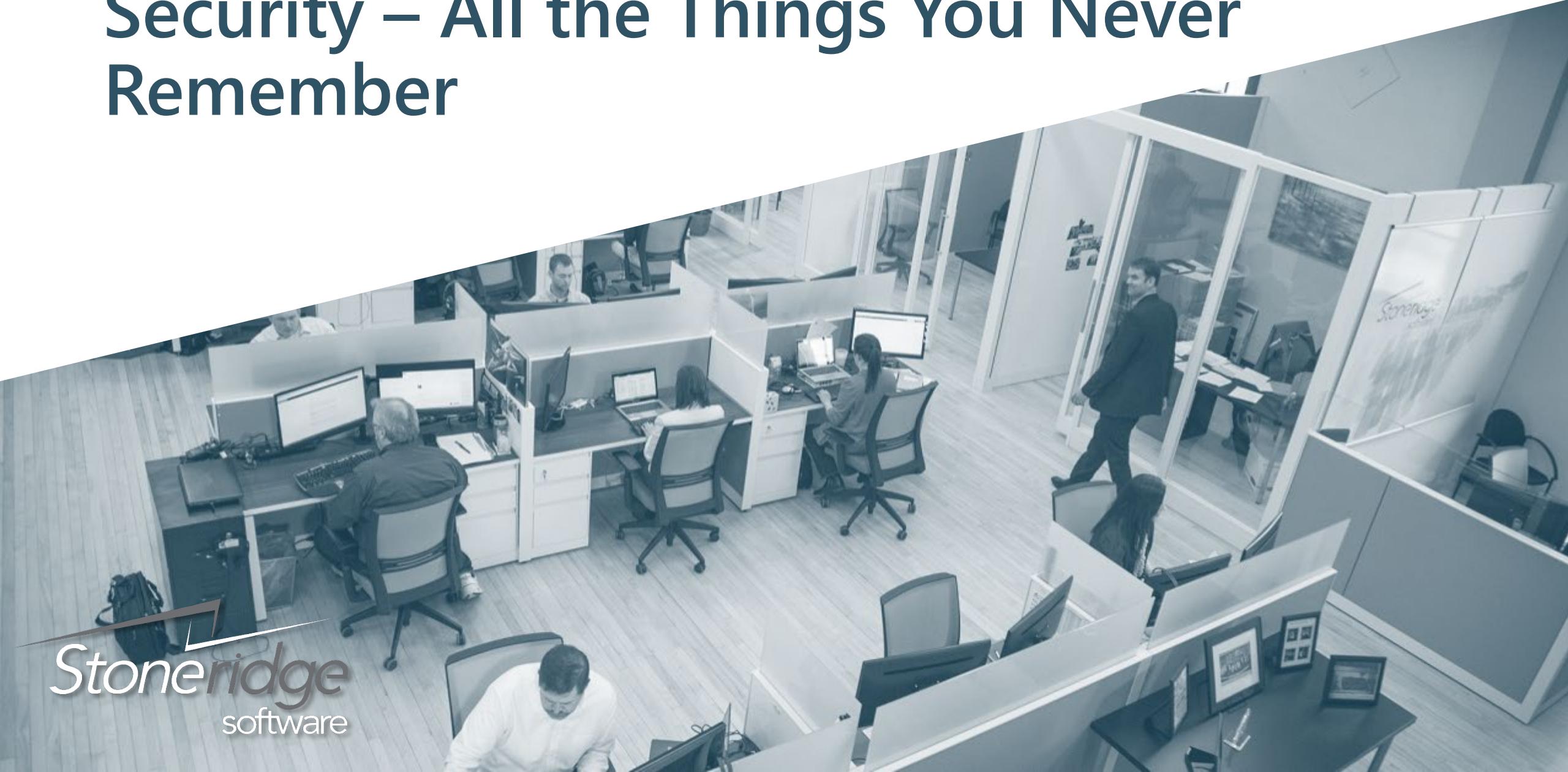


Security – All the Things You Never Remember



Stoneridge
software

Who is Rob Wagner

Rob Wagner is a Principal Developer at Stoneridge Software. He has over 25 years of experience in custom programming and development for Dynamics GP. He has developed features for HR and Payroll, General Ledger, Distribution, Manufacturing, Key2Act, and more.

He has a passion for helping partners and customers achieve Dynamics GP success - beyond your wildest dreams.





