

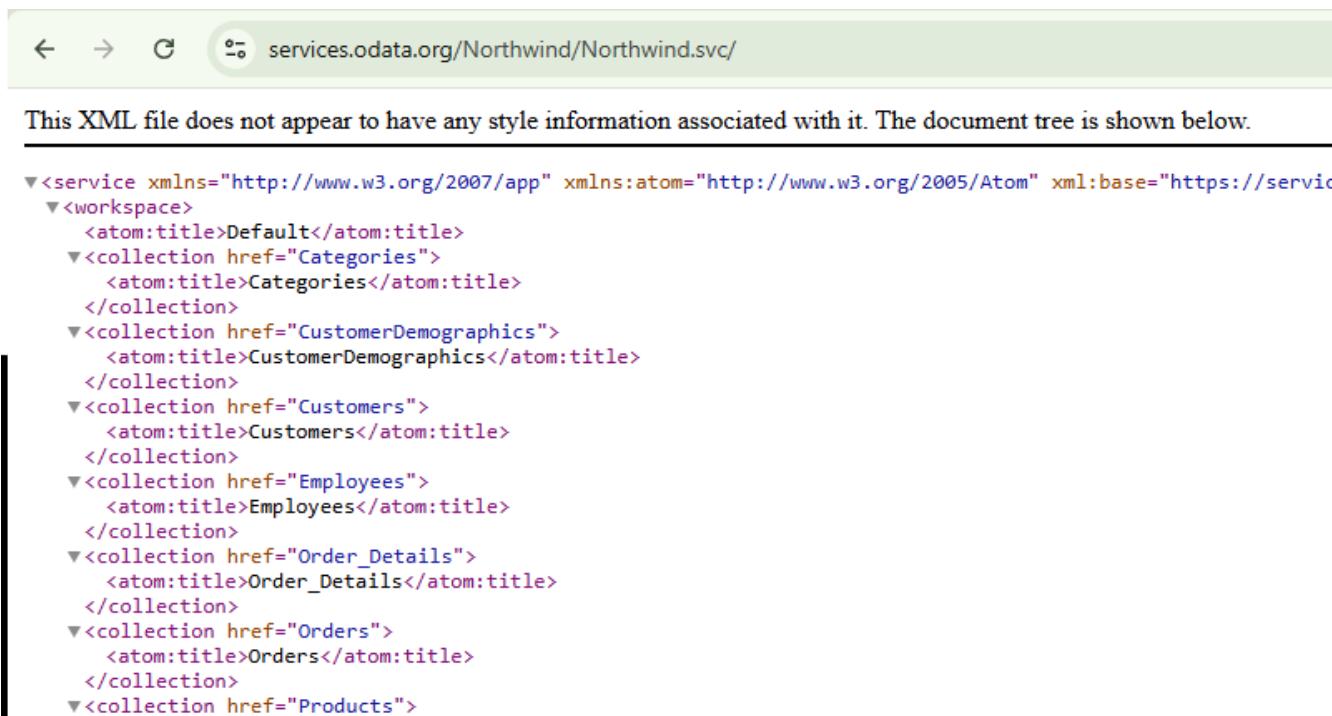
¿Qué es OData?

OData (Open Data Protocol) es un estándar desarrollado por Microsoft que permite la creación y consumo de APIs RESTful de manera uniforme. Facilita el acceso a datos mediante operaciones estándar como **CRUD** (Create, Read, Update, Delete) usando **HTTP** y formatos como **JSON** o **XML**. Se basa en principios como la URL parametrizable para consultas (filtrado, ordenación, paginación) y la interoperabilidad entre sistemas.

En SAP, **OData es clave para SAP Fiori y SAPUI5**, ya que permite la comunicación entre el frontend y el backend SAP a través de servicios expuestos desde SAP Gateway.

