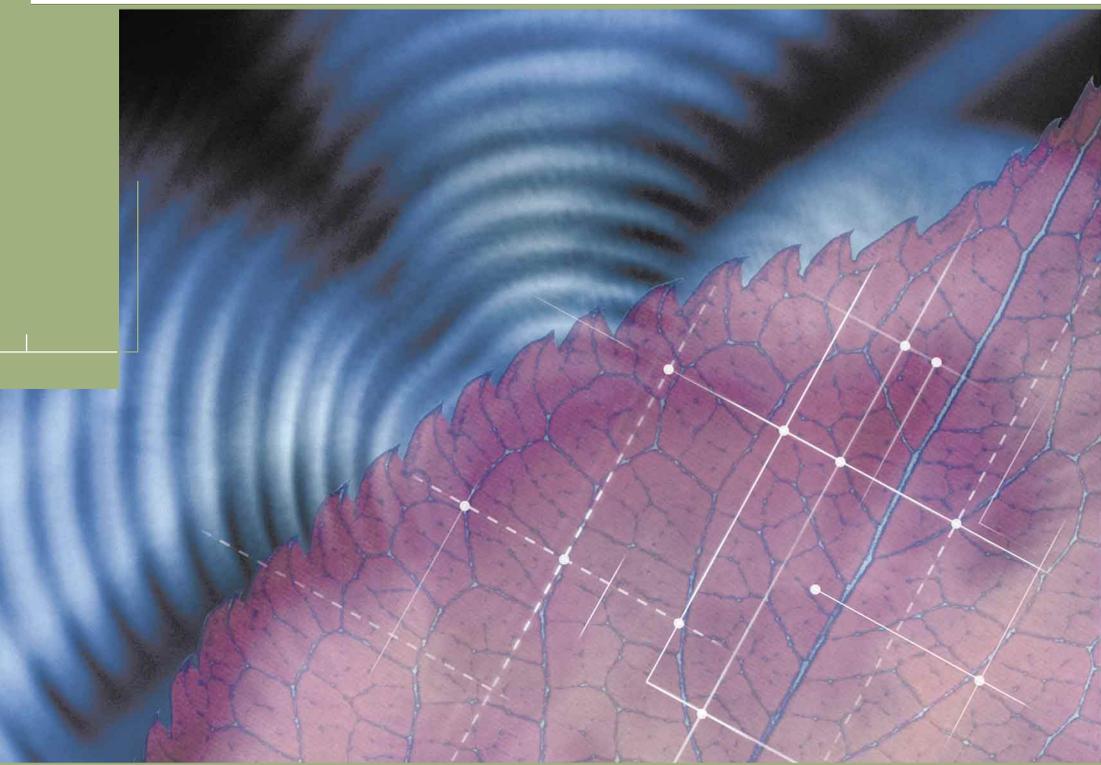


Sendmail **SWITCH**



The Sendmail Switch product line delivers Enterprises and Service Providers the messaging backbone to meet the growing requirements of routing and managing Internet Mail.

PRODUCT LINE OVERVIEW

SENDMAIL SWITCH

Internet Mail is growing on every dimension—number of users, number of messages, size of messages, richer content, new applications and increasing user demands. According to GartnerGroup, the number and size of email messages will increase at an average annual rate of more than 35% through 2002. In the year of 1998 alone, the number of Internet Mail accounts increased from 198 million to 325 million.

Internet Mail is now a mission critical business application. GartnerGroup states that 40% of business communications occur electronically and that enterprises with email service levels below 99% will experience significant operational business failures. Whether an ISP or Enterprise, this growth puts an increasing set of requirements on messaging backbones. Requirements for security to assure the integrity of messages, prevent network intrusions and safeguard against email borne viruses. Requirements for reliability to keep the electronic business running. Architectural requirements for a flexible foundation that can move the business forward.

The Sendmail Switch product line delivers the Internet Mail infrastructure for routing email at the firewall, behind the firewall and between departmental groupware servers to meet these demands.

