



# Alfabet Expand Web-Specific Administration Tasks

Alfabet Reference Manual

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Documentation Version Alfabet 10.13.0

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## Conventions used in the documentation

Convention	Meaning
<b>Bold</b>	Used for all elements displayed in the Alfabet interface including, for example, menu items, tabs, buttons, dialog boxes, page view names, and commands.  Example: Click <b>Finish</b> when setup is completed.
<i>Italics</i>	Used for emphasis, titles of chapters and manuals.  this  Example: see the <i>Administration</i> reference manual.
Initial Capitals	Used for attribute or property values.  Example: The object state <code>Active</code> describes...
All Capitals	Keyboard keys  Example: CTRL+SHIFT
File > Open	Used for menu actions that are to be performed by the user.  Example: To exit an application, select File > Exit
< >	Variable user input  Example: Create a new user and enter <User Name>. (Replace < > with variable data.)
	This is a note providing additional information.
	This is a note providing procedural information.
	This is a note providing an example.
	This is a note providing warning information.

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## Chapter 1: Introduction

Alfabet Expand Web is designed for Cloud services and installed exclusively by Software AG. Therefore, information required to implement features and perform administrative tasks is not included in the reference manual *System Administration* that is written for customers with on-premise installations.

You can access the following functionalities by clicking a tile in the start page or selecting the relevant functionality in the **Expand Designers** menu:

- 1) **ADIF Designer:** Configure ADIF schemes for the batch import, export, and manipulation of large amounts of data in the Alfabet database using the Alfabet Data Integration Framework (ADIF).
- 2) **Administrator:** Configure user profiles, mandates, business functions, and custom explorers for the user community.
- 3) **Class Designer:** Configure object class properties, object classes, enumerations, cultures, API cultures, and database views.
- 4) **Diagram Model Designer:** Configure custom diagram definitions and custom diagram item templates to use when designing diagrams in the Alfabet Diagram Designer
- 5) **Diagram Shape Designer:** Design the visualization of the custom diagram item template that is currently selected in the **Diagram Model Designer**.
- 6) **Events:** Configure event templates in order to specify events that trigger ADIF import/export schemes, workflows, REST API calls, and other relevant Alfabet functionalities.
- 7) **Guide Page Designer:** Configure navigation pages as start pages for your user community.
- 8) **Icon Gallery:** Upload custom icons to Alfabet and create icon groups bundling icons to use in various Alfabet functionalities.
- 9) **Presentation Model Designer:** Configure editors, wizards, selectors, object views, workflows, class settings, GUI schemes, text templates, monitor templates, conditions, and various XML objects providing functionalities in Alfabet.
- 10) **Publication Manager:** Configure the export of data to Microsoft® Word-based publications.
- 11) **Report Designer:** Configure reports relevant for your user community as well as various Alfabet functionalities.
- 12) **System Administrator:** Specify the identity provider certificate file for federated single sign-on configuration.
- 13) **Utilities:** Save the configuration of the Alfabet solution to an AMM file. Manage automated assistants and vocabularies.
- 14) **View Designer:** Design the visualization of the editor, object cockpit, or graphic view that is currently selected in the **Presentation Model Designer**.
- 15) **Workflow Designer:** Configure workflow templates in order to make Alfabet's workflow functionality available to your user community
- 16) **Workflow Diagram Designer:** Design the visualization of the workflow diagram that is currently selected in the **Workflow Designer**.

For more information about access permissions to the various functionalities available in Alfabet Expand Web, see the section [Accessing Alfabet Expand Web](#).

