

Cloud Business Apps

Presented by Peter Carson
President, Envision IT

June 19, 2014

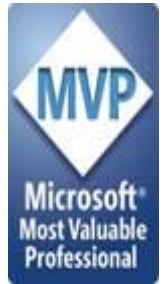


see more.

Peter Carson



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- Twitter @carsonpeter
- VP Toronto SharePoint User Group



Agenda

- Why Apps?
- Apps in SharePoint
 - SharePoint Hosted
 - Provider Hosted
 - Custom Models
- Case Studies
 - Toronto Stock Exchange
 - Baxter
 - Supreme Court of Victoria, Australia

Upcoming Sessions

Date	Event	Location
June 18	SharePoint Extranet Full Day Workshop	SharePoint Fest New York City
June 19	Cloud Business Apps	SharePoint Fest New York City
June 20	Building a Web Site on SharePoint 2013	SharePoint Fest New York City
June 25	How to Balance Security and Usability for Extranet Single Sign-On	Webinar
July 7	SharePoint Saturday Toronto	Mississauga, Canada

www.envisionit.com/events



SERVICES

Leaders in SharePoint Solutions



PRODUCTS

Products to Enrich your SharePoint Experience



Envision IT Services Overview

Focused on complex SharePoint solutions, Envision IT is the “go-to” partner for Microsoft SharePoint, building integrated public web sites, Intranets, Extranets, and web applications that leverage your existing systems anywhere over the Internet.



Products



Envision IT
Extranet User Manager
for SharePoint



Envision IT
Digital Marketing Suite
for SharePoint



Envision IT
Video Player
for SharePoint



Envision IT
Image Rotator
for SharePoint



Envision IT
Photo Viewer
for SharePoint



Envision IT
Custom 404
for SharePoint

Microsoft SharePoint



Cloud Business Apps

- Internal or external facing applications
- Self-service forms and workflow
- May or may not be SharePoint Apps

SharePoint Apps

- SharePoint Hosted
 - Client-side code only
- Auto-Hosted
 - Provisioned automatically and hosted in Azure
 - Office 365 only
- Provider Hosted
 - Roll your own server code off the SharePoint Server

Changes in Forms Development

- InfoPath is no longer a direction for SharePoint
- No clear power-user strategy yet
- Forms On SharePoint Lists is on the MS roadmap
- Third-party tools such as Nintex Forms are filling the void
- Developer built Apps are an option

App Development

- Users are demanding a better user experience
- HTML5 and JavaScript are a key part of that
- Frameworks are important
 - jQuery
 - KnockoutJS, AngularJS, BackboneJS
- REST provides the connection to the server
 - This is the direction from Microsoft over Client Side Object Model

Case Studies

- Toronto Stock Exchange
- Baxter
- Supreme Court of Victoria



TMX Group

- Toronto Stock Exchange
 - Largest stock exchange in Canada, the third largest in North America and the seventh largest in the world
 - World leader in the mining and oil and gas sector
 - As of March 2014, TSX had 1515 listed companies with a combined market capitalization of CAD \$2,457 billion
- TSX Venture Exchange
 - Public venture capital marketplace for emerging companies
 - As of March 2014, TSXV had 2109 listed companies with a combined market capitalization of CAD \$37 billion
- Numerous other holdings, products, and services

Issuer Portal

- Authenticated, targeted portal
 - Multi-way conversations
 - Product offerings, events, postings
 - Internal and external forms
 - English and French
 - Agile project methodology
 - Launch target of Q4 2014
- *“I Envision the issuer portal becoming the main point of contact with TMX, making it easier to do business with us, building engagement and stickiness with our clients, and creating a community for our staff, clients, and third parties.”*
 - *Based on conversations with Loui Anastasopoulos and the TMX team*

TMX Gateway Who Else? Search

News and Events | Company Services | Community | News Resources | Trading Basics | Learning

