

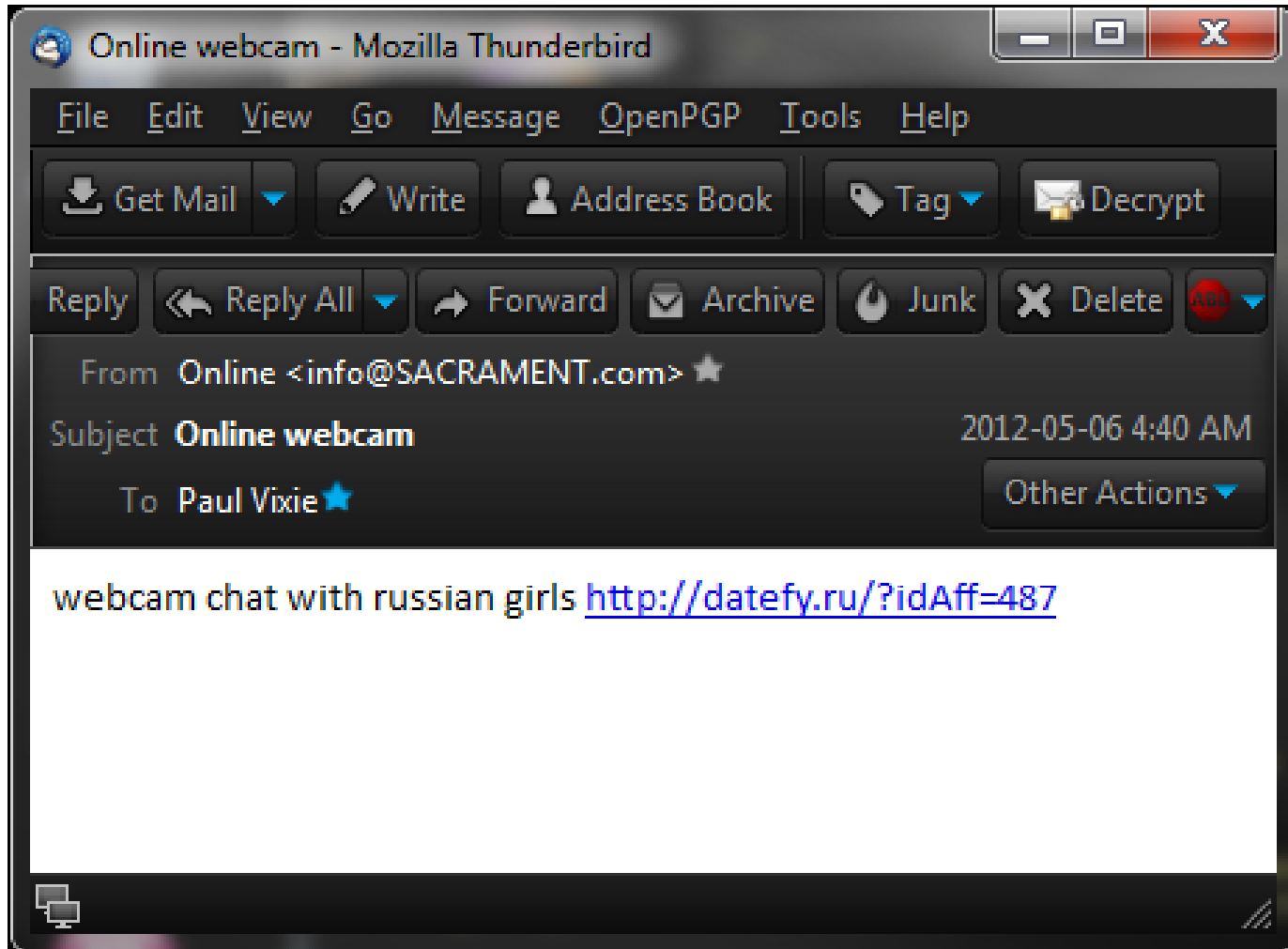
# DNS RPZ In Action

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# What You See



# What You Get

```
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NXDOMAIN, id: 55994
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, \
    ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;datefy.ru.                IN          A

;; AUTHORITY SECTION:
rpz.surbl.org.             180        IN          SOA         dev.null. \
    zone.surbl.org. 1337502508 180 180 604800 180

;; Query time: 1 msec
;; SERVER: 2001:4f8:3:30::3#53
```

# How It Works

```
options {
    directory "/var/local/named";
    pid-file "/var/run/named-nsa.pid";
    query-source address 149.20.48.227 port *;
    listen-on-v6 { ::1; 2001:4f8:3:30::3; };
    listen-on { 127.0.0.1; 149.20.48.227; };
    recursion yes;
    notify yes;
    dnssec-enable yes;
    dnssec-lookaside . trust-anchor dlv.isc.org.;
    dnssec-validation yes;
    response-policy {
        zone "dns-policy.vix.com";
        zone "rpz.surbl.org";
        zone "rpz.spamhaus.org";
    };
};
```

# What It Looks Like

```
zone "rpz.surbl.org" {
    type slave;
    masters { 94.228.131.210; 94.228.131.211; };
    also-notify { 2001:559:8000:cb::2; 24.104.150.2;      # ss
                 2001:559:8000:ca::5e; 24.104.150.42;  # mol
    };
    file "sec/rpz.surbl.org";
};
```

...

```
$ dig @nsa rpz.surbl.org axfr | grep ^datefy
datefy.ru.rpz.surbl.org. 180      IN      CNAME   .
```

# How You Can Use It

- RPZ Feeds
  - Subscribe to one or more internal/external feeds
  - Maybe build your own feed for internal use
  - Maybe offer your feed to external subscribers
- RPZ Rule Patterns
  - Qname, Wildcard, RespAddr, NSName, NSAddr
- RPZ Rule Actions
  - NXDomain, Alias, NoError, Replace, or Bypass

# Final Thoughts: DNS RPZ

- A Note About SOPA:
  - RPZ cannot be used to implement SOPA, since it will not interfere with DNSSEC-signed data that's being accessed by a DNSSEC-aware end user
- Further Reading:
  - [http://www.circleid.com/posts/20100728\\_taking\\_back\\_the\\_dns/](http://www.circleid.com/posts/20100728_taking_back_the_dns/)
  - <https://deephought.isc.org/article/AA-00525/>
  - <https://lists.isc.org/mailman/listinfo/dnsrpz-interest>