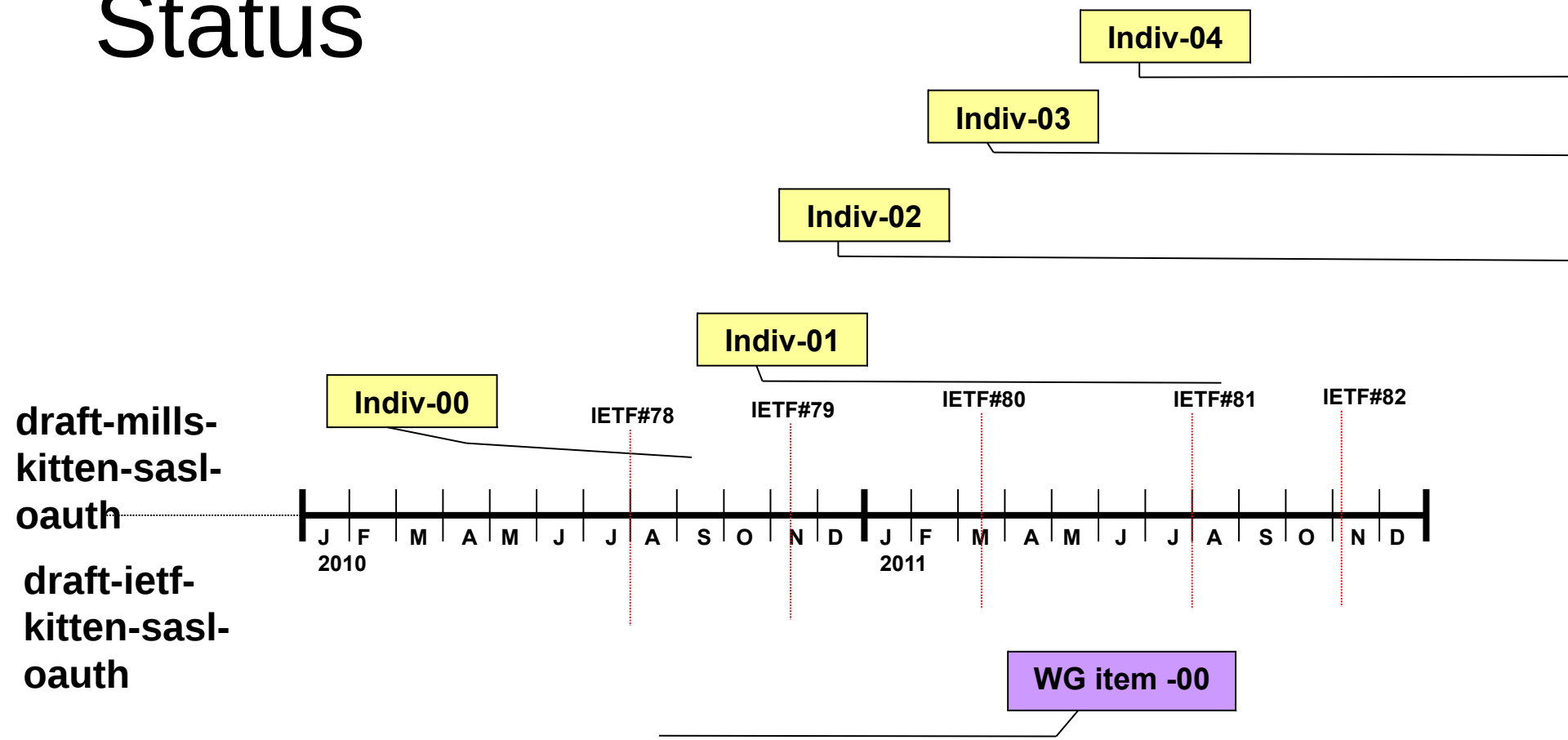
A SASL and GSS-API Mechanism for OAuth

draft-ietf-kitten-sasl-oauth-00

William Mills
Tim Showalter
Hannes Tschofenig

Status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2010
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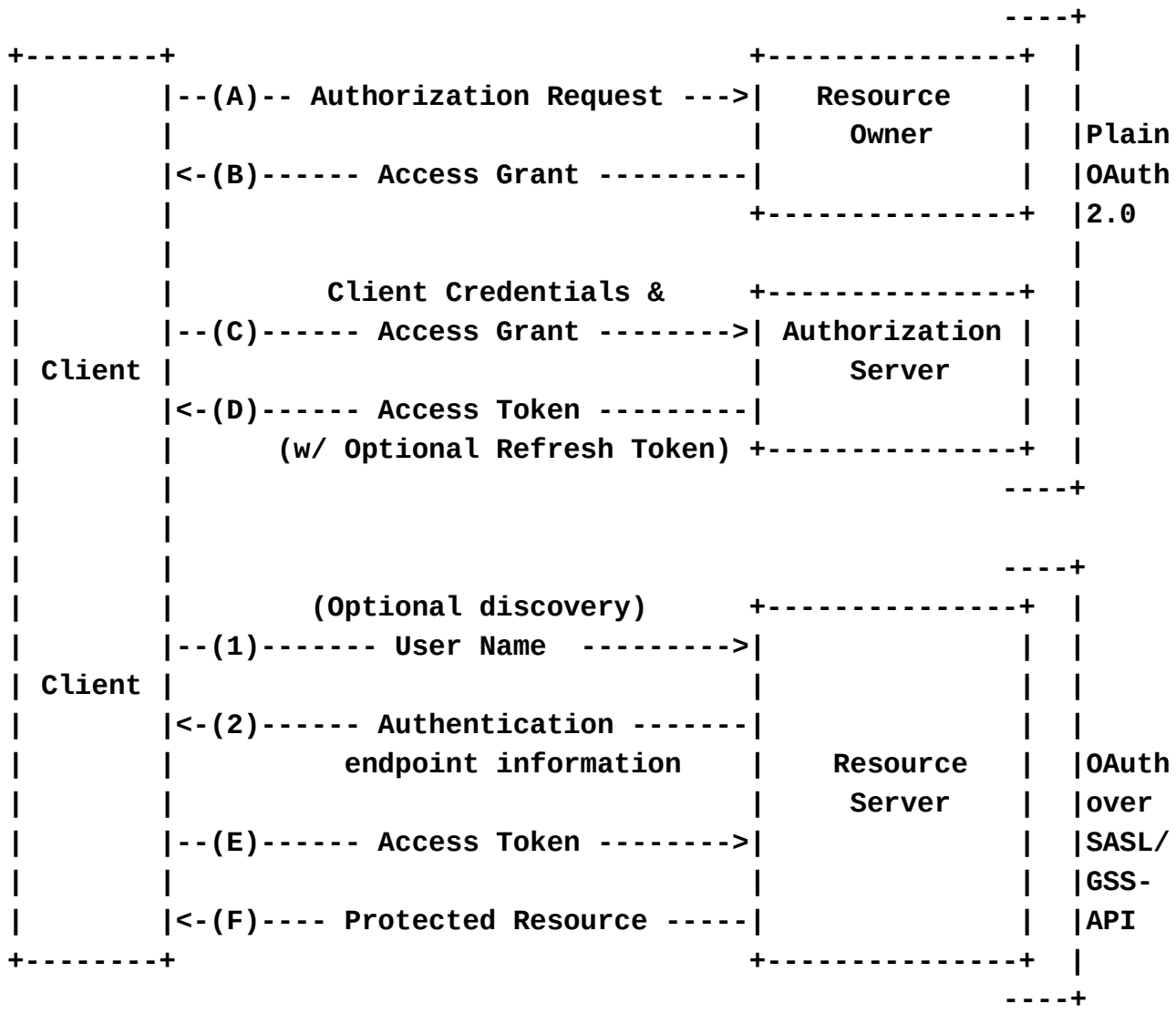
WG item -00

Status, cont.

- draft-ietf-kitten-sasl-oauth-00.txt submitted as WG item this Monday.
  - Content of draft-mills-kitten-sasl-oauth-04 and draft-ietf-kitten-sasl-oauth-00.txt identical!
- -04 version saw a number of changes:
  - Abstract and Introduction modified
  - Sections restructured.
  - References updated
  - Editorial bugfix

Reminder: Architecture



Design Decisions

- **(1) OAuth Integration into SASL**
  a) HTTP-Style
  b) Native
- **(2) Security Functionality Scope**
  a) Bearer Token Support
  b) MAC security
  c) Public Key security
- **(3) Discovery**
  a) Part of OAuth SASL specification
  b) Independent mechanism

OAuth Integration into SASL
(a) HTTP-based Style

```
GET / HTTP/1.1
Host: server.example.com
User: user@example.com
Authorization: MAC token="h480djs93hd8",
timestamp="137131200”, nonce="dj83hs9s",
signature="YTVjyNSujYs1WsDurFnvFi4JK6o="
```

```
GET / HTTP/1.1
  Host: imap.example.com
  Authorization: BEARER
"vF9dft4qmTc2Nvb3RlckBhbHRhdmlzdGEuY29tCg
=="
```

OAuth Integration into SASL
(b) Native

```
TOKEN=
"vF9dft4qmTc2Nvb3RlckBhbHRhdmlzdGEuY29tCg
==",SCOPE="foo"
```

OAuth Integration into SASL

- **HTTP-Style**
  - Re-uses HTTP parsing library, re-uses Oauth specifications as much as possible, similar to tunneling request/responses defined in draft-ietf-kitten-sasl-saml-05 and in draft-ietf-kitten-sasl-saml-ec-00.txt
- **Native**
