

# Pilot project proposal: AffiL

*Affiliated domain names for email trust*

<http://mipassoc.org/affil>

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# Identification – IP vs. Domain

## IP

### ✿ Pros

- ✗ Can be at SMTP time
- ✗ Lots of existing practice
- ✗ High granularity

### ✿ Cons

- ✗ Dynamic
- ✗ Not portable
- ✗ Shared among senders
- ✗ Tied to machine, not org.

## Domain Names

### ✿ Pros

- ✗ Aligns better with org
- ✗ Long-term stability
- ✗ Less long-term admin
- ✗ Can be delegated

### ✿ Cons

- ✗ Must wait for message header to be transmitted
- ✗ More complex software

# DKIM – *Identify a Responsible Party*

RFC 4871

<http://dkim.org/specs/draft-ietf-dkim-overview-10.html>

## Goals

- \* Any handler can sign
- \* Compatible/transparent with existing infrastructure
- \* Minimal new infrastructure
- \* Implemented independently of MUA clients
- \* Deployed incrementally
- \* Permit delegation of signing to third parties (non-authors)

## Non-Goals

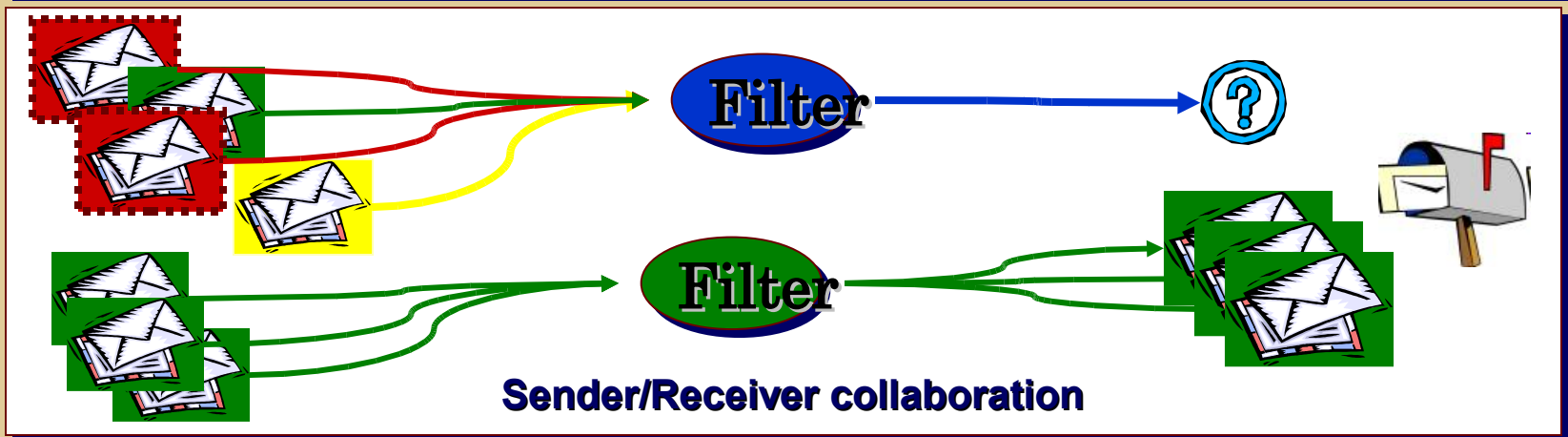
- \* No linkage to other ID field
- \* No assertions about behaviors of signing identity
- \* Not directions to receivers
- \* No protection after signature verification.
- \* No re-play protection
  - \* Transit intermediary or a recipient can re-post the message

