



CYBERCASH™

IMPROVING

E-COMMERCE

PAYMENT

PROCESSING WITH

WEBAUTHORIZE®

Setting up a successful business requires more than hard work. It takes creative strategy, extensive planning, and precise execution. To help merchants simplify planning and implementation, CyberCash has developed a product that has revolutionized the payment transaction process.

That product is WebAuthorize. Designed for enterprise-class merchants who prefer to host their own sites, WebAuthorize offers superior performance and support for all types of payment transactions, including virtual and physical selling locations, telephone order, and mail order. This versatile software allows all of these transactions to be sent over the Internet or via phone lines to bank networks and processors.

This document provides valuable information for large merchants or those responsible for setting up large merchant Web sites, and explains why WebAuthorize is the most reliable, affordable, and scalable solution available today to enterprise-class merchants.

A REVOLUTIONARY SOLUTION FOR RAPID, HIGH VOLUME PROCESSING

With WebAuthorize, CyberCash has paved the way for payment transaction communications in the Internet era. The product offers e-commerce merchants unsurpassed flexibility, reliability, savings, and security through expertly engineered payment processing software. It enables merchants using Windows NT or Sun Solaris to use the Internet as a transport for their payment transactions.

Users can enter, browse, edit, and manage all types of sales transactions with the WebAuthorize Windows-based client software. Imagine the effectiveness of having a single server handle all of the card payments for virtual and physical selling locations, sales departments, customer support centers, voice response systems, and more. By centralizing payment applications, merchants can receive a better discount rate from the bank, simplify reconciliation, and eliminate individual modem phone lines to the bank.

WebAuthorize is a robust, multi-threaded system that can securely send over 720 transactions per minute on a dedicated leased line, resulting in a high performance payment server for enterprises. WebAuthorize uses the Internet to securely transport payment transactions directly to payment processors, while ensuring rapid response times and high volume transaction processing capacity. This is good news for merchants, Web developers, and consultants.

Furthermore, merchants can sell as much as they want, because WebAuthorize has the bandwidth to keep pace.

EXTENSIVE SECURITY FEATURES

All credit card transactions and storage of credit card information are encrypted, including transactions from merchants to payment processors, from payment clients to WebAuthorize, and the credit card information within the transaction database.

HOW WEBAUTHORIZE SPEEDS UP PROCESSING

WebAuthorize is a server application designed to facilitate payment processing across a variety of processing networks. It can provide transaction-processing capability to an entire network of computers using just one modem, leased line, or Internet connection to connect to processing networks. Batches of transactions are authorized and electronically deposited using WebAuthorize.

EVERYTHING A MERCHANT NEEDS TO SET UP A PAYMENT PROCESSING GATEWAY

Merchants who process a large number of transactions can save money by purchasing specialized software instead of paying fees per transaction. WebAuthorize software gives you everything you need to set up your own Internet payment processing gateway.

WebAuthorize consists of two primary components:

- WebAuthorize Administrator runs on the merchant's Windows NT or Sun Solaris system, and facilitates the processing of transactions received from workstations.
- WebClient or another third-party application, runs on the merchant's workstation(s), allowing the merchant to enter and manage transactions. The following table explains how other applications can be used.

Application	Description
WebClient*	The workstation companion to WebAuthorize. WebClient comes with WebAuthorize and can be used to enter sales transactions and review transaction histories.
Third-party product	Any other workstation application the merchant would like to use can be integrated using the WebAuthorize Software Development Kit (SDK), available from CyberCash.

*The same workstation application does not have to be used on each workstation. Merchants can mix and match applications across their networks. WebAuthorize and WebClient can operate on the same machine. WebAuthorize can also be used as a workstation to open, close, or settle batches.

HOW WEBAUTHORIZE WORKS WITH OTHER COMPONENTS

Here's a quick overview of how the merchant's WebAuthorize system interacts with workstations, WebAuthorize Administrator, the processing network, and the associated merchant and consumer banks.

- Each workstation on the merchant's system maintains a log of the open batch of transactions for each merchant account. WebAuthorize stores the actual open batch. When authorization is obtained, WebAuthorize returns the batch results for each merchant account to the workstation(s).
- When the open batches reach a certain number of transactions, or at a specified time of the day (as determined by the merchant or the merchant's processor), they are closed and transmitted to the processor. WebAuthorize connects to the merchant's processing network using a modem, leased line, or Internet connection, and sends and receives credit authorization data. All transaction data is stored on the machine running WebAuthorize.
- The merchant's processing network transfers funds from the customer's account to the merchant's account.
- WebAuthorize Administrator allows merchants to remotely access workstation, merchant, and transaction information from WebAuthorize, which runs behind the scenes.

