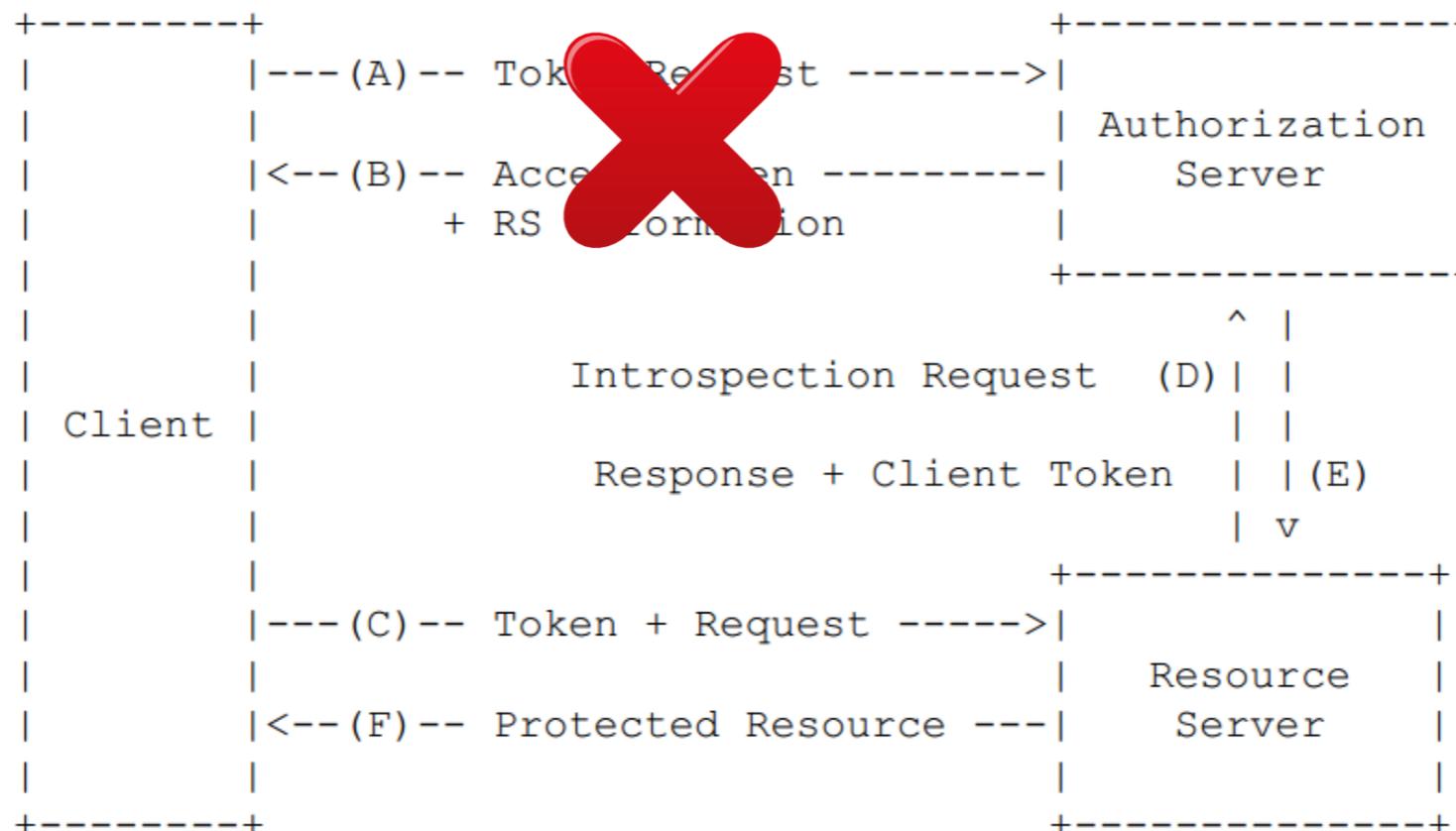# draft-zhu-ace-offline-00

Jintao Zhu

Background

- In an actual ACE deployment, either Client or RS can be a constrained device.