Action Announcement

Events

- 01 APRIL On the Money - International
- 07 MAY Meet @ Capital Markets and Equity Trading Exchange Conference
- 15 MAY Rethinking the Mining Investment
- 08 APRIL What month are you in (International)

Company Services

- Alerts/Subscription
- CHW Group
- Historical Data Access (HCA)
- Company Services

Statistics

SM/TKR 5MIBLR %

Top 10 Stocks Most Active Most Volatile

Announcements

Good Friday Closure
Toronto Stock Exchange, TSX Venture Exchange, Montreal Exchange, TSX Select and Maple will be closed on Friday, April 18 for Good Friday.

Apr. 09, 2014 | Press Release
Technology and Innovation Sector Southern Growth Perspective in 2013
In 2013, the market value of the innovation sector, which includes technology, clean technology and life sciences companies, grew over 50% on Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV).

Apr. 02, 2014 | Press Release
TMX Group Equity Financing Statistics - December 2013
January 2, 2014 (TORONTO) - TMX Group today announced its financing activity on Toronto Stock Exchange and TSX Venture Exchange for December 2013 and full year 2013.

Nov. 07, 2014 | Regulatory Update

Spotlight

Jan 10 2014 Market Open
The Market is Open - Harvest Portfolio [Read more](#)

Community

Community Article | Forum Discussions | Job Postings | Member Offers | Recent Posts

TMX Gateway Launches Community Section

Start Community Page

Tax Facts and Planning Blog

TMX Group Welcomes the International Mining Community to FIMC 2014

TMX Group to Open Singapore Office

What is your favorite meal of the day?

- Breakfast (14 %)
- Lunch (28 %)
- Dinner (34 %)
- Snack (24 %)

GET QUOTE

Symbol:

Company:

[About TMX](#) | [News and Events](#) | [Tools and Services](#) | [Economic Research](#)
[Invest Services](#) | [Announcements](#) | [Open the Market](#) | [TMX Group Manual](#)
[Trading](#) | [Events Calendar](#) | [On the Border](#) | [TSX Venture Exchange](#)
[Market Data](#) | [Press Release](#) | [TSX Initiative](#) | [Futures Manual](#)
[Contact TMX](#) | [TMX Staff Notice](#) | [TMX Staff Notice](#) | [Filing Guide](#)
[Real Company Events](#) | [Index Fee Guide](#)

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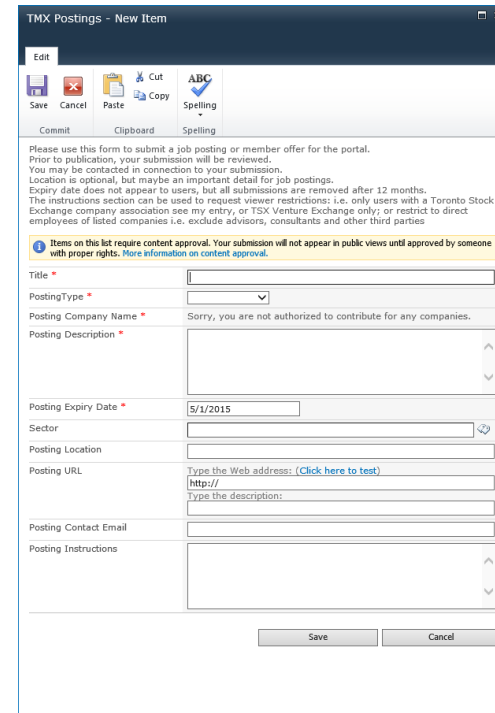
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Technology Background

- Portal being built on SharePoint 2010
- Users are both internal and external
 - TMX staff
 - TSX and TSX Venture listed companies
 - Advisors, consultants, etc.
- User registration and approval managed through Forefront Identity Manager
- Forms-based login against the Extranet Active Directory

Internal Forms

- Job Postings and Member Offer
- Simple SharePoint list
- Power user can customize the form view or create new forms
- Microsoft calls this FOSL (Forms On SharePoint Lists)