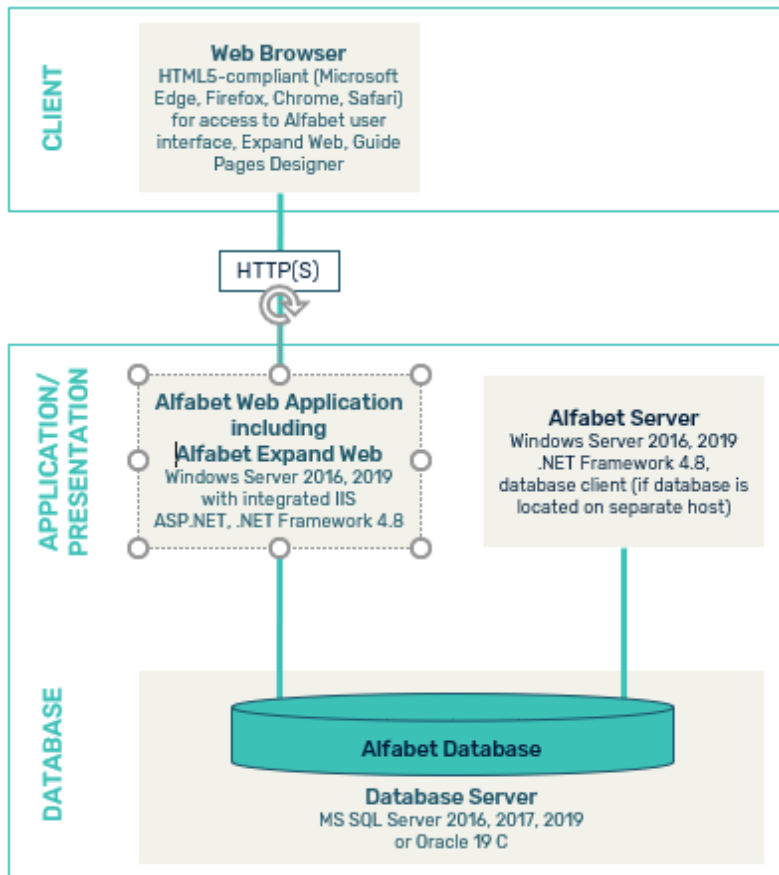
This short guide should provides an overview of the additional configuration and installation requirements for Alfabet Expand Web for internal use.

The following information is available:

- [Configuring Access to the Web version of Alfabet Expand and the Guide Pages Designer](#)
- [Configuring the Alfabet Web Application to Take Over Configuration Data From A Master Database](#)
- [Configuring the Alfabet Web Application to Act as a SAML Service Provider](#)

## Chapter 2: Installation

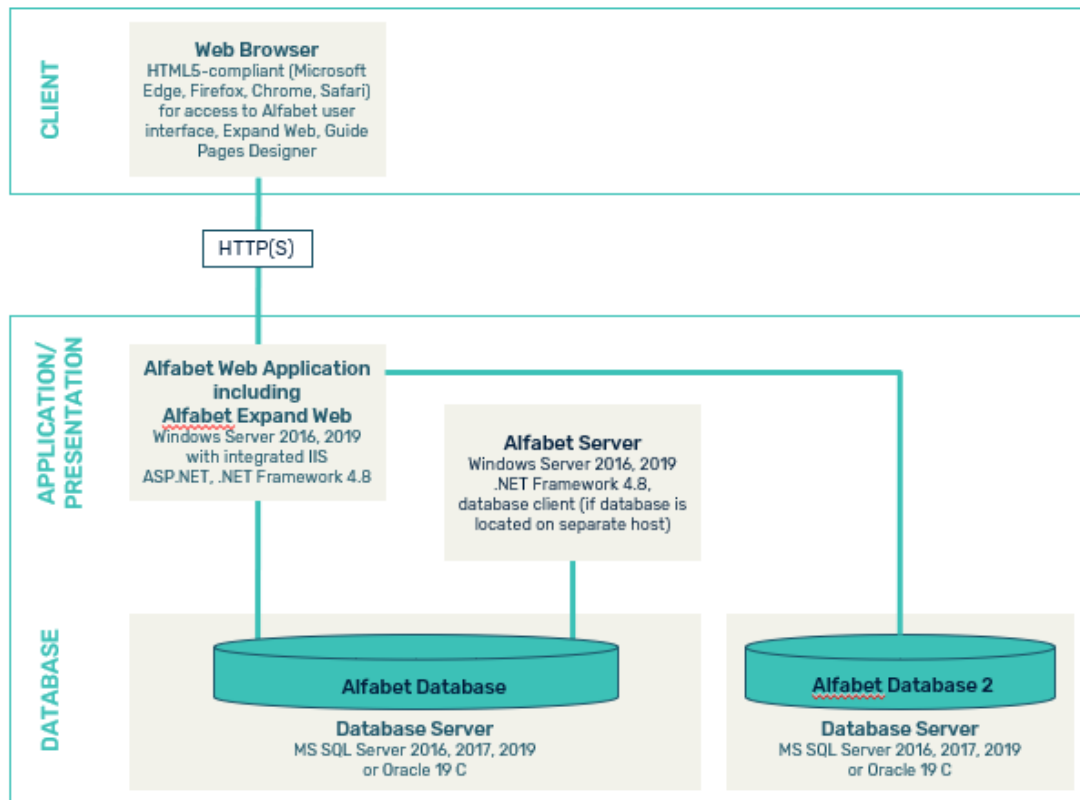
Alfabet Expand Web is an integrated functionality of the Alfabet Web Application and can be accessed via opening a URL in a web browser. The technical requirements are identical to the technical requirements for the Alfabet Web Application.