# Authentication is Useless...



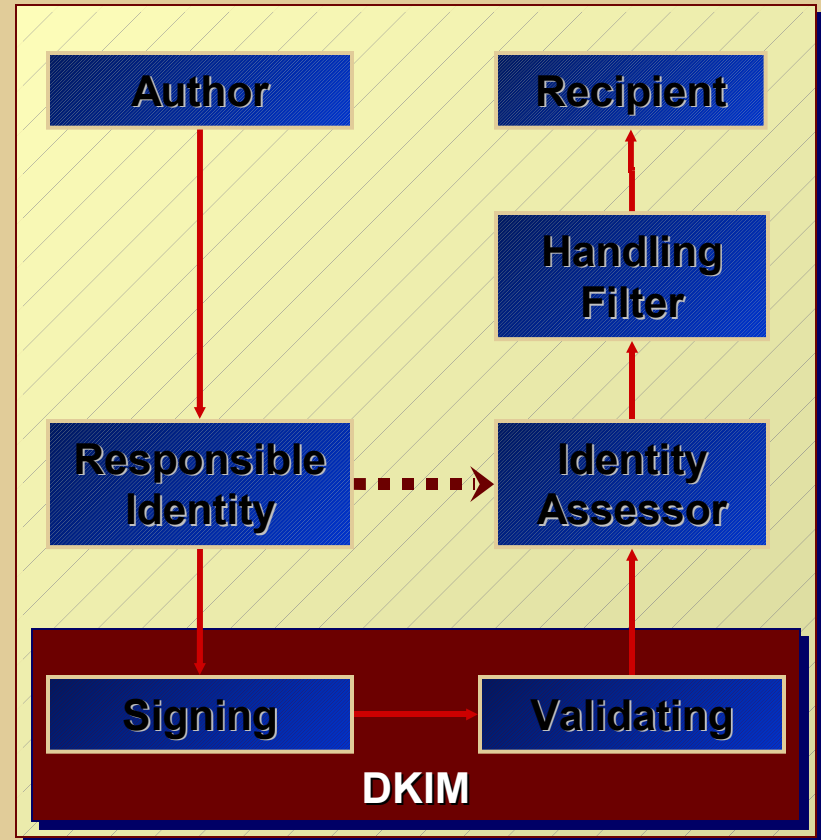
- ✿ ... *by itself*
  - ✗ We all say this, but do we appreciate what it really means?
- ✿ **We often say: *If you have a validated name, you can make simple decisions for folks you know.***
  - ✗ After all, you already know that I'm a great guy...
  - ✗ But this means really means you've gone beyond simple authentication... into reputation.
- ✿ **This added layer is a barrier to adoption of authentication!**
  - ✗ Must have a reputation step, before an adopter gets value.
  - ✗ **Potential adopters of authentication are waiting for compelling and immediate utility that is turnkey.**

# Trust can be a separate channel



# Recipe for Trust

- ✿ Identification generated by 'sender'
- ✿ Validation it really is them
- ✿ Assessment of the sender's worthiness
  - ✿ Reputation of goodness/badness
  - ✿ Attributes  $\Rightarrow$  Reputation
- ✿ [ Multiple assessments  $\Rightarrow$  filter ]



# Can a simple project help?



- ✿ **Some utility, based on authentication**
  - ✗ *Without prior sender/receiver arrangement*
  
- ✿ **Goals**
  - ✗ Simple, useful
  - ✗ Not compete with “reputation” services...
  - ✗ Possibly serve as a template for others
  
- ✿ **Proposal**
  - ✗ **Affiliations List (AffiL): “belonging” not “goodness”**
  - ✗ **Spec: [mipassoc.org/affil](http://mipassoc.org/affil)**

# Affiliations List (AffiL)

## ✿ Pilot project

- ✗ Create an email trust domain among member institutions to permit streamlined email filter handling.
- ✗ Demonstrate utility of validated affiliations list

## ✿ Publish a list of affiliations (membership)

- ✗ Membership *can be* a meaningful “indication” of Goodness
- ✗ Might publish related attributes, like type of institution
- ✗ Assessor might interpret favorably, but not give message a free pass

## ✿ Could be template for other organizations to use



# Example Affiliations

- FDIC member organization
- Sent from the US Senate
- Better Business Bureau member
- ISOI attendee
- DMA member

- Authorized 3<sup>rd</sup>-party agent of purported author
- Domain name (actually) owned by the most spoofed company

# Project Details



- ✿ Write charter for project
- ✿ Define expected use by assessment engine
- ✿ Agree on list semantics
- ✿ Evaluate legal implications
- ✿ Document and publish it

- ✿ Obtain agreements to publish
- ✿ Define DNS/VBR\* query format
- ✿ Begin operation
- ✿ Document the project
- ✿ Recruit spamassassin and other users of list

\* **VBR: Vouch by Reference**  
<<http://www.domain-assurance.org/protocol-overview.phtml>>

# Attributes in an Entry

- ✿ **Domain name**
- ✿ **Associated name of organization**
- ✿ **Member attributes, such as**
  - ✿ Type of membership
  - ✿ Duration of membership
  - ✿ Security policies
  - ✿ ...

# Your turn...

## ✿ Interest?

- ✗ Idea of membership lists
- ✗ Participation in pilot project

## ✿ Concerns?