The screenshot shows a web browser window titled "TMX Postings - New Item". The page has a dark blue header with the text "Edit" and a ribbon menu with buttons for "Save", "Cancel", "Paste", "Copy", "Spelling", "Commit", "Clipboard", and "Spelling". Below the header, there is a paragraph of instructions: "Please use this form to submit a job posting or member offer for the portal. Prior to publication, your submission will be reviewed. You may be contacted in connection to your submission. Location is optional, but maybe an important detail for job postings. Expiry date does not appear to users, but all submissions are removed after 12 months. The instructions section can be used to request viewer restrictions: i.e. only users with a Toronto Stock Exchange company association see my entry, or TSX Venture Exchange only; or restrict to direct employees of listed companies i.e. exclude advisors, consultants and other third parties". Below this is a yellow warning box: "Items on this list require content approval. Your submission will not appear in public views until approved by someone with proper rights. More information on content approval." The form fields include: "Title" (text box), "PostingType" (dropdown menu), "Posting Company Name" (text box with error message "Sorry, you are not authorized to contribute for any companies."), "Posting Description" (text area), "Posting Expiry Date" (calendar picker showing "5/1/2015"), "Sector" (dropdown menu), "Posting Location" (text box), "Posting URL" (text box with "http://" and a "Click here to test" link), "Posting Contact Email" (text box), and "Posting Instructions" (text area). At the bottom right, there are "Save" and "Cancel" buttons.

Customizations

- Description content added to top of form
- Custom page returns the set of companies the current user can post for
- Set the contributor email
- Sets the expiry date to 365 days from now

Internal Forms

- Approval workflow
- Goes to member company approver and the TMX approver
- Workflow built in Visual Studio
- Email approval notifications

Reply Reply All Forward IM



Thu 2014-05-01 3:50 PM

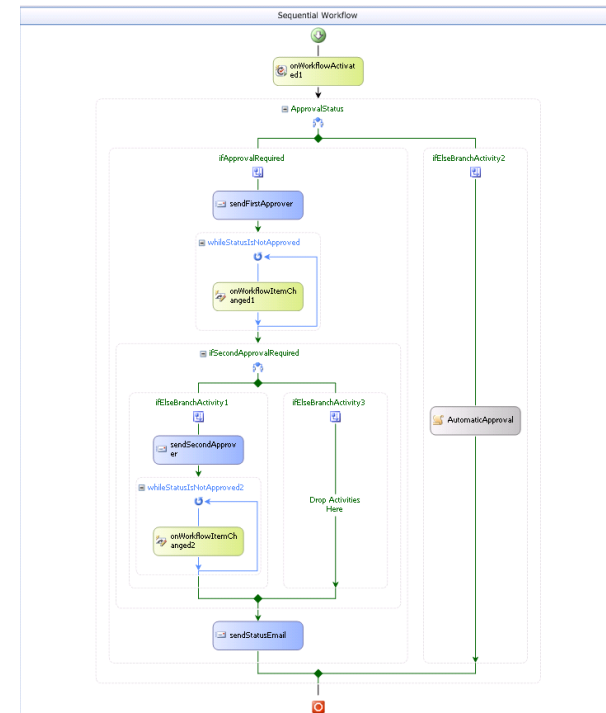
System Administrator

Item pending approval. Élémt en attente d'approbation.

To Maha Elkoshairi

A new posting has been submitted for approval. Click [here](#) to review this item.

Un nouveau commentaire a été soumis pour approbation. Cliquez [ici](#) à commenter cet article.



External Forms

- Market Open request
- Process is managed through Salesforce.com
- Form is designed in Salesforce
- iFrame opens form in SharePoint portal

Market Open

Following your market open ceremony, you can have an hour long Education Session.

Education Sessions are an opportunity to meet with Exchange representatives and to review questions you have regarding your listing.

