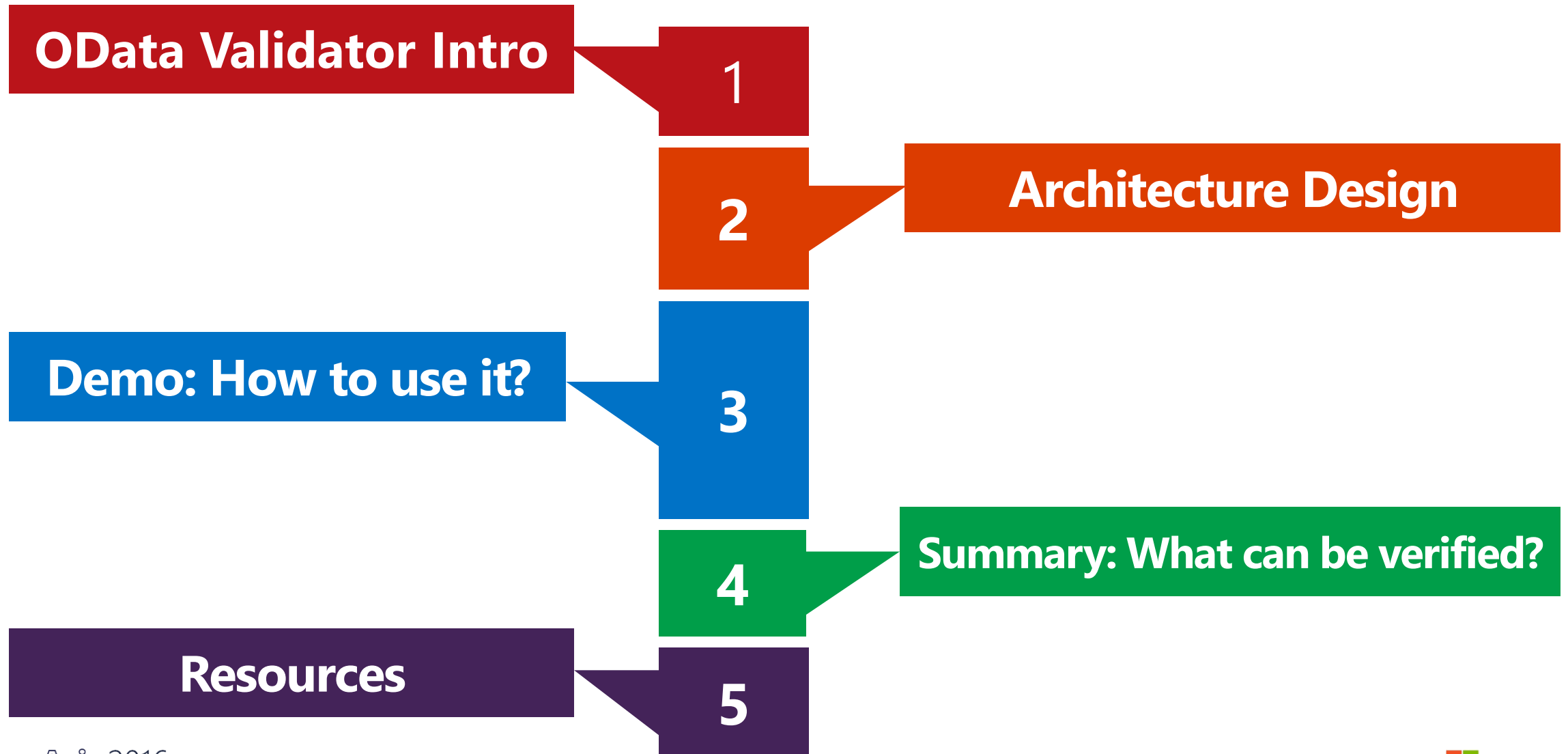


OData Validator

Baoming Yu