MANAGING WORKSTATION AND MERCHANT ACCOUNTS

When a merchant purchases WebAuthorize, he or she receives a serial number and product password. The password is coded to include the number of workstations, merchant accounts, and socket port licenses purchased.

WebAuthorize can be set up to manage multiple merchant accounts. The transaction information for each merchant is maintained in a separate file location.

SETTING UP THE NETWORK

Merchants must use TCP/IP to connect workstations to each other using WebAuthorize. WebAuthorize supports only TCP/IP connection environments. There are three options for connection to the processing networks:

MODEM. For communicating with the processing network, WebAuthorize supports most Hayes compatible asynchronous modems. (A Bell 212 Asynchronous, 1200 baud, 56K modem with no error or data correction is recommended.)

LEASED-LINE. WebAuthorize supports communication with processing networks through a leased-line. WebAuthorize supports TCP/IP leased-line types only.

SECURE INTERNET CONNECTION. Merchants can communicate with their processing networks via the Internet.

THE INTERFACE

The WebAuthorize user interface is simple and easy-to-use.

TRANSACTION WINDOW. The Transaction window is used to enter transactions for authorization.

The screenshot shows the 'Batch 3 Item 6' transaction window. It contains the following fields and labels:

- Account Number:** 4012345678990
- CVV2:** 789
- Expiration Date:** 1203
- Retrieval Number:** DUMMY1234678
- Transaction Type:** Dem663
- Auth Code:** 08/11/00
- Card Issuer:** Visa
- Status Icon:** OK
- Card Type:** Credit Card
- Sale Type:** Sale & Deposit
- Force Deposit Duplicate:** Force Duplicate (checkbox)
- Entry Mode Icon:** Address information
- Message Box:** AVS Response-Y Approved
- Line Descriptions:** Pencils
- Line Amounts:** 12.00
- Tax Calculations:** Sub-Total 12.00, Tax 0.00, Shipping 0.00, TOTAL 12.00
- Network Plug-in Name:** WebAuthorize Server
- Bank Connection:** (indicated by a label pointing to the bottom right)
- Buttons:** Void, Authorize

The Transaction Window

TRANSACTION LIST WINDOW. The Transaction List window lists the transactions in the current open batch.

Open Transaction

Open Total Window

Limit Transactions Shown

Start New Transaction

Settle Batch

Print Transaction List

Batch Statistics

Status

Account Number

Card Type

Transaction Type

Click Titles to Sort

Drag Lines to Resize Columns

Double-click to Open Transaction

Account Number	Exp Date	Amount	Card	Type	Invoice	Cust ID	Auth Code	Addenda
ok 4012345678990	1203	18.00	CC	Sale	802401	Doe, John	Demo13	Approved
ok 4012345678990	1203	13.00	CC	Auth	802402	Doe, John	Demo23	Approved
ok 4012345678990	1203	13.00	CC	Post	802402	Doe, John	Demo23	Approved
ok 4012345678990	1203	13.00	CC	Post	802402	Doe, John	Demo23	Approved
ok 4012345678990	1203	34.00	CC	Void	802403	Doe, John	Demo43	Approved
ok 4012345678990	1203	7.00	CC	Return	802404	Doe, John	Demo53	Approved
ok 4012345678990	1203	12.00	CC	Sale	802405	Doe, John	Demo63	AVS Response:Y

The Transaction List Window

BATCH LIST WINDOW. The Batch List window displays all batches currently in the transaction directory, and can be used to re-open a particular batch, print a list of batches, delete a specific batch, and/or further select the items to be displayed.

Print Batch List

Open Highlighted Batch

Delete Highlighted Batch

Select Batches to View

Click Titles to Sort

Total Items in Batch

Settle Value in Batch

Drag Lines to Resize Columns

Status/Name	Date	Who	Batch	Pending	Amount	Submitted	Amount	Total	Amount	Settle	Settle Response
OK BAT~3AA.TRX	08/11/00		3	0	0.00	7	62.00	7	62.00	49.00	
BAT~2AA.TRX	08/11/00		2	0	0.00	4	67.00	4	67.00	25.00	1234567 APPROVED
BAT~1AA.TRX	08/10/00		1	0	0.00	4	74.03	4	74.03	74.03	1234567 APPROVED

Double-click to Open Batch

Batch Status

Batch Open Date

Batch Number

Count of Pending Items

Count of Submitted Items

The Batch List Window

WEBAUTHORIZE FEATURES

WebAuthorize offers a variety of features that ensure ease-of-use, security, and high-quality transaction processing capabilities.

