

A scenic view of the Austin skyline featuring the Frost Tower and other skyscrapers, a multi-arched bridge over a river, and lush green trees. A semi-transparent blue banner with a geometric pattern is overlaid across the middle of the image.

extreme365

WELCOME TO
AUSTIN



Not Qualified for Microsoft Fasttrack?

Alternate Strategies for Moving Your On-Premises Dynamics 365 to Online

Speaker



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Trainer, Speaker, Blogger



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Alternate Strategies for moving to Dynamics 365 Online

Introduction



Alternate Strategies for moving to Dynamics 365 Online

The Reality - Overview

Why? When? How? Who?

Steps to move to Online

Microsoft Lifecycle Services

Lessons Learned & Tips

Q & A



Alternate Strategies for moving to Dynamics 365 Online

Why move to the cloud?

No infrastructure

More features

Smaller, lower impact upgrades

Security

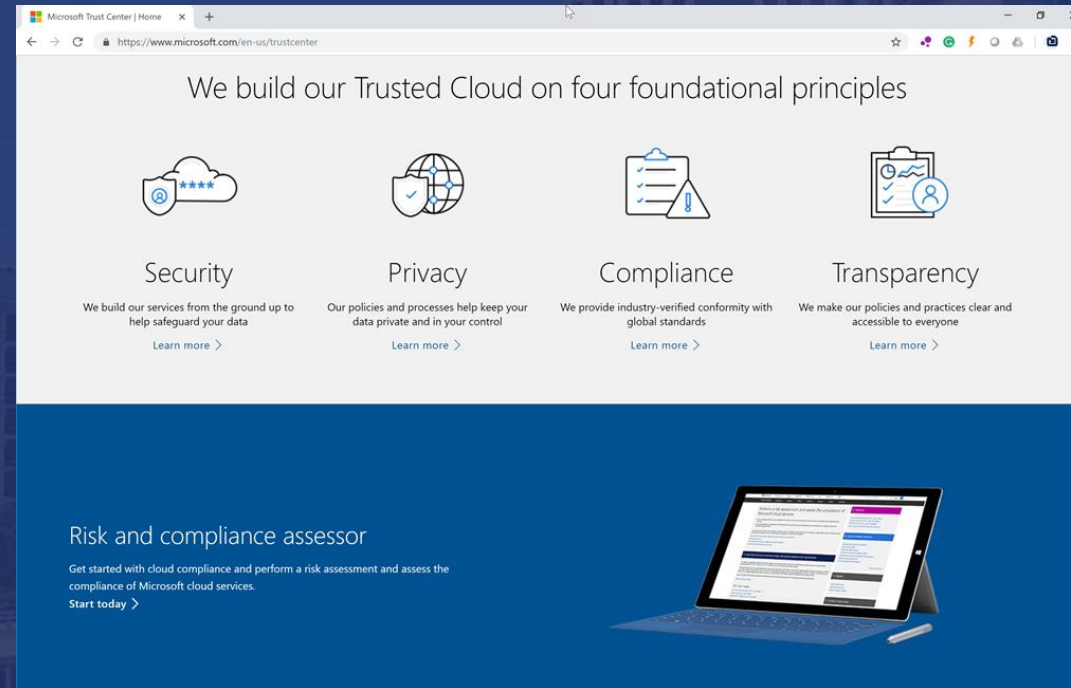
Microsoft focus

It's a "when" not an "if"



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Trusted Cloud



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When should you move to the cloud?

Features needed

Infrastructure replacement, technology shift

Business changes

System outdated

Maybe not for a while, but plan can start

Wait to be qualified for FastTrack



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Who?

Customer Internal IT?

Partner?

Specialists or Services?



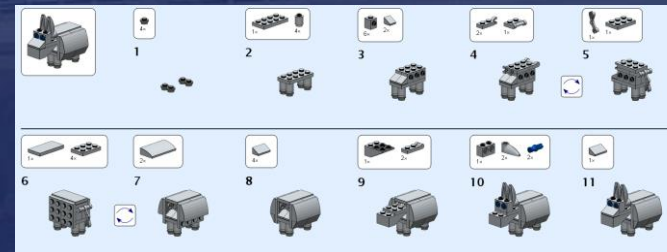
Alternate Strategies for moving to Dynamics 365 Online

How to Migrate to Dynamics 365 Online without FastTrack

- Take Inventory of current assets
- Review and Plan
- Provision Dynamics 365 Online
- Create Upgrade Step Environments for Configuration Upgrade
- Organize Custom Code to be converted, package it for upgrade
- Deploy and Upgrade Configuration
- Clean Up Configuration

- Fix Custom Code
- Fix Reports
- Integrations
- Deal with ISVs

Migrate Data!



