



tetherfi

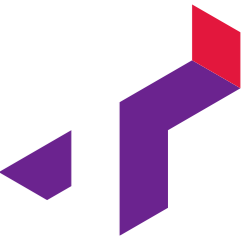
Interaction Workflow Engine



THE STRAITS TIMES
Singapore's **Fastest Growing Companies**
2019 statista

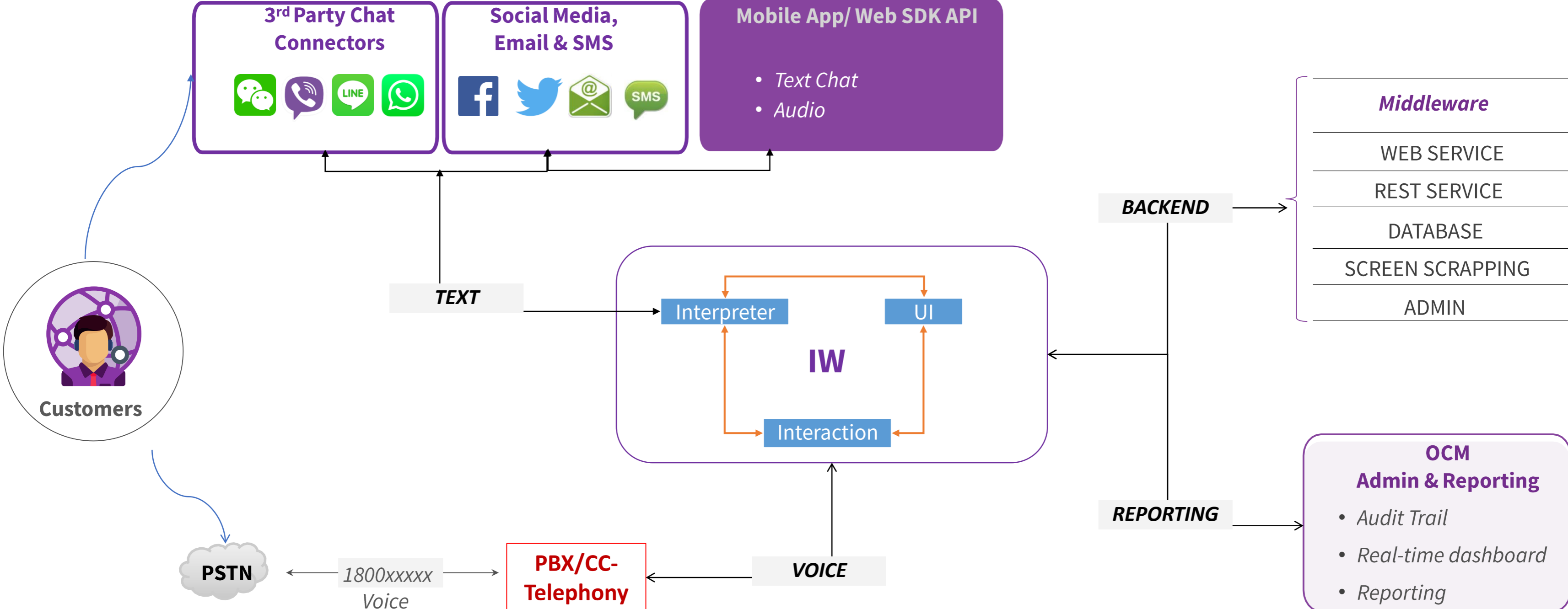
Omni-Channel (Voice, Text) Directed Dialogue and NLP based
Virtual Assist
June 15, 2019

AGENDA

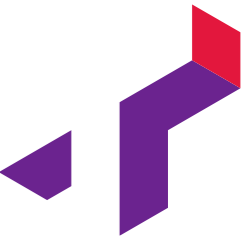


- Overview - Interaction Workflow Engine
- Text based Virtual Assist - Chat
- Speech Recognition based Virtual Assis - IVR
- Case Study

Interaction Workflow Component Flow



Challenges – Current IVR



Time & Cost to market is significantly high

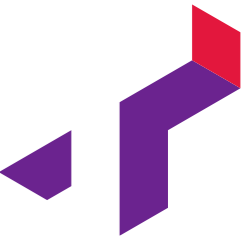
Time & Cost to refresh call flow is significantly high

Change Request process cumbersome & time consuming

Cost to Implement & Maintain rich advanced IVR functionalities is significantly high

SI/Vendor dependency is too high

Interaction Workflow Engine - Overview



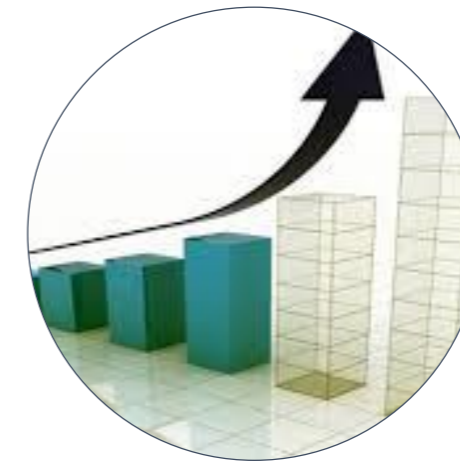
Design

- Consultative approach to figure out the best/optimal customer experience.



Assemble

- IW Configurator. Stitch the modules together into Call Tree.



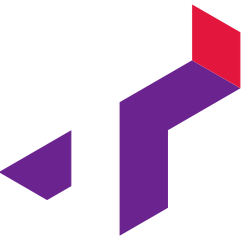
Optimize

- Analytical Services/ Reports for continuous and better customer experience.