This section provides the information to implement a working version of Alfabet Expand Web on an already installed Alfabet Web Application. The basic installation of the Alfabet Web Application is described in the reference manual *System Administration* in the chapter *Installation* and not repeated here.

Depending on the functionalities that you would like to use, you must follow different installation steps in addition to the basic installation of the Alfabet components required for working with the Alfabet Web Application:

- In any case, you must follow the instruction [Configuring Access to the Web version of Alfabet Expand and the Guide Pages Designer](#). This will activate most of the functionalities except data anonymization and update of the meta-model configuration from a master database.
- You must additionally configure the Alfabet Web Application to connect to a master Alfabet database with a separate server alias if you would like to take over all or part of the meta-model configuration from a master database.




## Configuring Access to the Web version of Alfabet Expand and the Guide Pages Designer

The Web version of Alfabet Expand and the Guide Pages Designer are part of the Alfabet Web Application and use the same `web.config` files and server alias configuration.

A special license must be added to the server alias of the Alfabet Web Application to access the Web version of Alfabet Expand and the Guide Pages Designer. If your company has licensed these components, the license key will be provided by Software AG.

If you have only licensed the Guide Pages Designer, the license key will be automatically added to the server alias configuration the first time you open the server alias editor in the Alfabet Administrator.

If your license also contains access to Alfabet Expand Web, the license must be included in the server alias using the Alfabet Administrator:

- 1) In the explorer, click the **Alfabet Aliases** node.
- 2) In the table on the right, select the server alias of the Alfabet Web Application and click the **Edit**  button in the toolbar. An editor opens.
- 3) In the editor, go to the **License** tab.
- 4) Enter the license key in the field in the **Key** sub-tab.
- 5) Go to the **Summary** sub-tab. In the field, a description about the scope of the license shall be displayed. If an error message is displayed, the license key is invalid or a typo has been added to the key while entering it into the **Key** sub-tab.



- 6) Click **OK** to save your changes.

## Configuring the Alfabet Web Application to Take Over Configuration Data From A Master Database

To configure and apply new meta-model configurations to the Alfabet application, configuration should typically not be carried out in the production environment but rather in a copy of the production database in a configuration environment. Another copy of the production environment is then used to test the configuration prior to applying it to the production environment. To take over the configuration from the configuration to the test environment, for example, Alfabet Expand offers a mechanism that reads data directly from the configuration database (which shall be referred to as the "master database") to the current database of the test environment in the following called target database (which shall be referred to as the "target database").


