

UNITED STATES OF AMERICA
POSTAL REGULATORY COMMISSION
WASHINGTON, DC 20268-0001

Request to Add Private Address Forwarding To the Market
Dominant Product List

Docket No. MC2013-60

PETITIONER'S MOTION TO AMEND
PRIVATE ADDRESS FORWARDING PROPOSAL

November 4, 2013

Based on informal discussions I have had with various members of the public¹ on how my proposal might be improved, I move to amend my original Private Address Forwarding proposal in the following ways.

1. PAF components should be implemented incrementally where appropriate.

The USPS has raised in its initial comments² several questions of feasibility that apply only to subsets of my proposal. To the extent they are severable, each part should be evaluated separately and made available incrementally. E.g.:

- PAF may be initially restricted to letters, with parcel service added later.
- Third-party access can be implemented later than USPS-only access; however, a non-disclosure agreement and explicit user consent must be a requirement for any PAF ID resolution access by third parties (except with due process of law).
- Refusal of service standards may be served in the same manner as they are for PO Box applications — i.e., the applicant should be required to make a sworn

¹ I have given credit appropriately in footnotes for those who inspired or suggested each change. However, the presentation here is my own, and may not reflect the exact views of the person credited.

² <http://prc.gov/Docs/88/88005/USPS.Reply.Ord.1838.pdf>

statement under penalty of perjury that they have not and will not meet any of the grounds for refusal of service. The USPS may revoke service, prosecute, or otherwise sanction applicants whom it later discovers to have committed perjury, without having to make a determination at the time of application.

Most of the below proposed revisions should likewise be treated as severable.

2. Random PAF IDs should be created using a pseudo-random *permutation* generator³ rather than repeating a general pseudo-random *number* generator.⁴

This would prevent the birthday paradox problem⁵ from causing an exponential increase in the time required to create a new, unique PAF ID.

3. PAF users should be able to set a given PAF ID to refuse mail based on
 - a. size category (e.g. letter, padded envelope, box) and/or
 - b. mail category (e.g. bulk mail, signature required)

Incoming mail that meets a specified restriction should either not be accepted at all or returned to the sender; it should *not* be forwarded.

These restrictions would help prevent delivery of mail that is unwanted or that cannot be handled at the forwarding address. The size restriction would help prevent the unlawful discovery of a PAF user's location via mailing a GPS tracking device.

³ <http://blog.notdot.net/2007/9/Damn-Cool-Algorithms-Part-2-Secure-permutations-with-block-ciphers>

See <https://github.com/ryancdotorg/libtprpg> for an example implementation.

⁴ Credit: Ryan Castellucci, <http://rya.nc>

⁵ http://en.wikipedia.org/wiki/Birthday_problem

4. Every human who qualifies for PAF service should be allowed one random PAF ID with no annual or registration fee.

This would help in widespread adoption of PAF by ordinary individuals, and provide every person with the right to privacy in their receipt of mail.

5. Bulk users of PAF IDs should be charged based on their usage — e.g. \$1 per 100 pieces of PAF mail received — if it would exceed the standard annual fee.

As with current USPS services, 501(c)3 non-profits and government entities should receive a discount, and the USPS may negotiate alternative fee structures with very high volume users.

This would permit pricing that is proportional to usage, thus providing more profit to the USPS and fairer, market-based pricing. Under my suggested pricing, bulk usage fees would only be triggered for users receiving more than 3,500 pieces of mail per year, which should be adequate for most individuals and small businesses.

6. The USPS should provide a public API & website form that can confirm whether specified PAF ID(s) are valid, and what (if any) delivery restrictions it has. If authorized by the PAF user, the API could also disclose the user's legal name.⁶

This service should be free for small-scale use (e.g. up to 20/day per user / IP address), but have a reasonable charge for bulk use (e.g. \$1 per 1000 lookups).

This would permit senders to easily validate PAF IDs, much like the USPS' current services that validate and normalize other mailing addresses.

⁶ Credit: Chris Phoenix, cphoenix at gmail dot com

7. Every instance of accessing a PAF ID should be logged.⁷ This audit log should include the identity of the accessor, type of access (e.g. PAF resolution lookup, reverse address lookup, owner info lookup, status change, etc), date / time, place / IP address, and reason for access (e.g. manual processing of incoming PAF-addressed mail, service at PAF user request, legal compliance, etc).

This would help detect and deter unauthorized access or abuse, and provide evidence for prosecution thereof (e.g. for misuse of PAF IDs for criminal or fraudulent purposes, unauthorized access of PAF user information for violation of privacy, etc).

8. Transfer of ownership of a PAF ID should be permitted — requiring the consent of the former and new owners; the new owner fulfilling PAF ID application if they have not already; and a reasonable fee (e.g. \$35).
9. PAF users should be permitted (for a fee, e.g. \$25/year per additional forwarding address) to register multiple forwarding addresses to a single PAF ID.⁸ Forwarding addresses may have distinct delivery restrictions (as in #3).⁹

The USPS should deliver incoming mail to whichever forwarding address permits that type of mail and is most convenient / cheapest for the USPS.

