RESTFUL APIS

PART 1 / 2

DEVELOPMENT & EXTENSIBILITY

IFS CLOUD – 21R1

AGENDA

1

IFS REST APIS

2

API CLASS AND USAGE

3

API EXPLORER

4

API DOCUMENTATION

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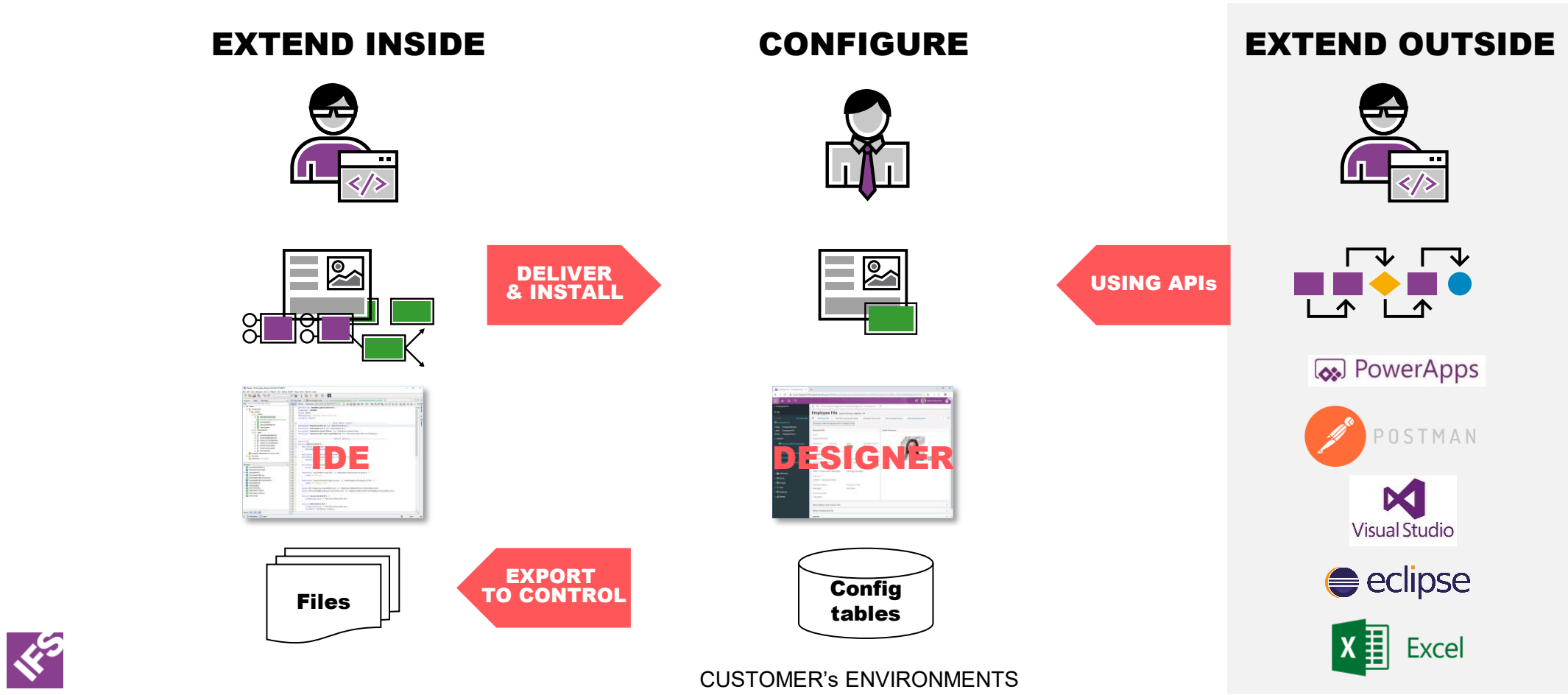
TAILOR AND EXTEND CUSTOMER SOLUTION