Imperatives for a better Customer Experience

Interaction Workflow - Features

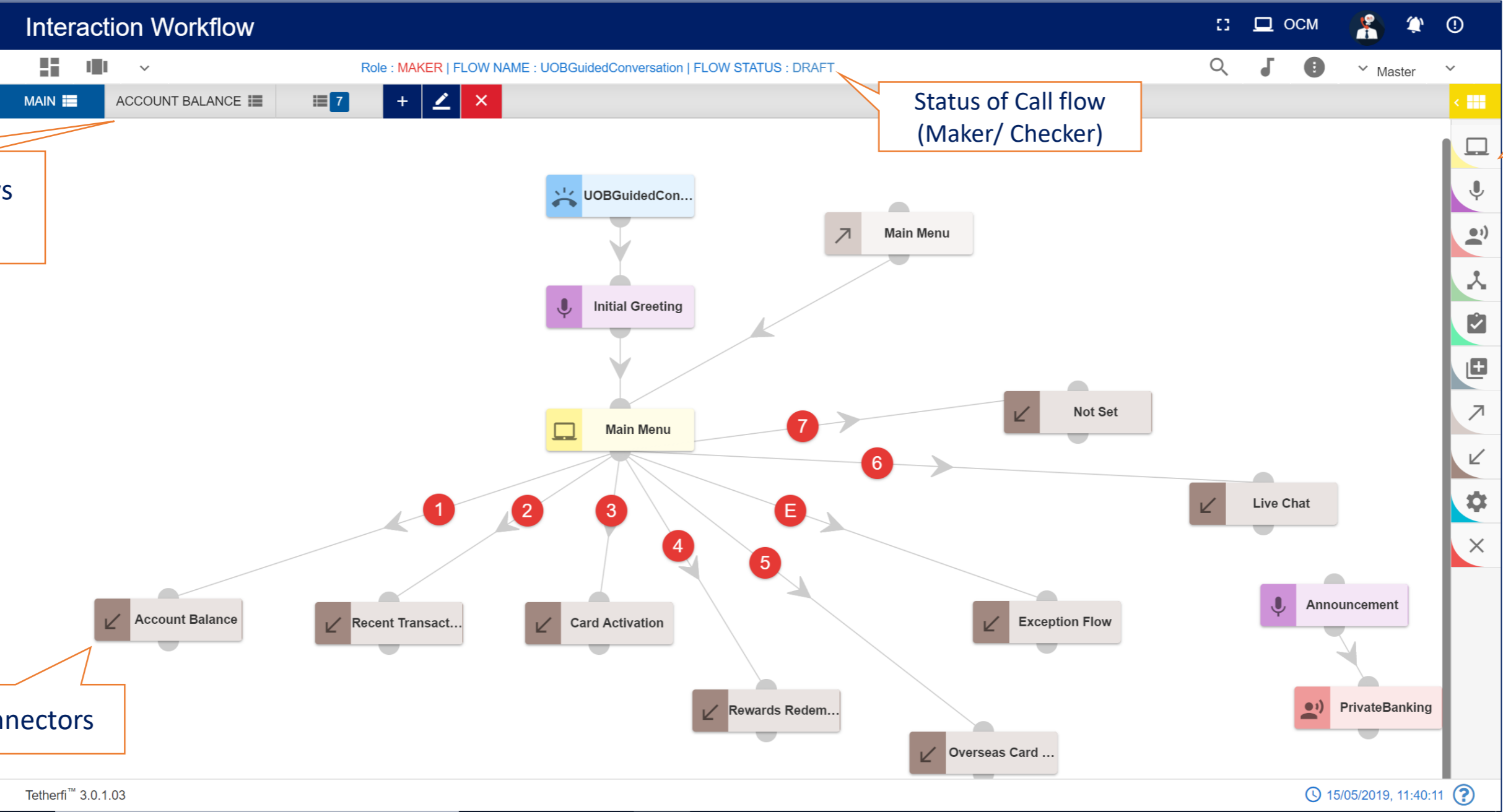
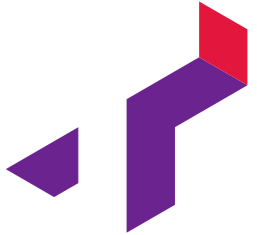


Interaction Workflow:

- IW is a web based module which allows users to modify / shuffle the call flow without making any changes to the application.
- **Single Application** for Self Service across IVR and Text based Channels (Chat, Social Media Channels) for unified and consistent experience.

GUI – Web Based Easy to use Interface	Creating Standalone call flows which can be plugged into different call flow points
Modular Call Flows – Dynamic & Easy to configure	Ability to create call flow for multiple hotlines with multiple language support
Maker Checker	Scheduling
Roll-back	Built-in failover capabilities
Ability to alter of IVR prompts/modules / menus and other configurations	Call Simulation – IVR Call flow can be vetted on the browser itself

Interaction Workflow - Snapshot



Ability to break call flows into Multiple tabs

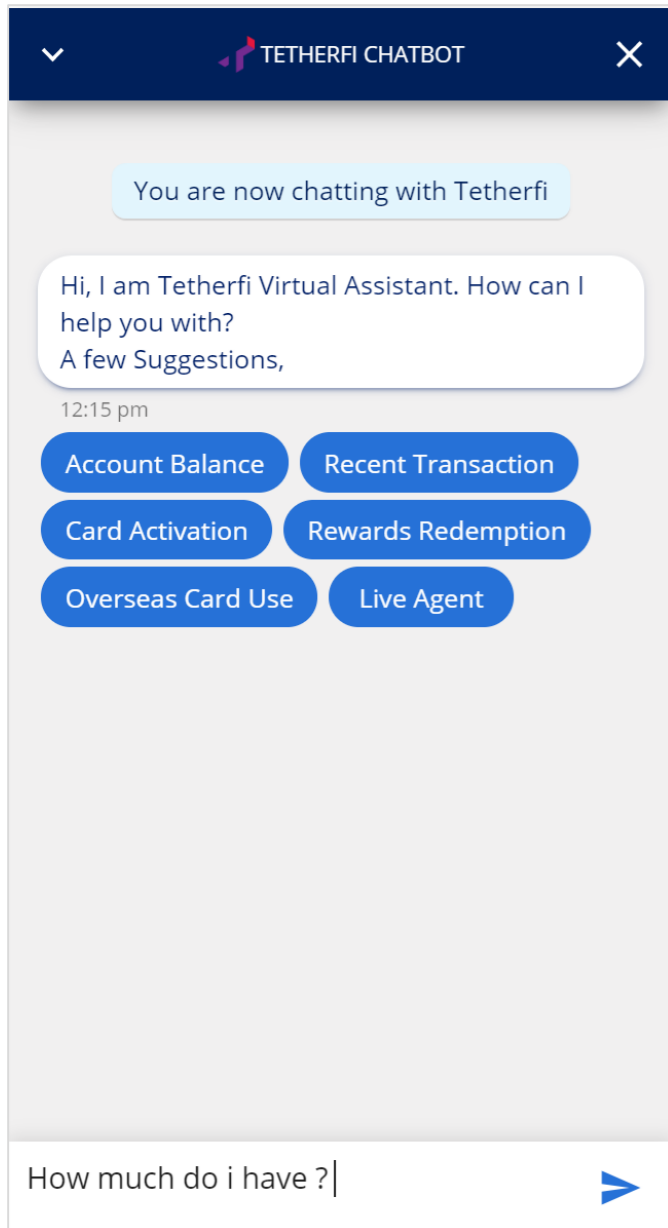
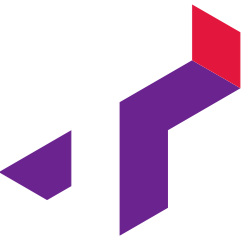
Status of Call flow (Maker/ Checker)

Node Palette (Available for Drag n Drop)

