Smart Dose
Interface Description

Preliminary Draft
Under Development

Internal Documentation
BD - Rowa Technologies
Development Department
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Version History

Date	Version	Description	Person
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07/20/2015	0.4	Medicine Interface	Markus Koch
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2017-02-07	0.13	Errors fixed: - wrong name of object, "Person" instead of "ContactPerson" - Different spelling of Manufacturer in URL	Markus Koch
2017-03-21	0.14	Wrong Table under manufacturer deleted	Markus Koch
2017-03-27	0.15	Added "PrescribedMedicine" in Order/ MedicationDetail Added "Report" Interface	Markus Koch

Contents

Introduction

For the external communication of the Smart Dose system, we need to implement a common interface that is not platform specific and can be used easily by third party vendors.
For this we decided to implement a REST interface for the different information needs. The data entities moved through the system are in JSON format to be compatible with web standards.

Interface Description

Master Data Management

Formulary Management

Structure of one Medicine that can be send over the rest interface

Data Type				Description
Medicine				Medicine used in the rest interface
Element	M/O	Legacy System	Data Type	Description
Identifier	M	X	string	The unique identifier for the medicine in the system, e.g. pouch orders
Name	M	X	string	Name of the medicine
Description	M		string	Description of the medicine
Comment	O	X	string	Free text field for user comments
Active	M	X	boolean	Field that tells if the medication is active and usable, possible values "true" or "false"
SynonymIds	O		list	List of ids identifying the medicine
PrintDetails	M	X (max 1)	list	List of print details for the medicine that are printed on the pouch, currently one supported
Pictures	O	X (max 2)	list	List of pictures showing the pills, currently two supported
SpecialHandling	M	X	object	Special handling instructions for the medication

Example of one Medicine:

```
{
    "Identifier": "90603015",
    "Name": "IBU RATIOPHARM 400 mg akut",
    "Description": "IBU RATIOPHARM 400 mg akut Schmerztbl. Filmtabl.",
    "Comment": "For light pain and fever",
    "Active": true,
    "SynonymIds": [
        {
            ...
        }
    ],
    "PrintDetails": [
        {
            ...
        }
    ],
    "Pictures": [
        {
            ...
```

```
        }
    ],
    "SpecialHandling": {
        ...
    }
}
```

Details of SynonymId

Data Type				Description
SynonymId				An original vendor provided identifier of a medicine
Element	M/O	Legacy System	Data Type	Description
Identifier	M		string	The identifier, e.g. barcode printed on original containment
Price	O		number	The price for the content
Content	O		int	The content in a full containment
Description	O		string	The description for this identifier

Example of SynonymIds:

```
{
    "SynonymIds": [
        {
            "Identifier": "00266011",
            "Price": 1.01,
            "Content": 10,
            "Description": "Package size 10 - N1 German Package"
        },
        {
            "Identifier": "00266040",
            "Price": 1.29,
            "Content": 20,
            "Description": "Package size 20 - N2 German Package"
        },
        {
            "Identifier": "10019621",
            "Price": 3.09,
            "Content": 50,
            "Description": "Package size 20 - N3 German Package"
        }
    ]
}
```

Details of PrintDetail

Data Type				Description
PrintDetail				Array of print details for the medicine that are printed on the pouch, currently one supported
Element	M/O	Legacy System	Data Type	Description

Name	M		string	The name	
IntakeAdvice	M	X	string	The intake advice	
Description	O		string	Description of the print detail	
Comment	O		string	Free text field for user comments	
Color	M		string	Color of the medicine	
FormType	M	X	string	Form type of the medicine	
PillType	M	X	string	Pill type of the medicine	
GenericName	M	X	string	Generic name of the medicine	
AdditionalAdvice	O		string	Additional advice	
MedicationClass	M		string	Medication class	

Example of one PrintDetail:

```
{
    "PrintDetails": [
        {
            "Name": "IBU RATIOPHARM 400 mg",
            "IntakeAdvice": "Take with water during or after meal",
            "Description": "",
            "Comment": "",
            "Color": "white",
            "FormType": "round",
            "PillType": "film-coated tablet",
            "GenericName": "IBUPROFEN 400mg TABLETS",
            "AdditionalAdvice": "",
            "MedicationClass": "Analgesics"
        }
    ]
}
```

Details of Pictures

Data Type				Description
Picture				One pictures of the medicine to show in the ui
Element	M/O	Legacy System	Data Type	Description
Description	O	X	string	The picture description
Picture	O	X	string	Base64 encoded picture

Example of Pictures:

```
{
    "Pictures": [
        {
            "Description": "Side A",
            "Picture": "iVBORw0KGgoAAAANSUhEUgAAAnEAAALQAQMAAADFA7QwAAAABGdBTUEA…"
        },
        {
            "Description": "Side B",
            "Picture": "iVBORw0KGgoAAAANSUhEUgAAAnEAAALQAQMAAADFA7QwAAAABGdBTUEA…"
        }
    ]
```