This would permit users who have many functionally equivalent locations (e.g. Goodwill donation processing centers) to publish a single address that works universally, as well as saving money for the USPS by reducing the average cost of delivery.

Distinct address delivery restrictions would permit users to automatically direct incoming

⁷ Credit: Matt Mastracci, <http://grack.com>

⁸ Credit: Yonatan Zunger, <http://plus.google.com/+YonatanZunger>

⁹ Delivery restriction is severable, so could be implemented after general multi-address forwarding (see #1).

mail to appropriate facilities — e.g. packages to a warehouse, letters to an office, certified or signature-requiring mail to a legal department, etc.

10. For an extra fee (e.g. double the standard amount¹⁰), users should be permitted to register "vanity" PAF IDs, which are any unique alphanumeric sequence at least 3 characters in length chosen by the user.

This would allow PAF users to have more user-friendly addresses. For instance, a business could use its (unique) name or slogan as its complete mailing address, thus allowing its customers to send them mail much more easily. This would be very valuable to the business and useful to its customers. It would also provide the USPS with potentially significant income at near zero marginal cost.

Non-alphanumeric characters, upper/lower case, and diacritics should be permitted as stylistic variants, but treated as identical (e.g. "ABCDE" and "AB: cd-é" are equivalent). Also equivalent are (a) the letter i, letter L, and number 1 and (b) the letter o and number 0 (e.g. "Hello" and "He1L0" are equivalent.)

This would help prevent registration of distinct but visually confusing PAF IDs, and help with automated optical recognition.

Mail sent to a vanity ID should still be prefixed with "PAF ".

Again, this would help with automated processing. This prefix is a recommendation, not a requirement, except of mailers who are required to conform to other standardization (e.g. Intelligent Mail barcodes). It is likely that ordinary people will address vanity ID mail with no prefix, and such mail should not be refused service.

A vanity ID applicant must swear that they are not obtaining the ID for the purpose of resale, and intend to actually use the ID themselves.

¹⁰ including the provisions for bulk, non-profit, and government usage per #5 above

This would help deter abuse of vanity ID registration via secondary markets (e.g. the equivalent of "domain squatting" in Internet domain name registration).

Certain vanity IDs should be restricted:¹¹

- A. The vanity ID "Santa Claus" (and variants thereof) belongs to the USPS itself, as it has been in use as such since 1912.¹²
- B. Obscene vanity IDs may not be registered.¹³
- C. Vanity IDs that are confusingly similar to the name of a unique entity (e.g. "White House", "Google", "Gogle", "Dalai Lama"), or to an existing PAF ID, may only be registered by that entity.¹⁴
- D. Vanity IDs that are confusingly similar to the names of multiple distinct entities (e.g. non-unique names like "John Smith" or "Joe's Deli"¹⁵, or generic references like "Chinese Restaurant") may not be registered.¹⁶

A vanity ID applicant must swear that, to the best of their knowledge, their requested ID does not violate C or D.

The USPS may administratively determine whether a proposed vanity ID fits any of the above categories. For denials under C or D, the USPS must provide the applicant with at least one specific example of a different entity who would reasonably be understood as the referent. USPS denial of a vanity ID may be appealed by the applicant through standard administrative law procedures.

¹¹ Credit: Yonatan Zunger, <http://plus.google.com/+YonatanZunger>

¹² <http://about.usps.com/corporate-social-responsibility/letters-to-santa.htm>

¹³ The legal standards for restrictions and appeals based on this clause should be the same as for e.g. vanity license plates and common law name changes.

¹⁴ Such entities must still pay and meet all other requirements for PAF usage.

¹⁵ However, "Rocky River Joe's Deli" is unambiguous, and should be approved and restricted under clause C. A personal name may also be unambiguous if it includes a middle name, nickname, descriptive term, etc.

¹⁶ For instance, "Apple" should be denied, but both "Apple Computer" and "Apple Bank" should be approved and restricted under clause C.

The list of all currently registered and/or denied vanity IDs (but not their users' information) should be public and searchable online.

Third parties may challenge the validity of a vanity ID by filing a civil suit against its holder¹⁷ proving that the vanity ID referred to the plaintiff at the time it was issued. Courts may grant (non exclusive) relief by prohibiting¹⁸ or transferring ownership of¹⁹ the contested vanity ID.

If, at the time of its issue, the vanity ID holder owned a unique, US registered trademark for that ID, they may raise that fact as an absolute defense against such suit and as basis for declaratory judgment in their favor.

I hope that revisions proposed here will help to address some of the USPS' substantive concerns, as well as to improve the privacy, security, utility, feasibility, and profitability of Private Address Forwarding.

Sincerely,
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¹⁷ whose identity they may discover through civil subpoena process, as discussed in my original proposal

¹⁸ if the court holds that more than one entity had equal claim to being the referent

¹⁹ if the court holds that the plaintiff was the unique referent