

SMS Banking



POS Network



ATM Driving Switch



Card Management

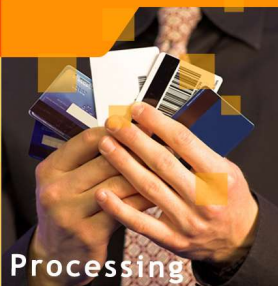


Call Center

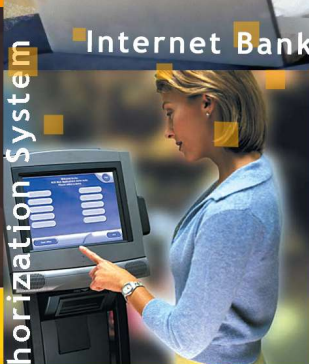


Internet Banking

Integrated Channel Manager



Debit and Credit Card Processing



Kiosk Network

IVR Banking



Issuer Authorization System

PHOENIX

Transaction Processing Middleware

When you want a real-time system alternate distribution architecture, where customers could get the same information at the ATM as they could using Internet banking, voice response, SMS banking or any other remote banking interface, Phoenix from TPS is the clear answer.

Financial institutions worldwide are responding to challenges of providing unique value to their informed and demanding customers by packaging and integrating product sets that match their customers' individual needs and payment preferences and then delivering them through any channel they prefer free from time and geographical boundaries.

The TPS Transaction Processing and Switching Solution

The first stepping stone toward any bank's remote banking strategy is usually the deployment of ATM network. As the adage goes "Get the customer to the wall to get him in the branch". Over the years, ATMs have become an integral part of a financial consumer's remote banking experience.

Consumer judge the savvy of a bank while interacting with the banks self service terminals. It is for this reason that bland text screens with minimal transaction offerings at ATMs have become a thing of past.

Today banks and service providers are aggressively extending their ability to be competitive by offering new advanced functionality and services through their ATMs.

Rich transaction sets, cross-selling, audio and video capabilities have all become the norm rather than exception. More and more organizations are taking control of their own network in their move to offer specially tailored products and services on their own ATMs and to communicate "a touch of difference".

That's exactly what TPS flagship product, Phoenix, does. Phoenix is an EFT switch and middleware that dove tails various remote banking channels into an integrated alternate distribution schema for delivery of various financial and non-financial services through a unified interface into core banking system(s). Phoenix shields the complexity of remote banking channels and related technologies allowing banks to focus on business processes and delivery.

ATM Driving

Over the past decade, the number of ATMs has increased exponentially. The appeal to consumers is obvious - ATMs are easy to find, simple to use and available 24/7. Financial institutions benefit from the growing popularity of ATMs by improving customer satisfaction, prospering from the fee income ATMs generate, and reducing branch operating costs. With the number of ATMs rising steadily, there is no doubt that these convenient self-service devices will continue to have a dramatic impact on the banking industry's rapidly evolving competitive landscape.

Easy to Deploy, Easier to Expand

Phoenix provides everything you need to drive, monitor and manage every aspect of your ATM business. It puts control of your own ATM network at your fingertips giving you a clear, up-to-the-minute picture of your entire ATM network. With extensive transaction and network MIS, Phoenix also facilitates business support functions related to ATM operations.

With flexible and modular design, Phoenix is a truly open and multi-vendor ATM switch supporting all major brands of ATM running over NDC/912/8583 protocol over any communication protocol.

All Purpose Transaction Switch

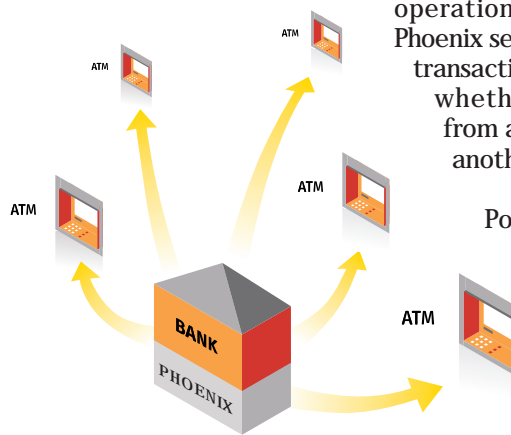
Phoenix has been engineered to support advance and open transaction sets on ATM network through its advanced business and transaction rules engine. Whether it is simple cash dispensing or complex transactions like person to person transfer, mobile top ups or bill payments, Phoenix amplifies your ATM functions and seamlessly integrates with the core banking back end.

