



SOS



Air Quality

Austrian AQD Reporting

Coupling WFS & SOS



AQD e-Reporting

- Air Quality Reporting under Directive 2008/50/EC & Implementing Provisions 2011/850/EU
- Requires yearly reporting of air quality data together with assessment methods and attainment of objectives
- Includes Up To Date (UTD) measurement data
- Requirement for provision of AQD data under INSPIRE 2007/2/EC. Implications:
 - Data models in accordance with INSPIRE, ISO and OGC Standards
 - Data made available via web services

AQD e-Reporting

Reporting Dataflows:

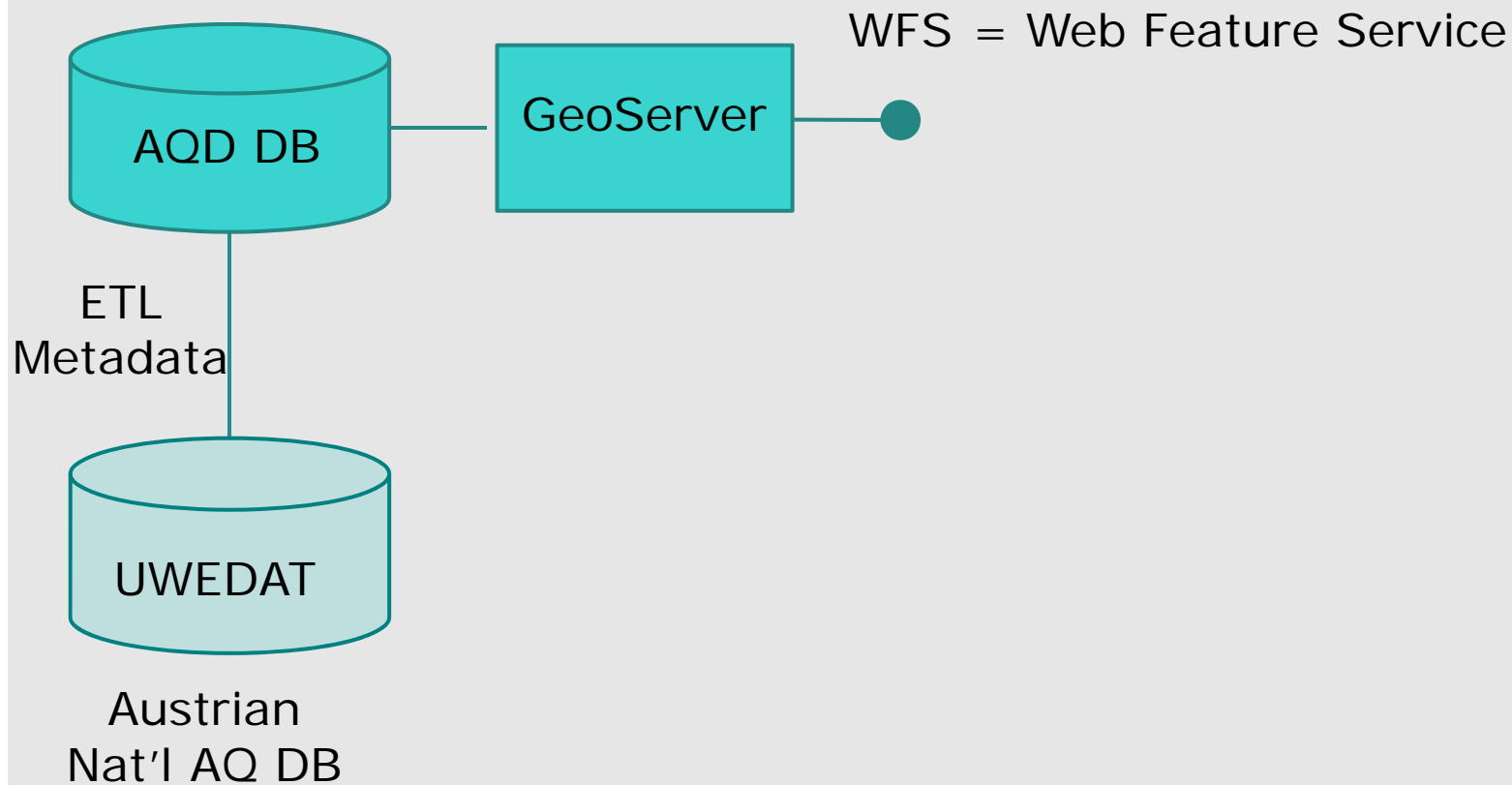
- B. Zones and Agglomerations
- C. Assessment Regime
- D. Information about Assessment Methods
- E. Primary data (both validated & UTD)
- F. Generated Aggregated Data
- G. Attainment of Environmental Objectives

