Describing a monitoring infrastructure with an OCCI-compliant schema

OCCI Meeting in Zurich

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- Impact not limited to SLA

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- The monitoring infrastructure TRIGGERS re-negotiation

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- To define the hook to extend a schema with provider specific sensor/metrics
- To define the hook to extend a schema with provider specific publishing tools
- To provide the tools to define a discoverable, dynamic monitoring infrastructure (this is OCCI)

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- It is a **Mix-in** that describes a collection
- The collection is composed of monitoring *tools* that produce raw measurements
- ...and of *filters* that process and aggregate them

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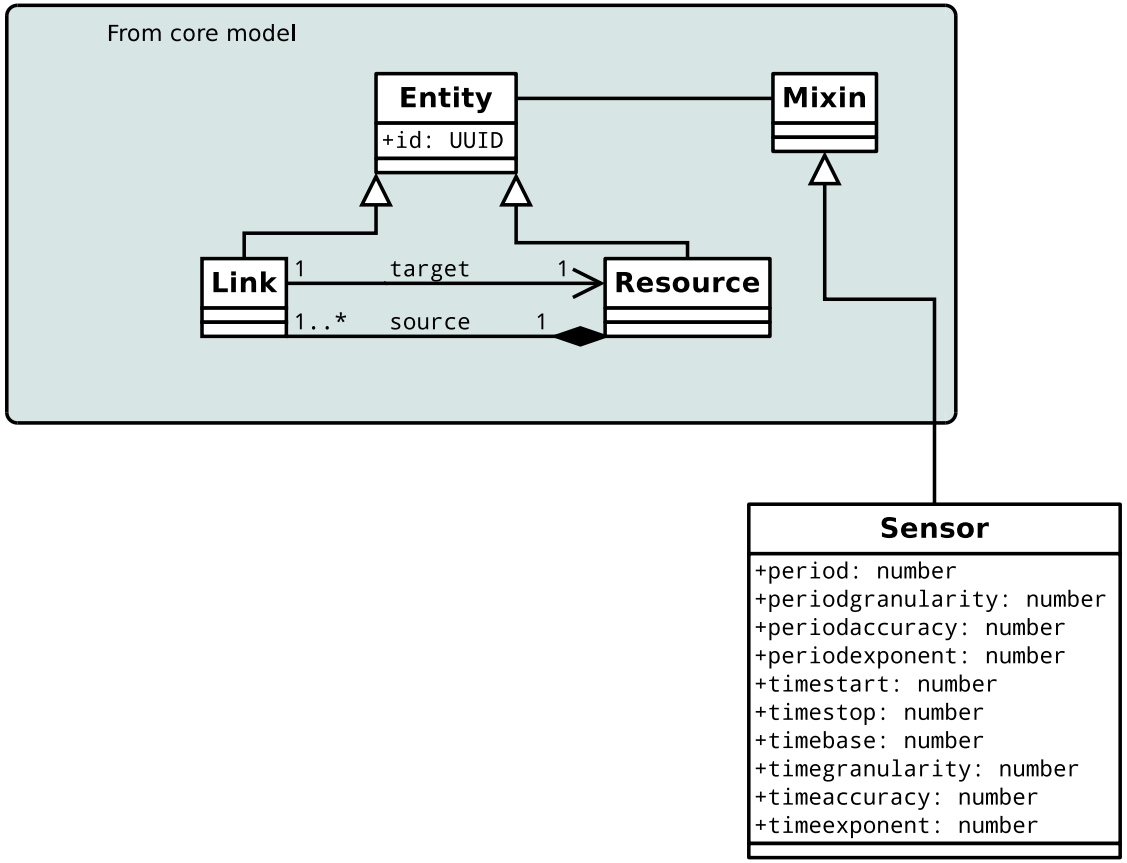
- The attributes control the operation of the components

The big picture



The **Sensor** subtypes the **Mixin** in OCCI schema: it represents a collection

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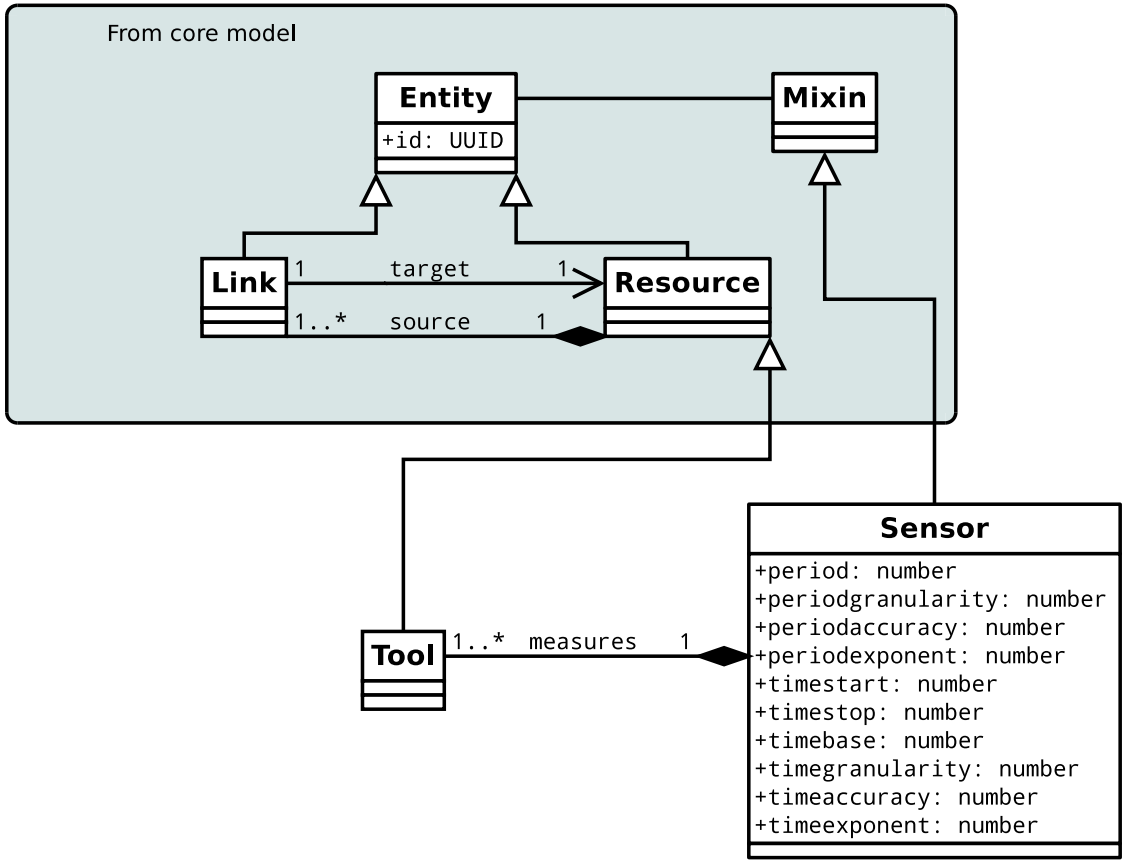

