Columbus® Once you know how...

# Advanced Migration Assessment

# Advanced Migration Assessment

## Components

### Assessment initiation

**Kick-off and Business Introduction**

- Share assessment goals
- System access, model store export
- Initiate migration approach for earlier version of Dynamics on-premises

Step 1

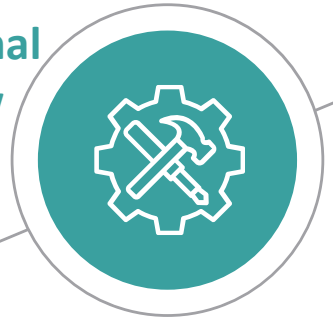
### Technical review

**Technical Assessment**

- Solution customization & modifiation analysis
- Code refactoring
- Data consistency and data integrity check
- ISV implemented solutions review
- Risks identification
- Integrations, BI and reporting strategy
- Technical assessment report

Step 2

### Functional review



**Functional Assessment**

- Assessment of the new capabilities and enhancements against existing features
- High-level business process review
- Review of the current solution findings
- Recommendation
- Functional assessment report

Step 3

### Assessment Summary

**Assessment presentation & next steps discussion**

- Review of the state of the current solution
- Proposal on how to start the migration process
- Deployment options analysis
- Recommended best transition approach
- Proposed timeline & resources
- Recommendations & next steps roadmap
- Q&A

Step 4

# Timeline & Resources engagement

| | Step 1 | Step 2 | Step 3 | Step 4 |
|---|---|---|---|---|
| **Focus Area** | • Kick-off and Business introduction | • Technical connect<br>• Technical assessment | • Discuss Functional assessment based on findings<br>• Upgrade process / planning / vision / risk | • Finalize and distribute upgrade assessment findings overview presentation<br>• Recommendations and next steps discussion |
| **Customer participants** | • CxO, ERP owner / IT manager, business department leads | • ERP owner / IT manager | • ERP owner / IT manager | • CxO, ERP owner / IT manager, business department leads |
| **Levels of Customer engagement** | • Participate on the Kick-off call | • Assist the partner to access customer environment/ deliver AX model store<br>• Fill in Microsoft Dynamics 365 upgrade questionnaire form | • Assist the partner to gather information about the business process<br>• Give feedback on questions on why/how | • Participate on the final presentation<br>• Provide feedback and share expectations on next steps |

While we perform the assessment over the course of **4-6 weeks**, your total time commitment should fall **between 3-5 workdays.** Can be delivered in on/offsite manner. Expenses are covered by Microsoft & Columbus

# Deliverables of Standard AMA:

**Functional Assessment**
Your business processes may have changed over the lifecycle of Dynamics on-premises deployment, and they might not be the best fit for an online deployment. This analysis drills into the important functional requirements and re-evaluates them with best practices and recommendations for Dynamics 365

**Technical Assessment**
Assessment includes: Technical analysis of the AX environment, level of customizations and their complexity and pathway for migration. In addition: recommendations towards new available functionalities, complexity of migration, ways to get the same functionalities through work arounds

**Integration Options**
Existing integrations running on-premises may no longer be needed or run when migrating to the cloud. The goal of the analysis is to assess those existing integrations for cloud compatibility, security, technical feasibility, and performance

**Migration Plan**
Helps to understand what a future state deployment might look like and produce a high-level system blueprint. This might include items such as conceptual solution architecture, high level gap-fit by business processes, integration strategy, data migration strategy and/or deployment strategy

**Reporting**
This item makes recommendations on reporting options for Dynamics 365. Examples include detailed reporting and BI assessment broken down by – operation reporting, financial reporting, business document reporting, analytical reporting etc

**Recommendation and approach**
A summary view of what would be the best course of action to hep you move to cloud and the pathway that would work best for you and you business, depending on complexity, and impact analysis

# Additional options upon agreement:

**Business Value Analysis (BVA)**
Helps to understand the total economic impact of moving to the cloud. Performing a BVA will help to align migration efforts with business outcomes. uncover potential cost-savings and productivity gains establishing a compelling economic reason to migrate to the cloud

**Deprecation plan**
Deprecation planning assesses those key items that will be affected going to the cloud and offers recommendations, best practices and alternative solutions that a customer should consider