Austrian AQD SOS implementation



Austrian
Nat'l AQ DB

Austrian AQD SOS implementation

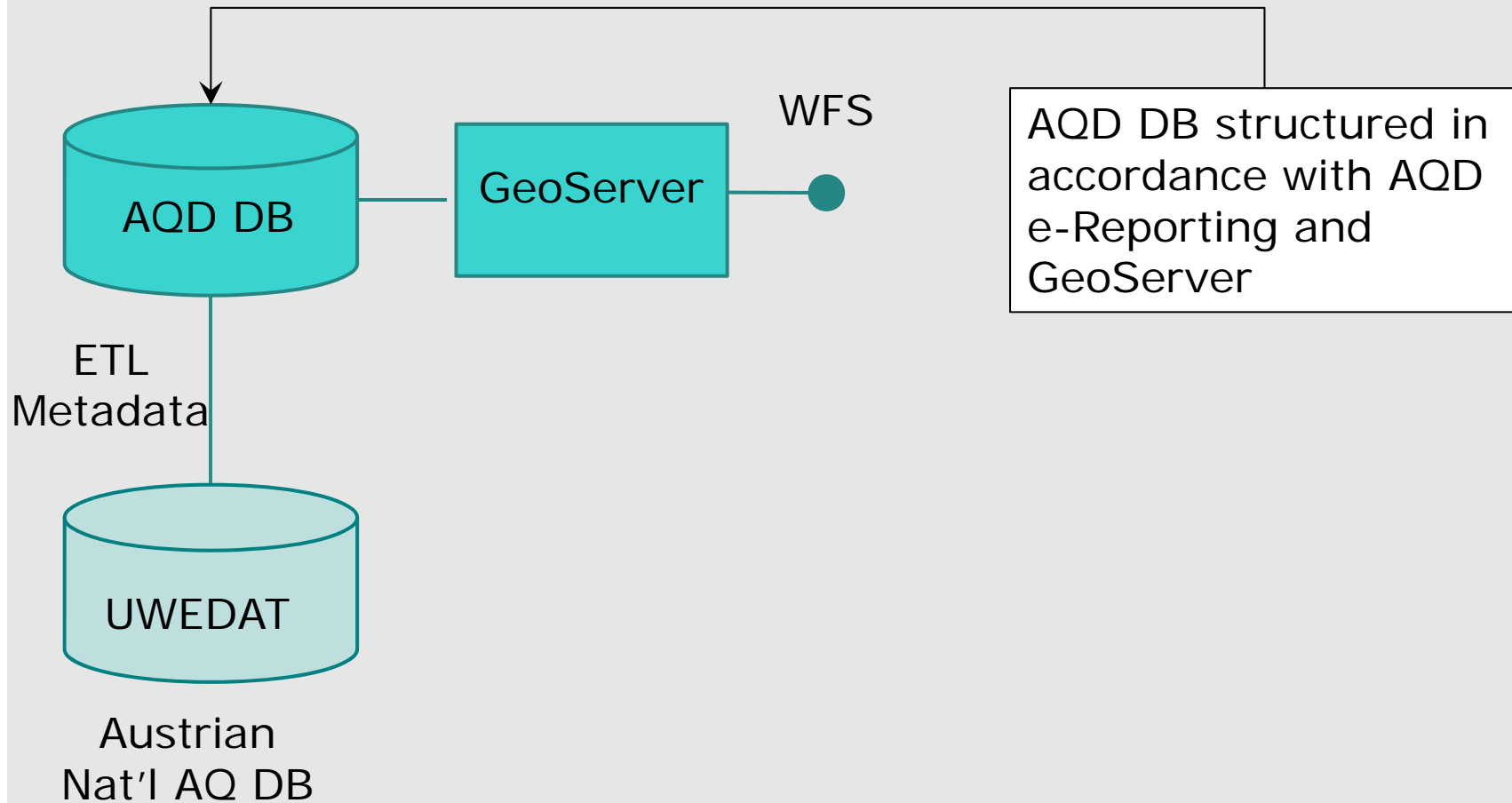


