Security in Software Engineering

Web Services
Part 12 : UDDI and Advanced Web Services

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- an introduction to UDDI,

- UDDI Security,

- Message Routing,

- Advanced topics in WS,

- Conclusion.

- Universal Description, Discovery and Integration (UDDI) ,

- An industry specification (inside OASIS) for lookup, publishing and localization of WS,

- UDDI defines also an API to access UDDI information,

- UBR (UDDI Business Registry) - cataloging Web Services from companies,

- http://www.uddi.org/ - current (version 3)

- Provider (anything that can offer XML Web Services),
    - Contact (contact point inside the provider),
    - Service (a global representation of services available via the Web Services, for example a lookup for an ISBN),
        - Binding (the access point : a specific url)
            - Instance info (interface description or WSDL)
- tModels - Technical models (to represent unique concepts or constructs)

UDDI and Security

- Security authentication and authorization mechanisms and policies are represented via the tModels,

- Security Policy API Set to provide access control,

- XML-sig/enc could be used,

- UDDI only defines access/discovery (your SOAP interface doesn't move),

- UDDI relies on existing protocols (HTTP,SSL)

- Web Services describes a processing model but not a message path,

- Custom routing can be created via (SOAP 1.2) actor and mustUnderstand attributes,

- You can create custom routing specific receiver (in SOAP,

- Security and routing is quite difficult,

- WS-Routing specification is a simple stateless SOAP-based routing protocol,

- WS-Referral is a simple stateless for inserting and querying routing entries in SOAP.

- WS-Policy, WS-Trust, WS-Privacy, WS-Federation, ...

- WS-Inspection =/= UDDI (a simple way to know operation of a web services),

- Reliable Messaging (e.g. HTTPR),

- ...

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- http://www.foo.be/cours/securite-webservices/

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