



Mailshell SpamCatcher Plugin for CommuniGate Pro

CommuniGate Pro and MailShell SpamCatcher partner to provide an unmatched, carrier-grade secure internet communications solution

SpamCatcher Plugin Overview

The Mailshell SpamCatcher Plugin runs as an External Filter and calculates a spam "score" for each message being processed. Unlike tools with statically defined patterns for spam messages, the Mailshell SpamCatcher Plugin dynamically retrieves new patterns from the SpamCatcher Network thus providing greater accuracy for new spam messages.

Scores range from 0 to 100; the higher the message score the more likely the message is spam. Score information is added to message headers so it can be processed by Server-Wide, Domain-Wide and Account Rules.

By default the added header lines look like this:

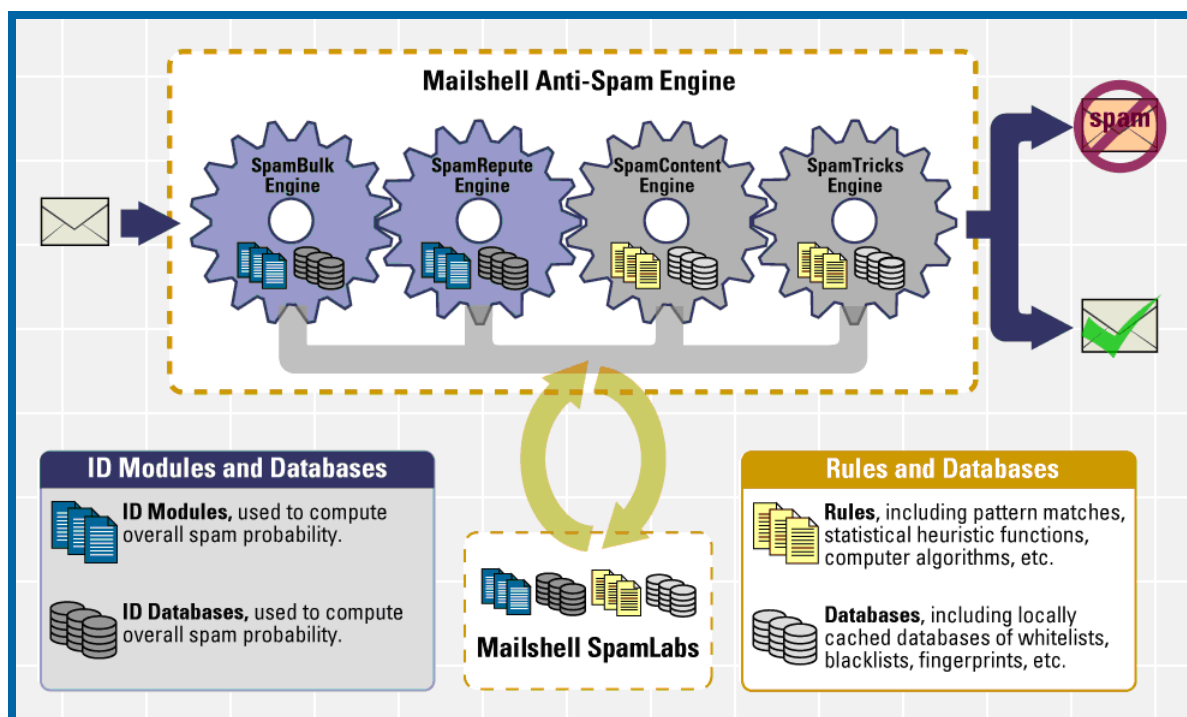
- X-SpamCatcher-Score: 87 [XXXX]**
- X-Alert: possible spam!**
- X-Color: red**

Besides the digital score value, the header field contains a "bar score" to simplify automated message processing; the more 'X' characters, the higher the score. The following ratios between the digital and bar scores are used by default:

Digital score range	Bar score
0	[]
1-39	[X]
40-76	[XX]
77-84	[XXX]
85-90	[XXXX]
91-99	[XXXXX]
100	[XXXXXX]

The Plugin generates a daily summary that is sent to the CommuniGate Pro Administrator.

Mailshell SpamCompiler System



For every message:

- The four spam identification engines utilize more than one million filter checks to identify spam with an incredibly high accuracy rate, and a near-zero false positive rate.
- Creates a fingerprint ID for every e-mail message and compares it to existing fingerprints in its databases.
- Results are combined using SpamScore, a proprietary Bayesian statistical formula, into one final spam probability score.
- SpamTricks Engine: Is the message formatted or sent to bypass anti-spam rules or to be economical for spammers?

SpamCompiler Technology

Mailshell's SpamCompiler technology:

For each message, Mailshell SpamCompiler applies checks of its four spam detection engines:

- SpamBulk Engine: Is the message or similar messages sent in bulk?
- SpamRepute Engine: Do most people want the message?
- SpamContent Engine: Will most people consider the message offensive?
- Compiles and executes more than one million checks to determine if a message is spam or not.
- Conducts thousands of simultaneous calculations in a fraction of a second.
- Combines fast, compact, flexible, complete decision tree with an automatically self-tuning intelligent engine.
- Consistently generate highly accurate results in recognizing spam.

Mailshell's developers:

- Are leading experts in Artificial Intelligence technology to compile high-level languages into optimized code.
- Hold nearly 30 patents in compilers, database modeling, and design.

Advanced Phishing Protection

Quantifying Reputation to Determine 'Do Most People Want this Message?'

