STACKFORCE

embedded.connectivity.solutions

LICENSE PACKAGES

ENTERPRISE 2.0

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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, 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 ENTERPRISE 2.0

2.1 OVERVIEW

ENTERPRISE 2.0

Technically unlimited business with predictable costs: Only pay what you need.

Commercial

Post-paid royalties:
- One-time upfront fee in advance
- Specified volume per 12 months, starting from 10k licenses per year
- Quarterly reporting and invoicing of per unit license fees at fixed price along with forecasts for the following accounting period
- Volume review after 12 months

Technical

- Protocol Stack: Object code
- RF Driver: Source code[1]
- HAL: Source code

Support & Maintenance

- Maintenance & warranty during the license agreement
- 8 hours of support
- Response time: < 2 business days

[1] Source code delivery depending on stack package.

[2] STACKFORCE has the right to verify the correctness of the reports at any time. STACKFORCE also has the right to hire a third-party service provider for this verification. Licensee is obliged to support STACKFORCE resp. a hired third-party service provider by providing the necessary access to accounting and production information.

2.2 COMMERCIAL

Post-paid royalties...

...are consisting of an **upfront fee** as well as a **license fee** for **each copy** of the software, whereas the license fee depends on the **volume** per 12 months, specified by licensee in advance.

1. The upfront fee is due in advance to delivery of the software.
2. The Licensee is obliged to provide STACKFORCE with a production start date at least two weeks prior to the commencement of production.
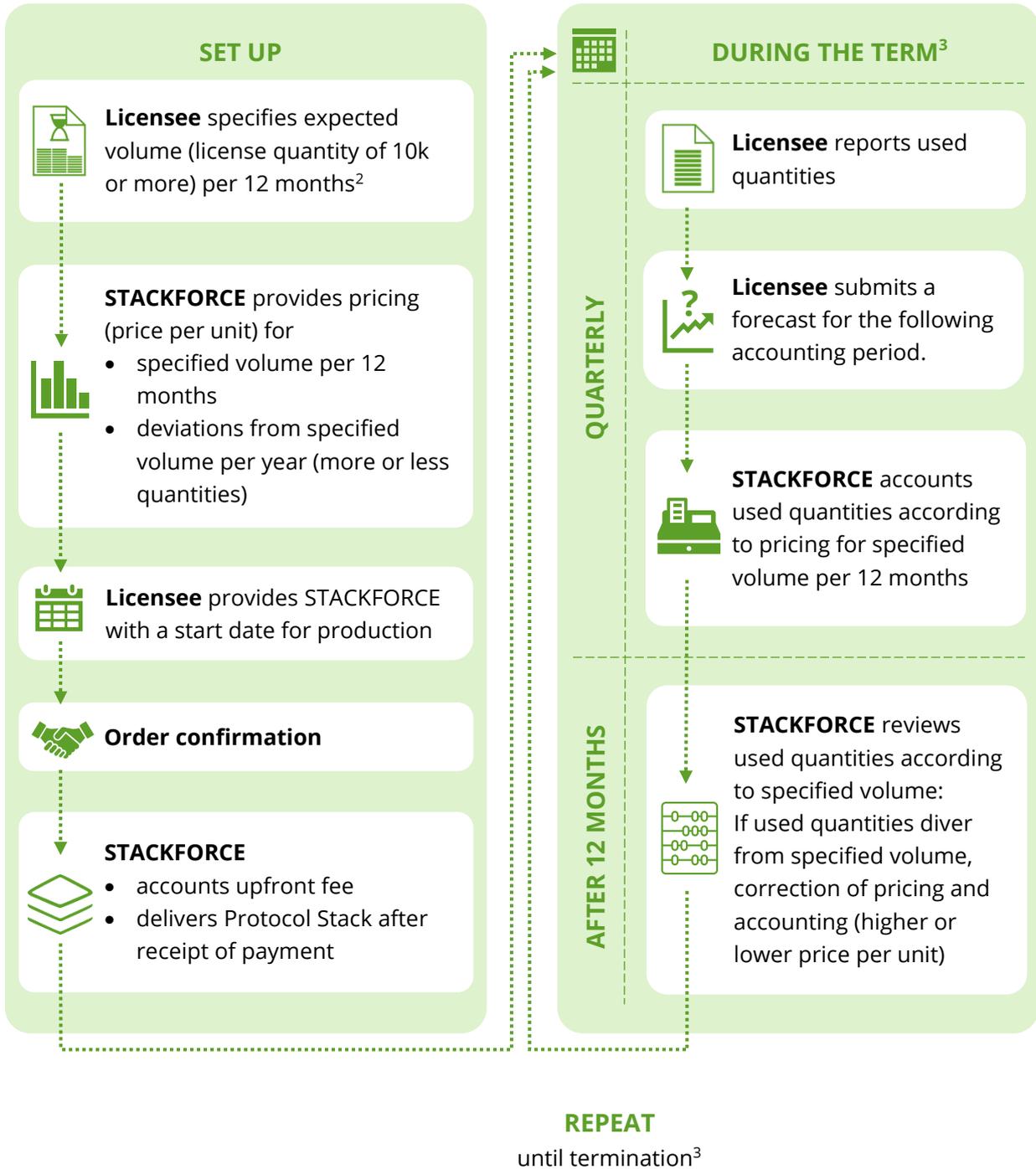
The licensee must submit regular reports[2] about the number of units produced and equipped with the licensed software. This report must be created and sent to STACKFORCE unsolicited within 15 days after the end of each accounting period. An accounting period covers three months (quarterly reporting / accounting period), initially starting from the effective date of the relevant license agreement or the start of production, if this differs from the effective date of the license agreement.