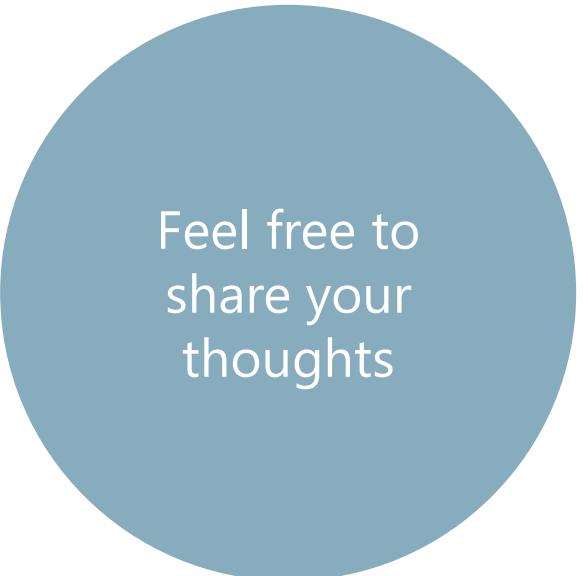
Before we dive in



Answers to
Questions



Level-Set
Expectations



Feel free to
share your
thoughts



Are you
Hungry?



STRIDE (security)

Defined

STRIDE is a model of threats developed by Microsoft for identifying computer security threats.

Spoofing of user identity

Tampering

Repudiation

Information disclosure

Denial of service

Elevation of privilege





Security Food for Thought

*Wood Roasted Beet & Portobello
Mushroom Carpaccio*

*Avocado Rye Toast, Dill
Cucumbers, Fried Capers*

Folder Security



Folders

The resting place for a file or another folder

Could it be on your machine

Could it be on the network

Is it in the cloud

Is it on another network

Dynamic needs for access control list (acl)

An ACL is a list of access control entries, otherwise known as ACE

Do not try to work directly with the contents of an ACL

Use tools like Active Directory Service Interface

These will ensure that something does not inadvertently become corrupted

stridE





Web Folders

OneDrive for Business

Very inexpensive large cloud storage space for all kinds of documents or files

Available anytime on any device

Do you remember the name in it's first iteration?

OneDrive

Each has a personal account for just that data

You must choose which account to login as

WebDAV

Host an IIS server in the cloud (Azure Storage SSD)

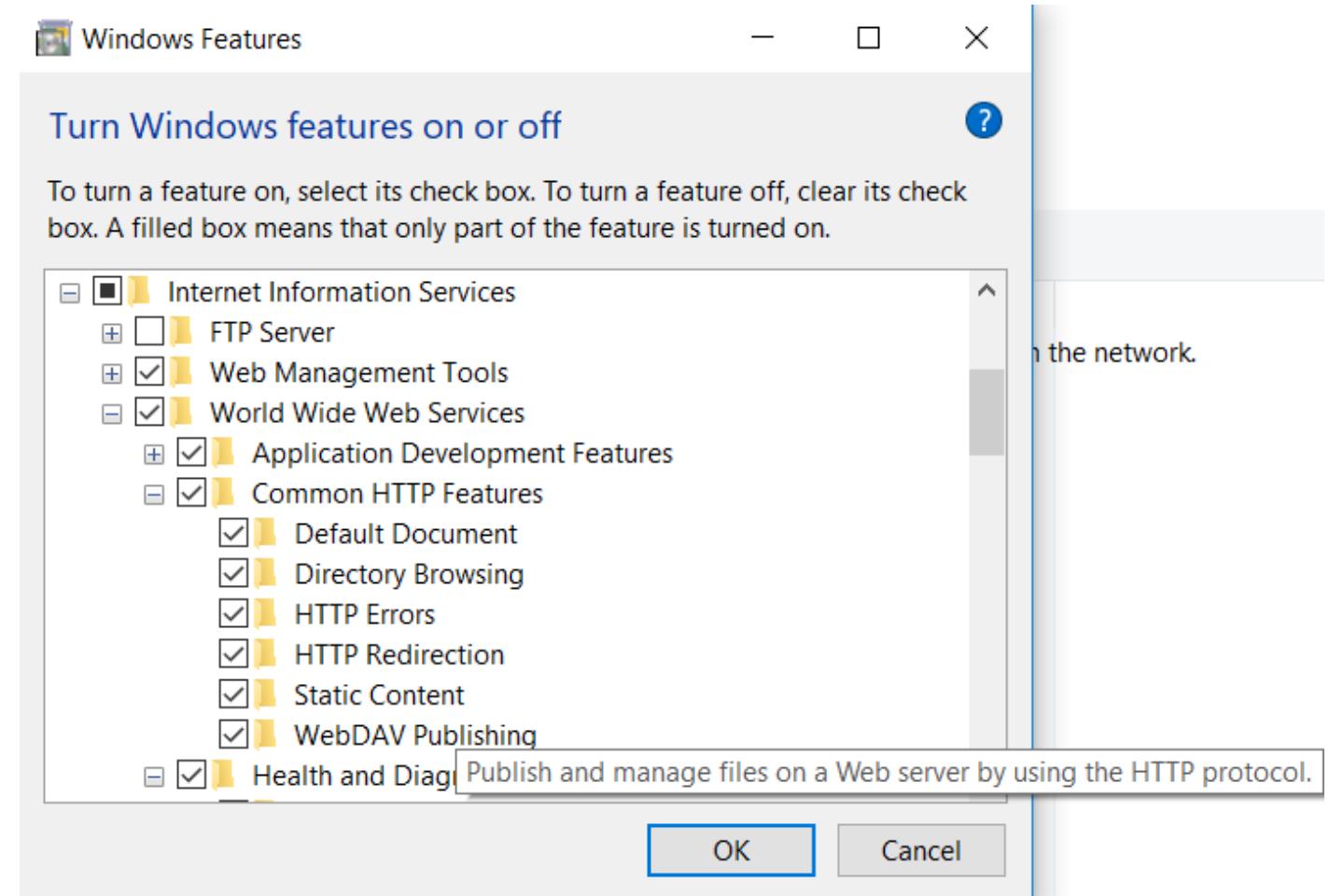
Use the file server on a local machine to push (Local Storage SSD)

