



# ProTendering IT-security

v1.0.0



**ProTendering**

## ProTendering IT-security

- ProTendering is a standalone IT-system, installed as an App on a single computer, for a single user.
  - One year license for unlimited use/unlimited procurement projects.
  - Current version is time limited until 2022-12-31 and is exempt from licensing handling, then a new version will be provided.
- High security
  - No cloud communication will be used in projects.
  - No cloud connection is needed to run ProTendering.
- All data is owned and controlled by the user behind user fire walls.
  - Project data is saved where customer/user chooses within customer IT-security regulations.
  - Multiple persons can access the same project data if the data file is saved in a common area.
  - The project can only be opened by one user at a time.
- Simple installation
  - *Computers where IT department has administrative authority:*  
Simple push out by IT department via MSI (ProTendering is digitally signed with an EV Code Signing Certificate)
  - *Computers where user has administrative authority:*  
Simple download of APP from ProTendering web page followed by running the installation script.
  - ProTendering is using an Extended Validation (EV) Code Signing Certificate, that gains trust of the Microsoft Defender SmartScreen® Reputation filter, reducing warning messages and increasing trustworthiness of the software.
- Portable version (without installation)
  - *Computers where user does not have administrative authority:*
    - Simple download of executable from ProTendering web page, a hash will be available to assure that the content has not been tampered with by malicious software.
    - The program can run from self-contained file.
- Activation of license
  - If connected to internet activation of license can be automated during installation.
  - If computer is standalone without internet connection – simple guided manual handshake process during installation.
  - Activation applies to all single computer versions, both when installed by IT department, self-installation or when running the portable version.
- Data transfer between User and suppliers from/to ProTendering
  - Supplier input is managed via Excel-sheets produced by ProTendering.
  - Excel-sheets are locked for input only of defined formats in defined cells.
  - The Excel-sheets can be communicated to and from the supplier via normal channels and purchasing systems already in use.

## 1. IT-SECURITY BY PROTENDERING

### 1.1 Version

The following information pertains to ProTendering version 1.0.0.

### 1.2 About this document

Computer Security is traditionally divided into three areas: confidentiality, integrity and availability. In this white paper, the focus is on confidentiality and integrity.

### 1.3 ProTendering is a standalone system without cloud connection

- ProTendering is a standalone IT-system, installed as an App on a single computer.
- No cloud connection is needed, therefore all transferring of data is controlled by the user.

### 1.4 Installation

#### 1.4.1 Computers where IT-department is administrator

ProTendering is digitally signed and thereby accepted by Microsoft Defender SmartScreen® for MSI pushout. ProTendering is downloaded by IT-department and pushed out to the user with purchased license. The user has to go through the activation process on their computer.

#### 1.4.2 Computers where the user is administrator

- Computers with internet access: ProTendering is installed by downloading the App to the computer from the ProTendering Web page [www.protendering.com](http://www.protendering.com)
- Computers without internet access: The App is downloaded from the web-page to a memory device and transferred to the computer
- Activate the software

#### 1.4.3 Computers where the user is not administrator

- Computers with internet access: Portable version of ProTendering is downloaded to the computer from the ProTendering Web page [www.protendering.com](http://www.protendering.com)
- Computers without internet access: The Portable version of ProTendering is downloaded from the webpage to a memory device and transferred to the computer.
- Always confirm MD5 hash by following these steps:
  - Open Command Prompt or Power Shell (Press **Windows key + R key**, write cmd)
  - Go to file location of ProTendering.exe
  - Type `certutil -hashfile ProTendering.exe MD5`
  - Verify with MD5 hash from [www.protendering.com](http://www.protendering.com)
- Program can be run immediately, then activation is necessary as with the program with installer.

### 1.5 Activation and de-activation of Licence

- Activation and de-activation of licences:
  - If the computer is connected to the internet, automatic handshake can be used to activate the licence during the installation process.
  - If the computer is not connected to the internet, a manual handshake process will take over, where connection to the webpage has to be accessed on another device

- To prevent tampering of our software by unauthorized parties, we use an Extended Validation Code Signing certificate. The certificate uses SHA-256 keys and yield Extended Validation reputation with Microsoft SmartScreen®.

