

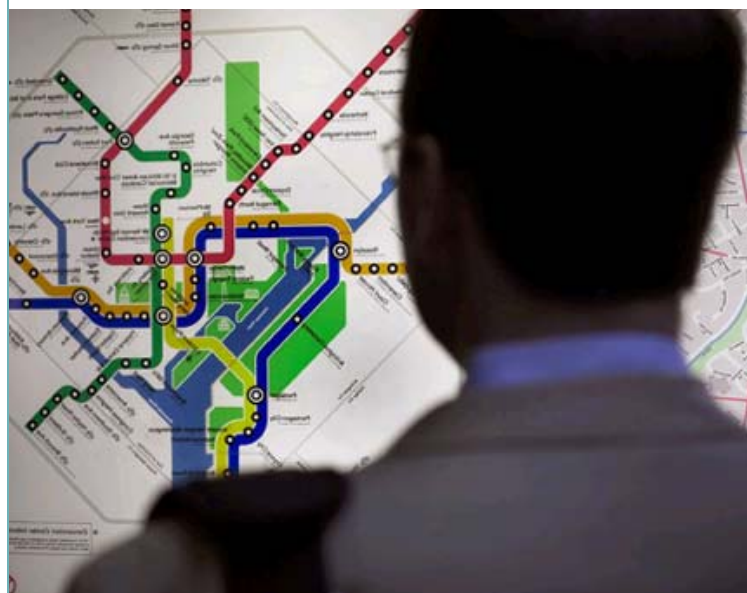
Integrate, Operate, Communicate

VersaLex Exchange

eBusiness Community Management Platform

Companies may believe a dynamic, integrated solution for EDI, data synchronization, RFID, and CPFR collaboration is beyond reach. Associated economies of scale, real-time supply chain automation, and reduction of costs may seem unattainable. Perceived risks are high, complexity staggering, and ROI elusive, right? Not so, with Cleo! Managing ebusiness documents has never been simpler or more affordable!

VersaLex Exchange™ (**VLExchange**) is a powerful eBusiness Community Management software platform that integrates and manages electronic business document processes internally and among trading communities. It combines the ebusiness process integration, trading community management, network configuration and management tools, and secure multi-protocol Internet communications required for hundreds and thousands of trading partners and customers. Business Process Management (BPM) and web services access provides a flexible, consolidated, and comprehensive view of ebusiness information flow to authorized users from anywhere in the world. The operations dashboard dynamically views, audits, and manages the secure transfer of business documents over the Internet, VANs, or other specialized TCP/IP networks.



Powered by OpenEC® and architected in Java™, **VLExchange** is certified eBusinessReady™ interoperable and runs on distributed or individual Windows, Unix, or Linux platforms. It integrates with existing enterprise systems and easily supports evolving protocol, connection, network, and applications requirements.

VLExchange operates behind the firewall in a variety of system configurations, on desktop, server, or in a distributed deployment. Adequate storage is required for document record keeping and logging transactions. VLProxy, residing in the DMZ, functions as a proxy server to **VLExchange** so that no direct communication path is ever open between **VLExchange** and the Internet. Pre-configured hosts, EDI Translator integrations, JDBC interface to legacy systems, and file transfer sessions connect and configure **VLExchange** to work with existing enterprise systems. **VLExchange** can be administered and operated locally or remotely over a web browser.

The system administrator configures authorized user access for multiple levels like task, agent, trading partner, document, or business process to achieve desired process, security, and access control. Installation takes only a few hours; operational readiness follows promptly thereafter, depending on how quickly **VLExchange** can be configured for the size and complexity of the trading partner network and ebusiness process. Start up training and comprehensive support for installation, configuration, and maintenance are included with **VLExchange**.