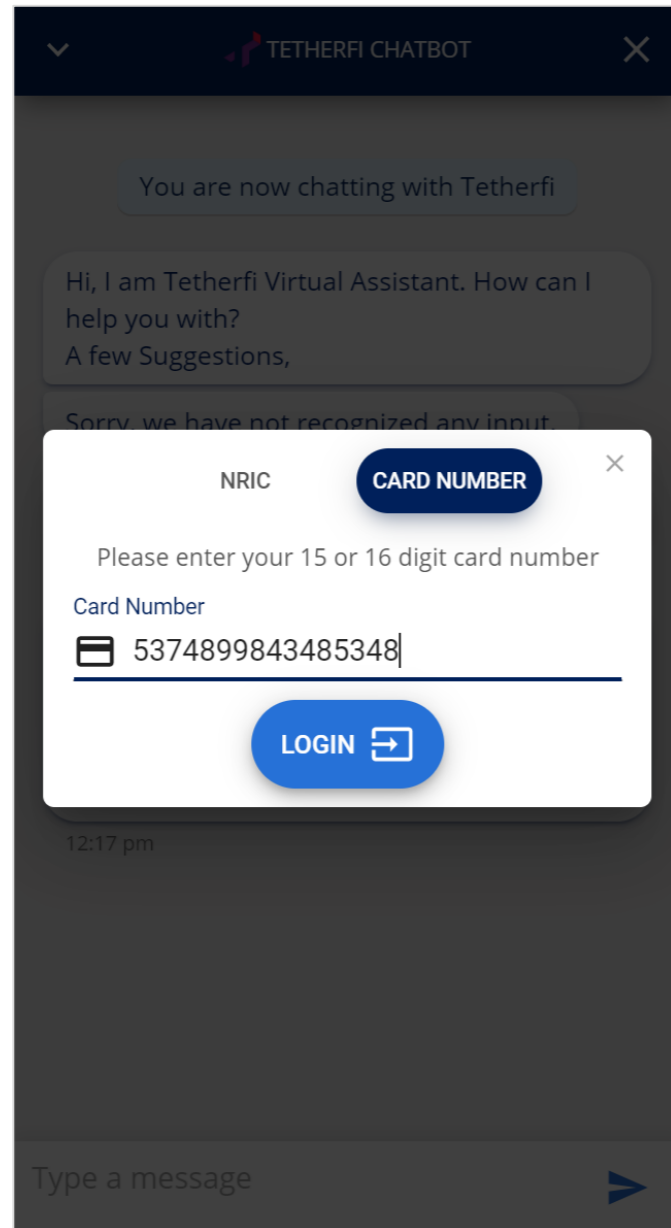
Page Connectors

Web Based User Interface

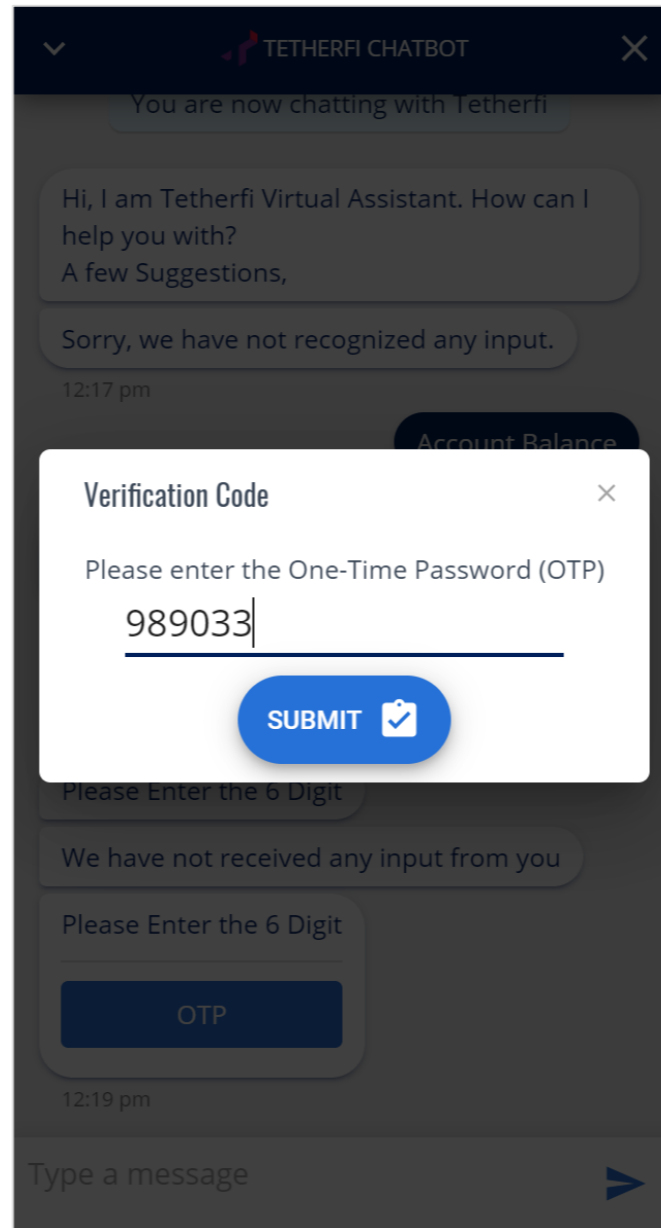
Sample Web Chat Screen – can extend to any textual content like Facebook/IM, WhatsApp, LINE, Viber, etc.



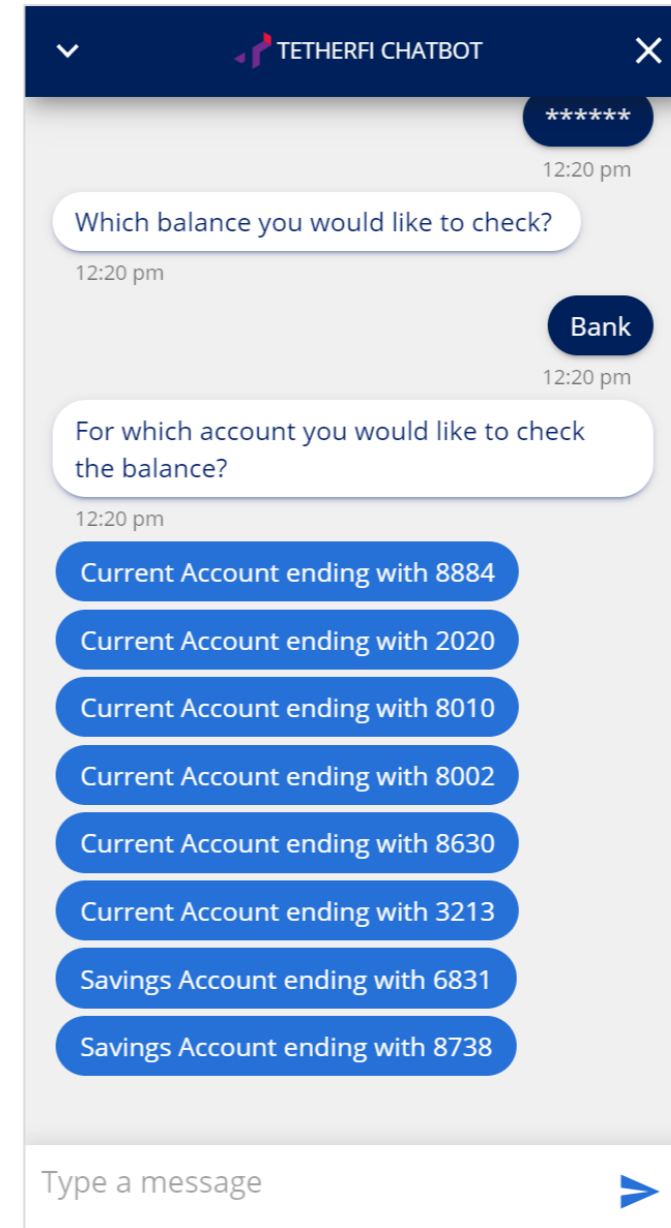
Greeting Messages , Menu Configuration based on IW