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Take Inventory of Assets

Internal skills

Users

ISVs

Database size

Customizations

Solutions

Licenses

Custom Code

Reports

Integrations

Word and Excel

Templates

Acceptable Downtime

Business Readiness



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Review & Planning – Start asking questions!

Who is best equipped to do this?

Historical Data – Keep or remove?

Data size and users -> subscription requirements?

What custom code can be replaced with something newer?

What reports can be replaced?

Is source code available for plug-ins?

Unmanaged versions of managed solutions?

ISVs -> what is their upgrade path?

Is now a good time?

Start Fresh?



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Provision Dynamics 365 CE

- Trial can be extended and converted
- Setup new "target" system, start learning!
- Setup Users -> including historical users
- Allocate space for data migration or plan
- Setup Sandbox environments (Dev, Test, Prod)
- Implement an ALM process



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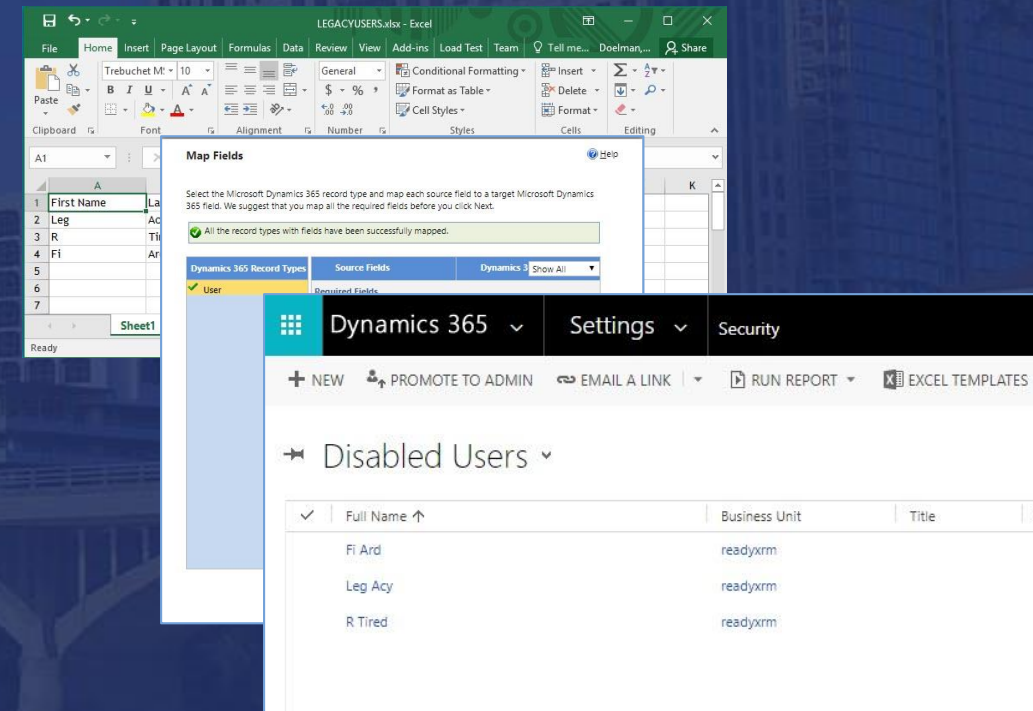
Provision Dynamics 365 – Add Legacy Users

Create List of Legacy Users to map historical data

Import Users to Dynamics 365

User will get assigned to default Sales Security Role

Activity/Transactional Data can be mapped to these users during data migration



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Create Upgrade Step Environments for Config Upgrades

Azure DevTest Labs, Azure VM, VMWare, or dedicated servers

Single server is fine for updating
90 day trial license keys still available

Next version to latest version that
will allow solution import

For solution upgrading (Entities,
Fields, Forms, Views) NOT DATA



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Organize Custom Code for Updating

