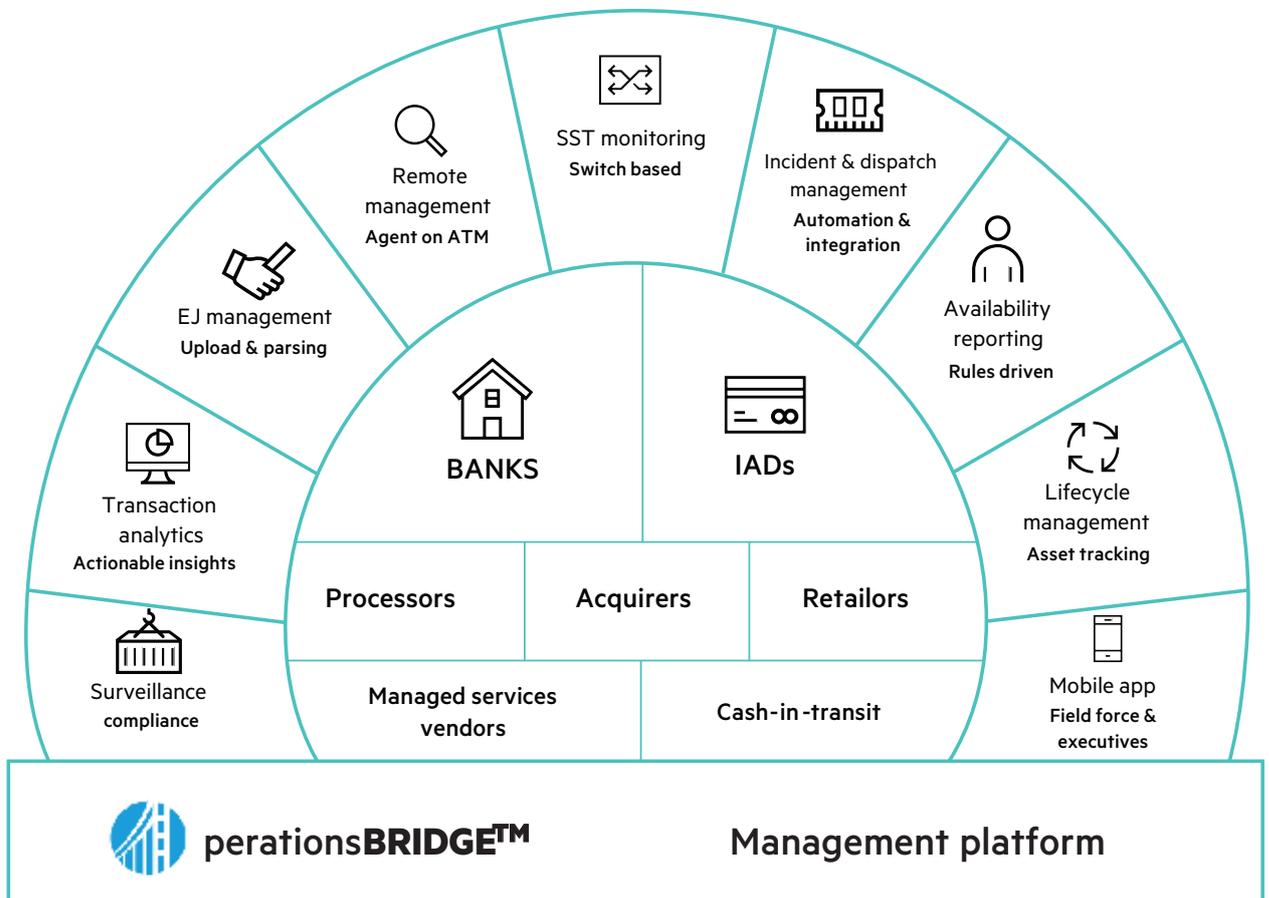


HPE Self Service Terminal Operations Bridge and Agent

Centrally manage and monitor self-service terminals network



SST Operations Bridge is a comprehensive, multi-vendor, terminal management solution designed to help banks and service providers proactively manage their self-service network, 24x7. It delivers the operational intelligence and actionable insights to facilitate proactive decision-making. Operations Bridge helps monitor automatic teller machines (ATMs) and deliver a superior customer experience.

