Successfully Migrate Your Nintex Workflows

WHITEPAPER
## CONTENTS

CONSIDERING A NINTEX MIGRATION OR HYBRID SCENARIO? ............................................. 3
  Who should read this whitepaper? ................................................................. 4
  Understanding the need to move .................................................................... 5
  Why should you migrate your Nintex Workflow? ............................................. 5

WHAT DOES MIGRATION MEAN TO NINTEX? ......................................................... 6
  Know before you go ......................................................................................... 7
  Migrations and Nintex ....................................................................................... 7

PATHS OF MIGRATIONS ......................................................................................... 8
  On-premises to on-premises ............................................................................ 9
  Office 365 to Office 365 .................................................................................. 9
  On-premises to Office 365 .............................................................................. 10
  Relevant Nintex migration scenarios ............................................................... 11

MIGRATION METHODS ......................................................................................... 12
  Export and import method .............................................................................. 14
  Database detach/attach method ..................................................................... 15
  Third-party products ....................................................................................... 16

MIGRATION TYPES ............................................................................................. 17
  Nintex design migration .................................................................................. 19
    Typical use case and applicable scenarios .................................................... 19
  Nintex context migration ............................................................................... 20
    Typical use case and applicable scenarios .................................................. 20
  Nintex Workflow product upgrade .................................................................. 21
    Typical use case and applicable scenarios .................................................. 21
  Nintex Workflow conversion ......................................................................... 23
    Typical use case and applicable scenarios .................................................. 24

SCOPES OF MIGRATION ..................................................................................... 25
  Single workflow scope, multi-workflow scope, farm scope .......................... 26

COMMON ISSUES AND ANSWERS AROUND NINTEX MIGRATIONS .............. 27-31

SUMMARY - WHAT IT MEANS TO MIGRATE NINTEX ........................................ 32-33
CONSIDERING A NINTEX MIGRATION OR HYBRID SCENARIO?
By now, you’ve felt the fever pitch to jump to the cloud. If you’re like most executives, you don’t want a half-baked effort. Your business, your processes and your people rely on operational momentum with all systems running as promised: Not a moment too soon and not a moment too late.

Whether you choose a complete cloud scenario or take a hybrid cloud approach, your applications, solutions and content require preparation to ensure that everything that should be migrated is ready to be migrated.

WHO SHOULD READ THIS WHITEPAPER?

Our objective is to educate executives and others directing, performing, or affected by SharePoint migrations that involve Nintex workflows. This whitepaper’s focus is specifically what migration means for the Nintex Workflow platform and how to approach, manage and complete a migration involving Nintex workflows.

Additional information about SharePoint and a perspective on migrating overall content and Nintex workflows is available on Nintex Connect in the SharePoint 2010 end-of-life post.

The below is a list of terms and definitions used throughout the whitepaper:

- **On-prem** – also referred to as on-premises; a physical server stored somewhere not in the cloud
- **Office 365** – also referred to as O365 or SharePoint Online within the context of this whitepaper
- **.NWF** – this represents workflow files for Nintex on the various SharePoint Server platforms
- **.NWP** – this represents workflow files for Nintex on the Office 365 platform
UNDERSTANDING THE NEED TO MOVE

Microsoft Office SharePoint Server 2007 will reach End of Life. If you haven’t begun your migration from SharePoint Server 2007 to Office 365 or a newer version of SharePoint Server on-premises, now’s the time to start planning. As a result, if you’ve invested in content management, document management, business process management (BPM), enterprise content management (ECM), or similar processes and have any automation intertwined, you’ll want to retain key components when you migrate.

Whether you’re considering upgrading your SharePoint Server version or moving your content and Nintex workflows to Office 365, orchestrating the details can be challenging. This whitepaper will guide you through the appropriate steps to consider as you evaluate how to move Nintex workflows.

UNDERSTAND THE RELATIONSHIP BETWEEN THE WORKFLOW AND THE CONTENT BEFORE YOU MIGRATE

It is important to assess how you use Nintex workflows as you plan the migration process:

- How is the content structured around the workflow?
- Where does the workflow and content live?
- Should the workflow and content be migrated?

During the assessment, it is critical to identify all processes you have automated or that would benefit from a workflow process in addition to assessing the associated content.

This is the “contextual” aspect of the Nintex migration story. Migration, as a whole, signifies a shift in how people think about content and any automation associated with that content, which presents major challenges for IT administrators planning and performing the migration. Imagine not knowing the exact location of each workflow or whether the workflow is connected to a specific set of content that is business critical.