EASY INSTALLATION AND SEAMLESS INTEGRATION

WebAuthorize installation is simple and quick. Using the installation and setup wizards, WebAuthorize installs automatically, and merchants can quickly configure the software to their individual connection and business preferences—all in one easy step.

EXTENSIVE SECURITY

In addition to protecting merchant accounts with individual logons and passwords, all credit card information is encrypted for storage and transmission from merchant to processor using secure IP processors. WebAuthorize also includes support for sending transactions to payment processors over the Secured Sockets Layer (SSL) protocol.

INDUSTRY STANDARDS COMPLIANCE

WebAuthorize supports the latest requirements from Visa and MasterCard to properly designate with a special “e-commerce indicator” transactions entered through an Internet browser or email. This ensures that merchants using WebAuthorize will not be unduly liable for the significant penalties charged for failure to utilize these indicators.

WebAuthorize also supports the latest requirements from Visa and MasterCard to capture additional credit card information for all transactions where the card is not physically present (“card not present”). In addition, WebAuthorize provides purchasing card functionality, including the ability to collect and pass Visa, MasterCard, and American Express purchasing card level II data.

ROBUST ARCHITECTURE FOR HIGH PERFORMANCE

The WebAuthorize architecture delivers high performance results for a large number of certified networks. For example, the product has been bench marked in field production to achieve 720 transactions a minute over the FDMS Nashville (formerly Envoy) network (leased-line connection), and up to 12-15 transactions per minute on a dial-up modem connection. The client/server architecture allows multiple users on a LAN to access a single server that connects to the bank network. In addition, merchants can split-dial to an American Express processor and a check guarantee processor using the same modem connection.

MULTIPLE MERCHANT CAPABILITY

WebAuthorize has the ability to provide separate processing and reporting for multiple merchant numbers for the same program.

MAGNETIC STRIPE READER SUPPORT

The WebAuthorize WebClient supports most magnetic stripe readers that connect via the keyboard port. Track 1 and Track 2 readers are supported.

AVS AND CVV2/CVC2 SUPPORT

To help merchants get the best transaction rate from their banks, WebAuthorize supports both the Address Verification Service (AVS), and the Card Verification Value (CVV2) or Card Validation Code 2 (CVC2) number. AVS is used to help validate a cardholder's identity. It is used primarily for mail order merchants or physical environments in which a magnetic stripe reader cannot be used. The CVV2/CVC2 number, used as an additional security measure, is printed on the back of the consumer's credit card. CVV2/CVC2 is used by processors that support Visa and MasterCard.

FULL AUTHORIZATION AND SETTLEMENT

Merchants can perform a variety of transactions for all major credit card types, including sales, credit, void, authorization only, and post authorization.

DEMO MODE FOR TRAINING

To help merchants learn how the product works before they begin processing live transactions, WebAuthorize includes a Demo Mode feature that allows merchants to run the software in a test setting.

ONLINE AND BATCH PROCESSING MADE EASIER

WebAuthorize supports both online and batch processing. Most merchant banks electronically deposit transactions and credit the merchant's account in batches, usually a business day's worth of transactions. As each transaction is authorized, it is stored in that day's batch. Once a business day is complete, that day's batch is closed, settled, and deposited. Settlement is the act of reconciling transactions with the merchant's bank network, ensuring that the charges match the amount authorized and sending a request for payment to the merchant's bank account.

AUTOMATIC DATA ARCHIVING

WebAuthorize gives merchants the ability to store and search all transaction information processed. Transaction histories are also logged into files to archive activity between WebAuthorize and workstations, as well as status and transaction information.

EASY PRINTING OF RECEIPTS AND REPORTS

Merchants can print receipts on a standard Windows printer, or on a special receipt printer attached to their PCs. The WebAuthorize WebClient software can be set to automatically print receipts, calculate tax rates, and display merchant-specific information on each receipt. Merchants can also generate and print bank audit lists, merchant summary reports, merchant detail reports, and batch summary reports.