The **Tool** subtypes the **Resource** in OCCI schema, with no attributes

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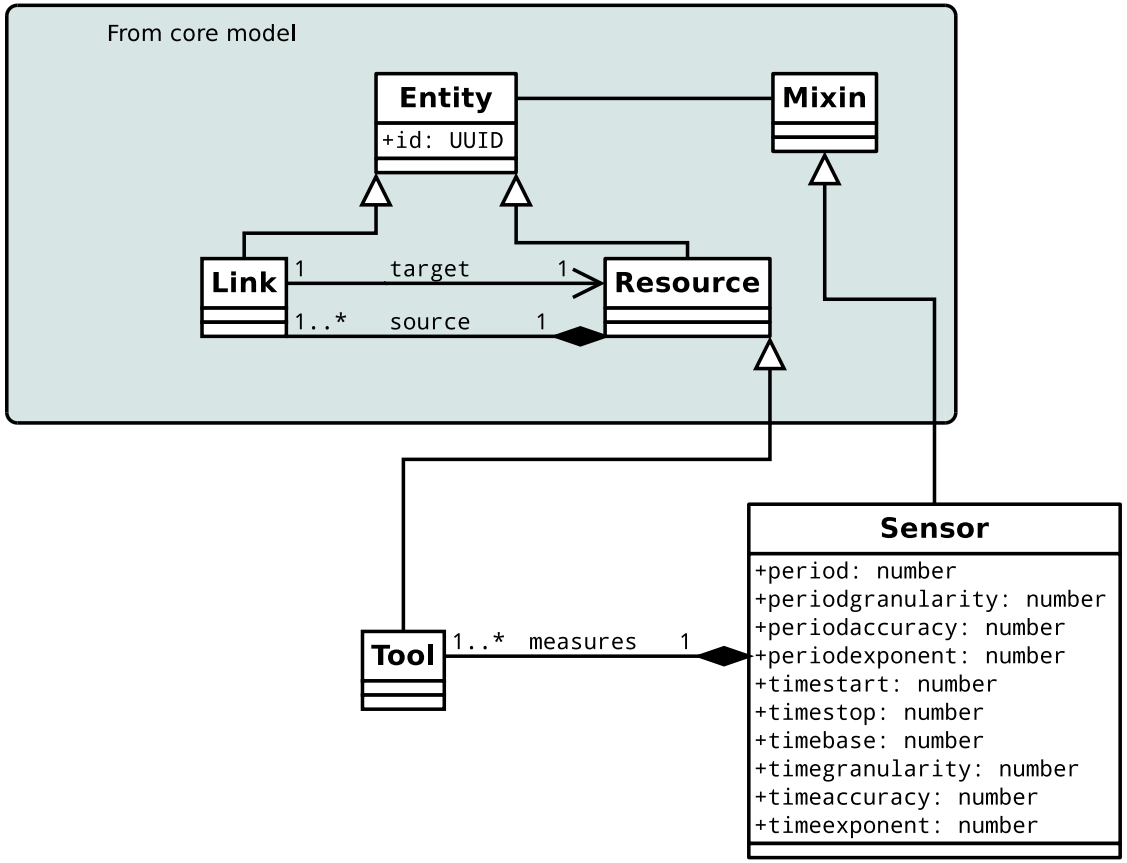

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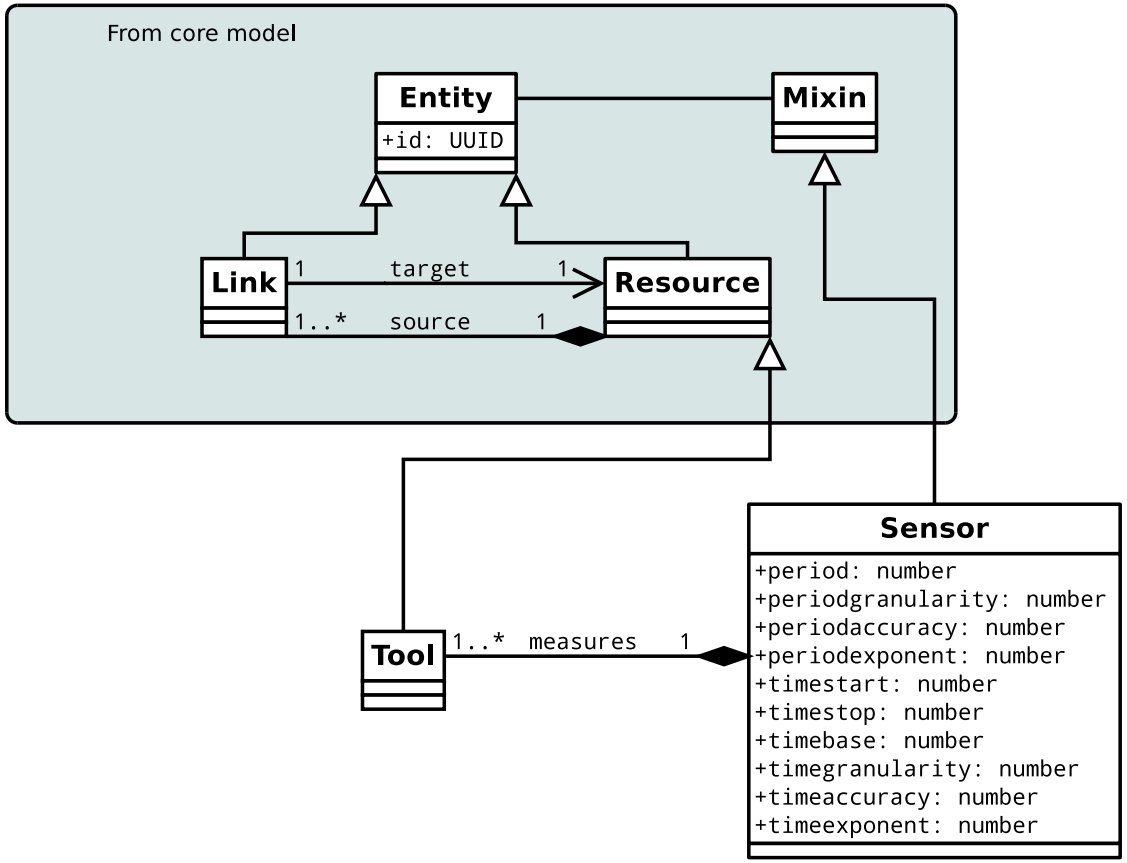

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It provides a hook for provider specific tools

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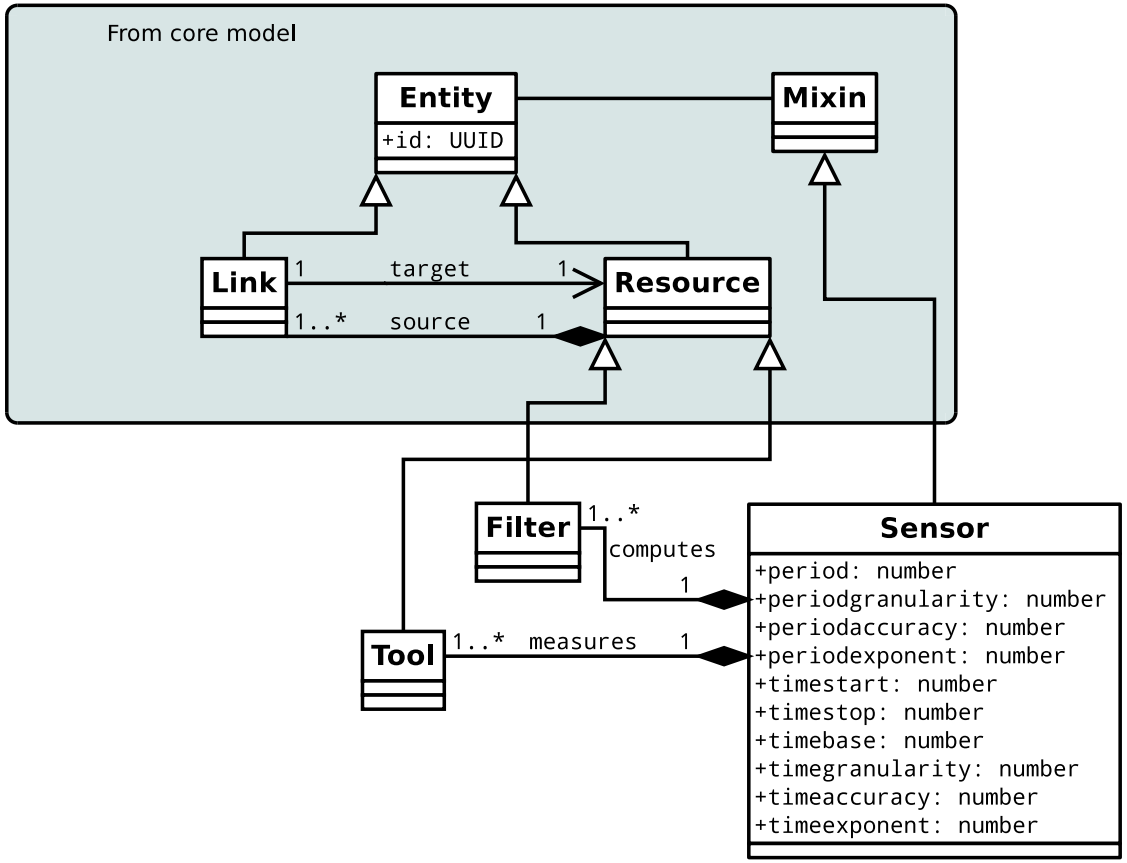

