

# Installation Manual



**evention**

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# 1 Changes

date	Author	alterations
20.08.18	D. Paul	Explanation of Update Script
13.02.19	D. Paul	HTTPS handling
25.02.19	D. Paul	design update
23.05.19	C. Finsel	Update Database Cleanup/Deletion of Entries
12.06.19	C. Finsel	Update SQL Request

## 2 Introduction

This document was provided by NEXCOM IT-Services GmbH to simplify the installation and configuration of the Evention® web application (version 5+).

In this installation manual you will find the procedure of a "fresh" setup of the system. Separate documents exist for upgrades or staging between different servers.

Last update: 04.09.2019

## 3 Architecture

### 3.1 Required licenses

The following licenses are mandatory for setting up and using the Evention software. These must, depending upon arrangement, partly be acquired and furnished.

- Microsoft Windows Server 2012 Standard or later license
- Microsoft SQL Server 2016 or later license

### 3.2 Superstructure

Evention is a web application based on current web technologies.

- .net framework
- Microsoft Web API
- entity framework
- OWIN authentication layer
- Angular 5 Frontend Applications
- Optional Android and iOS apps for online or offline on-site check-in
- Optional local Windows client for offline on-site check-in

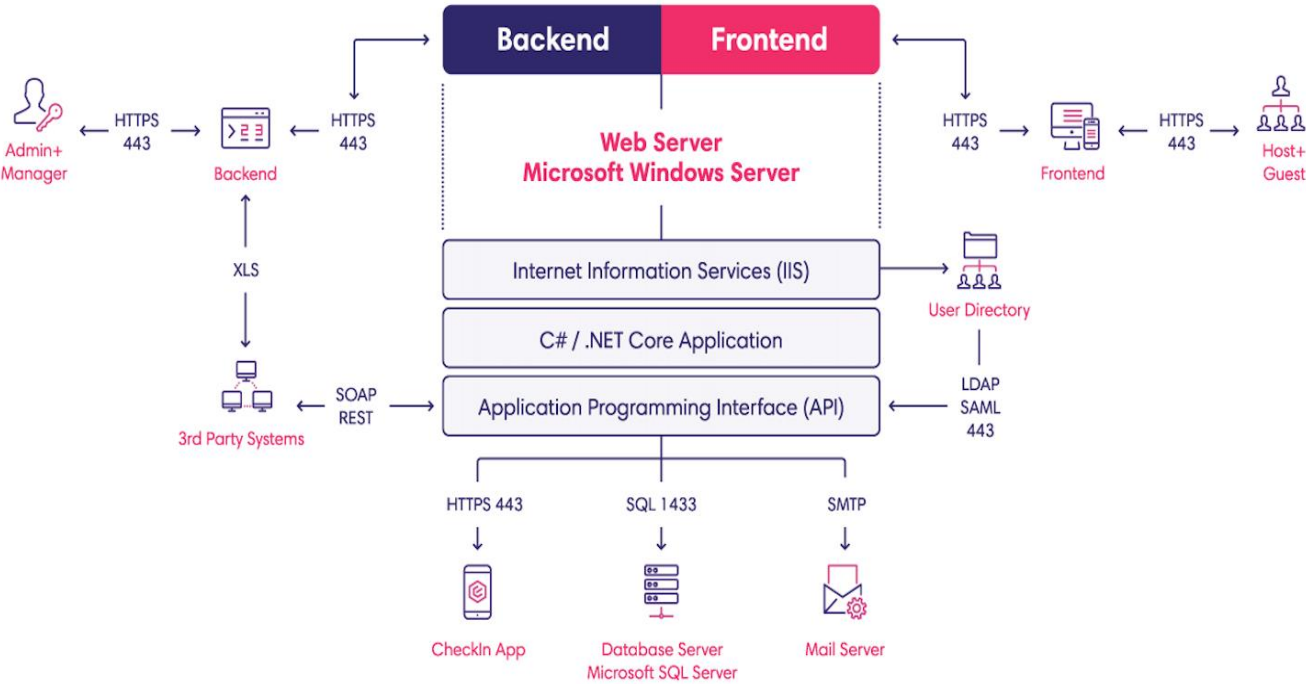
### 3.3 System requirements

The system on which the Evention software is operated must meet at least the following system requirements.

- CPU with at least 4x2Ghz
- 16 GB RAM
- 500 GB HDD
- Windows server
  - IIS role activated
  - Feature *http-forwarding* recommended
  - Application development features enabled for .NET Framework
  - ISAPI extensions and filters activated
  - http activation for .NET enabled on *features*
- SMTP server accessible from the server
- MS SQL server or local MS SQL installation accessible from the server
  - SQL 2016 or higher
  - RAM should correspond to the size of the database
- Optional: LDAP/SAML connection accessible from the server

A valid certificate is required for https

### 3.4 Architectural chart



## 4 Installation

You will receive the installation files as a ZIP archive directly or via a download link. Please download the file and extract the archive to any folder<sup>1</sup>.

The following structure is displayed after unpacking:

- \_package.zip
- Evention\_Initial\_Setup.ps1  
(Powershell installation script)
- erequisites  
(folder with URL Rewrite, .NET framework etc.)

With the latest deployment packages of the Evention® software, Nexcom provides you with a Powershell script which relieves you of the initial setup of the application in IIS and its authorizations.

Run the Evention\_Initial\_Setup.ps1 script **with administrative privileges (!)** on Microsoft Powershell.

The script will ask a series of questions that can be answered with [n = NO] or [y = YES] or an input.

