



Codeless Data Integration for Microsoft  
Dynamics and Power Platform

# Who We Are



A leading provider of integration solutions for Microsoft Dynamics software and other enterprise applications.



## Where do we come from?

SSIS Integration Toolkit came from the lessons that we learned by working on large-scale CRM data integration projects.

We understand the pain of data integration and migration challenges and offer up solutions to solve those challenges and pain points.

“Product works as advertised and the company stands behind the product with prompt support and continuing updates to the product.  
– Mark Fox, Project Manager

”

## What makes us different?



### Client first

Client success is always  
our first priority



### Constantly evolving

We always push on our  
limits



### We have your back

We stand behind our  
solutions and make sure we  
deliver what we promise

# Why Do We Need Data Integration Software?

- Data integration can be an incredibly complicated and complex process
- Every system is built differently with its own unique set of rules and tricks
- New challenges are always arising

With the right tool, data integration does not need to be complicated. The right solution will ease these complexities to make it easy and straightforward to develop and maintain your data integration projects.



# Data Integration

With SSIS Integration Toolkit



## Integrating

365 CE/CRM with any other application or database system



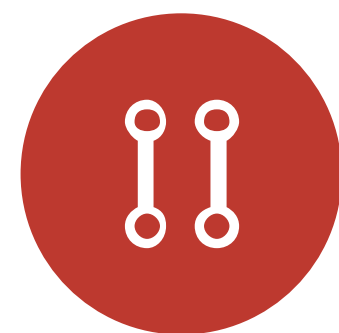
## Automating

ongoing integration tasks on a scheduled basis



## Analytics

extract data from 365/CRM server for offline reporting, and business analytics



## Replicating

365/CRM data for archival requirements



Increased productivity and performance using specially designed features

# One Solution

How one tool can solve all your [data integration & migration challenges](#)

“Product works as advertised and the company stands behind the product with prompt support and continuing updates to the product.”  
– Mark Fox, Project Manager



## SSIS Integration Toolkit

- ✓ **Performant, Feature-Rich & Easy-to-Use**
  - We know exactly where the pain points are in terms of your data integration needs, and we try to offer a solution that is cost effective and easy-to-use.
- ✓ **Powered by SSIS ETL Engine**
  - Microsoft SQL Server Integration Services
  - Flexible and scalable



# The Benefits

SSIS Integration Toolkit

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## Codeless Integration

You don't have to write a single line of code to make data integration happen so your development can be done in a matter of minutes.



## Flexible & Easy-to-Use

We make the most flexible integration solution on the market. Our software offers intuitive user interfaces that are flexible and easy to use.



## Cost Effective

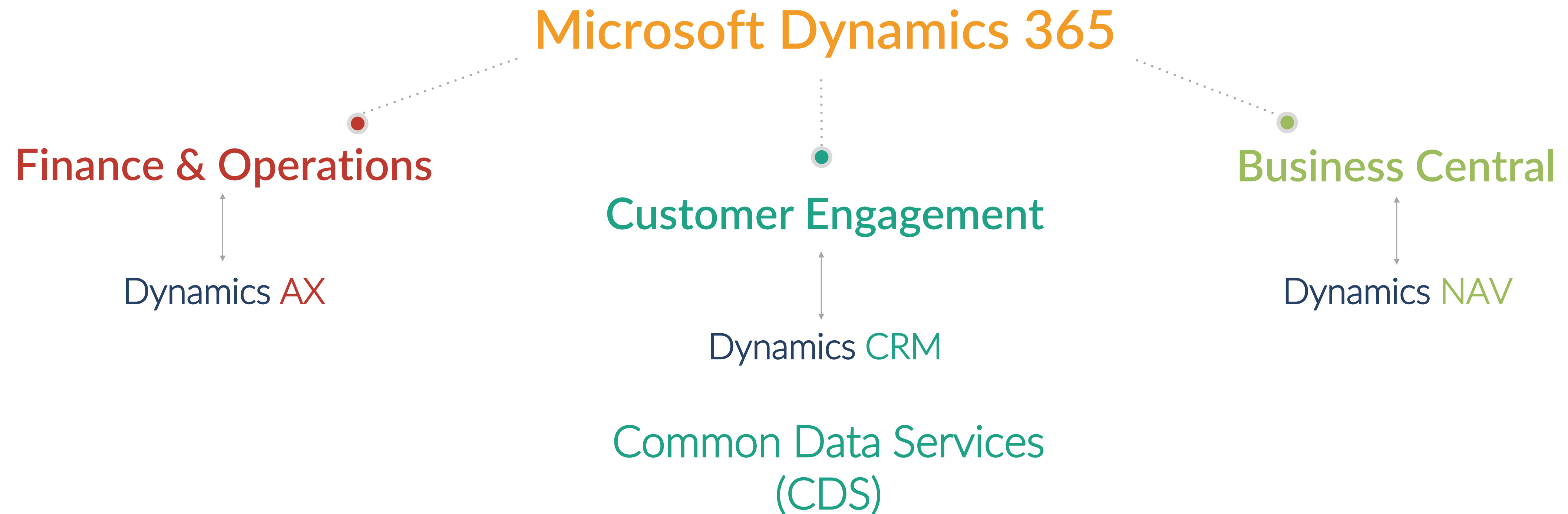
With a streamlined development experience, and an extremely simple licensing model, our solution offers the best value for your investment.



