Microsoft Dynamics GP Roadmap

2012
- GP 2013
  - Web Client
  - Functionality
  - Management Tools
  - Hosting
  - Business Analyzer (BA) on Windows

2013
- SP1/2
  - Web Client Wave Releases
  - Functionality
  - RapidStart
  - Business Analyzer
  - Off Domain
  - On Azure

2014 (H1)
- GP 2013 R2
  - GP Workspace in Office 365
  - Functionality
  - Requisition Management
  - Identity Management V1
  - Workflow V1

2014 (H2)
- GP 2015
  - Service Based Architecture (SBA)
  - Functionality
  - Identity Management V2
  - Workflow V2
  - BA on multi-platforms (Windows, Apple & Android)

2015 H1
- GP 2015 R2
  - All in One Doc Viewer
  - AP Inv Approval
  - Time Mgmt App
  - Automated Provisioning for Azure
  - Top features requested by customers

2016 H1
- GP 2015 R3
  - Enhanced user experience for Web Client
  - Multiple browser & device support for Web Client
  - Workflow enhancements
  - Top features requested by customers

2016 +
- Functionality and technology releases
  - Top features requested by customers
Dynamics GP 2015 R2 Feature Review

- All-in-One Document Viewer – Purchasing
- SQL View Designer
- SmartLists Display Debits then Credits
- SmartLists – Default New Favorites to User vs. System
- Hide/Show SSN on Payroll & HR Reports
- View W2
- Combine GL Summary and Detail Inquiry Windows
- Time Management App

- Historical Received Not Invoiced Report
- Auto Deposit Cash Receipts in Bank Rec
- Visual Indicator for Customer Over Credit Limit
- Enable Email for all Sales/Purchasing Forms (Short, Long, Other)
- Self Service User Type
- AP Invoice Workflow Approval
- Workflow Document Attach
Business Intelligence
Display Debits before Credits

- Debits before Credits in:
  - SmartLists
  - Excel Reports
  - Database tables and views
• Allow administrators to select the default visibility for new SmartList Favorites
Create SQL Views using SmartList Designer Workflow

- Users can submit Smartlist Designer queries to workflow to create SQL views within the Company Database.
Distribution
• Created a new SQL Reporting Service Report to have a cutoff date based on transaction date or GL post date to allow customers to use the report for historical purposes.
Purchasing All-in-One Document View

- View all related purchasing documents for a single transaction in one window
- Select a purchasing invoice and window will refresh to show POs, receipts, payments, etc.
- Accessible from Vendor Maintenance, many purchasing inquiry windows, navigation lists and the home page
Financial
Cash receipt deposits are posted automatically
Analytical Accounting Transaction Lists

- Lists include more data
- Include a column for each transaction dimension
- Improvements apply to:
  - SmartLists
  - Excel Reports
Payables Transaction Approval Workflow Type

- Workflow approval for a single transaction in Payables Transaction Entry
- Define workflow process for Payables invoices, charges, credit memos, and returns
Visual Indicator for Customer Credit Limit

- New options that determine how and when you are notified of a customer who is over the credit limit you set for them.

- In Receivables Setup, you can select to display an icon or give a warning message for a customer who is over their limit.
Combine Open and History Inquiries

- View open and historical information in the same window for Summary Inquiry, Detail Inquiry and for Account Summary.

- Any GoTo’s or drill backs will now go to the single window instead of the user picking open or history.
Human Resources and Payroll
Mask SSN on Payroll and HR Reports

- Masks the Employee Social Security Number on selected reports
- Select which reports you want to mask Social Security Number from the Report Masking window
- For selected reports, the Social Security Mask will appear as
- xxx-xx-xxxx when rendered
The time Management app will allow GP Employees to enter Vacation and Sick time in Payroll or time off against Benefit Timecodes within HR. The app is available for Windows 8, iOS iPad devices, and Android tablets.
View W2 for ESS

- With Employee Self Service W2, the employee can now view and print their own W2.