Key benefits

- 24x7 monitoring of ATM network and switch
- Robust incident management
- Comprehensive escalations and notifications
- Monitoring KPIs in real time
- Remote command and control capability
- eXtensions for Financial Services (XFS) monitoring of SST devices
- Electronic Journal (EJ) retrieval
- Content distribution
- Reports and dashboards
- Automated dispatching
- Vendor agnostic
- Inventory management

Introduction

Quick and seamless transaction is important in satisfying and retaining customers. A failure of a terminal leads to delays and disruptions, and results in discontented customers. Avoiding these types of problems is critical to running a successful business. Monitoring every aspect of the transaction process plays an important role in ensuring uninterrupted operations of terminals.

To achieve high-level performance and avoid an adverse customer experience, terminals in a transaction network must be monitored in real time and an accurate root cause analysis must be done to react quickly as faults occur. Managing terminals and network performance improves customer relationships and reduces costs associated with unscheduled maintenance and downtime.

The Self-Service Terminal/Operations Bridge (SST/OB) product from HPE helps organizations monitor the SST environment in real time to remain transparent with their

operations. This in turn helps users detect and resolve problems before these problems impact business performance. By allowing the help desk to view key parameters, SST/OB promptly addresses maintenance issues before problems escalate, and offers value-added services such as automatic notifications and higher uptime for improved customer satisfaction.

SST/OB offers features that appeal to both operations and business managers. It helps organizations holistically manage self-service terminals (SSTs), such as ATMs, self-checkouts, kiosks, etc. It also helps the network infrastructure to better measure and improve key performance indicators (KPIs) and service-level agreements (SLAs). SST/OB offers real-time visualization of the entire terminal environment, allowing users to recognize factors impacting service. This solution ties together IT service manageability with critical business initiatives and objectives to improve business performance jointly overseen by critical and interdependent business units.

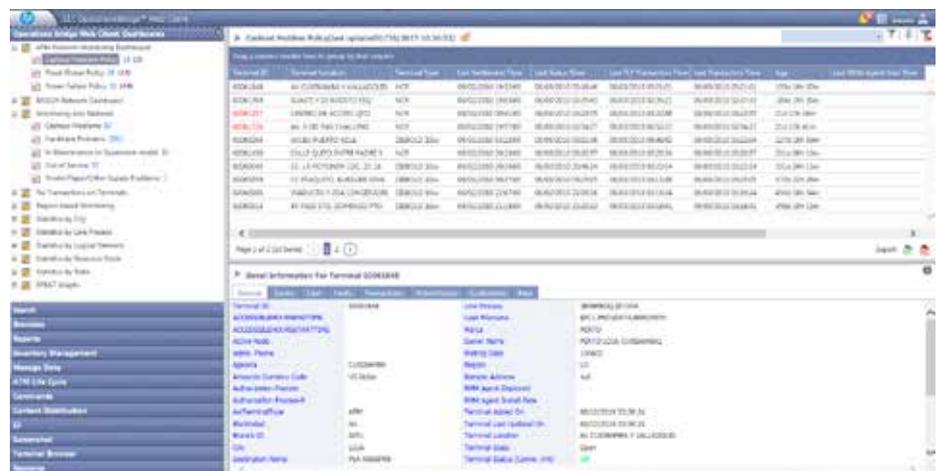


Figure 1: SST/OB Web monitoring user interface

How does SST/OB work?

As depicted in Figure 2, SST/OB collects data from multiple sources such as the electronic fund transfer (EFT) switch, SSTs, remote management and monitoring (RMM), custom data sources, etc.

SST/OB captures device-state messages and writes them to a Windows®-based SQL Server database. Once captured, SST/OB interprets device-state messages and compares these to user-defined business rules, identifying any noncompliance. It records violation events locally to the Windows log and sends events to any enterprise-monitoring platform for notification and corrective action.

