Hewlett Packard Enterprise

HPE ATM Transaction Analyzer

Transform business operations with actionable intelligence

ATM Transaction Analyzer (ATM/TA) is an operational business intelligence (BI) platform that rapidly analyzes business transactions and delivers actionable insights in real time for proactive decision making by IT and business users. It provides the front-line intelligence required to facilitate evidence-based decision making while empowering end users with self-service BI capabilities.

Supported applications and standards

- ACI BASE24 EPS/Classic
- eFunds fast payment
- CSFi SWITCHWARE
- Postilion
- XML and ISO 8583 standard for financial transaction card originated messages
- Supported middleware and databases (IBM MQ, Microsoft® SQL Server, Oracle, DB2, Sybase, and TIBCO)

Introduction

ATMs are no longer used just for cash dispensing. First introduced in the late 1960s, ATMs have become sophisticated remote transaction processing terminals capable of dispensing everything, from postage stamps to pre-paid phone cards. Originally developed as laborsaving devices, ATMs now generate over 25 billion USD annually in fees for ATM network operators. In addition, ATMs have become the primary customer interface for most banks. As a result, the reliability and functionality of the ATM network is now a critical factor in driving customer satisfaction.

The industry uptime requirement for ATMs is over 99 percent. Delays and failures in transaction lead to loss of customers. Therefore it becomes critical for businesses to control and manage these transactions and avoid failures. When transaction failure occurs, rapid isolation and resolution become business imparity.

Businesses should try to make the most out of the processed transactions to utilize their total cost of ownership. Real-time analysis of the data provides insight to businesses profitability and pinpoints areas for improving profitability.

The ATM Transaction Analyzer (ATM/TA) from HPE provides businesses with necessary components for complete visibility of the entire lifecycle of transactions. ATM/TA enables businesses to measure, control revenue and mitigate business risks ahead of time to provide high levels of service.

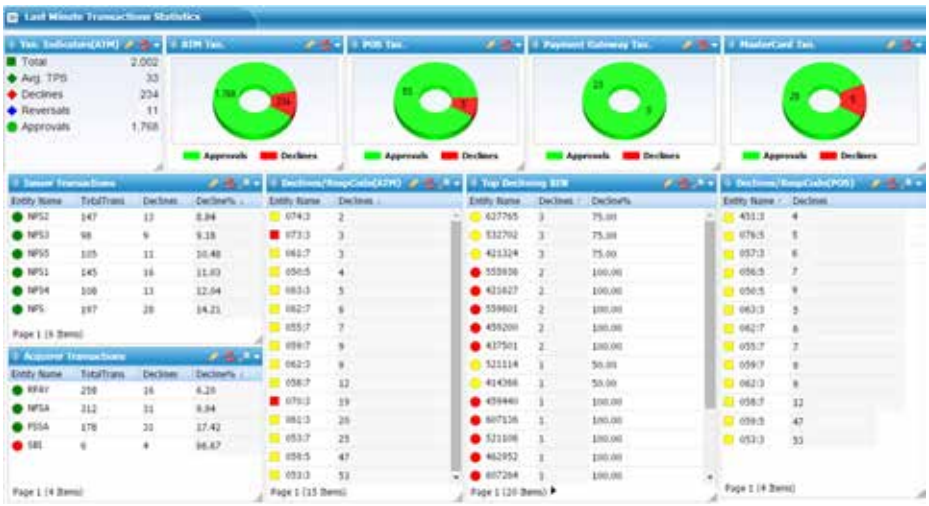

Figure 1. Snapshot of transaction monitoring

Key performance indicators (KPIs)

- Transaction throughput (TPS)
- Transaction response times
- Interchange response times
- Response code views
- BINS with excessive denials
- Transaction profiles
- Trend analysis of transaction data
- ATM transaction activity

How does ATM/TA work?

ATM/TA enables near continuous and real-time management of transactions hosted on any computing platform. ATM/TA runs on almost all popular platforms to gather details on transactions processed and recorded in the Host/Payment Processor transaction log files. ATM/TA can present transaction details and metrics in dynamic, customizable, and Web-based views that are relevant to a diverse community of business and technology users.

