Technical Specifications

**Microservice\_Facets\_Stepwise\_Rate\_Inquiry** -Technical Specification

|  |  |  |  |
| --- | --- | --- | --- |
|  | Prepared By | Reviewed By | Approved By |
| Name | Himanshu |  |  |
| Signature | Himanshu |  |  |
| Date | 05/07/2018 |  |  |

Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Version | Description | Author | Reviewer |
| 05/07/2018 | 0.1 | Initial Version Created | Himanshu |  |
| 01/10/2-19 | 1.0 | Added DG3 Changes | Himanshu |  |

Contents

[1. Overview 3](#_Toc488948123)

[1.1. Purpose 3](#_Toc488948124)

[1.2. Functional Description 3](#_Toc488948125)

[1.3. Key Considerations 3](#_Toc488948126)

[1.4. Related Documents References 3](#_Toc488948127)

[1.5. Acronyms and Terms 4](#_Toc488948128)

[2. Technical Description 5](#_Toc488948129)

[2.1. Technical Flow Diagram 5](#_Toc488948130)

[2.2. Techical Flow Details 5](#_Toc488948132)

[2.3. Error Processing 5](#_Toc488948133)

[2.4. Architectural Mechanism 7](#_Toc488948134)

[2.5. Application Interfaces 7](#_Toc488948135)

[2.6. Security 7](#_Toc488948136)

# Overview

## Purpose

*This document details out the technical implementation of Facets Stepwise Rate Inquiry Microservices used to extract Rate information from Facets FXI service.*

## Functional Description

*This service takes the member data in the form of an XML as an input request. This xml is formatted into facets readable format as an input to FXI service . Service would send back the success/failure acknowledgement.*

. Please see the service details as below :

Mule Service for Rate Inquiry details as below:

1. Requestor needs to post the Input XML with necessary Tags to the below endpoint : {host}:8562/api/rates/application/retrieveprice/v1
2. . Request to the service would be in XML format as below :

<GetQuote>

  <pConfig>

   <AppModuleID>FSG</AppModuleID>

    <ProcessID>RATE</ProcessID>

    <ProcessRunID />

  </pConfig>

<value>

  <QuoteRequest>

     <Coverage>1</Coverage>

     <State>IN</State>

<ResidenceState>WV</ResidenceState>

     <ZipCode>46278</ZipCode>

     <County/>

<PrimaryInsured>

      <Age>30</Age>

         <Gender>F</Gender>

         <HealthClass>4</HealthClass>

         <Tobacco>false</Tobacco>

      <DateOfBirth xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/> </PrimaryInsured>

     <SpouseInsured>

     <Age>31</Age>

                <Gender>M</Gender>

               <HealthClass>4</HealthClass>

                <Tobacco>false</Tobacco>

                <DateOfBirth xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nil="true"/>

      </SpouseInsured>

      <Children/>

     <PaymentMode>M</PaymentMode>

      <EffectiveDate>5/10/2018</EffectiveDate>

      <QuoteSource>Estore DTC Quote</QuoteSource>

     <QuotePlanFilter>

       <string>Vision Plan A</string>

      </QuotePlanFilter>

    </QuoteRequest>

</value>

</GetQuote>

* DG3 Request(Added Generation Method and Plan Filter)

<GetQuote>

<pConfig>

<AppModuleID>FSG</AppModuleID>

<ProcessID>RATE</ProcessID>

<ProcessRunID></ProcessRunID>

</pConfig>

<value>

<QuoteRequest>

<Coverage>2</Coverage>

<State>WV</State>

<ResidenceState>WV</ResidenceState>

<ZipCode>XXXXX</ZipCode>

<County></County>

<PrimaryInsured>

<Age>47</Age>

<Gender>M</Gender>

<HealthClass>4</HealthClass>

<Tobacco>false</Tobacco>

</PrimaryInsured>

<SpouseInsured>

<Age>54</Age>

<Gender>F</Gender>

<HealthClass>4</HealthClass>

<Tobacco>false</Tobacco>

</SpouseInsured>

<Children>

<Child>

<Age>1</Age>

<Gender>M</Gender>

<HealthClass>4</HealthClass>

<Tobacco>false</Tobacco>

</Child>

<Child>

<Age>25</Age>

<Gender>F</Gender>

<HealthClass>4</HealthClass>

<Tobacco>false</Tobacco>

</Child>

<Child>

<Age>14</Age>

<Gender>M</Gender>

<HealthClass>4</HealthClass>

<Tobacco>false</Tobacco>

</Child>

</Children>

<PaymentMode>M</PaymentMode>

<EffectiveDate>09/01/2018</EffectiveDate>

<Generation>DE3</Generation>

<ApplicationTypeFilter>

<string>DENTAL</string>

</ApplicationTypeFilter>

<QuotePlanFilter>

<string>Premier Choice</string>

</QuotePlanFilter>

</QuoteRequest>

</value>

</GetQuote>

1. Service would be HTTPS authenticated, and there will be some additional config fields for logging and authentication purpose such as External User ID, App Module Id, Process Id etc.
2. Response from the service would be in XML format as below :
   1. In case FXI Returns Valid Response from Facets :