AT A GLANCE

VLExchange

- **Easy to install, configure, operate, and manage**
- **Secure, automatic operation behind the firewall**
- **Certified, interoperable Internet communications**
- **Integrates with EDI and legacy systems**
- **Delivers flexible, integrated ebusiness processes**
- **Cost effective, extensible, prompt ROI**
- **Supports thousands of trading partners**
- **Increases sales, turns, market share, accuracy, efficiency, and real-time supply chain visibility**
- **Reduces communication charges, out of stocks, inventory, errors, disputes, maintenance**

VLExchange

WEB SERVICES

VLExchange uses open, standards-based web services and Business Process Execution Language (BPEL) for application integration of the ebusiness communication management platform. Companies can integrate their business systems with VLExchange to manage, track and audit the movement of business information between diverse internal business systems and all their trading partners in one, consistent, auditable system.

WEB-BASED OPERATION

Web-based system administration allows VLExchange to be configured and managed remotely from anywhere in the world. A single authorized user can maintain trading partnerships from a central location, or a company can choose to decentralize the distributed administration and maintenance responsibility geographically, among the various divisions of the company. The trading community management functions an administrator can define include: trading partners, groups, users, communications methods, security definitions, event notification, and business processes.

SECURE SYSTEM ACCESS

VLExchange protects sensitive information and communication processes with flexible system security. An authorized user's specific privileges control access to system menus. This prevents unauthorized access to critical business information and processes, including those associated with daily operations, system configuration, business process management, agents, and menus.

Integrate the eBusiness Process

- **System Tasks**
- **Mapping Documents**
- **Database Integration**
- **EDI Integration**
- **Audit, Track, Manage, Alert**
- **Reports and Logs**

VLExchange utilizes a flexible architecture ideal for a business with a growing number of trading partnerships and different, geographically remote company divisions. It can centrally track, secure, audit and authenticate business communications, organize ebusiness applications, administer authorized system users, and manage information flow among all trading partners.

VLExchange uses Business Process Execution Language (BPEL) to customize an integrated ebusiness process flow for the entire trading community. It can be configured globally, by trading partner, by ebusiness application, by network, by protocol, or by standard. Complex business processes are defined, tasks are assigned, automated or manual execution is scheduled, and user alerts are set. Subsequent operations can be configured to support the desired level and frequency of audit, dashboard business activity monitors, and system log and archive administration and review.

When set up is complete, VLExchange automates user-defined processes and monitors, tracks, and alerts administrators and authorized users for progress and exceptions. Triggered alerts can be emailed to designated users. The operations dashboard provides real-time ebusiness process visibility and extended detailed query capability at all levels of operation from daily operations down to individual files, tasks, and documents. Filters like date, trading partner, or document allow users to refine audit inquiries for status and reporting. Document and task reporting is available on demand or periodically. Supply chain visibility from a number of user-defined views is improved.

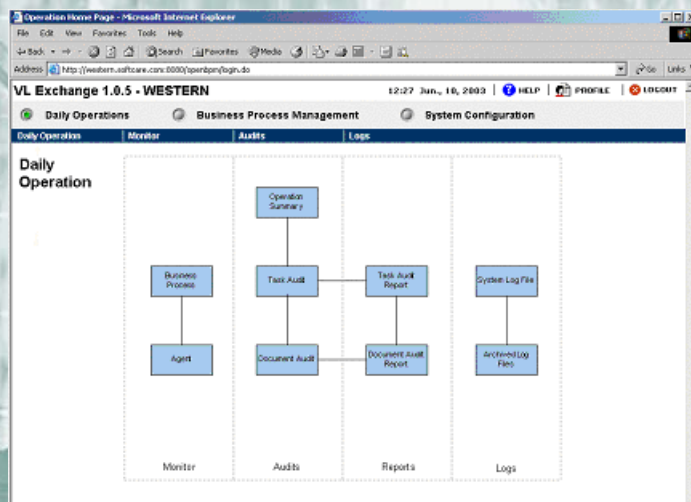
VLExchange centralizes business document communications between an enterprise and the trading community by creating in and out mailboxes with the appropriate communications protocol for each trading partner in the community. New trading partner configurations are supported with secure Internet communications in AS2, FTP/S, HTTP/S, AS3, and ebXML protocols. Over 50 pre-configured connections come standard with VLExchange including Wal-Mart, Target, Kohl's, Procter & Gamble, Daimler-Chrysler, Ford, Lowe's, UCCnet, Sterling, GXS, IBM, GM, and Covisint.