### 4.1 Web setup

You can define the location of the Web files and the desired URL. The script sets up your IIS as defined and sets all required permissions.

### 4.2 Database

Enter the connection to the required database server here. You can have the setup create a new database or use an existing database.

During the installation the used user should have full access. Later, the rights can also be restricted to Read/Write.

### 4.3 Sample content

Select whether sample data such as events, locations, etc. are to be entered automatically.

---

<sup>1</sup> ZIP archives can be unpacked or extracted by default starting with Windows 7. If you still have problems with this process, we recommend the freeware alternative 7zip (<http://www.7-zip.org/>).

## 5 Upgrade

The installation script can also be used for migration. The database therefore does not have to be deleted for an upgrade. Settings, translations and other contents are taken over, database changes are carried out.

The following steps must be observed:

- "Is it a new installation or do you want to update an existing web? [y=new/n=update]" -> Wählen Sie "n".
- Specify application name (as for initial installation)
- Specify directory (as for initial installation)
- Try logging into the backend. The first call will take a little longer because the migration is being performed.

## 6 Configuration

The following parameters can be adapted to your needs after installation in the backend of the application or directly in the database (table "Common.Setting", column "TenantValue").

### 6.1 E-mail dispatch - SMTP connection

- <font color="#ffff00">--- sync:βÇÈâÈâ
- email.smtp.port
- email.smtp.username
- email.smtp.password
- <font color="#ffff00">--- sync:βÇÈâÈâ

### 6.2 Single sign-on

- auth.ldap.host (Do not enter LDAPS)
- auth.ldap.security\_check\_text: Security check for domain checking. Here you can enter the domain prefix
- auth.ldap.base\_dn: Base DN for the search
- auth.ldap.import\_fields: Fields to import should be imported
- auth.ldap.tech\_user\_name: Technical User for LDAP Access
- <font color="#ffff00">--- sync:βÇÈâÈâ

### 6.3 Frontend URL

In order for the users to find correct links to the system in their mails later on, you should adjust the setting to the appropriate environment. Please enter your value incl. "/fe".

- url.front end

### 6.4 HTTPS

We recommend to make the server only accessible via HTTPS. HTTP requests should be automatically rewritten to HTTPS. The best way to do this is to use the URL rewrite function of the IIS (see <https://blogs.msdn.microsoft.com/kaushal/2013/05/22/http-to-https-redirects-on-iis-7-x-and-higher/>).

### 6.5 Setting up the home page

By default, the application cannot be called without entering a path for frontend or BE (e.g. via *e5.evention.eu* instead of *e5.evention.eu/fe* or *e5.evention.eu/fe/{client name}*). In order to provide the user with a meaningful redirection, we recommend setting up an HTML or ASP index page that redirects the user to the desired start page. This can either be the client selection page (e.g. *e5.evention.eu/fe*) or - e.g. for single installations - a specific frontend (e.g. *e5.evention.eu/fe/my company*).



## 7 Logging

In order to enable high-performance and standardized logging, Evention uses the *NLog* extension. The settings and the path for logging can be set via the config file below. Open the file in a text editor of your choice. If the application is running, the editor used requires admin rights. When changing the path, make sure that the Network Service/Network Service has full access to the log directory.

In case of ambiguities, please use the official documentation as reference. These can be found at <https://github.com/nlog/nlog/wiki>

### 7.1 Application log

- flaw
- user logins
- mail dispatch
- debug
- Information and
- Location: File, Configurable (default: web\api\Logs)
- Configuration in web\api\\_log.config

### 7.2 Security log

- Security Incidents (blocked accounts, brute force attempts)
- mass exports
- Location: File, Configurable (default: web\api\Logs)
- Configuration in web\api\\_log.config

### 7.3 Database object log

- Changes to Content Objects
- Changed user rights (in the user console)

Location: Object history in application backend, call via main menu or individual object storage in database

## 8 Load balancing

To support a load-balancing scenario with multiple frontend servers, it is necessary that all machines are either part of a server farm or share a MachineKey in some other way. Otherwise the authentication by Bearer-Token will not work.

The MachineKey is saved in the *web.config* file. The keys are different on each server when no server farm is used. To ensure smooth authentication, the same key must be used for each server. The MachineKey must be entered in the web.config accordingly.<sup>1</sup>

```
<system.web>
  <machineKey validationKey="ENC_KEY"
    decryptionKey="DEC_KEY"
    validation="SHA1"
    decryption="AES"/>
</system.web>
```

## 9 Database cleanup

Due to the number of characters in the URL, detailed entries from the backend lists (events, guests, etc.) can only be marked and deleted up to a total number of 25 entries in parallel (depending on your firewall settings, this may also be less).

Deleted objects are not removed directly from the database. These are only marked accordingly to enable an "Undo". In order to clean the database of these objects, a stored procedure exists in the database that deletes data from all tables in the database where "IsDeleted = true" or "ObjectState = Removed" is. The procedure is called "clean\_database" and is created in the seed process. Once created, it can be executed in the Management Studio using the SQL command:

```
EXEC dbo.clean_database
```

---

<sup>1</sup> See [https://docs.microsoft.com/en-us/previous-versions/msp-n-p/ff649308\(v=pandp.10\)](https://docs.microsoft.com/en-us/previous-versions/msp-n-p/ff649308(v=pandp.10))

<https://stackoverflow.com/questions/25749818/sharing-oauth-tokens-across-two-web-api-projects>

## 10 Terms of use

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