We generally cover:

- Compliance and continuous disclosure
- The roles of IIROC and the OSC
- Listing requirements around raising new capital or issuance of options
- Investor outreach, trading hours, and how to track trading activities
- Our suite of tools and services available to your company

First Name * **Jeff**

Last Name * **Clement**

Email *

Phone *

Company *

Preferred Date Range *

Occasion *

Education Session?

Market Open



Events Calendar

- Built in a 2013 style
- Uses a custom CQWP to pull the events as JSON
- Rendered in client side using jQuery and Knockout
- Very interactive for the end user

The screenshot shows the TMX Gateway website's Events Calendar. The page has a blue header with the TMX Gateway logo and navigation links for News and Events, Company Services, Community, Issuer Resources, Trading Basics, and Learning. A search bar and user name 'Peter Carson' are also visible. The main content area is titled 'Events Calendar' and features a calendar for May 2014. Below the calendar are filters for Exchange (TSXV and TSX), Locale (Montreal, Toronto, Vancouver), Event Type (Virtual, In person, In person & virtual), and Sector. The 'Upcoming Events' section lists several events with details on format, location, and registration links. A 'Past Events' section is also visible at the bottom.

TMX Gateway Peter Carson Français Search this site...

News and Events Company Services Community Issuer Resources Trading Basics Learning

Home > News-Events > Events Calendar

Events Calendar

May 2014

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Exchange Select all

TSXV (8)

TSX (14)

Locale Select all

Montreal (3)

Toronto (6)

Vancouver (6)

Event Type Select none

Virtual (4)

In person (9)

In person & virtual (6)

Sector Select all

Upcoming Events

- Event 2 - Exploring Environmental & Social Disclosure** Register
Virtual
TSXV
Legal
Montreal, Toronto, Vancouver
Technology
- Event 1 - Capital Markets & Equity Trading Essentials** Register
In person
TSX
Public Relations
Vancouver
Mining
- Event 7 - Growth Platforms for Canadian Entrepreneurs** Register
Virtual
TSX
Administrative Assistant, Clerical
Clean technology, Life sciences, Mining, Other sectors, Technology
- Event 3 - Simplifying Timely Disclosure** Register
In person & virtual
TSXV, TSX
Chairman, President
Montreal
Clean technology
- Mining Company Disclosure Fundamentals** Register
In person
TSXV
Vancouver
Mining

Past Events

- Event 9 Capital Markets and Equity Trading Essentials**

- Leader in Canadian healthcare for more than 75 years
- Part of a global, diversified healthcare company
- Expertise in medical devices, pharmaceuticals and biotechnology
- Products that advance patient care worldwide
- Approximately 1,000 Baxter Canada employees
- 49,700 employees worldwide

Employee Change Notification

- Self-service employee forms
 - Employee Provisioning
 - Job Related Change
 - Commence/Change Leave
 - Returning from Leave
 - Personal Change
 - One Time Payment
 - Contingent Labor (contractors)
 - Termination

Employee Change Notification

Enter the employee ID

Employee ID

103150

Request Type

- Job Related Change Commence/Change Leave Returning from Leave Personal Change One Time Payment Termination

Cancel this Request

Search

HRIS ECN Review

My ECN Request

Job Related Change

ECN - Job Related Change

Request Type **Job Related Change** Status
Created By Created On

General

Employee ID 103150
Employee Nina Taylor

Manager Information

[Change Manager\(s\)](#)
Supervisor Daniel James Paisley
Supervisor ID 293926
Direct Manager's Department ID A51691660
Approving Manager Approving Manager
Approving Manager ID Approving Manager ID

Job Related Information

Requestor Email peter@envisionit.com
Manager Email dan_paisley@envisionit.com
Effective Date * Effective Date (mm/dd/yyyy)
Location * Select...
Mail Stop * mailStop

Primary Business Function * Select...
HR Business Partner * HR Business Partner
HR Business Partner Email HR Business Partner Email
Department ID * A51691660
Business Title * Business Title
Employee Position Number * Employee Position Number
Shift * Select...
Employment Status * Select...