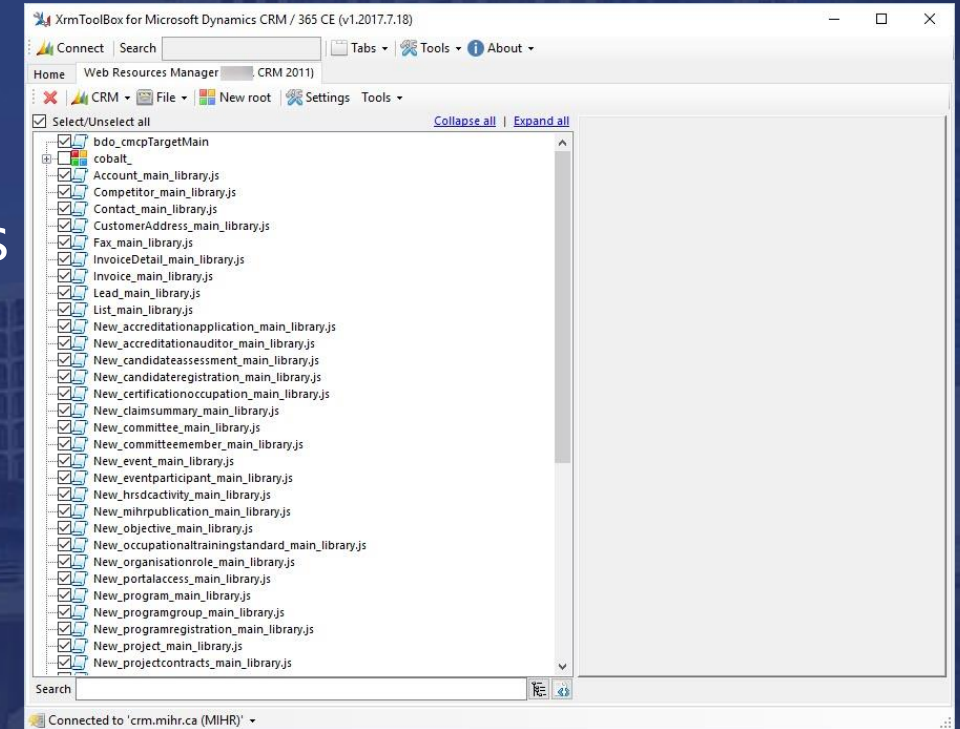
Goal is prepare client side JavaScript code for updating, converting or removing

Ideally code is already in source control

Run Custom Code Validation Tool to identify areas to fix, eventually new solution checker will be available

Will need to manually update (or replace) code, very tedious, good learning for junior consultant

XrmToolBox or other methods to extract JavaScript to files



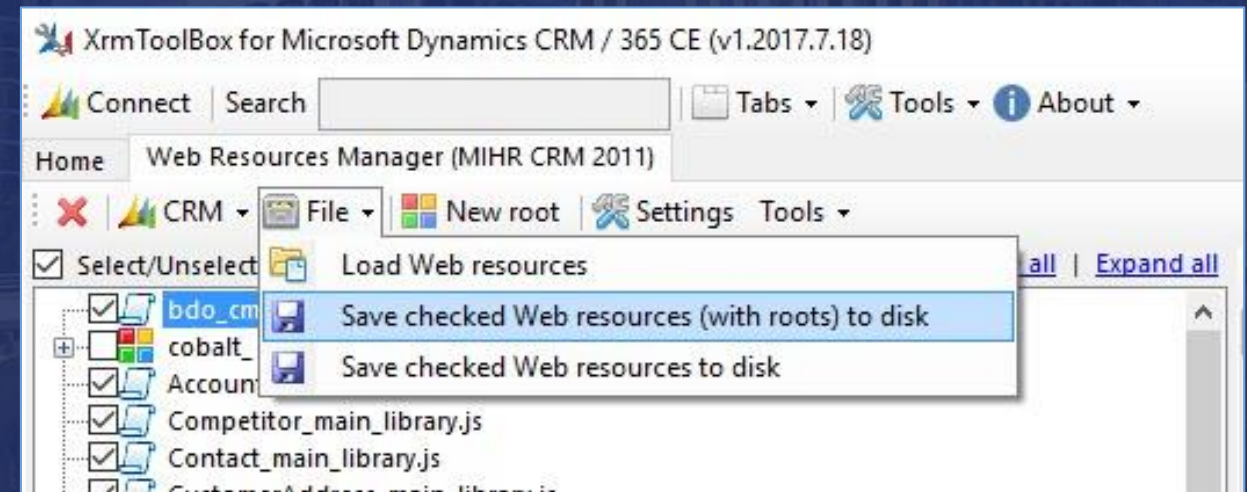
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Backup Custom Code (optional)