Revisión OData Northwind

<https://services.odata.org/Northwind/Northwind.svc/>



This screenshot shows a browser window displaying the OData service metadata for the Northwind database. The address bar shows the URL: services.odata.org/Northwind/Northwind.svc/. The page content is an XML document with the following text:

```
<service xmlns="http://www.w3.org/2007/app" xmlns:atom="http://www.w3.org/2005/Atom" xml:base="https://services.odata.org/Northwind/Northwind.svc/">
  <workspace>
    <atom:title>Default</atom:title>
    <collection href="Categories">
      <atom:title>Categories</atom:title>
    </collection>
    <collection href="CustomerDemographics">
      <atom:title>CustomerDemographics</atom:title>
    </collection>
    <collection href="Customers">
      <atom:title>Customers</atom:title>
    </collection>
    <collection href="Employees">
      <atom:title>Employees</atom:title>
    </collection>
    <collection href="Order_Details">
      <atom:title>Order_Details</atom:title>
    </collection>
    <collection href="Orders">
      <atom:title>Orders</atom:title>
    </collection>
    <collection href="Products">
```

Metadata:

[https://services.odata.org/northwind/northwind.svc/\\$metadata](https://services.odata.org/northwind/northwind.svc/$metadata)



The screenshot shows a browser window with the URL `services.odata.org/Northwind/Northwind.svc/$metadata`. The page displays the XML structure of the OData metadata for the `Customer` entity type. The XML includes details about the primary key (`CustomerID`), various properties like `CompanyName`, `ContactName`, and `Address`, and navigation properties for `Orders` and `CustomerDemographics`.

```

<EntityType Name="Customer">
  <Key>
    <PropertyRef Name="CustomerID"/>
  </Key>
  <Property Name="CustomerID" Type="Edm.String" Nullable="false" MaxLength="5" FixedLength="true" Unicode="true"/>
  <Property Name="CompanyName" Type="Edm.String" Nullable="false" MaxLength="40" FixedLength="false" Unicode="true"/>
  <Property Name="ContactName" Type="Edm.String" MaxLength="30" FixedLength="false" Unicode="true"/>
  <Property Name="ContactTitle" Type="Edm.String" MaxLength="30" FixedLength="false" Unicode="true"/>
  <Property Name="Address" Type="Edm.String" MaxLength="60" FixedLength="false" Unicode="true"/>
  <Property Name="City" Type="Edm.String" MaxLength="15" FixedLength="false" Unicode="true"/>
  <Property Name="Region" Type="Edm.String" MaxLength="15" FixedLength="false" Unicode="true"/>
  <Property Name="PostalCode" Type="Edm.String" MaxLength="10" FixedLength="false" Unicode="true"/>
  <Property Name="Country" Type="Edm.String" MaxLength="15" FixedLength="false" Unicode="true"/>
  <Property Name="Phone" Type="Edm.String" MaxLength="24" FixedLength="false" Unicode="true"/>
  <Property Name="Fax" Type="Edm.String" MaxLength="24" FixedLength="false" Unicode="true"/>
  <NavigationProperty Name="Orders" Relationship="NorthwindModel.FK_Orders_Customers" ToRole="Orders" FromRole="Customers"/>
  <NavigationProperty Name="CustomerDemographics" Relationship="NorthwindModel.CustomerCustomerDemo" ToRole="CustomerDemographics" FromRole="Customers"/>
</EntityType>

```

Obtenemos los datos de la entidad Customer:

Customer Entity Type		
🔍	CustomerID	String(5)
Ab	CompanyName	String(40)
Ab	ContactName	String(30)
Ab	ContactTitle	String(30)
Ab	Address	String(60)
Ab	City	String(15)
Ab	Region	String(15)
Ab	PostalCode	String(10)
Ab	Country	String(15)
Ab	Phone	String(24)
Ab	Fax	String(24)
🔗	Orders	many Order
🔗	CustomerDemographics	many CustomerDemographic

[https://services.odata.org/Northwind/Northwind.svc/Customers?\\$format=json](https://services.odata.org/Northwind/Northwind.svc/Customers?$format=json)

[JSON Formatter Chrome](#)

```
← → ⌂ services.odata.org/Northwind/Northwind.svc/Customers?$format=json

1 // 20250219075534
2 // https://services.odata.org/Northwind/Northwind.svc/Customers?$format=json
3
4 {
5     "odata.metadata": "https://services.odata.org/Northwind/Northwind.svc/$metadata#Customers",
6     "value": [
7         {
8             "CustomerID": "ALFKI",
9             "CompanyName": "Alfreds Futterkiste",
10            "ContactName": "Maria Anders",
11            "ContactTitle": "Sales Representative",
12            "Address": "Obere Str. 57",
13            "City": "Berlin",
14            "Region": null,
15            "PostalCode": "12209",
16            "Country": "Germany",
17            "Phone": "030-0074321",
18            "Fax": "030-0076545"
19        },
20        {
21            "CustomerID": "ANATR",
22            "CompanyName": "Ana Trujillo Emparedados y helados",
23            "ContactName": "Ana Trujillo",
24            "ContactTitle": "Owner",
25            "Address": "Avda. de la Constitución 2222",
26            "City": "México D.F.",
27            "Region": null,
28            "PostalCode": "05021",
29            "Country": "Mexico",
30            "Phone": "(5) 555-4729",
31            "Fax": "(5) 555-3745"
32        }
    ],
    "total": 2
}
```