}

Details of SpecialHandling

Data Type				
SpecialHandling				Attributes for handling the medicine
Element	M/O	Legacy System	Data Type	Description
Narcotic	O	X	boolean	If the medicine is a narcotic
SeparatePouch	O	X	boolean	If the medicine has to go in a separate pouch when dispensed
RoboticHandling	O		Boolean	If the medicine can be handled by a robotic storage system
NeedsCooling	O		Boolean	If the med has to be stored in a fridge
Splittable	O	X	Boolean	If the med can be broken in parts.
MaxAmountPerPouch	O	X	integer	Maximum amount per Pouch (0=no limit)

Example of SpecialHandling

```
{
    "SpecialHandling": {
        "Narcotic": false,
        "SeparatePouch": false,
        "RoboticHandling": false,
        "NeedsCooling": false,
        "Splittable": false,
        "MaxAmountPerPouch": 5
    }
}
```

Create Medicine

URL: http://{ServerAddress}/SmartDose/Medicines/

Connection Verb: HTTP POST

Creates the Medicine in the Smart Dose System

The result will be of type "OperationResult"

Retrieve Medicine

URL: http://{ServerAddress }/SmartDose/Medicines/{MedId}

Connection Verb: HTTP GET

Gets the detailed Information for the medicine with the "Identifier" equal to "MedId"

Retrieve all Medicines

URL: http:// { ServerAddress }/SmartDose/Medicines/
Connection Verb: HTTP GET

Gets all medicines from the Smart Dose System

Update existing Medicine

URL: http:// { ServerAddress }/SmartDose/Medicines/{MedId}

Connection Verb: HTTP PUT

Updates the medicine and given attributes for given MedId.

The result will be of type "OperationResult"

Delete existing Medicine

URL: http:// { ServerAddress }/SmartDose/Medicines/

Connection Verb: HTTP DELETE

Deletes the medicine from the SmartDose System.

The result will be of type "OperationResult"

Canister Management

Data Type				Description
Canister				
Element	M/O	Legacy System	Data Type	Description
CanisterId	M	X	string	The identifier for the canister, e.g. a barcode
RfId	M	X	string	The RfId of the canister
Largecanister	O	X	boolean	"True" for large canisters
RotorId	M	X	string	The RotorId of the canister Format: xxxxxxx-xxxxx-xxxxx

Example of a Canister:

```
{
    "CanisterId": "20124",
    "RfId": "83CBD88A",
    "Largecanister": false,
    "RotorId": "108121-00800-0014"
}
```

Data Type				Description
CanisterStatus				
Element	M/O	Legacy System	Data Type	Description
CanisterId		X	string	The identifier for the canister, e.g. a barcode
MedicineId		X	string	Identifier of the medicine
Charge		X	String	Current charge of the pills
AmountLeft		X	Integer	Amount of pills left
LastRefill		X	string	Datetime of last Refill
Position		X	String	Describes the current position of the canister
Active		X	Boolean	True for active, false for inactive canister

Example of a CanisterStatus:

```
{
    "Identifier": "20124",
    "MedicineId": "20124",
    "Charge": "ABC3EF"
    "AmountLeft": 71,
    "LastRefill": "2015-07-21T10:23:57",
    "Position": "Taken out of RD",
    "Active": true
}
```

Create Canister

URL: http://{ServerAddress}/SmartDose/Canisters/

Connection Verb: HTTP POST

Creates canisters in the Smart Dose System.

Retrieve Canister

URL: http://{ServerAddress}/SmartDose/Canisters/{CanisterId}

Connection Verb: HTTP GET

Gets a canisters from the Smart Dose System with the given id

Retrieve all Canisters

URL: http://{ServerAddress}/SmartDose/Canisters/

Connection Verb: HTTP GET

Gets all canisters from the Smart Dose System

Update existing Canister

URL: http://{ServerAddress}/SmartDose/Canisters/{CanisterId}

Connection Verb: HTTP PUT

Updates the canister with the given Id.

Delete existing Canister

URL: http://{ServerAddress}/SmartDose/Canisters/{CanisterId}

Connection Verb: HTTP DELETE

Deletes the canister with the given Id.

Assign canister to existing medicine

URL: http://{ServerAddress}/SmartDose/Canisters/{CanisterId}/Medicine/{MedId}

Connection Verb: HTTP POST

Assigns the canister with the given id to the Medicine with the given id.

Activation of canisters

URL: http://{ServerAddress}/SmartDose/Canisters/{CanisterId}/Activate/{State}

Connection Verb: HTTP POST

Activates or Deactivates a canister by the given state (true or false)

Get Canister status for one canister

URL: http://{ServerAddress}/SmartDose/Canisters/Status/{CanisterId}

Connection Verb: HTTP GET

Gets the CanisterStatus for the canister with the given id.