## Unparalleled Performance

Our software offers many specifically designed features that help you achieve the best possible performance without hijacking your budget.

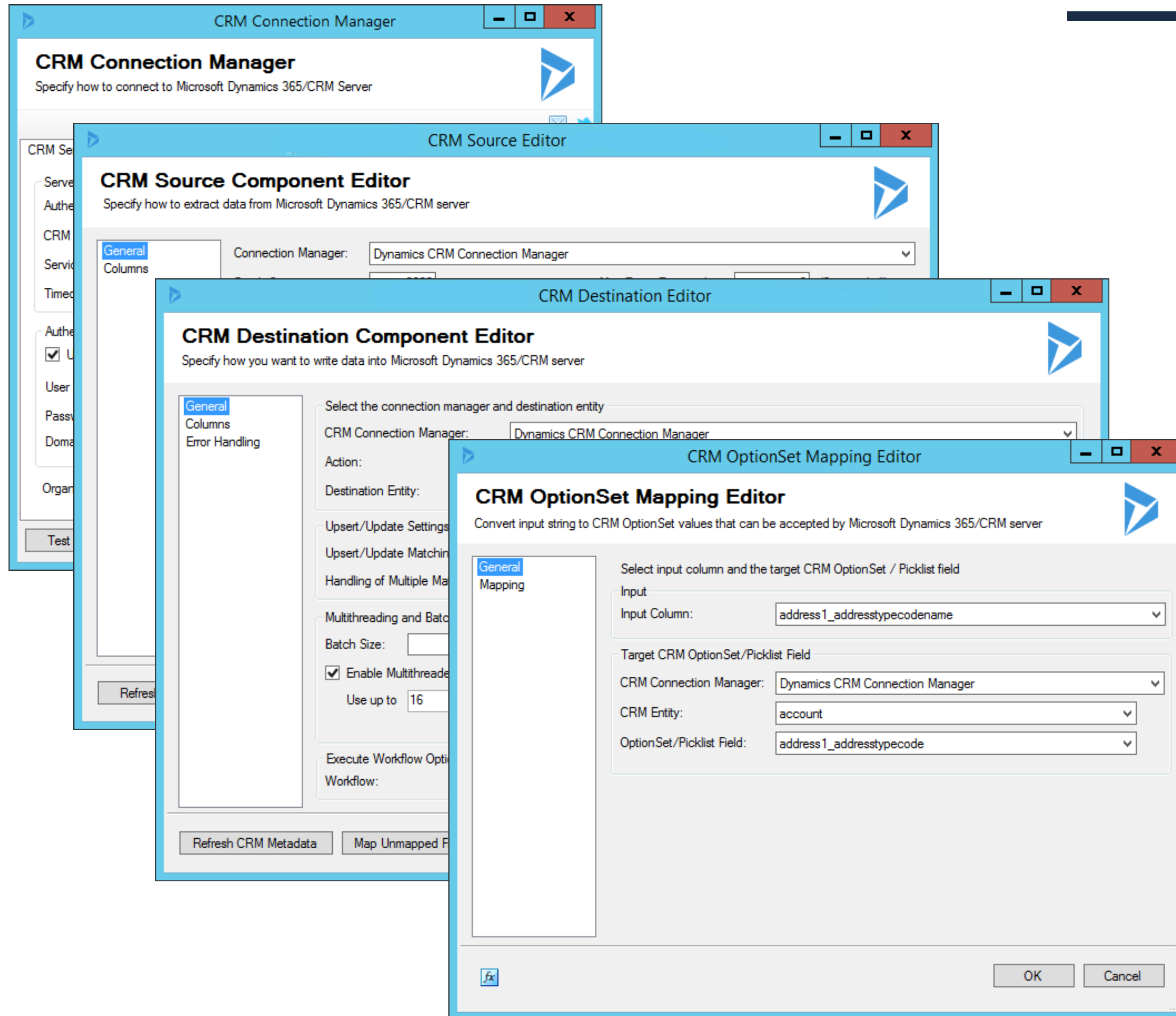
# SSIS Integration Toolkit for Microsoft Dynamics 365



Complete line of data integration solutions for Microsoft Dynamics & Beyond

# Four Main Components

SSIS Integration Toolkit for Microsoft Dynamics 365/CRM



## CRM/CDS Connection Manager

Manage connections with the CRM servers.



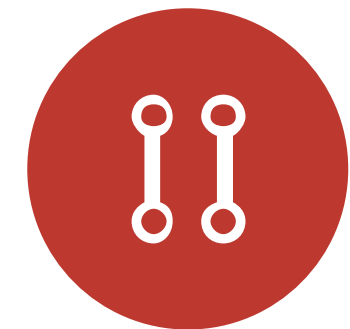
## CRM/CDS Source Component

Facilitate reading data from Dynamics CRM server using Entity, FetchXML, EntityChanges, or AuditLogs mode



## CRM/CDS Destination Component

Facilitate writing data to the CRM Server through CRM Web Services with an option of 10 different action types.



