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Met Office

Sensor Observation Service (SOS) SWG

81st OGC Technical Committee

Exeter UK

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Organizational

- Sign observer agreement if you have not done so already.

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Agenda

- Result Filter Extension – Overview, Current Status & Next Steps
- Get Data Availability Extension - Overview, Current Status & Next Steps

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RESULT FILTER EXTENSION

OVERVIEW, CURRENT STATUS & NEXT STEPS

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Result Filter Extension – Why?

- SOS 1.0: quite a lot of confusion on what filtering observation results encoded in SWE Common really means
  - Filtering for identifying matching observations, NOT also projecting/subsetting observation results

- (Still) no Filter Encoding (v1 & v2) extension / requirements class that defines filtering of SWE Common encoded data
  - There are prototypes that do it - somehow:
    - usually for simple SWE Common components (Quantity, Time etc)
    - What about block components (DataArray, DataStream, etc), choices (DataChoice), or components that use specific encodings (like binary)?
  - How to do it in an interoperable, well defined way – that is what is missing

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Result Filter Extension – Why?

- → SWG decided to avoid result filtering issues in core requirements class by not supporting result filtering there

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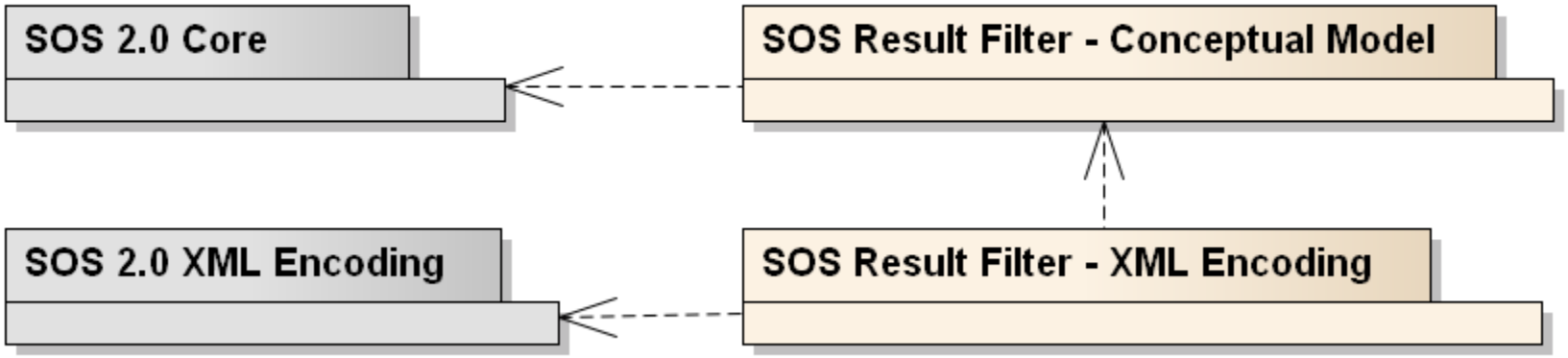
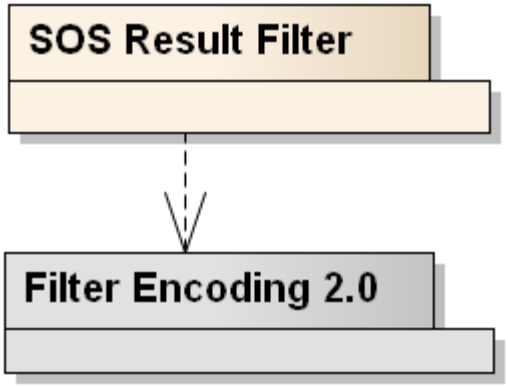
Result Filter Extension – How does it work?



SOS internal dependencies

SOS external dependencies



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Result Filter Extension – How does it work?

- Indicate which operations support result filtering via OperationsMetadata (at least GetObservation)
- include fes:Filter_Capabilities in service metadata
- Include result filter in request extension