- There are 3 different possible disconnection cases between the nodes in the ACE framework:

  - 1. Client-AS disconnection

  - 2. RS-AS disconnection

  - 3. Client-RS disconnection

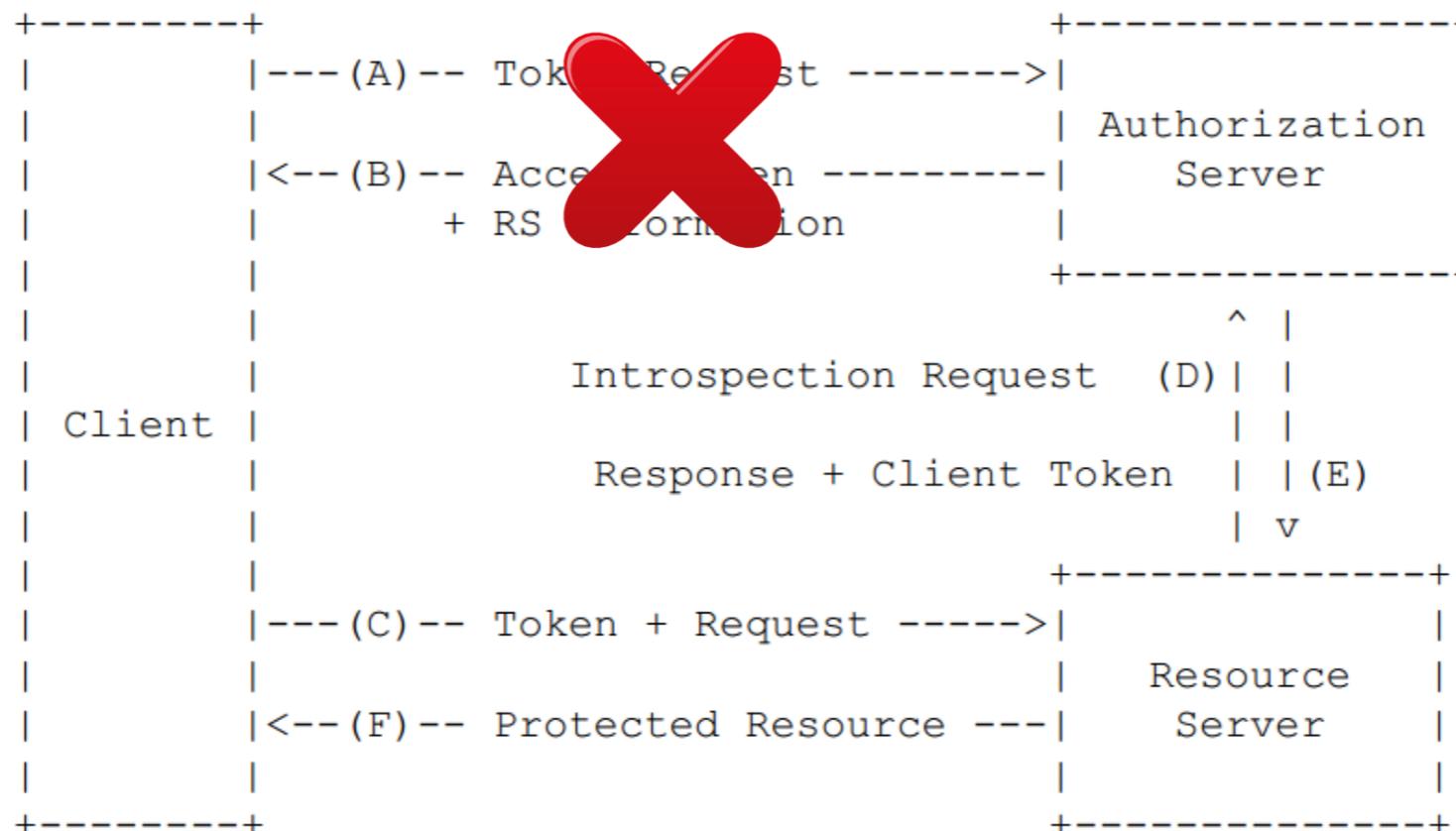- The draft tries to provide an overview of disconnection cases