Get canister status for all canisters

URL: http://{ServerAddress}/SmartDose/Canisters/Status/

Connection Verb: HTTP GET

Gets the canister status for all canisters

Customer Management

Manage the customers in the system.

Create Customers

URL: http:// { ServerAddress }/SmartDose/Customers/

Connection Verb: HTTP POST

Creates Customers in the Smart Dose System

Retrieve Customer

URL: http:// { ServerAddress }/SmartDose/Customers/{CustomerId}

Connection Verb: HTTP GET

Gets a customer with the given id.

Retrieve all Customers

URL: http:// { ServerAddress }/SmartDose/Customers/

Connection Verb: HTTP GET

Gets all Customers in the Smart Dose System

Delete Customer

URL: http:// { ServerAddress }/SmartDose/Customers/{CustomerId}

Connection Verb: HTTP DELETE

Deletes the customer with the given id.

Manufacturer Mangement

Data Type				Description
Element	M/O	Legacy System	Data Type	Description
Identifier		X	string	The identifier for the manufacturer. Uniquely identifies a manufacturer.
Address		X	Object	Contact Address
Comment		X	string	A comment for this manufacturer
Name		X	string	The name of the manufacturer. In case that the identifier is not provided the name will be used as an Identifier.

Example of a Manufacturer:

```
{
        "Identifier": "Manufacturer identifier",
        "Address": {
            "NameLine1": " Manufacturer's additional name",
            "Addressline1": " Manufacturer's additional address",
            "Postalcode": " Manufacturer's postal code",
            "City": " Manufacturer's City",
            "State": "Manufacturer's State",
            "Country": "Manufacturer's Country"
        },
        "Comment": "A comment",
        "Name": " Manufacturer's Name"
    }
```

Create Manufacturer

URL: http://{ServerAddress}/SmartDose/Manufacturer/

Connection Verb: HTTP POST

Creates a manufacturer in the Smart Dose System.

Retrieve Manufacturer

URL: http://{ServerAddress}/SmartDose/Manufacturer/{identifier}

Connection Verb: HTTP GET

Gets a manufacturer from the Smart Dose System with the given identifier

Retrieve all Manufacturers

URL: http://{ServerAddress}/SmartDose/Manufacturer/

Connection Verb: HTTP GET

Gets all manufacturers from the Smart Dose System

Update existing Manufacturer

URL: http://{ServerAddress}/SmartDose/ Manufacturer /{identifier}

Connection Verb: HTTP PUT

Updates the manufacturer with the given Id.

Delete existing Manufacturer

URL: http://{ServerAddress}/SmartDose/ Manufacturer /{identifier}

Connection Verb: HTTP DELETE

Deletes the manufacturer with the given Identifier.

Assign existing Manufacturer to an existing Medicine

URL: http://{ServerAddress}/SmartDose/ Manufacturer /{identifier}/Medicine/{medicineIdentifier}

Connection Verb: HTTP PUT

Assign the manufacturer to the given medicine.

Production Mangement
Order Interface

The order interface is for sending orders to the system and receiving information about the processing of the order.

The external order on a high level

Data Type				
ExternalOrder				Representing an external order
Element	M/O	Legacy System	Data Type	Description
ExternalId		X	string	Unique identifier of the external order

Timestamp		X	string	Encoding of date time in UTC. Format: YYYY-MM-DDThh:mm:ssZ
Customer		X	Customer	The customer the order is produced for
OrderDetails		X	DataType	A list of "OrderDetail"

Example of an ExternalOrder:

```
{
    "ExternalId": "Order-2015-77892",
    "Timestamp": "2015-07-21T14:00:00Z",
    "Customer": {
        ...
    },
    "OrderDetails": [
        {
            ...
        }
    ]
}
```

Data Type				
OrderDetail				Representing the details of an order
Element	M/O	Legacy System	Data Type	Description
Pharmacy		X	Customer	The pharmacy for which the patient is produced
Patient		X	Patient	The patient getting the medication
DestinationFacility		X	DestinationFacility	The destination facility where the pouches get delivered
ExternalDetailPrintInfo1	O	X	string	Custom Text. Can be printed on pouches
ExternalDetailPrintInfo2	O	X	string	Custom Text. Can be printed on pouches
IntakeDetails		X	list	A list of "IntakeDetail"

An example of one OrderDetail

```
{
    "Pharmacy": {
        ...
    },
    "Patient": {
        ...
    },
    "DestinationFacility": {
        ...
    },
    "ExternalDetailPrintInfo1": "Merry Christmas",
    "IntakeDetails": [
```

```
    {
        ...
    }
  ]
}
```