CONCEPTS AND TERMINOLOGY



RESTFUL APIS

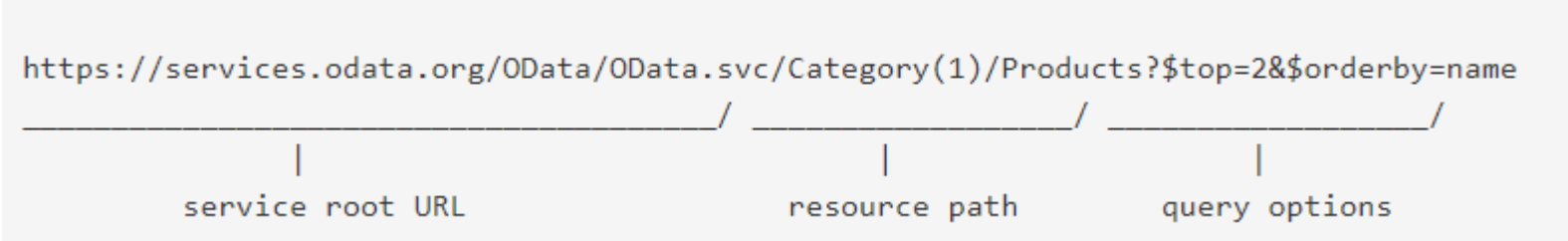
THE MODERN API FOR THE WEB

- **RE**presentational **S**tate **T**ransfer is an *architectural style* for building applications on the web
- Data and functionality are considered resources and are accessed using **Uniform Resource Identifiers (URIs)**
- Resources are manipulated using standard HTTP verbs
  - GET, POST, PUT, PATCH, DELETE
- Simple, Lightweight, Scalable

STANDARDIZING REST APIS

THE ODATA STANDARD

- OData (Open Data Protocol) is a standard approved by OASIS
- Helps focus on business logic while building RESTful APIs
- Provides specific guidance on:
  - URL conventions
  - HTTP methods
  - HTTP headers
  - Status codes
  - Payload formats
  - Query options



OPENAPI SPECIFICATION

IFS IMPLEMENTATION

- “The **OpenAPI Specification (OAS)** defines a standard, language-agnostic interface to RESTful APIs which allows both humans and computers to discover and understand the capabilities of the service without access to source code, documentation, or through network traffic inspection.”

- IFS API documentation is available through **$openapi** which outputs the documentation according to the **OpenAPI standards (OAS)** in JSON format.

- End point for OpenAPI
  https://<Server>:<port>/int/ifsapplications/projection/v1/<name>.svc/$openapi


IFS provides application wide REST APIs
based on the OData protocol which are
described using the OpenAPI specification

IFS REST APIS

BASED ON OPEN STANDARDS

- High level of interoperability with other systems
- Availability of many open-source tools and libraries (esp. based on OpenAPI)
- All functionality available in the Aurena client is also available via APIs
- Enables other “clients” access to the same functionality

