Web Services Distributed Management (WSDM) TC Submission: Web Services Manageability

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Background

- Started with active involvement of the authors on W3C Web Services Architecture Working Group Management Task Force .

- To avoid fragmentation of Management Standards we co-authored a specification to facilitate development of consensus among management vendors.

- Considered concepts from existing work on Web services as a management platform.

- The specification is the agreed minimum sufficient set of information that make Web service endpoints manageable.
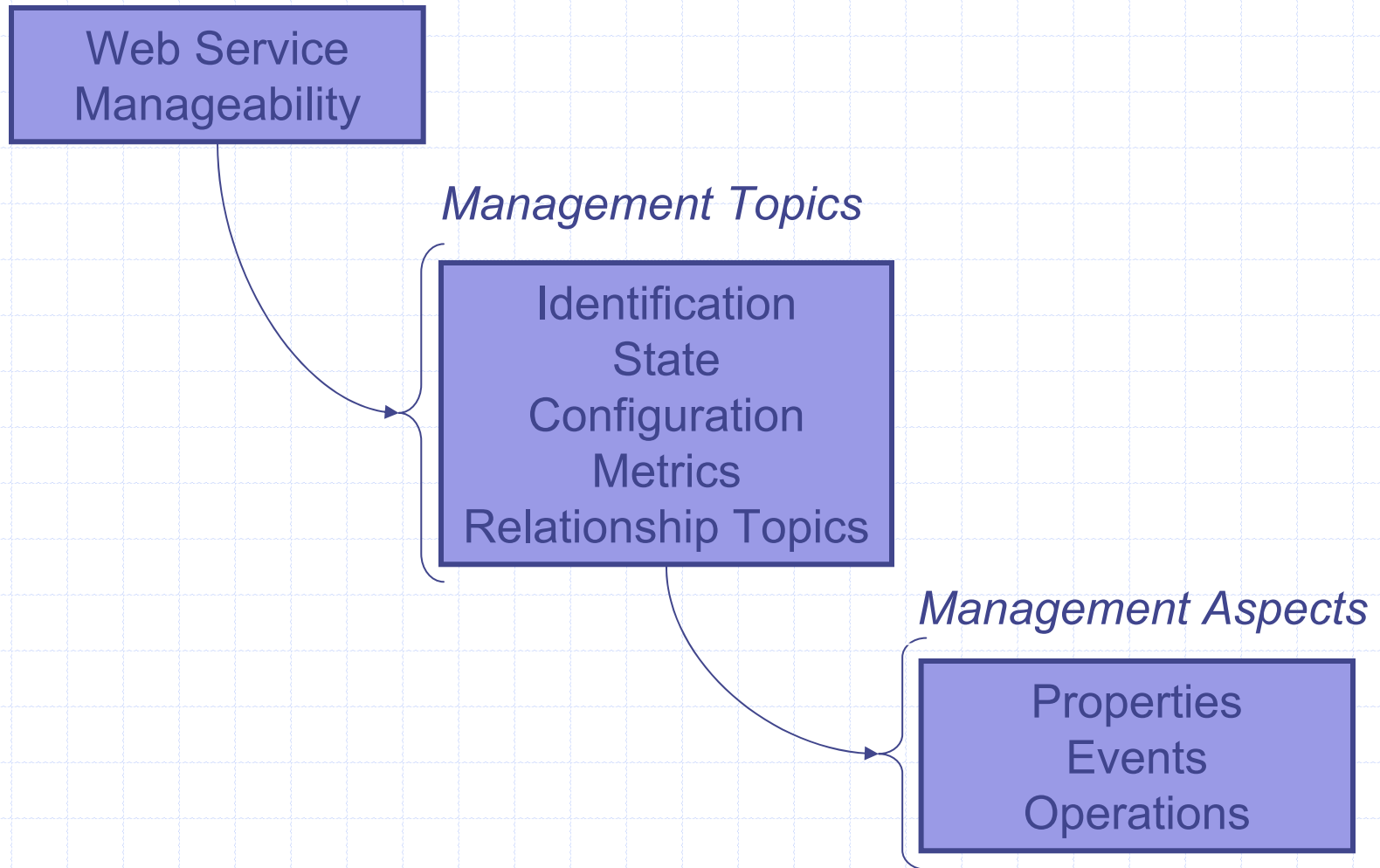
Main Considerations