Understanding this relationship between the workflow and the content can help retain these connections during migration. This understanding helps organizations decide which processes to migrate as well.

One universal truth about migration: Regardless of the platform, moving content requires planning, analysis, scoping, testing, and then additional planning to ensure you use the appropriate tools, understand the process, and do it correctly the first time.
WHAT DOES MIGRATION MEAN TO NINTEX?

We use the term “migration” to define transitioning one or many workflows from one platform to another. This whitepaper provides the migration requirements for Nintex workflows, as well as best practices and tips for success.
**MIGRATION AND NINTEX**

While the term “migration” is not limited to Nintex, the focus in this whitepaper is how migrations apply to Nintex, to reduce confusion when implementing a Nintex migration alongside a SharePoint migration.

Master these four key areas:

- Migration paths – define the path of the workflow migration (e.g., SPS 2013 to O365)
- Migration methods – define the method to perform a workflow migration (e.g., export)
- Migration types – define the type of workflow migration (e.g., workflow design)
- Migration scopes – define the scope of the workflow migration (e.g., single workflow)

The following table shows how these key areas relate to each other when it comes to Nintex Workflow and can help you decide which approach to take to achieve your intended results.

<table>
<thead>
<tr>
<th>Migration Path</th>
<th>Migration Method</th>
<th>Migration Type</th>
<th>Migration Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-prem to on-prem</td>
<td>Export/Import DB detach/attach*</td>
<td>Workflow Design</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td>Third-party Product</td>
<td>Workflow Context</td>
<td>Multi-workflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workflow Upgrade</td>
<td>Farm*</td>
</tr>
<tr>
<td>Office 365 to Office 365</td>
<td>Export/Import DB detach/attach*</td>
<td>Workflow Design</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td>Third-party Product</td>
<td>Workflow Context</td>
<td>Multi-workflow</td>
</tr>
<tr>
<td>On-prem to Office 365</td>
<td>Third-party Product</td>
<td>Workflow Conversion</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Multi-workflow</td>
</tr>
</tbody>
</table>

*Database detach/attach is only applicable for farm level migrations and is relevant when you must retain workflow history. You don’t have access to the database for Office 365 tenants.

**KNOW BEFORE YOU GO**

Know Your Workflow, a Nintex-designed workflow auditing script can help you better understand your workflow usage within a given SharePoint environment. Built to provide workflow intelligence, Know Your Workflow offers reports that show workflow inventory and the number of actions used. Contact Nintex to get the Know Your Workflow script.

Key metrics available via the Know Your Workflow program include:

- Number of Nintex workflows published
- Number of actions per Nintex workflow published
- Peak number of Nintex workflows/forms published over a three-month period
- Total number of Nintex design actions used
PATHS OF MIGRATION

We recommend the following migration paths for Nintex workflows and have documentation to support how best to operate with each path.
ON-PREMISES TO ON-PREMISES

<table>
<thead>
<tr>
<th>Migration Path</th>
<th>Migration Method</th>
<th>Migration Type</th>
<th>Migration Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-prem to on-prem</td>
<td>Export/Import</td>
<td>Workflow Design Workflow Context</td>
<td>Single workflow Multi-workflow</td>
</tr>
</tbody>
</table>

The on-premises to on-premises migration involves moving a Nintex workflow between two similar frameworks, and can be done a few different ways depending on the objectives and level of technical understanding.

This path involves moving from one SharePoint version to another, such as moving from SharePoint Server 2013 to SharePoint Server 2016. Nintex follows the recommended Microsoft migration paths. For details, reference updated documentation available on Nintex Connect > Installations.

When migrating content or processes that involve workflows, the following scenarios apply:
- List/Library to List/Library
- Site/site collection to site/site collection
- Development Farm to Production Farm

Based on those paths, you can perform the following types of migrations:
- Workflow design
- Workflow context
- Workflow upgrade

OFFICE 365 TO OFFICE 365

<table>
<thead>
<tr>
<th>Migration Path</th>
<th>Migration Method</th>
<th>Migration Type</th>
<th>Migration Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office 365 to Office 365</td>
<td>Export/Import Third-party Product</td>
<td>Workflow Design Workflow Context</td>
<td>Single workflow Multi-workflow</td>
</tr>
</tbody>
</table>

This path is very similar to the on-premises to on-premises migration path in that the workflow remains within the same platform framework.

