Electronic Forms and Alternative SharePoint App Approaches

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see more.

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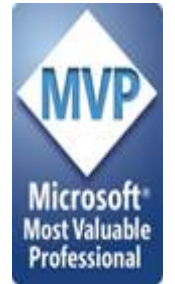
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Agenda

- Introductions
- Overview of Envision IT
- SharePoint Development Background
- Alternative App Models
- Client-Side Code Only
- Visual Studio WebAPI Projects
- Questions / Next Steps

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Envision IT Overview

- O365 Productivity Consultants

- Go-to partner for SharePoint Websites, Intranets, Extranets, and Collaboration portals

- Working with SharePoint since 2001

- Microsoft Gold Partner
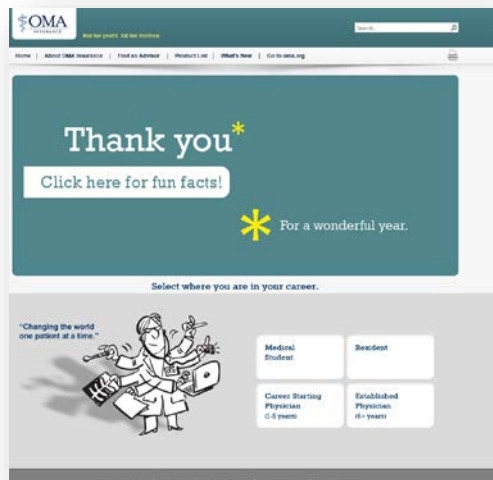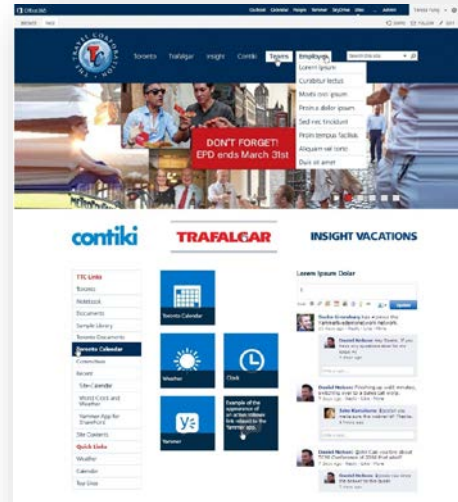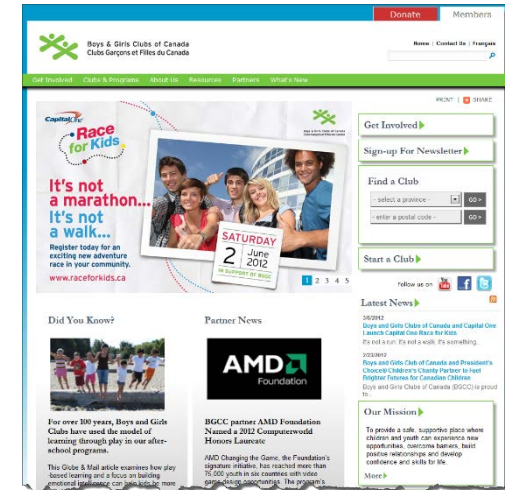
- Multiple award winner

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Public
Websites

Intranets /
Staff Portals

Extranets /
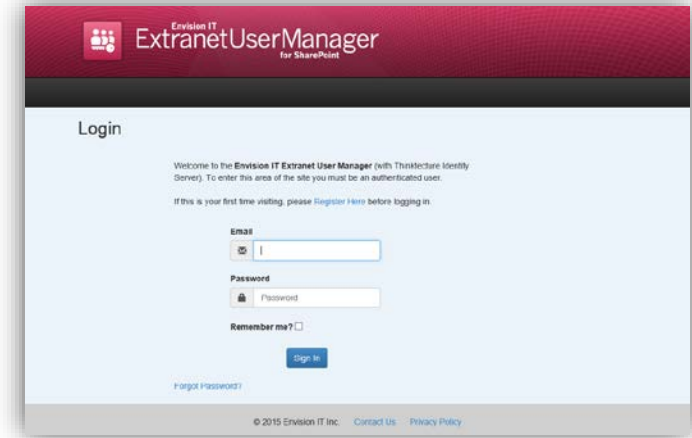Member Portals

Training

Envision IT has 20 years of experience in delivering corporate training. We offer 2 end-user training courses for SharePoint:

- SharePoint Collaboration
- Web Content Management

Extranet User Manager
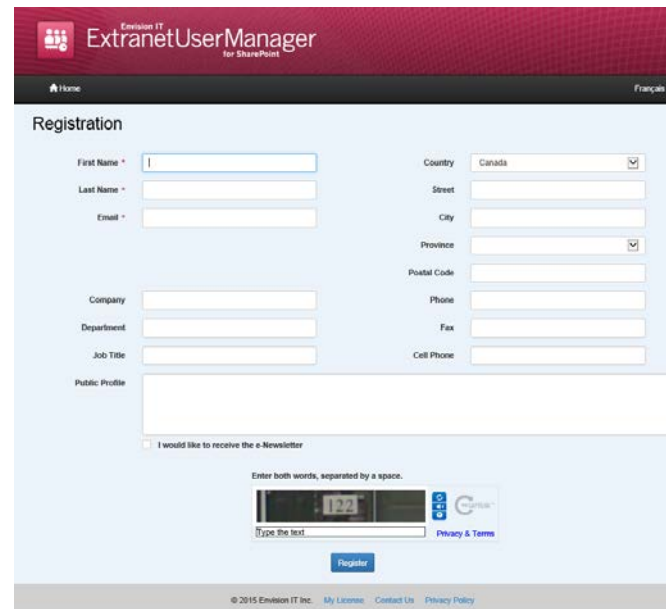
- Easy delegation of user management to business
- Self-registration, approvals, forgotten password reset
- Simplified login for both internal and external users

Poll 1

Which Version of SharePoint are you currently using?

- Office 365

- SharePoint Server 2013

- SharePoint Server 2010

- SharePoint Foundation (2010 or 2013)

- MOSS 2007 or WSS 3.0

Poll 2

How do you use SharePoint today?

- Internal collaboration
- Internal web publishing (Intranet)
- Extranets
- Public facing website

SharePoint Development Background

SharePoint Development History

- Full Trust Solutions
- Sandbox Solutions
- SharePoint Apps
  - SharePoint Hosted
  - Provider Hosted
  - Azure Hosted - discontinued

Full Trust Solutions

- Code runs on the SharePoint server
- Access to the full server API
- Code can run in with elevated permissions
- Not supported on Office 365
- Can raise challenges when upgrading SharePoint

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Sandbox Solutions

- Code is uploaded into SharePoint
- Runs in a restricted sandbox
- Limited set of API methods available
- Supported on premises and in Office 365
- Deprecated by Microsoft and not recommended

Apps Model – SharePoint Hosted

- Client side code runs in the browser
- Uses CSOM or REST APIs to communicate with SharePoint
- User needs permissions for anything that is being done
  - No ability to run with elevated permissions

Apps Model – Provider Hosted

- Apps run in a separate server or IIS site from SharePoint
- Gets code off the SharePoint server
- Supports on premises and Office 365
- UI runs in an iFrame in the SharePoint window

App Model Challenges

- Setting up the App store is complicated
- Separate wildcard app domain is needed
- Certificates
- Complex to move between environments – dev, test, prod
- Apps need to be added to sites by end users – cannot be scripted

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Why are Apps Complex?

- Intended for functions that will be added multiple times to sites
- End users can discover Apps in the public store or company store
- Reality is most business apps don't require this
- Custom Apps typically need to exist in one or a few places

Alternative App Models

Checklist for an Ideal App Model

- No iFrames
- No wildcard DNS domains
- No code on the SharePoint Server
- Great user experience
- Standard development model
- Ability to run with elevated permissions
- Integrate with more than just SharePoint

Basis for the Model

- All UI is done in client side code

- HTML, CSS, and JavaScript

- Leverage frameworks

  - Bootstrap

  - jQuery

  - Handlerbars

  - Knockout

  - Angular

  - TypeScript

Run with Elevated Permissions?

- Do users have rights to do everything they need to do in SharePoint?
- Read, add, and edit rights to SharePoint
- Column level security
- Custom business rules

Client-Side Code Only

- Presentation of read-only data
  - Catalog publishing
  - Visualizations
  - Customized user experience
  - Simple forms

SharePoint APIs

- Client Side Object Model (CSOM)

- REST APIs

- REST seems to be the preferred path that Microsoft is investing in

Shakespeare Reference Project

Cross Site Publishing

www.envisionit.com/events

www.extranetusermanager.com/Events-and-News

Custom User Experience

www.envisionit.com/Case-Studies

Pentecostal Assembly of Canada Pension Portal

- SharePoint 2013 portal for current and retired staff
- Address and Banking Information update forms
  - Write to SharePoint lists
  - List columns define the form fields
  - Workflow used to secure submissions
  - Built with jQuery and SharePoint REST APIs
- Pension Calculator
  - Calculates annual benefits payable at retirement
  - Knockout model uses values entered by user

PAOC
Pension Fund
APDC
Fonds de retraite

Home | About the Pension Plan ▾ | Pension Member ▾ | Pension Employer ▾

Home / Pension Member / Address Update

Pension Member

Annual Benefits Statement

Contribution History

T4As

Address Update

Banking Information Update

Retirement Options

Pension Calculator

Address Update

Fields marked with an asterisk (*) are required. If a required field is not applicable to you, enter "n/a".