PowerApps boomi Excel OData OPENAPI INITIATIVE

100% Coverage on IFS Cloud with RESTful APIs

RESTFUL APIS

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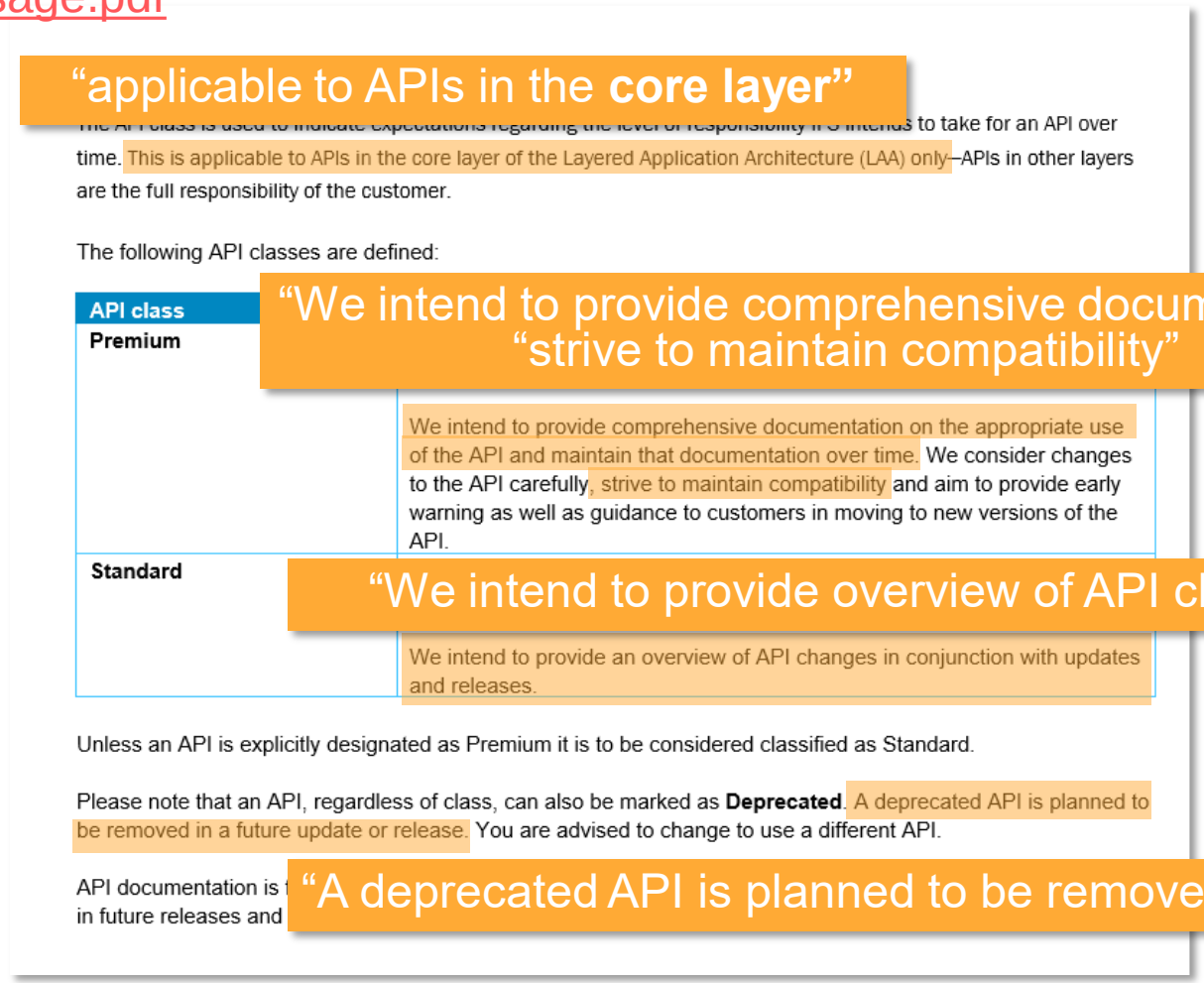
IFS REST APIS

API USAGE POLICY

https://docs.ifs.com/policy/APIUsage.pdf

- Two API Classes:
  - Premium
  - Standard



"applicable to APIs in the **core layer**"

…to take for an API over time. This is applicable to APIs in the core layer of the Layered Application Architecture (LAA) only–APIs in other layers are the full responsibility of the customer.

The following API classes are defined:

API class	
Premium	We intend to provide comprehensive documentation on the appropriate use of the API and maintain that documentation over time. We consider changes to the API carefully, strive to maintain compatibility and aim to provide early warning as well as guidance to customers in moving to new versions of the API.
Standard	We intend to provide an overview of API changes in conjunction with updates and releases.

"We intend to provide comprehensive documentation"
"strive to maintain compatibility"

"We intend to provide overview of API changes"

Unless an API is explicitly designated as Premium it is to be considered classified as Standard.

