

## VordelSecure®

### securing your XML traffic

VordelSecure gives you the confidence to deploy Web Services.

VordelSecure is an XML gateway, which is an in-line XML intermediary that filters XML traffic according to a set of configurable security rules. It protects XML systems, such as Web Services, by ensuring that only the right users and applications - sending the right data - can connect to them.

When deployed directly behind network firewalls in a network DMZ (De-Militarized Zone), an XML gateway is often called an 'XML firewall'. VordelSecure may be deployed either as software or as an appliance, available through the company's appliance partners.

#### Features

##### Policy driven

Configurable with policies that combine content filtering with identity-based rules. In this way, an organization can control both the identities of the users accessing their XML Systems, and also the data that they are sending.

##### Identity Management

VordelSecure, via the VordelConnect suite of security connectors supports and leverages existing Identity Management (IDM) infrastructure to perform authentication and authorization for XML traffic.

##### Attack prevention

VordelSecure includes a comprehensive set of content-filtering and traffic-analysis rules, designed to protect XML systems from malicious XML data. It protects against XML Denial-of-Service, buffer-overflow attempts, malformed or invalid XML, unexpected MIME-Types in SOAP attachments, application-level attacks including SQL Injection, service scanning, and brute-force 'flooding' denial-of-service attacks. Blacklisting is performed by alerting upstream network firewalls and load-balancers of the IP addresses of senders of malicious XML.

##### Pluggable message-handling pipeline

VordelSecure's internal message-handling pipeline is extensible, allowing extra access control and content-filtering rules to be added with ease.

##### Support for two-stage firewall models, using Network Address Translation

VordelSecure supports complex firewall architectures which include multiple zones separated by Network Address Translation.

##### Administration

VordelSecure includes ease-of-deployment features such as the automatic generation of XML schema validation files from WSDL, console-based configuration for XML content-validation, authentication, authorization, audit and routing; a command-line interface to import and export configuration rules.

##### Real-time Monitoring

Provides real-time alerting and performance-related information. This information can be directed to a network management tool using SNMP and syslog.

##### Web-Based Reporting

A delegated administration model enables administrators to allow users with reporting privileges. Reports can be customized, and can contain non-security information such as traffic trends and running totals of XML data element values.

##### Audit Capability

Regulatory compliance requirements are causing organizations to require auditability in their security and transaction monitoring solutions. Vordel has built digital signatures into its audit functionality in order for customers to comply with these requirements.

##### Separation of Security Processing From Business Logic

In keeping with best practice security guidelines, VordelSecure separates the security processing of XML data from the business processing of that data. Security rules are configured and changed centrally, separate from the business logic.

##### Standards Based

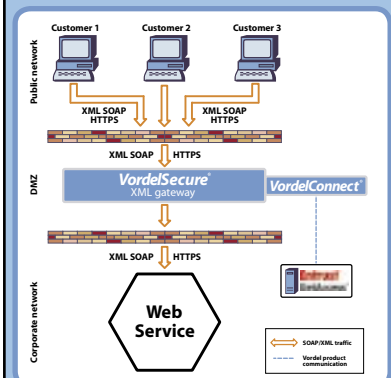
Support for all relevant security and XML related standards is provided. Enterprises may use non-XML technologies such as SSL, or new XML security specifications such as WS-Security and SAML, to help secure their XML communications.

##### API

Vordel's APIs for core XML security technologies include SAML, WS-Security, and XML Signature. These APIs may be used independently of Vordel's VordelSecure and VordelDirector products.

#### Deployment

VordelSecure is deployed in the DMZ of an organization's network. Sitting at the gateway to the corporate network, VordelSecure is positioned at the ideal position to monitor cross-firewall XML traffic. It filters XML traffic according to security rules. Only those messages that successfully pass all security filters are routed on to the internal Web Service. VordelSecure will block messages that fail any one of the filters. In this way, Web Services residing on the corporate network are shielded from unauthorized external users.



VordelConnect leverages an organization's existing security infrastructure. When VordelSecure is deployed as a hardware appliance, the architecture is identical to that illustrated in the diagram.



**"Best Web Services security product"**

## Specifications

Authentication capabilities		
ID/Password	ID/Password digest	HTTP Basic
HTTP Digest	X509.v3 certificates	SAML Authentication assertions
SSL Client Authentication	WS-Security	User mapping
Attack prevention		
XML Denial of Service prevention	XML Intrusion prevention	SQL Injection prevention
External entity attack prevention	Buffer overflow prevention	Message size analysis
SOAP attachment analysis	XML Well-formedness validation	XML Schema validation
Xpath processing	Auto-generation of XML Schema from WSDL	Blacklisting
Digital Certificate Management Solutions		
Entrust PKI certification	PKCS# 1, 10,11,12	X.509 v3 digital certificates
LDAP	XKMS	CRL checking
OCSP	Certificate chain validation for WS-Security & SSL	
XML and Web Services standards		
XML 1.1	XML Signature	XML Encryption
SOAP 1.2, SOAP 1.1 - including SOAP With Attachments	WSDL Masking and URI filtering	WSDL 1.1 & 1.2
SAML 1.0 & 1.1	XML Schema 1.0	XPath 1.0 & 1.2
XSLT 1.0	WS-Trust	OASIS WS-Security
Security standards		
SSL/TLS - server side and mutual authN	OPSEC	OASIS WS-Security UsernameToken Profile
OASIS WS-Security X.509 Certificate Profile	Standard algorithms AES, DES, 3DES, Blowfish, RSA, SHA-1, RSA Keys	RSA (512-4096)
FIPS compliant encryption, FIPS 140-2 level II	HSM MD5	DSA
Diffie-Hellman	Cast-5	AS2 (RFC 3335)
HTTPS 1.0/1.1	HTTP Authentication	
Administration and management		
XML and SOAP Interface	Support for IE, Opera, Netscape	Transport Mapping of protocols - HTTPS, HTTP
Web GUI	Web Service traffic monitoring and reporting	Digitally signed, tamper-evident logs
Segregated and delegated administrative access control	Command line interface for configuration import and export	Exportable policy configuration with Global Device Management
Data archiving to ODBC and JDBC databases	SLA reporting and altering	Runtime request and response processing
Ability to import/export security policies via XML file	Audit of all System administration activities	
Enterprise Platform Support		
Entrust GetAccess	HP OpenView	.NET
IBM WebSphere	BEA WebLogic	Software AG EntireX, Tamino, Mediator
Sun One	Oracle	SAP
Cyclone Commerce	Systinet WASP	CA UniCenter
Peoplesoft	Active Directory	Siebel
Vordel product deployment options		
Enterprise-wide deployment using agents embedded in application endpoints	XML security appliance - information available on request	XML gateway – software, including Intel Itanium 2 (64-bit, high performance) port
Operating Systems		
Microsoft Windows 2000 Server, Advanced Server, Professional and XP		Sun Solaris 2.9
Redhat 6/7/8	Debian 3.0	

## Contact Vordel

[www.vordel.com](http://www.vordel.com)

37 College Green, Dublin 2, Ireland  
45 Beech Street, London EC2Y 8AD, UK

Email [info@vordel.com](mailto:info@vordel.com)

Tel +353-1-603 1700  
Tel +44-20-7953 9730

Fax +353-1-603 1701

Fax +44-20-7953 9753

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