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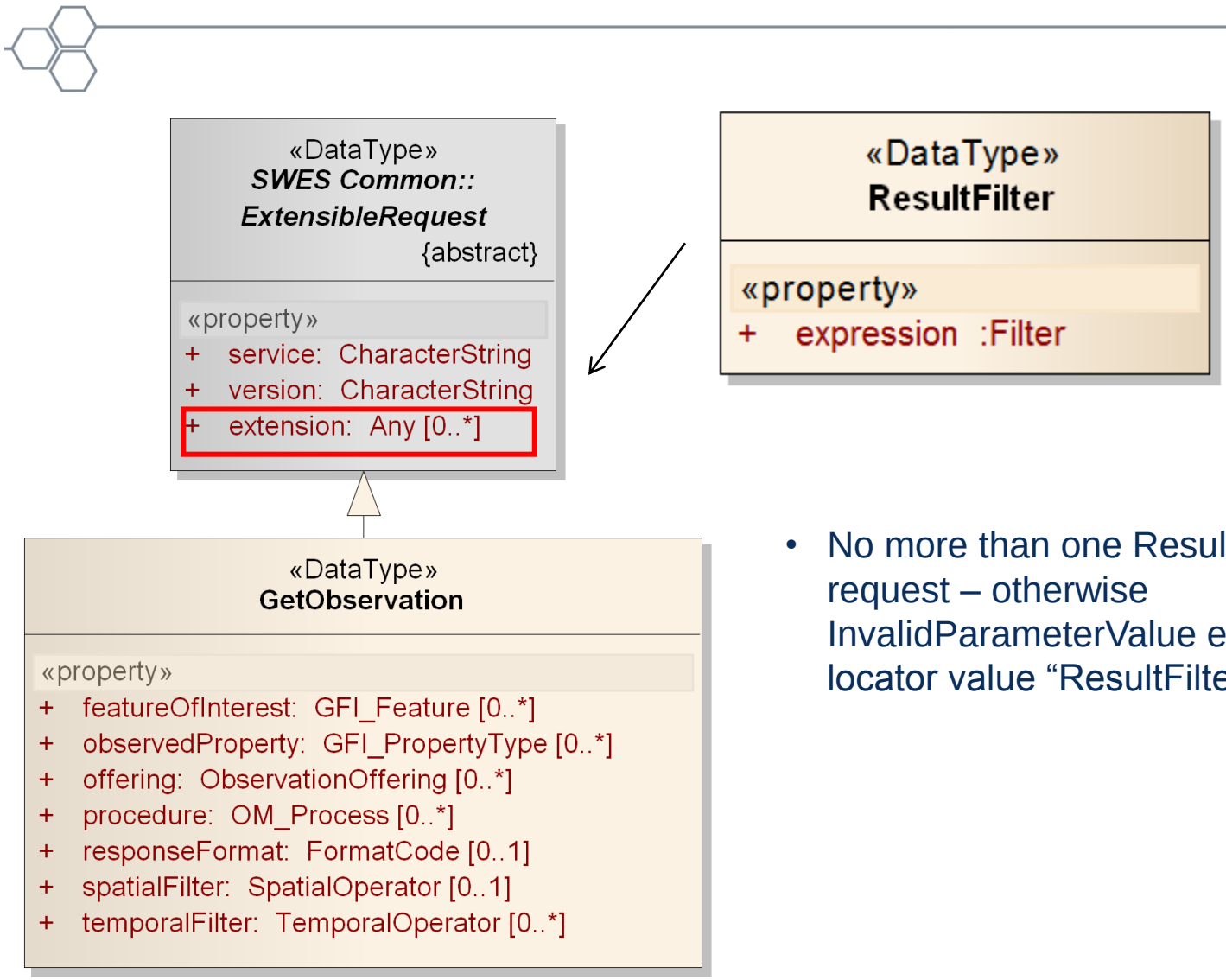
Result Filter Extension – How does it work?



- No more than one ResultFilter value per request – otherwise InvalidParameterValue exception with locator value “ResultFilter”

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Result Filter Extension – How does it work?

- context node of value references within result filter is the OM_Observation.result property

- service shall apply result filter to identify observations that match the request criteria; result filter and other observation filter parameters combined via implicit AND

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Result Filter Extension – Current Status

- SWG review done (Dec 2011 – Jan 2012)
  - Feedback (outside of mailinglist) from USGS, National Resources Canada, 52North
  - Feedback needs to be reviewed again in detail, and integrated
    - E.g. requirement for minimum (set of) FES conformance class(es) supported by SOS

- RFC can be started (if latest feedback is integrated and reviewed by SWG)

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Result Filter Extension – Next Steps

- Review feedback, update specification
- Volunteers to implement extension as POC?
- Initiate RFC or publish as Discussion Paper?

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GET DATA AVAILABILITY (GDA) EXTENSION

OVERVIEW, CURRENT STATUS & NEXT STEPS

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Get Data Availability – What for?

- Incorporate functionality of SOS 1.0 GetFeatureOfInterestTime

- Provide observation metadata (see examples in following slides)

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Get Data Availability – What for?

- discover for which times observations with certain property values are available at the service
- discover which procedures observed which properties at which times
- discover which procedures observed which features of interest at which times
- discover which properties of which features of interest were observed at which times

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Get Data Availability – What for?