AQD e-Reporting

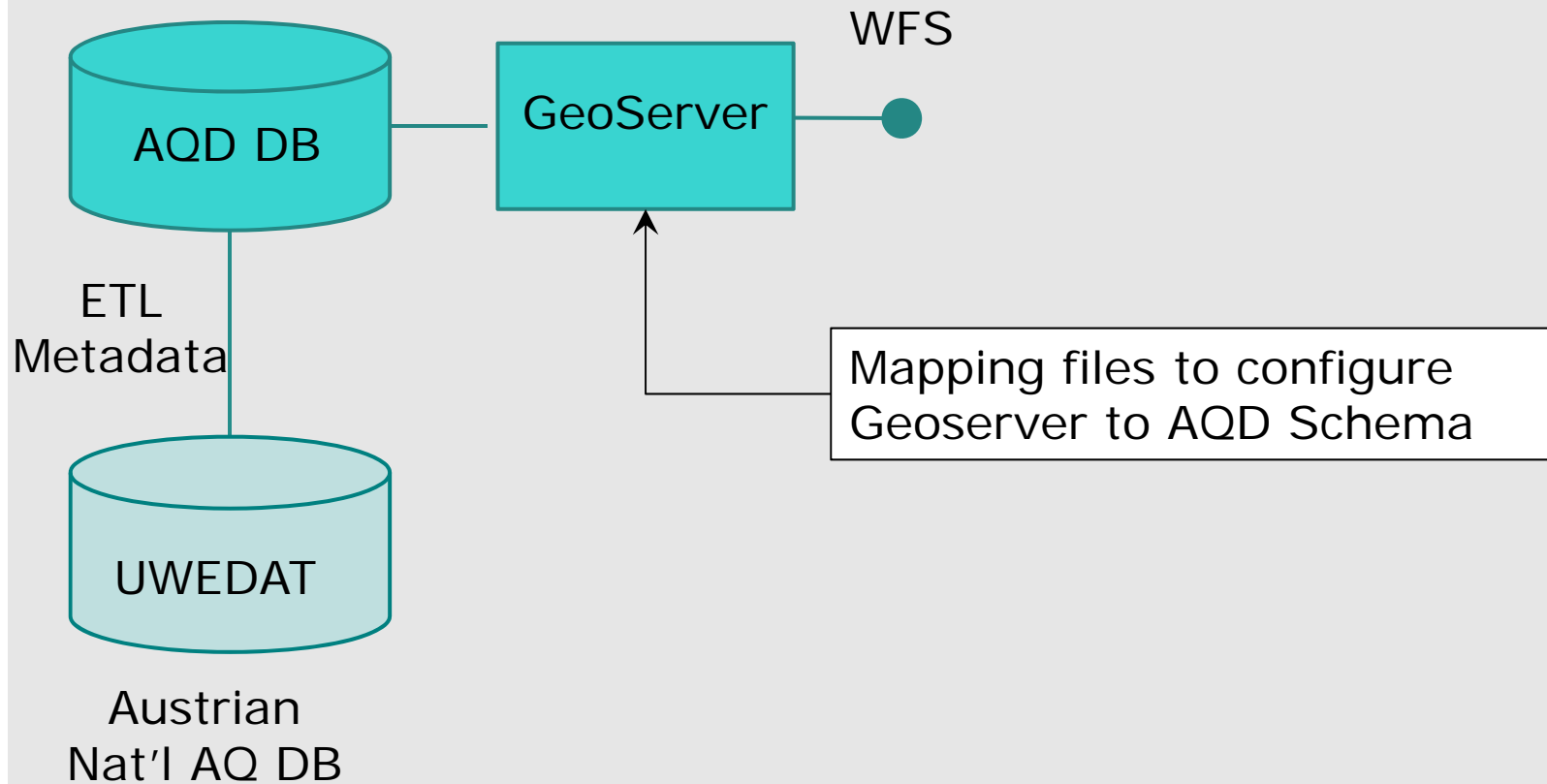
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-
- WFS**