When you migrate Nintex within the context of Office 365, the following scenarios apply:
- List/Library to List/Library
- Site/site collection to site/site collection

Based on those paths, you can perform the following types of migrations:
- Workflow design
- Workflow context

One major benefit of using Nintex Workflow for Office 365 is that you gain access to the latest interactive versions of Nintex Workflow without manual updates. Because the auto updates, the upgrade option is not mentioned here.
**ON-PREMISES TO OFFICE 365**

<table>
<thead>
<tr>
<th>Migration Path</th>
<th>Migration Method</th>
<th>Migration Type</th>
<th>Migration Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-prem to Office 365</td>
<td>Third-party Product</td>
<td>Workflow Conversion</td>
<td>Single workflow, Multi-workflow</td>
</tr>
</tbody>
</table>

Migrating from SharePoint Server to Office 365 can be complex because the underlying SharePoint platforms behave differently, though our migration tech partners provide tools that make this easy to achieve.

When converting your Nintex workflows from one platform to another, the best approach is to evaluate the current workflow design. You can achieve 80 percent success for most workflows with the support of a Nintex tech partner product to convert the design for you.

When attempting to convert the workflow the following scenarios apply:
- List/Library to List/Library
- Site/site collection to site/site collection

Based on those scenarios, you can perform the following types of migrations:
- Workflow design
- Workflow context

If not planned appropriately, on-premises to Office 365 migrations can be surprising, costly, and resource-draining to complete.

Not every process – including those requiring high security – should be migrated. The more security required for a process, the less Office 365 should be considered – at least the public cloud version.

Microsoft offers a private or dedicated cloud option that may be the right choice for your organization. We suggest you do your research before deciding - due diligence is better than hindsight.

Before a migration, perform an inventory of what processes you have that should be migrated. Run the Know Your Workflow script to gather as much information as possible to help make smart transition decisions.

Once you’ve decided which workflows to move, prepare them by either replacing actions that are more compatible for Office 365 or assessing the benefits of rebuilding the process from scratch in order to take maximum advantage of Office 365’s platform functions. Remember, there’s no wrong way to build a workflow, but there are more efficient ways for that workflow to run depending on the platform and functionality available.
RELEVANT NINTEX MIGRATION SCENARIOS

To help drive the relationship between the scenarios, consider this list of what’s applicable to Nintex:

ITEM (CONTENT TYPE) BASED
• List/Library to List/Library with a similar content structure
• Site/site collection to site/site collection with a similar content structure

VERSION BASED
• SharePoint Server 2007 to 2010
• SharePoint Server 2010 to 2013
• SharePoint Server 2013 to 2013 (Development Farm to Production Farm)
• SharePoint Server 2013 to 2016

PLATFORM BASED
• Any version of SharePoint Server to Office 365 (SharePoint Online)
MIGRATION METHODS

Migrating Nintex involves more than just moving a workflow. This section will outline the distinct methods you can use to perform the appropriate types of migrations for different situations.
3 METHODS OF MIGRATION

EXPORT AND IMPORT
Move the workflow design around your environments.

DATABASE DETACH/ATTACH
Move the workflow history along with the workflow design.

THIRD-PARTY PRODUCTS
Enable overall management of migrations and help with converting an on-premise Nintex workflow to an Office 365 Nintex workflow.
EXPORT AND IMPORT METHOD

Nintex provides a powerful export and import capability for workflows directly within the designer. This export and import functionality allows you to take a workflow from one SharePoint environment and place it inside another SharePoint environment without additional coding or development efforts. If you’re moving a single workflow from site to site, this is simple, quick, and efficient.

This method is preferred for migrations of five or fewer workflows and doesn’t require the workflow history or additional workflow data. For large or bulk workflow migrations, see database attach or use a third-party product. If you require the workflow design, workflow history, and workflow tasks associated with the workflow, that information does not move with a workflow exported using the export/import method.

The export/import method is sufficient if you’re doing development work and want to ensure that your workflow design and configuration processes work correctly before connecting the workflow to production data.
DATABASE DETACH/ATTACH METHOD

Nintex stores data about the workflows within databases that you can back up and manage as needed. Exporting and importing workflows is awesome, but unfortunately inefficient if you have hundreds, or even thousands, of active workflows in your organization that need to be moved quickly and you need to retain the workflow history.