This mechanism requires that the following components are running:

- The Alfabet Web Application including a running Alfabet Expand Web connecting to the target database.
- An Alfabet Server connecting to the target database.

If the two environments are located on different hosts, the alias configurations centrally defined in the `AlfabetMS.xml` accessed via the Alfabet Administrator can then be written to individual `AlfabetMS.xml` files for each application. Please note that in this context the following alias configuration must be available in the `AlfabetMS.xml` used by the Alfabet Web Application of the target database:

- The server alias of the Alfabet Web Application including an Alfabet Expand Web license for connection to the target database.
- A remote alias for connection to the Alfabet Server.
- A server alias for connection to the master database. This server alias does not require an Alfabet Expand Web license.

The connection to the master database must be defined in the server alias of the Alfabet Web Application. Configuration is done in the Alfabet Administrator:

- 1) In the explorer, click the node **Alfabet Aliases**.
- 2) In the table, select the server alias of the Alfabet Web Application and click the **Edit**  button in the toolbar. An editor opens.
- 3) Go to the **Expand** tab.
- 4) Select the server alias for connection to the master database in the **Alias for Meta-Model Design Master Database** field.
- 5) Select one of the following in the **Update from Master Database Mode** field:
  - **Complete Updates:** Select this option to take over the complete configuration of the master database. The user that imports the configuration from the master database via Alfabet Expand Web cannot deselect parts of the configuration performed with Alfabet Expand Web. Only selected reference data that has been configured in the **Configuration** functionalities in the Alfabet user interface and that are relevant for the configuration can be selected manually

to be included in the configuration update. The configuration of the target database is completely overwritten by the configuration of the master database. The option to merge the configuration is not available. This option should be selected if, for example, a tester shall perform regular updates from the development environment without any knowledge about the changes that have been performed.

- **Selective Updates:** Select this option if you would like to take over a single or a subset of the configurations performed on the master database. With this mechanism, the configuration of the master database can either be merged to the target configuration or overwrite the target configuration. This option should be selected if, for example, a solution designer shall update the configuration of the test environment with selected configuration changes performed for a single feature.
- 6) Select the **Enable Master Database Configuration** checkbox.
  - 7) Click **OK** to save your changes and close the Alfabet Administrator.
  - 8) Access Alfabet Expand Web and select **META-MODEL > Restart Web Application**. The changes in the server alias configuration are only applied after restart of the Alfabet Web Application.

## Configuring the Alfabet Web Application to Act as a SAML Service Provider

Alfabet supports SAML to implement federated authentication. The Alfabet Web Application can act as a SAML service provider.

The following parts of SAML2 are supported:

- Supported bindings:
  - HTTP Redirect
  - HTTP Post
  - SOAP - as back channel for notifications about logout.
- Supported profiles:
  - Web Browser SSO
  - Single Logout
- Supported name identifier formats:
  - Transient identifier
  - Persistent identifier

To ease the implementation of authentication via a SAML system for a Cloud solution, a web interface has been implemented in Alfabet Expand web. The functionality is only available if the license for Alfabet Expand Web includes the **System Administrator** designer.

The web interface only manages the part of the required configuration concerning the identify provider data. Additional configuration is required that cannot be performed by Cloud customers and must be carried out by Software AG Support prior to and after the configuration done by the customer in Alfabet Expand Web.

The following configuration steps have to be performed by Software AG Support prior to the SAML configuration via Alfabet Expand Web:

- 1) Copy the file `web.sso.saml2.config` from the subdirectory **Example** of the Alfabet Web Application directly into the physical directory of the Alfabet Web Application and change the name of the file to `web.config`.



If you already configured the `web.config` file of the Alfabet Web Application, you can first change the name of the old `web.config` file to avoid overwriting it and then take over all required settings for other features from the old into the new `web.config` file via a text editor.