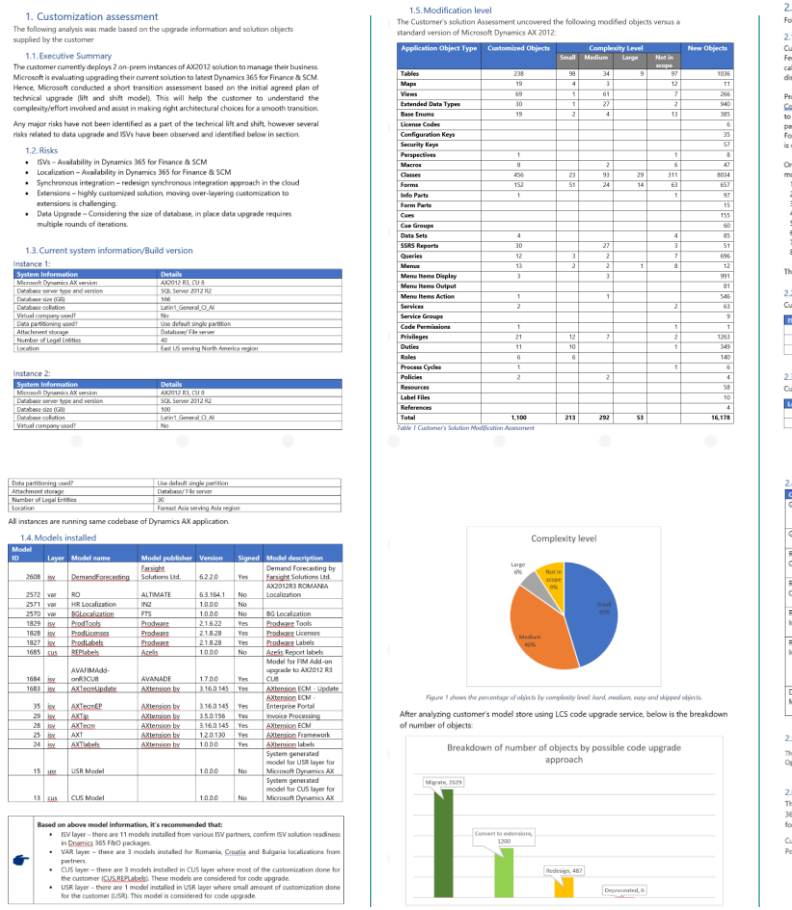
**Envisioning**
A design thinking workshop can help to generate ideas, ensure all the key stakeholders on the migration project are heard, form a prioritized list of requirements that can be used in the design and help shape future phases of digital transformation

**Industry accelerators**
Microsoft industry accelerators/3rd party templates can help with time to value on Dynamics 365 cloud migrations. If there is a particular vertical solution that addresses a known functionality gap, then this analysis can help in exploring potential use case scenarios post migration

**Industry best practices**
Based on the results of the assessment, there may be specific areas which warrant further response, this item is an opportunity to expand on industry best practices, especially as it relates to functional and technical elements of Dynamics 365

**Proof of Concept**
Helps to build a prototype to showcase the benefits of specific set of cloud solutions and how that benefits business in real time

# Sample of assessment report



1. Customization assessment

The following analysis was made based on the upgrade information and solution objects supplied by the customer

1.1. Executive Summary

The customer currently deploys 2 on-prem instances of AX2012 solution to manage their business. Microsoft is evaluating upgrading their current solution to latest Dynamics 365 for Finance & SCM. Hence, Microsoft conducted a short transition assessment based on the initial agreed plan of technical upgrade (lift and shift model). This will help the customer to understand the complexity/effort involved and assist in making right architectural choices for a smooth transition.

Any major risks have not been identified as a part of the technical lift and shift, however several risks related to data upgrade and ISVs have been observed and identified below in section.

1.2. Risks

- ISVs – Availability in Dynamics 365 for Finance & SCM
- Localization – Availability in Dynamics 365 for Finance & SCM
- Synchronous integration – redesign synchronous integration approach in the cloud
- Extensions – highly customized solution, moving over-layering customization to extensions is challenging.
- Data Upgrade – Considering the size of database, in place data upgrade requires multiple rounds of iterations.

1.3. Current system information/Build version

Instance 1:

| System Information | Details |
|---|---|
| Microsoft Dynamics AX version | AX2012 R3, CU 8 |
| Database server type and version | SQL Server 2012 R2 |
| Database size (GB) | 166 |
| Database collation | Latin1_General_CI_AI |
| Virtual company used? | No |
| Data partitioning used? | Use default single partition |
| Attachment storage | Database/ File server |
| Number of Legal Entities | 40 |
| Location | East US serving North America region |

Instance 2:

| System Information | Details |
|---|---|
| Microsoft Dynamics AX version | AX2012 R3, CU 8 |
| Database server type and version | SQL Server 2012 R2 |
| Database size (GB) | 100 |
| Database collation | Latin1_General_CI_AI |
| Virtual company used? | No |
| Data partitioning used? | Use default single partition |
| Attachment storage | Database/ File server |
| Number of Legal Entities | 30 |
| Location | Fareast Asia serving Asia region |

All instances are running same codebase of Dynamics AX application.