Data Type				Description
IntakeDetail				
Element	M/O	Legacy System	Data Type	Description
IntakeDateTime		X	string	Date/Time representation of the intake time as local time
ExternalIntakePrintInfo1	O	X	string	Custom Text. Can be printed on pouches
ExternalIntakePrintInfo2	O	X	string	Custom Text. Can be printed on pouches
MedicationDetails		X	list	list of all medications for that intake time

Example of one IntakeDetail:

```
{
    "IntakeDateTime": "2015-01-08T08:00:00",
    "MedicationDetails": [
        {
            ...
        }
    ]
}
```

Data Type				Description
MedicationDetail				
Element	M/O	Legacy System	Data Type	Description
MedicineId		X	string	
Count		X	number	
IntakeAdvice		X	string	
Physician		X	string	
PhysicianComment			string	
PrescribedMedicine			string	

Example of one MedicationDetail:

```
{
    "MedicineId": 10000,
    "Count": 1.0,
    "IntakeAdvice": "Take with water before meal",
    "PhysicianComment": "To stop pain",
    "Physician": "Doolittle, PhD"
    "PrescribedMedicine": "Panadol 500mg"

}
```

Data Type				Description
OrderStatus				List of OrderStatus
Element	M/O	Legacy System	Data Type	Description
ExternalId		X	string	Unique identifier of the external order
OrderId		X	string	Internal Identifier of the order
CreateDate		X	string	Datetime of creation
DispenseState		X	string	The progress of the production "DispenseInit" "DispenseStarted" "DispenseFinished" "DispenseCanceled" "OrderNotYetImported" "OrderNotFound"

Example of an OrderStatus:

```
[
    {
        "ExternalId": "Order-2015-77892",
        "OrderId": "900005680",
        "CreateDate": "2015-09-16T14:00:00",
        "DispenseState": "DispenseStarted"
    },
    {
        "ExternalId": "Order-2015-77893",
        "OrderId": "900005681",
        "CreateDate": "2015-09-16T14:02:00",
        "DispenseState": "DispenseStarted"
    },…
]
```

Data Type				Description
OrderResult				List of OrderResult
Element	M/O	Legacy System	Data Type	Description
ExternalId		X	string	Unique identifier of the external order
OrderId		X	string	Internal Identifier of the order
MachineNumber		X	int	Identifier of the machine which executes the Order
DispenseState		X	string	The progress of the production "DispenseInit" "DispenseStarted" "DispenseFinished" "DispenseCanceled" "OrderNotYetImported" "OrderNotFound"

CreateDate		X	string	Datetime of creation
ProduceDate		X	string	Datetime of production
Spindle		X	string	=>Spindle moved to Pouch (will be removed in next Release)
Pouches		X	List	List of pouch

Example of an OrderResult:

```
[
    {
        "OrderId": "Order-2015-77892",
        "MachineNumber": 5,
        "DispenseState": "DispenseFinished",
        "CreateDate": "2015-09-16T14:00:00",
        "ProduceDate": "2015-09-16T16:00:00",
        "Spindle": "",
        "Pouches": [
            {
                ...
            }
        ]
    },

    {
            ...

    }
]
```

Data Type				Description
Pouch				
Element	M/O	Legacy System	Data Type	Description
PouchId		X	string	Identifier of the Pouch
PouchType		X	string	"Empty", "Cutting", "Header", "Pill"
PatientId		X	string	Identifier of the patient
Spindle		X	string	Name of the spindle which contains the pouch
Pills		X	list	List of pill

Example of a Pouch:

```
{
    "PouchId": "1509160578691",
    "PouchType": "Pill",
    "PatientId": "327299",
```

```
    "Spindle": "M052015-09-16T07:39:37",
    "Pills": [
        {
            ...
        }
    ]
}
```

Data Type				Description
Pill				
Element	M/O	Legacy System	Data Type	Description
MedicineId		X	string	Identifier of the medicine
Quantity		X	number	Amount of pills in the pouch
Charge		X	string	Charge of the pills

Example of a Pill:

```
{
    "MedicineId": "900005680",
    "Quantity": 5.0,
    "Charge": "ABC3DEF"
}
```

Send Order to SmartDose

URL: http://{ServerAddress}/SmartDose/Orders/

Connection Verb: HTTP POST

Put the JSON formatted "ExternalOrder" to the REST Service

Returns the status of the received order in terms of "OperationResult".

Request Information for all Orders

URL: http://{ServerAddress}/SmartDose/Orders/

Connection Verb: HTTP GET

Gets a list of OrderStatus for all orders send to SmartDose system.

Get Information for one order

URL: http://{ServerAddress}/SmartDose/Orders/{ExternalId}

Connection Verb: HTTP GET
Get the OrderStatus for the given Order.

Get detailed information for one order

URL: http://{ServerAddress}/SmartDose/Orders/Result/{ExternalId}

Connection Verb: HTTP GET

Gets the result for a finished production with the order identification "ExternalId", format will be in an OrderResult.