Connect these two by wiring them up





WebDAV Publishing





Web Folders are the best option



Scrutinize the Excel Report Location

Data Connected documents should never be willy-nilly on the network.

Document Repository File Locations

Reports generated inside the system are stored at locations defined by the application.

Inside the database options cause lots of extra sql db size.

After years of use becomes bloated with no solid answer for test scenarios.

SharePoint File Locations

Documents stored here get revision control and diff analysis for free.

The storage is relatively cheap.

Less likely for users to accidentally share wrong information with someone outside their organization.

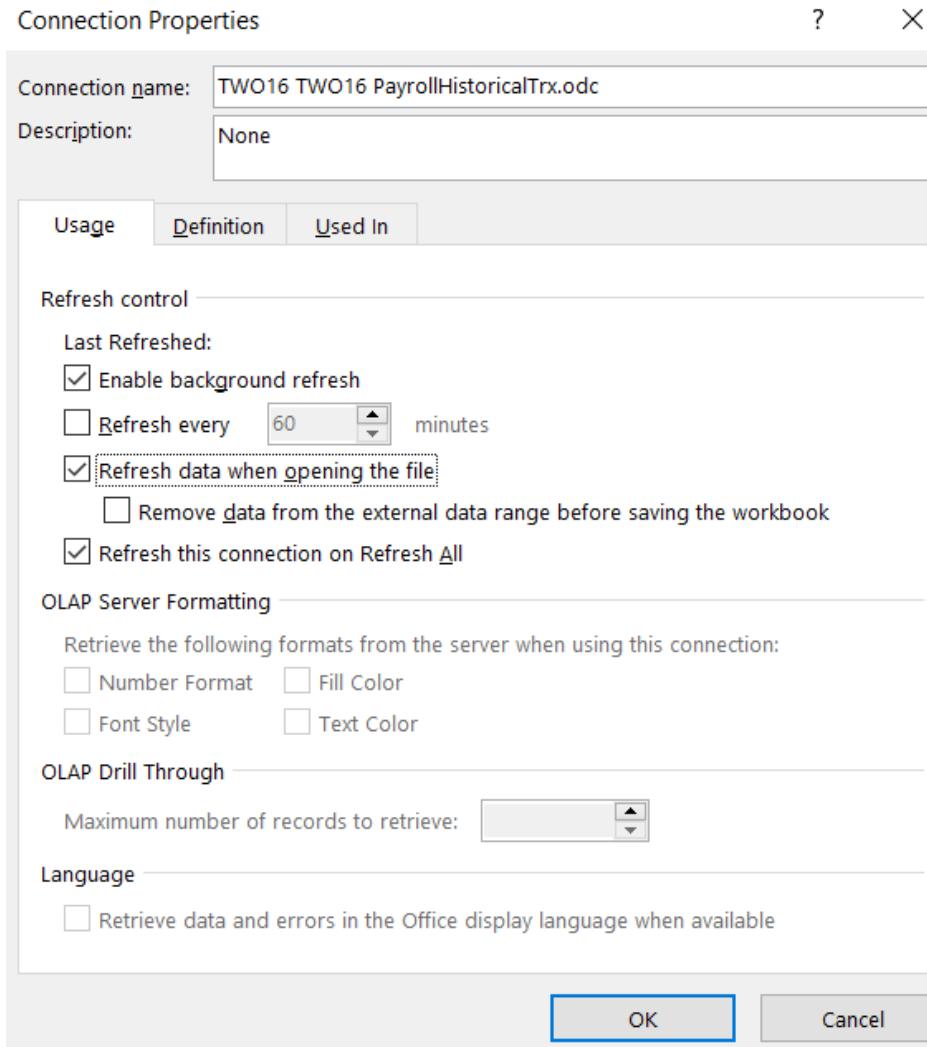
Oops, I did it again.