1.4. Models installed

| Model ID | Layer | Model name | Model publisher | Version | Signed | Model description |
|---|---|---|---|---|---|---|
| 2608 | isv | DemandForecasting | Farsight Solutions Ltd. | 6.2.2.0 | Yes | Demand Forecasting by Farsight Solutions Ltd. |
| 2572 | var | RO | ALTIMATE | 6.3.164.1 | No | AX2012R3 ROMANIA Localization |
| 2571 | var | HR Localization | IN2 | 1.0.0.0 | No | BG Localization |
| 2570 | var | BGLocalization | FTS | 1.0.0.0 | No | ProdTools |
| 1829 | isv | ProdTools | Prodware | 2.1.6.22 | Yes | Prodware Tools |
| 1828 | isv | ProdLicenses | Prodware | 2.1.8.28 | Yes | Prodware Licenses |
| 1827 | isv | ProdLabels | Prodware | 2.1.8.28 | Yes | Prodware Labels |
| 1685 | cus | REPlabels | Azelis | 1.0.0.0 | No | Azelis Report labels |
| 1684 | isv | AVAFIMAdd-onRETCUB | AVANADE | 1.7.0.0 | Yes | Model for FIM Add-on upgrade to AX2012 R3 CU8 |
| 1683 | isv | AXTecmUpdate | AXtension by | 3.16.0.145 | Yes | AXtension ECM - Update |
| 35 | isv | AXTecmEP | AXtension by | 3.16.0.145 | Yes | AXtension ECM - Enterprise Portal |
| 29 | isv | AXTip | AXtension by | 3.5.0.156 | Yes | Invoice Processing |
| 28 | isv | AXTecm | AXtension by | 3.16.0.145 | Yes | AXtension ECM |
| 25 | isv | AXT | AXtension by | 1.2.0.130 | Yes | AXtension Framework |
| 24 | isv | AXTlabels | AXtension by | 1.0.0.0 | Yes | AXtension labels |
| 15 | usr | USR Model | | 1.0.0.0 | No | System generated model for USR layer for Microsoft Dynamics AX |
| 13 | cus | CUS Model | | 1.0.0.0 | No | System generated model for CUS layer for Microsoft Dynamics AX |

**Based on above model information, it's recommended that:**

- ISV layer – there are 11 models installed from various ISV partners, confirm ISV solution readiness in Dynamics 365 F&O packages.
- VAR layer – there are 3 models installed for Romania, Croatia and Bulgaria localizations from partners.
- CUS layer – there are 3 models installed in CUS layer where most of the customization done for the customer (CUS,REPLabels). These models are considered for code upgrade.
- USR layer – there are 1 model installed in USR layer where small amount of customization done for the customer (USR). This model is considered for code upgrade.

1.5. Modification level

The Customer's solution Assessment uncovered the following modified objects versus a standard version of Microsoft Dynamics AX 2012:

| Application Object Type | Customized Objects | Complexity Level | | | | New Objects |
|---|---|---|---|---|---|---|
| | | Small | Medium | Large | Not in scope | |
| Tables | 238 | 98 | 34 | 9 | 97 | 1036 |
| Maps | 19 | 4 | 3 | | 12 | 11 |
| Views | 69 | 1 | 61 | | 7 | 266 |
| Extended Data Types | 30 | 1 | 27 | | 2 | 940 |
| Base Enums | 19 | 2 | 4 | | 13 | 385 |
| License Codes | | | | | | 6 |
| Configuration Keys | | | | | | 35 |
| Security Keys | | | | | | 57 |
| Perspectives | 1 | | | | 1 | 8 |
| Macros | 8 | | 2 | | 6 | 47 |
| Classes | 456 | 23 | 93 | 29 | 311 | 8034 |
| Forms | 152 | 51 | 24 | 14 | 63 | 657 |
| Info Parts | 1 | | | | 1 | 97 |
| Form Parts | | | | | | 15 |
| Cues | | | | | | 155 |
| Cue Groups | | | | | | 60 |
| Data Sets | 4 | | | | 4 | 85 |
| SSRS Reports | 30 | | 27 | | 3 | 51 |
| Queries | 12 | 3 | 2 | | 7 | 696 |
| Menus | 13 | 2 | 2 | 1 | 8 | 12 |
| Menu Items Display | 3 | | 3 | | | 991 |
| Menu Items Output | | | | | | 81 |
| Menu Items Action | 1 | | 1 | | | 546 |
| Services | 2 | | | | 2 | 63 |
| Service Groups | | | | | | 9 |
| Code Permissions | 1 | | | | 1 | 1 |
| Privileges | 21 | 12 | 7 | | 2 | 1263 |
| Duties | 11 | 10 | | | 1 | 349 |
| Roles | 6 | 6 | | | | 140 |
| Process Cycles | 1 | | | | 1 | 6 |
| Policies | 2 | | 2 | | | 4 |
| Resources | | | | | | 58 |
| Label Files | | | | | | 10 |
| References | | | | | | 4 |
| Total | 1,100 | 213 | 292 | 53 | | 16,178 |

