# Key Management for OSCORE Groups in ACE

draft-ietf-ace-key-groupcomm-oscore-09

**Marco Tiloca**, RISE
Jiye Park, Universität Duisburg-Essen
Francesca Palombini, Ericsson

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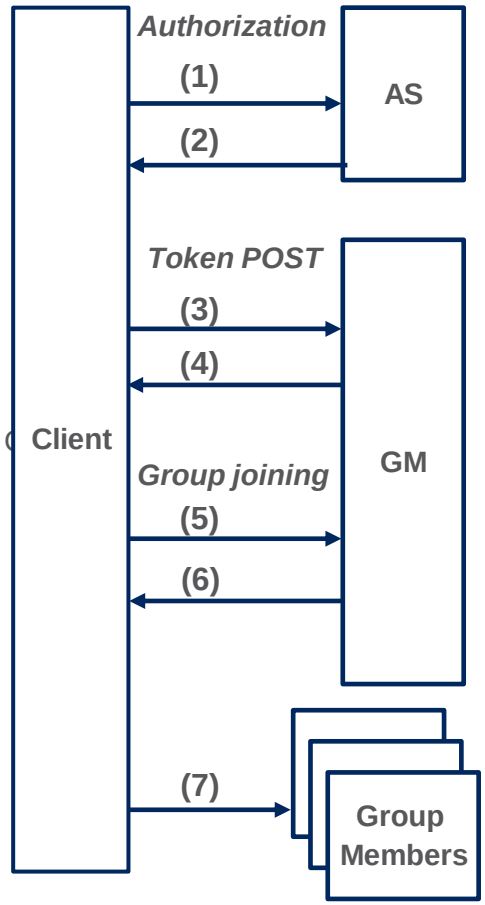
# Recap

- Message content and exchanges for:
  - Provisioning keying material to joining nodes and groups (rekeying)
  - Joining an OSCORE group through its Group Manager (GM)
  - More operations for current members at the GM
- Builds on *draf-ietf-ace-key-groupcomm*
  - Agnostic of the ACE transport profile used by C and GM
- Out of Scope:
  - Authorizing access to resources at group members
    - *draft-tiloca-ace-group-oscore-profile*
  - Actual secure communication in the OSCORE group
    - *draft-ietf-core-oscore-groupcomm*



# Major updates in v -09

- Same path segment from *ace-key-groupcomm*
  - group-oscore/… → ace-group/…
- Summary of admitted REST methods
  - At each sub-resource
  - For each role
  - Member vs. non-member
- FETCH to ace-group/
  - Req: GID → Group name
  - Now also for Verifiers
- Note: AIF is used since -08
  - scope: << [* [Toid, Tperm]] >>

| Resource | Type1 | Type2 | Type3 | Type4 |
|---|---|---|---|---|
| ace-group/ | F | F | F | - |
| ace-group/GROUPNAME/ | G Po | G Po | Po * | Po |
| ace-group/GROUPNAME/active | G | G | - | - |
| ace-group/GROUPNAME/pub-key | G F | G F | G F | - |
| ace-group/GROUPNAME/policies | G | G | - | - |
| ace-group/GROUPNAME/num | G | G | - | - |
| ace-group/GROUPNAME/nodes/ NODENAME | G Pu D | G D | - | - |
| ace-group/GROUPNAME/nodes/ NODENAME/pub-key | Po | - | - | - |

Type1 = Member as Requester and/or Responder
Type2 = Member as Monitor
Type3 = Non-member / Authorized to be Verifier
(*) = cannot join the group as Verifier
Type4 = Non-member / Not authorized to be Verifier

G = GET
F = FETCH
Po = POST
Pu = PUT
D = DELETE

# Major updates in v -09

- Updates to the ‘key’ parameter in the Joining Response
- ‘clientId’ → ‘group_SenderId’
  - Same meaning, i.e. the assigned Sender ID in the joined group
  - Also registered in the OSCORE Security Context Parameters registry
- Added parameters for the pairwise mode of Group OSCORE
  - ‘ecdh_alg’, ‘ecdh_parameters’, ‘ecdh_key_parameters’
  - MUST be present if the pairwise mode is supported, MUST NOT otherwise
  - Also registered in the OSCORE Security Context Parameters registry
  - Default values are defined, as for other analogous parameters
- Removed explicit group policy on supported pairwise mode

# Major updates in v -09

- Clarifications on possible group rekeying
  - "together" or "instead of" assigning a new Sender ID to a group member
- Consistency with requirements from Group OSCORE
  - Never re-assign a Sender ID in the same OSCORE group
  - Never re-assign the same Group ID to the same OSCORE group
- Resource type rt=core.osc.gm
  - Registration moved here from *draft-tiloca-core-oscore-discovery*

# Next steps

- One more update expected
  - Alignment to next updates in *ace-key-groupcomm*

- Complete implementation, run more tests

- Then ready for WGLC (?)

Thank you!

Comments/questions?

https://github.com/ace-wg/ace-key-groupcomm-oscore