Information Model Update

SACM WG Virtual Interim Meeting

05/17/2016

Agenda

- Status

- Open issues

- Next steps

Status (1)

- Spent a lot of time merging and consolidating the I-D IM[1] and the WG IM[2] during and after IETF 95[3][4][5]
  - Currently working the IM merger in Henk's GitHub repository[6]

- Working to address IPFIX syntax concerns[7][8]
  - Developing our own constructs for structured data
  - Making additional changes to support the generation of a human-readable list of IEs

1. https://datatracker.ietf.org/doc/draft-camwinget-sacm-information-model/
2. https://datatracker.ietf.org/doc/draft-ietf-sacm-information-model/
3. https://www.ietf.org/proceedings/95/slides/slides-95-sacm-4.pdf
4. https://www.ietf.org/proceedings/95/slides/slides-95-sacm-6.pdf
5. https://www.ietf.org/proceedings/95/minutes/minutes-95-sacm
6. https://github.com/henkbirkholz/sacmim/blob/master/draft-camwinget-sacm-information-model-01.md
7. http://www.ietf.org/mail-archive/web/sacm/current/msg03906.html
8. http://www.ietf.org/mail-archive/web/sacm/current/msg03922.html

Status (2)

I-D IM Section	WG IM Section	Proposed Action	WG Resolution
Abstract	Abstract	Replace text in WG IM with text from I-D IM	Closed (replaced)[1]
1. Introduction	1. Introduction	Replace text in WG IM with text from I-D IM	Closed (replaced)[1]
3. Information Elements	2. Conventions used in this document 3. Information Model Framework	Insert text from the I-D IM between the identified sections in the WG IM	Closed (inserted)[2]
4. Structure of Information Elements[3]	3. Information Model Framework 3.1 Attributes 3.2 Objects 3.3 Metadata	Replace text in the specified sections of the WG IM with text from the beginning of Section 4 in the I-D IM Note: the IPFIX syntax sub-sections in the WG IM (3.1.1 and 3.2.1) will be preserved even though the text in their parent sections (3.1 and 3.2) will be replaced.	Open (under review)[3]

1. http://www.ietf.org/mail-archive/web/sacm/current/msg03965.html
2. http://www.ietf.org/mail-archive/web/sacm/current/msg03956.html
3. http://www.ietf.org/mail-archive/web/sacm/current/msg03970.html

Status (3)

I-D IM Section	WG IM Section	Proposed Action	WG Resolution
4.3 SACM Statements	3. Information Model Framework	Insert text from I-D IM into WG IM	Open (under review)[1]
4.4 SACM Content Elements	3. Information Model Framework	Insert text from I-D IM into WG IM	Open (under review) [1]
4.5 Relationships	3.4 Relationships	Insert text from I-D IM into WG IM	Open (under review) [1]
4.6 Events	5.4.5 Events	Insert text from I-D IM into WG IM as a subsection in Section 3. Remove Section 5.4.5 Events from the WG IM.	Open (under review) [1]
5. Information Element Vocabulary	5. Information Model Elements	Include the IEs listed in the I-D IM in the WG IM Note: Any IEs that are approved will need to be converted to the IPFIX syntax before they are merged.	Open (under review)[2]