- The action will display on the Time Management home page part.
System
Support for an additional user type of Self Service

Limits the navigation and functionality to essential tasks the self service user will need

Security roles tailored to the Self Service User Type

Enables user to quickly filter tasks that are available to each user type
Enable Email on Report Options

- Enables email support for all document formats
- Supports all Sales Order Processing document formats
  - Blank
  - Short
  - Long
  - Other
- Supports all Purchase Order Processing document formats
  - Blank
  - Other
Scriptable GP Provisioning and Management

- **PowerShell cmdlets**
  - Install (GP components)
  - Configure (create databases, add tenants)

- **Templates**
  - Set parameters
  - Override with run specific parameters

- **Remoting**
  - Execute cmdlet on remote computers
Send Document Attachments files with workflow task notification emails

- Scan payables invoice and attach it to the transaction
- Submit through workflow
- Workflow notification email will have scanned invoice attached along with pertinent details of payables invoice for the approver
Dynamics GP 2015 R2
All in One Document Viewer Demo
Microsoft Dynamics GP on Azure

**Azure Cloud**
- OS
- SQL Server
- Pre-Configured
- Domain
- Web Server
- Reporting Server
- Dynamics GP

**On-Premises**
- Hardware
- OS
- SQL Server
- Domain
- Web Server
- Reporting Server
- Dynamics GP
Estimating Azure Costs

Monthly cost estimate for a 15 user web client deployment.

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web Server (A2)</td>
<td>$133.92</td>
</tr>
<tr>
<td>SQL Server (A2)</td>
<td>$133.92</td>
</tr>
<tr>
<td>(SQL license mobility)</td>
<td></td>
</tr>
<tr>
<td>Active Directory</td>
<td>$66.96</td>
</tr>
<tr>
<td>Total/month</td>
<td>$334.80</td>
</tr>
</tbody>
</table>

- Determine number and size of servers required
- Determine storage requirements
- Estimate outbound data transfer
- Acquire licenses

- GP - Purchase perpetual, subscription or SPLA licenses the same as you would for an on-premise deployment.
- SQL - Purchase SQL Server license with license mobility under Software Assurance.
The web client effort focused intently on reducing hosting costs while maintaining the quality user experience and extensibility customers expect.

<table>
<thead>
<tr>
<th>Performance is comparable to Terminal Services and web client scales better</th>
<th>ISV applications will work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same business logic is used for web and desktop clients</td>
<td></td>
</tr>
</tbody>
</table>

| Support for “Mixed Mode” | Support for **BOTH** desktop client and web client on the same server |
Web Client Security

Encryption
- Fully encrypted login
- All client–server interactions
- Optionally between services
- Https/Secure Sockets—certificates required

Windows or Azure authentication
- Single login to landing site and Microsoft Dynamics GP
- Mitigates Denial of Service attack

Microsoft Dynamics GP security remains
Small
Single server deployment for customers with less than 20 users

Large/Multi Tenant
Quickly scale to hundreds of users by adding additional servers

On-premises or cloud
Deployment guides

2015 documents up to date

Installation Guide includes
Service Based Architecture

Hosting and Deployment
White Paper
Dynamics GP Device Apps & O365

Productivity
Office 365

Business Apps
Microsoft Dynamics

Platform
Microsoft Azure
Dynamics Business Analyzer 7

Windows 8 Tablet
- Initial Release Jan 2013
- Release 7 July 2014
- Excel, SSRS and MR content
- Available in Windows store

Apple iPad
- Initial Release Sep 2014
- Excel, SSRS and MR content
- Available in iTunes store

Android Tablet
- Initial Release Oct 2014
- Excel, SSRS and MR content
- Available in Google Play store
Dynamics GP Office App

Microsoft Excel-based dashboard information in Microsoft Office 365 SharePoint Online

View Microsoft Dynamics GP information for Financial, Sales, Inventory, Purchasing

Refresh data and drill to details in Microsoft Dynamics GP

Available in the Microsoft Office Store
Dynamics GP Time Management App

Windows Tablet

Apple iPad

Android Tablet

Microsoft Dynamics Time Management

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>vacation</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
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<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Attendance

January 2015

Time Cards

Active
- January 15th 2015: 08:00
- January 1st 2015: 24:00
- December 13th 2014: 08:00
- December 1st 2014: 20:30
- November 15th 2014: 00:00
- November 1st 2014: 12:00

Historical
- January 15th 2015: 08:00
- January 1st 2015: 24:00
- December 13th 2014: 08:00
- December 1st 2014: 20:30
- November 15th 2014: 00:00
- November 1st 2014: 12:00
Workflow

Moved to the Web Client

Removed SharePoint Dependency

Improved Design Experience

Increased Flexibility
Workflow Types

Dynamics GP 2013 R2
- Purchase Order Approval
- Purchase Requisition Approval
- Payroll Timecard Approval
- Project Timesheet Approval