eBusiness Process Management

- **Decide on a priority ebusiness application**
- **Scope the ebusiness community network requirements**
- **Organize stakeholders**
- **Define end-to-end business process**
- **Interface and integrate legacy systems**
- **Configure global and local ebusiness process rules**
- **Specify document handling, logs, and reports**
- **Configure trading partner communications**
- **Audit, track, and manage ebusiness operations**
- **Confirm expected benefits, savings, ROI**

VLExchange

Daily Operations Dashboard



VLExchange features a centralized "operations dashboard" that audits, tracks, and manages the movement of business information. Daily operations, business processes, agent, task, document, and file processing details are easily managed.

SYSTEM TASKS

In addition to the web services used for application integration, VLExchange provides a number of system commands like "move files", "print to screen", or "execute program" to extend user control and simplify integration. VLExchange integrates and audits legacy applications simply and efficiently through its single audit system.

MAPPING DOCUMENTS

VLExchange uses OpenEC[®] XMapper, a powerful mapping engine, to transform one document format into another. XMapper can be used interactively or as a "transformation method" within a business process to convert files, and then update the audit database with the results of processing. Mapping across a large number of data formats provides users greater control over business processes and improved application integration.

DATABASE INTEGRATION

VLExchange supports JDBC connectivity for file transfer status data written to external databases, including popular databases like Oracle, MS Sequel, DB2, and Sybase. Access to external database files lets VLExchange users customize data queries and reports, and manage larger amounts of complex data, including file transfer status data sharing with other back-end applications.

EDI TRANSLATOR INTEGRATION

VLExchange allows trading partners to leverage existing investments in EDI Translator software, including TradeLink, Trusted Link for Windows, GENTRAN:Director, Emanio, EDS Asset, TIE Commerce, GXS Desktop EDI, and others. VLExchange also supports the transfer and audit of all data types, including XML, EDI, or bina-

ry text file formats. Integration makes efficient back-end processing of EDI data possible without the added expense of new software, professional services, or third party consultants.

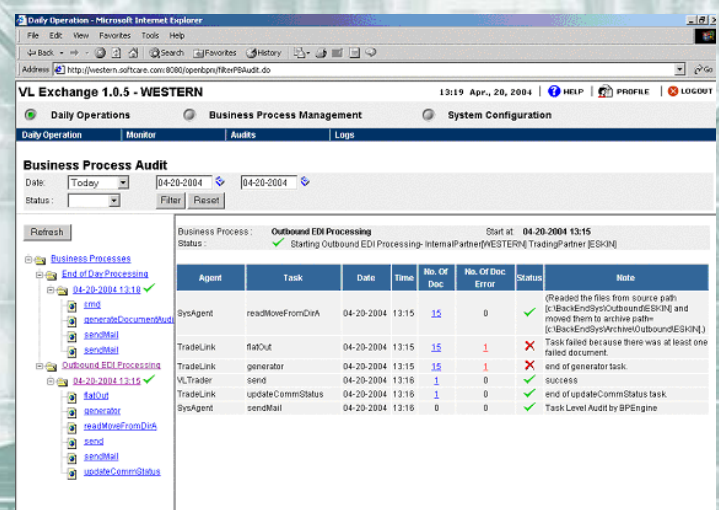
EDI translator integration is configured from the same user interface that configures trading partner and certificate management. Once trading partner profiles are established and EDI job actions like sends and receives are created, integration script files are generated for specific trading partners and job actions, including files required for VLExchange and EDI translation software. Thirty leading EDI translation software products are integrated with VLExchange, including Sterling's Gentran:Server and Invois TrustedLink. Additional translators can be supported using the "generic" translator script file generation.

AUDIT, TRACK, MANAGE, ALERT

VLExchange features a centralized "operations dashboard" that audits, tracks, and manages the movement of business information. Daily operations, business processes, agent, task, document, and file processing details are all easily managed. The flexible architecture allows an enterprise with a growing number of trading partners and different internal divisions to track, secure, authenticate, organize applications, administer users, and manage the flow of information. Integrated audit and alert management provides end users with multiple views to track and review document processing.

