Data Stream & Process Deployment Policy

XMPRO

DOCUMENT INFORMATION

Title of Policy	Data Stream & Process Deployment Policy #0213
Compiled By	Ryan Shackleton, Vimal Parimi
Review By	Gavin Green, Chris van Schalkwyk
Effective Date	July 2017
Approved Date	September 06, 2018
Approved By	Steve Howcroft
Review Cycle	Annual
Acknowledgement Cycle	Annual
Audience	EXTERNAL; Company Wide

Rationale/Purpose of Document

The purpose of this policy is to describe the process to deploy XMPro BPM and IoT processes to a new or existing customer environment being either UAT or production. By following the policy guidelines stipulated, process deployments will be completed in a systemic, auditable and repeatable way with the required contingency plans needed for roll backs and other issues that might arise during a typical deployment. This will also ensure that deployments will cause minimal downtime and interruptions.

An example of nonconformance is; development on a UAT environment vs on the correct development environment; or skipping UAT and deploying directly to Production absent of approval and testing. By not conforming to the specified process there is risk that there could be a loss of work that has been completed. If a refresh or update of the UAT environment is required and the relevant people have not been advised work completed or developed in UAT might be overwritten or lost.

Note: If a client has specific policies, procedures and documents for deployment process, this document DOES NOT replace any of them but should serve as an aid to support them. The client deployment process must be followed strictly in addition to the process mentioned below.

1. Who does this apply to?

1.1. Where an exception does not override, the general rule is that the developing team (Client or XMPro) will be responsible for deployment packages and deploying to an environment. In the case where the client is responsible for deployments XMPro consultants may provide guidance and mentoring during the initial deployments. In some cases, the client may request XMPro to perform the deployment by

providing necessary approvals and access. But irrespective of who is performing the deployment, the process described in this document applies to and hence must be followed by both client and XMPro resources.

2. Exceptions:

2.1. XMPro **Cloud environments** are managed by XMPro Hosting Services. Access to XMPro Cloud configuration, testing and production environments are strictly controlled, No server or admin access will be provided to XMPro consultants or the Client for the purpose of deployments to the Production environment. The development team (Client or XMPro) will be required to hand over a deployment package to XMPro Hosting services team for sign-off.

2.2. Generally, it will be the development team's responsibility to perform the **on-site deployments**. However, in some environments the XMPro Consultants will not have access to production environments, in this case the Client will be responsible for deploying deployment packages. In the case where the Client is responsible, XMPro may provide guidance and mentoring during initial deployments. In some cases, client may request XMPro to perform the deployment by providing necessary approvals and access. But irrespective of who is performing the deployment, this process applies to and hence must be followed by both client and XMPro resources.

3. Deployment Process

3.1. Deployment of XMPro Processes must follow the following order of deployment; Development Environment, then UAT Environment, then the Production Environment. Under no circumstance may deployment of processes skip any of the environments, i.e. Processes may not be developed in UAT or Production. Processes developed in the Development environment may not skip UAT and proceed directly to Production.

3.2. To ensure a deployment is run and completed successfully correct planning and communication is important. To assist with the deployment, the documents, as per paragraphs 5 & 6, need to be completed and the below steps followed to minimize any complications that might arise during deployments.

4. Documents for BPM Deployment

4.1. These documents need to be completed and signed off by the relevant stakeholders of XMPro and the Client prior to any deployment taking place, the three documents are:

4.2. Deployment Release Details (Document can be found in SharePoint here)

    4.2.1. The deployment release details document is used to capture information around the release, such as Release Information, Version Information, Infrastructure details, Deployment Team (resources required to complete the deployment), Deployment documentation and package information and a Pre-deployment checklist.

4.3. Deployment Plan (Document can be found in SharePoint here)

    4.3.1. The deployment plan is used to capture details around the deployment, information around the deployment steps required to complete the deployment successfully as well as a roll back plan should be documented.

4.4. Deployment Database Changes (Document can be found in SharePoint here)

    4.4.1. This contains any database changes to views, stored procedures, tables and master data made during the development phase. All changes to all databases effected with the deployment need to be documented here.

5. Documents for IoT Deployment

5.1. Two documents need to be filled out and signed off by the relevant stakeholders of XMPro and the Client prior to any deployment taking place, these documents are:

5.2. Deployment Release Details (Document can be found in SharePoint here)

    5.2.1. The deployment release details document is used to capture information around the release, such as Release Information, Version Information, Infrastructure details, Deployment Team (resources required to complete the deployment), Deployment documentation and package information and a Pre-deployment checklist.

