THE GeN "X-2 LOYALTY PLATFORM
HIGH LEVEL DESCRIPTION

System Architecture Overview:

Although significantly more costly and technically challenging to develop, GLX chose to design and build its loyalty applications based on the model of a financial transaction processing system rather than on a more "relaxed" back office transaction model. This approach assures the needed data integrity of important financial transactions and the high-availability processing architecture needed to assure their satisfactory completion in the demanding point of sale world. Key "core" technologies, proven and established in high-availability and high volume financial transaction processing environments, have been enhanced and extended to conform to the unique additional requirements of the loyalty and stored value environment.

Some of these core technologies and extensions include:

- Integration of fully functional loyalty software within traditional point-of-sale magnetic stripe terminals supporting credit/debit authorization;
- Transaction switch software designed to support multiple acquiring gateway and issuer interfaces, with integral message re-formatting capabilities;
- High-availability "24x7" application architecture, coupled with high data integrity to manage the financial liabilities represented by loyalty transactions;
- A sophisticated relational database model for all merchant, cardholder, and transactional data to assure proactive and effective development and management of all loyalty programs.
- Support for traditional and E-Commerce-based transactions, thus allowing the first truly integrated "bricks and clicks" loyalty program.

This overall architecture, that has included many enhancements, allows GLX to offer the highest level of data integrity and financial liability management while, at the same time provide the greatest level of flexibility in developing and managing multiple loyalty programs. In addition, the GLX architecture is unique in its ability to seamlessly integrate both, the "bricks" and "clicks" worlds in a unified financial/loyalty program geared to the volumes and data integrity issues associated with consumer-based high value financial transactions.

The design of the GeN "X-2" Platform coupled with GLX's 13 years of knowledge and in depth experience, with the deployment of several successful loyalty programs, allows its team the application and communications flexibility to tailor any of our proprietary models to meet with the personalized needs of our clients. The GeN-"X-2" Platform can be operated and supported by GLX or its client, or the software can be sub-licensed and outsourced to an Application Service Provider (ASP) who can provide all operational and maintenance support for the client, with full remote access to the data as required for administrative and reporting purposes.

Point of Sale Solution:

Because the merchant and consumer experience each need to be as simple and unobtrusive as possible. GLX has worked with leading point-of-sale terminal manufacturers to develop and support fully integrated credit/debit/loyalty terminal applications –devices capable of offering a "single view of the transaction" for the payment and loyalty components of a consumer transaction.

This terminal application, hosted on the OMNI 3750/3300 or any other VeriFone countertop device running the Verix applications, supports full loyalty transactions along with single, split dial, IP and wireless (including Blue tooth) credit/debit authorizations. This allows the loyalty and payment transaction to be processed by the same acquiring host in a single phone call, or by two different acquiring hosts with different phone calls. In addition, based on the makeup of an individual loyalty program and its card base, the terminal can support either a single card swipe (i.e. where the credit/debit card routing information supports both financial and loyalty associations) or a multi-card swipe where independent associations are maintained.

Because the GLX solution allows "instant gratification", all loyalty point accruals (TM PlusCounts) and redemption's are processed on-line (that is, as positive authorizations against the cardholder and merchant database records), the terminal application fully supports transaction reversals of the combined transaction. As an example, if loyalty redemption is approved as partial payment for a consumer purchase but the subsequent credit/debit transaction for the balance is denied, then loyalty redemption will be reversed and those points reinstated to the loyalty cardholder's account. In other words, financial integrity and liability of the combined transactions are assured at the point of the sale. (See enclosed design specifications).

The tight integration of both the loyalty terminal software and the loyalty server software application allows additional capabilities that help create market differentiation. For example, current point balances can be returned as part of the printed transaction receipt, "instant messaging" can target individual or groups of cardholders, and full batch settlement of loyalty transactions is incorporated with the merchant's daily settlement and reconciliation processes.

Loyalty Software – Applications/Switch:

Because the GLX loyalty solution is designed to fully support the integrity and availability requirements associated with a traditional financial application, a transaction switch is used as a component of the overall architecture. Like a traditional switch in the EFT/POS arena, the loyalty switch provides gateway, interchange, and logging services. Gateway services are used to support acquiring terminal devices in their native format, log the transactions for reporting and integrity purposes, and forward the transaction to the designated interchange handler for submission to the appropriate issuing host or database for authorization. Processing of transaction responses completes the logging process, and results in the transaction being returned to the originating acquiring device. Current support exists for VeriFone SPDH and ISO8583 formats, with full support of Internet XML-based formats.

The switch architecture allows for multiple gateway and interchange interfaces, which in turn provides convenient mechanisms for supporting additional message formats and/or communication protocols as special circumstances may dictate. Of particular importance is the integration of "distributed queues" within the GLX second-generation switch architecture. These distributed queues allow individual gateway or interchange services to be distributed within the network (perhaps to another acquiring platform if desired) or to operate largely independent of the existing network (perhaps to an Internet-enabled server handling e-commerce applications).

Loyalty Server/Database:

At the outset, GLX recognized two fundamental requirements for the successful deployment of its loyalty applications. They included dynamic program flexibility and activity analysis in order to manage and "fine tune" the various loyalty offerings. To

support these critical requirements GLX committed from the outset to take maximum advantage of relational database technologies as one of the underpinnings of the architecture. The loyalty server, which is the repository of all merchant, cardholder, and loyalty program definitions, is implemented on the Oracle database platform. This platform provides GLX with maximum flexibility in database design, processing scalability, database integrity and reliability, and exposes the data to a wide range of "data mining" tools and facilities.

The relational database model allows GLX to provide loyalty program definition and management tools "at the desktop" to the loyalty program marketing team. This ability to quickly and easily create and modify individual loyalty programs provides significantly reduced "time to market" and increases competitive opportunities in the marketplace. This database design provides the best platform to "data mine" the entire transaction base for merchant and cardholder usage and habit patterns, merchant profitability, and cross-selling and/or cross-relationship analysis.

Because the Oracle database supports simultaneous on-line processing of loyalty transactions and traditional data management functions (i.e. merchant setup and loyalty program management), all "back office" activities can be performed in a real time mode. Complete access to the entire application for setting up merchants, cardholders, and loyalty programs can be done on-line through a standard desktop application developed as part of the overall loyalty solution. This user interface is also used to support such additional loyalty services as instant messaging, instant win, point blocking, fraud management, and customer inquiry functions.

Notes:

1. POS Solutions

GLX retains a world-wide license for the Loyalty, Gift and Stored Value Modules. The GLX Platform includes certification for full credit/debit/loyalty/gift on several next generation countertop POS terminals. Development is ongoing to integrate the Loyalty Module into multiple mainstream ECR (Electronic Cash Registers) Systems. This will allow GLX to eliminate any barriers in providing our value-added applications to any merchant(s) including independent, regional, national and international chains.

2. Loyalty Software Application

GLX holds world-wide licenses from its strategic partners and technology suppliers for all system source code, database applications. GLX maintains it own functional and design specifications for the GeN "X-2" Platform including a report engine and merchant and cardholder web-based Interface, (see PowerPoint presentation for detailed information). The Platform supports both mag-stripe and smart-card and RFID technologies.

3. Loyalty Database

Having completed 95% of the development of its GeN "X-2" Platform, GLX has in the meantime retained licenses to several loyalty and stored value databases that give it global reach. These databases are supported by dedicated hosting facilities in the US, Canada, Sweden, Dubai and Saudi Arabia. 24/7 maintenance and call center support (3 languages) is part of the GLX service level contract with all of its clients.