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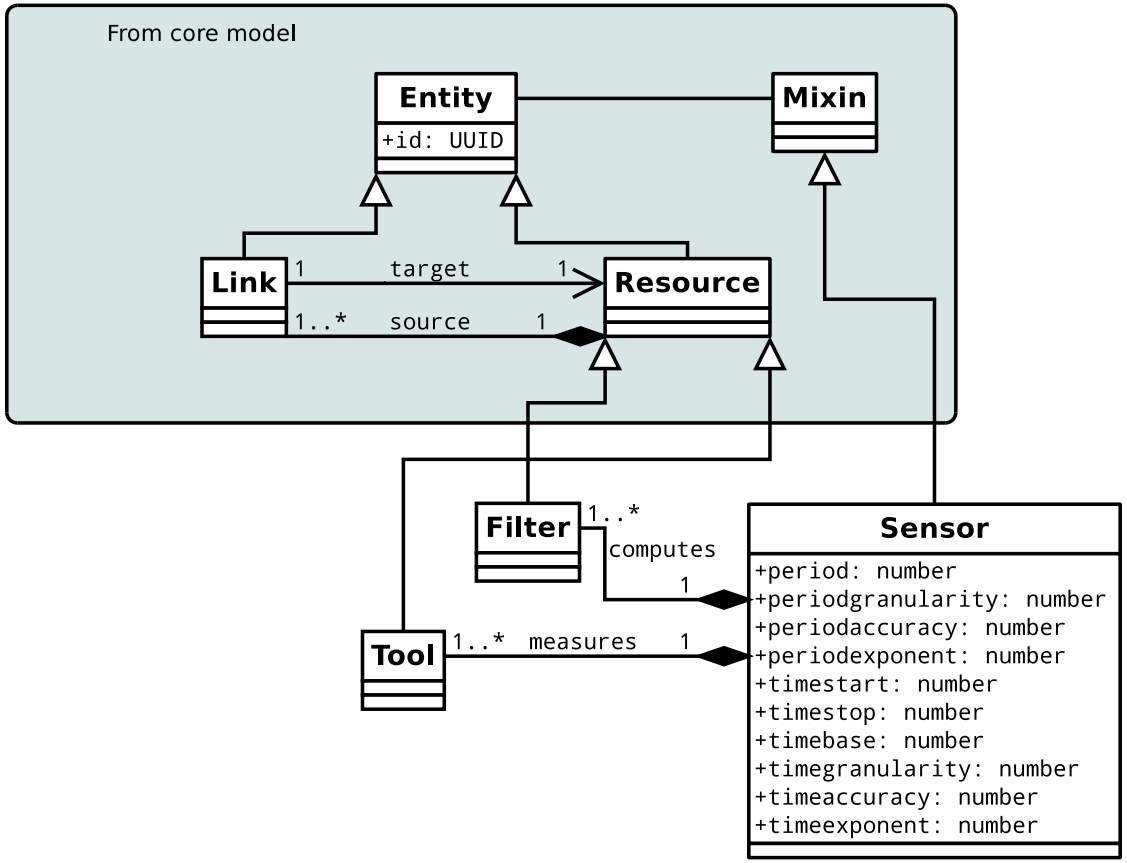

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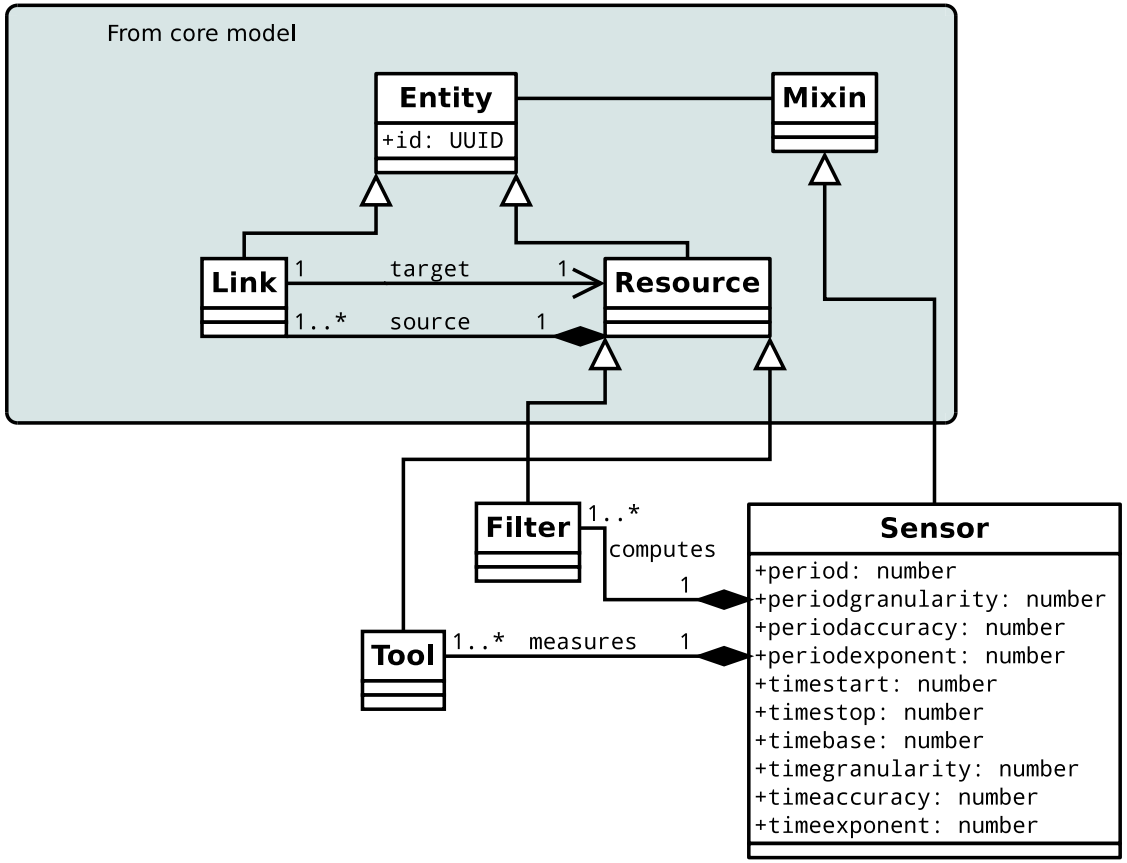

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It provides a hook for provider specific aggregated metrics (aka SLO)