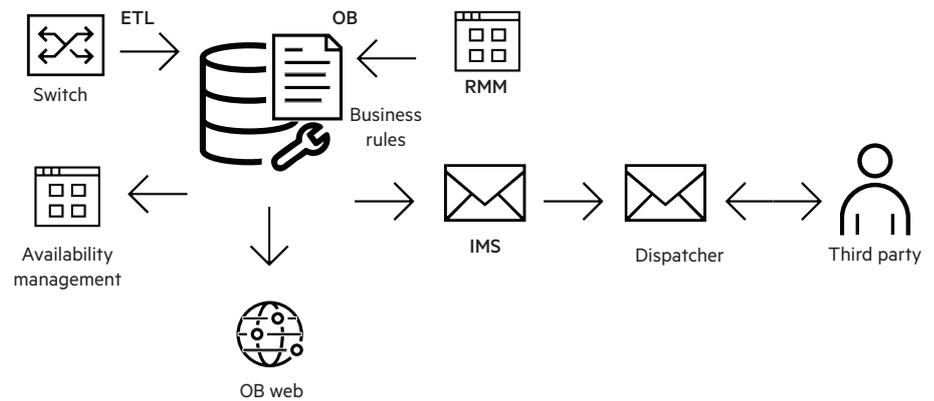


Figure 2: SST/OB schematic

These events trigger command and control scripts executed on the SST. Every violation creates help desk incidents, along with emails and pages to appropriate personnel. In addition, SST/OB generates statistical reports for fault trends and availability analysis. SST/OB integrates with the HPE ATM/TA to provide correlated information and a comprehensive view of SSTs with associated transactions data in real time.

to enable proactive response. Fault data is prioritized based on severity levels to confirm that critical events get immediate attention. All types of fault data are captured and used to enhance service intelligence and facilitate predictive maintenance.

Key benefits

- Terminal availability for customer
- Vendor availability
- Cash statistics
- Fault statistics
- Service statistics
- First Level Maintenance (FLM)/Second Level Maintenance (SLM) SLA
- ATM profitability
- Service provider dashboards

Single pane management

Single pane of management of SST/OB displays all problems, events, alerts, cash information, performance data, and business metrics of the ATM infrastructure of a bank. It nearly continuously monitors the health of the ATM network to identify potential problem areas that can impact ATM availability or degrade performance. Alerts and notifications are generated to initiate corrective action and rectify faults before these can impact customers. Analytics and dashboards provide the actionable insights for operations and users to facilitate data-driven decision-making.

Switch-based monitoring

SST/OB supports switch-based ATM monitoring for all mainstream payment switches, including ACI BASE24CLASSIC, BASE24-EPS, FIS IST, Connex, Postilion, Opus Electra, OCM24 that support the ISO 8583 messaging protocols.

Powerful correlation and rule engine

SST/OB correlates data from multiple data sources including ATM, switch, network, etc.

Remote command and control

SST/OB can be configured to support remote management of ATMs using agent technology. RMM agent is a lightweight agent designed for state monitoring of ATMs without any switch-related dependencies. Key supported features include “X” File System (XFS) monitoring, remote command and control of ATMs, remote reboots, EJ pulling, file transfer, content distribution, etc. RMM significantly reduces ATM fleet-management costs through a reduction in FLM calls and enhancement of remote diagnostic capabilities.

Straight through dispatch management

The dispatcher module is integrated into the SST/OB platform. It provides the ability to send automated alerts and notifications to service providers by using a variety of channels including email, voice, SMS, mobile, etc. Automated escalation and notification procedures can be defined by using an escalation matrix to comply with SLAs. Additionally, the dispatcher module provides integration end points to facilitate integration with third-party help desk or customer relationship management (CRM) systems.

Integrated Incident Management System (IMS)

SST/OB features an optional Incident Management System (IMS) module that provides incident management to facilitate tracking and resolution of issues originating from an ATM network. It has a customizable workflow engine that helps it to fit into the environment of a bank easily. Additionally, it helps the banks to enhance the customer experience by enabling users to create manual tickets on both the ATM and ATM site. IMS provides features that are specifically built keeping in mind the SST domain like scheduling preventive maintenance, creating and managing chronic incidents, a highly configurable availability module, etc. to keep track of vendor and department performance. Additionally, it can be integrated with third-party help desks for automated field-service dispatching and with other systems, like environment monitoring systems.