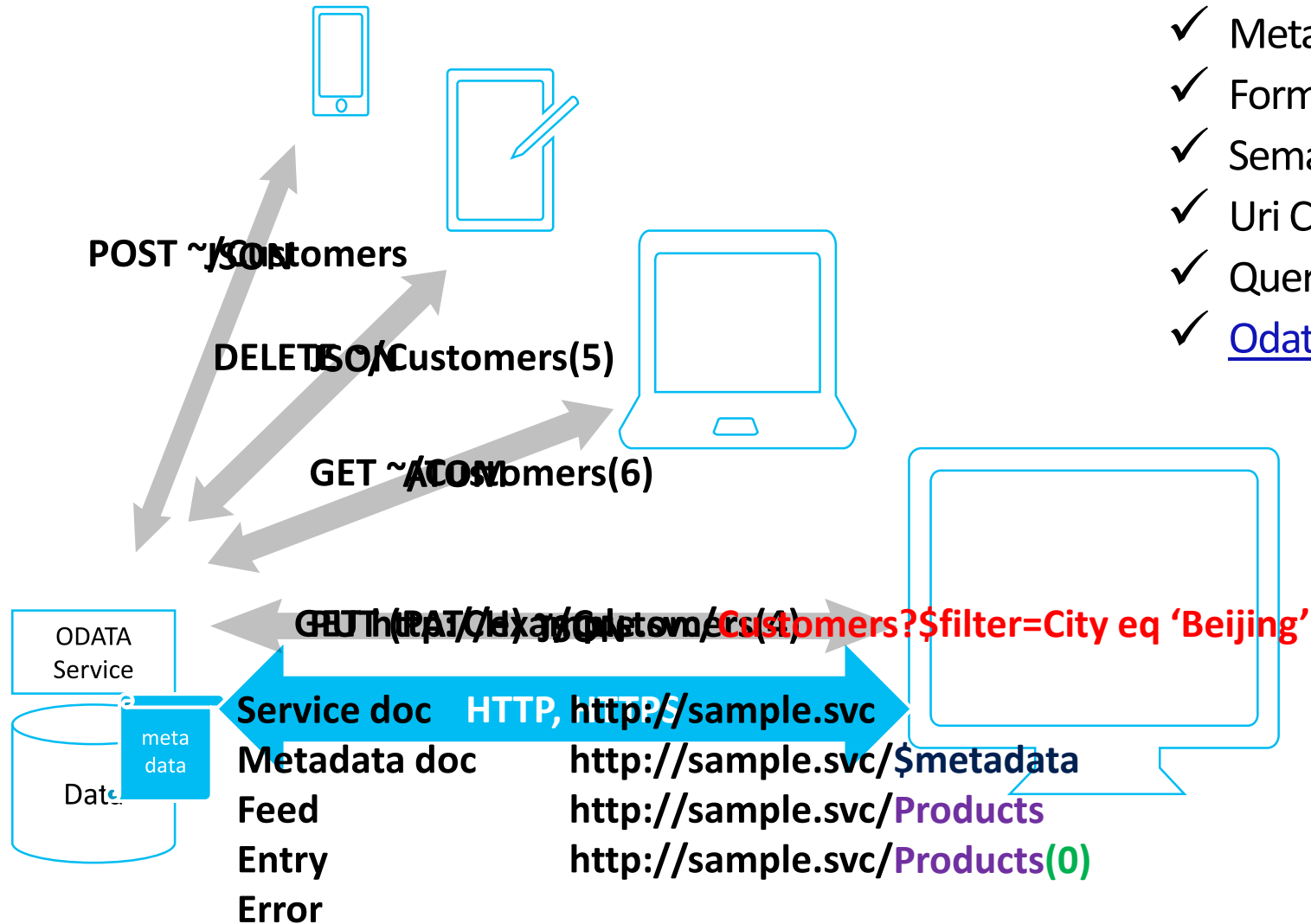
Software Engineer

Agenda



What is OData?