Anytime, Any-device





What's wrong with this picture



<C:\build\excelreports\Data Connections\TWO16\Payroll>

<C:\build\excelreports\Reports\TWO16\Payroll>

If the user of an ODC, does not check the second box, data about employees will be saved inside the file. Once there, any user with access to the file location can open and see the data.

Irrespective of the fact that the second user may not have been granted permission at the SQL server.

stride



Demo

C:\ProgramData\Microsoft\Windows\Start
Menu\Programs\Microsoft Dynamics\GP 2016

C:\Program Files (x86)\Microsoft Dynamics

C:\Dynamics\GP2016\Data

%temp%

Food for Thought

Country Fried Cauliflower

*Pickled Red Onions, Sweet
Corn Pepper Chowchow,
Smoked Paprika Aioli*

SQL Security





Duo of SQL Authenticated Logins



Mixed Mode

Have you ever forgot to click on mixed mode during your sql installation script?

SQL Authentication

Dynamics GP uses these for each named user with access to the system.

DYNGRP should only contain this type of authentication.

Windows Authentication

SSRS and Excel use these authenticated users to pass network credentials to SQL server.

SQL Roles

Combine the set of objects into a single accessible group

rpt_???????





Windows Authentication vs Others

Pros

Ad-hoc data query capability inside the box for SQL IT Pros

Promotes the democratization of Dynamics GP data

Allows the Non-GP user to exist

Does not cost hardly anything

Cons

More difficult to audit at the access point

Requires SQL administrator to add security access

Adds more time to test these solutions

Kerberos





Users



GP User – A person who works inside GP

A person who logs into the application consumes one available license seat of those purchased.

SQL account – GP users security principal

DYNGRP is granted to the SQL account for the GP user.

SQL account permissions are controlled by the application.

Other User – GP data from outside

SQL concurrent access license users are typically inside Excel or SQL Reporting Services

Windows account – Non-GP user security principal

Any number of rpt_ roles are granted to the Windows account for the Non-GP user

User Types – Full, Limited, Self-Service



Demo

How to grant access to objects

More Food for Thought

Brussel Sprout & Kale Caesar Salad

*Lemon Garlic Dressing,
Polenta Croutons*

SSRS Security



SSRS Security



Access to reports

Browse a library of interesting subjects to click on them and render a result.

Make a new report with Report Builder.

Access to Data behind a report

Click on a report, only to be denied because the connection was not valid.

Pull the data into SSRS from a power model.

Service Accounts

Create a sql or windows account with a secret password and use it everywhere

Store the password of the service account in the report

Encrypted Data

When you bring back a ReportServer database, you must set up credentials again after restoration.





Report Server Security Considerations



Run Internet Explorer as an Administrator during the initial report server security step

The screenshot shows the top navigation bar of the SQL Server Reporting Services interface. The title "SQL Server Reporting Services" is on the left. To its right are four icons: a gear (settings), a downward arrow (refresh), a question mark (help), and a user icon "DFCCONSULTANTS\rwagner". Below the title is a dark grey bar containing several icons: a star for Favorites, a red "Browse" button, a plus sign, an upward arrow, a magnifying glass, a search bar labeled "Search...", and a magnifying glass icon.



[Home](#)

This folder is empty.

