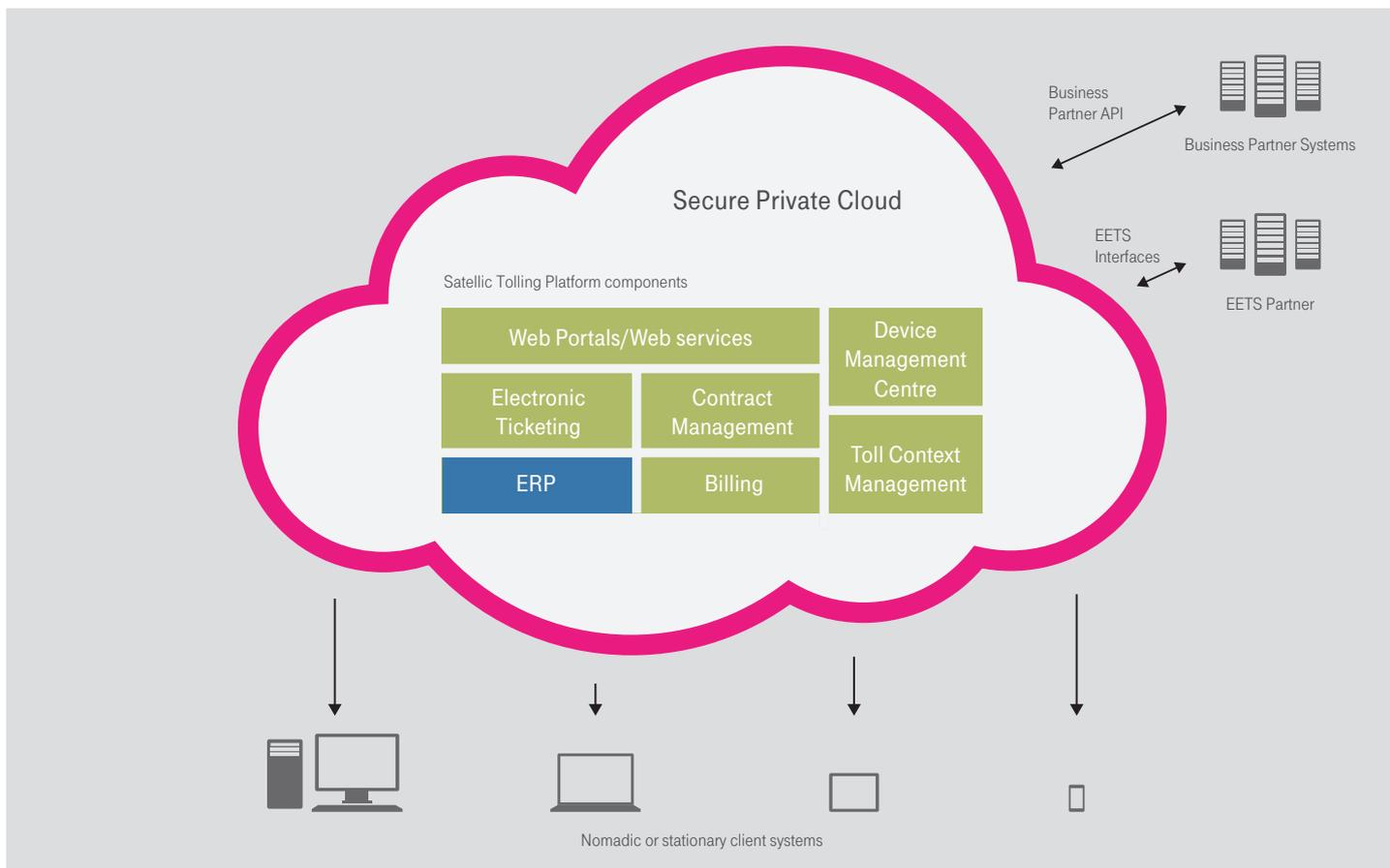# SATELLIC TOLLING AS A SERVICE

THE BENEFITS OF ACCESSING THE SATELLIC TOLLING PLATFORM FROM THE CLOUD

Our Satellic Tolling as a Service (TaaS) offering is designed to meet the requirements of toll service providers (TSPs). The Satellic Toll Competence Centre (STCC) provides the knowledge and experience necessary for operating high-quality tolling systems – allowing TSPs to offer first-rate services to customers and focus on their core business. Satellic TaaS is delivered from the Satellic Tolling Platform. This premium business process outsourcing service can be tailored precisely to TSPs' needs and integrated with their existing business landscape or with third-party offerings (see figure on next page).