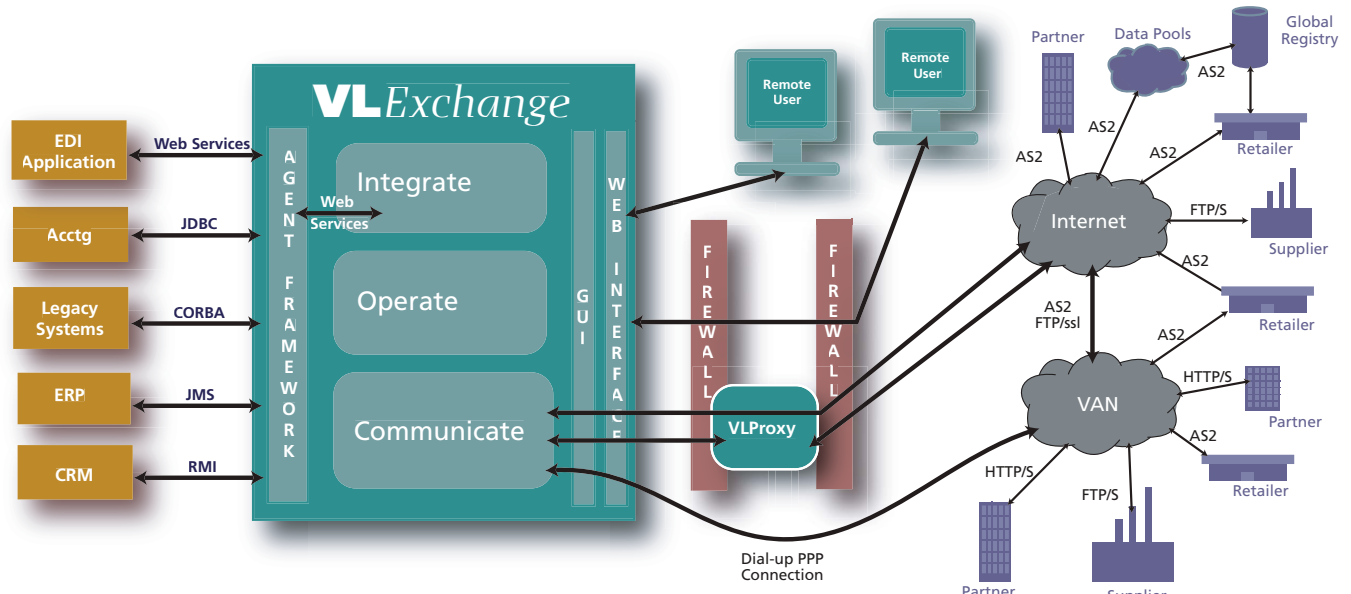
VLExchange provides customizable filters for an end user to quickly and efficiently track the flows of information. At the document level, audit-filtering options allow documents to be tracked based on date, partner, format, standard, version, type, and success status.

Business Process Audit



Integrated audit and alert management provides end users with multiple views to track and review document processing.

VLExchange



VLExchange combines the ebusiness process integration, trading community management, network configuration and management tools, and secure multi-protocol Internet communications required for hundreds and thousands of trading partners and customers.

An extensive alert management system notifies designated users of events and operational status at all levels of processing including daily operations, business processes, agents, tasks, documents, and files. Typically, notifications are communicated via email, but other secure methods such as AS2, HTTP, or custom can also be used.

REPORTS & LOGS

VLExchange generates document and task audit reports automatically within a business process, which can be automatically forwarded to a support desk via email. Document and task audit reports can be generated based on sort criteria like "all partners," "specific partners," "date ranges," or "success, fail, or all document status."

VLExchange includes a comprehensive document logging process that supports detailed investigations of any communication problem that might occur. Five log options with various levels of detail are: debug, info, error, warn and fatal.