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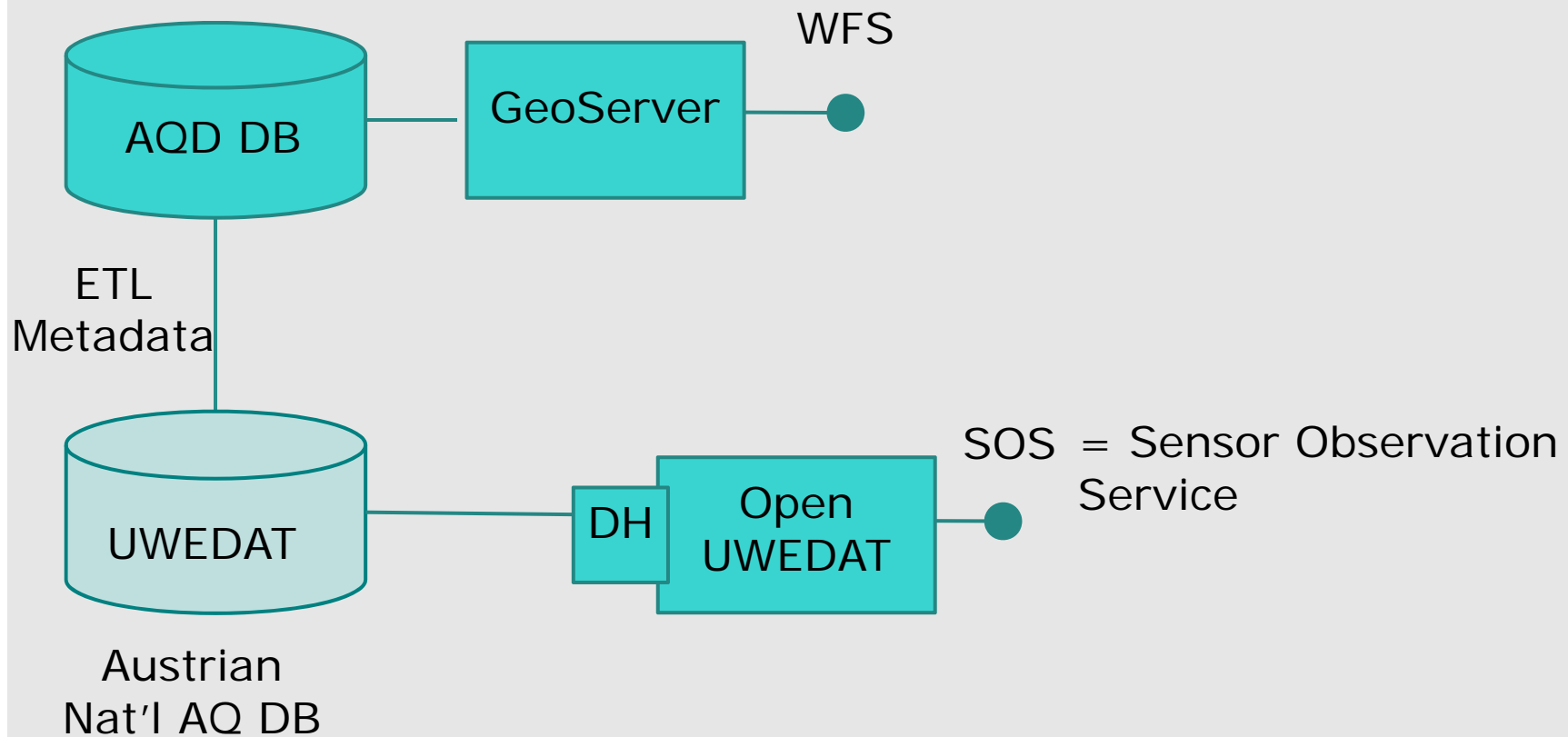
Austrian AQD SOS implementation