  - Requires more specification work to decide about defining request and response (including error parameters).
  - May require less code.

Security Functionality Scope

- OAuth WG develops two HTTP-based security variants:
  - Bearer Token: http://datatracker.ietf.org/doc/draft-ietf-oauth-v2-bearer/
  - MAC Token: http://tools.ietf.org/html/draft-ietf-oauth-v2-http-mac
- Other options: RFC 5849 (RSA signature method) or draft-balfanz-tls-obc-00 - TLS Origin-Bound Certificates
- What security mechanisms should be specified?

Discovery

- Certain OAuth profiles do not require OAuth support by the end host.
- Impacts design of discovery mechanism.
  - Proposals for discovery being discussed in the OAuth WG. E.g., draft-jones-simple-web-discovery.
- OAuth SASL is in a different position since end host changes are needed anyway.
  - A discovery mechanism could be incorporated into OAuth SASL.

Discovery, cont.

Example from http://openid.net/specs/openid-connect-discovery-1_0.html


```
{
 "authorization_endpoint": "https://example.com/connect/authorize",
 "issuer" : "https://example.com",
 "token_endpoint": "https://example.com/connect/token"
 "user_info_endpoint": "https://example.com/connect/user",
 "check_id_endpoint": "https://example.com/connect/check_id",
 "refresh_session_endpoint": "https://example.com/connect/refresh_session",
 "end_session_endpoint": "https://example.com/connect/end_session",
 "jwk_document": "https://example.com/jwk.json",
 "registration_endpoint": "https://example.com/connect/register",
 "scopes_supported": ["openid"],
 "flows_supported": ["code", "token"],
 "iso29115_supported":
["http://www.idmanagement.gov/schema/2009/05/icam/openid-trust-level1.pdf"],
 "identifiers_supported": ["public", "ppid"]
}
```