

## Proposals for Edinburgh release

### Addressable for Device (edgex-go # 831)

The addressable field in Device is to be replaced by name-value pairs. These will include a mandatory element named "schema", to indicate what class of address is being described. Each device service will then define one or more schemas which it supports, these definitions indicating the names and meanings of all mandatory and optional elements of the address. An attempt will be made to use common names for address components that may be applicable to multiple device types e.g. port number, ip address, ssl certificate.

- Define a new field in Device - or take the existing but apparently unused Location?
  - then update the device sdks and services accordingly
  - and remove the Addressable
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### Subscriptions (edgex-go # 946)

The objective:

1. continue to provide a means for high-rate polling of devices that is internal to the device service
2. leverage the capability of some device types to initiate a reading themselves, either on a schedule or on change
3. avoid expectation that the capabilities of support-scheduler are or will be replicated. Ie, don't use a subset of the ScheduleEvent / Schedule model.

And to that end we propose to add a "Subscriptions" field to "device". This will contain 0..n subscriptions which are defined as { resource, pollFrequency, rateLimit, onChange }.

- resource : the name of the resource in the device profile which describes the event to generate.
- pollFrequency : for devices which must be polled, the frequency at which to do so.
- rateLimit : for devices which can push, the maximum frequency at which to generate events.
- onChange : boolean. If true, only generate events when readings change.

Notes and queries

- onChange requires (for polled devices) implementation of a readings cache, which may be descoped for Edinburgh.
  - what units should be used for frequency/limit? number per minute? or specify instead intervals in some fraction of a second?
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