Choose this method when your migration path is on-premises to on-premises and you want to move content and workflows around while maintaining the mapping between workflows and workflow history.

With Nintex, you can copy databases using the NWAdmin.exe commands, which will allow you to move and restore your Nintex databases as needed. It should be noted that you must also move the mapped SharePoint databases to retain the workflow design along with workflow history. This method helps you move large amount of workflows at one time, including useful information including workflow configuration settings, associated tasks completed, and any workflow history.

This method is a best practice if you’re attempting to upgrade your Nintex version because you will want to retain a copy for backup and restoration purposes should the upgrade not go as planned.
THIRD-PARTY PRODUCTS

Nintex works with technology partners that build tools to enable people to do more with the Nintex platform. This partnership allows Nintex to focus on the workflow platform and the tech partner to focus on offering premier services that target specific business needs. One of those business needs is migration, and Nintex has three technology partners that offer products to help you migrate.

The list below provides a basic description along with each company’s website address. You can visit each one to learn what’s available for your migration.

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Partner’s Description</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>AvePoint®</td>
<td>AvePoint provides the most secure and robust solutions for all your migration needs.</td>
<td><a href="http://www.avepoint.com/office-365-and-sharepoint-migration/">www.avepoint.com/office-365-and-sharepoint-migration/</a></td>
</tr>
<tr>
<td>Metalogix</td>
<td>The most powerful tool for SharePoint and Office 365 migration and management</td>
<td><a href="http://www.metalogix.com/Products/Content-Matrix.aspx">www.metalogix.com/Products/Content-Matrix.aspx</a></td>
</tr>
<tr>
<td>ShareGate</td>
<td>Migrate at insane speeds, manage permissions on the spot and save loads of time.</td>
<td><a href="http://en.share-gate.com/">en.share-gate.com/</a></td>
</tr>
</tbody>
</table>

Each migration partner has a unique product and handles complex Nintex workflow conversions differently. We encourage you to research which one best suits your needs. If you’ve any questions, you can always reach out to your customer care representative or ask a question on Nintex Connect.
Four migration types exist for Nintex workflows, and each has a specific approach. You may be aware of these and have a good grasp on their boundaries; however, the goal is to outline them and help you better identify which approach you should consider for your specific use case.
4 TYPES OF MIGRATION

WORKFLOW DESIGN
Workflow architecture and settings only.

WORKFLOW CONTEXT
Workflow design and settings, related farm configuration details, and workflow history.

WORKFLOW UPGRADE
Update workflow design and settings, related farm configuration details, and workflow history to the next version.

WORKFLOW CONVERSION
Convert the workflow design and settings from one platform to another.
NINTEX DESIGN MIGRATION

Nintex provides a quick and easy workflow design option for users who do not know how to use a text-based coding programs such as SharePoint Designer, Visual Studio or custom code such as .NET and C#.

Once you’ve designed and configured the workflow, you can leverage the design migration method to export the workflow design and logic into an .nwf or .nwp file. Nintex Workflow can read that file, enabling you to import a copy of that workflow design with basic workflow configuration settings into a new workflow.

The intent for a design migration is to allow a user to rapidly design and configure a workflow, then move the workflow and its configurations from one list, library, or site to another by exporting and importing a single file.

TYPICAL USE CASE AND APPLICABLE SCENARIOS

Design migrations are best used to move a single workflow from one SharePoint list, library, or site to another (e.g., test list to production list). This move can occur within the same site, between two different sites, and between the same SharePoint platforms (e.g., SP2013 to SP2013 or Office 365 to Office 365).

The workflow file formats for Nintex workflows are different for SharePoint Server and Office 365 to help users distinguish the difference and retain the necessary components to help the workflow run in the right platform.

If you’re designing and configuring a single or one-off workflow and need to move it from one list to another, you’re performing a design migration. This is a good and efficient practice for getting a workflow design applied to a new list quickly.

Do note that this type of migration does not copy and carry over any associated tasks or workflow history for the migrating workflow.
NINTEX CONTEXT MIGRATION

Context refers to perspective, background, or framework. As you build workflows and use them within SharePoint, the workflow starts building workflow history, associated tasks and constants, if configured appropriately. A workflow alone doesn’t do much, but when connected to content, the workflow then has context in which to operate.

A workflow design, by itself, is a group of logic. Migrating the design of the workflow can be achieved by performing a design migration. However, if you want more content that the workflow touches, you’re performing a Nintex context migration. A context migration contains the workflow design, the configurations, any associated tasks, any workflow history, and the items created, modified, or updated by the workflow. Essentially, all the associated assets that are linked to a workflow are captured and moved from one location to another.