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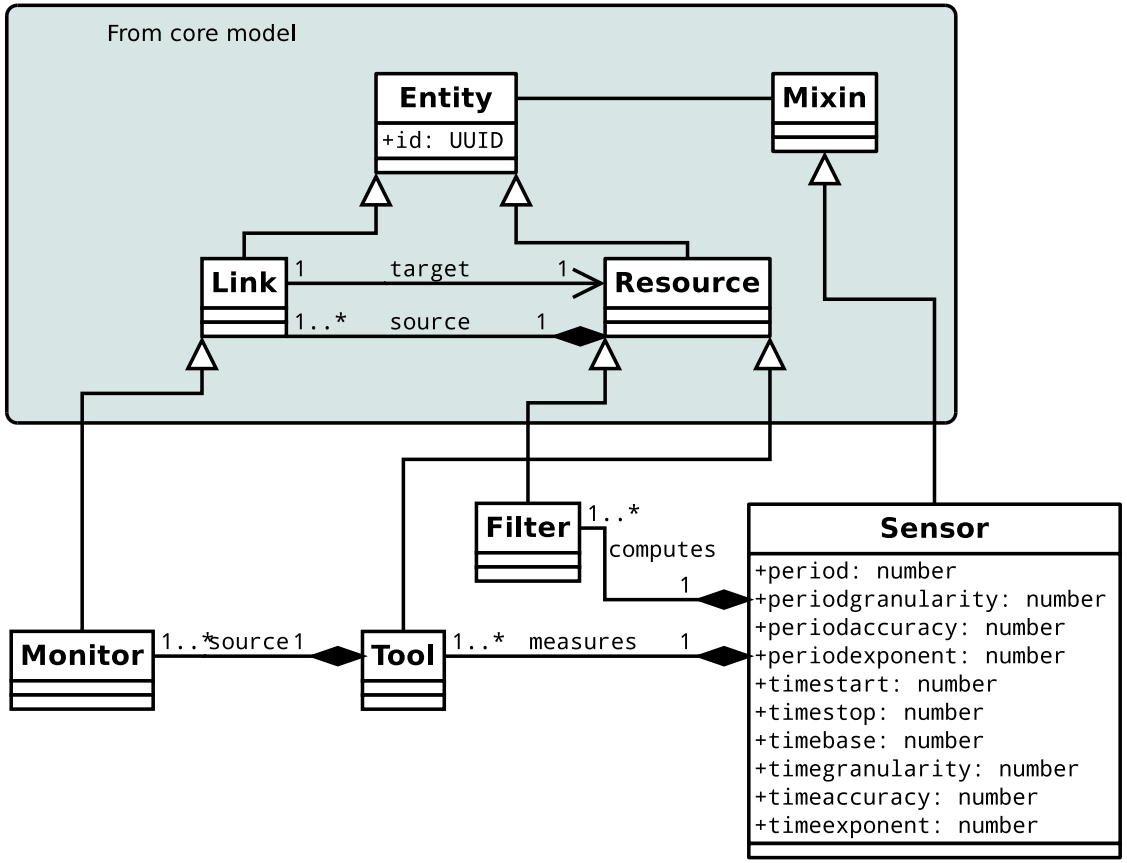

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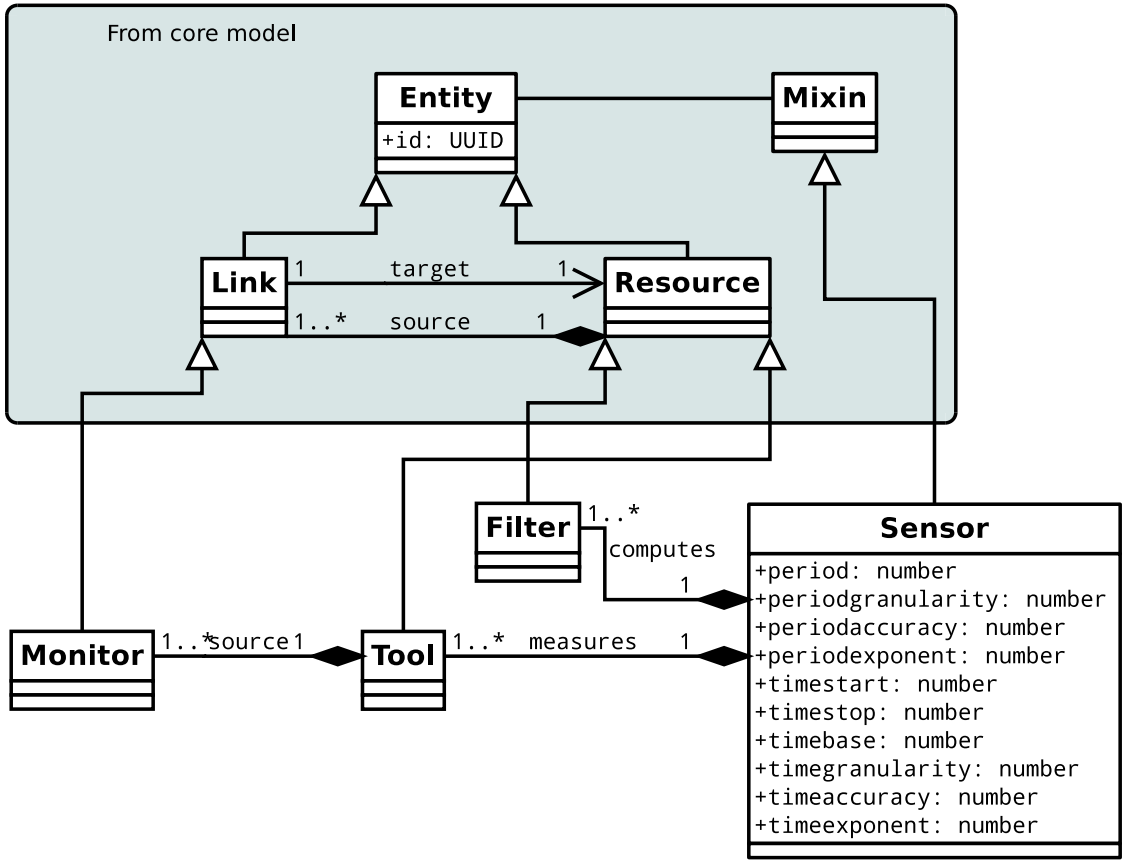

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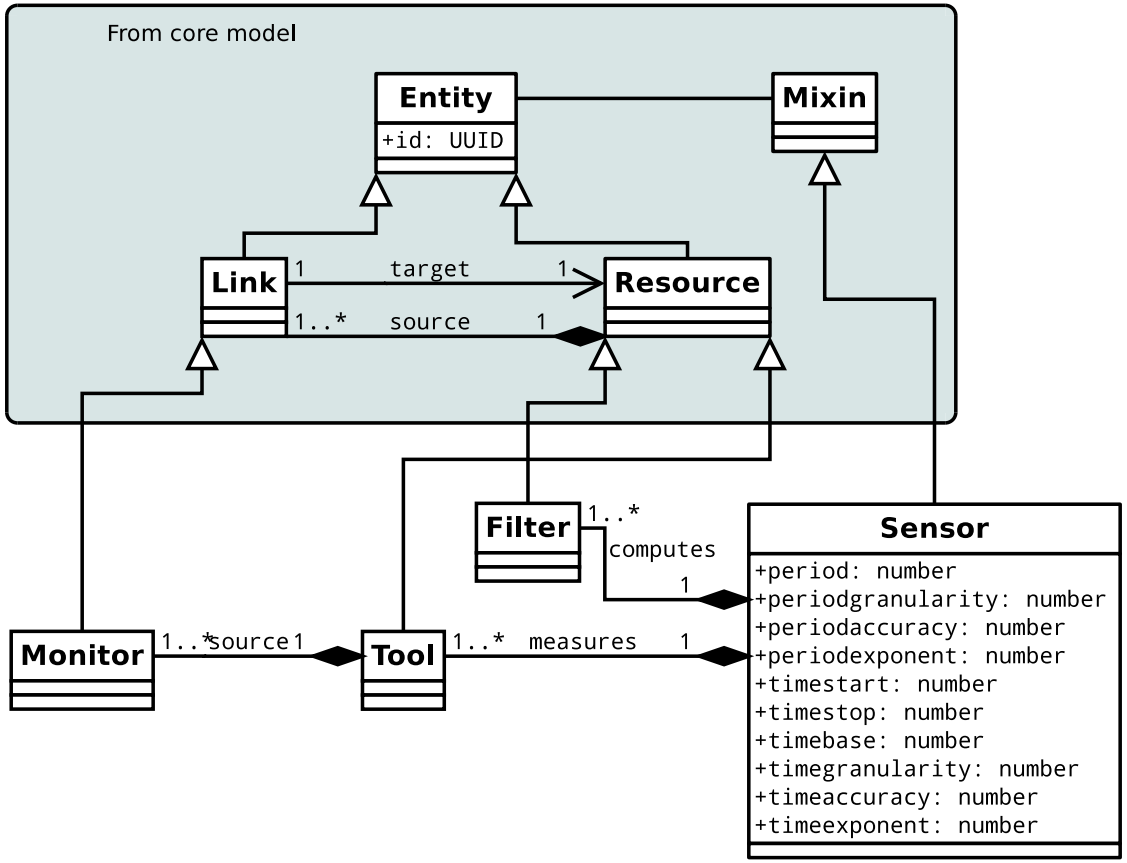