Goal is have a repository if you need to reference later

Create a separate copy

Backup to Disk or use Source Control



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Prep Custom JavaScript Code for Solution Updates

Goal is to “transport” incompatible code to final version for clean up

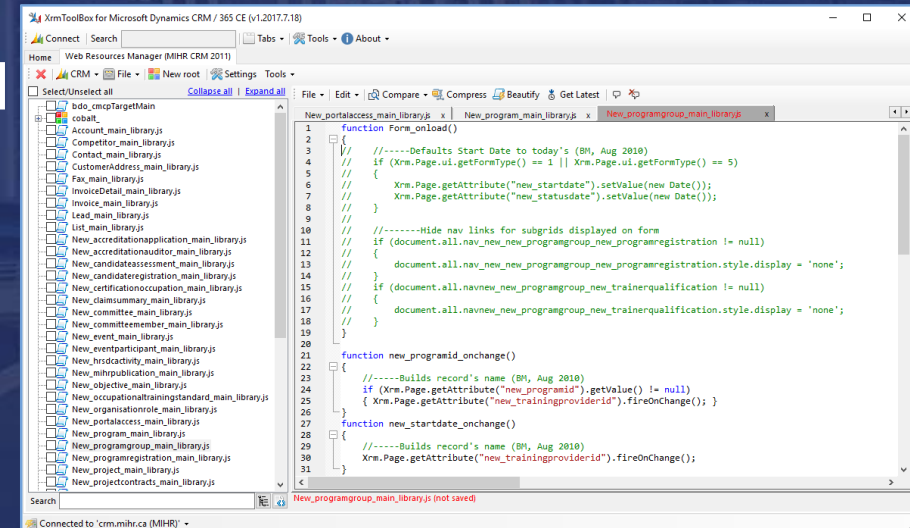
Leave event triggers in place

Comment out old code so step upgrade process doesn't fail

Leave function names

Will review code in destination version and replaced

Removed so Step Environments will Upgrade



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Deploy and Upgrade Configuration

Goal is to get solution to import into Dynamics 365 online – not data

Import into step environments as required

CRM 4.0 can be imported/upgraded to CRM 2011

CRM 2011 can be imported/upgraded to CRM 2013, etc

Export from CRM 2015 directly to Dynamics 365 v9

<https://msdn.microsoft.com/en-us/library/gg334576.aspx>

	Import to version (target)							
	2013 (v6.0)	2013 SP1 (v6.1)	2013 SP1 (v6.1) with enhanced service capabilities	2015 (v7.0)	2015 (v7.1)	2016 (v8.0)	2016 (v8.1)	Dynamics 365 (v9.2)
Microsoft Dynamics CRM Version								
2013 (v6.0)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) Export as v6.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) with enhanced service capabilities	No	No	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) with enhanced service capabilities Export as v6.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2015 (v7.0)	No	No	No	Yes	Yes	Yes	Yes	Yes
2015 (v7.1)	No	No	No	No	Yes	Yes	Yes	Yes
2016 (v8.0)	No	No	No	No	No	Yes	Yes	Yes
2016 (v8.1)	No	No	No	No	No	No	Yes	Yes
Dynamics 365 (v9.2)	No	No	No	No	No	No	No	Yes

Alternate Strategies for moving to Dynamics 365 Online

Deploy and Upgrade Configuration

Export from version (source)

Import to version (target)								
Microsoft Dynamics CRM Version	2013 (v6.0)	2013 SP1 (v6.1)	2013 SP1 (v6.1) with enhanced service capabilities	2015 (v7.0)	2015 (v7.1)	2016 (v8.0)	2016 (v8.1)	Dynamics 365 (v8.2)
2013 (v6.0)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) Export as v6.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) with enhanced service capabilities	No	No	Yes	Yes	Yes	Yes	Yes	Yes
2013 SP1 (v6.1) with enhanced service capabilities Export as v6.0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2015 (v7.0)	No	No	No	Yes	Yes	Yes	Yes	Yes
2015 (v7.1)	No	No	No	No	Yes	Yes	Yes	Yes
2016 (v8.0)	No	No	No	No	No	Yes	Yes	Yes
2016 (v8.1)	No	No	No	No	No	No	Yes	Yes
Dynamics 365 (v8.2)	No	No	No	No	No	No	No	Yes

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Managed Solutions?