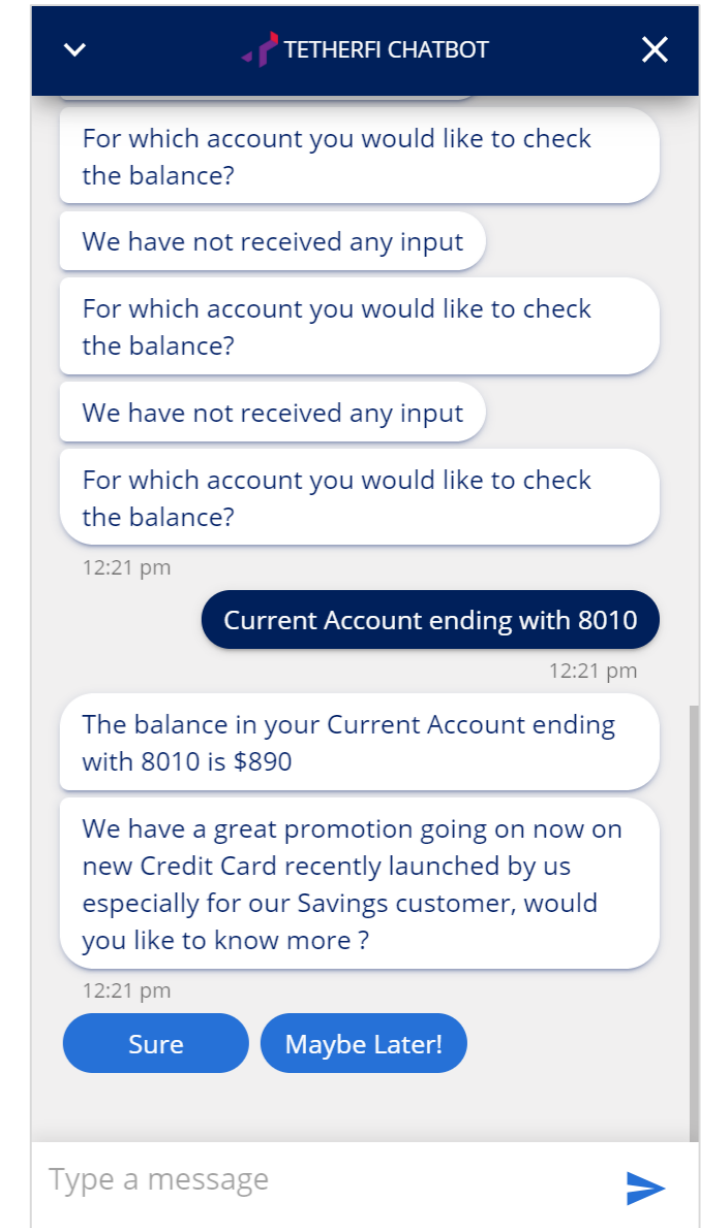
Out of the box Widgets for Customer Input