## CRM/CDS OptionSet Mapping Component

- Manages CRM OptionSet value mapping
- Provides the capability to create new OptionSet value when a match cannot be found

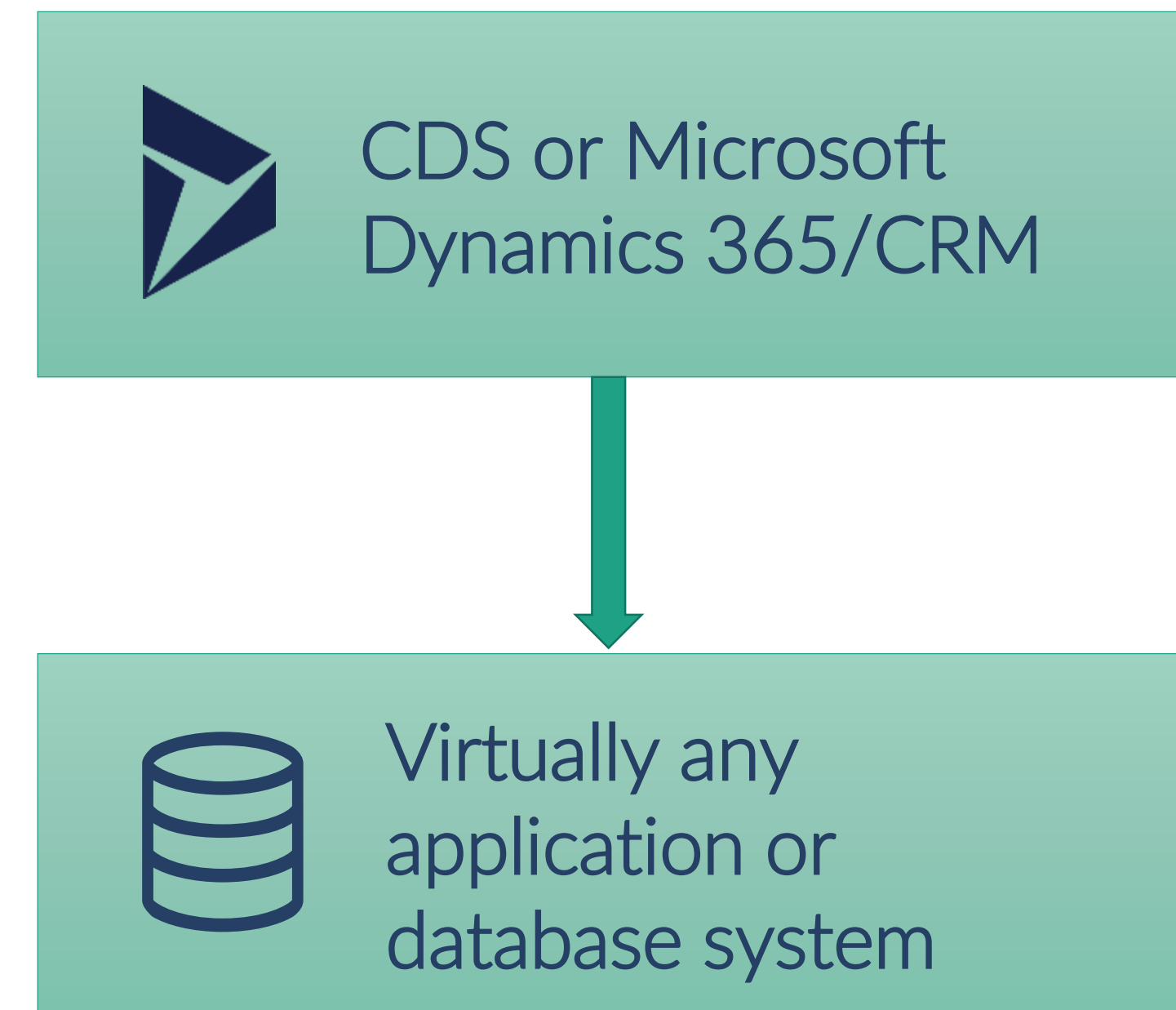


# Retrieving Data From Microsoft Dynamics and CDS

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SSIS Integration Toolkit for [Microsoft Dynamics 365](#)