The context migration is the most popular among users because migrating Nintex workflows within context allows for the entire processes managed by the workflow to stay intact. This type of migration requires the SharePoint list/library and associated items to be migrated – along with the workflow design and configuration – to retain that relationship appropriately between the content and the workflow.

You should be aware of these two things when performing a context migration with Nintex:

1. Any workflow tasks generated by the workflow (e.g., Assign a task, Flexi-task) cannot be in running or paused status at the time of the migration.

2. When setting up the migration using a third-party product, select the appropriate SharePoint list and workflow task list along with the workflow. If using SQL Management Studio, ensure you have all the correct SharePoint content databases selected along with the correct Nintex databases to retain the association between list items, the workflow design, and the workflow history.

See the following for additional documentation available on Nintex Connect:

a. Nintex Database mapping

b. Nintex Database Design Guide

c. Nintex Workflow Backup and Restore Options
TYPICAL USE CASE AND APPLICABLE SCENARIOS

As an IT admin or SharePoint admin responsible for SharePoint environments, you will most commonly deal with context migrations where a business process requires that the SharePoint data and the workflow history remain intact. For example, your organization has a case study review and approval process.

If you’re migrating that process, select the relevant SharePoint libraries and workflows to retain the correct associations upon republishing to the new location.

If you want to move the SharePoint list and libraries along with the Nintex workflow, then you’re more often attempting a context migration. Identifying this scope helps you prepare appropriately and arrange the correct steps to set yourself up for success.

For these types of migrations, while you could export the SharePoint list and then perform a design migration, we encourage you to use a third-party migration product to achieve this as it’s more efficient, easy to manage, and manages the permissions for the SharePoint content you’re migrating.
NINTEX WORKFLOW PRODUCT UPGRADE

As with most products, always stay in sync with Nintex’s incremental product versions to obtain the latest capabilities, bug fixes, enhancements, and performance releases. Organizations licensed to upgrade should install these new versions to take advantage of the latest and greatest Nintex has to offer.

Since the first release and the following Nintex workflow versions – 2007, 2010, 2013, and 2016, upgrading can be a good thing. Of course, within each version, you also have incremental versions – 2.3.4.0 to 2.4.0.0 that add to the stability of the product as the SharePoint platform changes and gets updated by Microsoft.

For a workflow product upgrade migration, we assume your environment is compliant with the correct SharePoint Server and Microsoft SQL Server versions that correlate to the Nintex version (e.g., SharePoint Server 2013, SQL Server 2012 R2, Nintex for SharePoint 2013).

With the product update migration, the associated tasks and workflow history for the workflow remains the same. The migration only affects Nintex databases, and we highly recommend performing database backups and testing in a development environment before applying any update to Nintex in a production environment.

For more information, view the following documentation available on Nintex Connect:

- Product Update – What you need to know
- Upgrading Nintex Workflow 2007 to 2010
- Upgrading Nintex Workflow 2010 to 2013

There’s a difference between updating the platform version and performing incremental product upgrades. When performing a migration of this type, backup the databases first to ensure you can recover should the unexpected happen.

TYPICAL USE CASE AND APPLICABLE SCENARIOS

Any platform version upgrade or incremental product upgrade migration works best when you want to take advantage of the latest platform features and ensure compliance with support and Software Assurance requirements.

For more information about the latest release notes for Nintex, visit the products release area in Nintex Connect.

We recommend regularly upgrading Nintex Workflow. We understand there are times when organizations retain their current version; however, we discourage you from falling too far behind with updates. Similar to updating a computer’s operating system, updating your Nintex version enhances functionality and provides additional features to the product.
NINTEX WORKFLOW CONVERSION

The workflow conversion migration type is probably the most talked about and most debated migration type in to the Nintex community.

Nintex offers two distinct workflow platform versions to accommodate underlying platform differences in SharePoint Server and Office 365. Two major differences exist between the two:

- SharePoint Server 2010 Classic Workflow Engine
- SharePoint Server 2013 Workflow Manager

These differences within the SharePoint platform affect how Nintex workflows function as well. Nintex must be compatible with the correct workflow engine/manager based on the SharePoint platform.

