HOPS

Enabling secure processing of smart transaction data with a powerful back office engine

Overview

A Host Operator or Processing System (HOPS) system is a key part of an ITSO-compliant smart ticketing deployment. It processes transaction data from customer ticket purchases and journey validations along with data from hardware terminals; including those at rail stations, on buses, on ferries, in retail stores and from online retail systems. It also manages the ITSO Secure Application Modules (ISAMs) installed in transit validation and retail devices.

Rambus HOPS has scalability options to support the basic needs of English National Concessionary Transport Scheme (ENCTS) customers all the way to the largest commercial ticketing deployments across the UK.

How it Works

The Rambus HOPS is certified to the UK Department for Transport ITSO specification for interoperable smart ticketing. It automates many of the complex daily tasks such as transaction processing and asset management to ensure smooth operation of the smart deployment. All ITSO-compliant ticketing systems use ISAMs that are installed inside ticket machines. When a traveler presents their smart card at a ticket machine, the ISAM authenticates and validates the digital ticket or right to travel stored on the smart card.

The ISAM securely communicates with the smart card, recording the transaction that is sent to the HOPS for processing. The HOPS enables numerous functions including apportionment and reimbursement for operators, as well as communication with third-party HOPS systems, ensuring all interoperable transaction data is captured. Finally, its automated asset management function sends cryptographic key updates to installed ISAMs, ensuring that security and other updates are performed quickly and efficiently.
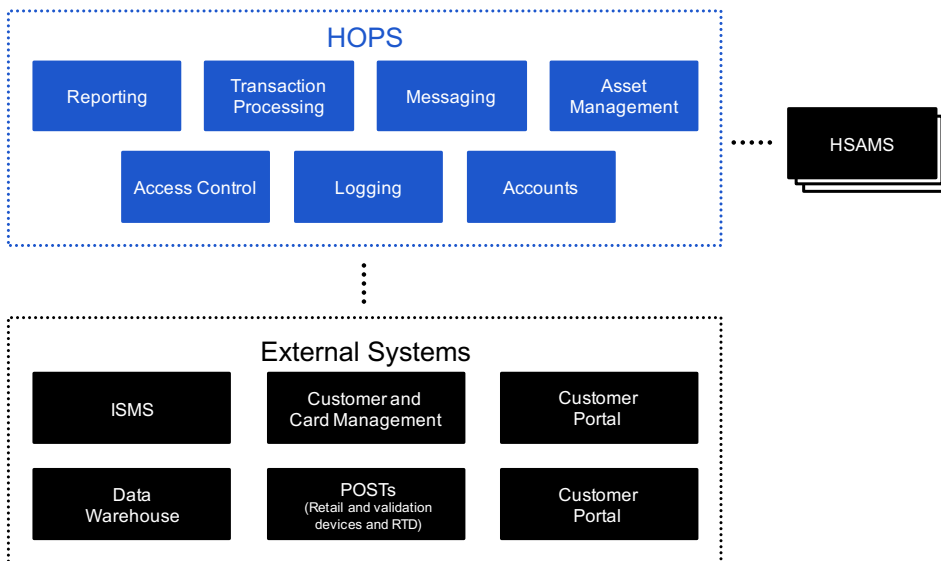
Highlights

Benefits
- Securely captures all data relating to smart ticket creation and usage for bus, rail, metro and ferry
- Feeds analytics to enable targeted marketing to customers, improved capacity management and fraud protection
- Drives greater use of public transport through interoperability between operator deployments and enables partnership opportunities with operators and retailers
- Proven, fast, low-risk migration from other incumbent HOPS suppliers
- Designed to comply with the latest data protection standards ensuring that customer data is protected and systems are compliant

HOPS Architecture

HOPS

Reporting	Transaction Processing	Messaging	Asset Management
	Access Control	Logging	Accounts

HSAMS

External Systems

ISMS	Customer and Card Management	Customer Portal
Data Warehouse	POSTs (Retail and validation devices and RTD)	Customer Portal

Deliverables

HOPS

- Available standalone or as a managed service
- Secure hosting within the UK with off-site data recovery center
- Comprehensive reporting suite
- Proven migration path from other HOPS providers
- API integration and support for third-party supplier system

Features

- Administrative access via an online user friendly portal
- Includes a comprehensive report set, custom reports can also be implemented
- Provides transaction data to manage transport operator apportionment and reimbursement
- Supports online ticket retail
- Profiles of products are created and grouped together to make ISAM updates easy
- Automated Asset Management and process tracking simplifying class 3 message processing
- Model office available to mitigate risks with third-party integration and live testing
- Underpinned by robust security to ensure all messaging and data is protected
- Provides RSP3002 compliance, bringing full support for rail ticketing

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