Dynamics GP 2015
- General Ledger Batch Approval
- Receivables Batch Approval
- Payables Batch Approval
- Vendor Approval
- Employee Profile Approval
- Employee Skills Approval
- Direct Deposit Approval
- W4 Approval
- Project Expense Report Approval
Type Maintenance
Workflow Maintenance
Step Maintenance

Workflow Maintenance - TWO (sa)

Step Name: Manager Approval
Description: Manager must approve if > $5000
Step Type: Approval

Condition:
- [ ] Action is always required for this step
- [ ] Action is required only when the following condition is met

Assignment:
- Assign to: GPWF Phyks
- Time limit: 0 Hours
- [ ] Apply Workflow Calendar
- [ ] Send Message: WF ASSIGN PURCH APPROVAL

Completion policy:
- [ ] Only one response needed
- [ ] Majority must approve
- [ ] All must approve
Workflow User Selection

Selection Types:
AD User(s)
AD Groups
AD Hierarchies
Workflow users
Workflow Options

Send notifications for completed actions

<table>
<thead>
<tr>
<th>Notify origination</th>
<th>Message</th>
<th>Send carbon copy to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit</td>
<td>WF ACTION COMPLETED*</td>
<td></td>
</tr>
<tr>
<td>Resubmit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reject</td>
<td>WF ACTION COMPLETED*</td>
<td></td>
</tr>
<tr>
<td>Delegate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recall</td>
<td>WF ACTION COMPLETED*</td>
<td></td>
</tr>
<tr>
<td>Escalate</td>
<td>WF ACTION COMPLETED*</td>
<td></td>
</tr>
<tr>
<td>Edit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Approve</td>
<td>WF ACTION COMPLETED*</td>
<td>GPAVF Phyllis (nottinghamiao/gp/phy/phy)</td>
</tr>
</tbody>
</table>
Transaction Entry

Purchase Requisition Entry - TWO (sa)

Manager Approval [Pending approval by GPWF Phyllis due 6/16/2014 3:05 PM]

Requisition Number: RE00000000000011
Date: 4/12/2017
Description: Office supplies
Requested By: na
Requested Date: 4/12/2017

Line Item by Order Entered

<table>
<thead>
<tr>
<th>Line</th>
<th>Item Number</th>
<th>U of M</th>
<th>Quantity Ordered</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LUMIA 1520</td>
<td>Each</td>
<td>3</td>
<td>$199.97</td>
<td>$599.97</td>
</tr>
</tbody>
</table>

Nokia Lumia 1520

Account: 000-1300-01
Vendor ID: ECTRACE0001
Currency ID: ZUSD
Shipping Method: OVERNIGHT
Ship To Address: WAREHOUSE

Total: $599.97

Not all information needed for purchase has been entered. Information needed for the purchase is marked with an asterisk.
Notification and Action

GP Navigation Lists
Workflow Setup

Enable E-Mail for Workflow

Outgoing Mail Server (SMTP)
- E-Mail Address: djangoworkflow@abc.com
- Display Name: Dynamics GP Workflow
- Server Name: smtp.host.com
- Port: 25

This server requires a secure connection (SSL)

SMTP Authentication
- Windows Authentication using Database Engine service credentials
- Basic Authentication
  - User Name
  - Password
  - Confirm Password
- Anonymous Authentication

Enable E-Mail Actions

Dynamics GP Web Services Server
- Server Name: WEBSERVICESERVER
- Port: 48620

This server requires a secure connection (SSL)
### Out-of-Office Delegations

The image shows a workflow management system interface with options for delegating tasks. The interface includes fields for selecting and delegating tasks, specifying start and end dates, and options for automatically delegating tasks. The table below lists the tasks that have been delegated:

<table>
<thead>
<tr>
<th>Workflow Type</th>
<th>Delegate to:</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Order Approval</td>
<td>BPWF Phyllis (northamerica\gpm\phyll)</td>
<td>5/1/2017</td>
<td>5/12/2017</td>
</tr>
<tr>
<td>Purchase Requisition Approval</td>
<td>BPWF Alex (northamerica\gpm\alex)</td>
<td>5/1/2017</td>
<td>5/12/2017</td>
</tr>
</tbody>
</table>
Dynamics GP 2015 Feature Highlights
Project Employee Expense Report and Project Timesheet Entry replace all of the functionality of both Business Portal T&E and PDK!
Top Feature Review
Financials

