

Service Integration

Low Level Design

For RTO

Details the ESB design for integrating RTO Service

Version : V0.1

**Document Control**

|  |  |
| --- | --- |
| **Document Information** | |
| *Document Name* | *Low Level Design Document* |
| *Client* | *Department of e-Governance, Government of Karnataka* |
| *Document Author(s)* | *Prashanth Nuggehalli Chandrashekar* |
| *Document Version* | *V0.1* |
| *Document Status* | *Ready for Reiview* |
| *Date Last Update* | *7th July 2021* |
| *Date Released* | *12-July-2021* |

**Document Edit History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Additions/Modifications** | **Prepared / Revised by** |
| V0.1 | 12th Jul 2021 | Initial Draft | Prashanth Chandrashekar |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Document Review/Approval History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Name**  ***(Prepared By)*** | **Organization/Title**  ***(Approved By)*** | **Date**  ***(Approval Date)*** | **Comments**  ***(Description)*** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

*This page is intentionally left blank*

**Table of Contents**

[**Introduction**](#_gjdgxs) **6**

[**API Implementation Diagram**](#_fb7sma4o193g) **6**

[**Participating API Endpoints**](#_6g4kuuw36etd) **6**

[**Input Output**](#_jddllhg03njd) **7**

[**XAPI (Experience API)**](#_yqrr81mvoxue) **7**

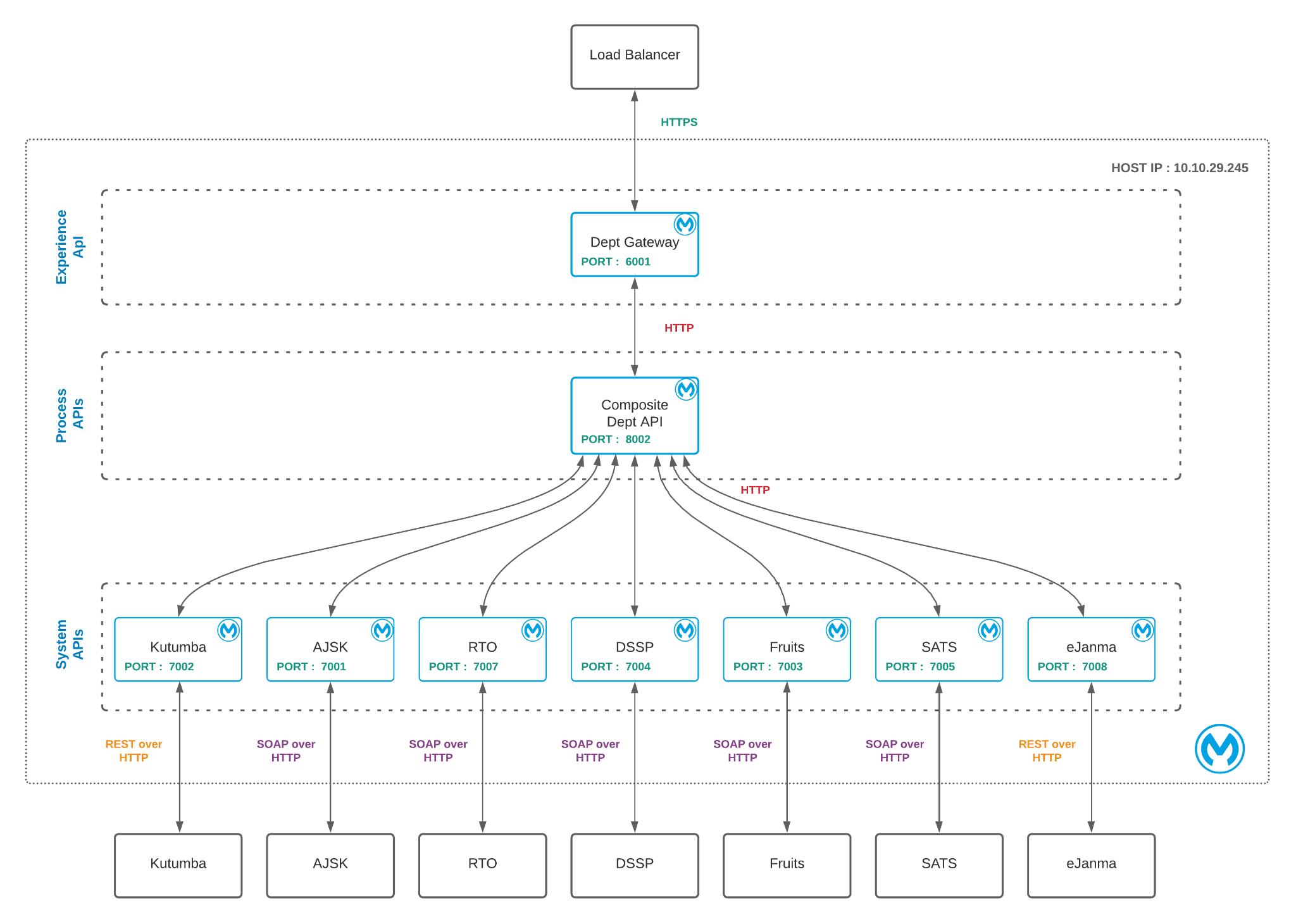
[**PAPI (Process API)**](#_k7myqycxnbma) **11**