Control Your Email Network More Effectively

Sendmail Switch is a suite of standards-based Internet Mail routing products with a flexible architecture that provides:

- Unmatched Mail Network Management
- Layered Security
- Proven Reliability

FOR THE ENTERPRISE

Sendmail Switch provides reliable, secure, standards-based email routing at the Internet Mail gateway and throughout the enterprise. Enterprises can take advantage of Sendmail Switch products to:

- Safeguard their network against viruses and third party intrusion
- Secure message exchange between customers, business partners and colleagues
- Integrate disparate departmental message hosting environments, including Microsoft Exchange and Lotus Notes
- Enforce corporate messaging policies
- Centrally manage, control and administer messaging infrastructure

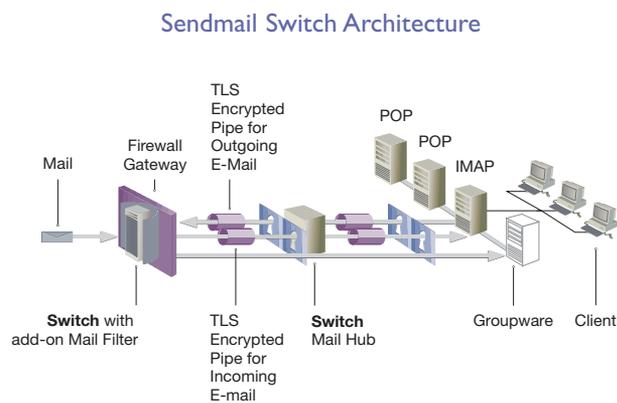


Figure 1. Common Sendmail Switch Architecture for Enterprises. Sendmail Switch processes and filters through encrypted mail channels at the firewall gateway, then routes it to the Sendmail Switch mail hub to relay mail to other Sendmail Switch servers, groupware or other hosting servers.

Product Line Benefits

Unmatched Mail Network Management

Sendmail Switch manages the entire mail routing environment as a unified network, controls content and seamlessly integrates with heterogeneous systems.

- **Ease-of-Use**

Sendmail Switch products make deploying and maintaining Open Source *sendmail* clean and easy. Sendmail Switch delivers simple-to-use, Web-based graphical configuration tools to guide set up and administer the system with context-sensitive help when needed.

- **Centralized or Delegated Administration**

Disparate email servers can be controlled from a central location, and certain administration tasks can be delegated to specific staff members.

- **Content Management**

Add-on filters help screen content and attachments for compliance with email policy.

- **Integration**

Adherence to open standards simplifies interoperation with existing or legacy systems and other applications such as Exchange, Notes and Groupwise.

Layered Security

Sendmail Switch protects the Internet Mail backbone from spam, email borne viruses, intrusion and message interception.

- **Virus and Spam Prevention**

Sendmail Switch can filter against virus and spam threats at the network's most exposed point—the Internet gateway and within the Internal Mail network.

- **Intrusion Protection**

Sendmail Switch keeps unwanted users out of the network by stopping them at the gateway, offering an array of capabilities to protect against common security threats, even theoretical ones. The *sendmail* codebase undergoes rigorous peer review and has an extensive deployment history, resulting in an unparalleled real world security track record.

- **Message Integrity**

Server-to-server encryption bolsters the integrity of system-wide messaging. Support for TLS across the Sendmail Switch product line secures messages from interception. Password-based SMTP authentication keeps out unwanted submissions.

- **Secure Administration**

Encrypted sessions between the Administration Console and the email routing server deliver files and commands securely.

Proven Reliability

Sendmail Switch products deliver reliability by leveraging *sendmail*, the de facto SMTP implementation that dependably powers the majority of the Internet's email servers.

- **Rock Solid Codebase**

Sendmail Switch products work in the most demanding environments, day in and day out, because the foundation, *sendmail*, has been tested for decades by a worldwide network of technical experts.

- **Downtime Prevention**

Real-time monitoring features provide proactive system management and help prevent downtime with up-to-the-minute views of the entire mail network.

FOR THE SERVICE PROVIDER

Sendmail Switch provides a reliable Internet Mail backbone for secure, standards-based routing of subscriber email. Growing service providers can leverage Sendmail Switch products to:

- Predict capacity requirements and scale seamlessly
- Deliver reliable email services to subscribers that expect minimal to no downtime
- Integrate with internal and customer legacy messaging systems
- Provide value added messaging services such as virus and spam protection
- Build the foundation on which to host messaging business applications for corporate customers

Sendmail Switch Architecture

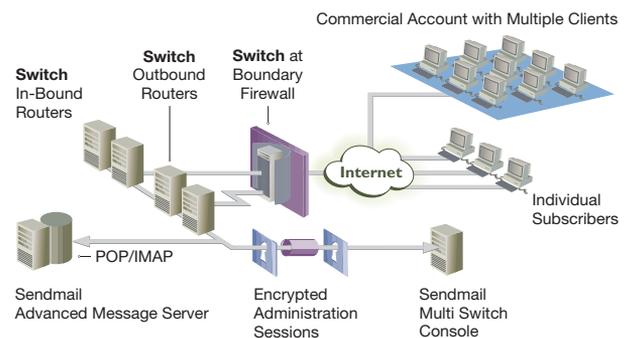


Figure 2. Common Sendmail Switch Architecture for Service Providers. Sendmail Switch processes and filters incoming and outgoing email at the service provider gateway then routes it to the appropriate subscriber hosting servers or intended recipients.