2FA Authentication

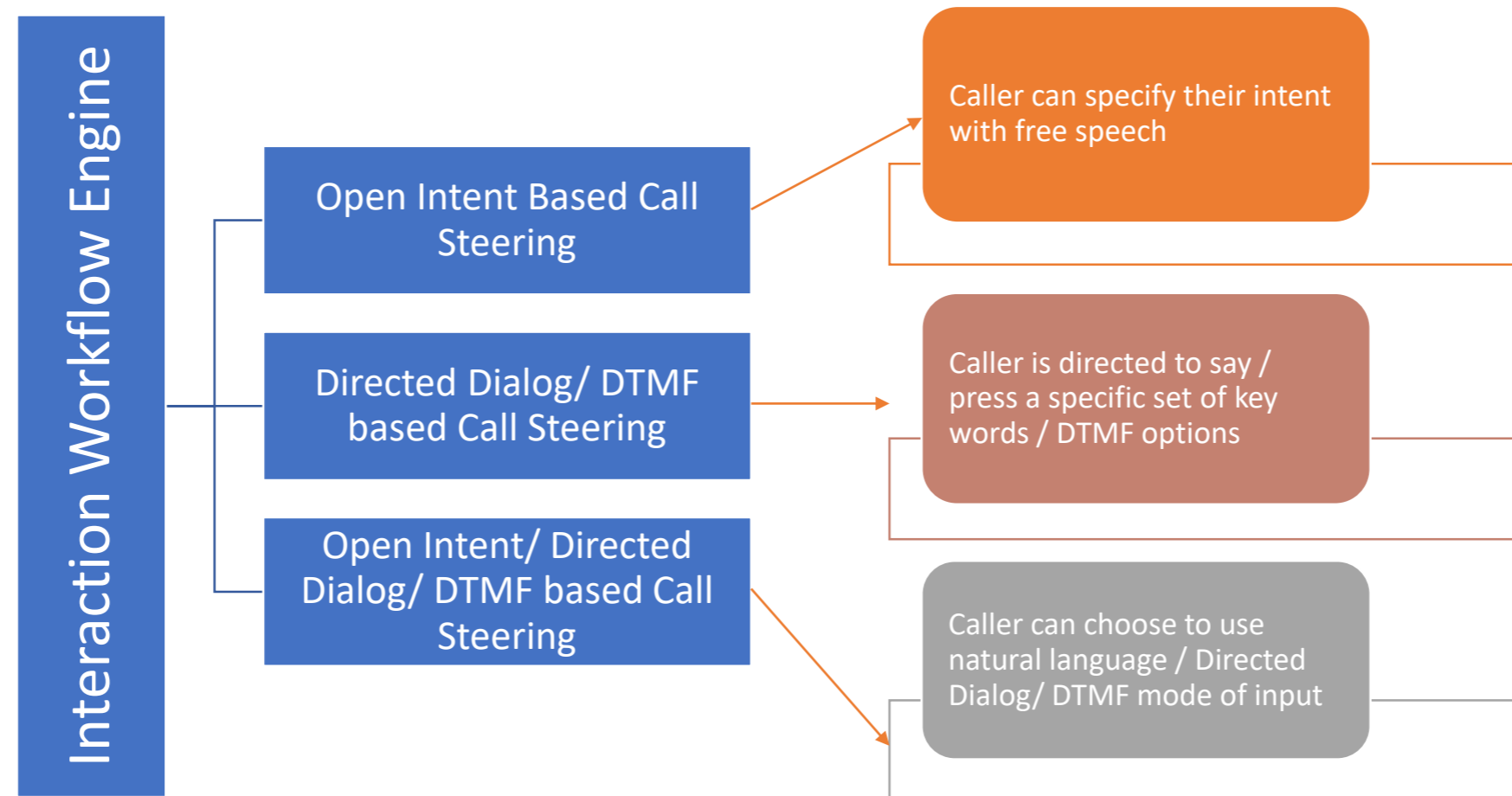


Listing of Account Information

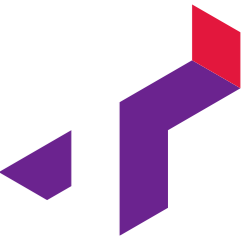


Customer gets his balance and based on which can be offered with new promotions

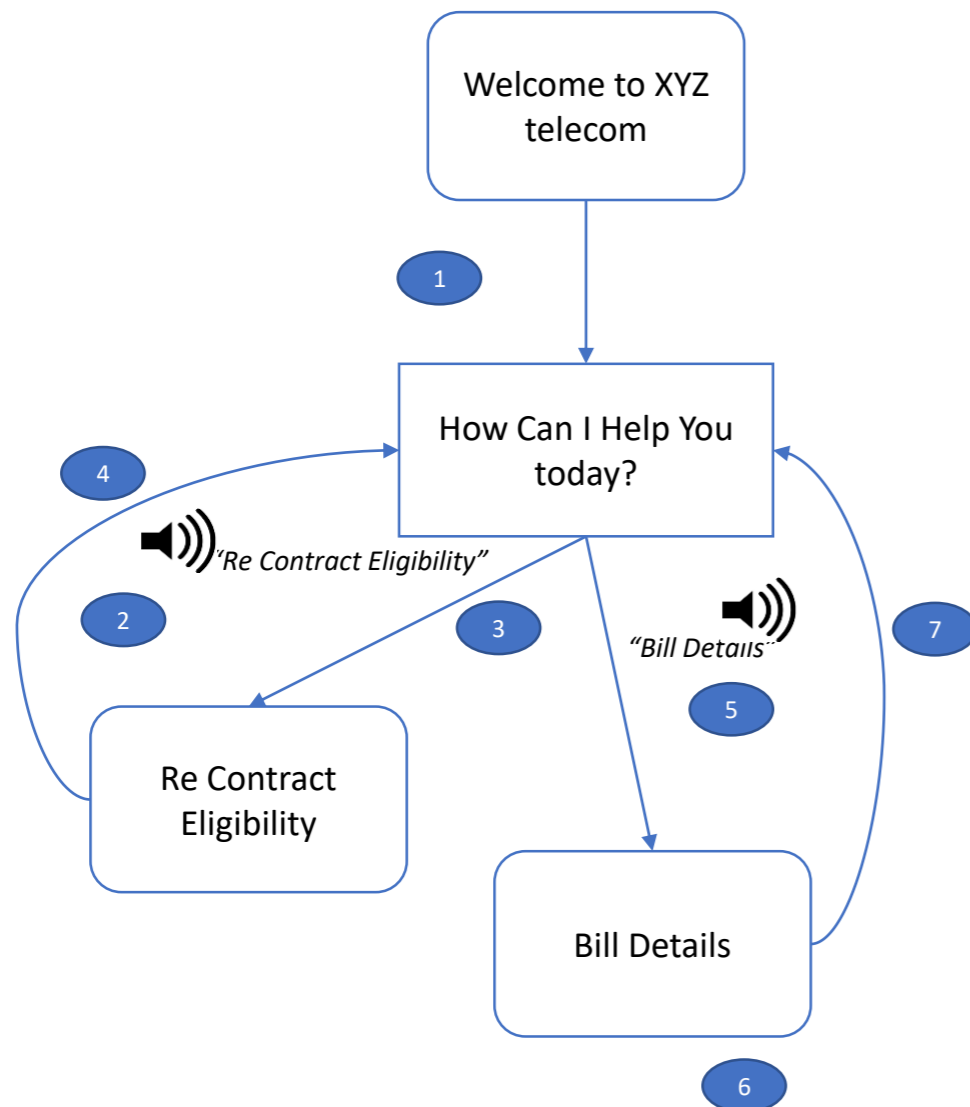
Speech Recognition - IWE



Open Intent based Call Steering



A



1. Customer is greeted with an open ended question

2. Customer : "re-contract eligibility"

3. IWE routes the call to Re Contract Module

4. Caller is taken back to the initial step

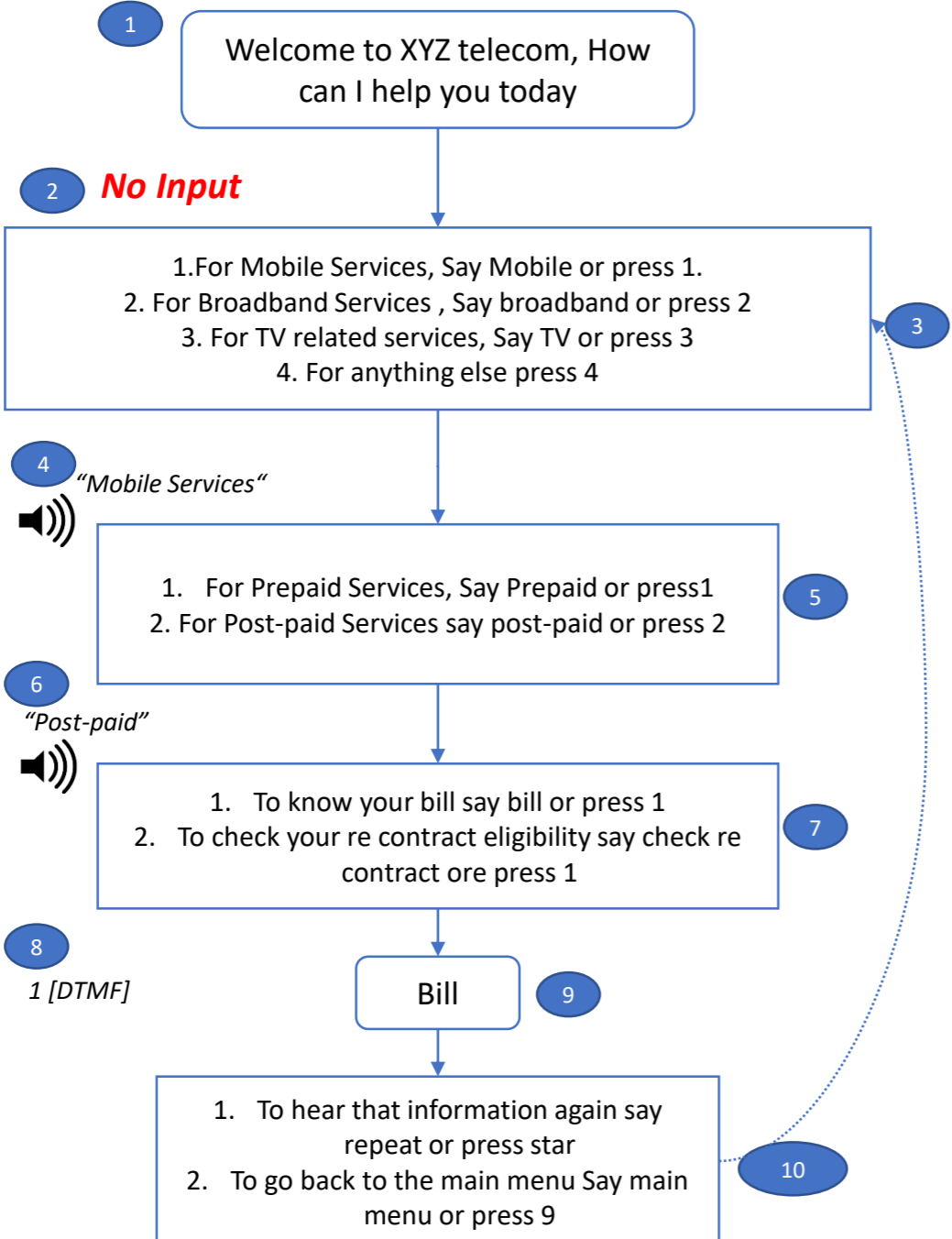
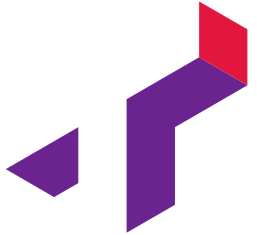
5. Customer : "Bill Details"

6. IWE routes the call to Bill Module

7. On Completion, Customer Is again taken back to the initial step

Every time the customer will be asked an open ended question and the response will be tagged to a Self Service Module