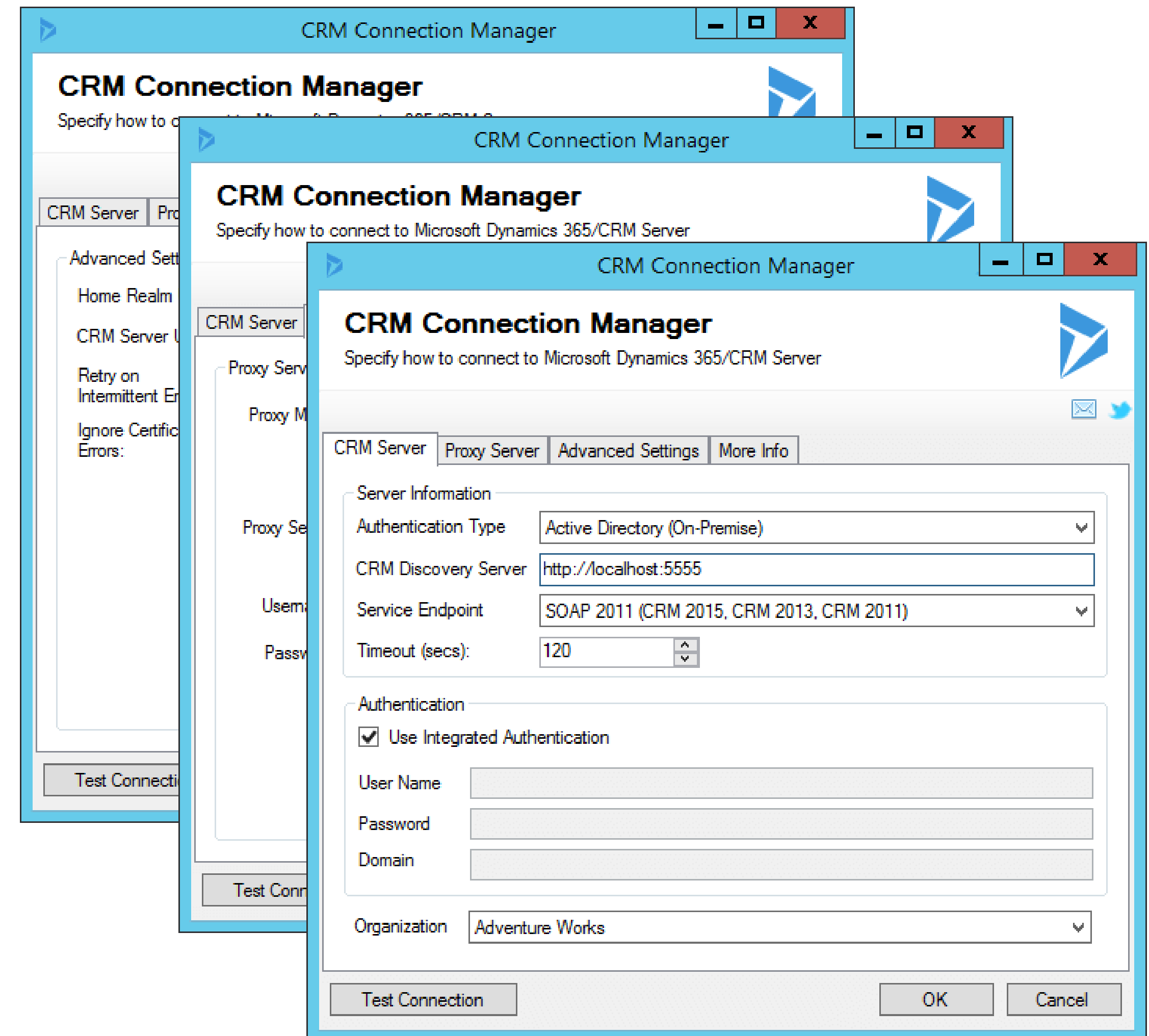
- ✓ Connect to your CDS or Microsoft Dynamics 365 CE/CRM instance through the CRM/CDS Connection Manager.
- ✓ Select and drag out your CDS/CRM Source Component.
- ✓ Configure the component through an easy, visual, user interface.
- ✓ Select only the data you will need to push to your target system.



# Connection Manager

SSIS Integration Toolkit for Microsoft Dynamics 365

- **Functionality**
  - Manage connections with CDS or CRM server
  - Reusable across SSIS package or project
- **Basic Connection Information**
  - Authentication Type
  - Discovery Server URL
  - Service Endpoint
  - Authentication Information / Login credentials
  - Timeout
  - Selection a CDS/CRM Organization
- **Advanced Settings**
  - Alternate CRM Server URL
  - Home Realm Uri
  - Retry on Intermittent Errors
  - Optional Proxy Configuration



# Demo

## CDS/CRM Connection Manager

# Source Component

SSIS Integration Toolkit for Microsoft Dynamics 365

- **Functionality**
  - Facilitate reading data from CDS or Microsoft Dynamics 365 / CRM server
- **Support of four Source Types**
  - Entity
    - Reading all records for the specified entity without filtering
  - FetchXML
    - Any complex FetchXML query
    - Filtering is possible, so are JOINS
    - Open View option
  - EntityChanges
    - Utilize CDS/CRM delta API to retrieve latest changes since last pull
  - AuditLogs
    - Reading CDS/CRM audit logs in a structured way
- **Options**
  - Batch Size
    - Regardless of batch size, we will page through all records
  - Impersonate As
    - Useful for reading from entities that requires impersonation
  - Output Timezone
    - Standardize the output of datetime fields

CRM Source Editor

**CRM Source Component Editor**  
Specify how to extract data from Microsoft Dynamics 365/CRM server

General Columns

Connection Manager: Dynamics CRM Connection Manager

Batch Size: 2000 Max Rows Returned: 0 (0 to read all)

Source Type: Entity

Source Entity: account

Impersonate As: (Optional)

Output Timezone: UTC (Default)