Full Name *	Peter Carson
Employee ID *	pcclimited\pcarson
Effective Date *	MM/DD/YYYY
Address 1 *	
Address 2	
City *	
Province *	
Postal Code *	
Country *	
Email Address	
Telephone Number	

Submit

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PAOC APDC
Pension Fund Fonds de retraite

Search this site...

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Pension Member

Annual Benefits Statement

Contribution History

T4As

Address Update

Banking Information Update

Retirement Options

Pension Calculator

Banking Information Update

Fields marked with an asterisk (*) are required.

Full Name *   Peter Carson

Employee ID *   pcclimited\pcarson

Name of Financial Institution *

Branch Transit Number *

Institution Number *

Account Number *

Submit

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PAOC **APDC**
Pension Fund **Fonds de retraite**

Home   About the Pension Plan ▾   Pension Member ▾   Pension Employer ▾

Home / Pension Member / Pension Calculator

Pension Member

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Pension Calculator

Annual Benefit Statement Contributions

Please refer to the Annual Accrued Pension to Date section on your most recent Annual Benefit Statement

Pension from Contributions [   ]

Pension from Enhancements (All Years) [   ]

Start Contribution Year [2015]

Member Contributions per Year [   ]

Employer Contributions per Year [   ]

Projected Annual Pension

Payable at Age [65]

Number of Years to Age [   ]

Month of birth [1 ▾]

Total Projected Annual Benefit Payable at age 65:
Monthly Pension:

Note: For pension calculations below age 65, annual benefit payable is reduced by 0.5% for every month prior to age 65.

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Elevated Permissions

- Code that needs to run in a different context than the user
- Can't run in JavaScript in the browser
- No code allowed on SharePoint server
- Need somewhere else to run

Visual Studio WebAPI Projects

- Part of ASP.NET 4.5

- Full .NET functionality – typically C#

- Can deploy on premises or in Azure

- Can cheat and deploy to SharePoint WFEs

- Makes authentication easier

- Some work to move to another environment

WebAPI Authentication

- Can be anonymous
  - Very useful for anonymous form submits
  - Simplifies permissions in SharePoint
- Leverage SharePoint authentication
  - Deploy as an IIS application under SharePoint
  - Can access the user's SharePoint identity
  - Use that to access SharePoint, or can still run with elevated permissions
- Azure Active Directory
  - Ideal for Office 365
  - Register your API as an Azure App
  - Call from Office 365 and have access to the user identity

Milton District High School

- www.mdhsreads.ca
- Technological Resources Calendar
- Teachers can request resources
- Form is anonymously available
- Teachers confirm requests through an email link
- SharePoint library has approvals turned on
- Librarian approves to publish to site
- Mobile friendly

Search...

Home MD Reads ▾ Resources ▾ Calendars ▾ **Contact Us**

Home / Calendars

Calendars

Events

Technological Resources

Daily Schedule

Technological Resources Request Form

Teacher Name

Email

Requested Items
- ☐ Chromebook Cart A (20)
- ☐ Chromebook Cart B (20)
- ☐ Chromebook Cart B (20)
- ☐ iPad Box (8)
- ☐ 23 Desktop Computers
- ☐ Conference room with overhead projector
- ☐ Library space
- ☐ Teacher-Librarian

Date mm/dd/yyyy

Period ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Notes

Submit

Library Links

MDHS Website
MDHS Scene and Herd
Halton District School Board Website

Contact

Milton District High School Library
396 Williams Avenue, Milton, ON L9T 2G4
905-87802839 x236

Library Hours

Monday through Friday
7:30 AM to 3:30 PM

Connect

Twitter

Envision IT Leave Request

- Vacation, sick days, bereavement, jury duty, etc.
- Tracks the allocation and accrual period
- Leverages AD Manager property
- Enforces security
  - Users don't have direct access to SharePoint lists
  - Permissions are managed in the REST API
  - Users can see their requests
  - Managers can see their reports
  - HR Administrators can see all requests
- Supports Office 365

County of Simcoe

- Derived from Envision IT Leave Request
- On premises SharePoint 2013
- Integrated with SAP HRIS
- REST API
  - Allocations from SAP
  - Manager reporting structure
  - Writing requests to SharePoint
  - Pushing approved requests back into SAP
- Nintex workflow
  - Drives the approval process

College of Early Childhood Educators

- Building a new mobile-friendly SharePoint 2013 site
- Complain and Mandatory Employer Report forms
- Anonymously submitted to a Visual Studio REST API
- Document attachments
- Creates a document set with metadata set from the form
- Generates a Word version of the report
- Uploads all attached documents

cece
college of
early childhood
educators

Text Size: a a a

Search...