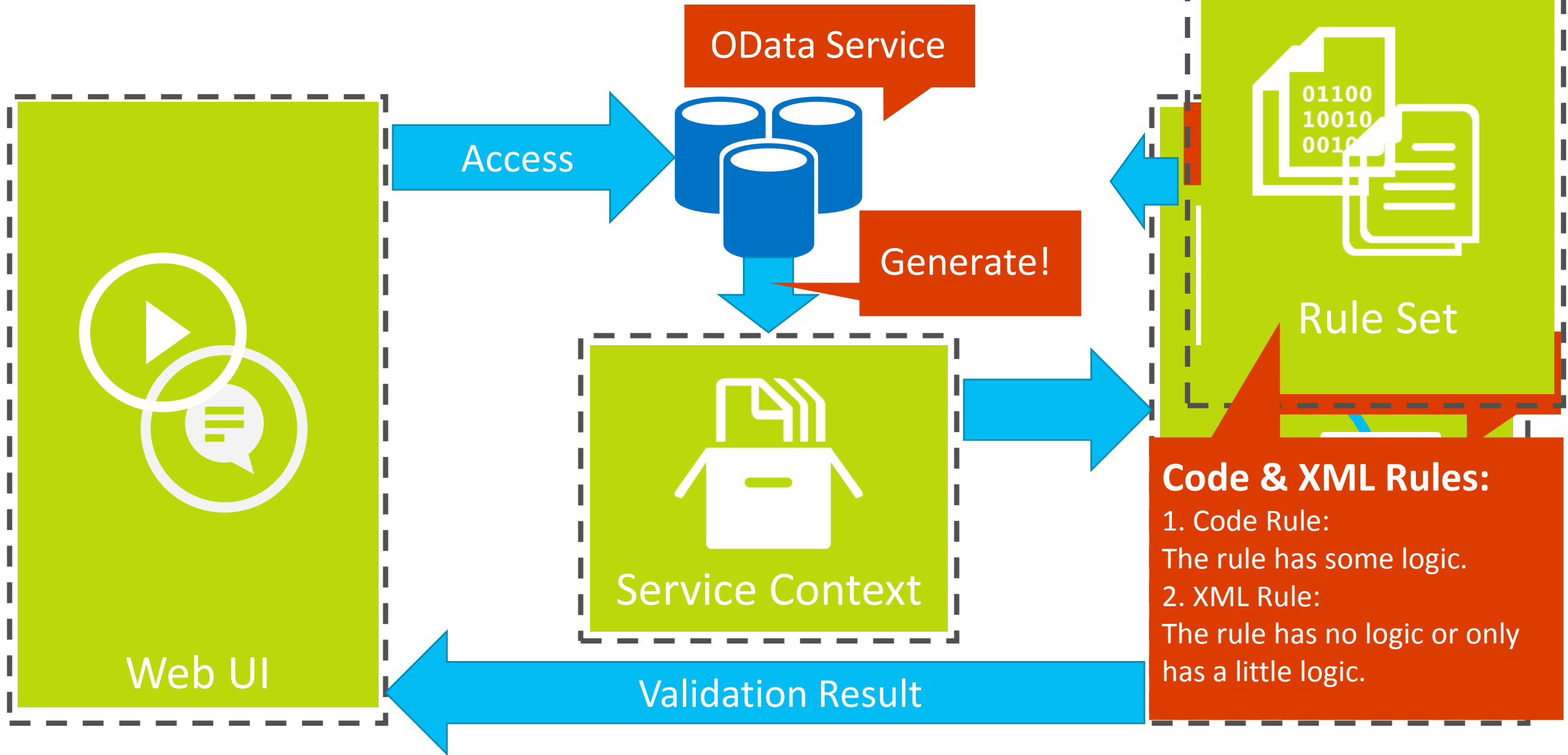
- ✓ HTTP, HTTPS
- ✓ Reach (devices and platforms)
- ✓ Metadata
- ✓ Formats (ATOM & JSON)
- ✓ Semantics (POST/DELETE/GET/PUT/PATCH)
- ✓ Uri Conventions
- ✓ Query Language
- ✓ Odata.org



Why use the OData Validator?