Refresh CRM Metadata

OK Cancel

Demo

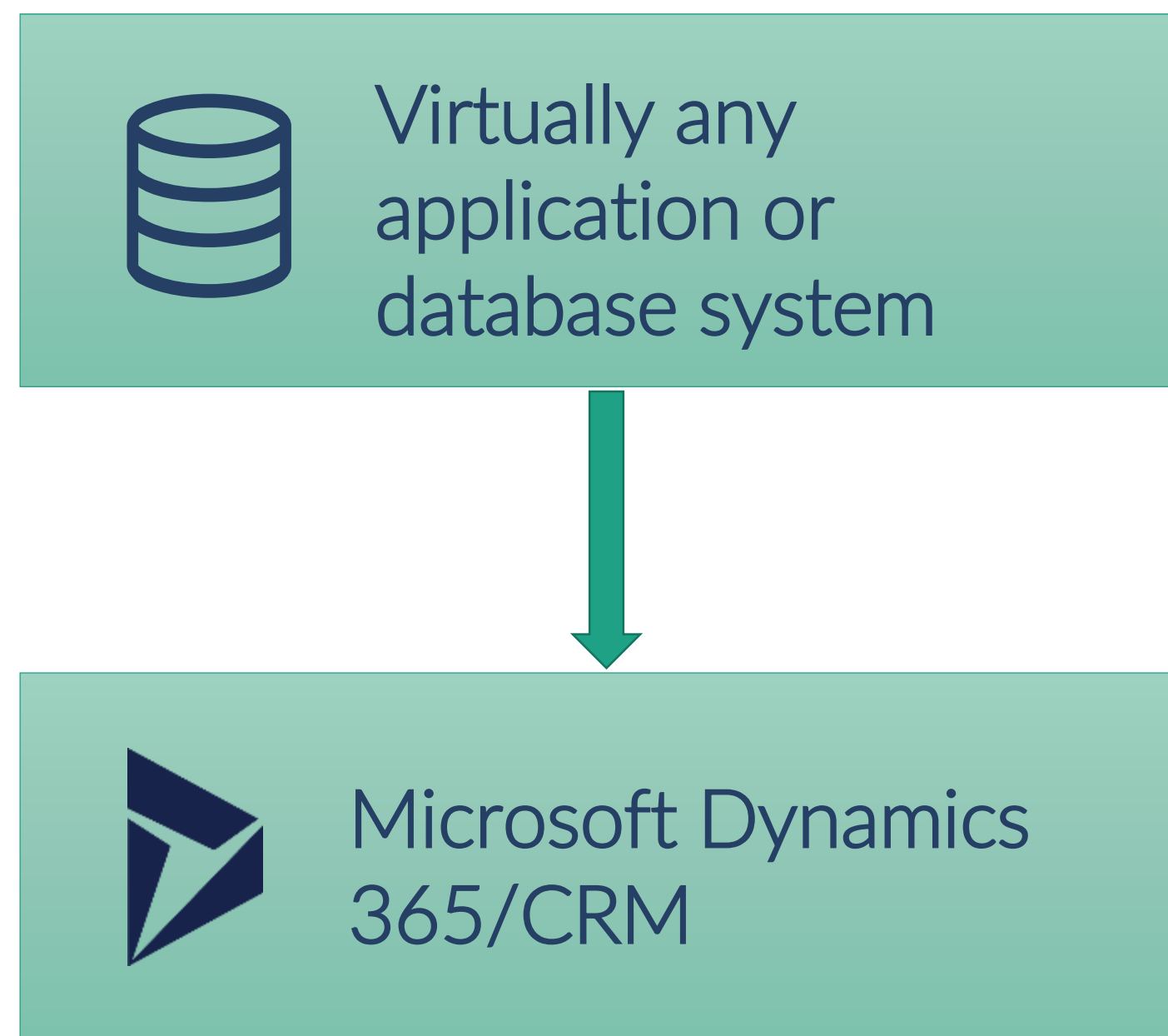
CDS/CRM Source Component



# Writing data to CDS or Microsoft Dynamics

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SSIS Integration Toolkit for [Microsoft Dynamics 365](#)



Connect to your CDS or Microsoft Dynamics 365/CRM instance through the CRM Connection Manager.



Select the CDS or Microsoft Dynamics CRM Destination and connect your desired source to it.



Select how you would like the data to be written to the target CDS or Dynamics 365/CRM entity (Create, Update, Delete, Upsert, etc.).