Availability management

SST/OB supports service-level management in a multi-vendor ATM environment. The availability engine of SST/OB provides the net uptime and downtime statistics of the SST network divided into individual problem category buckets. The availability can be configured depending on how the various organization units in a bank want to analyze and use the statistics and take care of the ATM and vendor work schedules. Additionally, availability helps banks to provide reports to their respective central banks and avoid non-compliance. Vendor performance can be tracked against service-level commitments and key performance indicators (KPIs) to deliver a superior customer experience.

Transaction analytics

The integrated transaction analytics engine of SST/OB provides the frontline intelligence required by IT operations and business users to facilitate evidence-based decision-making. Business users generate their own dashboards and reports without IT support. An overall view of KPIs and other transaction metrics facilitate proactive service-level management. Ad hoc query and drill-down capabilities provide operational flexibility and agility for real-time decision-making.

How can SST/OB work specifically for a business?

Web-based real-time information, rich features, interactive and user-friendly interface, drill-down information, and extensive reporting capabilities—all of these improve the current business practices of a bank and rapidly increase its operational process efficiency and business transparency. SST/OB helps banks maintain their high industry reputation by achieving end-to-end visibility of the network and payment transactions, and improving the alignment between business requirements and SST operations. It provides operational information as well as business intelligence to increase SST availability, help reduce operating costs, and improve overall turnaround. SST/OB enhances a bank's revenue and facilitates business growth. It enables the bank to perform business-trend analytics on historic data, which is pivotal for capacity planning, and strategic and critical decision-making. The highly scalable solution has a built-in, multidimensional, Web-based analytical engine and offers seamless integration capabilities to different data sources without compromising on data integrity, consistency, security, or compliance.

Key features

- Web-based solution that provides a gamut of business-critical information
- Support of all standard SSTs in the industry, DIEBOLD, NCR, Wincor, etc.
- Real-time SST status, fault, cash, and transaction monitoring
- Auto discovery of ATMs through switch
- Support for Active-Active and Active-Passive environments
- Data exploring through powerful fault and event browser interfaces
- Out-of-the-box policies and business rule configuration
- Dashboard, views, etc. provide a quick health status of the network
- Grouping, searching, and sorting of information per business requirement
- ATM/SST agent for XFS event-based device monitoring

- Electronic Journal (EJ) upload and content-distribution management
- Remote command and control
- Inventory management
- Drill-down information to the last level
- Centralized SST asset management
- SLA monitoring and vendor management
- Secure data transfer delivered via industry standard Transport Layer Security (TLS) V1.0 and later
- Role-based access control, as well as support of Windows authentication
- Data and business-trend analysis for capacity planning
- Ad hoc reports at the click of a button
- Industry-standard reporting
- Integration with the HPE ATM/Transaction Analyzer
- Support for CEN/XFS 2.x, 3.x, and SNMP V1 and later

Key benefits

- Real-time performance of terminals
- Complete information on terminals gathered from various sources
- Effective, fast, and accurate root cause analysis
- Business-critical data in convenient and customizable views and formats
- Instant snapshots of KPIs on live dashboards
- Multi-level alert escalations via SMS and email
- Historical trend analysis and capacity planning
- Assessment of SST return on investment (ROI)

- Improved data management and consistency through a centralized repository
- Increased device availability, transaction volumes and revenue, and customer satisfaction
- Fulfillment of demands and prevention of potential and real problems
- Simple and low-cost scalability
- Reduced overall operational and monitoring costs, help-desk costs, service vendor expenses, and emergency calls

Remote monitoring and management agent for SST/OB

A wide variety of tools is available in the market that provides device-state information to the SST operator. Some tools are bundled with the device itself, but not all provide a holistic view connecting specific and granular real-time device-state information, which provides the critical mass of information required by the SST owners. Network owners require a remote management product that can fully integrate maintenance-level SST monitoring and corrective actions into one universally compatible and user-friendly package.

The RMM agent for SST/OB gives SST fleet owners the ability to perform a multitude of tasks without requiring physical access to the machine in real time. The RMM agent is vendor agnostic and works on most SST makes and models. By deploying RMM agent, a network owner can get great benefits such as unprecedented savings in resources, time, and money spent in SST fleet maintenance. RMM agent's robust remote management capabilities significantly reduce the number of regular and ad hoc SST site visits by technicians, resulting in faster return on investment.