Configuration

- **Smart wizards**—to guide administrators through role-specific configuration tasks for easy set up and administration
- **Granular feature tuning**—to set the advanced *sendmail* configuration options such as virtual hosting, unique relays, and custom rulesets
- **Testing tools**—to test a configuration before putting it into production
- **Heterogeneous deployment**—to deliver platform independent configuration files for automatic set up on the server
- **Map and database editors**—to enter and maintain thousands of entries with searching and line indexing

CONFIGURATION

- Smart wizards
- Granular feature tuning
- Testing tools
- Heterogeneous Deployment
- Map and database editors

Management

- **Emergency alerts**—to notify administrators when specified thresholds are reached for system variables such as CPU usage, queue activity and load average
- **Multiple queue controls**—to process multiple batches of mail in parallel with monitoring, moving, deleting and search capabilities
- **Web-based administration console**—to configure, deploy and manage one or more routing servers within a single tool
- **Multiple host management**—to host multiple virtual domains on one machine
- **Delegated administration**—to delegate tasks and assign access privileges to specific administrators

MANAGEMENT

- Emergency alerts
- Multiple queue controls
- Web-based administration console
- Multiple host management
- Delegated administration

TRAFFIC ANALYSIS

- Daily traffic reports
- Daily operational monitoring
- On-demand trend analysis
- Multiple host monitoring

Traffic Analysis

- **Daily traffic reports**—to analyze email volumes through standard and custom reports
- **Daily operational monitoring**—to check the health status of each server
- **On-demand trend analysis**—to predict potential scalability and performance issues
- **Multiple host monitoring**—to view health statistics for multiple hosts as a unified system

MAIL ROUTING FUNCTIONS

Network Security

- **Intrusion prevention settings**—to limit potential 'denial of service' threats
- **Anti-virus add-ons and emergency subject filtering**—to block suspect messages based on an identifiable attribute like Melissa's "Important Message From" subject
- **Encrypted administration sessions**—to ensure that third parties cannot reconfigure the mail routing servers
- **Server-level session encryption**—to ensure message integrity with certificate-based authentication via TLS

NETWORK SECURITY

- Intrusion prevention settings
- Anti-virus add-ons and emergency subject filtering
- Encrypted administration sessions
- Server-level session

RECEIVING

- Relay controls
- Spam controls

Receiving

- **Relay controls**—to prevent third parties from co-opting your system for sending spam or other unauthorized messages from your server
- **Spam controls**—to block spam by rejecting mail from specific domains, hosts, users, or IP addresses

PROCESSING

- Content management and filtering add-ons
- Filter API

Processing

- **Content management and filtering add ons**—to enforce email content, archiving and management policies
- **Filter API**—to develop custom filter plug-ins to enforce email content, archiving and management policies

DELIVERY

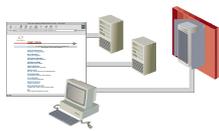
- Addressing services
- LDAP lookups
- Queuing

Delivery

- **Addressing services**—to flexibly host multiple domains, rewrite addresses or redirect mail to proper servers
- **LDAP lookups**—to replace *sendmail's* common map files to support virtual hosting, aliases, internal host routing and address rewriting queries
- **Queuing**—to store each message in a stable environment while attempting delivery

Sendmail Multi Switch

Sendmail Multi Switch is for email system managers who operate multiple routing servers. With Sendmail, Inc.'s flagship routing product, administrators can configure, monitor, encrypt, filter and update all email routing servers in a network—anytime, from anywhere—within a single console.



Centralize Management

The administration console easily controls multiple copies of Sendmail Managed Switch, the commercial version of Open Source *sendmail* for routing email. These can be added as needed to scale.

Delegate Administration

New administrators, with unique user names and passwords, and assigned access privileges can be added according to particular hosts, clusters, or even tasks such as queue management on a specific host.

Aggregate Reports for Multiple Hosts

Daily email reports aggregate trend statistics by host and/or cluster.

Monitor Multiple Hosts

The onscreen display monitors multiple hosts and triggers alerts when pertinent statistic thresholds are exceeded.