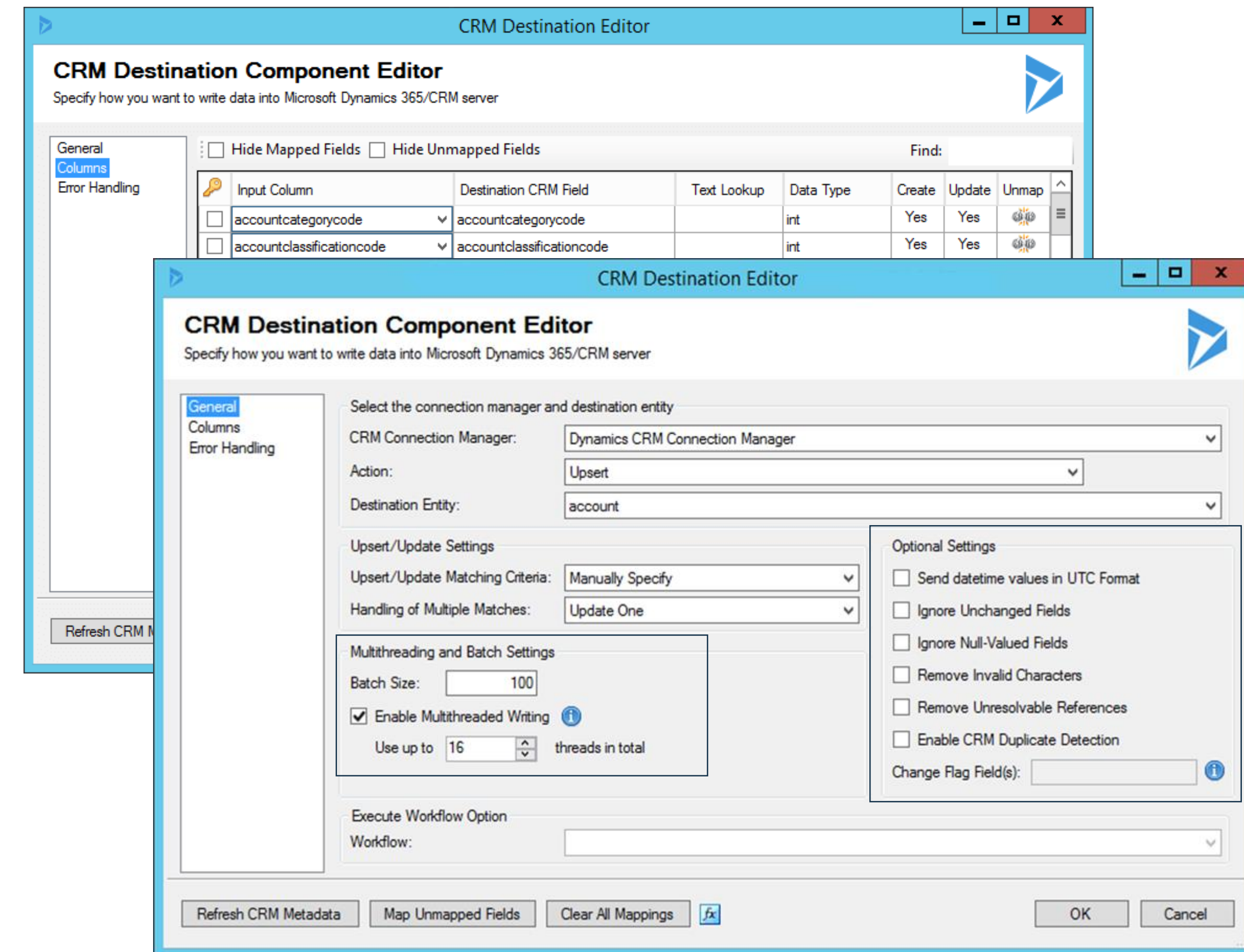


Map the fields from your source system to the target field in CDS or Microsoft Dynamics 365/CRM.

# Destination Component

SSIS Integration Toolkit for Microsoft Dynamics 365

- **Functionality**
  - Facilitate writing data to Microsoft Dynamics 365 / CRM server
- Support of ten write actions
- Many options designed for specific integration scenarios
- Many productivity features offered to help you be more productive when working with the mapping
- Several optional settings for specific integration scenarios



# Write Action Types

Microsoft Dynamics 365 Destination Component

## Create

- Create CRM records
- Associate CRM records when used for CRM N:N relationship
- GrantAccess when used for POA entity

## Update

- Update CRM records
- Support four matching criteria options
  - Primary Key
  - Duplicate Detection
  - Manually Specify
  - Alternate Key

## Upsert

- Update the record if exists, otherwise create a new one
- Support four matching criteria options
  - Primary Key
  - Duplicate Detection
  - Manually Specify
  - Alternate Key

## Delete

- Delete CRM records
- Disassociate CRM records when used for CRM N:N relationship
- RevokeAccess when used for POA entity

## Convert

- Drive the entire sales cycle by converting CRM records from lead all the way to invoice
- Also support converting owner team to access team

## Merge

- Merge a pair of CRM records by retiring one
- Can be used to perform manual or automated merge

## Execute Workflow

- Support of running CRM workflows in batch fashion
- Support of CRM custom actions
- Execution can be manual or automated

## Send

- Support to send CRM emails

## BulkDelete

- A bulk delete job that deletes selected records in bulk
- Runs asynchronously in the background without blocking other activities

## CalculateRollupField

- Force calculation of a Rollup field



Ten write action types - more than any tool on the market



# Highlighted Features

Microsoft Dynamics 365 Destination Component

- Support of CRM Bulk Data Load API
  - Batch Size option
- Support of createdby, modifiedby fields
- Set a optionset/picklist field value by either its integer value or its label value
- Support for CRM many-to-many relationship
- Support for writing to principalobjectaccess (POA) entity
- Text Lookup
  - Lookup becomes painlessly easy

The screenshot shows the 'Text Lookup' dialog box, titled 'Text Lookup Editor'. It contains the following elements:

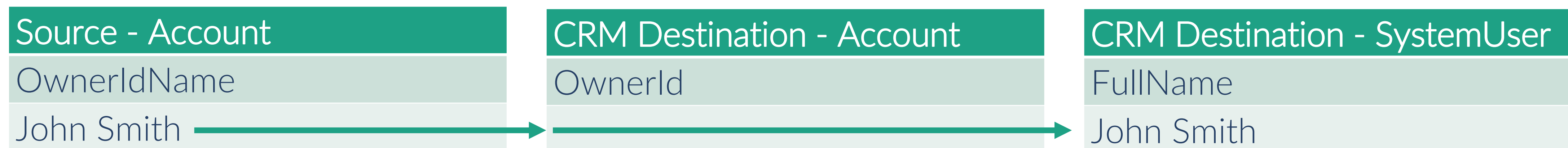
- Text Lookup Editor**: Specify how text lookup is performed.
- Options**:
  - ☐ Do not Use Text Lookup (Input values are provided in GUID format)
  - ☐ Use Primary Field (All)
  - ☒ Choose Target Field(s) ☐ Opt out all
- Table**:
 

Target entity	Lookup method	Target text/integer field	Exclude inactive *	Optional default value (if no match) *
systemuser	Manually Specify	fullname	<input type="checkbox"/>	
team	Primary Field		<input type="checkbox"/>	
- Advanced Options \***:
  - ☐ Ignore Case
  - ☐ Report Error on Duplicates
  - ☐ Skip Record if Lookup Fails
- Cache Strategy \***:
  - ☒ Full Cache
  - ☐ Partial Cache (make sure the chosen fields are covered by db indexes)
- Footnote**: \* Not applicable to Alternate Key lookup
- Buttons**: OK, Cancel