Please note that an API, regardless of class, can also be marked as **Deprecated**. A deprecated API is planned to be removed in a future update or release. You are advised to change to use a different API.

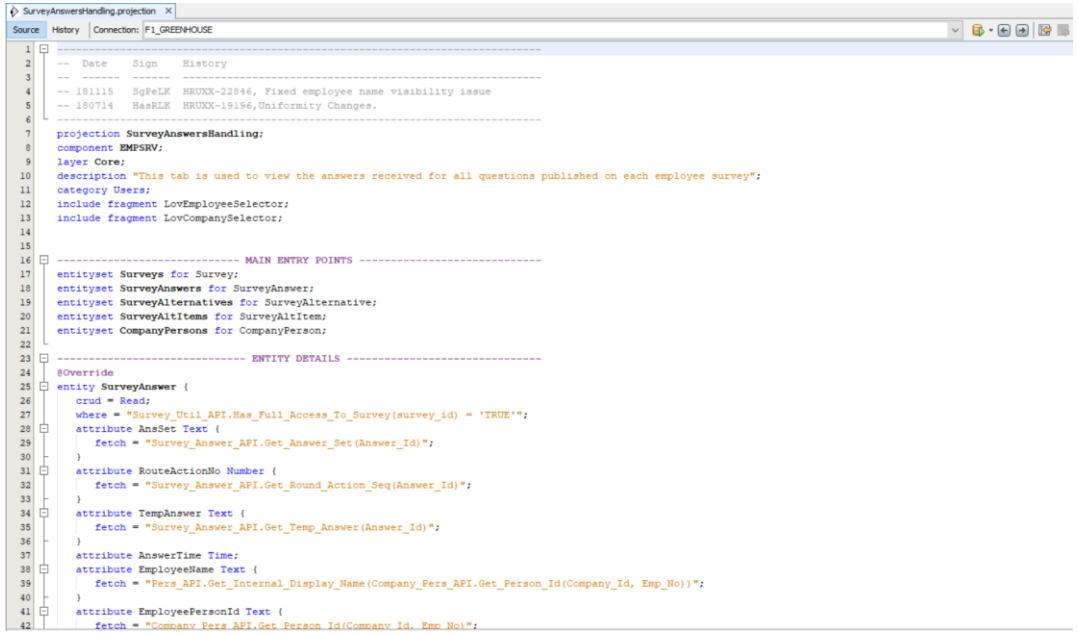
API documentation is t… in future releases and …

"A deprecated API is planned to be removed in a future update"

