

Table of Contents

OData 3

OData

An open protocol which allows the creation and consumption of queryable and interoperable RESTful APIs

- <https://www.odata.org/>

What is OData?

OData (Open Data Protocol) is a web protocol for querying and updating data, **developed by Microsoft in 2007**. It is a standardized RESTful API that allows for the **creation and consumption of data APIs** that expose any data source as a service, such as databases, file systems, or web services. OData is designed to simplify the communication between different systems, making it easier to share and access data between disparate platforms.

OData is based on widely adopted web standards such as HTTP, Atom Publishing Protocol (AtomPub), and JSON. It provides a uniform way to expose, consume, and manipulate data using a standard set of query and filter options, and supports both XML and JSON data formats.

OData enables developers to create data APIs that are easily discoverable and accessible by standard web clients and popular programming languages. It also provides features like paging, sorting, filtering, and batching to help manage large datasets efficiently.

OData is widely used in web and mobile applications, as well as in enterprise systems to enable secure, standardized, and flexible data access. It has been adopted by several companies and organizations, including Microsoft, SAP, IBM, and Salesforce, and has become a popular choice for building scalable and interoperable data APIs.

Benefits of OData

Standardization	OData is a standardized protocol that is supported by many platforms, programming languages, and tools. This means that developers can use OData to create data APIs that are easily discoverable and accessible by standard web clients.
Flexibility	OData provides a flexible way to expose, consume, and manipulate data using a standard set of query and filter options. This allows developers to create data APIs that support a wide range of scenarios, from simple queries to complex data manipulations.
Scalability	OData supports features like paging, sorting, filtering, and batching to help manage large datasets efficiently. This makes it easier to build data APIs that can handle large amounts of data and provide high-performance access to that data.
Security	OData supports standard authentication and authorization mechanisms, such as OAuth and OpenID Connect. This means that developers can build secure data APIs that require authentication and authorization to access data.
Interoperability	OData can be used to access a wide range of data sources, including databases, file systems, and web services. This makes it easier to build data APIs that can be used by a variety of systems and platforms.

Cost-effectiveness	OData can help reduce development costs by providing a standardized way to expose data as a service. This means that developers can create data APIs more quickly and with fewer resources than if they were building a custom solution.
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Snippet from [Wikipedia](#): [Open Data Protocol](#)

In computing, **Open Data Protocol (OData)** is an open protocol that allows the creation and consumption of queryable and interoperable Web service APIs in a standard way. Microsoft initiated OData in 2007. Versions 1.0, 2.0, and 3.0 are released under the Microsoft Open Specification Promise. Version 4.0 was standardized at OASIS, with a release in March 2014. In April 2015 OASIS submitted OData v4 and OData JSON Format v4 to ISO/IEC JTC 1 for approval as an international standard. In December 2016, ISO/IEC published OData 4.0 Core as ISO/IEC 20802-1:2016 and the OData JSON Format as ISO/IEC 20802-2:2016.

The protocol enables the creation and consumption of HTTP-based Web APIs, which allow Web clients to publish and edit resources, identified using URLs and defined in a data model, using simple HTTP messages. OData shares some similarities with JDBC and with ODBC; like ODBC, OData is not limited to relational databases.

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