- Does not imply the implementation of the manageability or the manager
- Captures manageability with XML and WSDL
- Consistent with existing standards based Web Service infrastructures
- Consistent with existing management models and standards
- Use existing infrastructure mechanisms
- Easily extensible model
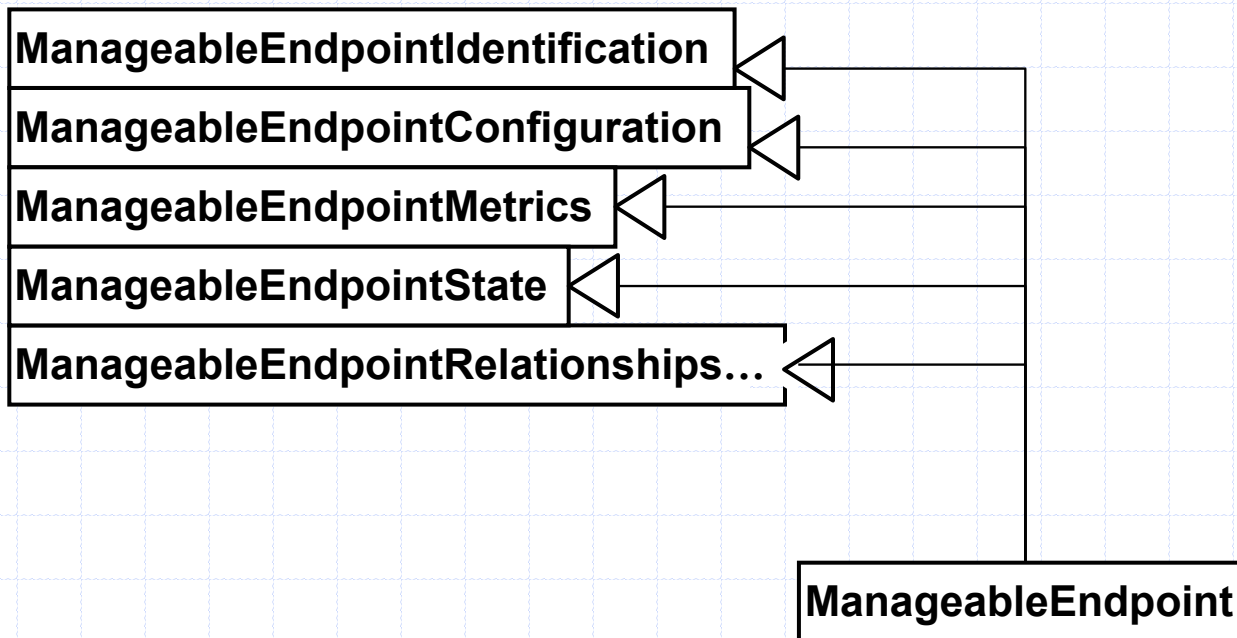- Easily implementable, reducing impact on Web service development

Intention of Submission

- Specification
    - Define the model for the manageability of Web services
    - Define access to this manageability
    - Access and model can be rendered in:
        - WSDL 1.1 *
        - GWSDL *
        - CIM Models
        - WSDL 1.2
    - Identify requirements for more general Web services standards, but does not define them
- Submitting the Common Base Event specification
    - XML event format for management events

Management Topics and Aspects

Web Service
Manageability

Management Topics

Identification
State
Configuration
Metrics
Relationship Topics

Management Aspects

Properties
Events
Operations

Web Service Manageability Model

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Interface Strategies

- Each topic contains one or more interfaces (portTypes)
  - Interfaces can be defined based on separation of concerns, roles, visibility, re-use, ...
  - Managed Resource interfaces are composed from topic interfaces to support management views
- Consistent interfaces across representations in WSDL and GWSDL

Extensible Manageability

- Topics are extensible
  - New topics can be created
  - Any topic can have aspects added to them (i.e. define new properties, operations, and events)
  - New aspects can be created
- Manageability information is extensible

Infrastructure

- Supports building WS-I basic profile compliant manageable Web services
- Leverages non-management specific infrastructure available to us from
  - WS* e.g. WS-addressing, WS-policy…
  - OGSI e.g. serviceData, notifications…
  - CMM e.g. lifecycle, relationships, metadata…
- Does not imply a specific management framework

Conclusion

◆ We intend to submit this work to the OASIS WSDM TC

◆ We are looking forward to working with the WSDM TC on developing these ideas further