A workflow built on SharePoint Server 2010 must be converted so that it can run correctly in Office 365, which runs the workflow manager. There are inherent differences between the SharePoint Server 2010 classic workflow engine and SharePoint Server 2013 workflow manager which was engineered to be cloud optimized.

One of the benefits of the cloud is that you don’t have to worry about managing resources so your workflows run as they should; in fact, Microsoft designed Workflow Manager with that in mind. In Office 365, there is a potential downside to such freedom: If you had full control to the servers and were allowed to perform certain functions or commands, that could bring down the instance of the Workflow Manager your particular workflows are executing for Office 365. This ripple effect would, in turn, affect other customers unrelated to you or vice versa.

This isn’t a cloud-only issue. Any large SharePoint farm has similar security models in place to prevent the entire farm from being crippled. For Workflow Manager and Office 365, Microsoft restricts things such as farm-level access and custom code uploads to the Workflow Manager to assist in keeping the scalability, flexibility, and security as benefits of the cloud approach.

When converting the workflow from the classic workflow engine to the Workflow Manager, basic functionality is present in both, so not all is lost. At Nintex, we’ve mapped those out and kept them consistent between products so that when converted, there’s a one-to-one ratio for your Nintex action. A small percentage of actions have this one-to-one ratio and the remainder vary based on the Workflow Manager design.

Either the functionality on the classic workflow engine was injected and enhanced with code as part of the Nintex product, or the functionality simply does not have an equivalent option within the Workflow Manager. Also, functionality that requires specific farm-level permissions is not available in a multi-tenant environment due to modifications in the security models for the Workflow Manager.

Converting a workflow becomes key for handling actions across both the workflow engine and Workflow Manager. The process of conversion is equally logical and functional, which is why we recommend assessing your process before attempting a migration.
**TYPICAL USE CASE AND APPLICABLE SCENARIOS**

You must convert the Nintex workflow using a third-party tool. That's because the Nintex file types and XML structure are different and written to work against the classic workflow engine and Workflow Manager, respectively.

With SharePoint Server 2016, Microsoft encourages a hybrid environment. Nintex works well within the scope of a hybrid environment, where you may need workflows automating processes in SharePoint Server as well as workflows automating processes inside Office 365. This could keep you from spending a lot of time and resources converting workflows because you essentially would build the necessary workflows on their respective platforms.

Another aspect when considering a conversion is to identify the functionality needed for that workflow and checking to ensure it’s available in Office 365. Best practice for the preparation phase is reviewing the requirements you originally worked against and seeing if the requirements are the same and the functionality will need to be the same in Office 365.

One caveat: a conversion migration does not bring over any associated tasks or workflow history from the Nintex workflow.

---

Hint: Not all processes are built for the cloud.
SCOPES OF MIGRATION

Three scopes of migration are available when it comes to migrations and Nintex workflows. These scopes can help you select the appropriate paths and methods and speak knowledgably when discussing a Nintex migration. Typically, you’ll be moving a group of workflows from one list/site to another, or moving a group of workflows from one farm/tenant to another.
3 MIGRATION SCOPES

SINGLE SCOPE
Used when moving a single workflow from one list to another list.

The single workflow scope is applicable when you have a workflow design that you want to move around within a site or environment of the same platform type. The type of migration you may see within this scope is a design migration.

MULTI-WORKFLOW SCOPE
Used when moving a group of workflows from one list to another list.

The multi-workflow scope is applicable when you’re attempting to move a segment of content from one place to another in SharePoint and want to move select workflows with that content. This scope is most often seen with a context migration, upgrade migration, and conversion migration types.

FARM SCOPE
Used when moving workflows from one farm to another farm.

The farm scope applies to a migration focused on an entire SharePoint farm instead of just on a group of workflows pertaining to a particular application or business solution. We recommend that you approach a migration from this perspective when you want to ensure that the entire aspect of the Nintex workflow is migrated, including constants, configurations, variables, tasks, and workflow history items for the group of workflows.

Note that the Nintex databases enable you to capture the associated workflow history, but that history will be useless if you don’t have it matched appropriately to the SharePoint content databases for the correlating SharePoint content and Nintex workflow designs.
COMMON ISSUES AND ANSWERS AROUND NINTEX MIGRATIONS

Nintex Connect is home to over 10,000 community members that ask, discuss and answer questions regarding various aspects of the Nintex platform. Migrations are just one part of that and we wanted to share some common issues and the resolutions to help you migrate Nintex easily.
DATA TYPE MISMATCH ON WORKFLOW CONFIGURATIONS

When converting a workflow you may often run into issues with some configurations settings not working well or causing errors. If you see this error, check your data types (e.g., double vs. integer vs. number). This could be the source of the issue and changing that over can help resolve that problem.