T···Systems···

TOLL SERVICE PROVIDER CONTROL SYSTEMS

Secure Private Cloud

Satellic Tolling Platform components

- Web Portals/Web services
- Electronic Ticketing
- Contract Management
- ERP
- Billing
- Device Management Centre
- Toll Context Management

Business Partner API → Business Partner Systems

EETS Interfaces → EETS Partner

Nomadic or stationary client systems

THE SATELLIC TOLLING PLATFORM AND THE CLOUD

The Satellic Tolling Platform from Satellic Toll Competence Centre (STCC) offers a state-of-the-art, modular and efficient high-quality road charging solution, which is fully compatible with the T-Systems cloud portfolio. A variety of client groups can easily connect to the central system components from a range of devices.
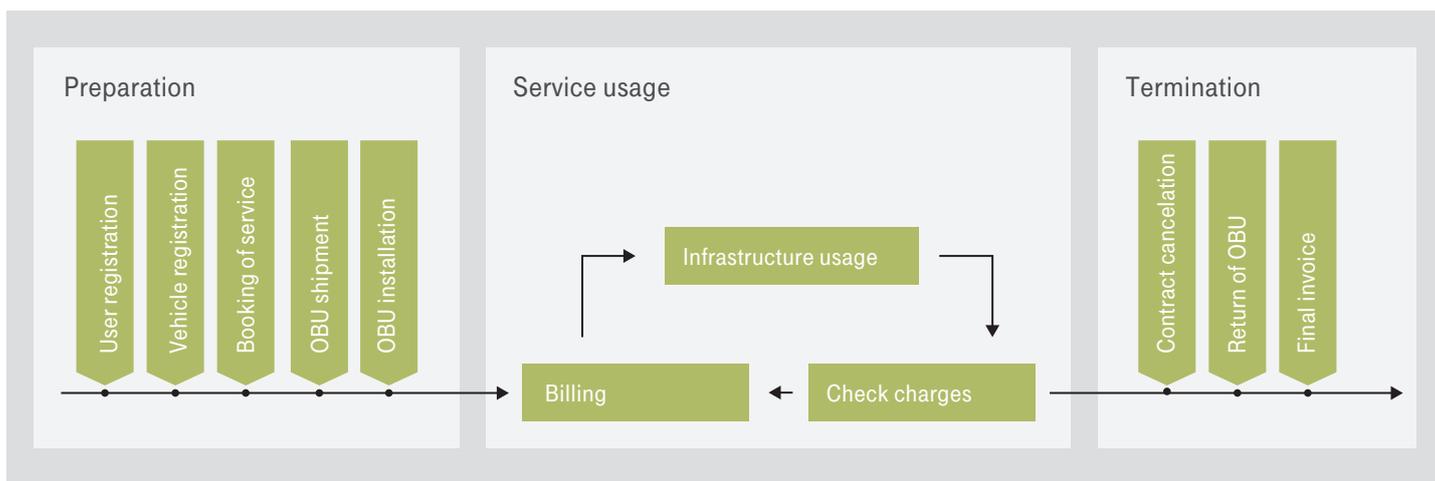
Furthermore, a web service-based Business Partner API allows the easy integration of third-party business partners such as e.g. fleet operators or distribution partners. In addition, the Satellic Tolling Platform provides a set of interfaces for EETS back office integration according to the available standards.

CONVENIENCE AND SIMPLICITY FOR ROAD USERS

A key aim of the Satellic TaaS offering is to provide an attractive service to TSPs' customers: road users. The goal is to increase user acceptance and customer loyalty, while minimising complaints and customer churn. TaaS supports providers in achieving this, by helping them to offer a high-quality, easy-to-use service with low barriers to entry – all at a competitive price.

The following diagram shows a very simplified view of a customer life cycle. Real-world life cycles are more complex: they combine users, vehicles and services, and are tailored to the specific needs of TSPs.

THE USER PERSPECTIVE: CONVENIENCE AND SIMPLICITY

Preparation
- User registration
- Vehicle registration
- Booking of service
- OBU shipment
- OBU installation

Service usage
- Infrastructure usage
- Billing
- Check charges

Termination
- Contract cancelation
- Return of OBU
- Final invoice

SATELLIC TAAS: CORE COMPONENTS AND SERVICES

Satellic Tolling as a Service is an umbrella service supported by the Satellic Tolling Platform, which delivers core tolling services. In order to provide an end-to-end, best-in-class service, Satellic TP functions are orchestrated in a Satellic TaaS process landscape, while incorporating additional business process outsourcing services.

All services are designed and operated in line with best practices and industry standards (ISO 27001, ISO 20000, etc.). Interface availabilities and service capacities are backed by service level agreements (SLAs) that can be tailored to the individual requirements of the TSP.

CORE COMPONENTS OF THE SATELLIC TOLLING PLATFORM

- **Satellic Toll Detection**
  Up-to-the-minute generation of charge data records by operating a fleet of on-board units (OBUs). These OBUs are provided with operational data and are assigned to vehicles and users.