[**SAPI (System API)**](#_y7nkm8sm3h6d) **15**

# Introduction

This integration is to talk to connect to RTO service and get the RTO details. The below mentioned diagram shows the context in which the API is implemented and how the conection is established to the participating services in the integration.

## API Implementation Diagram



# Participating API Endpoints

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Name** | **URI/URL** | | |
| 1 | XAPI | http://10.10.29.245:6001/api/department/data/single | | |
| 2 | PAPI | http://10.10.29.245:8002/esb/fdb/department/single | | |
| 3 | SAPI | http://10.10.29.245:7007/esb/rto/GetVehInfoByRegnNo | | |
| 4 | Destination | <http://rtoeservices.karnataka.gov.in/TranskaVsearch/VSearch.asmx> | | |

* XAPI Invokes >> PAPI
* PAPI Invokes >> SAPI
* SAPI Invokes >> Destination Service
* Response from Destination Service is passed to the respective callers

# Input Output

### XAPI (Experience API)

|  |  |  |
| --- | --- | --- |
| Request | | |
| {  "deptId":7,  "input":{  "regn\_no":"KA01M1256"  },  "method":"GetVehInfoByRegnNo",  "creds":{  "client-id":"1234567",  "client-secret":"7654321"  }  } | | |
| Response | | |
| {  "GetVehInfoByRegnNo": {  "DocumentElement": {  "REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD": {  "state\_code": "KA",  "office\_name": "Ramdurga ARTO",  "registration\_number": "KA01M1256",  "registration\_date": "1990-08-14T00:00:00+05:30",  "purchase\_date": "1990-08-14T00:00:00+05:30",  "owner\_serial": "2",  "owner\_name": "RAMACHANDRA V BILAGI",  "son\_wife\_aughter\_of": "VEERABHADRAPPA",  "current\_address": "A/P: SAGAR CLINIC,RAMDURG,TQ: RAMDURG,DIST: BELGAUM,KA,999999",  "vehicle\_class\_description": "7",  "vehicle\_class": "Motor Car",  "vhclasstype\_code": "2",  "chasis\_number": "380017",  "engine\_number": "532475",  "maker": "PREMIER LTD",  "maker\_model": "PREMIER PADMINI (STD.)",  "body\_type": "Not Available",  "no\_of\_cylinder": "3",  "seating\_capacity": "4",  "standing\_capcity": "0",  "sleeper\_capacity": "0",  "unladen\_weight": "620",  "laden\_weight": "0",  "fuel": "PETROL",  "color": "NA",  "manufacture\_month": "0",  "manufacture\_year": "1990",  "vehicle\_norms": "Not Available",  "vehiclecatg\_code": "LMV",  "vechile\_category": "LIGHT MOTOR VEHICLE",  "registration\_validity\_upto": "2005-08-13T00:00:00+05:30",  "fitness\_validity\_upto": "2005-08-13T00:00:00+05:30",  "mobile\_number": "0"  }  }  }  } | | |
| Error | | |
| **Sample 1**   * As is Error Propagation from down stream service (This means whatever the destination service throws)   **Sampe 2**  {  "httpCode": "403",  "errorType": {  "parentErrorType": {  "parentErrorType": **null**,  "identifier": "ANY",  "namespace": "MULE"  },  "identifier": "INCORRECT\_CREDS",  "namespace": "RTO-CONSUMER-SYS"  },  "error": "RTO API Authentication Failure : Client Id and Client Secret does not match !",  "correlation": "7889e840-e3bd-11eb-b574-02429ea494eb"  } | | |