- A key part of the OData ecosystem
- Bases on OData protocol specs
- Supports multiple OData versions, payload formats, validation of resource endpoint types
- Serves as an online tool
- Has **five** optional validation approaches: By URI, By Direct Input, Conformance Level, Metadata Validation, Service Implementation

Architecture Design



DevDays Asia 2016

DEMO

Home | Validation | Roadmap | Feedback

OData Validation Tool v1.07

Reason 1.07 is released on 2015/8/31: Service implementation feature is completed to show the implementation for the V4

OData Validation Tool

The goal with this tool is to enable OData service authors ensure that their service interoperates well with any OData client. Consumers of the OData protocol can also benefit from this tool by testing OData service implementations that they are building an experience for to pinpoint potential issues.

[Getting Started!](#)

[Follow @odata](#) [Tweet #ODataValidationTool](#)

Run into the OData Validation Tool!

OData Service Validation Tool is a member of the Data, Languages, and Systems Interoperability Gallery in the [Outercurve Foundation](#) (see the [press release](#)).

The tool can currently validate the following types of OData endpoints:

- Service document (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/>)
- Metadata document (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/ServiceMetadata/>)
- A feed / collection (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/People/>)
- An Entry (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/People/Person/Person1/>)

To know more about how to use OData Validation Tool, please click [here](#).

GitHub | XOData | OData/RESTier

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

enter a url to an OData service endpoint [Validate](#)

AtomPub/XML JSON-Min JSON-Full

Crawling

OData v1.0 and v2.0 service endpoint

OData v3.0 service endpoint

OData v4.0 service endpoint

If your OData service needs authorization, please supply the user name and password after checking this checkbox.

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

Payload input: [选择文件](#) 未选择任何文件

Paste here or upload from file the response payload in atompub/xml or json format in full.

OData version of payload input: v1 v2 v3 v4 Minimal

Metadata type(For JSON light only): Minimal Full

Metadata document(optional) [选择文件](#) 未选择任何文件

Paste here or upload from file the metadata document content in XML format in full, if you have one.

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

Payload input: [选择文件](#) 未选择任何文件

Paste here or upload from file the response payload in atompub/xml or json format in full.

OData version of payload input: v1 v2 v3 v4 Don't Know

Metadata type(For JSON light only): Minimal Full

Metadata document(optional) [选择文件](#) 未选择任何文件

Paste here or upload from file the metadata document content in XML format in full, if you have one.

[Validate](#)

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

enter a url to an OData service endpoint [Validate](#)

Level: Minimal Intermediate Advanced

OData Service: Read-Write Read-Only

Note: Support conformance level validation for OData version 4.0 service with JSON format only!

If your OData service needs authorization, please supply the user name and password after checking this checkbox.

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

enter a url to an OData service endpoint [Validate](#)

If your OData service needs authorization, please supply the user name and password after checking this checkbox.

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

enter a url to an OData service endpoint [Validate](#)

If your OData service needs authorization, please supply the user name and password after checking this checkbox.

Open Data Protocol Service Validation Tool

By Uri | By Direct Input | Conformance Level | Metadata Validation | Service Implementation

enter a url to an OData service endpoint [Validate](#)

OData v1.0 and v2.0 service endpoint

OData v3.0 service endpoint

OData v4.0 service endpoint

If your OData service needs authorization, please supply the user name and password after checking this checkbox.