Compensation Information

Reason for Compensation Change Select...
New Compensation Amount (Salary or Per Hour) New Compensation Amount (Salary or Per Hour)
Pay Type Select...
Shift Premium Amount Shift Premium Amount
Hours Per Week Hours Per Week

Approval History

Save Draft Submit Close

Technology Background

- Baxter is a Microsoft BPOS Dedicated customer
 - Precursor to Office 365
 - Environment is operated and managed by Microsoft
 - Dedicated infrastructure for Baxter (not multi-tenant)
- Also running SharePoint 2013 on premise
- BPOS-D will be moving to Office 365
- Forms development done as Apps in SharePoint 2013
 - Provider hosted
 - Built in Visual Studio 2013

Technology Background

- SQL database provides the employee information from the HRIS
- Web service abstracts the access to that
- App code is a combination of C# and JavaScript
- Data is written to a SharePoint list
- Nintex is used for the workflows

Challenges

- Very little prescriptive guidance or patterns for provider hosted apps
- Difficult to build with continuous integration
 - Some steps have to be done by the end user in the browser (trusting the app)
 - Visual Studio app packages have the target environment built in
- Managing the different security elements
 - Client ID
 - Issuer ID
 - Certificate and password

Supreme Court of Victoria

- Supreme Court for the State of Victoria
- Located in Melbourne, Australia
- Case management system
 - RedCrest is the program name
 - Pilot program for the Commercial Case court
 - 8,500 cases filed each year
- www.zdnet.com/victorian-supreme-court-gets-cloud-for-case-management-7000019941/



RedCrest

- Barristers and solicitors can create their own accounts
- Case initiation process to collect case information and fees
- SharePoint case site created for each case
- Other parties (defendants and plaintiffs) can join the case
- Judges have their own private secure area

Project Evolution

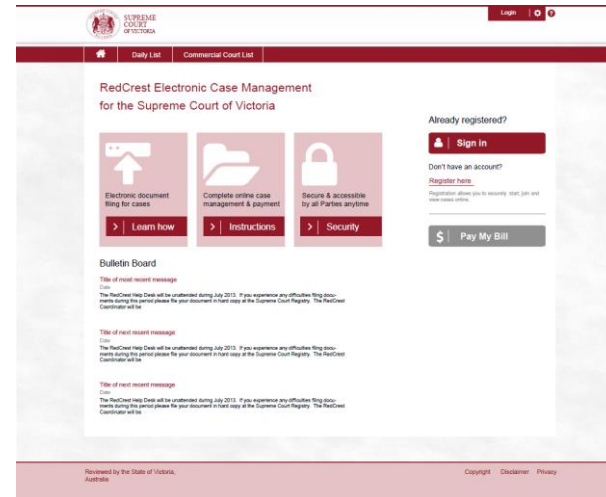
- Initial development done on Office 365 and Azure
- Heavy leveraging of custom-built provider hosted SharePoint Apps
- Production build is happening in SharePoint 2013 at Rackspace in Melbourne
- Initial go live is Summer 2014

User Management

- User management is provided through the Extranet User Manager
- Barristers and solicitors can self-register
- Login with their email address and password
- Forgotten password reset
- Profile management
- www.envisionit.com/eum

Public Site

- Anonymous content available to the public about the program
- News bulletins and general information
- Links to sign up for an account and login
- Staging hosted on Office 365 at <http://redcreststage-public.sharepoint.com/>



Registration

- Extranet User Manager supports customized registration forms
- Mandatory and optional fields as specified by the court
- Welcome email provides a secure token to set your password