# Working With Lookup Fields

What to do if you do not have a GUID value for the [lookup records](#)

- CRM stores foreign keys with GUID values, but you do not always have the GUID value for the lookup records
  - Lookup Field: Holds a link to another record, stores the GUID, displays the primary field of the linked record
- Use Text Lookup to find the GUID value
  - Map text or integer column to the lookup field then perform Text Lookup



- Component passes through OwnerName
- Looks for a match in the SystemUser entity as defined in the Text Lookup
- Finds match & writes GUID value to the Account entity OwnerID



# Demo

## CRM Destination Component

# Duplicate Handling

Duplicates are always a pain to deal with

## Avoid writing duplicates to CRM

- ✓ Utilizing Upsert action
  - Four matching options
    - Primary Key
    - CRM Duplicate Detection
    - Manually Specified Fields
    - Alternate Key
- ✓ Turn on “Enable CRM Duplicate Detection” option
  - CRM Duplicate Detection rules needs to be setup in CRM

## Deal with existing duplicates

- ✓ Utilizing Merge action to merge existing duplicate records
  - Pass in CRM duplicate records in pairs and we will take care of the rest.
- ✓ SSIS Productivity Pack
  - Comprehensive [Duplicate Detector](#)



# Maximize Performance

SSIS Integration Toolkit for Microsoft Dynamics 365

## Batch Size & Multithreaded Writing

### Further Tips

- Upsert/Update & Ignore Unchanged Fields
- Use of an Azure VM/Azure-SSIS IR when targeting 365 Online
- Minimize the number of CRM fields that you want to write to CRM
- Avoid using the Duplicate Detection option if you can
- Manually Specify for Update/Upsert – make sure matching fields are covered by database indexes
- Sort input data when createdby, modifiedby or impersonateas field is mapped
- Properly designed CRM plugins & workflows
- [See 365 FAQ page for more](#)



# Performance Metrics

SSIS Integration Toolkit for [Microsoft Dynamics 365](#)

## Single Thread vs Multithreading

Writing to CRM 100,000 records, 100 batch size, using a Create action with a total of 5 fields

### Single Thread

100,000 records in 4761 seconds  
21 records/second

### Multithreading (20x threads)

100,000 records in 425 seconds  
235 records/second

**11 times faster when using multithreaded writing**



The performance testing was done in a laptop with everything installed in the same box, the processor was heavily throttled, it should perform a lot better with a real production system

# Integrating Dynamics with Other Applications 23

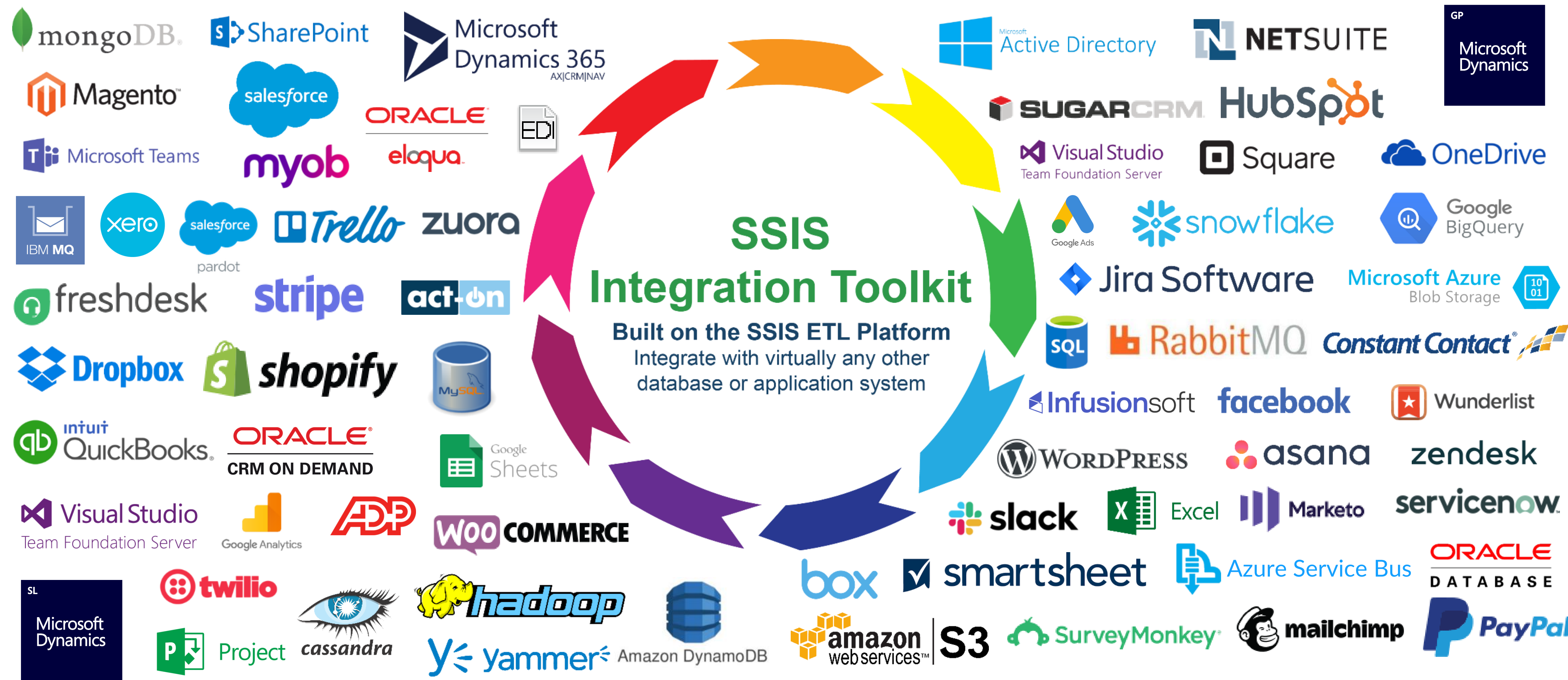
Integrate Microsoft Dynamics with virtually any other application or database system