REQUEST AND RESPONSE FILE INTEGRATION SUPPORT

WebAuthorize supports the use of request and response files. A request file contains a transaction or a number of transactions to be processed by the processor using WebAuthorize. A response file contains one or more responses to the transaction(s) suited to the processor in a request file. These files are text files with tab-delimited fields. Files can be created with any external application, such as a spreadsheet, third-party point-of-sale application, or word processor.

Note: It is recommended that merchants use this interface form in the following environments only:

- MS/DOS application on a workstation with no Windows support (for example, Active X)
- UNIX machine as a workstation without the sockets interface
- Automatic large batch processing

CENTRALIZED PAYMENT APPLICATIONS

With WebAuthorize, all payment applications within an enterprise—including the merchant's e-commerce site, call center, interactive response system, and physical stores—can be integrated into a single payment server. By pooling all payment transactions into a single banking relationship, customers can receive a better discount rate from the bank. In addition:

- Reconciliation is simple with centralized transaction information.
- All payment transaction traffic can be sent over the company's local area network.
- Multiple modem phone lines to the bank can be eliminated.

SIMPLE AND SEAMLESS INTEGRATION

Integrating third-party workstation applications with WebAuthorize is made simple and seamless through a variety of programming interfaces, including the following:

- ActiveX Controls
- Sockets Interface
- JAVA API
- C++ API
- Import and Export Capabilities
- Simple File Request and Response Interface
- Developer's Tool Kit

WebAuthorize is fully integrated with Microsoft Site Server, Commerce Edition; and with the SAP R/3 enterprise application for e-commerce.

ADDITIONAL BENEFITS

WebAuthorize not only provides merchants with all of the tools necessary to perform transaction processing, but also ensures that merchants have the latest updates and highest-quality support available to help them process sales transactions quickly and easily.

HASSLE-FREE UPGRADES

Because WebAuthorize utilizes plug-in technologies, updating the software is easy. Simply install the latest plug-ins.

SCALABILITY

Adding workstations, merchant accounts, or socket ports to a merchant's license (up to the limit of the merchant's license) is simple. If merchants reach the limits of their licenses, they can purchase a new license from CyberCash.

QUALITY CUSTOMER SUPPORT

To help merchants avoid any downtime, CyberCash provides a full array of support options:

Telephone Support. Highly qualified client services representatives, technical support specialists, and registration specialists are available to assist merchants with their questions.

Web Site Support. CyberCash's Web site support area offers a detailed knowledgebase, support documents, and frequently asked questions. Customers can search by keyword over all product lines for answers and solutions. The support site can be accessed using the following URL:

<http://www.cybercash.com/Webauthorize/support/>

Email Support. From the Web site, merchants can access the "Ask CyberCash" function and contact qualified customer support representatives.

EASY-TO-FOLLOW DOCUMENTATION

WebAuthorize includes a detailed documentation set, which is comprised of a Setup Guide, User Guide, and a Client Guide. Merchants receive the manuals in print form as well as Adobe PDF format on the installation CD.

WEBAUTHORIZE SYSTEM REQUIREMENTS

Microsoft Windows NT:

- Pentium PC running Windows NT version 4.0 with Service Pack 3 or later
- VGA or higher resolution monitor
- Minimum 20 MB hard disk space for installation
- Minimum 64 MB RAM
- Mouse or compatible pointing device
- Hayes or Hayes-compatible modem (if using a modem to connect to the processor)
- TCP/IP or compatible sockets network

Sun Solaris:

- Solaris 7 or later
- VGA or higher resolution monitor
- Minimum 25 MB hard disk space for installation
- Minimum 32 MB RAM
- Hayes or Hayes-compatible modem (if using a modem to connect to the processor)
- Any TCP/IP v4 socket compatible network

CONCLUSION

With WebAuthorize, enterprise merchants can improve cash flow, increase their negotiation power for better discount rates with their banks, centralize their transaction databases and financial reporting, and reduce telecommunication costs. WebAuthorize offers superior performance and support for all types of payment transactions, including virtual and physical selling locations, and telephone and mail orders. The security and dependability of WebAuthorize ensures that merchants can process and manage all types of sales transactions quickly, easily, and safely.

MORE INFORMATION

For more information about CyberCash or its products and services, see the CyberCash Web site at the following URL:

<http://www.cybercash.com>



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