Initial Setup and continuous delivery

Integration Team

Document History

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Table of Contents

[1 Initial Server Setup and First Delivery 1](#_Toc211951396)

[1.1 Initial server setup 1](#_Toc211951397)

[1.2 SQL Server Installation 1](#_Toc211951398)

[1.3 IIS Installation 1](#_Toc211951399)

[1.4 Determining DNS and Application Names 1](#_Toc211951400)

[1.5 Certificate 1](#_Toc211951401)

[1.6 Prerequisites 1](#_Toc211951402)

[1.7 Database Collection 1](#_Toc211951403)

[1.8 Collecting Applications, APIs, IIS Applications 2](#_Toc211951404)

[1.9 Transferring Databases and Applications 2](#_Toc211951405)

[1.10 Databases Restore 2](#_Toc211951406)

[1.11 Database Configuration 2](#_Toc211951407)

[1.12 Database Users Check 2](#_Toc211951408)

[1.13 Installation and Setup of Windows Applications 2](#_Toc211951409)

[1.14 Adding and Setup of IAM Packet (IdentityProvider, SecurityAdmin, AuthorizationServer) 2](#_Toc211951410)

[1.15 Installing and Configuring Services (EAM, MRI, LAM, NIOM, NMM, OMS, DAS, etc.) 3](#_Toc211951411)

[1.16 Adding and Configuring Applications and APIs on IIS 3](#_Toc211951412)

[1.17 Finishing Touches 3](#_Toc211951413)

[2 Second and next deliveries 4](#_Toc211951414)

[2.1 Determination of Delivery Date 4](#_Toc211951415)

[2.2 Informing DEV Teams and Project Managers Involved in Project 4](#_Toc211951416)

[2.3 Delivery Routine 4](#_Toc211951417)

[2.4 Azure Storage Delivery Folder 4](#_Toc211951418)

[2.5 Collecting Applications Provided by DEV Teams 4](#_Toc211951419)

[2.6 Collecting Database Changes and Requirements 4](#_Toc211951420)

[2.7 IPS DEV Servers Upgrade 4](#_Toc211951421)

[2.8 Database Compare and Scripts 4](#_Toc211951422)

[2.9 Transferring Delivery to Client Side 5](#_Toc211951423)

[2.10 Deployment of Databases to Client Database Server 5](#_Toc211951424)

[2.11 Deployment of Scripts to the Client Database Server 5](#_Toc211951425)

[2.12 Deployment of Services 5](#_Toc211951426)

[2.13 Deployment of Applications 5](#_Toc211951427)

[2.14 Informing Everyone by Mail that Delivery is Finished 5](#_Toc211951428)

[List of Figures i](#_Toc211951429)

[List of Tables i](#_Toc211951430)

[Listings i](#_Toc211951431)

[Appendix A](#_Toc211951432)

[Appendix A) Tbd A](#_Toc211951433)

[Appendix B) Tbd A](#_Toc211951434)

# Initial Server Setup and First Delivery

1.1 Initial server setup  
Mostly done by the client IT department when server requirements are met. This includes installing prerequisites, opening ports, and preparing the server for deployment.

1.2 SQL Server Installation  
Installation is done according to the IPS SQL Server installation guide. The time required can vary based on server configuration. If SQL Server is already installed by the client, we verify that it meets our requirements and ensure the application server can communicate with the database server.

1.3 IIS Installation  
IIS can be installed either via a script provided by IT or by following the installation guide. If IIS is already installed by the client, we check that the setup meets our requirements.

1.4 Determining DNS and Application Names  
DNS names are provided by the client based on our recommendations.

1.5 Certificate  
Certificates are created by the client. They can be wildcard or self-signed. In some projects, we generate CSRs for the client to sign.

1.6 Prerequisites  
Based on the project scope, required application prerequisites (such as .NET, URL Rewrite, etc.) are installed. If installed by the client, we verify that everything is properly set up.

1.7 Database Collection  
Databases are collected from the provider server depending on project scope. Once ready, databases are transferred to an Azure Storage folder prepared for the project. Typical databases include: IpsEnergy, IpsSmartGridConfiguration, IpsSmartGridIDL, IpsIdentityProvider, IpsEnergyServices\_Rest, IpsEnergy\_Cache, IpsCort.

1.8 Collecting Applications, APIs, IIS Applications  
Application versions are provided by DEV teams. Usually, this process takes 1–5 days depending on necessary fixes. Once versions are ready, they are transferred to the Azure Storage folder for the project.

1.9 Transferring Databases and Applications  
Databases and applications are transferred via SFTP, OneDrive, or another pre-determined method. Time can vary up to one day depending on transfer speed and project scope.

