

Intellectual Property Rights (IPR) in Anti-Spam Technology

A working document of the [Anti-Spam Research Group \(ASRG\)](#) of the [Internet Research Task Force \(IRTF\)](#)

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0. Introduction.

This document lists various IPR claims related to anti-spam technology which came up on the ASRG mailing list. The need for such document was [first proposed](#) by william <at> elan.net. PLEASE NOTE that the IETF keeps a list of IPR notices [on its website](#). THIS INFORMATION IS PROVIDED "AS IS" WITHOUT ANY WARRANTIES, USE AT YOUR OWN RISK.

0.1. Official ASRG IPR Policy.

From list message by Paul Judge, the chair of the ASRG (<https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05378.html>):

"We have decided to adopt the following IPR policy for the ASRG. It is based on the IETF's IPR policy as outlined in [RFC 2026](#).

"By submission of a contribution, each person actually submitting the contribution is deemed to agree to the following terms and conditions on his own behalf, on behalf of the organization (if any) he represents and on behalf of the owners of any propriety rights in the contribution. Where a submission identifies contributors in addition to the contributor(s) who provide the actual submission, the actual submitter(s) represent that each other named contributor was made aware of and agreed to accept the same terms and conditions on his own behalf, on behalf of any organization he may represent and any known owner of any proprietary rights in the contribution.

The contributor represents that he has disclosed the existence of any proprietary or intellectual property rights in the contribution that are reasonably and personally known to the contributor. The contributor does not represent that he personally knows of all potentially pertinent proprietary and intellectual property rights owned or claimed by the organization he represents (if any) or third parties."

This means that the person submitting a proposal is responsible for stating any relevant IPR that he knows about even if he is not the holder of the rights. This does allow for other members to notify a contributor about relevant IPR after the initial submission. The contributor should then disclose this information in revisions of the contribution.

0.2. Other Sources of Information.

This section lists some of the other sources of information on the Internet regarding anti-spam IPR issues:

1. List maintained by Scott Nelson (http://www.spamwolf.com/patents/prior_art.html) [[list posting](#)].

2. List postings by Bob Wyman listing some relevant US patents and applications:

<https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05356.html>

<https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg06215.html>

<https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg06044.html>

3. List from WeCanStopSpam.org (<http://wecanstopspam.org/jsp/Wiki?Legal>).

0.3. Modification History.

Date	Description
June 1 st , 2003	Posted online, added MailBlocks patents
June 2 nd , 2003	Added prior art section, added prior art for MailBlocks patents, added original patent documents provided by MailBlocks;
June 5 th , 2003	Added more prior art references for MailBlocks, added Microsoft's filtering patent and SpamAvenger's patent application
June 8 th , 2003	Added Jakob Nielsen's patent on coordinated spam detection, fixed notes section; changed introduction
June 12 th , 2003	Added MailBlocks's response regarding IPR claims, added links section
June 14 th , 2003	Added ASRG Official IPR Policy
June 26 th , 2003	Added IPR disclosure for TitanKey; added a new patent for C/R
July 8 th , 2003	Added section on e-postage patents and some patents to it (#5), added new list posting references (#0.2), added another response from MailBlocks, Inc. (#1)

0.4. IPR Template.

The following template should be used when submitting information about IPR claims. This template is based on the work of of the [IPR WG](#) of the [IETF](#). No actual license is implied by submission of this template. PLEASE NOTE that the IETF keeps a list of IPR notices [on its website](#) some of which may apply here as well. The preferred place to post this template is directly to the ASRG mailing list.

[START OF TEMPLATE]

1. IP Owner Information.	<i>Include legal name and contact information</i>
2. Type of IP.	<i>copyrights, trademarks, patents, trade secrets, etc</i>
3. IP Information.	<i>Patent, Serial, Publication, Registration, or Application/File number(s), Date(s) granted or applied for, Whether this disclosure relates to an unpublished pending patent application.</i>
4. References.	<i>Include links, ASRG list postings, Internet drafts, etc.</i>
5. Licensing Declaration.	<i>The IP Holder states that its position with respect to licensing any IP claims disclosed above that would be necessary to implement the technology required by an IETF Proposed Standard, Draft Standard, or Standard (or other IETF document) is as follows (select one option only):</i> <i>___ No License Required for Implementers</i> <i>___ Royalty-Free, Reasonable and Non-Discriminatory License to All Implementers</i> <i>___ Reasonable and Non-Discriminatory License to All Implementers with Possible Royalty/Fee</i> <i>___ Licensing Declaration to be Provided Later (implies a willingness to license in some form to all implementers; otherwise, "Unwilling to License to All Implementers" must be selected)</i> <i>___ Unwilling to License to All Implementers</i>
6. Possible Prior Art.	<i>Description and links to possible prior art</i>
7. Notes.	<i>Additional Notes</i>