Operate Trading Community Networks

- Trading Community Management
- Network Management
- Certificate Management
- Web Administration

TRADING COMMUNITY MANAGEMENT

VLExchange supports pro-active trading community management with a full suite of auditing, monitoring, and alert tools that enable

an integrated view of the entire end-to-end supply chain, accessible from a variety of business perspectives depending on the settings specified by the systems administrator. A business can audit and track business documents like invoices and purchase orders throughout the enterprise, set authorized user controls for system access from inside and outside the firewall, and automate exception handling and notification.

VLExchange trading community management services include configuration, integration, and communications process controls. These features establish and maintain trading community communications without expensive IT talent or protracted installation, configuration, and testing. Over 50 pre-configured trading partner profiles, including those of major retailers like Wal-Mart and Target, VANs like GXS, IBM, and Sterling, and public networks, are included. Custom profiles are easily created by using "generic" host configurations for each of the supported file-transfer protocols: AS2, FTP, FTP/S, HTTP, and HTTP/S. New trading partners configure to the trading community network in just minutes.

Trading partner specific business processes can be defined in detail. A selection of internal and external tasks used to communicate with an individual trading partner can be customized in a specific process appropriate to the business relationship, which is defined using a subset of the Business Process Execution Language (BPEL) specification. A process is defined by the business rules used to communicate business documents. Trading partner processes can be run manually or scheduled for automatic execution. In the end, VLExchange becomes the central location from which business document communications with the trading community are managed.

VLExchange

NETWORK MANAGEMENT

VLExchange can configure and manage a VersaLex enabled trading community with exported zip file bundles of host XML files, translator integration files, and public key portions of digital certificates. The bundled file can be imported into the trading partner's VersaLex communications product, like LexiCom, directly from the VLExchange user interface, resulting in a fully functional, activated communication profile. VLExchange managed networks significantly streamline communications, network roll-out, and eBusiness-Ready extensibility up and down the supply chain.

CERTIFICATE MANAGEMENT

Secure communications between trading partners is accomplished by the VLExchange Certificate Manager for X.509 certificate generation, and export and import of VLExchange and partner public keys. Generation of digital certificates results in creation of public and private key pairs that are the foundation of secure EDIINT communications.

Exchange of public keys between trading partners in an AS2 communications network with VLExchange as the AS2 server and a VersaLex communications product, like LexiCom, as the AS2 client, is as simple as clicking a button in the software user interface. Emailing certificates is unnecessary when VersaLex software is resident at each node of the trading community network.

WEB ADMINISTRATION

Network requirements, security considerations, and legacy applications mandate all new business applications provide flexibility in installation location, and local and remote system management. VLExchange gives server administrators and EDI staff additional access to VLExchange services from a web browser connected over a LAN or the public Internet, including those server installations that do not natively support a GUI.

Authorized access to VLExchange services from a web browser

on a remote workstation is controlled by user name and password authentication. Authorized users interface with VLExchange as if it were installed on their local computer.

System administrators have flexibility to operate VLExchange on a server that supports complementary software like EDI translation, and to maintain corporate network integrity and security commitments. Access to the secure server room is not required.

Communicate with Confidence

- Certified Interoperability
- Internet Protocols
- Data Types
- Security
- Scheduling, Alerts & Alarms
- Document Management
- Redundant Connections
- DMZ Security

CERTIFIED INTEROPERABILITY

The heart of VLExchange's network services is VersaLex, an EDI over the Internet (EDIINT) engine that has demonstrated AS2 interoperability in multiple rounds of Drummond Group testing. Interoperability testing has earned VersaLex eBusinessReady™ and UCC-net certification. An exhaustive series of tests guarantees all certified software can exchange files using AS2 with other certified AS2 software products. Companies developing comprehensive Internet-based communications can rely on certified software products to work everywhere!

Continual investment in interoperability testing, certification, third party encryption tool sets, and Internet standards development guarantees VLExchange meets current and future communication requirements, so it delivers on the promise of EDIINT as VANs, service bureaus, and trading community servers come on line.