**Dynamics GP 2013 SP2**
- Display Checkbook ID on Cash Receipts Inquiry
- Customer Combiner & Modifier
- Vendor Combiner & Modifier
- Payables Void Enhancements
- Reconcile Checkbook without Marking Transaction
- AA Finance Charge Assessment
- AA and Sales Order deposits

**Dynamics GP 2013 R2**
- Copy and Paste to GL
- Roll Down Account Segment Description
- Reverse Fiscal Year
- Reprint Outstanding Transactions Report
- Default Sort order for Payables Checks
- Payables Transaction Document Attach
- Default Asset ID from Fixed Asset Class
- Integrate Multi-currency Revaluation with AA

**Dynamics GP 2015**
- General Ledger Batch Workflow
- Payables Batch Workflow
- Vendor Approval Workflow
- Receivables Batch Workflow
- Intercompany enhancements
- Fixes Assets Year End Close Report
- Edit E-mail for historical Statements and Payables Remittance
Distribution

Dynamics GP 2013 R2
Suggested Item Enhancements
Assign Item to Multiple Sites
Purchase Requisitions
Purchase Requisition Workflow
Purchase Order Workflow
Prepayment Additions
Encumbrance SSRS Reports
Project Time
Project Time Workflow

Dynamics GP 2015
Edit Email for Historical documents – Sales and Purchasing
Payables warn when open Purchase Order
Payment Terms Enhancements
Invoicing on Web Client
<table>
<thead>
<tr>
<th>Dynamics GP 2015 R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Requisition</td>
</tr>
<tr>
<td>Payroll Timecard</td>
</tr>
<tr>
<td>Project Timesheet</td>
</tr>
<tr>
<td>Home Page Parts</td>
</tr>
<tr>
<td>Simplified Navigation</td>
</tr>
<tr>
<td>Requisition Workflow</td>
</tr>
<tr>
<td>Timecard Workflow</td>
</tr>
<tr>
<td>Project Time Workflow</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dynamics GP 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Profile</td>
</tr>
<tr>
<td>Paystubs</td>
</tr>
<tr>
<td>W4</td>
</tr>
<tr>
<td>Benefits</td>
</tr>
<tr>
<td>Direct Deposit</td>
</tr>
<tr>
<td>Skills &amp; Training</td>
</tr>
<tr>
<td>Project Expense</td>
</tr>
<tr>
<td>Profile Workflow</td>
</tr>
<tr>
<td>W4 Workflow</td>
</tr>
<tr>
<td>Direct Deposit Workflow</td>
</tr>
<tr>
<td>Skills Workflow</td>
</tr>
<tr>
<td>Manager Profile</td>
</tr>
<tr>
<td>Manager Skills</td>
</tr>
</tbody>
</table>
Time Management

Self-Service User

Allows Entering ‘Time on Behalf Of’

Approval Workflow
Employee can view and edit their employment information

Address, Dependents, Emergency Contacts and Position History
Employee Benefits

Employee can view their benefits with employer and employee contributions.
An employee can view or print their paystubs from the paystubs navigation list.
Edit W4 information, add or change additional withholding, and update deductions

Workflow Available
Employee Direct Deposit

Edit deposit information, add accounts or change the distribution

Workflow Enabled
Manager Skills and Training
Manager can view and maintain their employee’s education and tests
View employee’s skills and training history
From navigation lists
Service Based Architecture – Deep Dive
End Point URI Structure

PATTERN: \([\text{Context}] / [\text{Resource Path(keys)}] \, ?[\text{Query String}]\)

Hypothetical Examples

GET  .../Tenants(Default)/Companies(Contoso)/Sales/Customers(AARONFITZ0001)?someflag=true
POST  .../Tenants(Default)/Companies(Contoso)/Sales_Customers
DELETE  .../Tenants(Default)/Companies(Fabrikam.%20Inc)/Manufacturing/Boms(WIDGET123)
GET  .../Tenants(Default)/Companies(Fabrikam.%20Inc)/Products(Id=346)/Boms?limit=20
Discover your endpoint

- Discover available operations on a live deployment – just add /Help
- Use to model your code or extract info from system
- Provides info on objects, parameter requirements
- Discovery not filtered by security – you may see operations you can’t call
- Example URI does not provide company context
Service Call in Action

GET www.FABHosted.com/Services/GPService/Tenants(DefaultTenant)/FieldService/Contracts?Number='1234'