Delete Order

URL: http:// { ServerAddress }/SmartDose/Orders/{ExternalId}

Connection Verb: HTTP DELETE

Deletes the order from the SmartDose System, as long as it is in status "InQueue", result will be a OperationResult

Iventory Management

MedContainer Management

All medcontainers holding medicines are made visible to system e.g. original Packages used for tray filling, via this interface.

Data Type				Description
Container				MedicineContainer used in the rest interface
Element	M/O	Legacy System	Data Type	Description
UniqueId	M	X	string	The unique id for the container, e.g. a barcode printed on the outside
MedicineId	M	X	string	Medicine that is in the container, corresponding to the id in the medicine
Description	O		string	An additional description to the container
Type	M		string	Type of container: BulkPackage - Original package where the pills are bulk BlisterPackage – Original Package where the pills are in blister packs CanisterFilling – Representing the content of a canister in the system StockBottle – Stockbottle, e.g. for filling a canister
EntryDate	O		string	Date when the container entered the system, or record was created
Quantity	M	X	number	Number of pills in the container
ExpiryDate	M	X	string	The expiry date of the content (ISO 8601)
BatchNumber	M	X	string	The batch number
OriginalBarcode	M		string	The container's original barcode.

Example of a bulk package:

```
{
    "UniqueId": "123456789",
    "MedicineId": "90802030",
    "Description": "New Delivery of Bayer Ibuprofen",
    "Type": "BulkPackage",
    "EntryDate": "2015-07-21T10:23:57",
    "Quantity": 500.0,
    "ExpiryDate": "2016-12-31",
    "BatchNumber": "LH4711",
    "OriginalBarcode": "1234barcode",
}
```

Create MedContainer

URL: http://{ServerAddress}/SmartDose/MedContainers/
Connection Verb: HTTP POST
Creates a medicine container in the system.

Retrieve MedContainer

URL: http://{ServerAddress}/SmartDose/MedContainers/{ContainerIdentifier}
Connection Verb: HTTP GET
Gets a container from the Smart Dose System with the given identifier

Retrieve all MedContainers for an original barcode

URL: http://{ServerAddress}/SmartDose/MedContainers/barcode={originalbarcode}
Connection Verb: HTTP GET
Gets all containers from the Smart Dose System with a particular barcode (Pharma code)

Retrieve all MedContainers

URL: http://{ServerAddress}/SmartDose/MedContainers/
Connection Verb: HTTP GET
Gets all containers from the Smart Dose System

Get number of pills in existing MedContainer

URL: http://{ServerAddress}/SmartDose/MedContainers/Identifier={ContainerIdentifier}/Amount
Connection Verb: HTTP GET
Returns the current number of pills in the container.

Update number of pills in existing MedContainer

URL:
http://{ServerAddress}/SmartDose/MedContainers/Identifier={ContainerIdentifier}/Amount={Amount}
Connection Verb: HTTP PUT
Updates the container with the given Identifier.

Delete existing MedCanister

URL: http://{ServerAddress}/SmartDose/MedContainers/{ContainerIdentifier}
Connection Verb: HTTP DELETE
Deletes the container with the given identifier.

System Management

System Status

Get information about the Smart Dose system and the machines that are operated.

Data Type				Description
ProductionMachine				
Element	M/O	Legacy System	Data Type	Description
MachineId		X	Integer	The identifier of the machine
Name		X	String	Name of the machine
Comment		X	String	Comment
Active		X	Bool	Shows if the machine is activated

Example of a Machine:

```
{
    "MachineId": 1,
    "Name": "RowaDose Dose Packaging Machine",
    "Comment": "Five Sections",
    "Active": true
}
```

Data Type				Description
ProductionMachineStatus				
Element	M/O	Legacy System	Data Type	Description
MachineId		X	Integer	The identifier of the machine
Status		X	string	Status of the machine

Example of a Status:

```
{
    "MachineId": 1,
    "Status": "Idle"
}
```

Retrieve Machine

URL: http:// { ServerAddress }/SmartDose/System/ProductionMachines/{MachineId}

Connection Verb: HTTP GET

Gets the production machine with the given id.

Retrieve all Machines

URL: http:// { ServerAddress }/SmartDose/System/ProductionMachines/

Connection Verb: HTTP GET

Gets all production machines connected to Smart Dose

Get Machine status

URL: http:// { ServerAddress }/SmartDose/System/ProductionMachines/Status/{MachineId}

Connection Verb: HTTP GET

Gets the status of the machine with the given id.

Get all Machine status

URL: http:// { ServerAddress }/SmartDose/System/ProductionMachines/Status/

Connection Verb: HTTP GET

Gets the status of all machines.