Key features and benefits

- Built-in electronic journal and log files viewer with search and print capabilities
- Real-time retrieval of electronic journal files using a trickle-feed mechanism
- Remote reboot and diagnostics capability
- CEN/XFS-based device monitoring
- Vendor agnostic
- FTP delivery of electronic journal files to banks for reconciliation
- On-demand or scheduled content distribution
- Remote upload of CCTV images

Cash management

The cash management module of SST/OB helps the bank manage its cash replenishment and forecast requirements efficiently and accurately. The information that the module sends to bank branches helps to improve cash-loading efficiency by reducing idle cash in SSTs and reducing cash outage events. In addition, the module manages unexpected events such as machine breakdown; fluctuations in SST cash demand; high and low payout days; and local, regional, and unplanned holidays.

Key features and benefits

- Cash summary details
- Cash withdrawal details at various levels (SST, branch, region, and vendor)
- Cash replenishment reports at various levels (SST, branch, region, and vendor)
- Cash prediction for SSTs considering previous cash usage pattern

- Detailed cash-out reports at various levels (SST, branch, region, and vendor)
- A list of SSTs that have idle cash, which helps the bank to take action to improve cash usage
- Real-time cash position dashboards at various levels (SST, branch, region, and vendor)
- Cash position of terminal at cut-off time or at a particular point in the day

SST asset management

The asset management module consolidates and manages assets, terminal location, and transaction information collected from the EFT switch, from terminal custom data (data outside the switch), and directly from the XFS-based RMM agent that resides on SSTs. Diverse information can be collected, such as SST serial number, location, manufacturer, and model; information related to hardware and software components, subcomponents, patches, and versions; and custodian and vendor details such as contact numbers. The terminal location information tracked includes terminal identification, ownership, vendor affiliations, and groupings.

Incident management system for SST/OB

In a complex network of self-service terminals, there are various types of issues that require tracking and resolution. Therefore, a fleet owner must proactively manage these incidents for a smooth business environment. The IMS for SST/OB allows effective tracking and management of incidents as they occur and helps a business accomplish a low turnaround time, and effective SLAs.

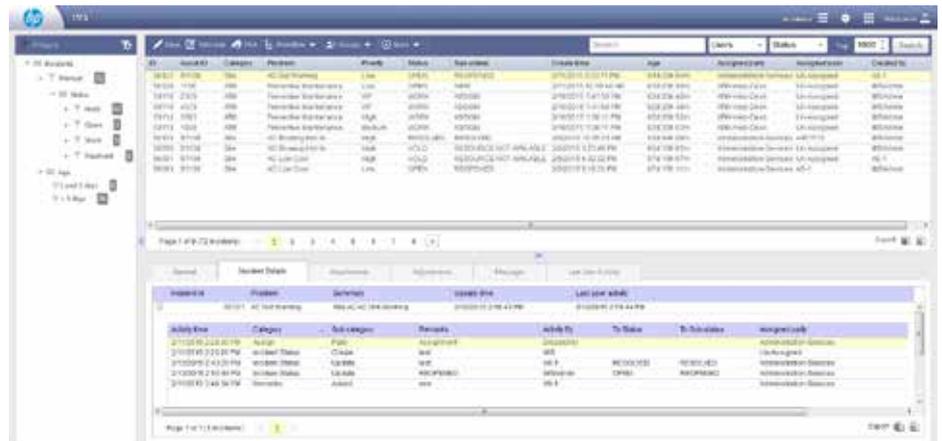


Figure 3: IMS user interface

Key features and benefits

- Automatic creation, modification, and dispatch of incidents
- Customizable workflow management
- Support for any level of escalation matrices
- Flexible SLA definition and its adherence or management using color coding and notifications
- Support for adding comments and file attachments to incidents
- Business rules to suppress unwanted incidents like communication down blips on VSAT ATMs
- Integration with external help desks and systems like environment monitoring
- Automatic closure of incidents on problem rectification
- Switching of incidents to other category after initial root cause analysis
- Linking of incidents so that SLA calculation is put on hold till dependent tasks are completed
- Reassignment of tickets and activity log for all changes
- Scheduled preventive maintenance

- Creation and management of chronic incidents
- Reminders on incidents
- Vendor and department performance and SLA management
- Vendor billing system for penalty and rewards calculation

System requirements

This solution requires that the appropriate HPE NonStop SST Agent software be installed on the host system supporting transactions (on ACI BASE24, Connex, or other applications).