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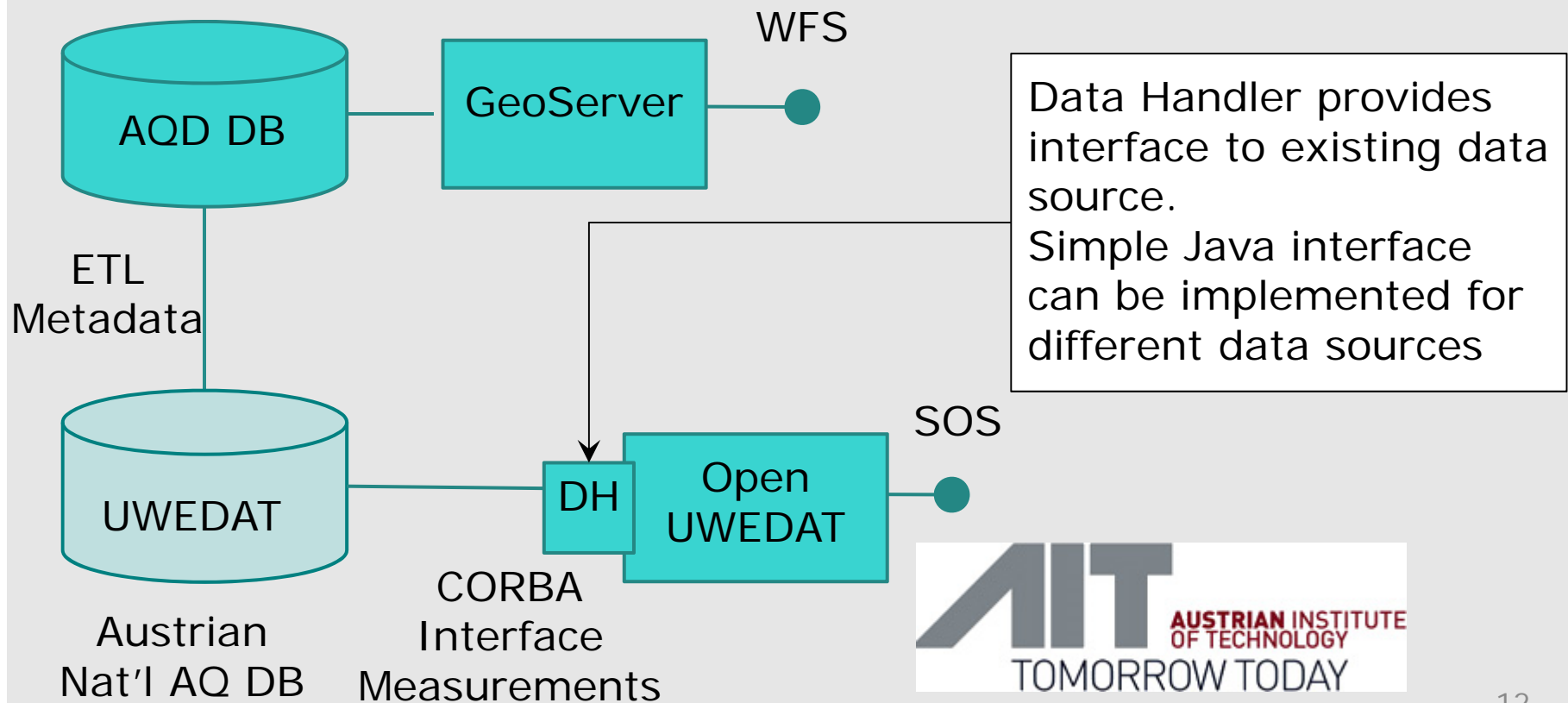


AQD e-Reporting

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- The diagram uses teal-colored brackets to group the reporting dataflows. A large bracket on the right side groups items B, C, and D, with the label 'WFS' to its right. A smaller bracket groups item E, with the label 'SOS' to its right. Another bracket groups item G, with the label 'WFS' to its right. Item F is not grouped.

