IETF #95

LMAP Information Model Issues

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LMAP – Information Model Issues

Summary

• In review of draft-ietf-lmap-information-model-09, we realized that this draft:
  • Modified the ma-schedule-obj to include new attributes for schedule end and duration.
  • Added list of ma-suppression-obj to the instruction object

• These issues and other issues were noted on the mailing list. However these 2 issues remain outstanding.

• In addition – There seems to be a proliferation of events that can cause schedules to be invoked. This mechanism needs further discussion
LMAP – Information Model Issues: ma-schedule-obj

Summary

• In the latest draft the ma-schedule-obj added 2 attributes: ma-schedule-end and ma-schedule-duration.

• Juergen stated in on the mailing list that these attributes were requested by Al Morton

  • In a discussion with Al yesterday his concern was that the schedule occurrence needed to allow for randomness

```javascript
object {
    string ma-schedule-name;
    ma-event-obj ma-schedule-start;
    [ma-event-obj ma-schedule-end;]
    [int ma-schedule-duration;]
    ma-action-obj ma-schedule-actions<0..*>;}
    string ma-schedule-execution-mode;
    [string ma-schedule-tags<0..*>;]
    [string ma-schedule-suppression-tags<0..*>;]
} ma-schedule-obj;
```
LMAP – Information Model Issues: ma-schedule-obj

Problem

• The ma-schedule-start and ma-schedule-end are already typed as events that allow for definition of the event **reoccurrence**.

• Meaning event type already has the start/end/duration/randomness

• As such the attributes for the end and duration in the schedule are not needed.
• Remove the 2 attributes: ma-schedule-end and ma-schedule-duration.

• Realize that the ma-schedule-start is really the definition of the schedule occurrence
  • We can rename the ma-schedule-start to ma-schedule-occurrence

```
object {
    string ma-schedule-name;
    ma-event-obj ma-schedule-start;
    [ma-event-obj ma-schedule-end;]
    [int ma-schedule-duration;]
    ma-action-obj ma-schedule-actions<0..*>;,
    string ma-schedule-execution-mode;
    [string ma-schedule-tags<0..*>;]
    [string ma-schedule-suppression-tags<0..*>;]
} ma-schedule-obj;
```
LMAP – Information Model Issues: ma-suppression-obj

Summary

• In the latest draft the ma-instruction-obj was modified to add a list of suppressions.

• In the past one 1 suppression object was expected and requested by the information framework and BBF TR-304.

• Juergen indicated on the mail list that these suppression objects can be multi-use (instruction and controller timeout events)

```plaintext
object {
    ma-task-obj ma-instruction-tasks<0..*>;
    ma-channel-obj ma-instruction-channels<0..*>;
    ma-schedule-obj ma-instruction-schedules<0..*>;
    [ma-suppression-obj ma-instruction-suppressions<0..*>];
} ma-instruction-obj;
```
LMAP – Information Model Issues: ma-suppression-obj

Problem

• The instruction object was intended for communication of measurement related tasks and not the general housekeeping of the MA (status, configuration).

• The ma-suppression-obj has a similar problem to ma-schedule-obj where the start and end time are reoccurrence events.
LMAP – Information Model Issues: ma-suppression-obj

Resolution

• Realize that ma-suppression-objs can be used for various purposes (instruction, controller lost)
• Make the instruction-obj supression a single instance (aligns TR-304 and framework)

• Add another ma-suppression-obj to the ma-config-obj for controller-timeout-suppression

• Delete the ma-suppression-end and change the ma-suppression-start to ma-suppression-occurrence.

```object {
    string ma-suppression-name;
    [ma-event-obj ma-suppression-start;]
    [ma-event-obj ma-suppression-end;]
    [string ma-suppression-match<0..*>;]
    [boolean ma-suppression-stop-running;]
} ma-suppression-obj;
```
The ma-event-obj has become a place where occurrences of events are defined. The intent is that these occurrences would trigger actions of schedules to be invoked.

In some cases – periodic, calendar events actually contain a reoccurrence definition as part of the event itself.

As such the occurrence event has been overloaded with the reoccurrence definition.
LMAP – Information Model Issues: ma-event-obj

Resolution

• Create a separate obj (ma-schedule-reoccurrence and add the periodic, calendar, one-off, immediate and random-spread to that object.

• Assign the ma-schedule-reoccurrence to the ma-schedule-object’s ma-schedule-occurrence attribute

• Rename the ma-schedule-occurrence attribution to ma-schedule-reoccurrence

• Add a new type of event: ma-event-schedule-occurrence and document it