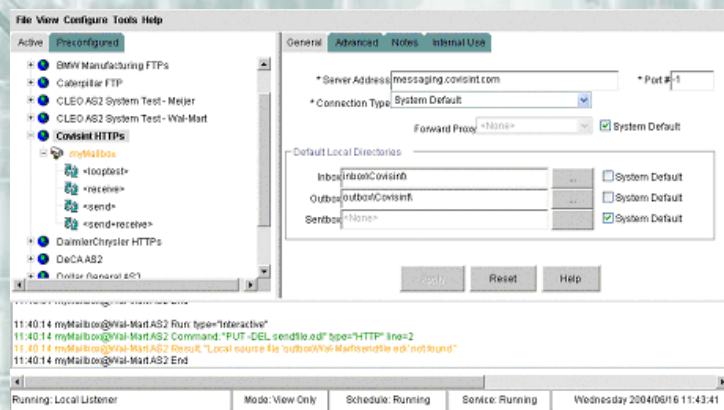
INTERNET PROTOCOLS

In addition to AS2, VLExchange supports secure file transfer protocols and diverse data file formats. FTP and HTTP are included in both the clear or non-secure mode, as well as the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) mode. These protocols connect trading partners and larger networks over dedicated Internet or dial-up connections to Internet Service Providers (ISPs). Dial-up point-to-point protocol (PPP) connections can also be made to private network addresses not accessible over the public Internet. It's easy to communicate directly with all your trading partners.

DATA TYPES

Document exchange is not limited to EDI formatted files, but includes secure transmission and receipt of X12 and EDIFACT EDI, XML, plain text, and binary files. Documents can be routed over Peer-to-Peer or Hub and Spoke networks. Carbon copies of documents can be sent to multiple recipients independent of network or file type.

Trading Community Communications



The intuitive communications interface establishes and maintains trading community network communications.

VLExchange

SECURITY

Network security is provided by integrated toolsets that utilize X.509 digital certificates, public key exchange, symmetric key encryption, digital signatures, and message acknowledgements. All commonly encountered symmetric key, public key encryption algorithms, and signature algorithms are supported including 168-bit 3DES and signature algorithms, SHA-1 and MD5.

SCHEDULING, ALERTS & ALARMS

VLExchange manages communications automatically with an integrated scheduler and email alert options. Using time-of-day and day-of-week, the user can optimize network responsiveness in batch mode. If near real-time is a requirement, then AutoSend scheduling mode will initiate file transfers whenever mailboxes are populated with new files. All file transfer job actions can be configured to provide email notification of successful or failed data exchange to administrators.

DOCUMENT MANAGEMENT

VLStat operates as an optional, additional user interface independent of the VLExchange, which can run as a service in the background while VLStat accesses, filters, and displays file transfer status information. Data can be filtered by date range, transfer status, and trading partner. If failed file transfers are configured for display in VLStat, they can be re-run without invoking VLExchange. VLStat report generation makes saving or sharing file transfer data easy, including, saving to a directory, archive, or a location accessible to accounting.

REDUNDANT CONNECTIONS

Network connections can be Internet, dial-up Internet, and dial-up PPP. VLExchange provides redundant back up options as part of a comprehensive business communications strategy for times when Internet reliability affects mission-critical document transfers. Automatic communications can be established using less susceptible protocols, up to and including dial-up FTP, to provide fail-safe communication without significant delay.

DMZ SECURITY

VLExchange network services need not affect a company's internal information technology security. VersaLex Proxy may be installed between two firewalls in the DMZ to receive inbound TCP/IP session requests from trading partners, then pass these requests through a control channel to VLExchange operating behind the interior firewall. VLExchange initiates connection to VLProxy in an outbound mode to receive the messages from the business partner. No messages or private keys are exposed on the Internet, and no inbound FTP or HTTP ports are open at the internal firewall.

Partner with Cleo

Cleo is the partner of choice for building and evolving comprehensive trading community communications. Over 20 years, Cleo has been the choice of thousands of companies.

VLExchange delivers the flexible integration, operations, and communications that means real ROI.