The SST/OB product involves three key components: an application server, a Microsoft® SQL database, and a Web application. There may be additional servers required for scalability depending on number of SSTs, transaction volume, and number of concurrent end users.

To achieve superior performance, customization, and efficiency, this product requires a brief HPE installation and training service.

Get the services you need

HPE Technology Services help you build an infrastructure that is reliable, highly available, and rooted in best practices. For your NSASJ deployment, HPE recommends the following services:

HPE Critical Service (Optimized Care)—High-performance reactive and proactive support designed to minimize downtime. The assigned support team includes an Account Support Manager (ASM). This service offers access to HPE’s Global Mission Critical Solution Center, 24x7 hardware and software support, six-hour call-to-repair commitment, enhanced parts inventory, and accelerated escalation management.

HPE Proactive 24 (Standard Care)—Proactive and reactive support delivered under the direction of an ASM, offering 24x7 hardware support with four-hour onsite response, 24x7 software support with two-hour response, and flexible call submittal.

HPE Support Plus 24 (Basic Care)—Reactive hardware and software support with remote problem diagnosis, four-hour onsite response, and replacement parts. Software support includes installation advisory support and software updates for HPE and selected third-party software products.

HPE Installation and Start-up Services—Efficient and effective deployment of HPE hardware components.

For more information, visit: hp.com/services/nonstop

Product	Hardware	Software
HPE NonStop SST Agent—host software	HPE Integrity NonStop NS-series servers or HPE Integrity NonStop BladeSystem servers or HPE Integrity NonStop X servers	HPE NonStop Release Version Update (RVU) L15.02 or Q06.15 or H06.26 or later
HPE SST Operations Bridge (Database Server)	Microsoft PC Windows-based multi-core server with minimum 4 GB RAM (>4 GB RAM recommended) and minimum 200 GB disk space	Windows Server® 2008 R2 Server or above Microsoft SQL Server 2008 R2 or above
HPE SST Operations Bridge (Application Server)	Microsoft PC Windows-based multi-core server with minimum 4 GB RAM (>4 GB RAM recommended) and minimum 40 GB disk space	Windows Server 2008 R2 Server or above Microsoft .NET Framework 3.5 or above Java 7 for Windows or above
HPE SST Operations Bridge (Web Server)	Microsoft PC Windows-based multi-core server with minimum 4 GB RAM (>4 GB RAM recommended) and minimum 40 GB disk space	Windows Server 2008 R2 Server or above Microsoft .NET Framework 3.5 or above Microsoft Internet Information Services 7.0 or above Java 7 for Windows or above

Ordering information

This product requires the appropriate version of HPE NonStop server host software. SST Operations Bridge software

can then be ordered in multiple license packs to best meet the needs of an expanding business. Note that a brief HPE services installation is required for this product.

HPE NONSTOP SST AGENT software

Part Number	Description
HSST01V1	HPE SST NONSTOP AGENT for HPE Integrity NonStop NS-Series servers
QSST01V1	HPE SST NONSTOP AGENT for HPE Integrity NonStop BladeSystem servers
BE370AC	HPE NONSTOP SST AGENT for HPE Integrity NonStop X servers

HPE SST Operations Bridge software

Part Number	Description
SST04AV1	SST OPERATIONS BRIDGE (Up to 100 devices license) (for H- & J-series)
SST04BV1	SST OPERATIONS BRIDGE (Up to 1,000 devices license) (for H- & J-series)
SST04CV1	SST OPERATIONS BRIDGE (Up to 2,000 devices license) (for H- & J-series)
SST04DV1	SST OPERATIONS BRIDGE (Up to 5,000 devices license) (for H- & J-series)
SST04EV1	SST OPERATIONS BRIDGE (Up to 10,000 devices license) (for H- & J-series)
BE393AL	HPE NONSTOP SST OPER BRIDGE LTU for HPE Integrity NonStop X servers ¹
BE392AM	HPE NONSTOP OPERATIONS BRIDGE MEDIA

¹ One L-series stock keeping unit (SKU) applies for any number of devices. Specify the number of devices while ordering.

Learn more at hp.com/go/nonstop



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