Need to re-create in destination.

Or do you?



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How to Hack a Managed Solutions

Not an ISV, have managed but no unmanaged or even managed zip file

This will be a hack. This is unsupported. Not to reverse engineer ISV

Make a copy of deployment

Run process on a copied deployment database (**not on a production db**)

Remove all other solutions if possible

Remove plug-ins and SDK steps

Run SQL script, will have "unmanaged" solution that is exportable.

<https://community.dynamics.com/ax/b/thedynamicsblog/archive/2014/07/14/converting-managed-solutions-to-unmanaged-solutions-crm-2013>

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Clean Up Forms, Views, etc

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General

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Last Verified Date: 1/13/2014 E-mail: ndoelman@bdo.ca

Protect Email Address: ☐ No ☐ Yes E-mail Address 2: nick.doelman@readybms.com

E-mail Unavailable: ☐

Preferred Contact Method(s)

Any	<input checked="" type="checkbox"/>	Work Phone	<input checked="" type="checkbox"/>	E-mail	<input checked="" type="checkbox"/>
		Home Phone	<input type="checkbox"/>	Mail	<input checked="" type="checkbox"/>
		Cell Phone	<input checked="" type="checkbox"/>	Fax	<input type="checkbox"/>

Alternate Contact

Record's Status Reason: Active



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General

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Organisation: Mining Industry Language Preference: English

Unemployed: ☐ E-mail: ndoelman@mih...

Last Verified Date: 1/13/2014 E-mail Address 2: nick.doelman@...

Protect Email Address: No E-mail Unavailable: No

Category

CORPORATE	<input checked="" type="checkbox"/>	CORPORATE SUBCATEGORY	MIHR/Employees
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Notes

Timeline

Enter a note...

OLDER

Note modified by MIHR Admin - Friday, January 12, 2018 8:25 AM

bdoit.png

Delete Edit note

Note modified by MIHR Admin - 7/31/2017 6:43 PM

Note created on 1/27/2011 9:45 AM by Last name, CRMSupport

This is a note.

Delete Edit note

All Activities

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Fix Custom Code

Great opportunity to clean up code

Consider replacing legacy code with Business Rules, Configuration, Workflows, Actions, Flows, Logic Apps, etc.

Review Important changes coming in future releases of Microsoft Dynamics 365

Convert JavaScript code to latest methods

Convert long running Plug-ins to Azure Functions (> 2 minutes)

Recompile plug-ins with latest SDK

Replace SOAP calls with Web API (if possible)



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Fix Custom Code

Overview of Changes:

<https://msdn.microsoft.com/en-us/library/dn281891.aspx>

Custom Code Validation Tool:

<https://www.microsoft.com/en-us/download/details.aspx?id=45535>

JavaScript Conversion Tools:

<http://dynamicsxrmtools.codeplex.com/>

<http://www.crmaccelerators.net/transformer/>



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Fix Reports

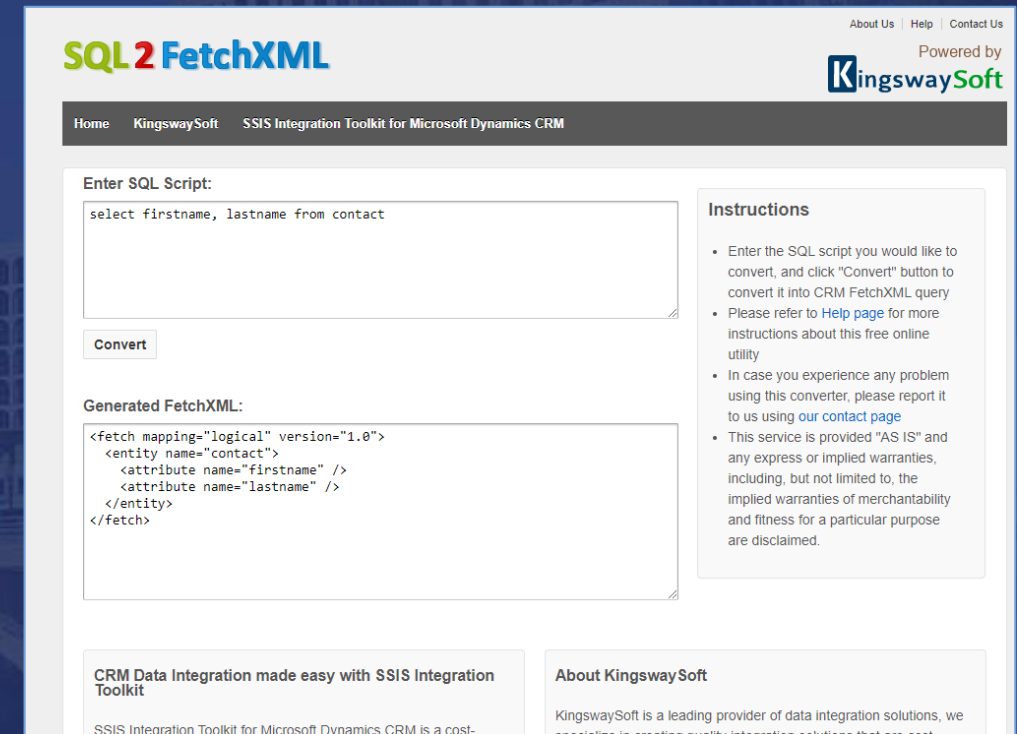
Dynamics 365 requires reports to be in FetchXML