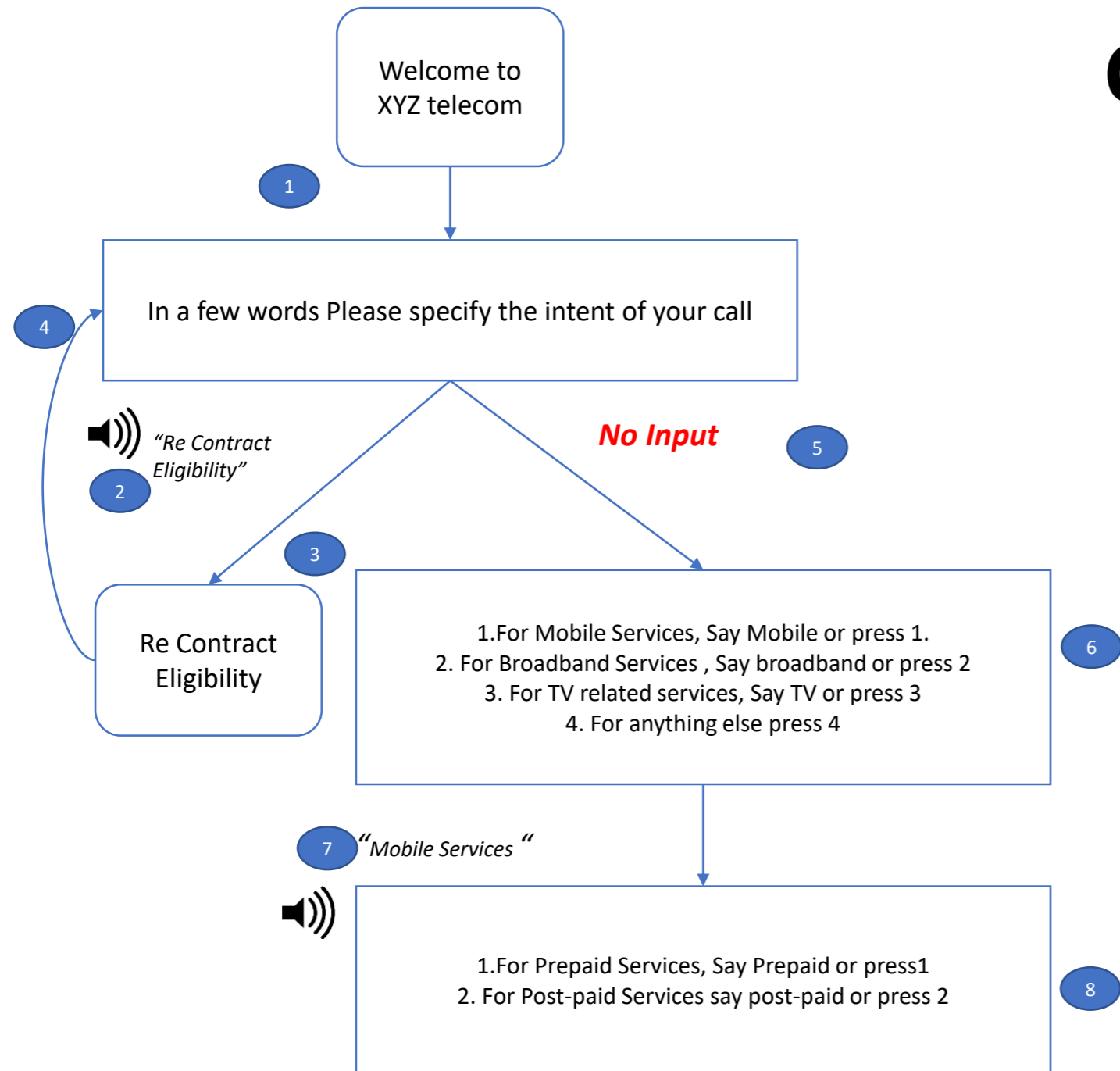
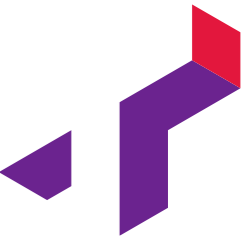
Directed Dialog / DTMF based Call Steering



B

1. Customer is greeted with an open ended question
2. Customer : No Input
3. Customer is presented a DTMF combined with Directed Speech Menu – “Main Menu”
4. Customer : “Mobile Services”
5. Customer is presented Sub Level Menu – Mobile Services
6. Customer : “Post-paid”
7. Customer is presented Sub Level Menu – Post-paid Menu
8. Customer : Press 1
9. IWE routes the call to Bill Module
10. Customer is presented Global Menu