Austrian AQD SOS implementation



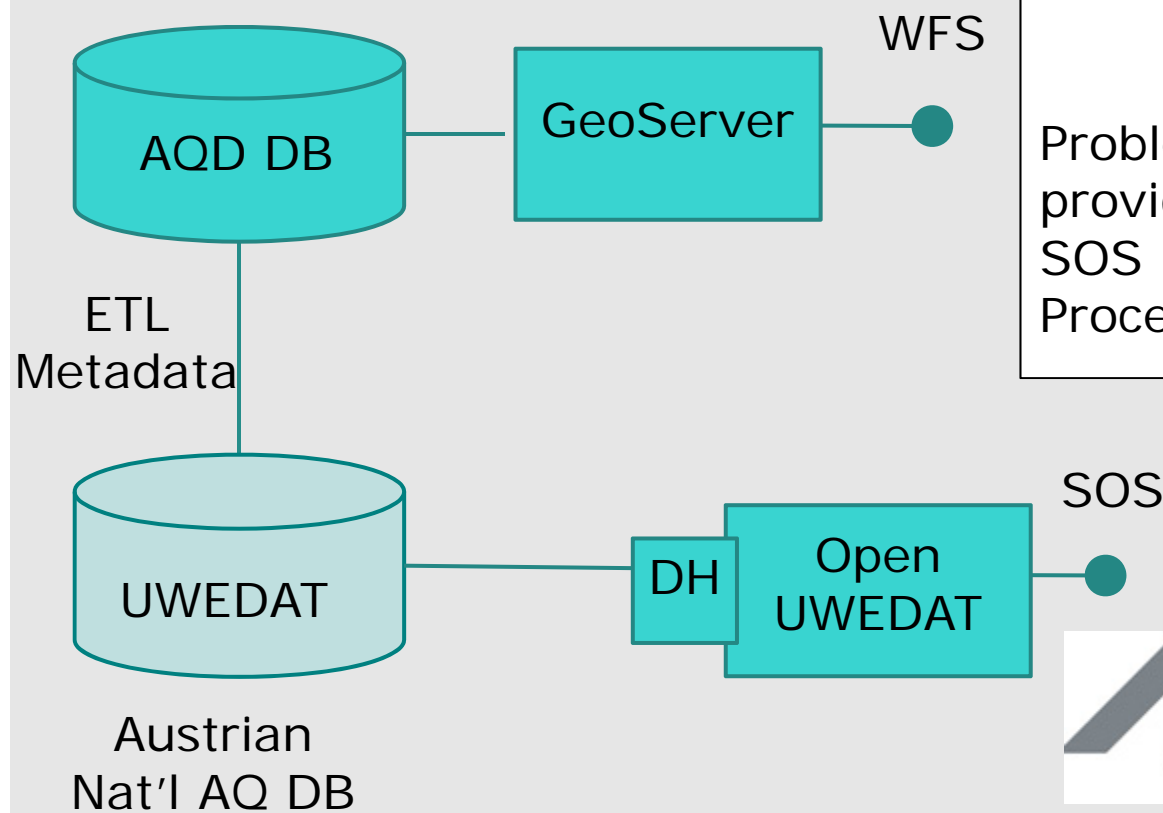
Austrian AQD SOS implementation

Data Handler Class (Java) must be adapted in the following methods:

- Setter methods to parameterize data source connection
- Open & Close methods
- Filter methods to specify specific data point (~ ObservingCapabilities).
- getTimeSeries

TimeSeries class must also be configured in accordance with data to be served

Austrian AQD SOS implementation



First approach

Problem: how to keep features provided by both WFS and SOS (featureOfInterest and Process) aligned?