Consider Power BI, Charts, Dashboards

Convert T-SQL to FetchXML

<http://www.sql2fetchxml.com/>

TIP: CRM 2011 or higher, start now!
(FetchXML is supported on-premise)



The screenshot shows the SQL2FetchXML website interface. At the top, the logo "SQL2FetchXML" is displayed in blue and red, with "Powered by KingswaySoft" to its right. A navigation bar includes links for "Home", "KingswaySoft", and "SSIS Integration Toolkit for Microsoft Dynamics CRM". The main content area is titled "Enter SQL Script:" and contains a text box with the SQL query "select firstname, lastname from contact". Below the text box is a "Convert" button. To the right of the text box is an "Instructions" section with a list of guidelines. Below the "Convert" button is a section titled "Generated FetchXML:" which displays the resulting FetchXML code. At the bottom of the page, there are two footer sections: "CRM Data Integration made easy with SSIS Integration Toolkit" and "About KingswaySoft".

SQL2FetchXML

Powered by KingswaySoft

Home KingswaySoft SSIS Integration Toolkit for Microsoft Dynamics CRM

Enter SQL Script:

```
select firstname, lastname from contact
```

Convert

Generated FetchXML:

```
<fetch mapping="logical" version="1.0">
  <entity name="contact">
    <attribute name="firstname" />
    <attribute name="lastname" />
  </entity>
</fetch>
```

Instructions

- Enter the SQL script you would like to convert, and click "Convert" button to convert it into CRM FetchXML query
- Please refer to [Help page](#) for more instructions about this free online utility
- In case you experience any problem using this converter, please report it to us using [our contact page](#)
- This service is provided "AS IS" and any express or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed.

CRM Data Integration made easy with SSIS Integration Toolkit

SSIS Integration Toolkit for Microsoft Dynamics CRM is a cost-

About KingswaySoft

KingswaySoft is a leading provider of data integration solutions, we specialize in creating quality integration solutions that are cost-

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Fix Integrations

Consider timing

Most industry standard tools will link to Dynamics 365 with little issues

Cannot write directly to database
(you weren't doing that anyway?
Right.... RIGHT?)



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Fix Integrations

Location of external sources

Volume of data

Batches/Realtime

Load Testing



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Update ISVs

Most involve installing latest solutions on Dynamics 365

Do you still need that ISV? (Features in Dynamics 365)

Consider data migration

Are there new feature gaps? (e.g. Portals)



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Migrate Data

This is the benefit Microsoft FastTrack/Lifecycle Services

3rd Party Tools and Services

Clean up old data

Maybe Fresh Start?

Potential for biggest spend of time

Consider downtime or gaps, deltas, etc.

Audit/SharePoint



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Tools, Services or Brute Force?