FLEXI-TASK ACTION NON-COMPATIBLE WITH O365

Nintex for SharePoint Server has the Flexi-task action enabling you to add serious complexity to a task. This functionality does not exist in the same manner within Office 365, and as result you will want to look at using the “Assign a task” or the “Start a task process” action.

CUSTOM WORKFLOW ACTIONS

Custom actions are actions that did not come out of the box with a Nintex install. Currently Nintex for Office 365 does not support custom actions within a workflow design. If you’ve custom actions within your on-premises workflow, please reach out to the developer or partner on the best way to replicate that functionality in Office 365. If the custom action connects to a cloud server, look at using “Call HTTP Web Service” or “Web Request” action to replicate some of that functionality. This is on the current roadmap and will be released providing a similar functionality in Nintex for Office 365.

CONSTANTS AND GLOBAL VARIABLES

As of the 2016.07.20 release, Nintex for Office 365 does not yet support constants and global variables. You’re able to build up SharePoint list to host data and reference those as variables within your workflow, currently there is not contextual setting to handle global constants as in on-premises. This is on the current roadmap and will be released providing a similar functionality in Nintex for Office 365.

ACTION STEPS

Action Steps are great for customizing the look of the workflow design within the screen, however does not provide any additional workflow functionality. As of the 2016.07.20 release, Nintex for Office 365 does not yet support actions steps and the recommendation is to remove them from your workflow when preparing for a migration. This will prevent a migration product from accidentally ignoring all the underlying actions. This is on the current roadmap and will be released providing a similar functionality in Nintex for Office 365.
REFRESH A DEVELOPMENT FARM WITH PRODUCTION DATA

When managing Nintex workflows, there comes a time when you will need to refresh Test/Dev Environments with Production data for testing purposes. We’ve guidelines to perform this migration correctly; however, because all SharePoint farms are different, you may need to adjust these accordingly to meet your specific business needs. For a deep dive into how to perform this, visit https://community.nintex.com/community/build-your-own/blog/2016/09/12/how-to-refresh-a-development-farm-with-production-data

- Backup your databases in production if you wish to preserve the current workflow history and state, it is recommended that you stop the target Web Application Pools in IIS along with the SharePoint Timer Service in Services.MSC prior to performing backup operations
The databases you should backup are:
  › SharePoint Content Databases
  › Nintex Forms Databases
  › Nintex Workflow Content Databases
  › Nintex Workflow Configuration Database
- Ensure the same or new build of Nintex Workflow and Forms are installed on all environments
- Disable the Nintex Workflow Scheduler Timer Job
- Disable the SharePoint Timer Service on all servers in the Farm
- Disable Web Application Pools in IIS on all servers in the farm (leave SharePoint Central Administration in a ‘Started State’)
- Restore SharePoint and Nintex Databases in SQL Server Management Studio
- Launch SSMS and expand the config database

Additional configuration steps when refreshing data:
- Ensure all workflow actions have been enabled
- Temporarily disable outgoing email in the farm - This is 100% optional, but the workflows will be live when all of the services are brought back online, and the majority of customers you’ve worked with want to avoid confusion with emails coming from workflows in dev. This is recommended until you can confirm that all workflows have been stopped, or are not sending any further emails
- Bring the sites and forms back online
- Common Issues / Tips and Tricks
  - Explicit References - If you’re using explicit links rather than the (Common:URL) token in your actions, these will need to be cleaned up prior to running your workflows. The explicit links will still point at the production environment and could potentially alter production data if in use in a ‘Call Web Service’ or ‘Web Request’ action. This could also extend to Workflow Constants if a URL is defined within a constant that is used across actions. If you’re using the ‘Execute SQL’ command to query or alter data within your production farm, you will need to update the connection string to reflect the proper location after moving your data.
ERROR WHEN MOUNTING CONFIGURATION DATABASES PERFORMING A NINTEX FOR SHAREPOINT SERVER 2010 TO NINTEX FOR SHAREPOINT SERVER 2013

This issue will occur when the version for the 2010 Farm is newer than the version for the 2013 farm. In this case, migrating from version 2.4.4.11 (June 2015 Build) to version 3.1.2.0 (January 2015 Build) would cause this behavior. The reason why this will cause issues is that the database schema on the 2010 version will not match with the 2013 build and cannot be updated to do so. The standard scripts that attach the database to the farm, will typically run through the database schema updates for each new version of the product, but when the 2013 version is older, the database will not be able to build the schema to the correct version.