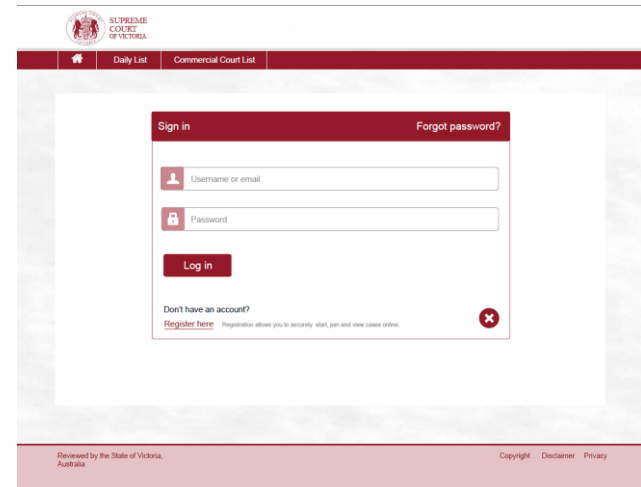
The screenshot displays a web-based registration form for the Victorian Judicial System. The form is titled "Registration of your personal details" and is part of the "Commercial Court List" section. It includes the following fields and sections:

- Personal Details:** Title (dropdown menu), First Name, Last Name, First Initials, Username (with a note: "Username must be at least 8 digits"), Mobile, and Email.
- Your Firm or Clerk details:** Role (dropdown menu), Firm/Clerk, Street Address, City & State (with separate dropdowns for City and State), Postcode & Country (with separate dropdowns for Postcode and Country), and Direct Phone No.
- Terms and conditions of usage:** A section with a list of obligations and a checkbox for "I agree to the Terms and Conditions of Usage".
- Register Button:** A red button labeled "Register" at the bottom of the form.

At the bottom of the page, there is a footer with the text "Revised to the State of Victoria, Australia" and "Copyright | Disclaimer | Privacy".

Login

- Federation done using customized Thinktecture Identity Server
- Allows a fully branded, customized login experience, federated to Office 365
- Staging hosted in Azure



My Cases

- Lists all cases you are a party to
- SQL database stores the case information
- SharePoint App queries and renders the cases

The screenshot displays the 'My Cases' interface for the Supreme Court of Victoria. At the top, there is a navigation bar with the court's logo and name, and a user profile section. Below this, a secondary navigation bar contains 'Daily List' and 'Commercial Court List'. The main content area is titled 'My cases' and features two buttons: 'Start a case' and 'Access a case'. A table lists several cases with columns for 'Parties', 'Case Number', and 'Access'. Below the table, there is a section titled 'Need a template?' with a search input field and a list of three template options.

Parties	Case Number	Access
Newton v Galileo	S ECOM 2014 000011	Go to case
Newton v Copernicus	S ECOM 2014 000010	Go to case
Newton v Aristotle	S ECOM 2014 000009	Go to case
Newton v Plato	S ECOM 2014 000008	Go to case
Newton v Plank	S ECOM 2014 000007	Go to case
Newton v Napoleon	S ECOM 2014 000006	Go to case

Need a template?

Template name:

- Template Name 1
- Template Name 2
- Template Name 3

Reviewed by the State of Victoria, Australia. Copyright Disclaimer Privacy

Starting a Case

- Word template is downloaded and filled in
- Document is uploaded
 - Parsed by Aspose (third party .NET tool)
 - Case site created
 - Database updated
 - Document is sealed (watermarked) and stored as a record in case site

The screenshot shows the 'Starting a new case - Originating process' page. It features a navigation bar with 'Daily List' and 'Commercial Court List' tabs, and a search bar. The main content area is divided into two columns. The left column contains a progress bar with steps: 'Upload form', 'Accept terms & conditions', 'File Payment', and 'Access Case'. Below this, there are two main sections: '1. Upload document' with an 'Upload' button and a note about template search, and '2. Accept terms and conditions' with a form for case details. The right column is titled 'Need a template?' and contains a search box and a list of three templates with download icons. At the bottom, there is a disclaimer and 'I accept' and 'Proceed' buttons.