Open Intent/ Directed Dialog/ DTMF based Call Steering

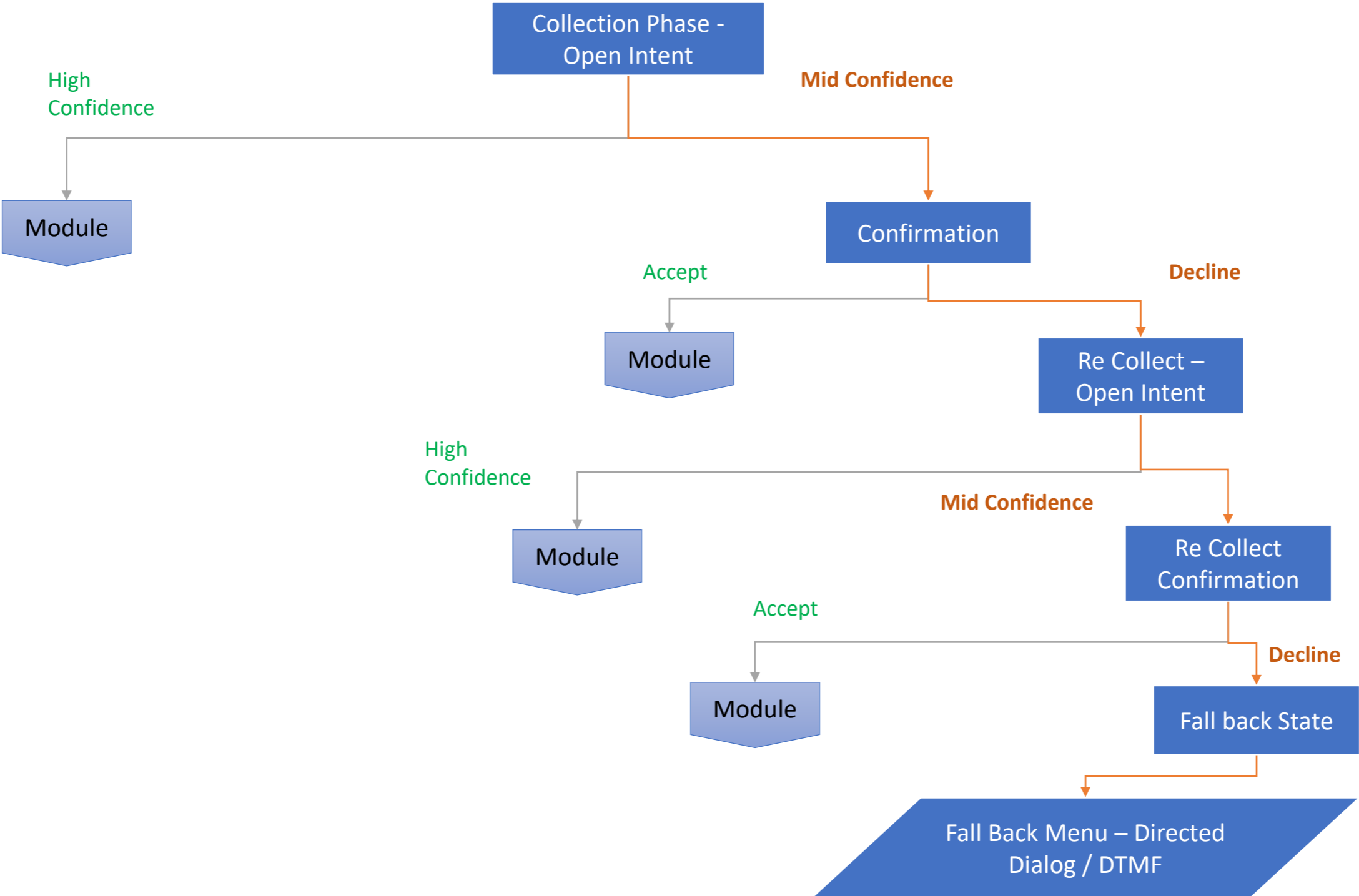


C

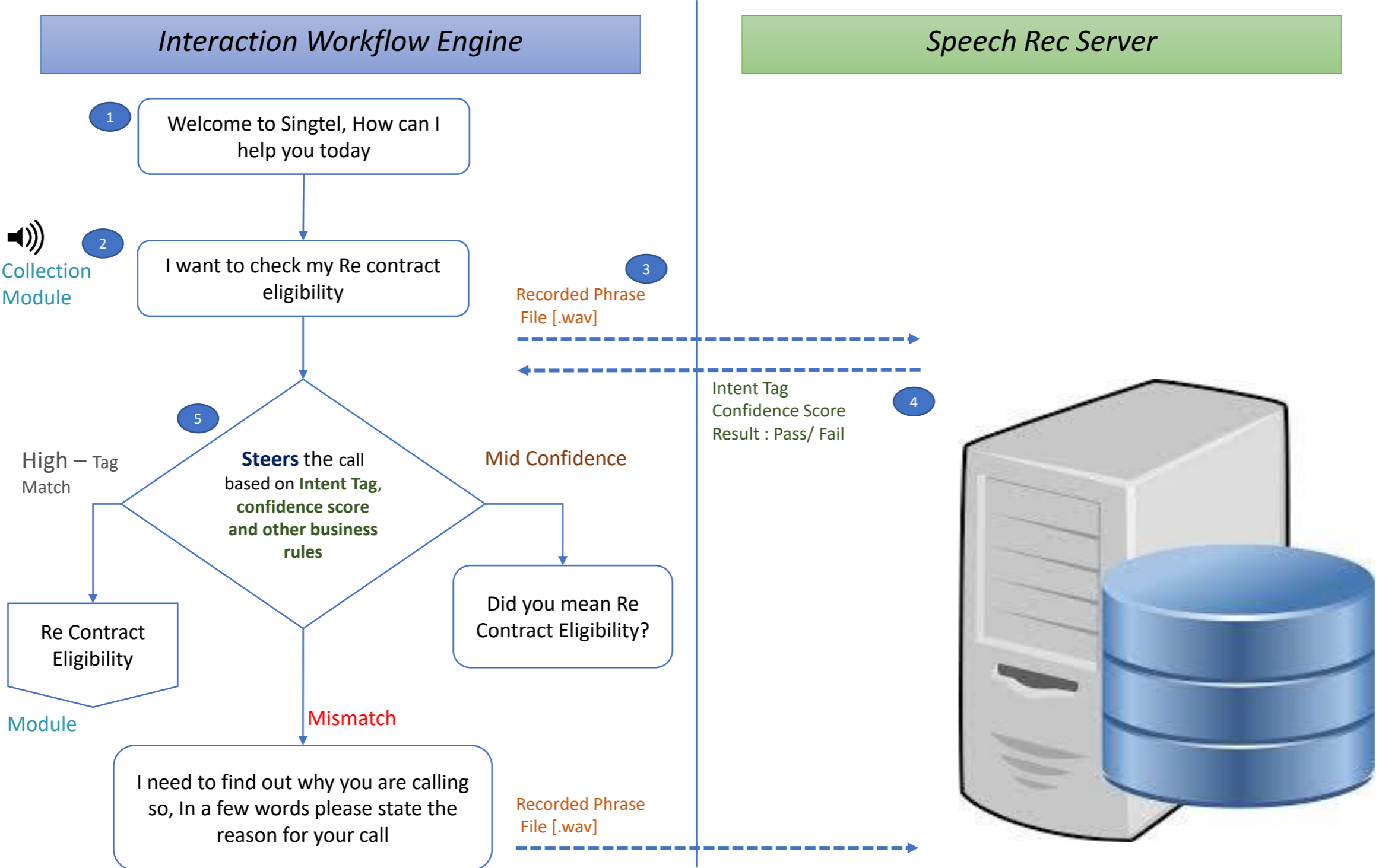
1. Caller is greeted with an open ended /directed dialog / DTMF based Menu
2. Customer : "re-contract eligibility"
3. IWE routes the call to Re Contract Module
4. Customer is taken back to the initial step
5. Customer : No Input
6. Customer is taken to the "Main Menu" of the IVR call flow
7. Customer : "Mobile Services"
8. Customer is taken to a sub level Mobile services menu

The flow proceeds as – "B"

Call Steering Levels



Solution Process Flow – Speech Rec



Live Session Dashboard



Interaction Workflow

Total Calls:
15 Sec.

DNIS	Session id	Start Time	End Time	Duration
HealthCare	livechat29000190705083449_5996	05-Jul-2019 08:34:54		
HealthCare	livechat29000190705083449_5996	05-Jul-2019 08:34:55	05-Jul-2019 08:35:39	43
HealthCare	livechat29000190705104748_5997	05-Jul-2019 10:47:53	05-Jul-2019 10:48:12	19

Search DNIS

Showing 1 to 10 of 3 entries

[Previous](#) [Next](#)

Menu 7 28%	Start 3 12%	Agent 2 8%
Conditional Rule 0 0%	Module 0 0%	Announcement 4 16%
Assignment 0 0%	Action 0 0%	PNC 0 0%
Disconnect 0 0%	End 9 36%	

Session : livechat29000190705104748_5997

```

graph LR
    Start[HEALTHCARE  
Node Id: Start  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:47:53] --> MN001[MAIN MENU  
Node Id: MN_001  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:47:53]
    MN001 --> MN002[SELECT BODY PART  
Node Id: MN_002  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:48:00]
    MN002 --> ANN10[QUEUE VIDEO  
Node Id: ANN_10  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:48:06]
    ANN10 --> AGT001[LIVE AGENT  
Node Id: AGT_001  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:48:06]
    AGT001 --> End[END  
Node Id: End  
Flowname: HealthCare  
Date / Time: 05-Jul-2019 10:48:06]
    
```

List of Live Sessions Along with Start Time, End Time, Duration

Node Count

Node Traversal : Interaction Path

Live Session Dashboard : Node Count



Interaction Workflow

Total Calls: 3 15 Sec. 05/07/2019, 10:55:28

DNIS	Session id	Start Time	End Time	Duration	Menu
HealthCare	livechat29000190705083449_5996				
HealthCare	livechat29000190705083449_5996				
HealthCare	livechat29000190705104748_5997				

Search DNIS: Search Session id

Showing 1 to 10 of 3 entries

MENU 7 (28%)

Search: _____

Node Name	Count
Heart-MN_300	1
Opt For Agent-MN_400	1
Select Body Part-MN_002	2
Main Menu-MN_001	3

Showing 1 to 4 of 4 entries

Previous 1 Next

CLOSE

Total Node count based on individual nodes

Session : livechat29000190705104748_5997

HEALTHCARE
Node Id: Start
Flowname : HealthCare
Date / Time : 05-Jul-2019 10:47:53

MAIN MENU
Node Id: MN_001
Flowname : HealthCare
Date / Time : 05-Jul-2019 10:47:53

SELECT BODY PART
Node Id: MN_002
Flowname : HealthCare
Date / Time : 05-Jul-2019 10:48:00

QUEUE VIDEO
Node Id: ANN_10
Flowname : HealthCare
Date / Time : 05-Jul-2019 10:48:06

LIVE AGENT
Node Id: AGT_001
Flowname : HealthCare
Date / Time : 05-Jul-2019 10:48:06

END
Node Id: End
Flowname :
Date / Time : 05-Jul-2019 10:48:06

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Live Session Dashboard : Detailed View



← Session : livechat29000190705104748_5997

10:47:53

```

    graph LR
      Start((Start)) --> MN001[MAIN MENU  
Node Id: MN_001  
Flowname : HealthCare  
Date / Time : 05-Jul-2019 10:47:53]
      MN001 --> MN002[SELECT BODY PART  
Node Id: MN_002  
Flowname : HealthCare  
Date / Time : 05-Jul-2019 10:48:00]
      MN002 --> ANN10[QUEUE VIDEO  
Node Id: ANN_10  
Flowname : HealthCare  
Date / Time : 05-Jul-2019 10:48:06]
      ANN10 --> AGT001[LIVE AGENT  
Node Id: AGT_001  
Flowname : HealthCare  
Date / Time : 05-Jul-2019 10:48:06]
      AGT001 --> End[END  
Node Id: End  
Flowname :  
Date / Time : 05-Jul-2019 10:48:08]
  