[END OF TEMPLATE]

1. List of IPR Disclosures to ASRG.

The following IPR disclosures were made to the ASRG:

1. MailBlocks, Inc. (see [section 2.1.1](#)) on June 12th, 2003, in a private phone call:

Licensing Declaration to be Provided Later (implies a willingness to license in some form to all implementers; otherwise, "Unwilling to License to All Implementers" must be selected)

1.1. Additional disclosure regarding CRI protocol:

<https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg06437.html>

2. TitanKey (see [section 4.2](#)), on June 13th, 2003, in a private email:

Licensing Declaration to be Provided Later (implies a willingness to license in some form to all implementers; otherwise, "Unwilling to License to All Implementers" must be selected)

2. Challenge/Response Systems.

2.1. Generic C/R Systems.

2.1.1. MailBlocks Patents.

1. IP Owner Information.	MailBlocks, Inc., 201 Main Street, Suite 100, Los Altos, CA 94022; Voice: (650) 947-9361, Fax: (650) 947-9382; Website: www.mailblocks.com
2. Type of IP.	Patents
3. IP Information.	US Patent # 6,199,102 , filed August 26, 1997 and issued March 6, 2001 (aka Cobb Patent); US Patent # 6,112,227 , filed on August 6, 1998 and issued August 29, 2000 (aka Heiner Patent).
4. References.	1. United States Patents and Trademarks Office (USPTO) – http://www.uspto.gov 2. Press Release about Earthlink Suite (http://about.mailblocks.com/press_0507_2003.html) [Include links, ASRG list postings, Internet drafts, etc.]

5. Licensing Declaration.	<p>The IP Holder states that its position with respect to licensing any IP claims disclosed above that would be necessary to implement the technology required by an IETF Proposed Standard, Draft Standard, or Standard (or other IETF document) is as follows (select one option only):</p> <p>(X) Licensing Declaration to be Provided Later (implies a willingness to license in some form to all implementers; otherwise, "Unwilling to License to All Implementers" must be selected)</p> <p>[Added on June 12th, 2003 based on a phone conversation with MailBlock's Director of Business Strategy]</p>
6. Prior Art.	<p>1. From list posting by David Wheeler (https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05145.html):</p> <p>Challenge-response is simply an automation of the "Halt! Who goes there!" challenge that guards have been issuing for millenia. Thus, this patent can be challenged as a trivial automation of previous approaches that have been used for millenia.</p> <p>In 1992, Cynthia Dwork and Moni Naor of IBM described a challenge-response system in which the sender would be asked to process a particular solution before the receiver would accept the email [Dwork 1992]. This work was publicly presented at Crypto '92.</p> <p>On May 26, 1996, Otmarr Lendl (lendl at cosy.sbg.ac.at) posted how to implement a challenge-response system using procmail. This was publicly posted to the newsgroup "news.admin.net-abuse.misc" as the subject "Re: Unsolicited junk email from exd48265@interramp.com", message-ID <4o8cql\$8ah@dwst13.wst.edvz.sbg.ac.at>#1/1. This was a simple script that accepted email that accepted email if it came from certain sources or included a special password in the "Subject" line; otherwise, a challenge was replied back to the original sender. This posting included the code to implement the approach, as a response to another query in the newsgroup. Indeed, there are hints that others have implemented challenge-response systems far earlier as well.</p> <p>2. See the list maintained by Scott Nelson (http://www.spamwolf.com/patents/prior_art.html) [list posting].</p> <p>3. Prior art by David F. Skoll (posted to the list on March 24, 2003):</p> <p>http://groups.google.ca/groups?hl=en&lr=&ie=UTF-8&oe=UTF-8&selm=56luge%246on%40bertrand.ccs.carleton.ca</p> <p>4. Multiple items at "We Can Stop Spam" (http://wecanstopspam.org/jsp/Wiki?Legal).</p> <p>5. From Brad Templeton's page (http://www.templetons.com/brad/spam/challengeresponse.html):</p> <p>"Back in 1997 I wrote what is probably the first of the challenge/response (C/R) spam-blocking systems. "</p>
7. Notes.	Additional Notes