1.10 Databases Restore  
Databases are restored or attached depending on the file type. Time varies based on database size and server configuration. This can also be done by the client IT/DB department.

1.11 Database Configuration  
After restoration, some databases require additional configuration to function correctly. For example, the IDP database requires scripts to be executed, and IpsEnergy and IpsSmartGridIDL databases require synonym adjustments.

1.12 Database Users Check  
We verify that users and user groups are created with appropriate database access. Application servers are often added as users to allow seamless application connectivity.

1.13 Installation and Setup of Windows Applications  
IpsEnergy and IpsSmartGridIDL applications are installed and configured to target the corresponding database server and databases. Connectivity and functionality are verified. Troubleshooting may require assistance from the client’s IT department.

1.14 Adding and Setup of IAM Packet (IdentityProvider, SecurityAdmin, AuthorizationServer)

Prerequisites are checked, files are transferred to the wwwroot folder, and services are configured to target the correct database. Functionality is verified. Troubleshooting may require client IT assistance.

1.15 Installing and Configuring Services (EAM, MRI, LAM, NIOM, NMM, OMS, DAS, etc.)  
Services are installed and configured according to the project scope, targeting the correct databases and IDP setup. They are bound to certificates and assigned to their DNS/ports. Functionality is verified. Troubleshooting may involve client IT.

1.16 Adding and Configuring Applications and APIs on IIS  
Applications and APIs are transferred to wwwroot, configured to target the correct databases and IdentityProvider, bound to certificates, and configured in the IIS application pool. Functionality is verified. Troubleshooting may involve client IT.

1.17 Finishing Touches  
Final verification is performed to ensure all components are functioning correctly, and all relevant parties are informed that the first delivery has been deployed on the client side.

# Second and next deliveries

2.1 Determination of Delivery Date  
Integration teams are informed of the delivery date by Project Managers.

2.2 Informing DEV Teams and Project Managers Involved in Project  
An e-mail is sent to DEV teams to provide details about changes made regarding databases, services, applications, and what should be included in the delivery.

2.3 Delivery Routine  
Through e-mail, it is discussed what should be included in the delivery and how future deliveries will be handled—specifically whether we are sending whole databases or performing comparisons.

2.4 Azure Storage Delivery Folder  
Folder structure is created based on the contents that will be sent to the client.

2.5 Collecting Applications Provided by DEV Teams  
Based on the provided versions, applications are transferred from the publish folder to the client’s Azure Storage folder. Applications are collected when provided, often during the delivery day or even while deploying on the client side, which can cause delays.

2.6 Collecting Database Changes and Requirements  
Databases are transferred on the day of deployment according to previously determined deployment methods. Sometimes databases are transferred during application deployment due to sudden changes.

2.7 IPS DEV Servers Upgrade  
After all resources are provided, the IPS DEV server for that client should be updated by DEV teams and tested to ensure applications are working correctly. Often this is not done, so the delivery may proceed without testing on our side.

2.8 Database Compare and Scripts  
The integration team performs database comparison after changes are provided by Project Managers and DEV teams. Certain tables are included by default and transferred via scripts if the whole database is not sent. Structural differences (UserLevel scripts) and custom scripts from DEV teams are included as needed. If sending scripts instead of full databases, STAGE databases are created on the IPS database server for testing before execution on the client side.

2.9 Transferring Delivery to Client Side  
Delivery is transferred via SFTP, OneDrive, or other file transfer service. Estimated time depends on connection speed and the size of the delivery. In some client environments, transfers are restricted, so requests are sent to client IT to perform the transfer.

2.10 Deployment of Databases to Client Database Server  
For some clients, we are not allowed to restore databases directly. Requests are sent to the client DB admin. After restoration, we verify user rights, run scripts to update users, configuration tables, and rewrite synonyms as needed.

2.11 Deployment of Scripts to the Client Database Server  
Before executing scripts, a backup of the databases is performed. After the backup, scripts are executed on their corresponding databases. In most cases, we execute scripts ourselves; if not, a joint session with the client is scheduled.

2.12 Deployment of Services  
Existing services are stopped and uninstalled. New services are installed and configured to start automatically (Delayed Start). Configuration files usually remain unchanged unless there are breaking changes that require adjustments.

2.13 Deployment of Applications  
Applications are first backed up into the \_bck folder. After backup, new files are copied to the application location. Configuration files are updated only if needed. For some APIs and applications, the application pool must be stopped before the update. Applications are tested after deployment to ensure they start without errors.

2.14 Informing Everyone by Mail that Delivery is Finished  
At the end of deployment, DEV teams and Project Managers are informed that the delivery has been successfully deployed on the client side.

List of Figures

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List of Tables

Listings

Appendix

1. Tbd
2. Tbd

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