*Table 1 Customer's Solution Modification Assessment*




*Figure 1 shows the percentage of objects by complexity level; hard, medium, easy and skipped objects.*

After analyzing customer's model store using LCS code upgrade service, below is the breakdown of number of objects:




2. Migration assessments

Following section describes high level assessment as compared to Finance and Operations

2.1Solution overview

Customer XYZ produces animal feeds for all different type of animal and all different type of feeds. Feed is low margin business . Pricing is key. Lots of commodity goes in the feed. Pricing is calculated weekly. Commodity pricing > bestmix > formula > production line. Lots of business to distributer and farmers. Feeder finance, feed on credit from distributor.

Process manufacturing - used formulas to create feeds - feeds made of 5 to 25 items. Commodities , vitamins etc. Bestmix as formulation software . Create formula > pass it ax > pass to mill , P&L for individual plan to major plans . Critical to control cost and pricing. Freight charges passed to plants.
Food quality safety . Detailed quality assurance. Most of the outside. Lab testing is external. Lab is custom module.

One instance of AX 2012 R3 – used by 30 production facility in north America. Following modules/business processes used.

1. Production
2. MRP
3. AR
4. AP
5. GL
6. Rebate
7. Pricing
8. Agreement is updated from pricing

They have 30 legal entities, with 10 operational entities and 20 financial legal entities.

2.2ISV Solution Overview

Customer is currently using following ISV solutions.

| ISV Name | Purpose | F&O need/availability assessment |
|---|---|---|
| | | |
| | | |

2.3Localizations Solution Overview

Customer is currently using following partner localization solutions.

| Localization Name | Purpose | F&O need/availability assessment |
|---|---|---|
| | | |

2.4Customization assessments

| Category | Assessments | Comments/Risk |
|---|---|---|
| General | Heavy customization in Sales and Marketing, Inventory management and Production module. | Plan for detailed test plan and test cases. Automated testing using RSAT |
| General | Heavy intrusive customization in Production module | Potential of high number of extension request or redesign |
| Replace with OOB feature | Customization related to custom mobile device can be replaced with Advance warehouse management capability in F&O. | Evaluate OOB feature in detail and plan for user training |
| Replace with OOB feature | Customization done in to handle credit management can be replaced with OOB credit management module features | Evaluate OOB feature in detail and plan for user training |
| Re-Implementation | Custom feature developed for sales order processing needs to be re-designed to consider new Advance warehouse flow. | |
| Re-Implementation | IntrastatItemCode, SalesOrigin, smmBusRelSegmentGroup, smmBusRelSubSegmentGroup tables were converted not to share per-company. This is has to be re-designed. | |
| Deprecated features | Enterprise portal is used for purchase requisition entry and approval - All customization can be safely removed. | Evaluate OOB functionality |

2.5Forms Refactoring

There are 176 newly created forms in custom model which are migrated from AX2012 to D365 Finance and Operation and the pattern is missing. Form pattern must be applied to each form to remove the conflict.

2.6Integration assessments

There are major differences in integration technologies between AX2012 R3 and MS Dynamics 365 F&O systems. For this reason, existing integrations must be analyzed and possible solutions for existing integrations must be discussed.

Customer has provided a list of existing AX2012 integrations that are used in current system. Possible solutions for existing integration migrations to the new system have been discussed:

| Query |
|---|
| **General** |
| Will Enterprise Asset Management be used? If so - how many top-level assets will be managed by the system? |
| Will Advanced Credit Management be used? |
| |
| Will you require customers or vendors to login to a portal to view orders? |
| **Planning** |
| Will MRP be used? What orders will be planned? |
| |
| How will the firming process execute after MRP? |
| Will the Projects module be in use? |
| |
| Will MRP be planning Project-based orders? |
| **Warehousing** |
| Will you require complex warehousing logic - including picking rules and directed worker guidance via a mobile device? |
| Will you be integrating with a 3PL or other external logistics partner? |

# Benefits of Advanced Migration Assessment

Helps to identify best action plan to migrate to cloud & saves time

Diagnoses functional and technical gaps & provides recommendations for the future

Ensures migration readiness & determines how to best handle customizations and data

Eliminates risks at the early stages

Free from upfront financial commitment or obligations

# Customers who successfully did AMA with us

Columbus® Once you know how...