2.1.2. C/R / E-Postage.

1. IP Owner Information.	DoubleClick, Inc. (was MessageMedia, Inc., formerly First Virtual Holdings), 450 West 33rd Street, New York, NY 10001, (212) 271-2542, www.doubleclick.com .
2. Type of IP.	Patent
3. IP Information.	US Patent # 6,246,996, initial filing on Sep. 16, 1994, filed on May 7, 1998, granted on June 12, 2001.
4. References.	<p>1. From original list posting by Bob Wyman (http://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05633.html):</p> <p>Reference to patent at the USPTO (http://patft.uspto.gov/netacgi/nph-Parser?patentnumber=6246996)</p> <p>2. Comments by list members (http://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05634.html and http://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05635.html):</p> <p>"Peter Kay wrote: 'I think that's a reach on this patent. This one talks about facilitating transactions, maybe like a paypal system. It has virtually nothing to do with spam.'</p> <p>Bob Wyman wrote: "I agree that it is a bit of a stretch, however, even though it is not written as an "anti-spam" patent, it still incorporates a process of "challenge and response" via email messages that somewhat resembles the method used in C/R systems which are specifically intended to prevent spam. One might argue that sending email messages is a form of "transaction." Or, it might be that you would infringe on this patent if you combined a C/R system with one of the "pay to send" or "postage stamp" systems that have been proposed elsewhere. In that case, the transaction would be paying for the postage. It is also possible that one might argue that since this process of "challenge and response" (although not called that in this patent) had been incorporated into a patent application whose predecessor was filed as long ago as 1994, that establishes that the method of C/R was "obvious" to one skilled in the art by the time that later C/R related patent applications were being filed five, six or more years later. Also, at least one of the inventors on this patent has claimed that he believes it *may* be relevant to spam." [emphasis added]</p> <p>4. References on the creators website's:</p> <p>Lee Stein's site – List of patents (http://www.stein.to/patents.html)</p> <p>Nathaniel S. Borenstein's site – list of patents (http://ahimsa.guppylake.com/~nsb/nsb-patents.html)</p>
5. Licensing Declaration.	none
6. Possible Prior Art.	none
7. Notes.	none

2.2. Turing Tests.

3. Filtering.

3.1. Generic Filtering.

3.1.1. Microsoft's Patent on Bayesian Filtering.

1. IP Owner Information.	Microsoft Corporation, 1 Microsoft Way, Redmond, WA, 98052; Phone: 425-882-8080, Fax: 425-936-7329; website: www.microsoft.com
2. Type of IP.	Patent
3. IP Information.	US Patent # 6,161,130 , filed June 23, 1998 and issued on December 12, 2000 .
4. References.	1. United States Patents and Trademarks Office (USPTO) – http://www.uspto.gov 2. Paul Graham's site (http://www.paulgraham.com/paulgraham/msftpatent.html). <i>Include links, ASRG list postings, Internet drafts, etc.</i>
5. Licensing Declaration.	[none]
6. Possible Prior Art.	1. From Paul Graham's site (http://www.paulgraham.com/paulgraham/msftpatent.html): Jason Rennie's ifile (http://www.ai.mit.edu/~jrennie/ifile/old/README-0.1A) Pantel and Lin's paper (http://www.cs.ualberta.ca/~ppantel/Download/Papers/aaai98.ps)
7. Notes.	<i>Additional Notes</i>

3.2. Coordinated Filtering.

3.2.1. Jakob Nielsen's Patent.

1. IP Owner Information.	Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, CA 95054, Phone: US 1-800-555-9SUN; International 1-650-960-1300; website: www.sun.com
2. Type of IP.	Patent
3. IP Information.	US Patent # 6,453,327 , filed June 10, 1996 and issued on September 17, 2002 .
4. References.	1. United States Patents and Trademarks Office (USPTO) (http://patft.uspto.gov/netacgi/nph-Parser?patentnumber=6453327). 2. From list posting from Bob Wyman referencing the patent (https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg05304.html): “Note: The method of having groups vote on what is and is not spam, which he claims is used by Cloudmark SpamNet and Matador , may be an infringement or use of US patent 6,453,327” 3. <i>Author's page</i> (http://www.useit.com/jakob/publications.html). 4. Web log reference (http://www.eamonn.com/archives/000169.html). 5. From list posting by Phillip Hallam-Baker (): “The patent claims do appear to cover DCC type schemes. I do not think it prudent to discuss the claims in detail.” <i>Include links, ASRG list postings, Internet drafts, etc.</i>
5. Licensing Declaration.	[none]
6. Possible Prior Art.	<i>Description and links to possible prior art</i>
7. Notes.	<i>Additional Notes</i>

4. Multiple Claims.

4.1. CascadeZone AKA “SpamAvenger”.

1. IP Owner Information.	Cascade Zone Inc., PO Box 1099, Lake Stevens, WA, 98258; website: www.cascadezone.com
2. Type of IP.	Patent Application
3. IP Information.	US Patent Application # 20030009698 , filed on May 29, 2002 ; based on provision application # 60/294,718 filed May 30, 2001 .
4.	1. From the USPTO (https://patft.uspto.gov/netacgi/nph-Parser?