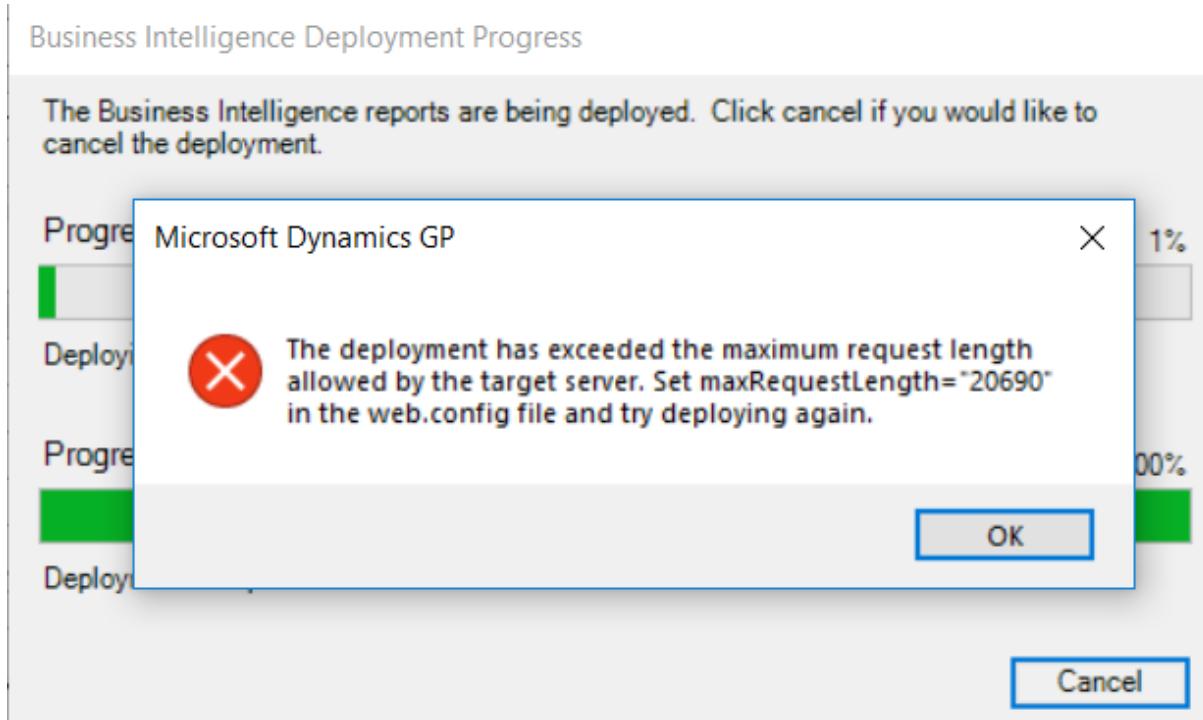


The SSRS Web.Config file

<C:\Program Files\Microsoft SQL Server\MSRS13.DAKOTAGRANITE\Reporting Services\ReportServer>



Do you recognize this message?



striDe

```
<httpRuntime executionTimeout="9000"  
requestValidationMode="2.0" maxRequestLength="20690" />
```

The report models are problems.

Because of size, the server will not allow unless this setting changes.

Change back to previous value after deployment.

Demo

How to grant access to reports

Yet More Food for Thought

*Caramelized Summer Squash &
Asparagus Carbonara*

*Garlic Confit, Romesco
Sauce*

GP Application Security



Application Security



Users

Those performing processes inside Dynamics GP must be able to access windows and reports.

Company Access

Rights must be granted to individual users. This will allow them to log into the company.

Tasks

Windows, reports and processes within Dynamics GP. Allow users into windows to complete a task.

Roles

Any number of tasks that a user will need in order to do their job.

Alternate/Modified

Customized windows and reports are selected into a set. The set is then assigned to individual users.



