OPES Treatment of IAB Considerations

draft-ietf-opes-iab-00

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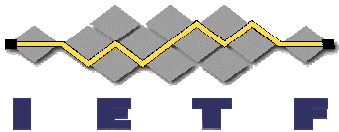abbieb@nortelnetworks.com

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OPES Treatment of IAB Considerations Summary

- Primary goal is to show that all IAB considerations are addressed by OPES

- To the extent those considerations can be addressed by an IETF working group

- Explicitly document limitations of our abilities to address certain aspects of IAB considerations

- On going Open Document

- Q&A

IAB Consideration 2.1

One-party consent

- **Architecture requires that OPES processors MUST be consented to by either the data consumer or data provider application**
  - **Alone cannot prevent consent-less**
  - **Tracing is a weak mechanism that is unable to detect processors noncompliant with OPES specifications**
  - **Content signatures is a strong but expensive mechanism that can detect changes to data**
- **Passive "unwanted" OPES processors cannot be detected**
- **Content encryption can be used**
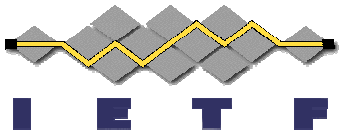
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IAB Consideration 2.2

IP-layer communications

- Architecture requires that "OPES processors MUST be addressable at the IP layer by the data consumer application"
- Two caveats are related to this requirement
  - Addressing the first OPES processor in a chain of processors is sufficient
  - Only a very limited subset of OPES intermediaries are subject to it
- OPES processors that operate under end user consent should be exempt from it
- Consideration apparently was not meant to apply to "internal" OPES intermediaries
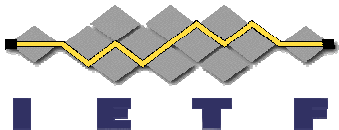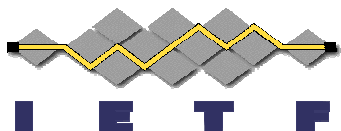
IAB Considerations 3.1 and 3.2

IAB Notification

- Notifies the sender of what had happened to the message after the message has left the sender
  - Flow in opposite direction of requests
  - Cannot be piggy-backed to application messages
  - May create new messages
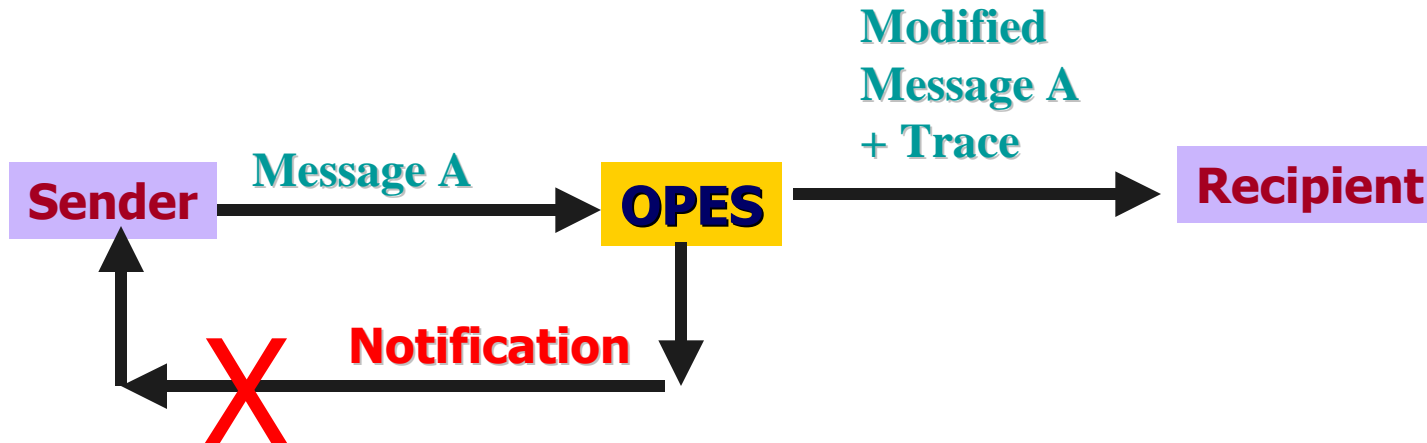 - May at least double the number of messages the sender has to process
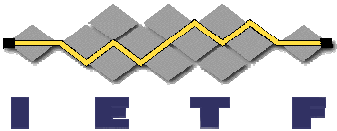
IAB Considerations 3.1 and 3.2