As a best practice, we always recommend migrating only to the same release (2010 / 2013 released on same day) or newer of the product.

HANDLING NINTEX LICENSES WHEN PERFORMING A MIGRATION

If you’re attempting a migration, please reach out to a customer server representative or your Nintex partner to find out how licenses are handled and what you may be entitled to with your Nintex subscription.

MIGRATING WORKFLOW HISTORY DATA FROM ON-PREMISES TO OFFICE 365

As of the 2016.07.20 release, Nintex for Office 365 does not yet support migrated Nintex Content DB data to the cloud. The way to capture this data is to create a SharePoint List(s) that captures this information. You can also use a Nintex workflow to provision this list also. Having the data in an archiving list will insure it is still accessible in Office 365 when the content gets migrated. This will also make the archive data safe from maintenance tasks such as Clean up jobs and Purging with SharePoint.

MIGRATING FROM SHAREPOINT 2010 TO SHAREPOINT 2016

Because Nintex is integrated tightly with SharePoint we always recommend following Microsofts recommended migration path for SharePoint. Therefore you would need to migrate from SharePoint Server 2010 to SharePoint Server 2013 and then upgrade to SharePoint Server 2016. Nintex Workflow and Forms would follow the same path, which will ensure the database schemas are correctly built and structured appropriately.
MIGRATING NINTEX FOR OFFICE 365 WORKFLOWS TO A LOCAL DATACENTER

Nintex now has a number of regional data centers available for Nintex for Office 365. Migrating your Nintex tenant to be closer to your local region is likely to reduce latency and improve performance. For the latest availability of data centers, contact your Nintex sales representative.

Things to check for:

Where is your SharePoint tenant located? The benefits of migrating your Nintex for Office 365 tenant will accrue only if your SharePoint tenancy is also located in your local region.

What Nintex app versions do you have installed?

For migration, ensure you update the apps to the following versions:

- Nintex Workflow for Office 365: version 1.0.4.0 or higher
- Nintex Forms for Office 365: version 1.2.3.0 or higher
- Nintex Mobile: version 3.9 or higher

If you have earlier versions, please upgrade to the latest version across all of your sites. Should you wish to migrate to your local data center, please contact your Nintex sales representative to schedule a migration date.
SUMMARY:
WHAT IT MEANS TO MIGRATE NINTEX
Now that you’ve read all the information relating to Nintex migrations, the previous table should be easy to read and understand.

<table>
<thead>
<tr>
<th>Migration Path</th>
<th>Migration Method</th>
<th>Migration Type</th>
<th>Migration Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-prem to on-prem</td>
<td>Export/Import</td>
<td>Workflow Design</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td>DB detach/attach*</td>
<td>Workflow Context</td>
<td>Multi-workflow</td>
</tr>
<tr>
<td></td>
<td>Third-party Product</td>
<td>Workflow Upgrade</td>
<td>Farm*</td>
</tr>
<tr>
<td>Office 365 to Office 365</td>
<td>Export/Import</td>
<td>Workflow Design</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td>DB detach/attach*</td>
<td>Workflow Context</td>
<td>Multi-workflow</td>
</tr>
<tr>
<td></td>
<td>Third-party Product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-prem to Office 365</td>
<td>Third-party Product</td>
<td>Workflow Conversion</td>
<td>Single workflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Multi-workflow</td>
</tr>
</tbody>
</table>

*Database detach/attach is only applicable for farm-level migrations and is a good choice when you want to retain workflow history. You don’t have access to the database for Office 365 tenants due to the multi-tenant setup.

When ready to migrate Nintex workflows, this information will help set you up for success. We want you to make well-informed decisions about migrating Nintex, whether it be from SharePoint Server to SharePoint Server or from SharePoint Server to Office 365.

If you decide to migrate to Office 365 from SharePoint Server, we strongly recommend evaluating it thoroughly and performing the migration in phases. Improper adoption to something new can be an enemy to productivity and Nintex is there to help you migrate your processes and users over to the cloud at a pace that makes sense for your organization. Feel free to reach out to a Nintex Customer care representative, or your Nintex Partner for more information about migrating Nintex workflows in your organization.