OData Validation Tool v1.07

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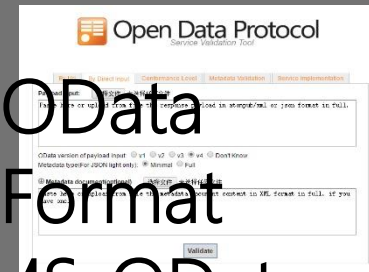
- Service document (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/>)
- Metadata document (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/ServiceMetadata/>)
- A feed / collection (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/People/>)
- An Entry (e.g. <http://services.odata.org/V4/TipPr/ServiceRW/People/Person/Person1/>)

GitHub

OData Validator's Feature: By URI



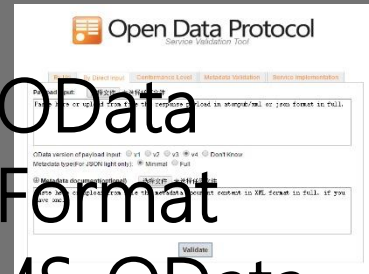
- ✓ Based on OASIS OData Atom and JSON Format Version 4.0 and MS-OData protocols.
- ✓ Supports all the OData versions (4.0, 3.0, 2.0 and 1.0) in this feature.
- ✓ Supports crawling mode.



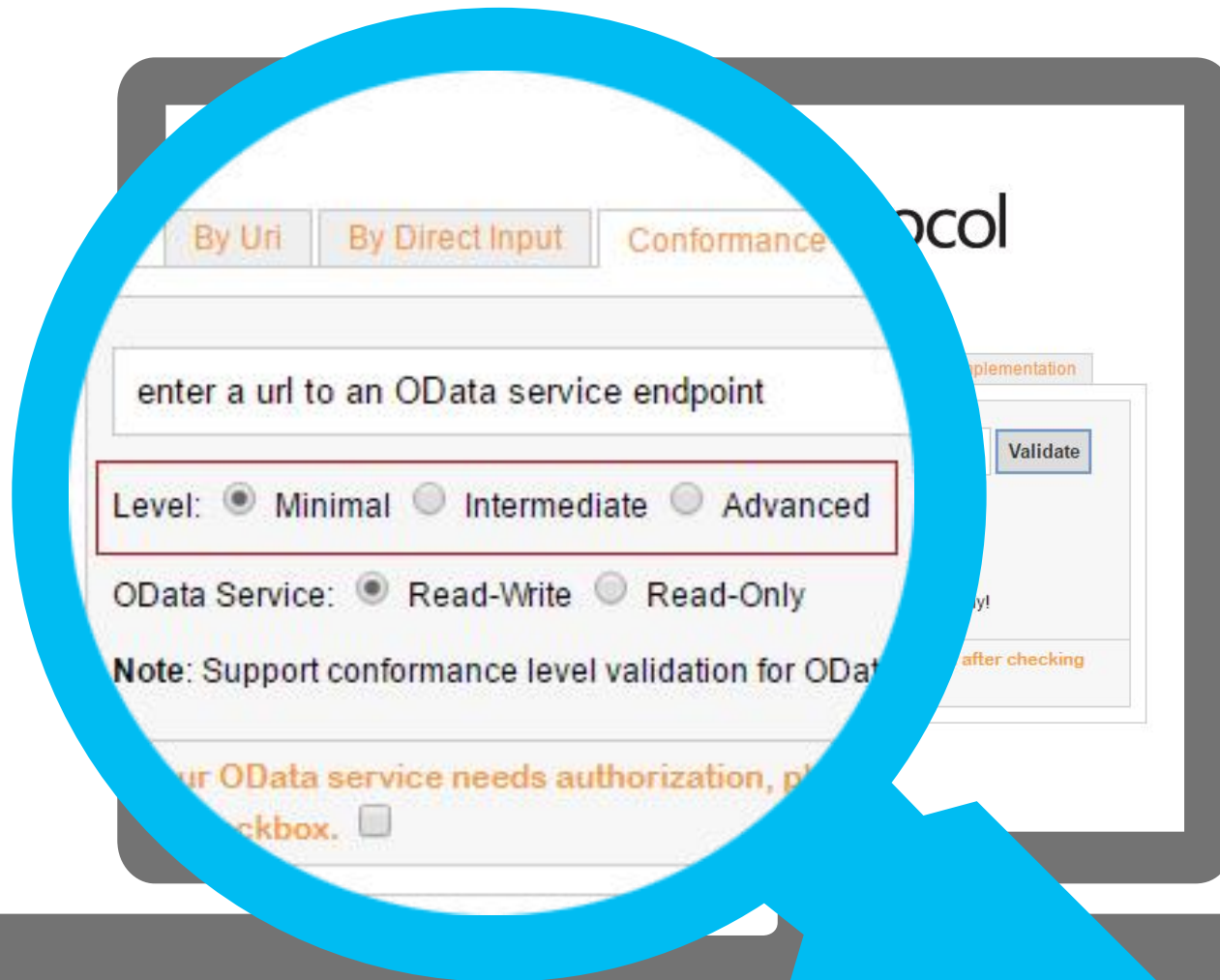
OData Validator's Feature: By Direct Input