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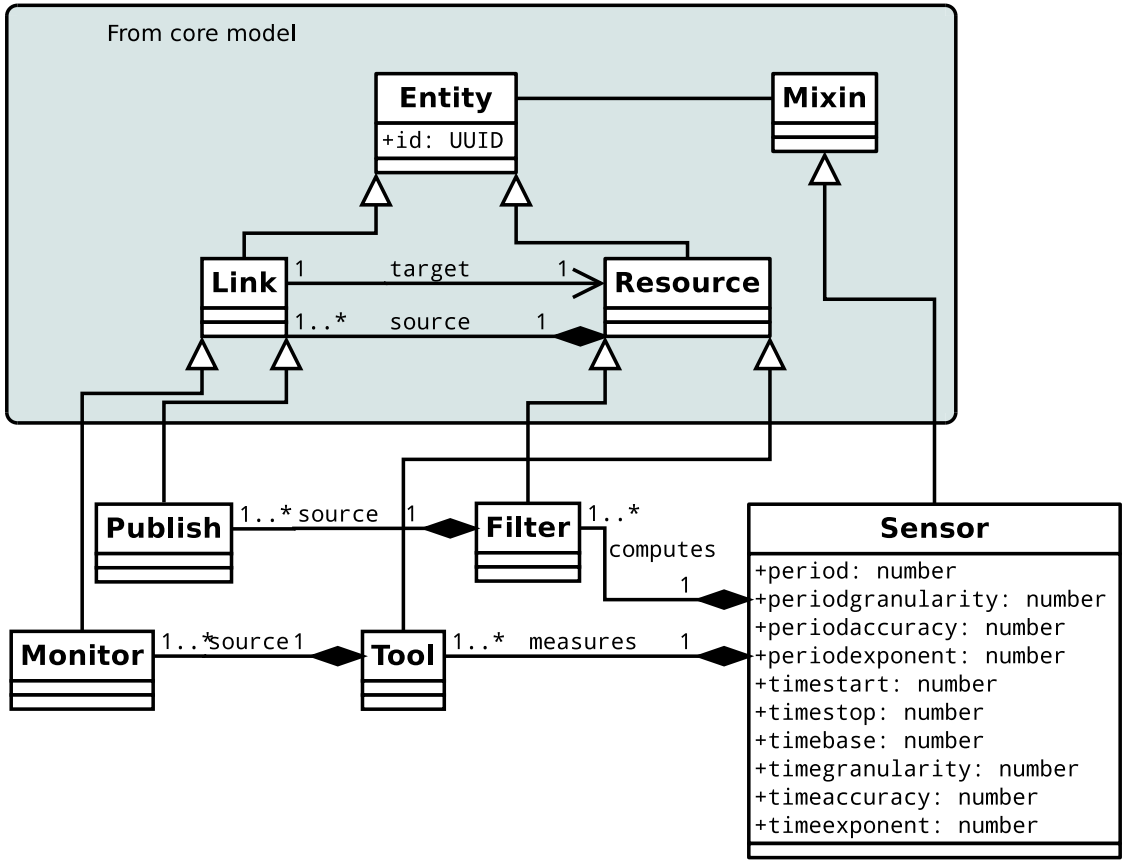

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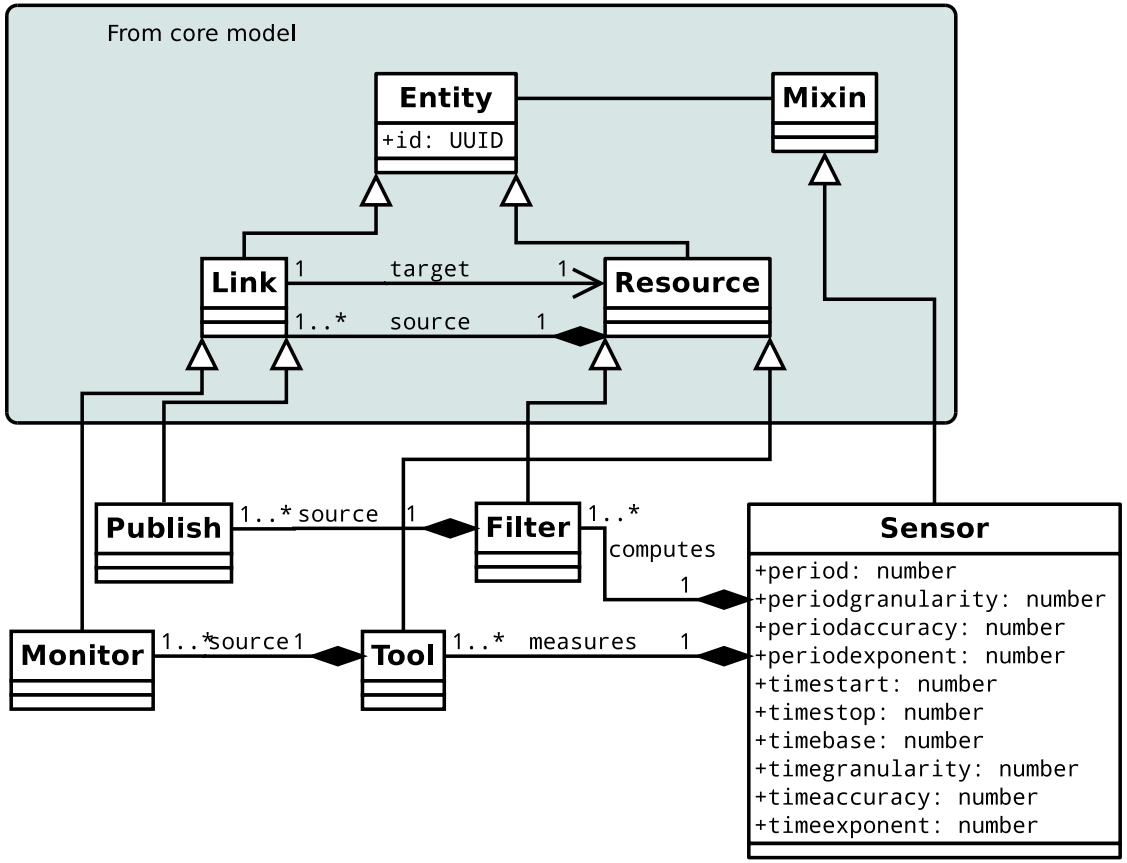