As depicted in figure 2, a customer makes a transaction through an ATM. The details of the transaction go to a switch or authorizer. Then, the details of the transaction go to the card issuer. An extract, transform, and load (ETL) agent captures the data and sends it to ATM/TA. Finally, ATM/TA provides management control and analysis of the captured data for various operations, such as IT, retail, and business.

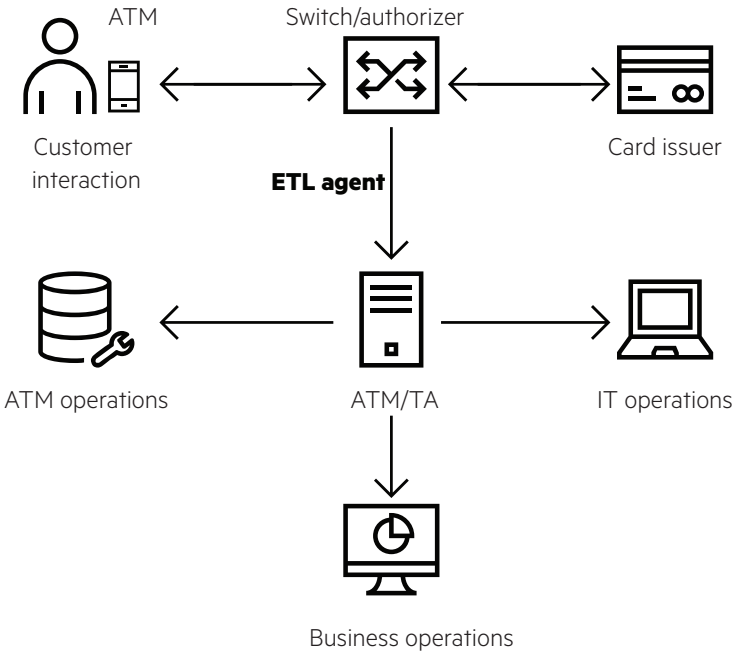

Figure 2. ATM/TA schematic diagram

Figure 3. Business dashboards

Key features of ATM/TA

- Real-time status of transactions
- Complete breakdown of processed transactions
- Rapid problem isolation, reducing mean time to repair (MTR) to provide positive impact to business bottom-line
- Accurate data enables organizations to rapidly identify the fault and hence provide the right support
- In-depth analysis of data gives insight to business imparity
- Dashboard, scorecards, etc. provide a quick health status of the entire network
- Activities of card issuer, authorizer, and financial institution ID (FIID)
- Increased ATM availability and profitability
  - Management of business rules that support service level agreements (SLAs)
  - Intelligence to measure and adjusts business rules or model
  - Faster and accurate root cause analysis
  - Reduced helpdesk and service vendor expenses
- Planning capability for growth and control of assets
- Customized views based on specific business models and metrics
- Transactional data from all resource nodes defined in targeted logical networks
- Reports on transactions and historical trends

Business dashboards

ATM/TA provides overall views of business metrics using interactive dashboards. It displays KPIs and other relevant business metrics on executive dashboards and creates custom dashboards from a variety of data sources that can be dragged and dropped. It provides filters, supports changing chart types, provides drill down capabilities, and sorting of data using advanced dashboarding capabilities. In addition, it provides comparison of data in real time using exception highlighting and traffic lights, and analyzes historical information alongside current data and probable trends to move from insight to action in a proactive manner.

Self-service BI

Business users require the ability to conduct ad hoc queries on data and develop their own dashboards and reports while ensuring compliance with IT data access, governance, and security policies of the business. ATM/TA significantly reduces the requirement of a large IT team to generate reports and interpret the data. Additionally, ATM/TA removes nearly all the internal IT churns about delivery and prioritization enabling a free flow of business-impact data.

ATM/TA makes it seamless for end users to analyze data in real time and develop their own interactive reports and dashboards. Real-time access to analytics and ad hoc query capability facilitate evidence-based decision making in real time.