### PAPI (Process API)

|  |  |  |
| --- | --- | --- |
| Request | | |
| {  "deptId":7,  "input":{  "regn\_no":"KA01M1256"  },  "method":"GetVehInfoByRegnNo",  "creds":{  "client-id":"1234567",  "client-secret":"7654321"  }  } | | |
| Response | | |
| {  "GetVehInfoByRegnNo": {  "DocumentElement": {  "REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD": {  "state\_code": "KA",  "office\_name": "Ramdurga ARTO",  "registration\_number": "KA01M1256",  "registration\_date": "1990-08-14T00:00:00+05:30",  "purchase\_date": "1990-08-14T00:00:00+05:30",  "owner\_serial": "2",  "owner\_name": "RAMACHANDRA V BILAGI",  "son\_wife\_aughter\_of": "VEERABHADRAPPA",  "current\_address": "A/P: SAGAR CLINIC,RAMDURG,TQ: RAMDURG,DIST: BELGAUM,KA,999999",  "vehicle\_class\_description": "7",  "vehicle\_class": "Motor Car",  "vhclasstype\_code": "2",  "chasis\_number": "380017",  "engine\_number": "532475",  "maker": "PREMIER LTD",  "maker\_model": "PREMIER PADMINI (STD.)",  "body\_type": "Not Available",  "no\_of\_cylinder": "3",  "seating\_capacity": "4",  "standing\_capcity": "0",  "sleeper\_capacity": "0",  "unladen\_weight": "620",  "laden\_weight": "0",  "fuel": "PETROL",  "color": "NA",  "manufacture\_month": "0",  "manufacture\_year": "1990",  "vehicle\_norms": "Not Available",  "vehiclecatg\_code": "LMV",  "vechile\_category": "LIGHT MOTOR VEHICLE",  "registration\_validity\_upto": "2005-08-13T00:00:00+05:30",  "fitness\_validity\_upto": "2005-08-13T00:00:00+05:30",  "mobile\_number": "0"  }  }  }  } | | |
| Error | | |
| **Sample 1**   * As is Error Propagation from down stream service (This means whatever the destination service throws   **Sampe 2**  {  "httpCode": "403",  "errorType": {  "parentErrorType": {  "parentErrorType": **null**,  "identifier": "ANY",  "namespace": "MULE"  },  "identifier": "INCORRECT\_CREDS",  "namespace": "RTO-CONSUMER-SYS"  },  "error": "RTO API Authentication Failure : Client Id and Client Secret does not match !",  "correlation": "7889e840-e3bd-11eb-b574-02429ea494eb"  } | | |