Tasks

A set of stuff

Stuff like windows, reports, smartlist objects

Stuff goes by dictionary

Product is dictionary like Fixed Assets

Types are windows reports, objects, files

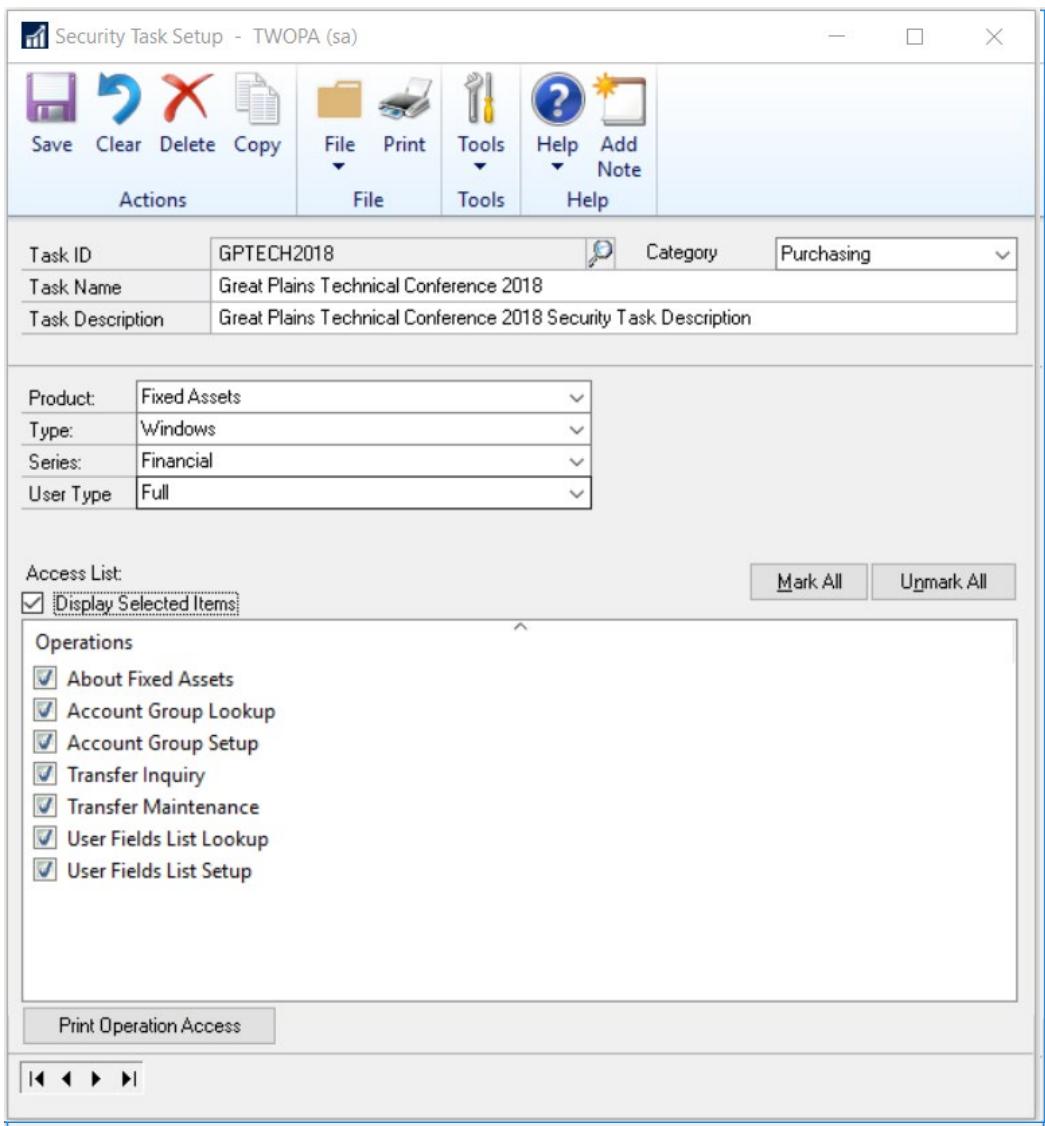
Series will group them

User Type is for licensing

Use the checkbox

See only those selected

Uncheck the box to add new stuff



Roles

A set of tasks

Group any number of tasks

Stuff goes by dictionary

Product is dictionary like Fixed Assets

Types are windows reports, objects, files

Series will group them

User Type is for licensing

Use the checkbox

See only those selected

Uncheck the box to add new stuff

The screenshot shows a Windows application window titled "Security Role Setup - TWOPA (sa)". The window has a standard menu bar with File, Tools, and Help options. Below the menu is a toolbar with icons for Save, Clear, Delete, Copy, File, Print, Tools, Help, and Add Note. The main area contains three text input fields: "Role ID: GPTECH2018", "Role Name: Great Plains Technical Conference 2018", and "Role Description: Great Plains Technical Conference 2018 Security Role Description". Below these fields is a "Display" dropdown set to "All" and a checkbox labeled "Display Selected Tasks". To the right of the checkbox are "Mark All" and "Unmark All" buttons. The main content area is a list of security tasks, each with a checkbox and a description:

Security Task ID	Name
ADMIN_ADV_HR*	Set up Advanced Human Resources
ADMIN_ADV_PR*	Set up Advanced Payroll
ADMIN_BSS_01*	Setup Benefits Self Service
ADMIN_BSS_02*	Administer Benefits Self Service
ADMIN_COMPANY_001*	Set up company
ADMIN_COMPANY_002*	Set up taxes
ADMIN_COMPANY_003*	Set up payment terms and shipping methods
ADMIN_COMPANY_004*	Set up bank accounts
ADMIN_COMPANY_005*	Set up credit cards
ADMIN_COMPANY_006*	Set up customer/vendor consolidation
ADMIN_COMPANY_007*	Set up posting
ADMIN_COMPANY_008*	General company administration



Alt-Mod Security



Window or Report

Original

Modified

Alternate

Alternate Modified

Each user is set to use an ID

The ID is a group of these

Alt/mod forms and report IDs turn on the set of forms and reports.

The IDs are assigned to individual users.