Migrate Easily

Role-based migration tools make it easy to migrate routing servers to perform specific roles, such as Internet gateway mail server or mail hub mail server.

Secure Administration

The administration console resides on a separate machine from the routing server; to reduce your exposure, particularly at the firewall, and maintain security. Encrypted sessions protect the connection between the administration console and the routing server, delivering files and commands securely.

Sendmail Secure Switch

Sendmail Secure Switch is for businesses with sensitive security requirements needing an intrusion prevention layer at the Internet Mail gateway. Secure Switch includes single-server administration and management with the minimal exposure and secure administration features found in Sendmail Multi Switch.



Sendmail Single Switch

Sendmail Single Switch is for system administrators managing single *sendmail* server implementations that do not require the minimal exposure and secure administration features found in Sendmail Multi Switch and Secure Switch. Sendmail Single Switch simplifies configuration and management with 7-click setup, testing tools, contextual online help, and graphical configuration and administration.



Sendmail Attachment Filter

The Sendmail Attachment Filter is an optional add-on to the Sendmail Switch product line for email network managers with the need to set email policy, while providing front-line attachment virus defense. The Attachment Filter can be used to block or discard any type of MIME attachment in and out of your mail system, from movie files to the latest attachment-borne virus.

STANDARDS COMPLIANCE

Sendmail has a long tradition of working with the Open Source community to drive Internet standards. Sendmail is committed to open standards for best interoperability.

RFC 821	SMTP protocol
RFC 822	Mail header format
RFC 974	MX routing
RFC 976	UUCP mail format
RFC 1123	Host requirements (modifies 821,8)
RFC 1413	Identification Server
RFC 1869	SMTP Service Extensions (ESMTP)
RFC 1652	SMTP Service Extension for 8bit-MIME
RFC 1870	SMTP Service Extension for Message Size D
RFC 2045	Multipurpose Internet Mail Extensions (MIME) Part One
RFC 2046	Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types
RFC 2047	MIME (Multipurpose Internet Mail Extensions) Part Three: Message Header Extensions for Non-ASCII Text
RFC 2048	Multipurpose Internet Mail Extensions (MIME) Part Four: Registrations Procedures
RFC 2049	Multipurpose Internet Mail Extensions (MIME) Part Five: Conformance Criteria and Examples
RFC 1344	Implications of MIME for Internet Mail Gateways
RFC 1428	Transition of Internet Mail from Just-Send-8 to 8-bit SMTP/MIME
RFC 1891	SMTP Service Extension for Deliver Status Notifications
RFC 1892	Multipart/Report Content Type for the Reporting of Mail System Administrative Messages
RFC 1893	Enhanced Mail System Status Codes
RFC 1894	An Extensible Message Format for Delivery Status Notifications
RFC 1985	SMTP Service Extension for Remote Message Queue Starting
RFC 2033	Local Mail Transfer Protocol (LMTP)
RFC 2034	SMTP Service Extension for Returning Enhanced Error Codes
RFC 2476	Message Submission
RFC 2554	SMTP Service Extension for Authentication
RFC 1777	The Lightweight Directory Access Protocol (LDAP Version 2)
RFC 2222	Simple Authentication and Security Layer (SASL)
RFC 2487	SMTP Service Extension for Secure SMTP over TLS

Figure 5. Standards Compliance table. RFCs that Sendmail Switch products adhere to.

The Sendmail Switch Line

Sendmail Switch products bring performance, security and reliability to electronic communication by managing the flow, filtering and security of email throughout the network.

Backed by Sendmail's Expertise

Sendmail Switch is a commercially supported product line backed by Sendmail's highly trained customer-focused services team—a group of Internet Mail experts with extensive experience building complete, highly scalable mail solutions for leading corporations and service providers.

Sendmail Support Services

Sendmail offers quality Technical Support and consulting services to help you implement and maintain your Sendmail product. With Sendmail, you gain the benefits of Open Source technology backed by the Sendmail experts—throughout the lifecycle of your system.

About Sendmail, Inc.

Sendmail, Inc. provides mission-critical Internet Messaging solutions to corporations and service providers. As the primary source of commercial software based on *sendmail*, the de facto standard Internet Mail server, Sendmail, Inc. leads the development of Internet Mail standards and ensures their early implementation in its commercial and Open Source products. The company is headquartered in Emeryville, CA, with offices in the UK, Germany and France, and distributors in Europe and Asia Pacific. For more information on Sendmail, Inc., visit its Web site at www.sendmail.com



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