7. References.	<p>1. From the USPTO (http://appft.uspto.gov/netacgi/nph-htaiset?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=/netacgi/PTO/srchnum.html&r=1&f=G&l=50&s1='20030009698'.PGNR.&OS=DN/20030009698&R)</p> <p><i>Include links, ASRG list postings, Internet drafts, etc.</i></p>
5. Licensing Declaration.	[none]
6. Possible Prior Art.	<i>Description and links to possible prior art</i>
7. Notes.	<i>Additional Notes</i>

4.2. TitanKey.

1. IP Owner Information.	TitanKey Software, LLC. Honolulu, Hawaii. Web site: www.titankey.com
2. Type of IP.	patent (pending)
3. IP Information.	<p>1. From original disclosure by Peter Key:</p> <p>Provisional application 60/152,025 filed 09/01/1999, Second provisional application 60/180,937 filed 02/02/2000.</p> <p>US Patent application 09/648,894 filed 8/25/2000, International Patent PCT/US00/23561. Filed 8/25/2000.</p> <p>CIP (improvement) 10/404,631, filed 3/31/2003</p>
4. References.	<p>1. From Original Disclosure by Peter Key:</p> <p>International patent application (identical to USPTO application)</p> <p>How it works</p> <p>How a VPM (Virtual Private Email) works</p>
5. Licensing Declaration.	(X) Licensing Declaration to be Provided Later (implies a willingness to license in some form to all implementers; otherwise, "Unwilling to License to All Implementers" must be selected)
6. Possible Prior Art.	none
7. Notes.	<p>1. From original disclosure by Peter Kay:</p> <p>"This core of invention modifies the traditional SMTP transaction in that the MAIL FROM address is compared against a database of various rules including a whitelist. The rules analysis decides whether to continue the SMTP transaction, or if not, a 550 "no such user" response is given and the transaction stops before the DATA command, effectively stopping unwanted email before it is sent.</p> <p>Depending on the rule conditions, an invitation email can be sent to the MAIL FROM address asking the sender to identify themselves. Proper response to the invitation email may allow the sender to be added to the whitelist and subsequent emails can be sent without being rejected.</p> <p>A functional layer atop the core provides a "VPM" (Virtual Private Email): A user can create an email address and assign specific policies as to how that email address can be used. Senders that violate the policy bound to the email address are rejected with the 550 response before the DATA command. This VPM invention addresses drawbacks associated with Challenge/Response systems that make it difficult for users to subscribe to newsletters or critical notification emails like order confirmations."</p>

5. E-Postage / E-Stamps.

5.1. Sender Must Pay.

5.1.1. Council Patent #1.

1. IP Owner Information.	CBT Flint Partners
2. Type of IP.	Patent
3. IP Information.	US Patent # 6,192,114 , filed on September 2, 1998 , granted on February 20, 2001 ; related to US patent # 6,587,550 .
4. References.	<p>1. Abstract:</p> <p><i>"A method and apparatus for determining whether a party sending an email communication is on a list of parties authorized by the intended receiving party. If the sending party is not on the list of authorized parties, a fee is charged to the sending party in return for the message being provided to the intended receiving party; or if the sending party has not authorized such fees to be charged, the message is simply discarded. Preferably, the present invention is implemented with Internet communications. However, the present invention can be used in private networks as well, such as local area networks (LANs) and wide area networks (WANs). Preferably, the present invention is implemented at the intended receiving party's ISP. In accordance with the well known Transmission Control Protocol/internet Protocol (TCP/IP), the destination address of the intended receiving party and the source address the sending party are contained in the IP message, commonly referred to as a datagram. When a datagram is received at the ISP, the ISP server analyzes the destination address and the source address to determine whether the source address is on a list of authorized source addresses associated with the destination address."</i></p>

5. Licensing Declaration.	[none]
6. Possible Prior Art.	[none]
7. Notes.	[none]

5.1.1. Council Patent #2.

1. IP Owner Information.	Not assigned yet
2. Type of IP.	Patent
3. IP Information.	US Patent # 6,587,550 , filed on February 14, 2001 , granted on July 1, 2003 ; related to US patent # 6,192,114 .
4. References.	<p>1. Original list posting by Bob Wyman (https://www1.ietf.org/mail-archive/working-groups/asrg/current/msg06033.html):</p> <p><i>ABSTRACT: A method and apparatus for determining whether a party sending an email communication is on a list of parties authorized by the intended receiving party. If the sending party is not on the list of authorized parties, an electronic billing agreement is emailed to the sending party indicating a fee that will be charged to the sending party in return for the message being provided to the intended receiving party. Preferably, the present invention is implemented with Internet communications and utilizes a security protocol to enable the electronic transaction to be transacted in a secure manner.</i></p>
5. Licensing Declaration.	[none]
6. Possible Prior Art.	[none]
7. Notes.	[none]

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