Base URL = www.FABHosted.com/Services/GPService

GET www.FABHosted.com/Services/GPService/Tenants(DefaultTenant)/Sales/Orders(BKO98765)

LAN Boundary
Machine Boundary
Acquire a Microsoft Dynamics GP App

Microsoft Dynamics

Microsoft Dynamics ISVs

Binary Stream
eOne
Horizons
Ethotech
Encore
Get and analyze data

- **Office Tools**
  - Native Excel – Web Queries (xml)
  - Power Query – Better tool to leverage REST services
  - Power View – awesome visuals from worksheet data
  - Power Map – if you have geolocation data

- **Portable and Secure**
  - Authentication built in
  - Encryption end to end
Build an app

Visual Studio

Custom app with Visual Studio
- Microsoft Dynamics GP helper in Visual Studio next

Sienna

- Consumer/end user tool
- Free
- Builds Windows 8 apps

Other Platform Tools

Needs to support
- http (web) requests
- JSON or XML
- Windows or Org Identity
- PostMan app in Chrome
What’s behind an operation?

- Dexterity sanScript + .NET interop
- New global procedure type - Service Procedure
- Added properties describe operation
- Documentation – flows through to Discovery
Service Procedure Properties

- **Action** – maps to http verbs + custom POST option
- **CustomAction** – tag to identify a non crud operation
- **Enabled** – DAG recognizes if TRUE
- **RawRequest** – you get the raw html stream
- **URI Template** – resource path used to invoke and bind non managed parameters
- **Special User Type** – available to limited users
Developer Experience

• Create any .NET objects for data I/O
• Create your Service Procedure(s)
• Use DAG to create your assembly
• Chunk Dictionary
• Deploy your assembly alongside the dictionary
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApplication2
{
    class Program
    {
        static void Main(string[] args)
        {
        }
    }
}

Add Connected Service

**Azure Mobile Services**
Store data in the cloud, add authentication, and deliver push notifications for mobile apps.

**Azure Storage**
Store and access data with Azure Storage services like Blobs, Queues, and Tables.

**Dynamics GP**
Connects to Microsoft Dynamics GP Service Based Architecture.

**Office 365 APIs**
Integrate your applications with Office 365 services such as mail, calendar, contacts, files and more.

Find more services...

Created by: Microsoft
Version: 1.0.0
More information
Security

- Fully Encrypted with SSL
- Consumers must be a GP User with AD or Org Account mapped
- Roles/Tasks authorize operations
Security Flow

Host 1

GP Service

Dexterity Service

Dexterity Service

GP Process Tenant1

GP Process Tenant1

GP Process Tenant2

Is “bob” a GP User and can he access this procedure?

Is “bob” in Tenant2?

Authenticate “bob”

bob@somedomain.com

SSL Encrypted
Microsoft Dynamics GP Services – V1

Microsoft Dynamics GP Web Services
Based on SOAP protocol with XML ‘documents’ as a payload
Underlying logic was eConnect sql procedures (duplicated from client)
Security was standalone and separately configured (could be ‘synched’ to Microsoft Dynamics GP)

WCF used to call method providing .NET object as data

.NET object serialized to XML and put in SOAP envelope sent to endpoint

.NET object de-serialized back to .NET object which is then mapped to an eConnect call

eConnect

Stored Procedure executed
Service based architecture advantages

- Uses the language of the Web
  - Many tools and off the shelf apps support REST
  - HTTP protocol supported by most development languages
- Leverages dexterity and existing logic
- Integrated security + encryption
  - SSL – communications encrypted end to end
  - Users are in the GP System – one place to maintain users
  - Security by role
- Discovery
Parts included, some assembly required

- Included on install media under Web Components
  - Do not have to install Web Client
  - Can install side by side with Web Client (same machine)
- No additional license needed
  - Users will need to have a Microsoft Dynamics GP User/license
- Requires an SSL Certificate
- Deployment guide available
- Web Management Console
Partner Benefits

- Companion/Mobile app opportunities
- A recent survey by Vision Mobile found that just 16% of worldwide developers are building mobile apps for enterprises
- Ability to leverage managed code
- Integrate to any desired GP functionality
  - CRUD & non CRUD operations
- Maintain existing Dexterity investments
“reIMAGINE the possibilities”

• This is more than just a bunch of web services
  • It’s a framework
  • It’s an enabler
• Think broadly first then narrow your focus
• Anything that benefits from mobility is a candidate