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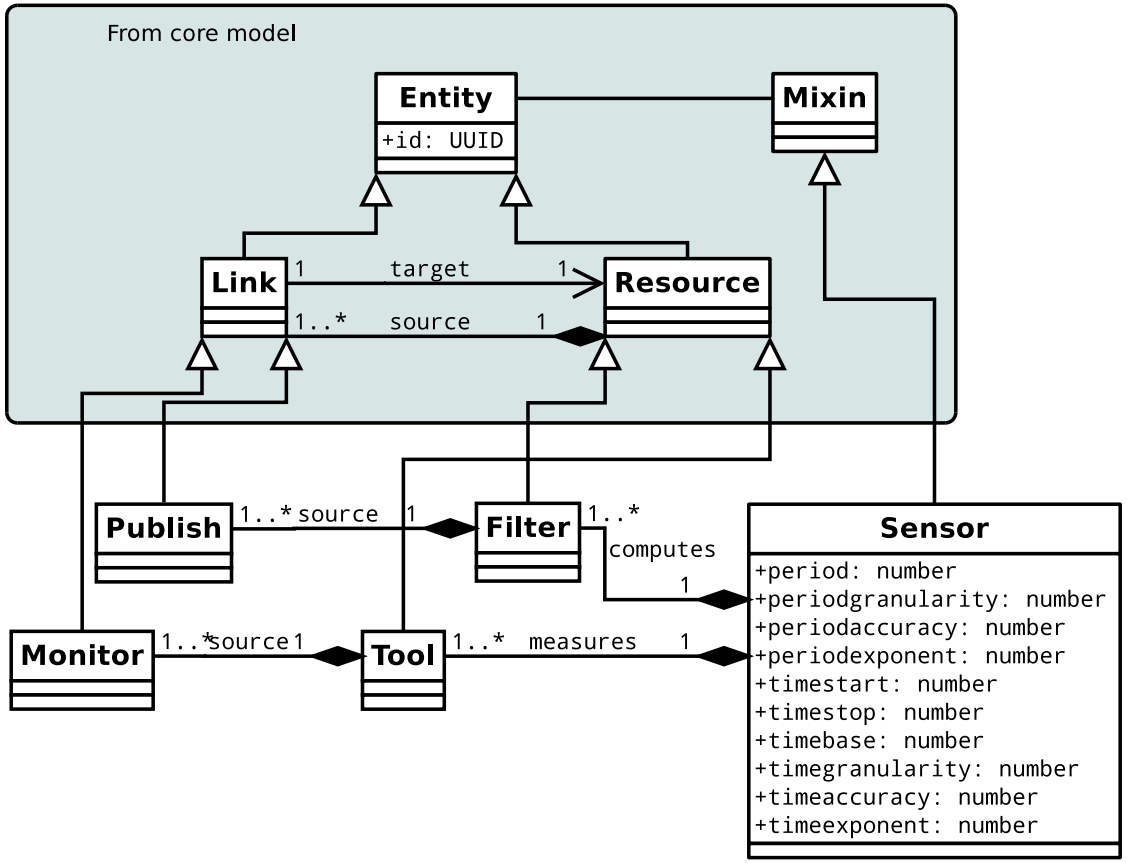

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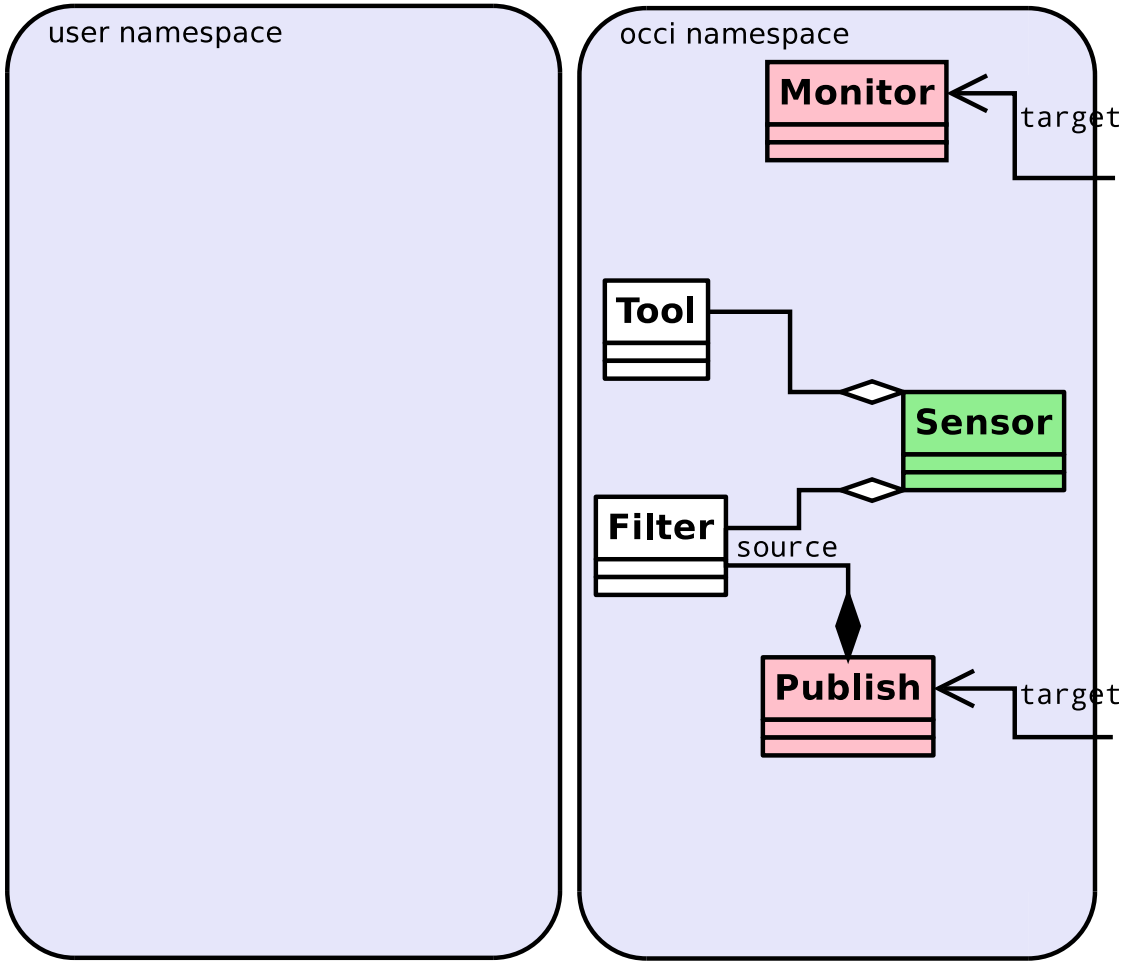
It provides a hook for provider specific media to deliver measurements

The very big picture: streaming robust RTTs



On the right the monitoring extension of OCCI namespace

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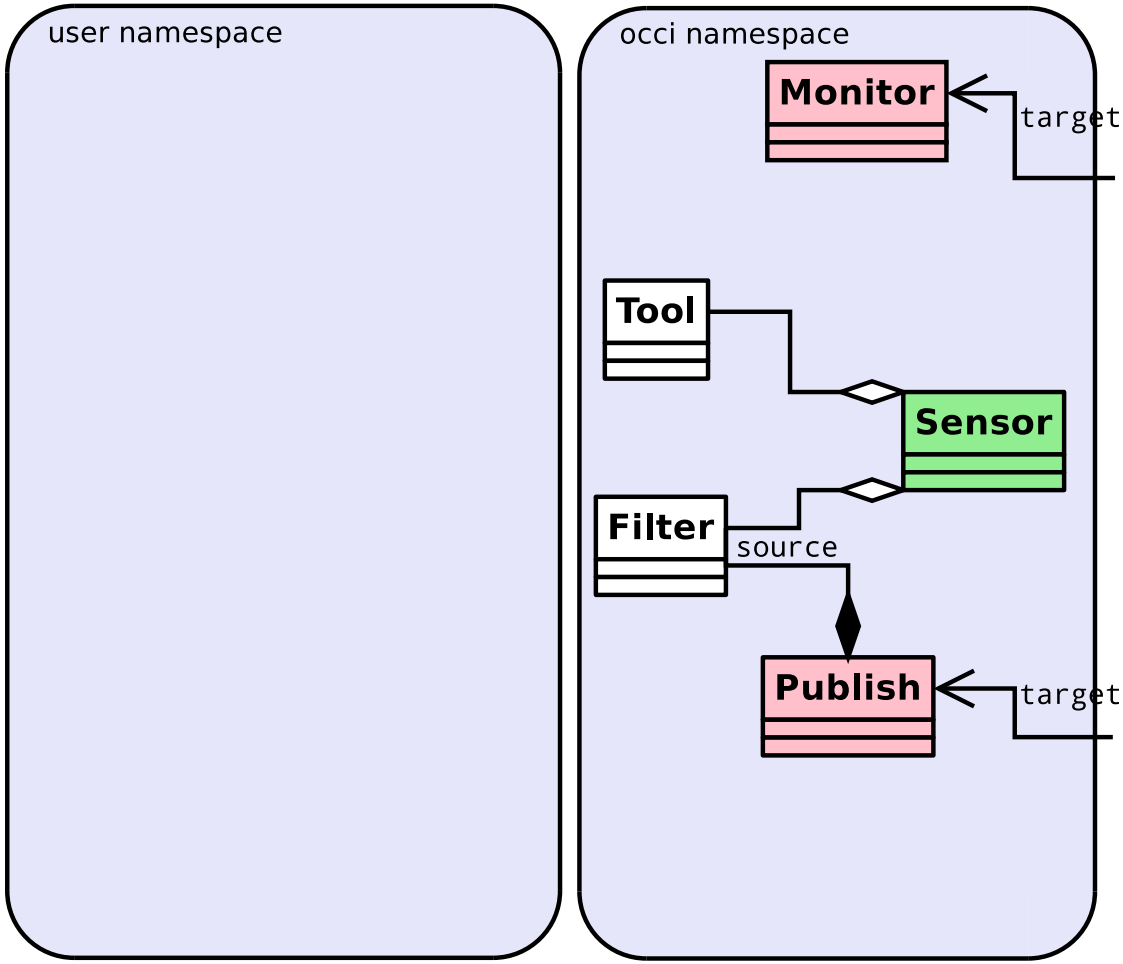

