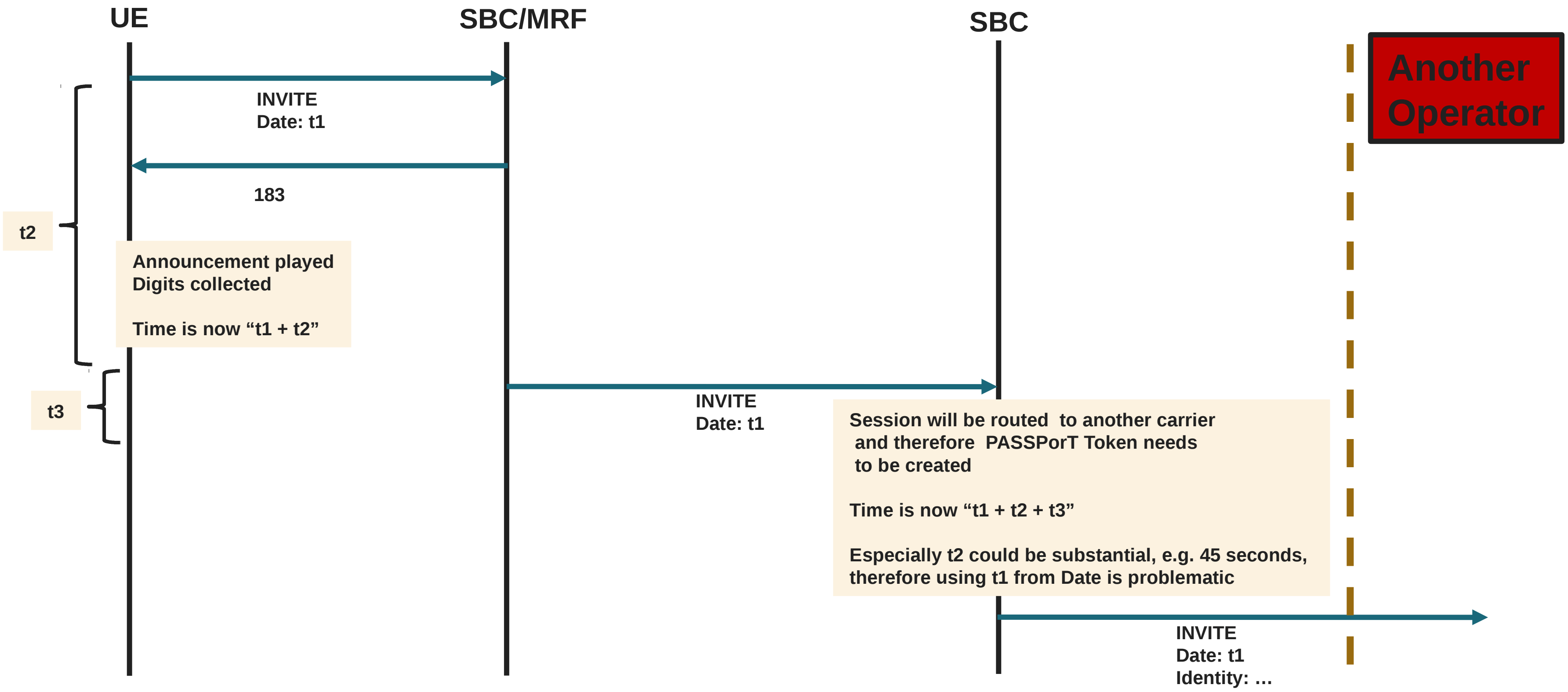
Errata for “iat” content and inclusion of “mky” (RFC8224 / RFC8225)

“iat” Content

- “iat” pertains to PASSPorT token, i.e. it needs to contain the time when it is constructed
- RFC7519 JSON Web Token (JWT)
  - Arguably the “most authoritative” specification regarding “iat” content
  - 4.1.6. "iat" (Issued At) Claim
    - The "iat" (issued at) claim identifies the time at which the JWT was issued. This claim can be used to determine the age of the JWT. Its value MUST be a number containing a NumericDate value. Use of this claim is OPTIONAL.
    - This text clearly states that “iat” should be populated with the generation time of JWS.
- “Session initiation” and “Token generation” are two different functionalities
- Start of session (which Date header is based on) and PASSporT generation are temporarily not necessarily close
  - Example: PASSporT generated just before session is routed to a partner network after announcement/digit collection.
  - This could introduce a non-negligible artificial drift and cause freshness check issues during validation.
  - A new PASSporT claim should be defined/used if Date needs to be validated as well.

“iat” Content / Call Flow



Announcement played
Digits collected

Time is now “t1 + t2”

Session will be routed to another carrier and therefore PASSPorT Token needs to be created

Time is now “t1 + t2 + t3”

Especially t2 could be substantial, e.g. 45 seconds, therefore using t1 from Date is problematic

Inclusion of mky in PASSporT

- Always include mky when a=fingerprint present in SDP
- Do not tie it to DTLS-SRTP (RFC8224 12.1)
  - There is already one other use case: TLS with self signed certificates for MSRP
  - And there could be more in the future