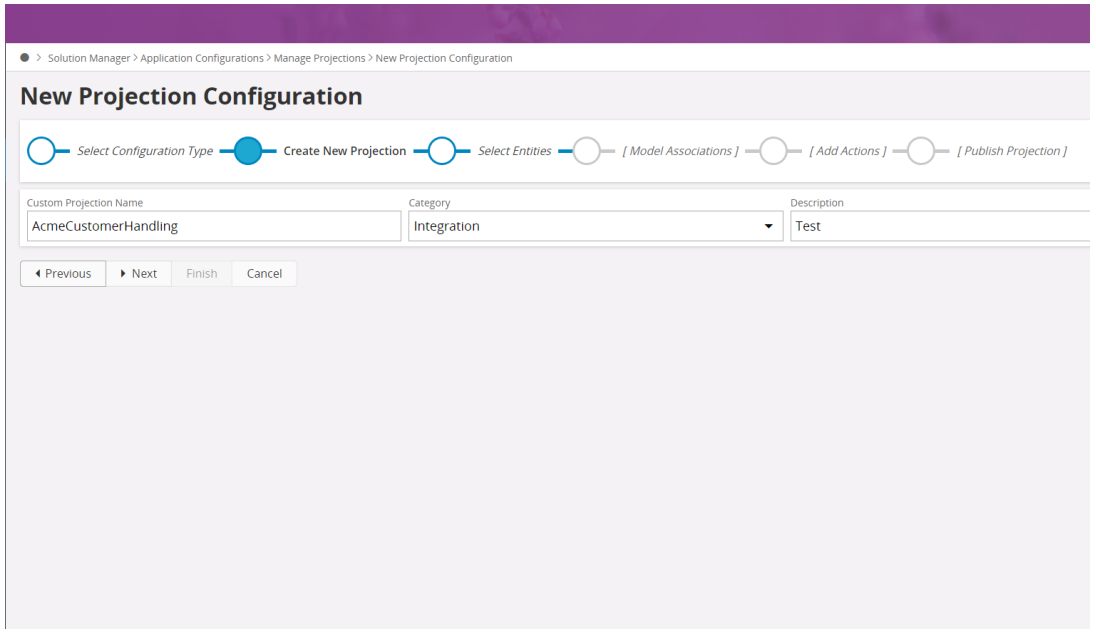
IFS REST APIS

CREATING APIS

1. PROJECTION MODEL (MARBLE)



2. PROJECTION CONFIGURATION



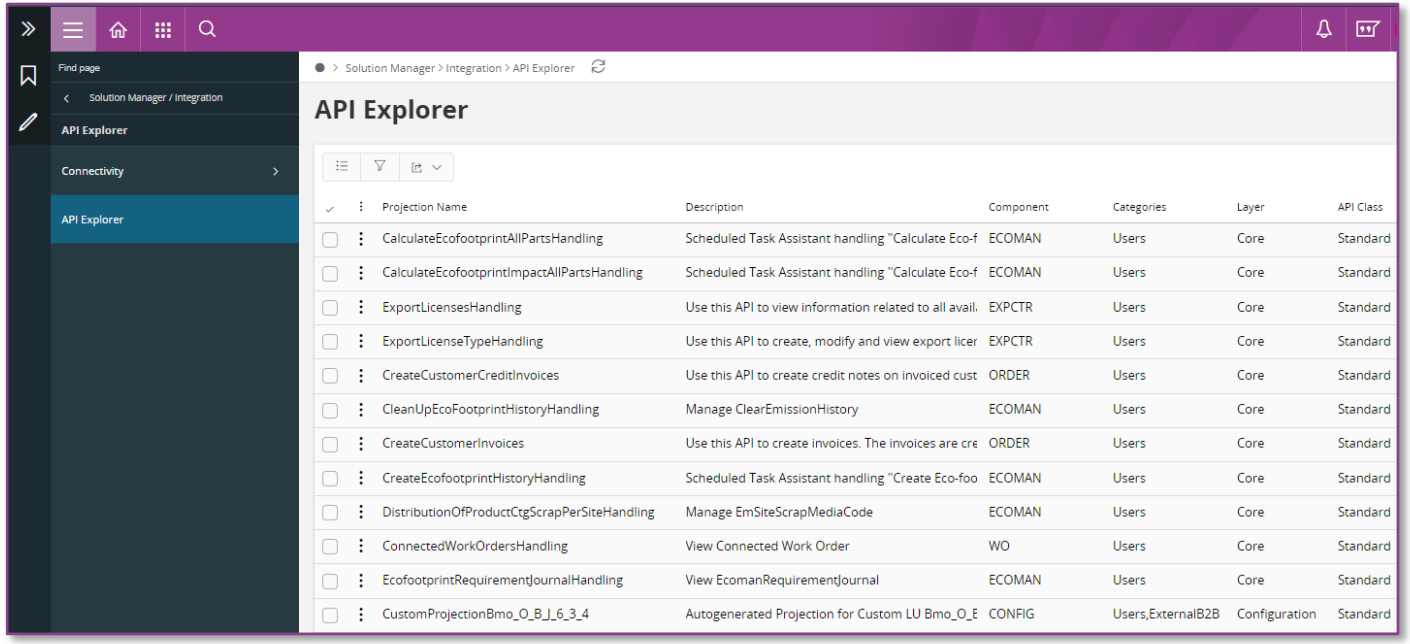
Standard

Configuration

DISCOVERING IFS REST APIS

API EXPLORER

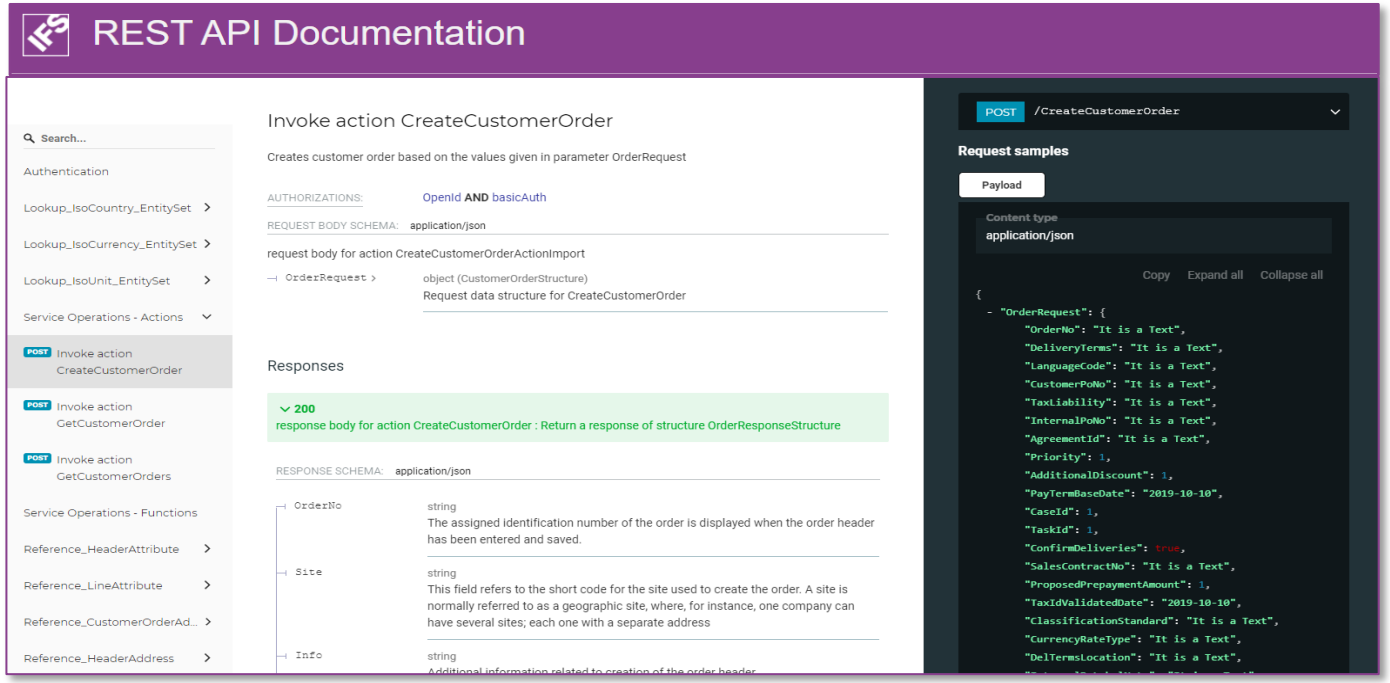
- Helps find APIs in the system
- Easy access to following specifications
  - OpenAPI V2, V3 specs
  - OData service document.
- API Documentation for detailed information on each API content, specially IFS Premium APIs.



API DOCUMENTATION

DETAILED API END POINTS

- Invoke API Documentation for any API found in API Explorer
- API Documentation provides more user-friendly interface to explore end points in each API
- Documentation is based on openAPI specification of the given API.




DEMO
API EXPLORER/API DOCUMENTATION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