The screenshot shows the 'By Direct Input' tab of the Open Data Protocol Service Validation Tool. It features a 'Payload input' section with a text area for pasting or uploading a response payload in atompub/xml or json format. Below this, there are radio buttons for 'OData version of payload input' (v1, v2, v3, v4, Don't Know) and 'Metadata type (For JSON light only)' (Minimal, Full). A 'Metadata document (optional)' section also has a text area for pasting or uploading XML content. A 'Validate' button is located at the bottom right of the form.

- ✓ Based on OASIS OData Atom and JSON Format Version 4.0 and MS-OData protocols.
- ✓ Supports all the OData versions (4.0, 3.0, 2.0 and 1.0) in this feature.
- ✓ Supports offline validation.
- 😞 Cannot verify header info



OData Validator's Feature: By Conformance Level



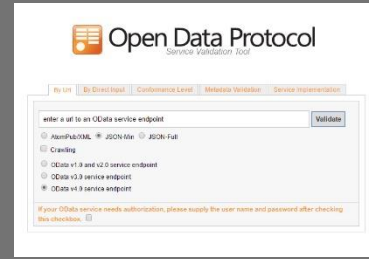
- ✓ Based on OASIS OData Version 4.0. Part 1: Protocol.
- ✓ Supports OData version 4.0 service only.



OData Validator's Feature: By Metadata Validation



- ✓ Based on the OASIS OData Version 4.0 Part 3: Common Schema Definition Language (CSDL).
- ✓ Supports all the OData versions (4.0, 3.0, 2.0 and 1.0) in this feature.



OData Validator's Feature: By Metadata Validation



- ✓ OASIS OData Version 4.0. Part 1: Protocol.
- ✓ Supports OData version 4.0 service only.



Summary: What can be verified?

By URI & By Direct Input

Verify all the interactive message with JSON format and Atom Format in your OData service.

OASIS OData Atom and JSON Format Version 4.0 and MS-OData protocols

Conformance Level

Evaluate the level of your OData service.
1. Minimal; 2. Intermediate; 3. Advanced

OASIS OData Version 4.0. Part 1: Protocol

Metadata Validation

Verify the metadata document of your OData service.

OASIS OData Version 4.0 Part 3: Common Schema Definition Language (CSDL)

Service Implementation

Verify system query options, data modification, batch ops, asynchronous ops, and so on in your OData service.

OASIS OData Version 4.0. Part 1: Protocol

Resources

- OData Validator
 - Home: <http://services.odata.org/validation/>
 - Github : <https://github.com/OData/ValidationTool/>
- OASIS OData TC
 - Home: https://www.oasis-open.org/committees/tc_home.php?wg_abbrev=odata
- OData V4 sample services
 - TripPin (read & write): <http://services.odata.org/V4/TripPinServiceRW>
- OData team of Microsoft
 - Mail to: odatafeedback@microsoft.com

Thank You!

Questions?