Client-AS disconnection

- Sub-case1: Client instructs the RS to obtain authorization information from AS

- Question: Would it be possible to use the resource server as a proxy to get the authorization information?

```
+--------+                                          +--------------+
|        |--- (A)-- Tok    Re    st ------->|        |              |
|        |                                  |        | Authorization|
|        |<-- (B)-- Acce        n ---------|         |    Server    |
|        |         + RS    orm   ion        |        |              |
|        |                                  +--------------+
|        |                                          ^ |
|        |           Introspection Request   (D)|  |
| Client |                                       |  |
|        |          Response + Client Token      |  |(E)
|        |                                       |  v
|        |                                  +--------------+
|        |--- (C)-- Token + Request ----->|              |
|        |                                 |    Resource  |
|        |<-- (F)-- Protected Resource ---|      Server   |
|        |                                 |              |
+--------+                                 +--------------+
```
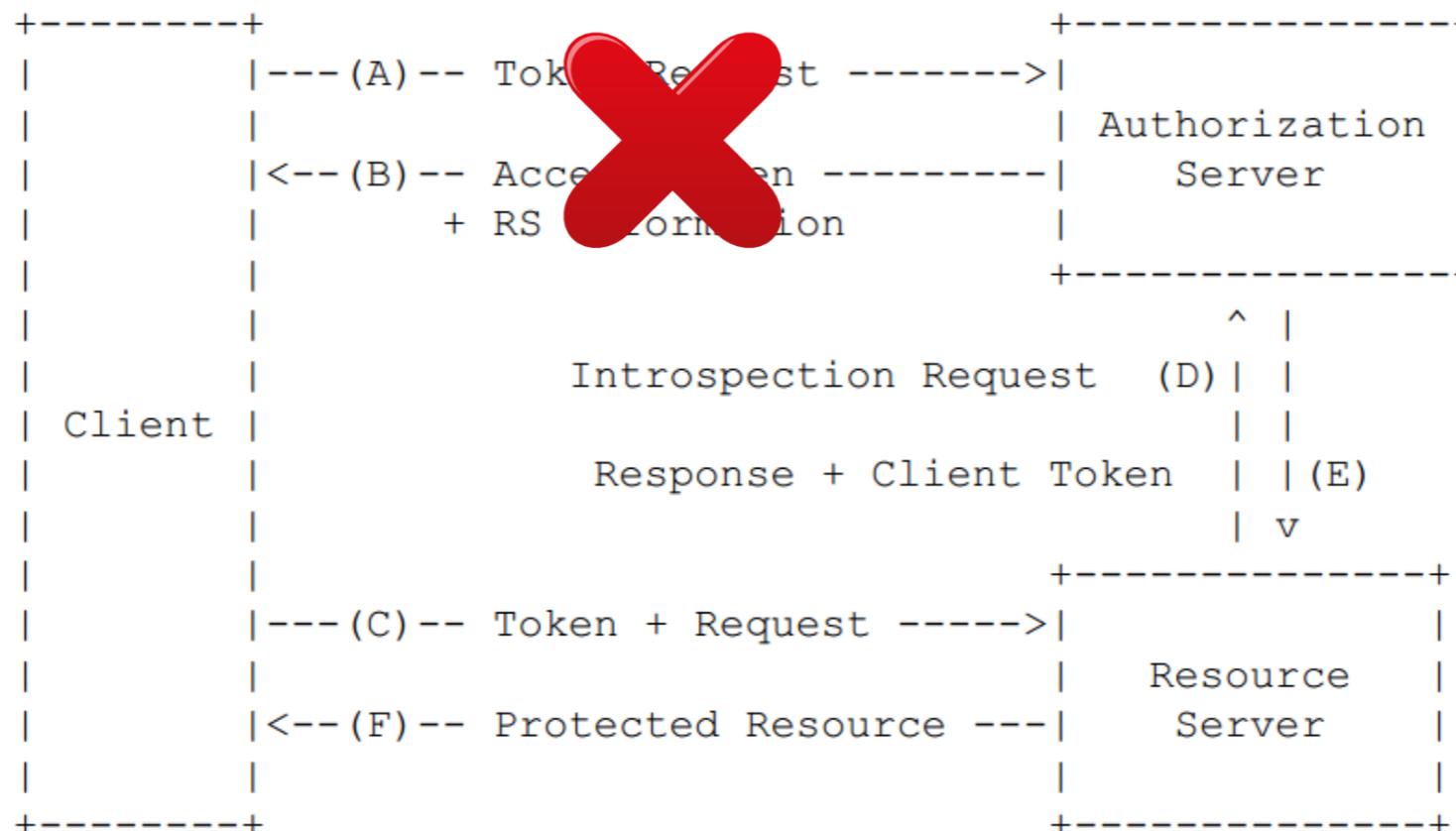
Client-AS disconnection