- **OPES framework concentrates on tracing rather than notification**
- **OPES Trace**
  - **Application message information about OPES entities that adapted that message**
- **OPES Tracing**
  - **The process of including, manipulating, and interpreting an OPES trace**
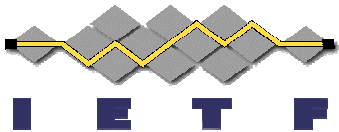
IAB Considerations 3.1 and 3.2

```
                                              Modified
                                              Message A
                                              + Trace
  ┌────────┐   Message A     ┌──────┐                  ┌───────────┐
  │ Sender │ ──────────────▶ │ OPES │ ───────────────▶ │ Recipient │
  └────────┘                 └──────┘                  └───────────┘
       ▲                         │
       │      Notification       │
       └─────────X───────────────┘
```

- **IAB Notification**
  - **Level of available details is important**
  - **Hit Metering protocol suffered from lack of it**
- **OPES concentrates on Tracing for IAB Considerations 3.1 and 3.2**
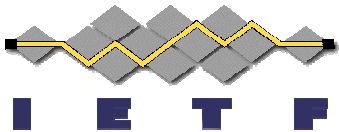
IAB Consideration 3.3

Non-blocking

- OPES architecture must not prevent users from retrieving "non-OPES" versions if available
- OPES intermediaries MUST support a bypass feature
- May generate content errors since some OPES services may be essential
  - Should there be a way to bypass non-essential services only?
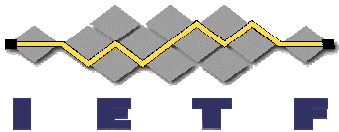
IAB Consideration 4.1

URI Resolution

- OPES documentation must be clear in describing these services as being applied to the result of URI resolution, not as URI resolution itself
- OPES Scenarios and Use Cases Draft documents content adaptations that are in scope of the OPES framework
  - It is technically impossible to adapt URIs using documented OPES mechanisms

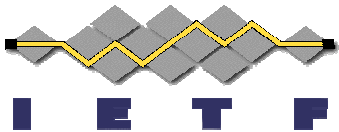# IAB Consideration 4.2

Reference Validity

- All proposed services must define their impact on inter- and intra-document reference validity
- OPES does not propose adaptation services
- OPES tracing requirements include identification of OPES Intermediaries and Services
- OEPS require provided identification can be used to locate information about Intermediaries including the description of impact on reference validity

IAB Consideration 4.3
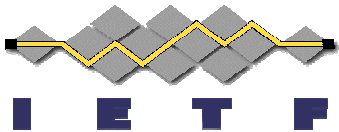
Addressing extensions

- Any services that cannot be achieved while respecting 4.1 and 4.2 may be reviewed as potential requirements for Internet application addressing architecture extensions
- **Does not apply since OPES will be compliant with 4.1 and 4.2**
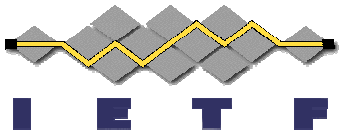
IAB Consideration 5.1

Privacy

- **The overall OPES framework must provide for mechanisms for end users to determine the privacy policies of OPES Intermediaries**

- **OPES tracing mechanisms allow end users to identify OPES Intermediaries**

- **Once an intermediary is identified, it would be possible to locate relevant information about that intermediary including its privacy policy**

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