[https://services.odata.org/Northwind/Northwind.svc/Customers\('ALFKI'\)?format=json](https://services.odata.org/Northwind/Northwind.svc/Customers('ALFKI')?format=json)

servicesodata.org/Northwind/Northwind.svc/Customers('ALFKI')?format=json

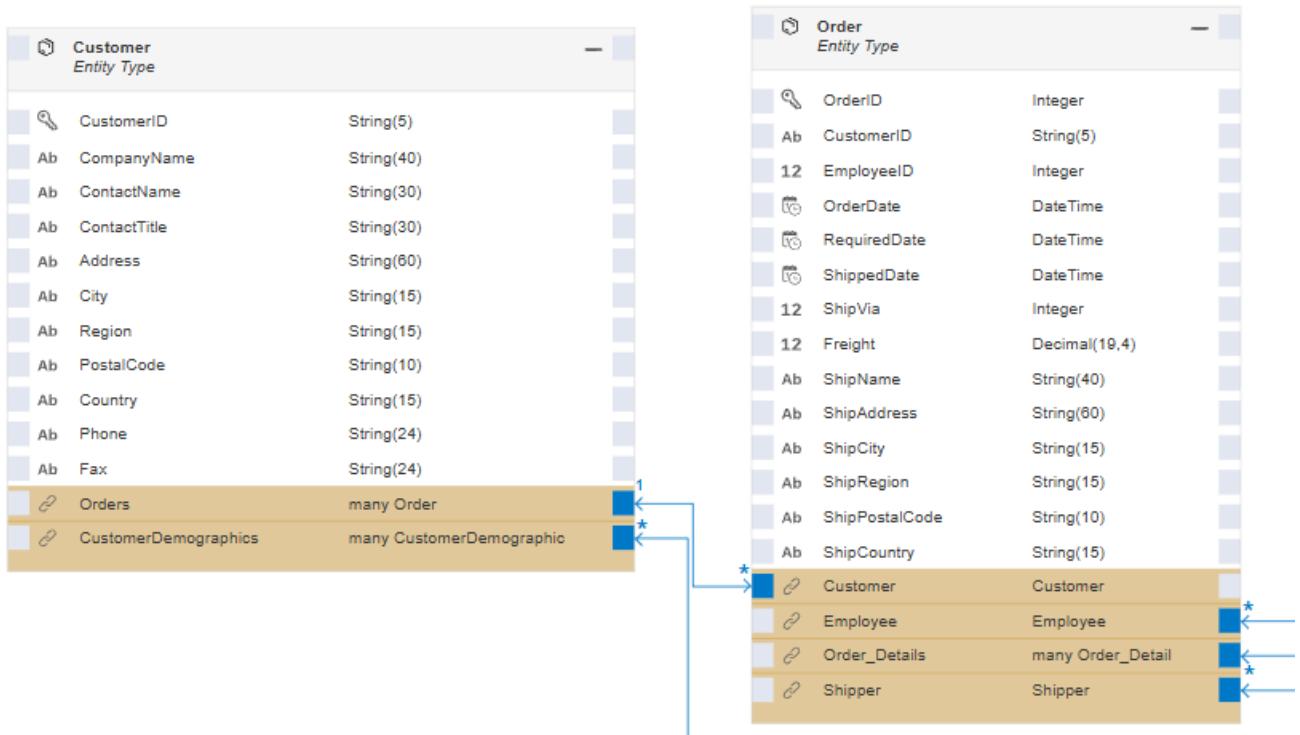
```

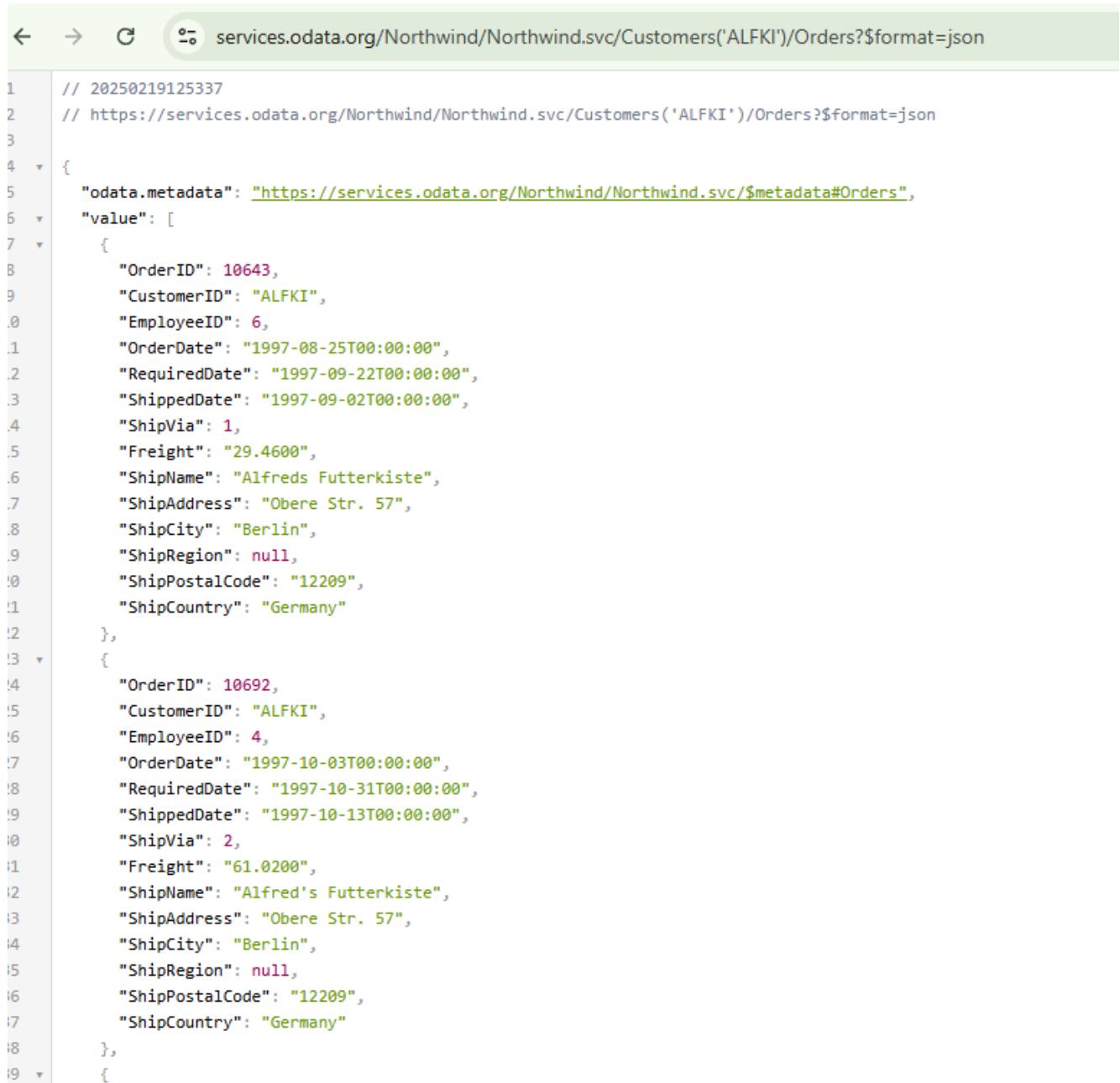
1 // 20250219075656
2 // https://servicesodata.org/Northwind/Northwind.svc/Customers('ALFKI')?format=json
3
4 {
5     "odata.metadata": "https://servicesodata.org/Northwind/Northwind.svc/$metadata#Customers/@Element",
6     "CustomerID": "ALFKI",
7     "CompanyName": "Alfreds Futterkiste",
8     "ContactName": "Maria Anders",
9     "ContactTitle": "Sales Representative",
10    "Address": "Obere Str. 57",
11    "City": "Berlin",
12    "Region": null,
13    "PostalCode": "12209",
14    "Country": "Germany",
15    "Phone": "030-0074321",
16    "Fax": "030-0076545"
17 }

