

Admin Interface for the OSCORE Group Manager

draft-ietf-ace-oscore-gm-admin-10

Marco Tiloca, RISE
Rikard Höglund, RISE
Peter van der Stok
Francesca Palombini, Ericsson

IETF 118 Meeting – Prague – November 10th, 2023

Recap

- › **RESTful admin interface at the OSCORE Group Manager**
 - Create, (re-)configure, and delete OSCORE groups
- › **Two new types of resources at the Group Manager**
 - A single *group-collection* resource, at /manage
 - One *group-configuration* resource per group, at /manage/GROUPNAME
- › **Using ACE for authentication and authorization**
 - The Administrator is the ACE Client
 - The Group Manager is the ACE Resource Server
 - For secure communication, use transport profiles of ACE

Overview



Figure 1: Resources of a Group Manager

Configuration Properties

- Security algorithms and parameters

Status Properties

- Any other information (e.g., group name)

Group-collection resource

- Retrieve the list of OSCORE groups
 - All groups (GET)
 - Group selected by filters (FETCH)
- Create a new OSCORE group (POST)
 - A group-configuration resource is created
 - A group-membership resource for joining nodes is also created, see *draft-ietf-ace-key-groupcomm-oscore*

Group-configuration resource

- Retrieve the group configuration (GET)
- Retrieve part of the group configuration (FETCH)
- Overwrite the group configuration (PUT)
- Update the group configuration (PATCH/iPATCH)
- Delete the group configuration (DELETE)
 - The group-membership resource is also deleted

Updates in v -10

- › **Editorial improvements and fixes**
- › **Removed remnants from old text on the use of CoRAL (*draft-ietf-core-coral*)**
 - That content was split out to *draft-ietf-ace-oscore-gm-admin-coral*
- › **Cleaned-up text on 4.03 (Forbidden) error responses from the Group Manager**
 - Not meant to convey additional error information per *draft-ietf-ace-key-groupcomm*
- › **Clarified behavior when overwriting a group configuration**
 - PUT handler for the group configuration resource
 - Already said: the PUT request **MUST NOT** include four specific parameters
 - Added text: such parameters do not change in the configuration (no default values)

Updates in v -10

› Naming a new group – Unchanged content

- The POST request for creating a new group includes a proposed group name
- The Group Manager (GM) might reject that name (e.g., it's already in use)
- The GM may pick up an alternative, valid name and assign it to the new group

› Choice of alternative name at the GM – Simplified and improved content

- The GM might not be able to find an alternative name, or give up in the process
 - › s/MUST find an alternative name/MUST try to determine an alternative name
 - › Error code 11: s/"No available group names"/"Unable to determine a group name"
- Rephrased high-level rationale for selecting a valid, alternative group name
 - › Compared to the proposed name, the Administrator must neither lose nor gain permissions
- Consistent, updated guidelines for an Administrator receiving a response with Error code 11

Summary and next steps

- › **The authors believe that v -10 is ready for WG Last Call**
 - Raised already for v -09; now the document has been further improved
- › **Implementation based on Eclipse Californium**
 - Next to the Group Manager interface of *draft-ietf-ace-key-groupcomm-oscore*
 - <https://bitbucket.org/marco-tiloca-sics/ace-java/src/master/>
- › **Side note: need fix for the draft Github repo**
 - <https://github.com/ace-wg/ace-oscore-gm-admin>
 - The Editor's Copy builds but it is not deployed as an HTML page
 - Can anyone with admin privileges fix the related Github Action?

Thank you!

Comments/questions?

<https://github.com/ace-wg/ace-oscore-gm-admin>