Email authentication can help to eliminate spoofing and thereby protect the reputation of the rightful owners of IP addresses, domains, email address, and even message content.

Mailshell offers the first solution specifically designed to quantify reputation via advanced statistical models. Our reputation-based analysis creates de facto advanced 'phishing' detection, along with protection from fraud and other blended threats.

By focusing on reputation, Mailshell is also able to deploy a language-agnostic statistics-based solution that catches foreign language spam more accurately than content-focused solutions.

How We Use 'Reputation' to Catch Spam

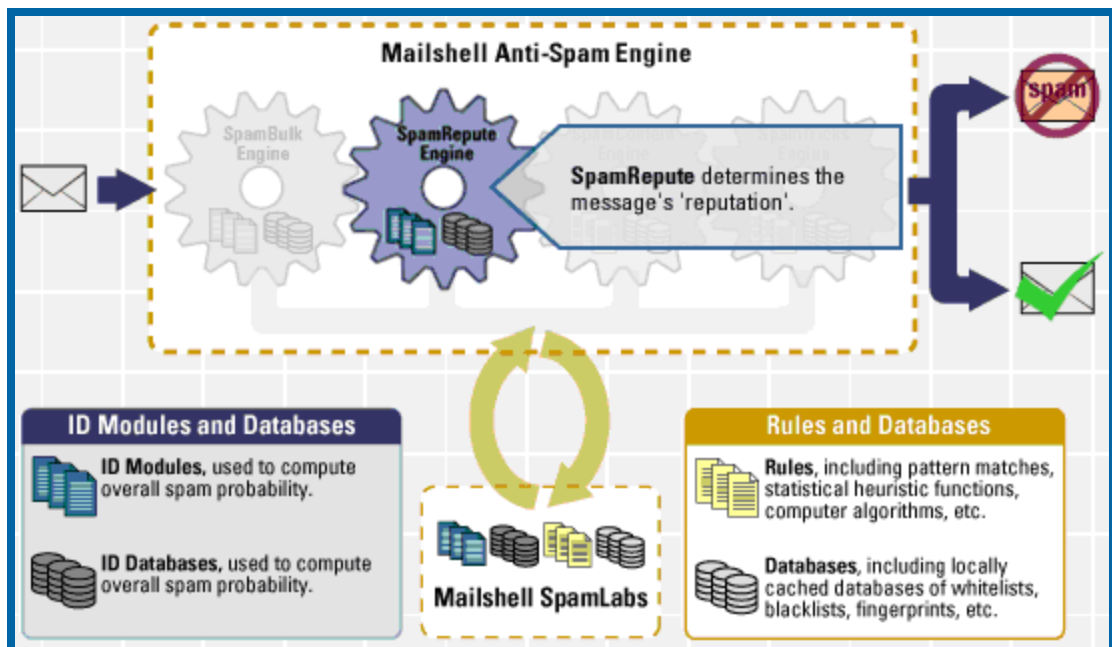
We define reputation of an attribute as the difference between the # of spam versus the # of legit messages. We call it our SpamRepute Index. For example, the reputation of an IP address is the difference between the # of spam messages sent from that IP address versus the # of legit messages sent from that IP address.

We track the reputation of "hard to fake" attributes such as:

- Every IP address
- Every domain
- Every sender fingerprint
- Every message fingerprint

To tune the results, we also track the reputation of related attributes such as:

- Country of origin of IP
- Domain owner
- Name server
- Domain Registrar



Calculating the Mailshell SpamRepute Index

In practice, when we get a new message, we:

1. Extract spam attributes from the message. If they are spoofed, we throw the message out.
2. Compute the SpamRepute Index for each attribute.
3. Compute the overall SpamRepute Index for the message by combining the SpamRepute Index for each attribute.
4. Incorporate the overall SpamRepute Index into the overall spam filtering analysis.

About Mailshell

Mailshell is the #1 provider of OEM spam filtering and anti-phishing software. It is the first and only spam engine in the world with SpamCompiler Technology, which can process more than a million filter checks in a fraction of a second. More than 6,000 companies and 10 million consumers worldwide rely on Mailshell to block spam and phishing.

Headquarters
CommuniGate Systems
655 Redwood Highway, Suite 275
Mill Valley, CA 94941 U.S.A.
US Tel: 800 262 4722
Intl: +1 415 383 7164
Fax: +1 415 383 7461
sales@communiGate.com

Europe
CommuniGate Systems
Kaiser-Wilhelm-Strasse 10
82319 Starnberg, Germany
Tel: +49 (0) 8151 971061
Fax: +49 (0) 8151 971062
europe@communiGate.com

Japan
CommuniGate Systems
1-2-8 Ikego
Zushi 249-0003 Kanagawa Pref., Japan
Tel: +81-46-872-4950
japan@communiGate.com

Russia
CommuniGate Systems
Ul. Vavilova, 5 корпус 3, Office 216
Moscow 117334, Russia
Tel: +7-495-720-3096
sip: russia@communiGate.com
russia@communiGate.com

Asia Pacific
CommuniGate Systems
Blk 558 Hougang St 51
04-374 Singapore 530558
Tel: +65-98385761
Fax: +65-65812737
apac@communiGate.com

Latin America Regional Offices
CommuniGate Systems
México, D.F. - +52 (55) 5350 4672
Santiago, Chile - +56 (2) 585 6915
São Paulo, Brasil - +55 (11) 3523 7751
latamer@communiGate.com