1. **Introduction**

This pipeline will be a solution that will automatically migrate data between environments. The main purpose of this pipeline is to migrate data between the DTAP environments. This solution will be of great convenience to improve and scale up the particular process.

1. **Process**
   1. **Visual**

Activate IAR

Import Package

Call the Repository

Push into Repository

Export Components

Test IAR

Export IAR

* 1. **Process explanation**
     1. **Export IAR**

During this part of the process an IAR (Illinois Assessment of Readiness) package file is been exported.

* + 1. **Export Components**

Related components of the IAR are being exported and these are for example lookups etc.

* + 1. **Push into Repository**

Once the IAR package and components have been exported they will be pushed into the Repository.

* + 1. **Call the Repository**

The IAR package and components are situated in the Repository. Prior to importing the IAR package and components, the repository first need to be called.

* + 1. **Import Package**

Currently the Repository has been called and provides access to importing the IAR package and components.

* + 1. **Activate IAR**

The IAR package and components have been imported now and need to be activated in the new environment.

* + 1. **Test IAR**

Now the IAR package and components have been activated in the new environment. This implies that the quality of the actual elements need to be tested.

1. **Technical solution**

A possible solution for automated migration of OIC integrations is to create a Migration Script that can be run by a user from his or her terminal. After the user has provided the necessary information specific to his or her need, the script will automatically perform all the steps of the migration. Below, we will explain broadly how this works.

* 1. **Programmatic access through REST APIs**

Most of the management functionality that is available through the OIC Console can also be accessed programmatically through OIC and ICS Rest APIs. This enables a user to perform tasks they would normally perform inside the OIC console, except this time from a Command Line Interface using cURL commands. Possible tasks that can be performed programmatically, include the ones necessary for migration across environments, such as exporting the integration.

* 1. **Script**

A script bundles all these commands, so a user only has to activate the script itself. The script can be reused every time any OIC integration has to be migrated from any environment to any other. Since migrating integrations is a task often performed by Accenture’s OIC developers, automating this task in a reusable way will save many people time, justifying the initial time investment of making the script itself.

* 1. **Variables**

The script can only be reused, however, when it can be altered to fit the specific situation of the user. It should account for differences in source location, Git Repositories, target location, usernames and passwords. This can be done by prompting the user to provide this data at the beginning of the script, saving the given information in variables and using these variables throughout the rest of the script. It is best to ask for all information up front, rather than throughout the script when it is needed, so the user will not have to wait by the computer while the script runs.

* 1. **Requirements for script development and testing**

For writing the script, the developer will need a Command Line Interface and Editor that supports scripting cURL commands. Git can be used for this purpose. Git is already available on Linux and Mac machines and can be easily downloaded for free for Windows users (in the form of Git Bash). This CLI includes the Nano editor for the actual writing of the script. For testing, the developer/tester will need access to Git (Bash) to run the script, as well as an OIC Integration, a Git Repository and two OIC environments, and all the necessary information (like username, password, and URLs) from each of these.

* 1. **Requirements for script user**

To be able to run the script, the user will need a cURL-supporting terminal like Git (Bash) as well. He or she will also need to be able to provide all the necessary information, as explained above.

* 1. **Draft version**

A draft version of a Migration Script will be provided with this document.