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Services

Not endorsements

Awareness that services exist

Consider your own partner strategy and education

Comfort level

Return on investment of time

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Services

Migr8 by Techdio – www.migr8.online

Synchronicity Echo -

<https://www.synchronicity-systems.com/echo>

Others listed on AppSource

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Tools

Not endorsements

Awareness

Consider your own strengths/training

Return on investment

Blackbox integration or tool

Work involved

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Tools

Cobalt Migration Dynamics

<https://www.cobalt.net/migration-dynamics/>

KingswaySoft <http://www.kingswaysoft.com>

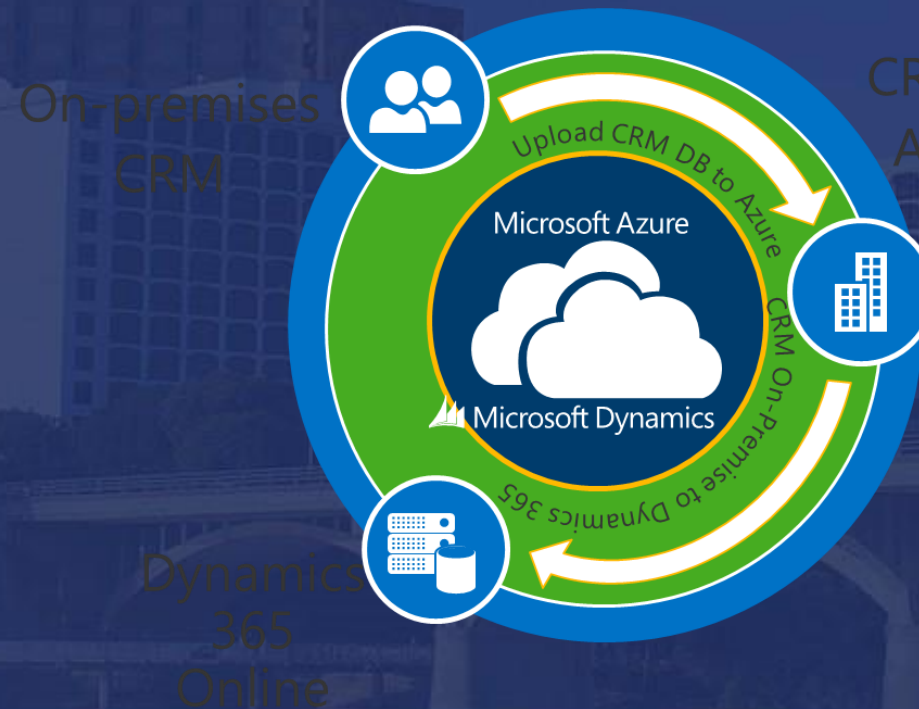
eOne <https://www.eonesolutions.com/>

Scribe <https://www.scribesoft.com/>

Others on Appsource...

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What's so great about Microsoft FastTrack?



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Microsoft FastTrack Services

Still need to convert code, reports, etc

One time data migration

Limited program (currently)

Data migration is streamlined

Tools to highlight code issues

Geared toward large customers

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- Microsoft Fasttrack Services

- Not a push button fix
- Still need to fix code, reports, clean up customizations, etc.
- Tools to Identify Code that Needs to be upgraded
- Free service
- At GA can only accept CRM 2011, CRM 2013 and CRM 2015 orgs. NOTE: Not CRM 2016 (yet)
- On prem SQL Server source database must be SQL 2012 R2 or lower. (No SQL 2014)
- Endpoint is Dynamics 365 version 8.2 (not 9.0, yet)
- Customers with 50 users or more are automatically approved
- 50 users or less can apply, response from Microsoft in 2 days, unapproved goes on a waiting list of sorts.
- Limitations based on capacity for Lifecycle services team.

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Lessons Learned & Tips and Tricks

A LOT of legacy code can be replaced with portable business logic

Data migration takes a lot of time

Managed Solution Issues

Data clean up

Historical Users

Consider services or tools to help with workload

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Resource Links

<https://www.microsoft.com/en-US/Dynamics/crm-customer-center/dynamics-365-online-vs-on-premises-features-faq.aspx>

<https://www.microsoft.com/en-us/download/details.aspx?id=45535>

<https://community.dynamics.com/ax/b/thedynamicsblog/archive/2014/07/14/converting-managed-solutions-to-unmanaged-solutions-crm-2013>

<https://techcommunity.microsoft.com/t5/Microsoft-Ignite-Content-2017/CRM-on-premises-to-Microsoft-Dynamics-365-for-Customer/m-p/99427#M957>

<https://readyxrmblog.wordpress.com/>

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Recap:

Why. When. How. Who.
Steps to move from On-
Premise to Online
Lessons Learned & Tips



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- Questions?



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