SERVICE AND SUPPORT

Product Support

Support plans are tailored to meet the technical and operational requirements for a variety of network deployments. Standard and Platinum Support employ an experienced, highly respected Cleo technical support team. Most trading partners will be very satisfied with Standard Support, though some, new to EDIINT communications, technically advanced, or with mission-critical operations, may need Platinum 24/7 coverage.

Installation and Configuration

Installation, configuration, and training is provided as either an on-site or web-based, phone-supported service. Services include server installation, EDI translator integration, live communication testing, and connection to a number of trading partners. The number of licensed connections determines whether on-site or remote services are appropriate.

Training, Consulting Services

Additional training, consulting services, or network provisioning are available on request. Consult a Cleo representative for information.

Warranty, Product Upgrades

VLExchange is warranted for one year to perform to documented specifications. Upgrades are provided as Internet downloads to all licensed users with current support subscriptions. VLExchange provides users quick access to the latest in new protocols, additional ease-of-use features, and powerful integration tools. As EDIINT communications evolve, count on VLExchange for future-proof communication, operation, and integration solutions.

Technical Support

- **Support, Configuration, Upgrades** - including documentation, FAQs, and installation test server connection
- **Standard Support** - 2 hour response time
- **Platinum Support** - 1 hour response time, 24 x 7
- **Installation, Configuration, Training** - on-site or web-based with phone support
- **Professional and Consulting Services**
 - Program Management
 - Provision trading community network
 - Customization
- **Warranty** - 1 year warranty

Technical Specifications

PLATFORMS

- 100% Java v1.4
 - Java Runtime Environment (JRE) provided with installation
- Windows NT, 2000, XP, 2003 (Windows 2000/3 Server strongly recommended).
- AIX v4.3.3+
- HP-UX v11i
- Solaris SPARC v2.6, 7, 8, 9
- Red Hat Intel Linux 6.1+

SYSTEM REQUIREMENTS

- Pentium 4, 2.4 GHz CPU or equivalent
- 1 GB DRAM
- 500 MB disk storage minimum, plus up to 500 MB per trading partner depending on user specified file storage requirements
- Graphical User Interface (GUI)
- Properly configured Internet connection
- 100 MB/s network connection (10 MB/s minimum)

SYSTEM ADMINISTRATION & SECURITY

- Web Services
- Web-Based Operation - Tomcat™ included
- Secure System Access - user access control by:
 - Daily Operations
 - System Configuration
 - Business Process Mgmt.
 - Any Agent or Menu

INTEGRATION SERVICES

System Tasks

- Execute DOS Scripts
- Execute Programs
- Print to Screen
- Check if files exist
- Move files
- Move files based on embedded partner information
- Send documents via email
- Create a new file or document

XMMapper Capabilities

Transform document formats

- XML to XML
- CSV to XML
- Structured Flat File to XML
- Database (via JDBC) to XML
- XML to CSV
- XML to Structured Flat File

Audit & Alert Management

Process details and alerts by

- Daily Operations
- Business Process
- Agents
- Tasks
- Documents
- Files

Audit Filters

Track document movements by

- Date
- Partner
- Format (EDI, XML, etc)
- Document Standard (ANSI, X12, UN/EDIFACT)
- Document Version (004010, 003010, etc.)
- Document Type (P.O., Invoice, etc.)
- Success Status Reports
- Document Audit Reports
- Task Audit Reports

Log Levels

Log documents by Debug, Info, Error, Warn, Fatal criteria.