Report Management

Requesting Reports

Request Named Report

http://{ServerAddress}/SmartDose/Reports/{NameOfReport}?Parameter1={P1}&Parameter2={P2}

Connection Verb: HTTP GET

Executes the report with given name, additional parameters are given by Resource Query Language (RQL), e.g. http://{ServerAddress}/SmartDose/Reports/WarningLabel?OrderId={OID}&PatientId={PID}. The result can be requested with the standard http commands and depends on the report.

Common Data Description

OperationResult

Data Type				Description
OperationResult				Medicine used in the rest interface
Element	M/O	Legacy System	Data Type	Description
Code		X	String	Ok, Failed, Error, Ignored
Detail		X	String	Free formatted text, why the operation ended this dedicated way

Example of OperationResult

```
{
    "Code": "Ok",
    "Detail": "All Data processed"
}
```

Customer

Data Type				Description
Customer				
Element	M/O	Legacy System	Data Type	Description
CustomerId	M	X	string	The identifier for the customer
Name	M	X	string	Name of the customer
Description	O	X	string	Description of the customer
Website	O	X	string	Website of the customer
Fax	O	X	String	Fax
ContactAddress	M	X	ContactAddress	ContactAddress Object
ContactPerson	M	X	ContactPerson	ContactPerson Object

Represents a customer in the system

```
{
    "Customer": {
        "CustomerId": "Pro-54564",
        "Name": "Customer Made Blister Ldt",
        "Description": "Customer Pro-54564 Made Blister Ldt",
        "Website": "www.BlisterPro.com",
        "Fax": "+49 269292061299",
        "ContactAddress": {
            …
        },
        "ContactPerson": {
            …
        }
    }
}
```

Contact address

Data Type				Description
ContactAddress				
Element	M/O	Legacy System	Data Type	Description
NameLine1	O	X	string	Name
Addressline1	O	X	string	Street
Postalcode	O	X	string	Postalcode
City	O	X	string	City
State	O		string	
Country	O		string	

Example of a ContactAddress

```
{
    "ContactAddress": {
        "NameLine1": "Rowa Test Pharmacy",
        "Addressline1": "Rowastaße 6-8",
        "Postalcode": "53539",
        "City": "Kelberg",
        "State": "Rhineland-Palatinate",
        "Country": "Germany"
    }
}
```

ContactPerson

Data Type				Description
ContactPerson				
Element	M/O	Legacy System	Data Type	Description
Name	O	X	string	Name of the ContactPersion
TelephoneNumber	O	X	string	TelephoneNumber
Email	O	X	string	Email

Example of a ContactPerson

```
{
    "ContactPerson": {
        "Name": "John Doe",
        "TelephoneNumber": "+49 2692920600",
        "Email": "John.Doe@Rowa.de"
        }
}
```

JSON Building Blocks

Common building blocks in the JSON interface, that will be commonly used.

Patient

```
{
    "Patient": {
        "ExternalPatientNumber": "08150",
        "RoomNumber": "Room 10",
        "BedNumber": "Bed 10"
        "DateOfBirth": "1966-02-14T00:00:00",
        "ContactPerson": {

            …
        },
        "ContactAddress": {

            …
        }
    }
}
```

DestinationFacility

```
{
    "DestinationFacility": {

        "CustomerId": "Hos-1230560",
        "Name": "Kelberg Central Hospital Number 0",
        "DepartmentCode": "10100",
        "DepartmentName": "Surgery",
        "ContactAddress": {

            …
        },
        "ContactPerson": {

            …
        }
    }
}
```

Technical Implementation

- C# Web API 2.2 using OWIN/Katana for self hosting REST Service

JSON - Samples

Medicine

An example for Ibuprofen with 3 different identifiers/synonyms for original packages and an artificial
identifier in the system.

Example:
```json
{
    "Identifier": "90603015",
    "Name": " IBU RATIOPHARM 400 mg akut",
    "Description": "IBU RATIOPHARM 400 mg akut Schmerztbl. Filmtabl.",
    "Comment": "For light pain and fever",
    "Active": true,
    "SynonymIds": [
        {
            "Identifier": "00266011",
            "Price": 1.01,
            "Content": 10,
            "Description": "Package size 10 - N1 German Package"
        },
        {
            "Identifier": "00266040",
            "Price": 1.29,
            "Content": 20,
            "Description": "Package size 20 - N2 German Package"
        },
        {
            "Identifier": "10019621",
            "Price": 3.09,
            "Content": 50,
            "Description": "Package size 20 - N3 German Package"
        }
    ],
    "PrintDetails": [
        {
            "Name": "IBU RATIOPHARM 400 mg",
            "IntakeAdvice": "Take with water during or after meal",
            "Description": "",
            "Comment": "",
            "Color": "white",
            "FormType": "round",
            "PillType": "film-coated tablet",
            "GenericName": "IBUPROFEN 400mg TABLETS",
            "AdditionalAdvice": "",
            "MedicationClass": "Analgesics"
        }
```

```json
        ],
        "Pictures": [
            {
                "Description": "Side A",
                "Picture": "iVBORw0KGgoAAAANSUhEUgAAAnEAAALQAQMAAADFA7QwAAAABGdBTUEA…"
            },
            {
                "Description": "Side B",
                "Picture": "iVBORw0KGgoAAAANSUhEUgAAAnEAAALQAQMAAADFA7QwAAAABGdBTUEA…"
            }
        ],
        "SpecialHandling": {
            "Narcotic": false
            "SeparatePouch": false,
            "RoboticHandling": false,
            "NeedsCooling": false,
            "Splittable": false
        }

}
```