Data integration from multiple data sources

Businesses typically spend 75 percent of the time collecting data and just 25 percent of the time in analyzing that data. ATM/TA from HPE reverses this ratio, allowing businesses to focus on business-impacting parameters to increase profitability.

As depicted in figure 4, ATM/TA integrates data from disparate data sources that include databases, business applications, CRM software, Web services, messaging middleware, Excel spreadsheets, legacy applications and so on with no complex heavy lifting through scripting, etc. Additionally, it integrates with data sources from payment gateways and transaction switching platforms, like ACI BASE24, Postilion, Connex, etc., by using out-of-the-box connectors.

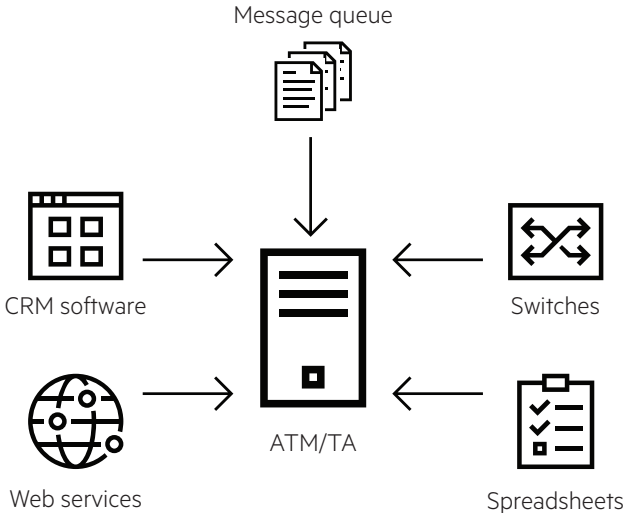

Figure 4. Data collection from multiple touch-points

Granular transaction monitoring

ATM/TA nearly continuously monitors all transaction throughput rates and generates real-time alerts on key metrics such as transaction authorization and completion times, activity by Bank Identification Number (BIN) usage, peak transaction volumes, transaction failures, and authorization denials, etc. Transaction anomalies are escalated for fraud investigation. Root causes of transaction and performance bottlenecks are rapidly pinpointed for proactive problem resolution.

Reporting on cruise control

ATM/TA supports both IT-provisioned and custom-generated reports and scorecards. It automatically generates daily, weekly, and monthly production and operational reports and dashboards for different stakeholders. Business users can generate reports in real time or drill down into data for actionable insights. Updating and creating new reports by adding new data sources seamlessly possible. Reports can be converted into PDF and Excel, comma-separated values (CSV). Report distribution can be done through secure email, file servers, mobile devices, etc., to internal and external stakeholders. Scheduled reports are generated and automatically mailed to desired business stakeholders.

Predictive analytics
ATM/TA provides a foundation platform for predictive analytics. It monitors failure patterns on a mission-critical ATM self-service channel to identify risk of failure. ATM/TA targets to achieve significant reduction in service errors and mean-time-to-repair.

ATM/TA works for your business

ATM/TA offers near continuous and real-time management of ATM transactions, including ATM usage, transaction throughput, transaction acceptance, denial, and reversal rates, stand-in transaction rates, and interchange response times. Live dashboard views of the ATM/TA data provide instant snapshots of KPIs. In addition, ATM/TA allows its users to examine the details of the transactions.

Root cause analysis
In combination with the HPE Performance Agent for NonStop (OVNPM), ATM/TA supports user interface (UI) of system performance metrics aligned with transaction performance data, provides root cause analysis in real time.

Customized business rules
ATM/TA enables precise management of ATM transactions by providing a customizable, dynamic, and rule-based engine that identifies SLA and business rule violations before faults escalate.

SLA/Business violations displayed in OVNM
Local violation alerts are displayed by ATM/TA that enables logging alerts to the NT Log or NonStop Event Log. Additionally, this allows HPE Operations Agent for NonStop (OVNM) to consume and report violations.