5.3. Deployment Plan (Document can be found in SharePoint here)

5.4. The deployment plan is used to capture details around the deployment, information around the deployment steps required to complete the deployment successfully as well as a roll back plan should be documented.

6. Deployment Instruction

Once the development process or data stream has been completed and it is ready to be deployed, the following actions need to be completed:

6.1. Create Deployment Package

    6.1.1. To prevent loss of development work completed it is recommended to create a package that is ready for deployment.

    6.1.2. The deployment package can be started as soon as the first work package is complete. The sooner the package is started the less chance there is of losing development work.

    6.1.3. A typical deployment package for BPM will contain but is not limited to the following:

        6.1.3.1. Any XMPro site file changes, for example ConnectorCollateral, .js script files, Connector dlls, excel documents as master templates, etc.

        6.1.3.2. Any SQL scripts, new or amended, for example, Stored Procedures, Views, Tables and master data required.

        6.1.3.3. XMPro Process Exports of the processes that will be exported and imported to the relevant UAT or Production environment.

        6.1.3.4. Any integration Connectors, dll or other files outside of the typical XMPro site files, for example a customized web solution etc.

    6.1.4. A typical deployment package for IoT will contain:

        6.1.4.1. Use case export files

        6.1.4.2. Agent package files

6.2. It is also advised to understand the full impact of the changes being made so that reference to other system changes made by the client or other which is outside of XMPro's responsibility can be made.

6.3. Complete the Documentation

    6.3.1. All the documents listed above need to be filled in and completed.

6.4. The Client for onsite deployment and XMPro Hosting Services for XMPro Cloud deployments will be required to capture or supply part of the information required in the documents, such as:

    6.4.1. UAT and Production server environment details,

    6.4.2. Confirmation of the various access rights required,

    6.4.3. Confirmation of the resources required to complete the deployment,

    6.4.4. Confirmation of the deployment window, i.e. the date and time the deployment will take place.

    6.4.5. Identify and arrange a deployment window

6.5. Signoff Prior to Deployment

    6.5.1. The completed documents will need to be signed off prior to deployment by the authorized person as identified in the Deployment Release Details document.

6.6. Deployment team deploys to the required environment using the Deployment Package and the Deployment Documentation in the published deployment window.

6.7. Smoke test the deployment using the details provided within the Deployment Plan document.

6.8. Ensure the results meet the pass criteria and get signoff as to the deployment success.

XMPRO

6.8.1. If the results are not a pass, identify if there is a resolution option within the deployment plan document. If the issues cannot be resolved, execute the rollback plan and perform smoke test again to confirm that the application is back to pre-deployment state.

6.9. In the cases where XMPro people are performing the deployment, On Site or XMPro Hosting Services, the person performing the deployment will always mark the steps in the deployment pack as completed and attach the document to the deployment request.

7. Risk Assessment

7.1. Always assess the risks associated with deployments prior to the deployment. Some of them are mentioned below:

7.1.1. Consider the impact of application downtime during the deployment window and take necessary precautions prior to deployment.

7.1.2. Consider any impact on third-party systems (that depend on XMPro application) that could be affected due to the deployment outage or changes in the deployment package.

7.1.3. In case of IoT Use Case deployments, consider the loss of real-time data during the deployment.

7.1.4. In addition to the above, if the client is responsible for the deployment and/or changes included in the deployment package, please consider the following:

7.1.4.1. Client will be responsible for any subsequent issues caused due to the deployment. This could be due to but not limited to issues in the code or deployment instruction errors.

7.1.4.2. Any outages resulting from the deployment will not be considered as "Downtime" as per application "Availability" contract, if one exists for the client.

7.1.4.3. XMPro may assist in resolving the issues at additional cost but without any liability.

Data Stream & Process Deployment Policy

XMPRO

REVISION HISTORY

Revision	Description	Date completed
0	Draft ready for review	June 09, 2017
1.0	Released	July 11, 2017
1.1	Minor changes in links to deployment documentation	July 20, 2018
2.0	Included Deployment Process for IoT and added Risk assessment section	Aug 29, 2018
2.1	Included cloud vs on site deployment actions and responsibilities.	September 06, 2018
2.2	Review and Approve	

DEFINITIONS

File name	Description
Deployment Team	The deployment team consists of the deployment engineers responsible for deploying the deployment package created by the development team. The deployment team can consist of XMPro Consultants, XMPro Hosting Services deployment engineers and Client developers. The team configuration is determined prior to deployment of a package.
Development Team	The development team may comprise of XMPro consultants the client developers or a combination of both.