Green boxes are for **Mixin**, white for **Resources**, pink for **Links**

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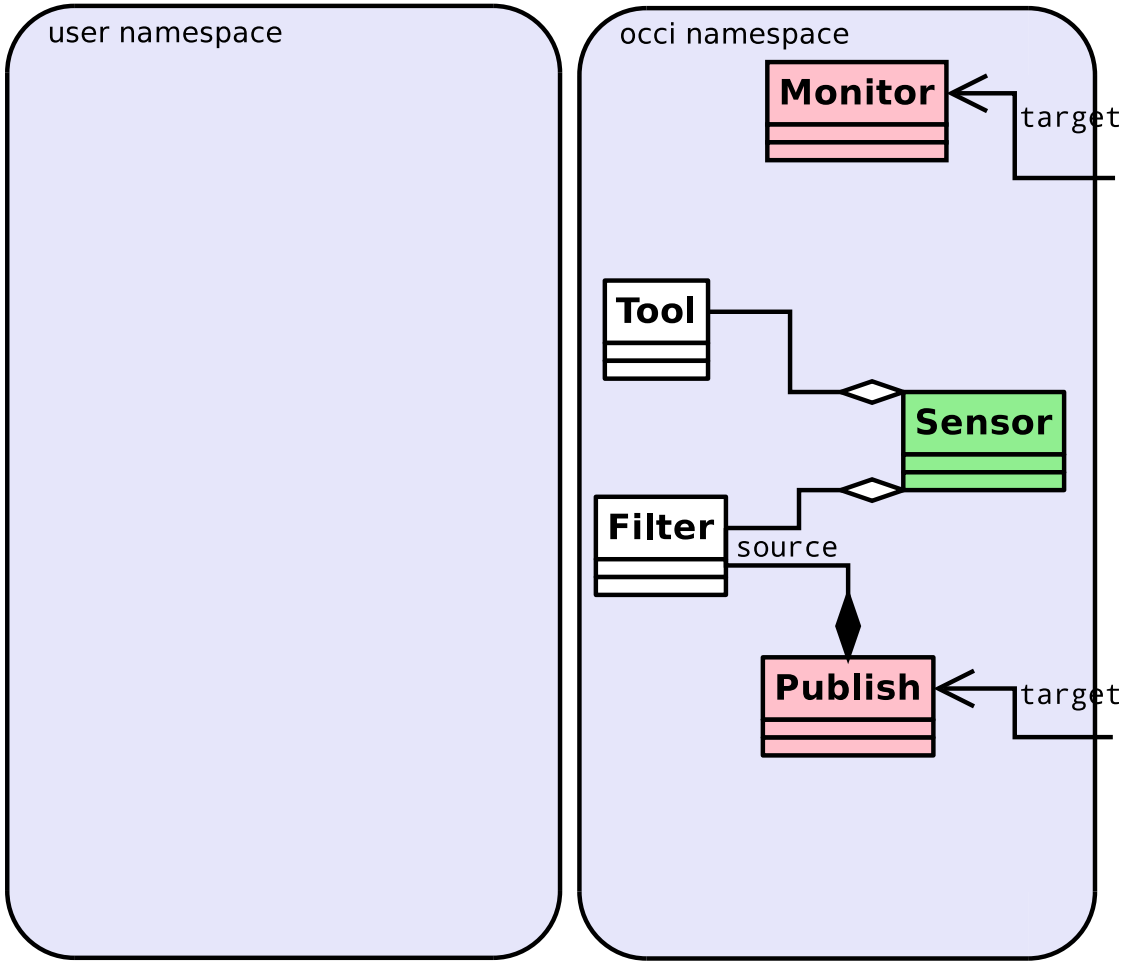

On the left the provider's namespace

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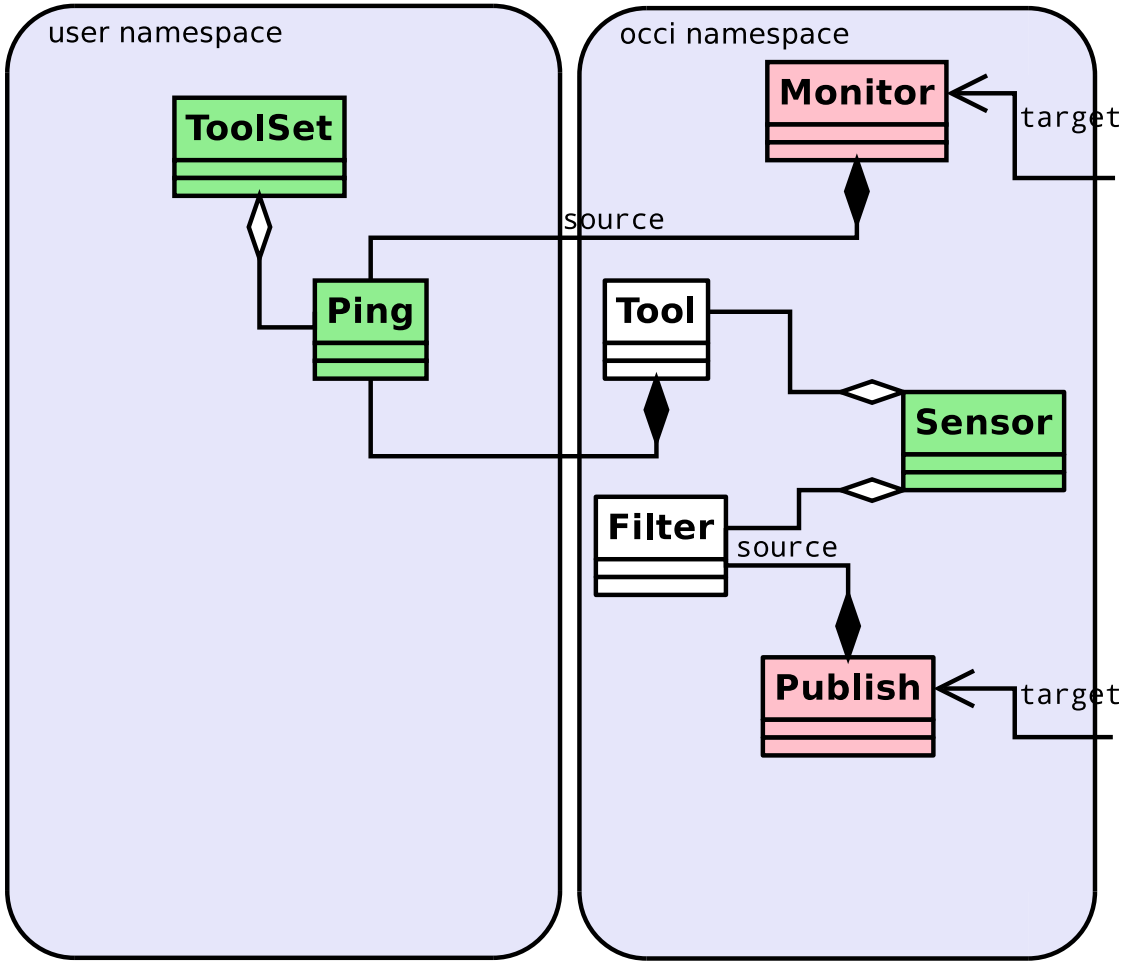

