



Features of SmartPayments™ Payment Server

SmartPayments™ Payment Server (SPS) is designed to help you process electronic payments more effectively. Use TPI Software to centralize payments across the enterprise with speed, scalability, reliability and security at dramatically lower costs. Along with the rich client functionality provided by TPI SmartPayments™ client products, SPS offers:

- Electronic processing of credit cards, debit cards, gift/loyalty cards, ACH (wire-transfer) / E-check and electronic benefits transfer/food stamps (EBT).
- Retail, Mobile / Wireless, E-Commerce, Mail and Telephone Order electronic payment processing with state-of-the-art performance, reliability, security and privacy.
- Widely certified with major U.S. payment processors and banks.
- Lower cost of ownership
- High reliability and outstanding performance
- Easy to integrate Web Services API and platform independent SDK
- Strong security and meets VISA CISP requirements
- Easy upgrading, deployment and administration

Security and Privacy

SPS is committed to be secure by design, secure by default, and secure in deployment. SPS protects your payment processing environment as well as safeguarding the privacy of your customers with:

- **Strong encryption:** Strong Triple DES encryption and asymmetric PKI to protect your sensitive data.
- **Compliant with VISA CISP:** SPS is compliant with the VISA's Cardholder Information Security Program and does not store any sensitive data as outlined in the CISP guideline.
- **Multiple layers of securities:** Supports multiple layers of access control /authentication methods using both form authentication and Kerberos.
- **Two factor authentication:** Support two factors authentication using Smart Card.
- **System wide IP filtering:** Support IP filtering across the whole system.
- **User based IP filtering:** Support IP filtering based on each individual user in additional to the system wide IP filtering.
- **SSL:** Support SSL with the strongest key length to protect all traffics to and from the payment server.
- **Clustering security:** SPS clustering supports Kerberos authentication against the back end database and supports Internet Protocol security (IPSec) between all the servers in the cluster and the database.
- **Instant alerts:** Detects intrusion attempts and immediately alerts administrators via email or SMS/pager.
- **Role based security:** SPS supports role based security using ASP.NET

- **Eliminate buffer overflow exploits:** SPS is built using managed .NET code and eliminate many forms of buffer overflow exploits (the majority of Internet security threats out there.)
- **Real-time blocking of intrusion attempts:** When intrusion is detected, the payment server can automatically block all traffics from that particular IP address to thwart the attacks.
- **Country blocking:** Ability to block traffic based on the incoming IP address' country of origin. You can grant access to the super-user (who has access to reports and refund, etc.) to come in only from a trusted country, and assign a user with limited functionalities (say only have access to perform credit card authorization) to allow shopping cart from any country except those that are on your black list.
- **Privacy protection in web services and browser based virtual terminals:** All sensitive data such as card number, expiration date, etc. are masked both on the receipt as well as the report.

Reliability and Scalability

SPS is built for enhanced reliability and scalability of the IT environment.

These capabilities include:

- **Certified for Windows Server 2003:** SPS passed stringent compliance testing requirements on reliability, security and maintainability set by Microsoft in their Application Specification for Windows Server 2003.
- **High Scalability:** You can increase the SPS cluster's computing power by simply adding more processors or nodes. This allows you to start up small and scale up or scale out on demand. SPS supports TPI Software Load Balancer, Windows Network Load Balancing or external load balancer. SPS supports unlimited number of nodes, thus eliminate the need for expensive hardware to handle heavy load of traffics.
- **High Availability:** Multiple SPS nodes can be clustered together to achieve very high availability and eliminate single point-of-failure. Transaction processing can be distributed over more than one SPS node to achieve a degree of parallelism and failure recovery, and providing more availability. SPS supports TPI Software Load Balancer which automatically redirects traffics to failover to the next available node. Windows NLB, Microsoft Cluster Service, external hardware load balancer are all supported.
- **Automatic error reporting:** SPS can automatically alert system administrator when critical system error occurs.
- **Automatic memory management:** SPS is built using .NET and eliminated memory leak and buffer overrun issues.
- **Automatically eliminate deadlocked process:** SPS supports automatic ASP.NET process recycling to eliminate the possibility of memory being consumed by deadlocked processes.
- **Supports database replication:** SPS database supports real time and offline replication to achieve high availability at the data tier.

Performance

Consolidate and centralize your payment processing servers and realize a greater return on your IT investments with the performance gains in SmartPayments™ Payment Server

- **Industry grade performance:** SPS is multithreaded to provide a highly scalable solution that can scale to support millions of transactions per hour.
- **Parallel processing using clustering technology:** SPS support parallel processing using cluster with multiple nodes.
- **Separation of OLTP and OLAP:** SPS separates the transaction processing database from the report database, thus allowing fine tuning of the database backend to achieve even higher performance at the data tier.

Manageability

- **Browser based management console:** SPS provides a powerful browser based management console allowing you to manage the server, merchants' accounts and users remotely.
- **Flexible logging:** SPS support flexible logging and error reporting. Real time events can be logged to console, rolling file, Windows Event Log, database, SMTP mail server, MSMQ, UDP datagrams multicast and SNMP
- **Web based Report:** Web based reporting engine provides easy auditing and transaction analysis.
- **XML report and data exports:** SPS supports data export to delimited format or XML format.
- **Web Service report API:** SPS provides a powerful set of report API through Web Services.

Extensibility

- **Flexible:** By using industry standard transport protocols, such as XML and SOAP, SmartPayments™ Payment Server can be used in virtually any environment.
- **Extendable:** By using the SmartPayments™ Payment Server SDK, businesses can easily integrate their existing applications into the SmartPayments™ Payment Server.
- **Integration:** SPS has already integrated with over 150 [shopping cart solutions](#) for ecommerce. SPS has also been integrated to many retail POS applications.
- **Standard protocols:** SPS can accept payments from any device over a LAN, WAN, VPN, Wireless and the Internet using standard TCP/IP transport.
- **Modular Architecture:** SPS is built using modular architecture which allows data and application logic to be distributed across multiple servers (or even multiple datacenters). A distributed network implementation creates an application that can handle virtually unlimited transaction loads at 99.99% uptime.
- **Syndication:** Syndication support allows resellers to private label SPS as their own custom solution.

Cost Effective

- **Eliminate costly recurring gateway fee:** SmartPayments™ Payment Server is a secure alternative for businesses to process ePayment transactions via the Internet without the extra costs of using a third party gateway.

- **Eliminate costly proprietary hardware:** Using integrated POS application, mobile phone or browser based terminal, merchants can now process transactions at any time, from any where and using any devices.
- **Support virtual any networks:** SPS using standard TCP/IP network and supports virtual any networks. SPS can leverage your existing broadband connection, wireless phone line or traditional land line.
- **Consolidate phone lines:** SPS allow you to consolidate multiple phone lines used for multiple hardware terminal into one line and save on costly monthly phone line and minute usages.

Support All Major Payment Methods

- Supports credit cards, debit cards, gift/loyalty cards and electronic benefits transfer/food stamps (EBT).
- Supports electronic check services, including verification, guarantee, conversion, eCheck, ACH (wire-transfer) and image capture / retrieval.
- Supports signature capture and retrieval.