Phoenix can add personality to your ATM by supporting advance graphic functions, multi-lingual screens, open transaction dialogues, screen animations, audio cues, biometric support and other advance services.

Inter-connectivity

Beyond driving a bank's or an institution's own ATMs, Phoenix is a true EFT switch and can interface to any local, regional or international network to allow your cardholders to transact reliably on any ATM belonging to a network of which your bank is a member. From

operational point of view, Phoenix seamlessly processes transactions irrespective of whether it is received from a local ATM or from another network's ATM.



Powerful reporting, settlement and reconciliation tools provides you with a clear picture of all on-us and not-on-us

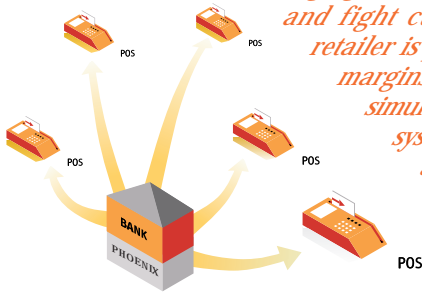
transactions at a glance that simplifies the management of complex local, regional, national and global network relationships.

Grow to Meet Market Demand

Phoenix is ideally suited not only for banks to roll out their self service program and also for private ATM operators to function as their own ATM processor and to interface to any authorization gateway or co-processor.

POS Driving

The retail landscape is dramatically changing due to demographics, consolidation and price pressure, along with emerging technologies that improve service and tight customer attrition. Today's retailer is pressured to increase profit margins and market share — while simultaneously upgrading payment systems and value added services at the point of sale (POS). Likewise, sustained growth in market share poses its own challenges as the cost and volume of transactions increase.



The capability of switching payment transactions in a platform neutral environment is fundamental to modernizing payment systems and protecting existing solution investments. Interoperability with multiple applications in a relational database environment allows retailers to capture transaction information and bolster customer loyalty with extendibility to POS and other customer touch point devices.

A Multi-purpose POS Platform

POS terminals provide a very cost effective way of extending the power of plastic to a broad section of consumers for a variety of services. POS network have classically been used for acquisition of credit/debit card transactions over a bank's merchant network. Today banks are putting POS terminals to innovative uses for extending their transactional services and generating cross-sell and fee income. Proprietary POS programs are in place that provides electronic check book facility, remittance services, loan & bill payment services etc.

Reduce Time to Market

Phoenix POS management modules allow banks to deploy and manage their POS networks whether it is for classical credit/debit acquiring or for value-added proprietary usage. All essential ingredients for a complete POS program rollout are built into Phoenix POS modules ranging from physical and logical interfacing of POS devices to complete merchant management and transaction reconciliation/settlement functions.

Global Interoperability

With TPS experience of working with international interchanges like VISA and MasterCard, banks always have the comfort that they can start off with on-us as well as not-on-us acquiring from day one.

Card Programs

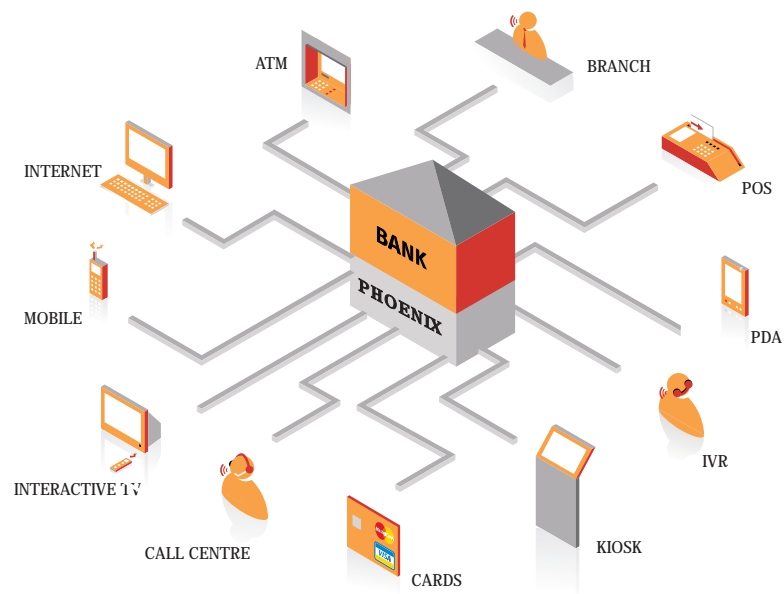
Phoenix provides the basic building blocks that can be used and tailored by financial institutions to create a

competitive differentiation for them. In its intrinsic configuration Phoenix provides complete support for Debit card programs that can be private labeled or internationally branded like Visa Debit.