External Order

```json
{
    "ExternalId": "Order-2015-77892",
    "Customer": {
        "CustomerId": "Pro-54564",
        "Name": "Customer Made Blister Ldt",
        "ContactAddress": {
            "NameLine1": "Rowa Test Pharmacy",
            "Addressline1": "Rowastaße 6-8",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany"
        },
        "ContactPerson": {
            "Name": "John Doe",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        }
    },
    "Timestamp": "2015-07-21T14:00:00Z",
    "OrderDetails": [
        {
            "Pharmacy": {
                "CustomerId": "Pha-1770860",
                "Name": "Rowa Automated Test Pharmacy Ltd. Station 0",
                "ContactAddress": {
                    "NameLine1": "Rowa Test Pharmacy",
                    "Addressline1": "Rowastaße 6-8",
                    "Postalcode": "53539",
                    "City": "Kelberg",
                    "Country": "Germany"
                },
                "ContactPerson": {
                    "Name": "John Doe",
```

```json
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        }
    },
    "Patient": {
        "ContactPerson": {
            "Name": "Patient John Doe0",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        },
        "ExternalPatientNumber": "08150",
        "Birthday": "1966-02-14T00:00:00Z",
        "Address": {
            "NameLine1": "Rowa Test Pharmacy",
            "Addressline1": "Rowastaße 1-3",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany"
        },
        "RoomNumber": "Room 10",
        "BedNumber": "Bed 10"
    },
    "DestinationFacility": {
        "DepartmentCode": "10100",
        "DepartmentName": "Surgery",
        "CustomerId": "Hos-1230560",
        "Name": "Kelberg Central Hospital Number 0",
        "ContactAddress": {
            "NameLine1": "Kelberg Central Hospital",
            "Addressline1": "Rowastaße 1-3",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany"
        },
        "ContactPerson": {
            "Name": "John Doe",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        }
    },
    "IntakeDetails": [
        {
            "IntakeDateTime": "2015-01-08T08:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
```

```json
                {
                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-08T20:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-09T08:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
```

```
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-09T20:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-10T08:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-10T20:00:00Z",
        "MedicationDetails": [
```

```json
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        }
    ]
},
{
    "Pharmacy": {
        "CustomerId": "Pha-1770860",
        "Name": "Rowa Automated Test Pharmacy Ltd. Station 0",
        "ContactAddress": {
            "NameLine1": "Rowa Test Pharmacy",
            "Addressline1": "Rowastaße 6-8",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany"
        },
        "ContactPerson": {
            "Name": "John Doe",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        }
    },
    "Patient": {
        "ContactPerson": {
            "Name": "Patient John Doe1",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        },
        "ExternalPatientNumber": "08151",
        "Birthday": "1967-03-15T00:00:00Z",
        "Address": {
            "NameLine1": "Rowa Test Pharmacy",
            "Addressline1": "Rowastaße 1-3",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany",
        },
        "RoomNumber": "Room 11",
```

```json
            "BedNumber": "Bed 11"
        },
        "DestinationFacility": {
            "DepartmentCode": "10100",
            "DepartmentName": "Surgery",
            "CustomerId": "Hos-1230560",
            "Name": "Kelberg Central Hospital Number 0",
            "ContactAddress": {
                "NameLine1": "Kelberg Central Hospital",
                "Addressline1": "Rowastaße 1-3",
                "Postalcode": "53539",
                "City": "Kelberg",
                "Country": "Germany",
            },
            "ContactPerson": {
                "Name": "John Doe",
                "TelephoneNumber": "+49 2692920600",
                "Email": "John.Doe@Rowa.de"
            }
        },
        "IntakeDetails": [
            {
                "IntakeDateTime": "2015-01-08T08:00:00Z",
                "MedicationDetails": [
                    {
                        "MedicineId": 10000,
                        "Count": 1.0,
                        "IntakeAdvice": "Take with water before meal",
                        "PhysicianComment": "To stop pain",
                        "Physician": "Doolittle, PhD"
                    },
                    {
                        "MedicineId": 11000,
                        "Count": 1.0,
                        "IntakeAdvice": "Take with water before meal",
                        "PhysicianComment": "To stop pain",
                        "Physician": "Doolittle, PhD"
                    },
                    {
                        "MedicineId": 12000,
                        "Count": 1.0,
                        "IntakeAdvice": "Take with water before meal",
                        "PhysicianComment": "To stop pain",
                        "Physician": "Doolittle, PhD"
                    }
                ]
            },
            {
                "IntakeDateTime": "2015-01-08T20:00:00Z",
                "MedicationDetails": [
                    {