- SSIS Integration Toolkit Connectors
  - Dedicated support for nearly 100 applications/services
  - Easily integrate with other supported applications with dedicated connection manager, source, and destination components for the specific application
- Databases
  - Supported through SSIS out-of-box components or using SSIS Productivity Pack with Premium ADO.NET Source/Destination
    - Better metadata handling
    - More write actions such Update, Upsert, Delete, and FullSync with bulk operation support
    - Advanced features including lookup
    - In addition to SQL Server, we also support Oracle, MySQL, PostgreSQL, DB2, etc.
- Other applications or APIs
  - Using SSIS Productivity Pack connect to virtually any other web service (including custom) with web services, JSON, or XML components.



# SSIS Integration Toolkit

Product Family



# A Solution for an Evolving Landscape

Data Integration Made **Easy**

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**A data integration solution that supports constantly evolving applications, databases, and business requirements.**

- As business requirements change and new data integration requirements are added, the SSIS Integration Toolkit will easily support these changes.



**A solution that evolves with those landscapes**

- We are always adding new features & enhancements to our solutions to support all the latest upgrades.
- We are constantly adding support for new data integration scenarios



# Supported Versions

SSIS Integration Toolkit for Microsoft Dynamics 365

## ✓ Microsoft Dynamics 365 CE/CRM

- Microsoft Dynamics CRM (3.0 – 2016)
- Microsoft Dynamics 365 Customer Engagement

## ✓ Microsoft Dynamics 365 FO/AX

- Microsoft Dynamics AX (4.0 – 2012 R3)
- Microsoft Dynamics 365 Finance and Operations

## ✓ Microsoft Dynamics 365 BC/NAV

- Microsoft Dynamics NAV (2009 – 2017)
- Microsoft Dynamics 365 Business Central

## ✓ Common Data Service

- Common Data Services (CDS)
- Power Apps

Technical Requirements: Azure-SSIS IR or SQL Server 2019, 2017, 2016, 2014, 2012, 2008 R2, or 2008.  
*Microsoft Dynamics 365 CE Online & CDS require SQL Server 2012 or above.*



# Licensing Model

Simple and Straightforward

<p>One-Year Subscription License</p> <p><b>\$1,095</b> <i>per integration server</i></p> <p>Upgrade to Ultimate: \$1,595</p> <ul style="list-style-type: none"> <li>Subscription-based commercial license</li> <li>No limitations on the number of users, processors, etc.</li> <li>Maintenance &amp; Upgrade are included for the entire subscription period</li> </ul>	<p>Perpetual License</p> <p><b>\$2,495</b> <i>per integration server</i></p> <p>Upgrade to Ultimate: \$3,495</p> <ul style="list-style-type: none"> <li>Perpetual commercial license</li> <li>No limitations on the number of users, processors, etc.</li> <li>One-Year Maintenance &amp; Upgrade included</li> </ul>	<p>Annual Maintenance &amp; Upgrade</p> <p><b>\$695</b> <i>per integration server</i></p> <p>Upgrade to Ultimate: \$895</p> <ul style="list-style-type: none"> <li>Optional for perpetual license</li> <li>All software upgrades (including major or minor) for one year</li> <li>Direct access to our technical resources with personalized services</li> </ul>	<p>Azure-SSIS Integration Runtime Ultimate Subscription License</p> <p><b>\$1,595</b> <i>per Azure cloud instance</i></p> <p><i>Only available as Ultimate Edition</i></p> <ul style="list-style-type: none"> <li>Subscription-based commercial license for Azure-SSIS IR</li> <li>Supports all KingswaySoft SSIS products</li> <li>No limitations on the number of users or processors, etc.</li> <li>Maintenance &amp; Upgrade are included for the entire subscription period</li> </ul>
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## Free Developer License

- Works within development tools without requiring a commercial license
- Cannot be used outside of the development tools
- Enables individual developers to work with the software on their own workstation before deploying to a licensed server

# Data Integration for Microsoft Dynamics Made Easy

## Cleaning Data

Tools and strategies you can use to clean up duplicate and mis-formatted data with your database systems.

## Migrate Data

Migrating data from any legacy system into Microsoft Dynamics 365

## Integration between Dynamics applications

Build bi-directional integrations between Microsoft Dynamics applications and virtually any other application or database system.

## Integration between Cloud & On-Prem

Integration between cloud and on-prem applications and integrating to local servers for archiving data

## Maintain Data Integrity

Ensure data remains clean and accurate. Use Upsert during integration and additional tools to automatically manage bad data.





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# Contact Us

Client success is always our first priority

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