



# **Email Authentication Methods:**

## **Testing and Evaluation, A Precursor to Implementation**

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# AOL's Plan of Attack

- AOL plans to test many different authentication technologies in order to assist the Internet community in determining the best suite of technologies
  - Testing is critical as any change to the internet's mail backbone is a substantial change given how pervasive our "killer application" is today
  - Testing will identify situations where these proposed technologies break existing email infrastructures
- We plan on providing feedback to the internet community based on our "dry mode" testing
  - Metrics
  - Operational issues we have encountered
  - Areas for improvement in the technology and/or its implementation



# AOL's Test Plan (Part I)

- Sender Policy Framework (SPF Classic)
  - Compares the SPF v1 DNS record to the 821 mailfrom domain
  - Plan to begin testing inbound mail in late 2004/early 2005
  - Test will not include SRS at this time
  - AOL currently Beta testing the use of SPF to automatically update our whitelist. Beta is currently limited to ~50 large Email Service Providers (ESP).
- SenderID Framework
  - Compares SPF v1 (or v2) DNS record to the 822 Sender domain
  - Plan to begin testing inbound mail in late 2004/early 2005.
  - Considering testing of PRA algorithm in early 2005



## AOL's Test Plan (Part II)

- DomainKeys and/or Cisco IIM
  - Signs 822 sender address of outbound email with a P/K approach
  - AOL evaluating how to sign all outbound mail in early 2005.
  - As standards mature and the number of participating outbound domains increase, we plan to evaluate signatures on inbound mail as well
- Client SMTP Validation (CSV)
  - Compares the HELO domain's DNS record to the connecting IP address of the client in the SMTP conversation
  - Plan to begin testing a modified version of this approach by comparing the SPF v1 record to the HELO field in late 2004/early 2005
  - May include comparison of this domain to reputation systems internal to AOL (SCOMP)

# Which Technology Will Win?

- Testing will provide feedback to the Internet community and technology innovators
  - How many domains meet the identity test?
  - Which domains can not accommodate the configuration/implementation scenarios?
- Testing is critical to determine the benefit of each approach and the disadvantages, some of which may be solved by new engineering innovations.
- While it is impossible to predict the future, AOL believes a suite of technologies will be necessary to accomplish the identity goals. One approach or standard may not suffice.

# Thank You!

- For more information, contact Carl Hutzler:  
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- Delivery issues to AOL?
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