                        "MedicineId": 10000,
                        "Count": 1.0,
                        "IntakeAdvice": "Take with water before meal",
                        "PhysicianComment": "To stop pain",
                        "Physician": "Doolittle, PhD"
                    },
                    {
```

```json
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {

                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-09T08:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-09T20:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
```

```json
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-10T08:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-10T20:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
```

```json
                    }
                ]
            }
        ]
    },
    {
        "Pharmacy": {
            "CustomerId": "Pha-1770860",
            "Name": "Rowa Automated Test Pharmacy Ltd. Station 0",
            "ContactAddress": {
                "NameLine1": "Rowa Test Pharmacy",
                "Addressline1": "Rowastaße 6-8",
                "Postalcode": "53539",
                "City": "Kelberg",
                "Country": "Germany",
            },
            "ContactPerson": {
                "Name": "John Doe",
                "TelephoneNumber": "+49 2692920600",
                "Email": "John.Doe@Rowa.de"
            }
        },
        "Patient": {
            "ContactPerson": {
                "Name": "Patient John Doe2",
                "TelephoneNumber": "+49 2692920600",
                "Email": "John.Doe@Rowa.de"
            },
            "ExternalPatientNumber": "08152",
            "Birthday": "1968-04-16T00:00:00Z",
            "Address": {
                "NameLine1": "Rowa Test Pharmacy",
                "Addressline1": "Rowastaße 1-3",
                "Postalcode": "53539",
                "City": "Kelberg",
                "Country": "Germany",
            },
            "RoomNumber": "Room 12",
            "BedNumber": "Bed 12"
        },
        "DestinationFacility": {
            "DepartmentCode": "10100",
            "DepartmentName": "Surgery",
            "CustomerId": "Hos-1230560",
            "Name": "Kelberg Central Hospital Number 0",
            "ContactAddress": {
                "NameLine1": "Kelberg Central Hospital",
                "Addressline1": "Rowastaße 1-3",
                "Postalcode": "53539",
                "City": "Kelberg",
                "Country": "Germany"
            },
            "ContactPerson": {
                "Name": "John Doe",
                "TelephoneNumber": "+49 2692920600",
                "Email": "John.Doe@Rowa.de"
            }
        },
```

```json
"IntakeDetails": [
    {
        "IntakeDateTime": "2015-01-08T08:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-08T20:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-09T08:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
```

```json
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {

                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {

                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-09T20:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {

                    "MedicineId": 11000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {

                    "MedicineId": 12000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                }
            ]
        },
        {
            "IntakeDateTime": "2015-01-10T08:00:00Z",
            "MedicationDetails": [
                {
                    "MedicineId": 10000,
                    "Count": 1.0,
                    "IntakeAdvice": "Take with water before meal",
                    "PhysicianComment": "To stop pain",
                    "Physician": "Doolittle, PhD"
                },
                {
```

```json
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    },
    {
        "IntakeDateTime": "2015-01-10T20:00:00Z",
        "MedicationDetails": [
            {
                "MedicineId": 10000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 11000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            },
            {
                "MedicineId": 12000,
                "Count": 1.0,
                "IntakeAdvice": "Take with water before meal",
                "PhysicianComment": "To stop pain",
                "Physician": "Doolittle, PhD"
            }
        ]
    }
]
},
{
    "Pharmacy": {
        "CustomerId": "Pha-1770861",
        "Name": "Rowa Automated Test Pharmacy Ltd. Station 1",
        "ContactAddress": {
            "NameLine1": "Rowa Test Pharmacy",
            "Addressline1": "Rowastaße 6-8",
            "Postalcode": "53539",
            "City": "Kelberg",
            "Country": "Germany",
        },
        "ContactPerson": {
            "Name": "John Doe",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
```

```json
        }
    },
    "Patient": {
        "ContactPerson": {
            "Name": "Patient John Doe0",
            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
        },
        "ExternalPatientNumber": "08150",
        "Birthday": "1966-02-14T00:00:00Z",
        "Address": {
            "NameLine1": "Rowa Test Pharmacy",
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            "TelephoneNumber": "+49 2692920600",
            "Email": "John.Doe@Rowa.de"
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    ]
    }
    ]
}
```

Tools

e.g.

- Postmaster REST Client, a Chrome application
- Fiddler from Telerik http://www.telerik.com/fiddler