As cards are a convenient alternative to cash, banks are devising new and innovative card products as part of their business offerings. Phoenix makes it simple for introducing specialized and tailored card products like pre-paid card, utility payment cards, corporate debit cards, remittance and allowance card etc. The best part of designing any card program around Phoenix is access to card services from any channel connected to Phoenix. For instance, a client may use his pre-paid card to draw cash at ATM, pay a bill through Internet, charge the card through Kiosk or access other services over voice response.

Multi-Purpose Transaction Processing Middleware

With Phoenix, an institution does not just acquire a simple ATM switch but a complete switching middleware and delivery channel management solution. Phoenix middleware capabilities are being used by numerous financial institutions for deploying various value added financial services on diversified delivery channels while maintaining a single, uniform and consistent interface to their back-end core banking system(s).



This strategy effectively shields and isolates the delivery and channel management from core business functions allowing organizations to concentrate on core business process development, whereas Phoenix takes care of reliable interaction and transaction delivery on any customer touch point interacting with it.

An End-to-End Channel Manager

Phoenix builds a strong alternate distribution framework for banks on which they can gradually or immediately deploy support for various delivery channels like voice response (IVR), Call Center, Point of Sale Network (at branches/merchants), Internet Banking, Cellular Banking, Kiosks etc. Whatever the delivery channel, Phoenix provides the bridge between the bank's service offering and service delivery to its customers.

Being a pure transaction processing switch, Phoenix can also be deployed in segments other than pure financial sector wherever there is a need to process a Card or PIN based transaction. For instance, Phoenix can be used for salary dispensing by large corporate, issuance & management of specialized pre-paid or pre-authorized card programs that facilitate business to business or consumer to business payments e.g. fuel cards, merchant cards, merchandise purchase cards, loyalty cards, mobile top-up cards, bill presentment and payments etc.

The Phoenix Advantage

A robust routing and processing engine is at the core of Phoenix, which guarantees smooth, efficient and reliable exchange of transactions between any end points. Phoenix has been deployed in various locations serving following needs:

- Proprietary switch managing bank's ATM & POS network with interfaces to international interchanges (Visa, MasterCard etc.) for on-us as well as not-on-us issuer and acquirer processing

- Shared switch providing inter-bank transaction routing and settlement facilities
- Independent processors switch driving third party ATM networks
- Gateway processor interfacing core backend systems to various alternate distribution channels and networks like online cash acceptance machines, kiosks, credit and debit card processing
- Act as a channel integrator whereby all alternate distribution channels (IVR, Call Center, Internet, SMS, Kiosk etc) can be consolidated

Business Fit

Various implementations of Phoenix are offering specialized services targeted to create a value differentiation for individual institutions. TPS is always willing to customize or enhance Phoenix for introduction of innovative ideas and services.

Some business ideas being served by Phoenix include:

- Diversified online payment solutions through direct debit interface and support of cash acceptance ATM machines.
- Advance funds transfer facilitating person to person transfer.
- Bill presentment and payment, mobile top-ups and other value added transactional services in addition to standard transaction

set normally offered by EFT switches.

- Payroll automation
- Various card programs aimed at facilitating cash management processes or increasing service revenues
- POS solutions to facilitate and expand card based transactional services
- Standard ATM and POS driving solution with interfaces to local, regional and international networks.

TPS' strongest forte is in the field of transaction switching, payment systems, alternate distribution and delivery channel integration. Whether you are starting up with launching your self service network, planning a switch or EMV migration or considering a service rollout like payroll automation, debit or credit program launch etc., TPS has the skills and technologies to assist you in a successful rollout. TPS team of skilled professionals are always ready and willing to customize any service or feature to help you get that competitive edge by translating your unique business idea from conception to delivery on your ATM network.

Phoenix extensive list of features, flexible configuration, and total integration with your centralized or distributed core banking system, reliability, track record and proven success makes it stand out as a very cost effective and intelligent choice.