- Sub-case2: Introspection Aided Token Validation (section E.2 of [I-D.ietf-ace-oauth-authz])

- The Client can't connect to AS at the time of sending the access request.

```
+--------+                                      +--------------+
|        |---(A)-- Tok    Re    st ------->|              |
|        |        |                         | Authorization |
|        |<--(B)-- Acce      en ---------|     Server     |
|        |        + RS      orm   ion       |              |
|        |        |                         +--------------+
|        |        |                              ^  |
|        |        |   Introspection Request  (D)|  |
| Client |        |                              |  |
|        |        |       Response + Client Token  |  |(E)
|        |        |                              |  v
|        |        |                         +--------------+
|        |---(C)-- Token + Request ----->|              |
|        |        |                         |    Resource   |
|        |<--(F)-- Protected Resource ---|     Server    |
|        |        |                         |              |
+--------+        |                         +--------------+
```
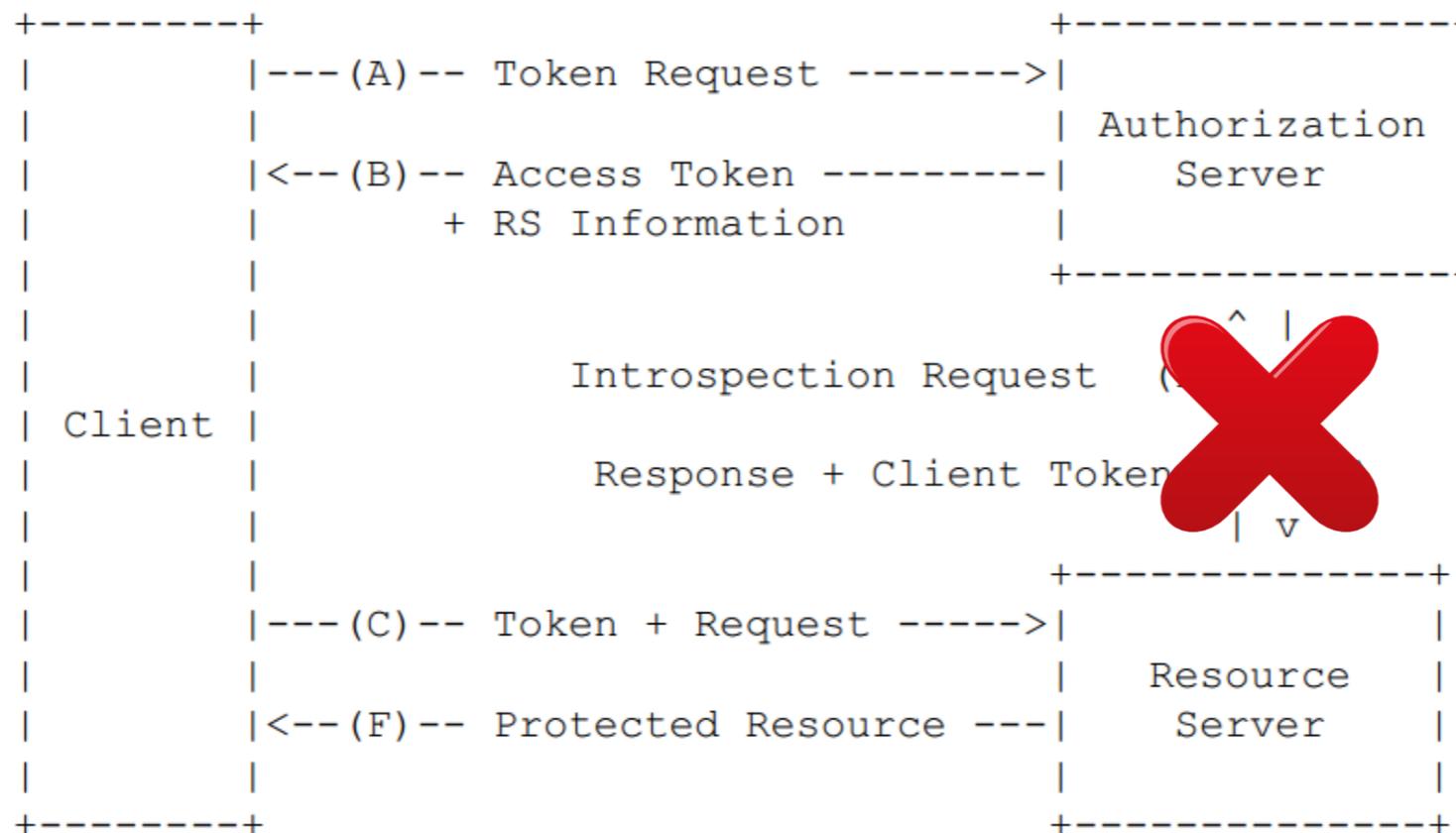
Client-AS disconnection

