

## LICENSE PACKAGES

### PROFESSIONAL

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## 1 INTRODUCTION

The STACKFORCE Protocol Stacks are sold in License Packages, containing software, legal and commercial elements, which are mandatory for the use of our Protocol Stacks.

We provide different licensing options for both, small and large quantities.

Usually, customized upgrades of individual elements within a License Package are possible – On request to [info@stackforce.com](mailto:info@stackforce.com), we will provide a customized quotation.

Thus, a suitable License Package is available for every IoT project. We will be happy to advise you on this!

### A License Package consists of:



**License**

Usage rights for a defined Protocol Stack



**Deliverable**

Verified Protocol Stack software package for a certain hardware platform



**Support & Maintenance**

Active maintenance and support budget according to the relevant license package

## 2 LICENSE PACKAGE PROFESSIONAL

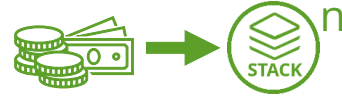
### 2.1 OVERVIEW

**PROFESSIONAL**

Enables predictable scaling of wireless connectivity solutions.

<b>Commercial</b>	<p>Pre-paid royalties:</p> <ul style="list-style-type: none"><li>• Agreed number of copies: Available for 1k, 2,5k, 5k, 10k and 25k pcs</li><li>• Advance payment</li></ul>
<b>Technical</b>	<ul style="list-style-type: none"><li>• Protocol Stack: Object code</li><li>• RF Driver: Source code<sup>1</sup></li><li>• HAL: Source code</li><li>• Limited address range<sup>2</sup></li></ul>
<b>Support &amp; Maintenance</b>	<ul style="list-style-type: none"><li>• 12 months maintenance &amp; warranty</li><li>• Support is not included but can be ordered on demand</li></ul>

### 2.2 COMMERCIAL



#### Pre-paid royalties...

...are license fees for each copy of the software **paid in advance** for the whole **number of ordered copies**.

Pre-paid royalty licensed software is technically limited to the exact number of software copies ordered and paid. This is e.g. done by limiting it to a certain address range reflecting the number of licensed copies. To extend the number of copies purchased, a new order needs to be placed and paid.

<sup>1</sup> Source code delivery depending on stack package.

<sup>2</sup> For details, please refer to Chapter 2.3.

## 2.3 TECHNICAL

### RF Driver

The RF Driver implements the actual interface to a certain radio silicon. It contains all relevant configurations and state management of the respective radio and connects to the actual Protocol Stack. This component is hardware specific and not part of the actual Protocol Stack.

### Hardware Abstraction Layer (HAL)

In order to operate a Protocol Stack in conjunction with a certain hardware, a HAL for a certain platform is required. The HAL consists of the necessary drivers and driver abstractions for either

- a microcontroller (MCU) or microprocessor (CPU),
- a single chip transceiver (TRX), or
- a system-on-chip (SoC) combining MCU / CPU and TRX in one package or silicon.

The HAL typically connects the following required hardware functions to software (depends on stack and configuration):

- 1 – 2 x Timer
- 1 x SPI, 2 – 4 x GPIO (applies to and depends on the actual single chip transceiver)
- Software RF interface (applies to system-on-chip)
- AES encryption, CRC calculation, encodings (if available and applicable)

### Limited address range

In order to enable the pre-paid royalty license model, all protocol standards that do require a unique address per device, get limited to a certain address range. This range includes a number of addresses, corresponding to the number of copies you're allowed to create according to the related license agreement. This address range can be

- specified when ordering, or
- assigned automatically from address pool by STACKFORCE (EUI-64 addresses only).

However, if an unlimited address range is required, we offer the possibility to use the Protocol Stack without limitations of the address range in combination with reports about the number of units produced and equipped with the licensed software, provided quarterly by the licensee. This report must be created and sent to STACKFORCE unsolicited within 15 days after the end of each quarter of a year.

All details regarding the reports are specified in STACKFORCE's "*Reporting Conditions*" document, which is available on our website [stackforce.com](http://stackforce.com) or upon request at [info@stackforce.com](mailto:info@stackforce.com).

## 2.4 SUPPORT AND MAINTENANCE

### Support

The Professional License Package includes no support. Of course, customized support budget can be purchased separately.

All details regarding support are specified in STACKFORCE's "*Standard Support Conditions*" document, which is available on our website [stackforce.com](https://stackforce.com) or upon request at [info@stackforce.com](mailto:info@stackforce.com).

### Maintenance

One year of maintenance is included in the Professional License Package, while an extension of the maintenance period is possible on an annual base.

During the active maintenance period, maintenance includes the reception of new package versions (= package updates) providing updates against the background of

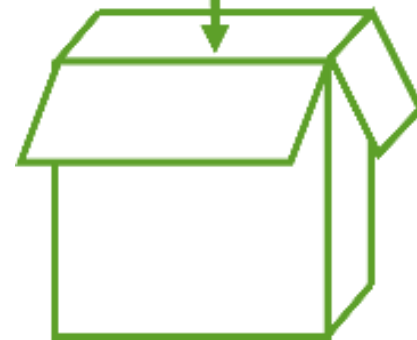
- a) removal of malfunctions (bug fixes),
- b) functional improvements, and
- c) functional extensions,

whereas type and scope regarding b) and c) are up to STACKFORCE.

Advantages by extension of the maintenance period:

- ✓ Extension of **warranty**
- ✓ Benefit of **package updates**

Package updates outside maintenance period will be charged with full license fee.



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