ATM/TA benefits

Flexible Web-based monitoring
ATM/TA enhances flexibility through platform and location independent solution for a business. ATM/TA user interface (UI) provides transaction details and these UIs can be customized based on data.

Ready-to-go views for instant ROI
ATM/TA is equipped with predefined ready-to-go views. These views are defined with ATM network management best practices so that users can immediately take advantage of its powerful features.

Real-time transaction management
ATM/TA's unique feature of transaction analyzer processes transaction logs in real time to provide KPIs such as approved and denied transactions. Operations can benefit by taking recovery actions when abnormal conditions occur with no delays, enabling seamless management of the ATM network.

Easy system administration
ATM/TA provides for storing data safely by programming preferred security levels. This feature allows the regular review of permissions allocated to individuals and accounts used by automated processes.

Customer-centric views
ATM/TA provides the ability to create views depending on business requirements. This gives the processor the ability to provide views to their users without compromising data of another institution. The portal nature of the ATM/TA allows a processor to provide specific information desired by a user.

Threshold configurations and notification alerts
Thresholds can be created to define acceptable operational rules for specific transactions based on KPIs. A user can specify the attributes like severity, polling interval, and monitoring status. Automated alert capabilities provide instant notifications in case of violation. Generated alerts can be configured to be mailed according to escalation hierarchy.

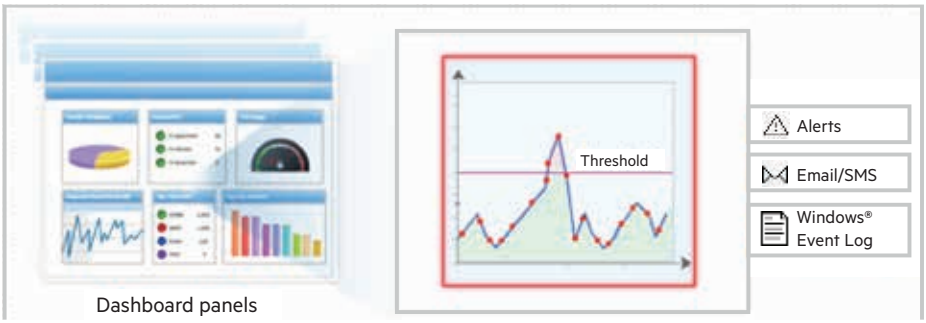

Figure 5. Threshold configurations and notification alerts

Figure 6. ATM/TA processes transaction logs in real time to provide statistics, such as approved and denied transactions

In case of violation, alerts are triggered in the form of alerts on an internal database, events on Windows Event Log or node, email, etc.

Transaction trend analysis
Data captured can be stored and reported in real time for historical trend analysis to look for abnormal behavior in transaction processing.

Import of custom entities and owner FIIDs
ATM/TA provides the ability to import business specific entities and owner FIIDs to its environment. This feature can be used in scenarios where the names of certain entities/owner FIIDs are modified or new ones are added.

Pinpoint impact of outage
ATM/TA provides the capability to track the effect of outages in real time. Businesses can immediately identify a fault in the ATM network, and take appropriate steps to rectify the problem before it affects customers. This helps in enhancing the complete user experience.

Real-time business activity management

ATM/TA performs real-time analysis of transactions data so that business operation and IT teams can monitor and maintain high service levels for your end customers. It can provide business intelligence that can significantly add more value to the way ATM data serves real business requirements. ATM/TA for capturing and presenting this data provides real-time status to help better understand ATM usage trends and provide better customer service.

ATM/TA helps to reduce costs and identify inefficiencies in businesses that could be costing a business millions of dollars. ATM/TA provides a vehicle to recoup the Return of Investment (ROI) within a short time.

Reporting the statistical data

ATM/TA provides extensive reporting of transaction data and statistics, giving user information on historical trends and the flexibility of creating ad hoc reports based on the statistical data such as shown in the Transaction Summary Report as shown in the Transaction Summary Report depicted in figure 7.

This report shows the hourly trend of percentage of transactions, approvals, and denials for a day.