- Sub-case3: RS caches authorization information

- Question: Would it be acceptable for the RS to have its cache managed   by the client?

RS-AS disconnection

- Sub-case1: Local Token Validation (section E.1 of [I-D.ietf-ace-oauth-authz])

- The RS can't connect to AS at the time of receiving the access request.

```
+--------+                                      +--------------+
|        |---(A)-- Token Request ------->|              |
|        |                              | Authorization |
|        |<--(B)-- Access Token ---------|    Server     |
|        |         + RS Information      |              |
|        |                              +--------------+
|        |                                      ^  |
|        |              Introspection Request   (    ✖
| Client |                                      |
|        |              Response + Client Token |
|        |                                      |  v
|        |                              +--------------+
|        |---(C)-- Token + Request ----->|              |
|        |                              |    Resource   |
|        |<--(F)-- Protected Resource ---|    Server     |
|        |                              |              |
+--------+                              +--------------+
```

Client-RS disconnection

- Question: Would it be acceptable for the AS to act as a proxy for requests to the RS?

```
+--------+                                        +--------------+
|        |---(A)-- Token Request ------->|              |
|        |                                        | Authorization |
|        |<--(B)-- Access Token ---------|    Server     |
|        |         + RS Information       |              |
|        |                                        +--------------+
|        |                                              ^  |
|        |         Introspection Request    (D)| |
| Client |                                        | |
|        |         Response + Client Token  | |(E)
|        |                                        | v
|        |                                        +--------------+
|        |---(C)-- Tok        uest ----->|              |
|        |                                        |   Resource   |
|        |<--(F)-- Prot        Resource ---|    Server    |
|        |                                        |              |
+--------+                                        +--------------+
```

Discussion

- Any other disconnection cases?

Thank you!