EDI Translator Operations

- Review Document and Import or Export/Send
- Update Trading Partner Communication Status
- Review, Validate, Route Incoming Documents

EDI Translator Integration

31 integrations including:

- Agilisys AutoRelease AS/400
- AIM Vision
- EDI Engine from 123 EDI
- Edisoft Merchant & Merchant Express
- EDS' EDI Asset
- Emanio's Trading Partner Desktop
- Genzlinger Release/Shipments Communications
- GXS' Application Integrator™
- GXS' Desktop EDI™
- Inovis TrustedLink™ AS/400, Enterprise, Windows
- Jonar Apparel System (JAS)
- SoftCare Tradelink™
- Softshare ECS™
- Softshare Vista™
- Sterling's Gentran:Director,
- Sterling's Gentran:Server (Windows, UNIX, AS/400)
- TIE Commerce EDGE, eVision
- TIE Messaging Portal
- TIE Quickstart
- Trinary EDI WINDOWS™
- vSync EDI for Great Plains

Database Integration

JDBC connectivity to databases like MS SQL Server, Oracle, DB2 SyBase, Informix, FoxPro, MySQL and others.

TRADING PARTNER SERVICES

Trading Community Management

- Configure and activate partner profiles from GUI or browser
- Profiles searchable by partner or mailbox

Certificate Management

- Generate, import, and export X.509 v3 digital certificates
- User defined certificate authority managed by Certificate Signing Request

Web Browser Administration

- Remote management from inside or outside firewall
- Supports non-GUI configuration and operation

Pre-configured Trading Partners

Over 50 including:

- AAFES AS2
- ASDA AS2
- ANX FTP
- BofA HTTP/S
- BMW FTP/S
- DaimlerChrysler HTTP/S
- DeCA AS2
- Dollar General AS2
- ECXpress FTP/S
- EDI*Express
- EDS ELIT FTP/S
- Ford FTP
- GM via EDS*ELIT
- GXS ICS AS2, FTP/S
- IBM AS2, FTP Dialup, IE FTP/S
- ICC.NET AS2
- Kleinschmidt AS2
- Lowe's AS2
- MCI FTP/S
- McLane AS2
- Meijer AS2
- Michaels FTP/S
- Sterling Commerce AS2, FTP
- Target AS2
- UCCnet AS2 - certified
- Wal*Mart AS2
- Winn-Dixie AS2

NETWORK SERVICES

File Transfer Protocols - AS2,

- FTP(S), HTTP(S), AS3, ebXML
- Peer-to-peer eBusinessReady AS2
- Client FTP(S), HTTP(S)
- Server AS2, FTP/S @v2.1.8

Data Types - EDIFACT and X12

EDI, XML, plain text, binary

File Level Security - X.509 v3

certificate-based PKI Encryption and signing algorithms

- DES 56 bit
- 3DES 168 bit
- DESX 120 bit
- RC2 1024 bit
- RC4 2048 bit
- RC5 2040 bit
- SHA-1
- MD5

VLStat Document Management

- Auto data capture and log filing
- Error detection and reporting
- Query & display file transfer status data

- Filter report on user-defined parameters
- Resend of failed transfers from VLStat

Network Connection Types

- Network-based Internet connection
- Dial-up Internet connection
- Dial-up PPP connection

Network Redundancy

- Network-based Internet connections

- Dial-up Internet or PPP

Network Level Security -

VLProxy in DMZ limits inbound port network exposure and protects private keys

File Transfer Options

- Carbon Copy to multiple recipients
- AutoSend - populating the outbox initiates file send
- Integrated Scheduler
 - Time and day
 - Elapsed interval
- Email alerts on fail or success

ABOUT CLEO

Cleo Communications provides integrated, reliable, communication centric e-business products and services for mission critical applications. Cleo products and services derive from a solid foundation in reliable, secure data transfer products that enable users to establish and manage communications sessions automatically, and integrate communications with e-business applications. Over 100,000 installations in manufacturing, retail, healthcare, financial, automotive, and other markets rely on Cleo products.

CLEO COMMUNICATIONS

4203 GALLERIA DRIVE
ROCKFORD, ILLINOIS 61111
PHONE . 815 . 654 . 8110
FAX . 815 . 654 . 8294

1800 LITTLE LAKE DRIVE
ANN ARBOR, MICHIGAN 48103
PHONE . 734 . 913 . 6950
FAX . 734 . 913 . 8125

COLUMBUS, OHIO
PHONE . 614 . 781 . 0859
FAX . 309 . 276 . 9365

1.800.233.CLEO
WWW.CLEO.COM

CLEO