The screenshot shows a software interface titled 'Alternate/Modified Forms and Reports - TWO16...'. The top menu bar includes 'Actions', 'View', 'File', 'Tools', 'Help', and 'Debug'. Below the menu is a toolbar with icons for Save, Clear, Delete, Copy, View, File, Print, Tools, Help, and Debug. The main area contains several input fields and dropdown menus:

- ID:** DEFAULTUSER (highlighted in red)
- Description:** Default User
- Product:** WennSoft Products
- Type:** Windows
- Series:** All

Below these fields is a 'Select:' dropdown and a 'Change All' button. A section titled 'Alternate/Modified Forms and Reports List:' contains a tree view of forms and reports under the 'Sales' category:

- Inventory
- Purchasing
- Sales
 - Customer Address Maintenance
 - Customer Class Setup
 - Customer Maintenance
 - Receivables Batch Entry
 - Sales User-Defined Fields Entry
 - Sales User-Defined Fields Inquiry Zoom
 - Salesperson Maintenance
 - Microsoft Dynamics GP
 - WennSoft Products

At the bottom of the window are navigation buttons for back, forward, and search.



User Security

Opt In to have role access

Security Roles are assigned to users.

Roles are per each company and user combination.

Use the checkbox

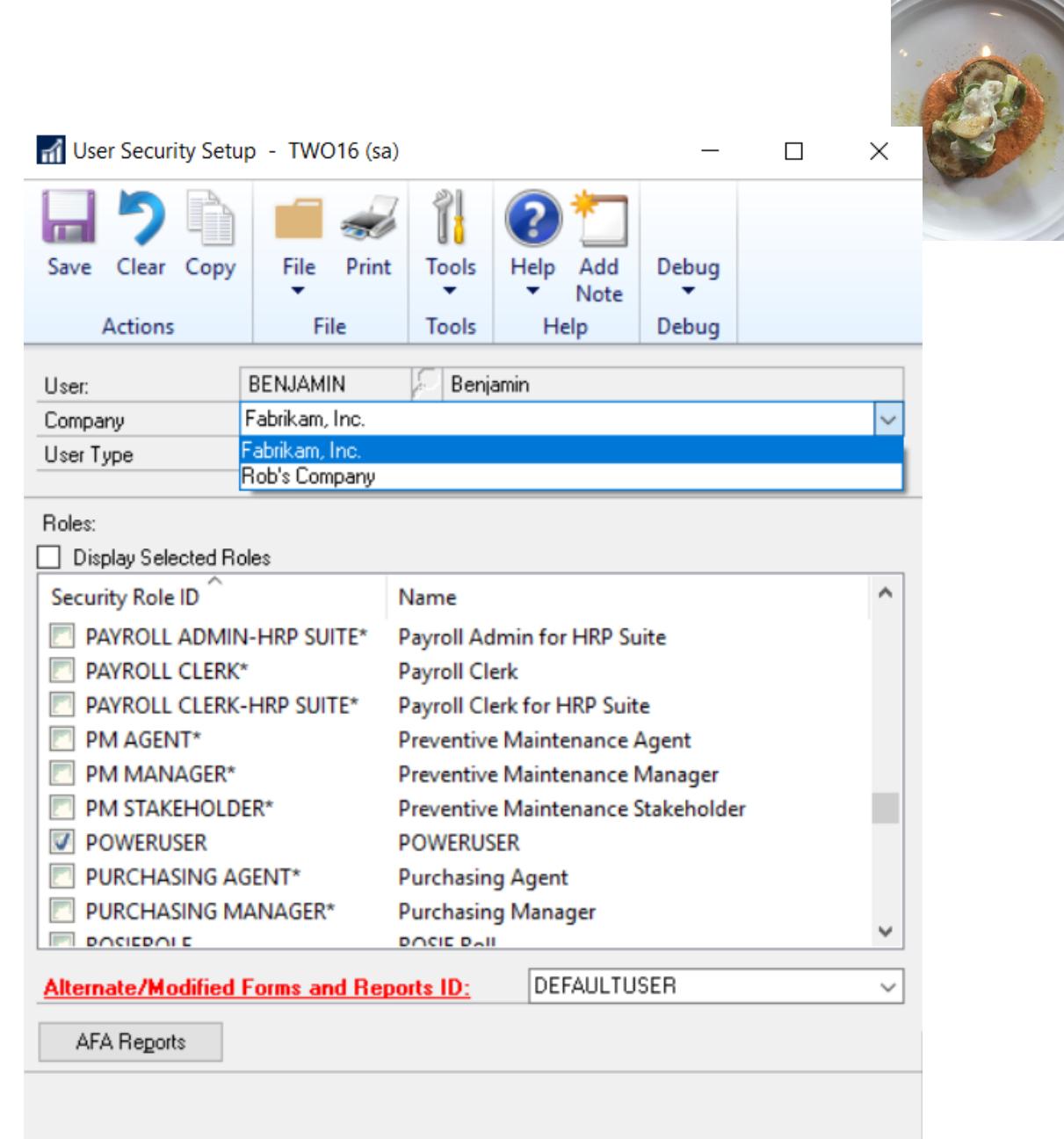
See only those selected

Uncheck the box to add new stuff

Select the Alt/Mod ID

Each of those defined will appear

Only on ID assigned per each company



The screenshot shows a Windows application window titled "User Security Setup - TWO16 (sa)". The window has a standard menu bar with options like File, Tools, Help, and Debug. Below the menu is a toolbar with icons for Save, Clear, Copy, File, Print, Tools, Help, and Add Note. The main content area is divided into sections:

- User:** BENJAMIN (with a photo placeholder)
- Company:** Fabrikam, Inc.
- User Type:** Rob's Company (highlighted in blue)
- Roles:** A list of checkboxes next to security role names. The checked roles are:
 - PAYROLL ADMIN-HRP SUITE*
 - PAYROLL CLERK*
 - PAYROLL CLERK-HRP SUITE*
 - PM AGENT*
 - PM MANAGER*
 - PM STAKEHOLDER*
 - POWERUSER
 - PURCHASING AGENT*
 - PURCHASING MANAGER*
 - ROBIE DALL
- Alternate/Modified Forms and Reports ID:** DEFAULTUSER
- AFA Reports** (button)



Demo

Activity Tracking to make suggested security groups

Another Food for Thought

Miso Glazed Tofu

*Edamame, Sea Beans, Fried
Nori, Ginger Carrot Puree*

Other Security

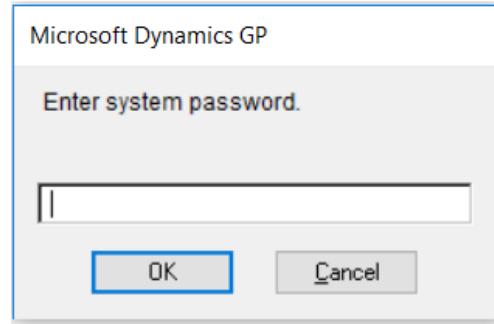


System Password



A pop up password box