<GetQuoteResponse xmlns:xsd="<http://www.w3.org/2001/XMLSchema>" xmlns:xsi="<http://www.w3.org/2001/XMLSchema-instance>" xmlns="<http://www.goldenrulehealthws.com/IWebQuoteService/Latest>">

<GetQuoteResult>

<Plans>

<Plan>

<Name>Vision Plan A</Name>

<PlanType>Vision</PlanType>

<Generation>0</Generation>

<CoinsuranceDisplay>0</CoinsuranceDisplay>

<BrochureURL>[https://www.uhone.com/FileHandler.ashx?FileName=44276C1-G201804.pdf</BrochureURL](https://www.uhone.com/FileHandler.ashx?FileName=44276C1-G201804.pdf%3c/BrochureURL)>

<DailyRated>false</DailyRated>

<Benefits>

<Benefit>

<Description>Underwriter</Description>

<CoverageWebDescription>Golden Rule Insurance Company</CoverageWebDescription>

<Coverage>Golden Rule Insurance Company</Coverage>

<Category>Standard Benefits (In Network Provider)</Category>

<SortOrder>3</SortOrder>

</Benefit>

<Benefit>

<Description>Eye Exam (Once every 12 months)</Description>

<CoverageWebDescription>You pay: $10 Copay&amp;nbsp;</CoverageWebDescription>

<Coverage>You pay: $10 Copay</Coverage>

<Category>Standard Benefits (In Network Provider)</Category>

<SortOrder>4</SortOrder>

</Benefit>

<Benefit>

<Description>Frames (Once every 12 months)</Description>

<CoverageWebDescription>You pay: Any charge over $150 allowance</CoverageWebDescription>

<Coverage>You pay: Any charge over $150 allowance</Coverage>

<Category>Standard Benefits (In Network Provider)</Category>

<SortOrder>5</SortOrder>

</Benefit>

<Benefit>

<Description>Lenses (Once every 12 months)</Description>

<CoverageWebDescription>You pay: $10 Copay&amp;nbsp;</CoverageWebDescription>

<Coverage>You pay: $10 Copay</Coverage>

<Category>Standard Benefits (In Network Provider)</Category>

<SortOrder>6</SortOrder>

</Benefit>

<Benefit>

<Description>Contacts</Description>

<CoverageWebDescription><![CDATA[<div style="text-align: left;">Contacts benefit instead of glasses&nbsp;</div><div style="text-align: left;">&nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;You pay: $0 Copay</div>]]></CoverageWebDescription>

<Coverage>Contacts benefit instead of glasses

You pay: $0 Copay</Coverage>

<Category>Standard Benefits (In Network Provider)</Category>

<SortOrder>7</SortOrder>

</Benefit>

</Benefits>

<PlanRates>

<PlanRate>

<Coinsurance>None</Coinsurance>

<Deductible>0</Deductible>

<Network>UnitedHealthcare Vision</Network>

<Payment>Monthly</Payment>

<Months>0</Months>

<Rate>17.00</Rate>

<InactiveRate xsi:nil="true"/>

<OutOfPocketCoinsuranceMax/>

<CustomerCoinsurance/>

<EliminationPeriod xsi:nil="true"/>

<BenefitPeriod xsi:nil="true"/>

<BenefitAmount xsi:nil="true"/>

<OccupationalClass xsi:nil="true"/>

<DeathBenefitAmount xsi:nil="true"/>

<CriticalIllnessBenefitAmount xsi:nil="true"/>

<HosptialSicknessBenefitAmount xsi:nil="true"/>

</PlanRate>

</PlanRates>

<Options/>

<Enhancements/>

<PlanFees/>

<ProductType>VISION</ProductType>

<ApplicationType>VISION</ApplicationType>

<Networks>

<Network>

<Name>UnitedHealthcare Vision</Name>

<URL>http://myuhcvision.com</URL>

</Network>

</Networks>

<InternalGeneration>VIS</InternalGeneration>

<OnExchange>false</OnExchange>

<TaxCreditEligible>false</TaxCreditEligible>

<MetallicCode>None</MetallicCode>

<PcpCopay>None</PcpCopay>

<HiosId xsi:nil="true"/>

<SbcUrl xsi:nil="true"/>

<DisplayName>Vision - Plan A</DisplayName>

<CarrierDescription>Golden Rule Insurance Company</CarrierDescription>

<CsrEligible>false</CsrEligible>

<IsPcPRequired>false</IsPcPRequired>

<CsrLevel xsi:nil="true"/>

<CompanyCode>003</CompanyCode>

<RatingArea xsi:nil="true"/>

<CompanyName>UnitedHealthOne</CompanyName>

<IsGuaranteedIssue>false</IsGuaranteedIssue>

</Plan>

</Plans>

</GetQuoteResult>

</GetQuoteResponse>

* 1. In case FXI Returns no Response from Facets :