### SAPI (System API)

|  |  |  |
| --- | --- | --- |
| Request | | |
| {  "userName":"suser",  "password":"usR$0169",  "regn\_no":"KA01M1256"  } | | |
| Response | | |
| <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">  <soap:Body>  <GetVehInfoByRegnNoResponse xmlns="http://localhost/">  <GetVehInfoByRegnNoResult>  <xs:schema id="NewDataSet" xmlns="" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:msdata="urn:schemas-microsoft-com:xml-msdata">  <xs:element name="NewDataSet" msdata:IsDataSet="true" msdata:MainDataTable="REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD" msdata:UseCurrentLocale="true">  <xs:complexType>  <xs:choice minOccurs="0" maxOccurs="unbounded">  <xs:element name="REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD">  <xs:complexType>  <xs:sequence>  <xs:element name="state\_code" type="xs:string" minOccurs="0"/>  <xs:element name="office\_name" type="xs:string" minOccurs="0"/>  <xs:element name="registration\_number" type="xs:string" minOccurs="0"/>  <xs:element name="registration\_date" type="xs:dateTime" minOccurs="0"/>  <xs:element name="purchase\_date" type="xs:dateTime" minOccurs="0"/>  <xs:element name="owner\_serial" type="xs:decimal" minOccurs="0"/>  <xs:element name="owner\_name" type="xs:string" minOccurs="0"/>  <xs:element name="son\_wife\_aughter\_of" type="xs:string" minOccurs="0"/>  <xs:element name="current\_address" type="xs:string" minOccurs="0"/>  <xs:element name="vehicle\_class\_description" type="xs:decimal" minOccurs="0"/>  <xs:element name="vehicle\_class" type="xs:string" minOccurs="0"/>  <xs:element name="vhclasstype\_code" type="xs:decimal" minOccurs="0"/>  <xs:element name="chasis\_number" type="xs:string" minOccurs="0"/>  <xs:element name="engine\_number" type="xs:string" minOccurs="0"/>  <xs:element name="maker" type="xs:string" minOccurs="0"/>  <xs:element name="maker\_model" type="xs:string" minOccurs="0"/>  <xs:element name="body\_type" type="xs:string" minOccurs="0"/>  <xs:element name="no\_of\_cylinder" type="xs:decimal" minOccurs="0"/>  <xs:element name="seating\_capacity" type="xs:decimal" minOccurs="0"/>  <xs:element name="standing\_capcity" type="xs:decimal" minOccurs="0"/>  <xs:element name="sleeper\_capacity" type="xs:decimal" minOccurs="0"/>  <xs:element name="unladen\_weight" type="xs:decimal" minOccurs="0"/>  <xs:element name="laden\_weight" type="xs:decimal" minOccurs="0"/>  <xs:element name="fuel" type="xs:string" minOccurs="0"/>  <xs:element name="color" type="xs:string" minOccurs="0"/>  <xs:element name="manufacture\_month" type="xs:decimal" minOccurs="0"/>  <xs:element name="manufacture\_year" type="xs:decimal" minOccurs="0"/>  <xs:element name="vehicle\_norms" type="xs:string" minOccurs="0"/>  <xs:element name="vehiclecatg\_code" type="xs:string" minOccurs="0"/>  <xs:element name="vechile\_category" type="xs:string" minOccurs="0"/>  <xs:element name="registration\_validity\_upto" type="xs:dateTime" minOccurs="0"/>  <xs:element name="fitness\_validity\_upto" type="xs:dateTime" minOccurs="0"/>  <xs:element name="mobile\_number" type="xs:decimal" minOccurs="0"/>  </xs:sequence>  </xs:complexType>  </xs:element>  </xs:choice>  </xs:complexType>  </xs:element>  </xs:schema>  <diffgr:diffgram xmlns:msdata="urn:schemas-microsoft-com:xml-msdata" xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1">  <DocumentElement xmlns="">  <REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD diffgr:id="REGISTRATION NUMBER RECORD1" msdata:rowOrder="0">  <state\_code>KA</state\_code>  <office\_name>Ramdurga ARTO</office\_name>  <registration\_number>KA01M1256</registration\_number>  <registration\_date>1990-08-14T00:00:00+05:30</registration\_date>  <purchase\_date>1990-08-14T00:00:00+05:30</purchase\_date>  <owner\_serial>2</owner\_serial>  <owner\_name>RAMACHANDRA V BILAGI</owner\_name>  <son\_wife\_aughter\_of>VEERABHADRAPPA</son\_wife\_aughter\_of>  <current\_address>A/P: SAGAR CLINIC,RAMDURG,TQ: RAMDURG,DIST: BELGAUM,KA,999999</current\_address>  <vehicle\_class\_description>7</vehicle\_class\_description>  <vehicle\_class>Motor Car</vehicle\_class>  <vhclasstype\_code>2</vhclasstype\_code>  <chasis\_number>380017</chasis\_number>  <engine\_number>532475</engine\_number>  <maker>PREMIER LTD</maker>  <maker\_model>PREMIER PADMINI (STD.)</maker\_model>  <body\_type>Not Available</body\_type>  <no\_of\_cylinder>3</no\_of\_cylinder>  <seating\_capacity>4</seating\_capacity>  <standing\_capcity>0</standing\_capcity>  <sleeper\_capacity>0</sleeper\_capacity>  <unladen\_weight>620</unladen\_weight>  <laden\_weight>0</laden\_weight>  <fuel>PETROL</fuel>  <color>NA</color>  <manufacture\_month>0</manufacture\_month>  <manufacture\_year>1990</manufacture\_year>  <vehicle\_norms>Not Available</vehicle\_norms>  <vehiclecatg\_code>LMV</vehiclecatg\_code>  <vechile\_category>LIGHT MOTOR VEHICLE</vechile\_category>  <registration\_validity\_upto>2005-08-13T00:00:00+05:30</registration\_validity\_upto>  <fitness\_validity\_upto>2005-08-13T00:00:00+05:30</fitness\_validity\_upto>  <mobile\_number>0</mobile\_number>  </REGISTRATION\_x0020\_NUMBER\_x0020\_RECORD>  </DocumentElement>  </diffgr:diffgram>  </GetVehInfoByRegnNoResult>  </GetVehInfoByRegnNoResponse>  </soap:Body>  </soap:Envelope> | | |
| Error | | |
| **Sample 1**   * As is Error Propagation from down stream service (This means whatever the destination service throws | | |