- narrow down the temporal scope for which these relationships are to be discovered to a certain period of time
- restrict the scope of observed properties, features of interest and procedures that are to be included in the result
- restrict the set of observations which are considered for the discovery to those from certain offerings
- generalize the information about temporal relationships to decrease the response size

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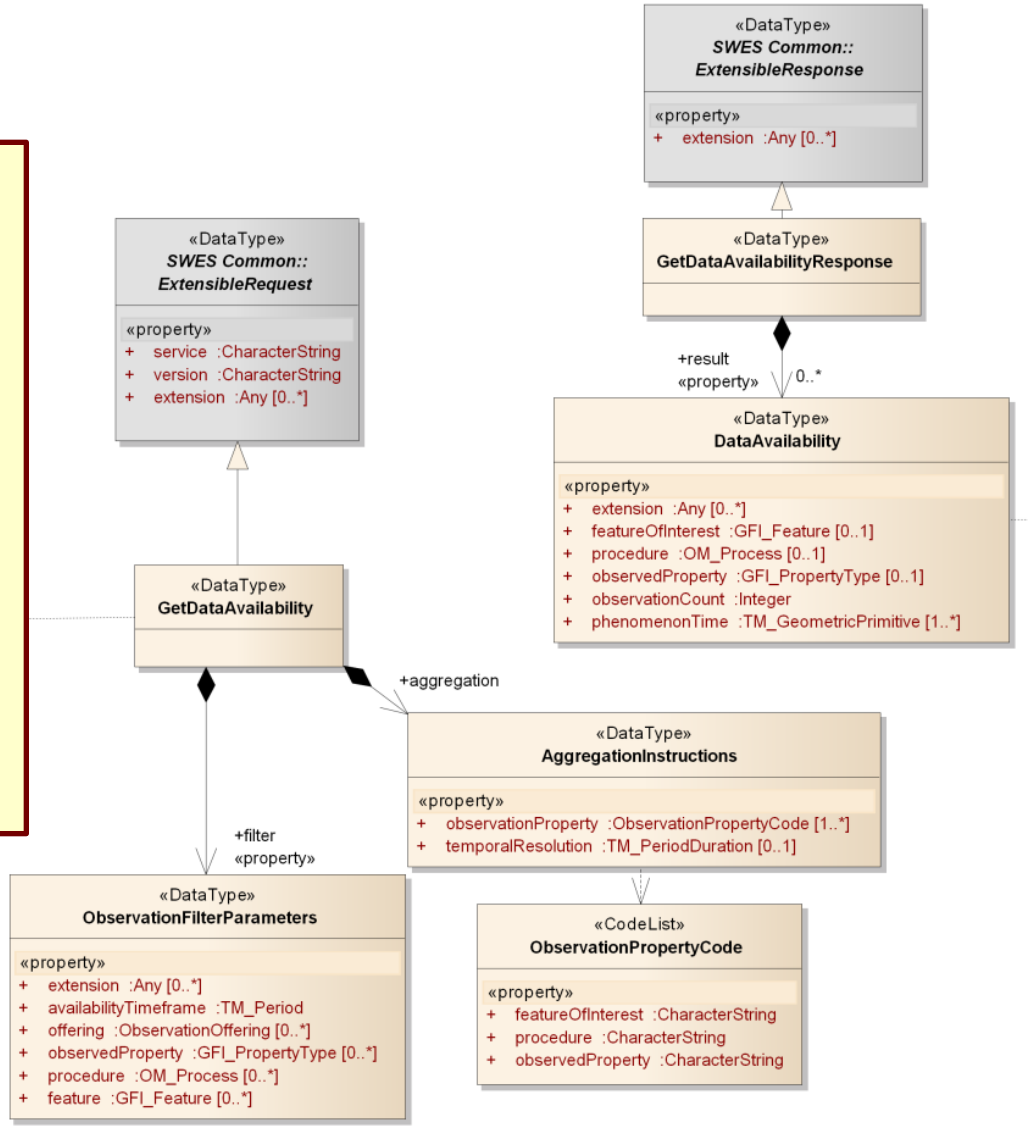
GDA – How does it work?

- Current model
- Not included in latest draft sent to SWG
- Needs to be updated based upon latest feedback



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GDA – Current Status

- First draft made available Aug 2010
- RFC together with SOS 2.0
  - Comments were addressed

- In the meantime, further feedback from 52North, USGS (mid 2011 – Jan 2012)
- Model updated based upon feedback, but need to double-check all emails
- Update document based upon latest model
- Review by SWG
- Integrate SWG feedback

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GDA – Next Steps

- Volunteers to implement extension as POC?
  - USGS had draft implementation, maybe they can update it
- Go for approval vote or publish as Discussion Paper?

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