<Ack\_Response>Rate Information Does not Exists into Facets</Ack\_Response>

<AppReturn\_Code>455</AppReturn\_Code>

* 1. In case there is some discrepancy in schema :

   <AppResponse>Bad Request</AppResponse>

   <AppReturn\_Code>401</AppReturn\_Code>

* 1. In case there is no Billing data :

<AppResponse>Billing mode does not exist in FACETS</AppResponse>

   <AppReturn\_Code>455</AppReturn\_Code>

* 1. In case of invalid Subscriber ID

   <AppResponse>Subscriber ID does not exist in FACETS</AppResponse>

   <AppReturn\_Code>455</AppReturn\_Code>

* 1. In case of FXI Errors or handled exceptions

<AppResponse>The Requested Row was NOT on CER\_ATSX\_STYLE\_A</AppResponse>

  <AppReturn\_Code>601</AppReturn\_Code>

* 1. In case of any unhandled exception or DB connection Issue

<AppResponse>Internal Server Error : Execution of the expression "xpath3('GetPremiumInfo\_BySubscriberId/pSBSB\_ID')" failed.</AppResponse>

   <AppReturn\_Code>404</AppReturn\_Code>

1. Calling rate FXI using get function: -

URI- https://uhof-mule-test.uhc.com:8562/api/rates/application/getprice/v1?SbsbId=440060695&EffDate=11/01/2019&PlanId=D2E00001

## Related Application Requirements

*NA*

|  |  |
| --- | --- |
| # | Other Programs / Modules / Interfaces that will help to meet this requirement |
| 1 | <http://rates.uhone.com/Rates/rates.svc?wsdl> |

## Key Considerations

*NA*

|  |  |  |
| --- | --- | --- |
| Impact (New, Enhancement) | Object/Module/Program/File Type | Object/Module/Program/File Name |
|  |  |  |
|  |  |  |
|  |  |  |

## Related Documents References

This document use references from the following artifacts.

| Mapping Sheet |
| --- |
| [Stepwise\_RateInquiry\_Service\_Mapping\_Layout](http://it500.optum.com/sites/Facets/UHOne/Platform%20Build/Development/Scrum%20Teams/Team-Claim%20Gang/Stepwise_RateInquiry_Service_Mapping_Layout.xlsx) |

| RAML |
| --- |
|  |

## Acronyms and Terms

The following list of acronyms and terms are used within this document:

| Acronym / Term | Description |
| --- | --- |
| FXI | Facets eXtended Integration |

# Technical Description

*This micro service is developed using Mule Framework. It reads the data sent in the form of an xml, using that value to serach claim details into facets. Once the request is validated, Facets is sent back a response.*

## Technical Flow Diagram

## 

* + 1. BRC
* STEPWISE\_PDPD\_DESC

## Mule Flow Diagram

## Application Interfaces

| Environment | Bank Inquiry Service URI |
| --- | --- |
| DEV | https://uhof-mule-dev.uhc.com:8562/api/rates/application/retrieveprice/v1 |
| TEST | [https://uhof-mule-test.uhc.com:8562/api/rates/application/retrieveprice/v1](https://uhof-mule-test.uhc.com:8507/api/FacetsMicroService/Claims/ListMemberClaimInfo/v1) |
| TEST03 | <https://uhof-mule-test03.uhc.com:8562/api/rates/application/retrieveprice/v1> |
| STAGE | [https://uhof-mule-stg.uhc.com:8562/api/rates/application/retrieveprice/v1](https://uhof-mule-stg.uhc.com:8507/api/FacetsMicroService/Claims/ListMemberClaimInfo/v1) |
| PROD | <https://uhof-mule-prod.uhc.com:8562/api/rates/application/retrieveprice/v1> |

| Environment | Health Check URI |
| --- | --- |
| DEV | N/A |
| TEST | N/A |
| TEST03 | N/A |
| STAGE | N/A |
| PROD | N/A |

## Security

*All Services are HTTPS secured using TLS configuration,Certificates used has been attached as below :*

## Restart Processing

* + 1. Program Restart
* Microservice\_Facets\_Stepwise\_Rate\_Inquiry can be restarted from mmc server in case of any failure.

.

* + 1. Batch Restart <NA>