## 2 DATA MANAGEMENT

- All installations and saved data are held within customer fire walls and according to customer IT-security systems.
- The user/customer has full control and owns all data
  - Project data is saved where customer/user chooses within customer IT-security regulations.
  - Multiple persons can access the same project data if the data file is saved in a common area. Co-working is therefore possible but still behind customers firewalls and according to customer IT-security systems.
- Saved data is backed up to protect from data loss.
  - ProTendering applies an incremental save strategy where a backup is created before replacing the data on disk with the latest state in the application. And each backup is timestamped to make it easy to find a specific backup.
    - Incremental saves can also be used as a type of version tracking to identify what changes were made and when.
  - Backups are enabled by default but can be turned off.

## 3 DATA TRANSFER BETWEEN USER AND SUPPLIERS FROM/TO PROTENDERING

- Supplier communication is managed via Excel-sheets produced by ProTendering.
- Excel-sheets are locked for input only of defined formats in defined cells.
- The Excel-sheets can be transferred to and from the supplier via normal channels already used, i.e.:
  - Sent as attachments through e-procurement portals
  - Shared on customers' own servers made available to individual suppliers
  - Shared via e-mail, as encrypted or open files
  - Shared on encrypted media devices like USB sticks
  - Shared on storage portals as Box, Teams, Google drive etc

## 4 PROTENDERING RELEASE VERSIONS AND SCHEDULING

ProTendering uses semantic versioning and will release the following versions into production.

### 4.1 Major releases

E.g., going from 1.x to 2.x. This will only happen if we substantially change the software and will be preceded by a major announcement.

### 4.2 Minor releases

E.g., going from 1.2 to 1.3. ProTendering will be released when relevant, most likely every quarter to every year. Release notes will be posted on our website and sent via e-mail to all customers that have agreed to receive such emails, where the version number in the application will show the change.

### 4.3 Hotfix PATCH

If and only if a critical bug is found, we will do a hotfix patch release. These are versioned 1.2.x (the last digit signifies the patch number). Depending on the nature of the patch, we may

inform all customers or just those who have been affected. The release of such a patch may happen at any time.

## 5 SOFTWARE STACK

### 5.1 Windows developing in .NET Core

The ProTendering software is built using C#, implemented with WPF and .NET Core

### 5.2 Third party Software

We use a port of Apache Poi for reading Microsoft documents. This ensures that we are not susceptible for Excel Macro viruses from bidders, since all data imported is validated and Microsoft Office programs are not utilized.

We also use PdfPig with an Apache license, from UglyToad, for importing Pdf-documents.

## 6 SOFTWARE DEVELOPMENT PRACTICES

### 6.1 Software development and quality process

The team behind ProTendering has many years of experience from building software using Agile methodologies. In particular, we are strong believers in Scrum and we practice this in building ProTendering.

We aim to use Test-Driven Development and Automated Testing as it is a way of ensuring reliable software.

We also use Smoke Testing, to ensure the functionality of the software where we are not using automated tools. Every release is subject to at least up to a week of human testing, to ensure the highest possible standard before each new release.

### 6.2 Software architecture and design principles

The ProTendering Development team has decades of experience in software development. We build software using established, tried-and-tested components, to ensure the most reliable customer experience.

Caring for the ProTendering software is a great responsibility, and experience has instilled in us a certain set of values when it comes to architecture. Knowing that we will support a product in production is key to balancing these:

- Simplicity - the opposite of accidental complexity - allows you to understand and reason about a system, especially over time.
- Scalability - choosing technology that can scale both down in size and up when you need it.
- Reliability - choosing technology and services that will tend to stay up and tend to bounce back.
- Serviceability - providing all the monitoring, metrics, and insight we will need.

### 6.3 Change management

All software changes follow a documented process. We have criteria for how we code and how we perform versioning, which governs how changes are made, and make sure that changes are always tracked and carried forward.

We adhere to the following principles:

- Mainline development is always ready to be released.

- New features are developed as a separate branch, so that they do not impact or put the mainline at risk due to partial features or subtle changes.
- Hotfix patches are built using a controlled process and always from the release version of the software, and not from the latest development source. The process and tooling make sure that such bugfixes are always returned to the mainline development and included in the next full release.

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