The `alfabet.config` and `AppSettings.config` files must already be available in the subdirectory **config** of the physical directory of the Alfabet Web Application.

- 2) Open the Alfabet Administrator.
- 3) Click the **Alfabet Aliases** node in the explorer. A workspace with a toolbar opens.
- 4) In the table, click the server alias of the Alfabet Web Application. An editor opens.
- 5) Go to the **Client Settings > Authentication** tab.
- 6) Set the attribute **Mode** to `SSO_FederatedAuthentication`.
- 7) Click **OK**. The change is saved and the editor is closed.

The following configuration can then be done by the customer. Please note however that it is recommended to send the identity provider certificate file and password to Software AG Support to do the complete configuration on server side.

Make sure that the identity provider certificate file is located on the local file system in a folder accessible via Alfabet Expand Web. The identity provider meta-data can either be provided via an URL, that must be accessible via Alfabet Expand, or via a file located on the local file system in a folder accessible via Alfabet Expand Web.



Note the following:

- The service provider certificate and certificate password must be XML-conform and must not include any XML reserved characters like `<` or `>`.
  - Certificate signature must be based on SHA-1, SHA-256, SHA-384 and SHA-512.
- 1) In Alfabet Expand Web, open the **System Administrator** designer.
  - 2) Click on **Federated SSO Configuration** in the explorer. The attribute window for **Federated SSO Configuration** opens.
  - 3) Do either one of the following:
    - In the **Identity Provider Metadata URL** attribute, enter the URL of the IDP Entity Provider Metadata Export.
    - Click in the empty field of the **Identity Provider Metadata File** attribute. In the window that opens, click **Select File**, select the service provider metadata file, and click **Upload** to import the file.
  - 4) Click in the empty field of the attribute **Service Provider Certificate File**.

- 5) In the window that opens, click **Select File**, select the service provider certificate file and click **Upload** to import the certificate.
- 6) In the **Service Provider Certificate Password** attribute, enter the password for the certificate.
- 7) In the explorer, click on the arrow on the right of **Federated SSO Configuration** node and select **Generate Configuration** from the context menu. The required files for SAML are created in a subfolder of the working directory of the Alfabet Web Application.
- 8) Part of the configuration cannot be changed via the web interface. After having used the **Generate Configuration** option, a message will be displayed with information about the required additional configuration steps. Send the message to Software AG Support.

The final configuration has to be done by a person with access to the physical directory of the installation, following the instructions provided via the interface.



Please note that the generation of the SAML configuration via the user interface including the following manual end configuration should be repeated if the following applies:


- Certificates or metadata information have changed on the identity provider side.
- Problems with SAML configuration occur after migration to a new Alfabet release.

It is not possible to re-generate the configuration with a configuration file accessed via URL and having the same name and URL as used for the previous configuration.

## Chapter 3: Accessing Alfabet Expand Web

After having configured the server alias to allow access to Alfabet Expand Web as described in the section [Installation](#), named Alfabet users with the required access permissions can access Alfabet Expand Web and the Web version of the Guide Pages Designer.

To grant a user access permission for Alfabet Expand: activate the check box **Has Access to Alfabet Expand** in the **User** editor for the user in the Alfabet database. For more information about user configuration, see *Defining and Managing Users* in the reference manual *User and Solution Administration*.

- 1) In the Alfabet user interface, go to the **Users Administration** functionality.
- 2) Select the user in the table and click **Edit**  in the toolbar.
- 3) In the **User** editor, go to the **Alfabet Expand Permissions** tab.
- 4) Select the **Has Access to Alfabet Expand** checkbox.
- 5) In the **Alfabet Expand Access Options** field, select all Alfabet Expand designers that the user shall be able to access.
- 6) Click **OK** to save your changes

Users can access Alfabet Expand Web and the Guide Pages Designer via the following URL:

```
http://<URL of the Alfabet Web Application>/Expand.aspx
```

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