- **Satellic Smart OBU**
  Supply and maintenance of on-board hardware, in partnership with first-rate automotive hardware suppliers

- **Satellic Device Management**
  Remote management of devices in use; management and documentation of configuration settings; implementation of software and data updates; optimisation of communication costs, etc.

- **Satellic Toll Context Management**
  Modelling and versioning of toll objects and tariff definitions based on toll domain statements; monitoring the efficiency of toll detection

- **Customer service**
  Registration of users, vehicles and OBUs; master data maintenance; user self-service; website; contact management (mail room, call centre); billing; accounting; complaint management

ADDITIONAL SATELLIC TAAS SERVICES

- **Product management**
  Management of system components; documentation and maintenance of process landscapes; system evolution roadmap; product life cycle management; integration and testing

- **Toll Data Management**
  Definition and optimisation of toll context data, based on continuous analysis of detection performance

- **System operation**
  Effective, safe and secure operation of system components and their network connections; incident management; monitoring and scaling

- **Reporting**
  Generation of customer-specific reports; documentation of KPIs in line with SLAs; management information system (MIS)

IDEAL SUPPORT FOR TOLL SERVICE PROVIDERS

Satellic Tolling as a Service allows toll service providers to focus on their core business without worrying about the "nuts and bolts" of system operation, such as technical support, toll determination, billing, or monitoring and reporting. But other process clusters also stand to benefit from Satellic TaaS: for example, the feedback gathered by the customer service module can be used as direct input for OBU distribution and logistics processes. And of course, the Satellic software supports the presentation of compliance check records as required by the EETS standards.

As part of the Satellic TaaS offering, T-Systems implements and operates all processes and systems necessary for a competitive and flexible toll service. For example, by using the Business Partner API, the system can be integrated into existing business landscapes and enhanced with specific value-added services.

T-SYSTEMS AS A FULL-SERVICE PROVIDER

Satellic TaaS is not the only way in which T-Systems can help TSPs benefit from the Satellic Tolling Platform. Made-to-measure contracts allow providers to leverage all standard cloud services related to the integrated TaaS offering:

- Conventional **software licensing** (including customer- and project-specific modifications and add-ons)

- Hosting services on various levels:

  - **Infrastructure as a Service:** Manage and operate your own software modules and the Satellic Tolling Platform in an efficient, secure and highly scalable private cloud environment.

  - **Platform as a Service:** Use software modules operated by T-Systems Satellic Telematic Services via web interfaces to deploy your own systems.

  - **Software as a Service:** Allow specialists to run and maintain your Satellic TP system modules, while you focus on your core business.

  - **Tolling as a Service:** Let T-Systems Satellic Telematic Services implement and run the tolling processes and systems as one module or value-added service, while you focus on customer care.

Over and above these cloud services, T-Systems offers a variety of standard ICT services, including: system and process consulting; design, implementation and integration of customer-specific system components; quality assurance and system testing; communications and network connectivity; system hosting and operation; application management – and much more besides.

TOLLING AS A SERVICE

| TaaS |
| SaaS |
| PaaS |
| IaaS |
| Secure Private Cloud |
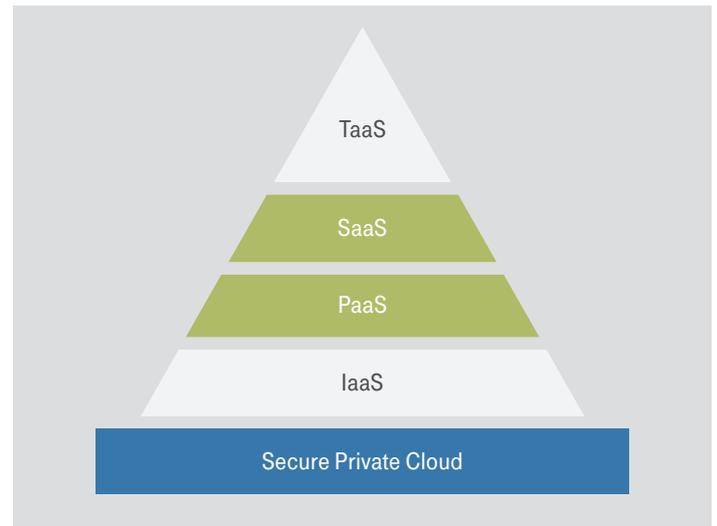
EASE OF USE AND CUSTOMER SATISFACTION

Satellic TaaS enables TSPs to secure the maximum benefits of the combination of Satellic Tolling Platform modules, and gives them the opportunity to leverage the extensive experience T-Systems has in the road charging area. And road users, too, will be impressed with what Satellic Toll Competence Center has to offer: greater convenience and ease of use, thanks to rapid, easy access to automatic tolling with as few obstacles as possible – from initial registration to smart OBUs. Plus, expert staff are on hand to provide support when needed. The result? TSPs boost user satisfaction and reduce customer care costs thanks to lower complaint rates.

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