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About Us

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Purpose and Mandate
Act and Regulations
By-laws and Policies
Council and Committees
Annual Reports
Fair Registration Practices Report
Staff Directory
Career Opportunities
Accessibility
Contact Us

Mandatory Employer Report

I wish to submit a mandatory employer report to the College of Early Childhood Educators

Employer's name	Employer's name
Position with the workplace	Position with the workplace
Workplace name	Workplace name
Workplace address	Workplace address
Confidential e-mail	Confidential e-mail
Workplace telephone	Workplace telephone
Supervisor's name (if applicable)	Supervisor's name (if applicable)
Owner's name (if applicable)	Owner's name (if applicable)
Parent organization (if applicable)	Parent organization (if applicable)

Member Information

If your report relates to more than one RECE, please fill out separate forms for each.

Name (please include College registration # if known)	Name (please include College registration # if known)
Position in workplace	Position in workplace
Home address (if known)	Home address (if known)
Work address (if different from workplace)	Work address (if different from workplace)
E-mail	E-mail
Home telephone	Home telephone
Work/cell telephone	Work/cell telephone
Start date of employment in the workplace	Start date of employment in the workplace
End date of employment in the workplace (if applicable)	End date of employment in the workplace (if applicable)

Parent Contact Information (if known and applicable)

Parent(s) name(s)	Parent(s) name(s)
Home address	Home address
Work address	Work address
Email	Email
Home telephone	Home telephone
Work/cell telephone	Work/cell telephone

Incident(s) Information

Incident #1

Incident Location

Incident Date

Please describe as clearly and concisely as possible the incident(s) and the conduct that, in your opinion, constitutes professional misconduct, incompetence or incapacity. Attach and label additional sheets if necessary.

⊕ Add another incident

Incident(s) Information (continued)

Please describe what steps if any, were taken at the local level to resolve this matter. What was the outcome of this incident within the Workplace (suspension, termination, internal investigation, etc.)?

Have there been previous concerns about the Member's behaviour or professional abilities? If so, please explain the concern(s) and the steps taken to address the issue(s).

If the police have been contacted regarding this incident, please answer the following:

To your knowledge have criminal charges been laid against the member?   ☐ Yes ☐ No

If yes, please provide the following information:

Offences charged	Offences charged
Date charges laid	Date charges laid
Police Service (OPP, municipal force, etc.)	Police Service (OPP, municipal force, etc.)
Contact Name	Contact Name
Address	Address
Telephone	Telephone

Supporting Documentation (please see attached list below)

In order for the College to successfully complete its investigation, it is important that you submit any supporting documentation along with your report. This may include:

- relevant policies
- e-mails
- serious occurrence reports
- employment termination letters
- verbal/written warnings
- pictures, video footage
- witness statements
- any other information you feel may be relevant to the investigation or useful for the Complaints Committee during its deliberation

If the College requires any information you will be contacted.

If you provide any supporting documentation, please ensure it is properly labelled and explain its relevance to your report.

Drop files here to upload

Signature *   Signature   Date   Date

Submit

Contact Us   Privacy Statement   Terms and Conditions   Webmaster

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QUESTIONS & NEXT STEPS

Basis for the Model

- All UI is done in client side code
- HTML, CSS, and JavaScript
- Leverage frameworks

  - Bootstrap

  - jQuery

  - Handlerbars

  - Knockout

  - Angular

  - TypeScript

Links

- Bootstrap
  - http://getbootstrap.com/
  - Open source project started by Twitter staff
  - Most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web
- Less
  - http://lesscss.org/
  - CSS pre-processor that compiles CSS and extensions
- jQuery
  - https://jquery.com/
  - Fast, small, and feature-rich JavaScript library

Links

- Handlebars
  - http://handlebarsjs.com/
  - Minimal HTML templating on steroids
- Knockout
  - http://knockoutjs.com/
  - Simplified dynamic JavaScript UIs with the Model-View-View Model (MVVM)
- Angular
  - https://angularjs.org/
  - Single page apps built with the Model-View-Controller (MVC)

Links

- Visual Studio WebAPIs
  - http://www.asp.net/web-api
- Swagger
  - http://swagger.io/
  - Swagger is to REST as WSDL is to SOAP
  - Define your API in Swagger
- Swashbuckle adds Swagger to a .NET WebAPI project
  - https://www.nuget.org/packages/Swashbuckle
- TypeScript
  - http://www.typescriptlang.org/
  - Strongly typed, pre-compiled JavaScript
  - Supported by Visual Studio

Upcoming Webinar

Extranets in SharePoint and Office 365

- Thursday May 26, 2016 11-12 PM EST

- Real-world customer case studies

- SharePoint On Premises and Office 365

- Register at www.extranetusermanager.com/Events-and-News

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THANK YOU!