3. At the time of reporting, the licensee is also obliged to provide a forecast for the following accounting period. Based on the reported number of licenses used, STACKFORCE will invoice the royalties according to the relevant price per unit (please refer to next page).

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

4. After 12 months resp. four accounting periods, STACKFORCE reviews the quantities used according to the reports with the initially agreed volume (please refer to next page).

Schedule

SET UP

Licensee specifies expected volume (license quantity of 10k or more) per 12 months[2]

STACKFORCE provides pricing (price per unit) for
- specified volume per 12 months
- deviations from specified volume per year (more or less quantities)

Licensee provides STACKFORCE with a start date for production

Order confirmation

STACKFORCE
- accounts upfront fee
- delivers Protocol Stack after receipt of payment

DURING THE TERM[3]

QUARTERLY

Licensee reports used quantities

Licensee submits a forecast for the following accounting period.

STACKFORCE accounts used quantities according to pricing for specified volume per 12 months

AFTER 12 MONTHS

STACKFORCE reviews used quantities according to specified volume: If used quantities diver from specified volume, correction of pricing and accounting (higher or lower price per unit)

REPEAT
until termination[3]

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[2] If the term of the license agreement is extended (please refer to [3]), the specified volume of the preceding term will be taken unless licensee specifies a new volume until one month after the new term has become effective.

[3] The term of the Enterprise 2.0 License Package is one year and is automatically extended by one year if not terminated in writing within a three-month notice period by the end of the term.

Advantages

Predictable costs

Well calculable costs due to pricing list according to specified volume per year incl. pricing for volume deviations

Only pay what you need

Accounting of used quantities only

Customized volume per year

Free choice of expected volume per year in consideration of individual requirements

No product limitation

Protocol Stack with full features

Price guarantee

Binding pricing list incl. regulations for price adjustments[4] during the whole term

Maintained Protocol Stack

Active Protocol Stack maintenance incl. updates during the whole term

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[4] The list prices at the time of the order confirmation (effective date) apply. An increase of the list prices (price per unit) can take place no earlier than 12 months after the effective date of the License Agreement, whereas the amount of the increase aligns with the increase of the German inflation rate of the preceding 12 months according to the Federal Statistical Office of Germany. Further increases can follow no earlier than 12 months after a preceding increase has become effective.

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)

2.4 SUPPORT AND MAINTENANCE

Support

The Enterprise 2.0 License Package initially includes eight hours of support[5]. Additional support budget can be purchased at any time.

Workflow for every support request:

1. STACKFORCE receives a support request.
2. STACKFORCE provides first feedback including an effort estimation and a possible service period.
3. Based on feedback and effort estimation, the customer will decide:
   a. Approved: STACKFORCE will process the support request.
   b. Declined: Processing of support case will be rejected (Up to 2 h will be charged to the budget though for first feedback.).
4. In case STACKFORCE recognizes unforeseen issues preventing to keep efforts within initially approved budget, STACKFORCE will immediately inform the customer. Based on this updated effort estimation, the customer will decide:
   a. Approved: Updated overall effort estimation accepted and processing of the support request will be continued.
   b. Declined: Support case processing stopped, already spent efforts will be charged to the budget.

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

Maintenance

Active maintenance is included during the whole term of the Enterprise 2.0 License Package.

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 during maintenance period:

✓ **Warranty**
✓ Benefit of **package updates**

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[5] The extension of the term of the license agreement does not include new support budget. Unused support budget expires 12 months after the effective date of the respective license agreement and a new support budget can be purchased.
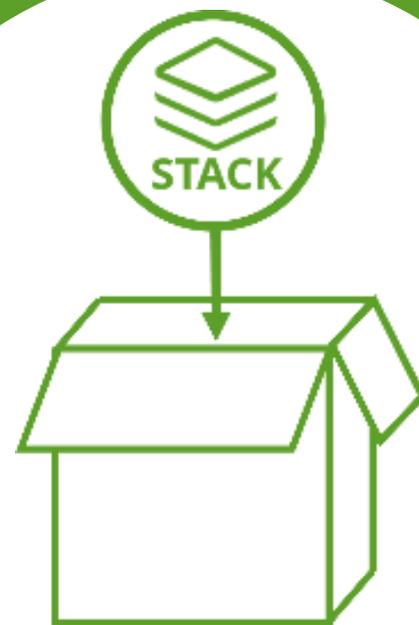
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