1. http://www.ietf.org/mail-archive/web/sacm/current/msg03970.html
2. http://www.ietf.org/mail-archive/web/sacm/current/msg03897.html
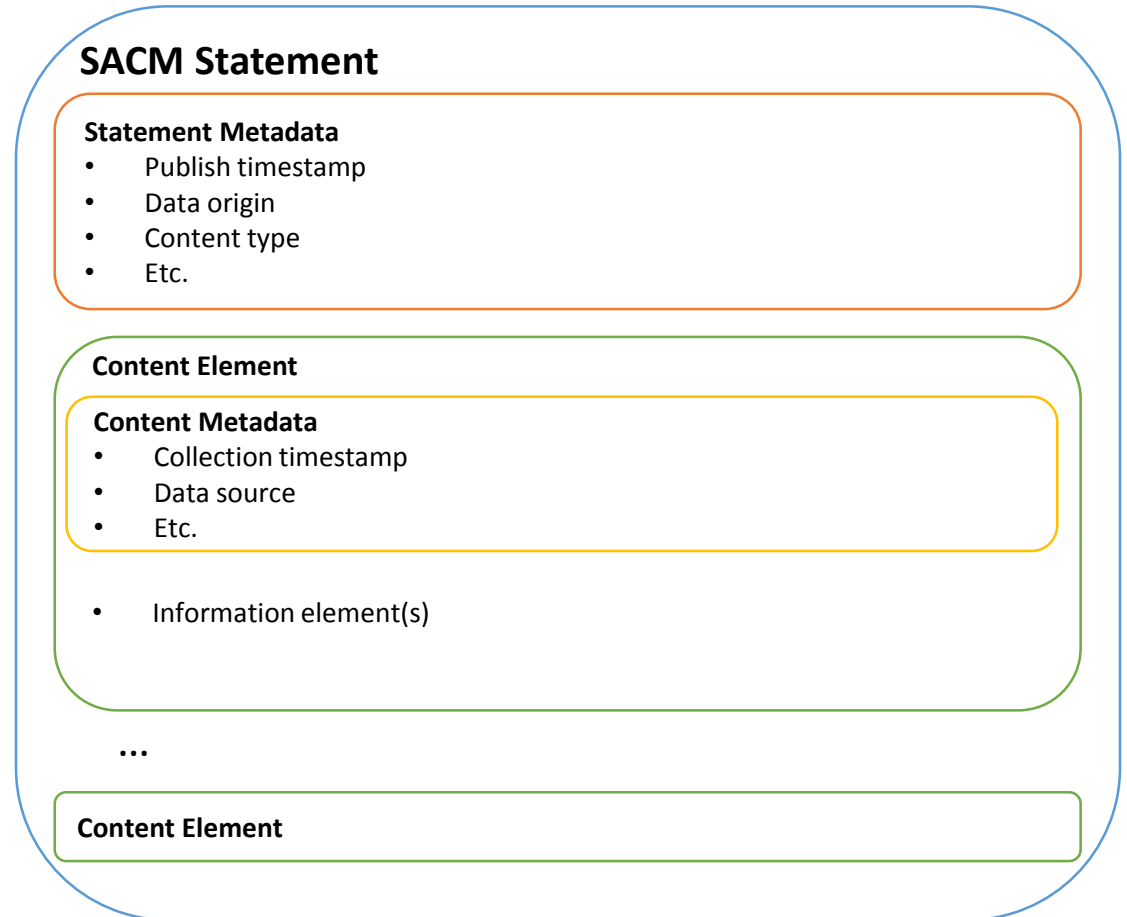
Attribute and subject refresher

- Attribute is composed of a unique attribute name and value
  - WG IM called it an Attribute
  - I-D IM called it an Atomic Information Element (AIE)

- Subject is composed of a unique name and one or more attributes or subjects
  - WG IM called it an Object
  - I-D IM called it a Composite Information Element (CIE)
  - Subject proposed during the IETF 95 SACM breakout session and discussed during IETF 95 SACM Session II

Statement and content element

- Serves as an envelope to pass information between SACM components

- Contains metadata and one or more content elements

- Each content element contains one or more information elements

SACM Statement

Statement Metadata
- Publish timestamp
- Data origin
- Content type
- Etc.

Content Element

Content Metadata
- Collection timestamp
- Data source
- Etc.

- Information element(s)

...

Content Element

SACM Relationships, Events, and Categories

- Relationships are used to associate one IE with another IE
  - Identifier unique in the SACM domain that is present in both IEs
  - Subject that contains enough IEs to identify a content element by examining its actual content

- Events are used to express changes in the value(s) of an IE
  - Must include new values
  - May include past values and timestamp information

- Categories are used to reference multiple types of IEs by a single name (e.g. timestamp, version, etc.)

IPFIX syntax updates[12]

- Considering the removal of the list, subTemplateList, and subMultiTemplateList constructs

- Considering the addition of new list and orderedList constructs

- Considering support for cardinality of IEs

- Potentially other changes

1. http://www.ietf.org/mail-archive/web/sacm/current/msg03906.html
2. http://www.ietf.org/mail-archive/web/sacm/current/msg03922.html

Next steps

- Confirm consensus on IM open issues over the list before the June 15th Virtual Interim Meeting

- Convert IEs to the updated IPFIX syntax

- Send out updated version of the WG IM

- Get IM in a state where we just need to add new IEs as they are requested by IETF 96