We add a **Ping Mixin** (and also a *tag* for all **Tools**)

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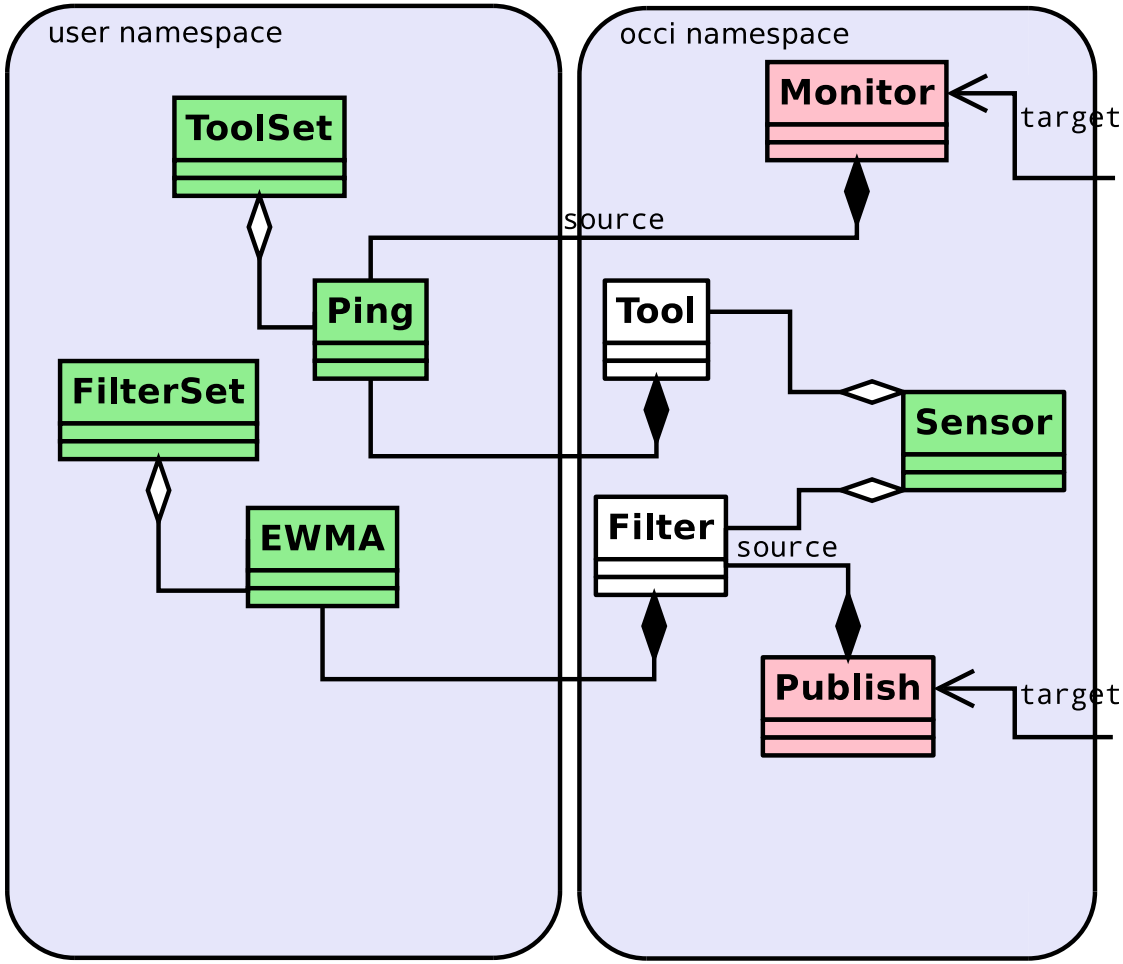

Next a filter to smooth peaks

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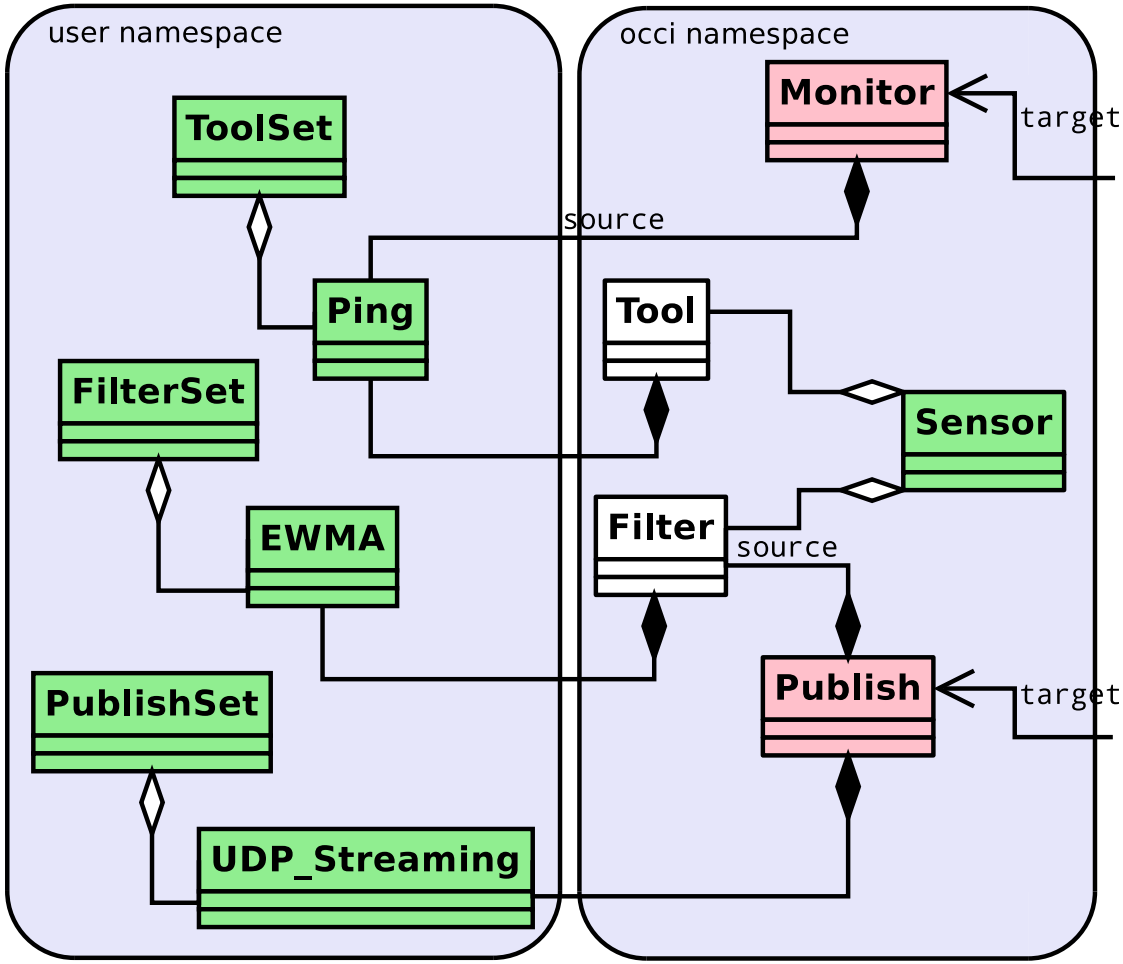

And finally a UDP stream to push out the flow of measurements

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- The model is comparable with CORDS, probably simpler
- The work is not over: we need SLA format and negotiation protocol