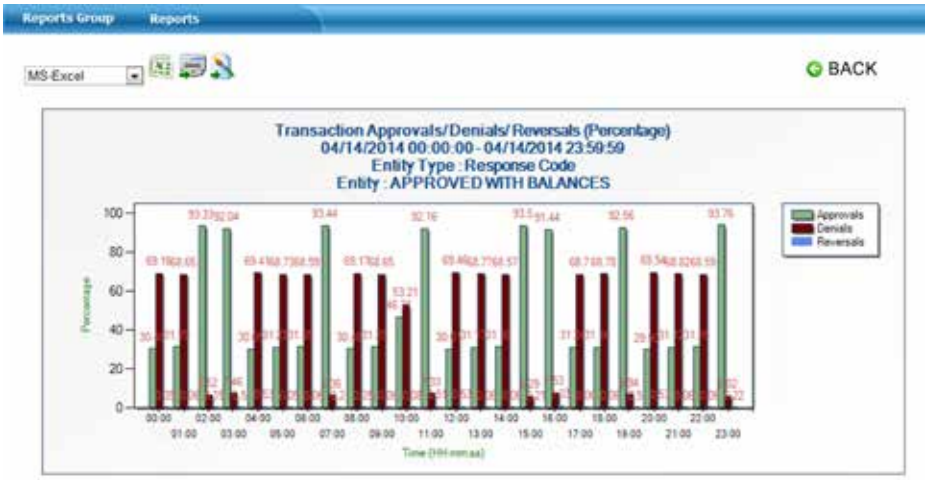

Figure 7. Transaction report for approvals, denials, and reversals percentage

System requirements

This solution requires the appropriate HPE SST NONSTOP AGENT server software on the NonStop system supporting transactions using ACI BASE24, Connex, or other applications.

The ATM/TA product involves three key components: an application server, an MS SQL database, and a Web application. All three can be installed on a single Windows management server or, to enhance processing performance, these components can also be distributed on multiple Windows servers.

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

Product	Hardware	Software
HPE SST NONSTOP AGENT—host software	HPE Integrity NonStop X servers or HPE Integrity NonStop BladeSystem Servers or HPE Integrity NonStop NS-series servers	HPE NonStop Release Version Update (RVU) L15.02 or Q06.15 or H06.26 or later. Optional: HPE Operations Agent for NonStop HOV01V5 or QOV01V5 or BE147AC is required if HPE Operations software is used as the management server
HPE ATM/ Transaction Analyzer (Database Server)	Microsoft Windows Server® with 4 GB RAM (minimum) and 100 GB disk space	Windows Server 2008 R2 Server or later Microsoft SQL Server 2008 or later
HPE ATM/ Transaction Analyzer (Application Server)	Windows-based Server with 4 GB RAM (minimum) and 40 GB disk space	Windows Server 2008 R2 Server or later Microsoft .NET Framework 4.0 or above Java 7 or above
HPE ATM/Transaction Analyzer (Web Server)	Windows-based Server with 4 GB RAM (recommended) and 40 GB disk space	Windows Server 2008 R2 Server or later Microsoft Internet Information Services 7.5 or later Microsoft Internet Explorer 9.0 or later

Ordering information

HPE Integrity NonStop X Server

SKU (Stock Keeping Unit)	Description
BE370AC	HPE NONSTOP SST AGENT
BE371AL	HPE NONSTOP ATM TXN ANALYZER LTU (s/w license)
BE372AW	HPE NONSTOP ATM TXN ANALYZER

HPE Integrity NonStop BladeSystem Server

PID (Product ID)	Description
QSST01V1	HPE SST NONSTOP AGENT
QSST02V1	HPE ATM/TRANSACTION ANALYZER
QSST02AV1	HPE ATM/TRANSACTION ANALYZER

HPE Integrity NonStop NS-series Server

PID (Product ID)	Description
HSST01V1	HPE SST NONSTOP AGENT
HSST02V1	HPE ATM/TRANSACTION ANALYZER
HSST02AV1	HPE ATM/TRANSACTION ANALYZER

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.

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4AA5-8200ENN, November 2016, Rev. 1

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