Starting a new case - Originating process

Upload form | Accept terms & conditions | File Payment | Access Case

1. Upload document

Don't have a template to upload? Search for your template name using 'Need a template?'

2. Accept terms and conditions

Court: Melbourne

Plaintiff: John Doe

Defendant: Understone Pty Ltd

Date of Document: 7 February 2014

Summary of Claim: Defendant requested funds of the Plaintiff. Defendant provided Plaintiff with \$100,000.00 for the purpose of constructing the Draxby Bridge and the Defendant applied those funds to the Draxby Wharf.

Causes of Action: Breach of Contract, Misleading and Deceptive Conduct

If any of this information is incorrect, update the template with new details and reupload.

I understand that by proceeding, this document will be filed with the court. I accept

Reviewed by the State of Victoria, Australia. Copyright | Disclaimer | Privacy

Payment Gateway

- Fee for case is collected through eWAY payment gateway

The screenshot shows the Supreme Court of Victoria's eWAY payment gateway interface. At the top, there is a navigation bar with 'Daily List' and 'Commercial Court List' tabs. Below this is a breadcrumb trail: 'Upload Form' > 'Accept Terms & Conditions' > 'File Payment' > 'Access Case'. The main content area is titled '3. Submit payment' and 'Fee for originating process'. It displays a balance due of \$3,326.55, with a note that it includes GST for Writ and Entry into Commercial Court pursuant to Prothonotary's Office Fees as at 15 December 2012. Below this is a section for entering payment information, including fields for Card holder name, Card holder number, Card expiry date (Month and Year), and Card CVV. A 'Submit' button is located below the CVV field. The next section is '4. Access case' and 'What happens now?'. It provides the case number 'SECOM 2014 001046' and a 'Go to case' button. A list of obligations is provided in a pink box: 1. You are reminded that under the current rules RedCrest does not allow for Electronic Service. You must log in to Redcrest and download a copy of the stamped Originating Process and Serve the document in accordance with the current rules of Service. 2. You will be notified via email when the Defendant has filed a Notice of Defence and will be able to download a copy of the filed Defence from the Clef Site. 3. Once the Defence is filed, you may agree between the parties for RedCrest to operate as a substituted service. 4. You will be notified when a judge is allocated to your case and all relevant information will be held on the Case Site. At the bottom of the page, there is a footer with 'Reviewed by the State of Victoria, Australia' and 'Copyright Disclaimer Privacy'.

Other System Components

- Requesting and granting access
- Notice of Appearance, Defense and Counterclaim processes
- Assignment of judges
- Trial scheduling
- Additional records management
- Legacy system integration
- Records search
- Reporting

Technical Challenges

- Started as an Office 365 project
 - Provider hosted apps
- Login needed to be customized
 - Smart Links
 - Thinktecture Identity Server
- App Challenges
 - Case page app needs to be programmatically installed – not currently possible
 - Rewrote as a Knockout and REST custom app
 - Needed to use JWT (JSON Web Tokens) with Thinktecture to authenticate the custom app
- Office 365 Licensing
 - Concerns over the number of users, and the costs of licensing each one
- Moving to RackSpace
 - Rewriting the apps for on-premise is different
 - Most moved to the Knockout and REST model – much simpler
 - File upload apps became full trust code web parts – needed to get it done

Business Challenge

- Existing processes are entirely paper based
- Court mandate is to be paperless by 2016
- Previous attempts have not been successful
- This is the first section of the court to move forward

Business Impact

- 7x24 access to initiate and access cases
- Streamlining of current paper process
- Reduced administrative costs both on the court's side and the law firms
- Improved visibility and findability of court documents

Before and After

- Before
 - Paper process
 - Submissions have to be done at the court registry office
 - No visibility into the process
 - Massive amounts of paper moving between parties
- After
 - Paperless process
 - Submissions can be done from anywhere through the Internet
 - Always up to date status on the case
 - No more paper moving

Questions and Answers