AQD e-Reporting

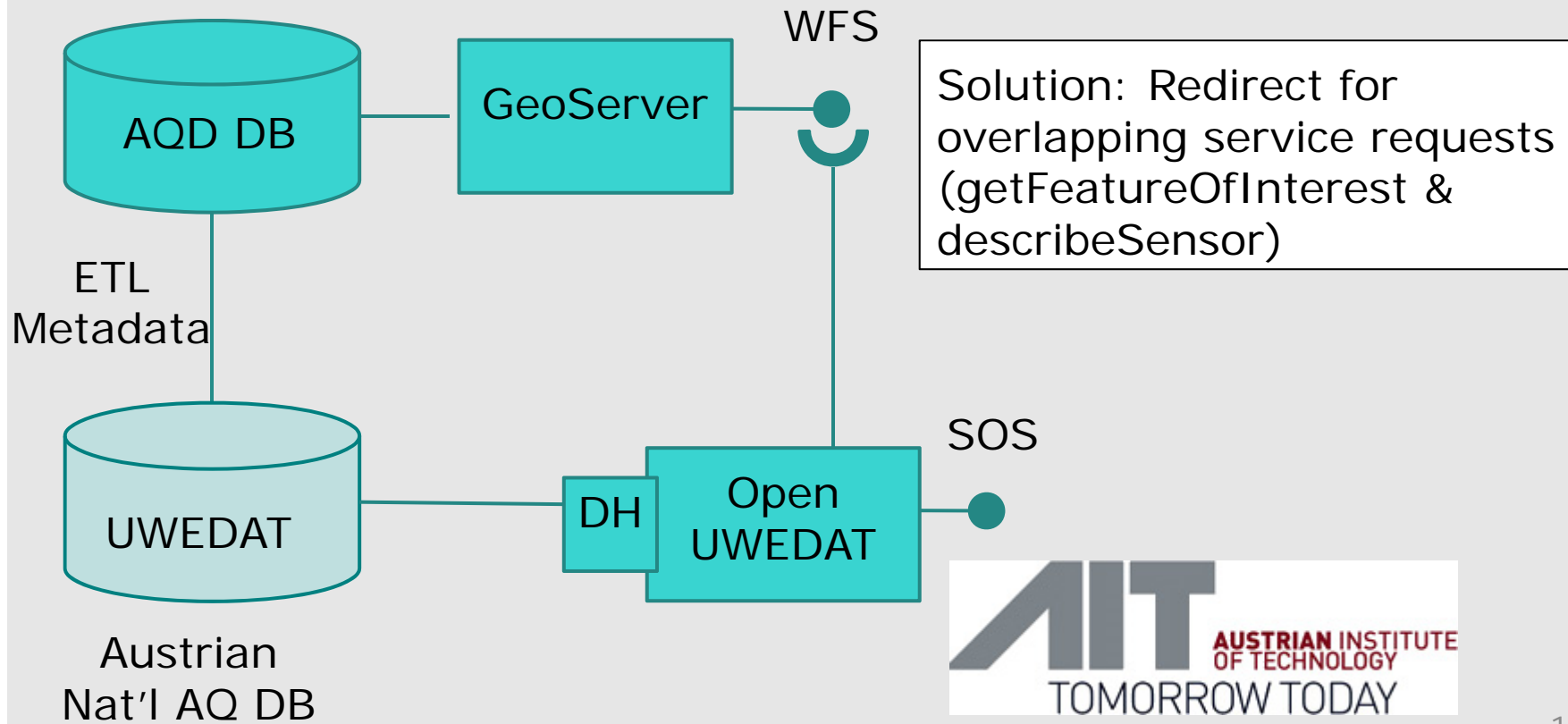
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- WFS
- SOS**
- WFS
- OVERLAP

Overlap WFS & SOS

WFS	Feature	SOS
getFeature	AQD_Sample	getFeatureOfInterest
getFeature	AQD_Process	describeSensor

Austrian AQD SOS implementation



Austrian AQD URIs

WFS:

<http://luft.umweltbundesamt.at/inspire/wfs?service=WFS&version=2.0.0&request=GetCapabilities>

SOS

<http://luft.umweltbundesamt.at/inspire/sos?service=SOS&version=2.0.0&request=getCapabilities>

Conclusions

- GeoServer well suited for provision of INSPIRE Data
 - However not easy to configure, should find way to support each other
- Client side problems with complex features (but solvable)
- Lightweight SOSI from AIT configurable to various data stores
- Redirect of overlapping requests can be redirected between services
- Could make sense to put solution in the cloud and reuse across organizations

Contact & Information

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SOS URIs

<http://luft.umweltbundesamt.at/inspire/sos?service=SOS&version=2.0.0&request=getObservation&offering=urn:any/identifier/03/0407/1/1&eventTime=2012-10-11T00:00/2012-10-12T00:00>

<http://luft.umweltbundesamt.at/inspire/sos?service=SOS&version=2.0.0&request=getFeatureOfInterest&featureOfInterest=AT.0008.20.AQ/SAM.10.VOR1.64300.5.2>

<http://luft.umweltbundesamt.at/inspire/sos?service=SOS&version=2.0.0&request=describeSensor&procedure=AT.0008.20.AQ/SP.10.VOR1.64300.5.2.5908>