```

Obtener pedidos del cliente ALFKI

[https://servicesodata.org/Northwind/Northwind.svc/Customers\('ALFKI'\)/Orders?format=json](https://servicesodata.org/Northwind/Northwind.svc/Customers('ALFKI')/Orders?format=json)





The screenshot shows a browser window with the URL [services.odata.org/Northwind/Northwind.svc/Customers\('ALFKI'\)/Orders?\\$format=json](https://services.odata.org/Northwind/Northwind.svc/Customers('ALFKI')/Orders?$format=json). The page displays a JSON array of two order objects for customer 'ALFKI'. Each order includes details like OrderID, CustomerID, EmployeeID, OrderDate, RequiredDate, ShippedDate, ShipVia, Freight, ShipName, ShipAddress, ShipCity, ShipRegion, ShipPostalCode, and ShipCountry.

```

1 // 20250219125337
2 // https://services.odata.org/Northwind/Northwind.svc/Customers('ALFKI')/Orders?$format=json
3
4 [
5   {
6     "odata.metadata": "https://services.odata.org/Northwind/Northwind.svc/\$metadata#Orders",
7     "value": [
8       {
9         "OrderID": 10643,
10        "CustomerID": "ALFKI",
11        "EmployeeID": 6,
12        "OrderDate": "1997-08-25T00:00:00",
13        "RequiredDate": "1997-09-22T00:00:00",
14        "ShippedDate": "1997-09-02T00:00:00",
15        "ShipVia": 1,
16        "Freight": "29.4600",
17        "ShipName": "Alfreds Futterkiste",
18        "ShipAddress": "Obere Str. 57",
19        "ShipCity": "Berlin",
20        "ShipRegion": null,
21        "ShipPostalCode": "12209",
22        "ShipCountry": "Germany"
23      },
24      {
25        "OrderID": 10692,
26        "CustomerID": "ALFKI",
27        "EmployeeID": 4,
28        "OrderDate": "1997-10-03T00:00:00",
29        "RequiredDate": "1997-10-31T00:00:00",
30        "ShippedDate": "1997-10-13T00:00:00",
31        "ShipVia": 2,
32        "Freight": "61.0200",
33        "ShipName": "Alfred's Futterkiste",
34        "ShipAddress": "Obere Str. 57",
35        "ShipCity": "Berlin",
36        "ShipRegion": null,
37        "ShipPostalCode": "12209",
38        "ShipCountry": "Germany"
39      }
40    ]
41  ]
42 ]
43 ]
44 ]
45 ]
46 ]
47 ]
48 ]
49 ]

```

[https://services.odata.org/Northwind/Northwind.svc/Customers?\\$filter=PostalCode eq '12209'](https://services.odata.org/Northwind/Northwind.svc/Customers?$filter=PostalCode eq '12209')
[https://services.odata.org/Northwind/Northwind.svc/Customers?\\$select=CustomerID,CompanyName](https://services.odata.org/Northwind/Northwind.svc/Customers?$select=CustomerID,CompanyName)

Crear Destination en SAP BTP Cockpit

Adicional a los parámetros del tutorial anterior se debe agregar el parámetro **WebIDEUsage** para visualizar el destination desde el BAS

Propiedad	Valor
HTML5.DynamicDestination	true
WebIDEEnabled	true
WebIDEUsage	odata_gen

The screenshot shows the SAP BTP Cockpit interface. On the left, there is a navigation sidebar with sections like Overview, Services, Cloud Foundry, HTML5 Applications, Connectivity, Security, and Settings. Under HTML5 Applications > Connectivity > Destinations, the 'Destinations' tab is selected. In the main content area, a destination named 'Northwind' is listed. The 'Basic Properties' table shows the type as 'HTTP', name as 'Northwind', authentication as 'NoAuthentication', and proxy type as 'Internet'. Below this, a modal window titled 'Check Connection' displays a green checkmark and the message 'Connection to "Northwind" established. Response returned: "200: OK"'. At the bottom, there is an 'Additional Properties' section with three entries: 'HTML5.Dynam...' (true), 'WebIDEEnabled' (true), and 'WebIDEUsage' (odata_gen). A checkbox for 'Use default JDK truststore' is also present.