The user enters a password to access certain windows



Can be changed at any time

Administration, Setup, System, System Password

One password is used for all companies



Caches the secret

Only needs to be entered one time per session



Field Level Security

Restrict access to any field, window, or form.

Apply a password or make a window unavailable.

Hide, lock, or apply passwords to fields.



Field Level Security - TWO16 (sa)

OK Cancel Apply File Print Tools Help Debug Actions File Tools Help Debug

View: Users only

ID	Descrip...	Class
BENJAMIN	Benjamin	EMP
DYNSA	DYNSA	
EMILY	Emily	EMP
LESLIE	Leslie	ADM
ROSIE	Rosie	EMP

Company Name Company ID

Fabrikam, Inc.	TWO16
Rob's Company	ROBCO

Field Security ID Description Product ID Product Name

<input type="checkbox"/> HIDEFIELD	Hide Field	8213	Automation Engine
------------------------------------	------------	------	-------------------

0 Changes pending Add



Account Level Security



Organizational Structures

Four levels are available in the organization

There can be 256 entities in each level

$256^4 = 4294967296$ account groupings (wow)

Different Accounts for each

Each User belongs to a level

Accounts belong to a level

Users can't use wrong acct.

When entering transactions, they can pick only theirs.

When viewing inquiries or reports, they cannot see others.

The screenshot shows a SAP Fiori application window titled "Organizational Structure Assignment - TWO16 (sa)". The top navigation bar includes standard icons for OK, Cancel, File, Tools, Help, Add Note, and Debug. Below the header, there are fields for "Account" (000-1110-00) and "Description" (Cash - Payroll). A section for "Company" has a search icon. Below that are sections for "Region", "Division", and "Department", each with a search icon. A large section labeled "Assigned Positions" contains a list box with "ACOM" and three buttons: "Insert >>", "Remove", and "Remove All".

Demo

Show Account Level Security

Dessert for Thought

Cherry & Pistachio Pavlova

Whipped Coconut Cream

Code Security





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Repudiation

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Denial of service

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Questions?

Join us at these upcoming events

- October 11 - [Webinar] How to Make Dynamics GP Work Simpler and Easier
- October 23 - [Webinar] Smart Mobile Forms App Across Your Organization
- October 30 - Connect | Fargo GP Conference