```

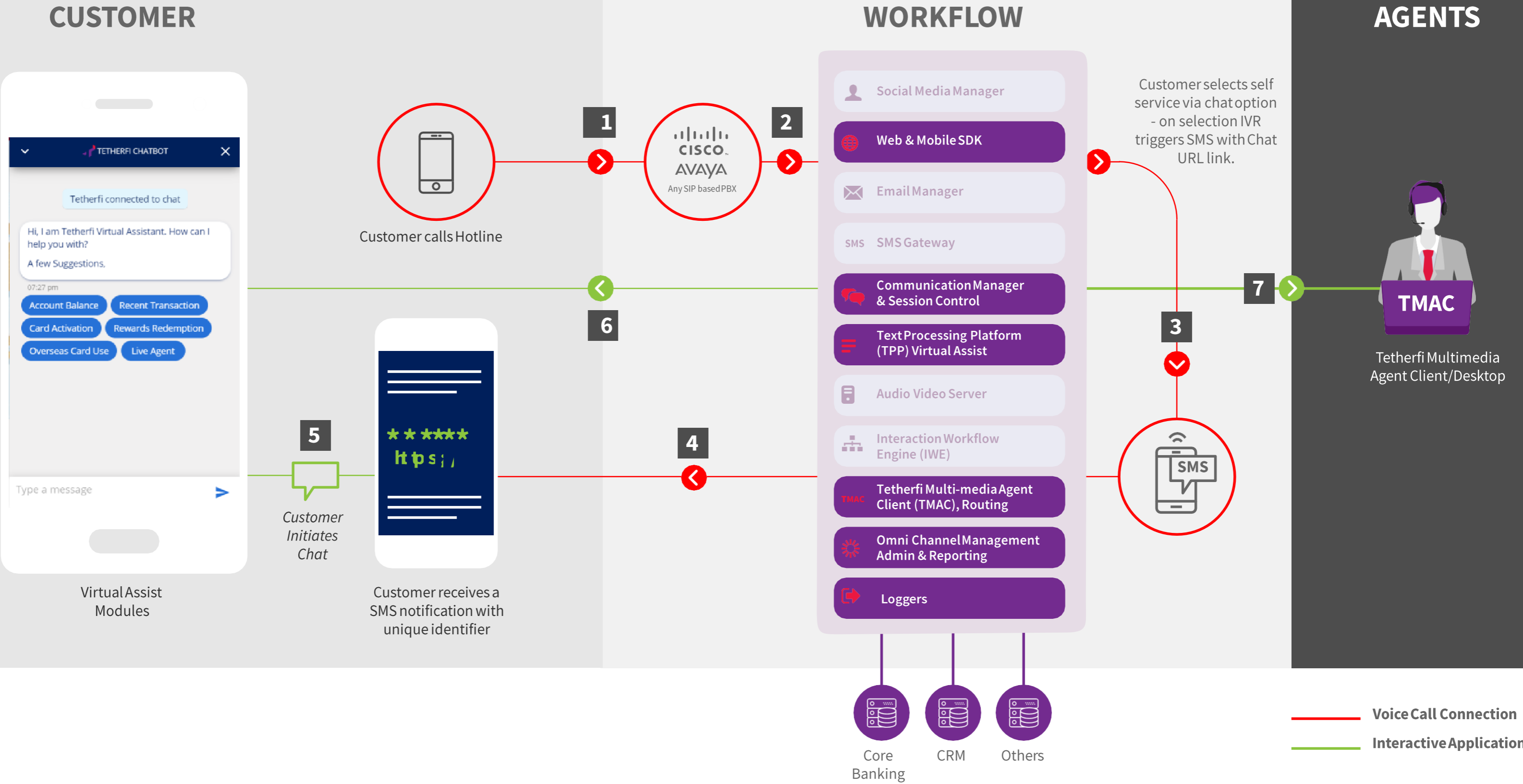
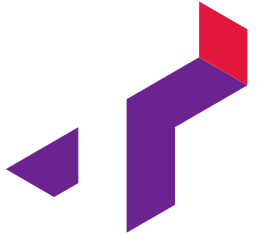
Node Id	Node Type	Date Time	Node Name	Node Exit Value	Node Exit Description
Start	dnis	05-Jul-2019 10:47:53	HealthCare	NA	NA
MN_001	menu	05-Jul-2019 10:47:53	Main Menu	NA	NA
MN_002	menu	05-Jul-2019 10:48:00	Select Body Part	NA	NA
ANN_10	announcement	05-Jul-2019 10:48:06	Queue Video	NA	NA
AGT_001	agent	05-Jul-2019 10:48:06	Live Agent	NA	NA
End	End	05-Jul-2019 10:48:08	END	NA	NA

Customer Identification	Customer Mobile Number	Is Customer Authenticated
NA	NA	false

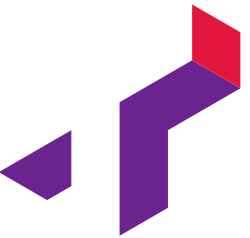
Session Information

Individual Node Details

Use Case 1 : Deflect to Digital



Dynamic IVR : Commercial Bank in Singapore



Business Banking Commercial Service Centre

One of World's 10 strongest \$100 billion assets banks

- Static and Non Contextual IVR
- Difficulty in executing **change requests** owing to tedious process & not agile.
- **DTMF IVR** – Less Self Service Modules
- **Best Agent Routing** – Less number of skills which can be created owing to Limited options
- **Higher transaction times** (frustration in interactions), poor customer service (owing to low TCR, FACR)
- Low agent morale handling disgruntled, frustrated customers

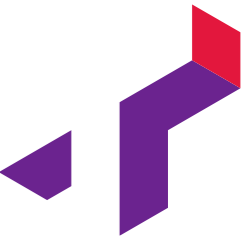
Solution including implementing:

- **Modular and integrated self service apps** with **Interaction Workflow Engine** allowing business users to make IVR call flow changes
- Integrating applications with Avaya platform, CTI, Siebel CRM providing a unified customer experience.
- **English & Mandarin Speech support** for IVR combined with **Interaction Workflow Steering**.
- Apps provide analytics data that enable to monitor, track and take proactive changes to continuously improve performance
- **TMAC -Agent desktop** integration with Siebel CRM to manage service requests

- Ability to add **more Straight Through Processing [STP]** modules. E.g. Lost Card.
- With more self service options more skills can be created **leading to improved agent routing**.
- Agents know the **intent of the call**, passed from the IVR to the agent desktop.
- Better **FCR**, Lesser Agent Transfers, Faster Transaction Time, Less time spent in the IVR.
- Using Voice recording & Speech Analytics for continuous improvement in both self-service & agent assisted services
- Implemented Speech to Text with Mandarin , Bahasa, English.
- Speech Rec Servers Generate the text and send it back to Interaction Workflow for Routing
- Speech to Text used : Nuance

Migrate 10% of overall calls assisted by Agents to IVR

Deploying New Modular IVR – Largest Mobile Network in Singapore



Goal - Reducing recurring annual spend owing to frequent IVR changes while positively impacting time to market / realization

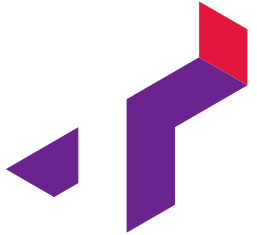
Client- Largest mobile network operator in Singapore with over 4.1 million subscribers

- Reduce cost and go to market time
- Significant high end 3 digit spend per year for managing IVR call-flow changes
- Improve on Low First Call Resolution at the IVR
- Ability to handle call flow changes in-house
- Reduce Average Handling time
- Improve SLA and Enhance Customer Experience

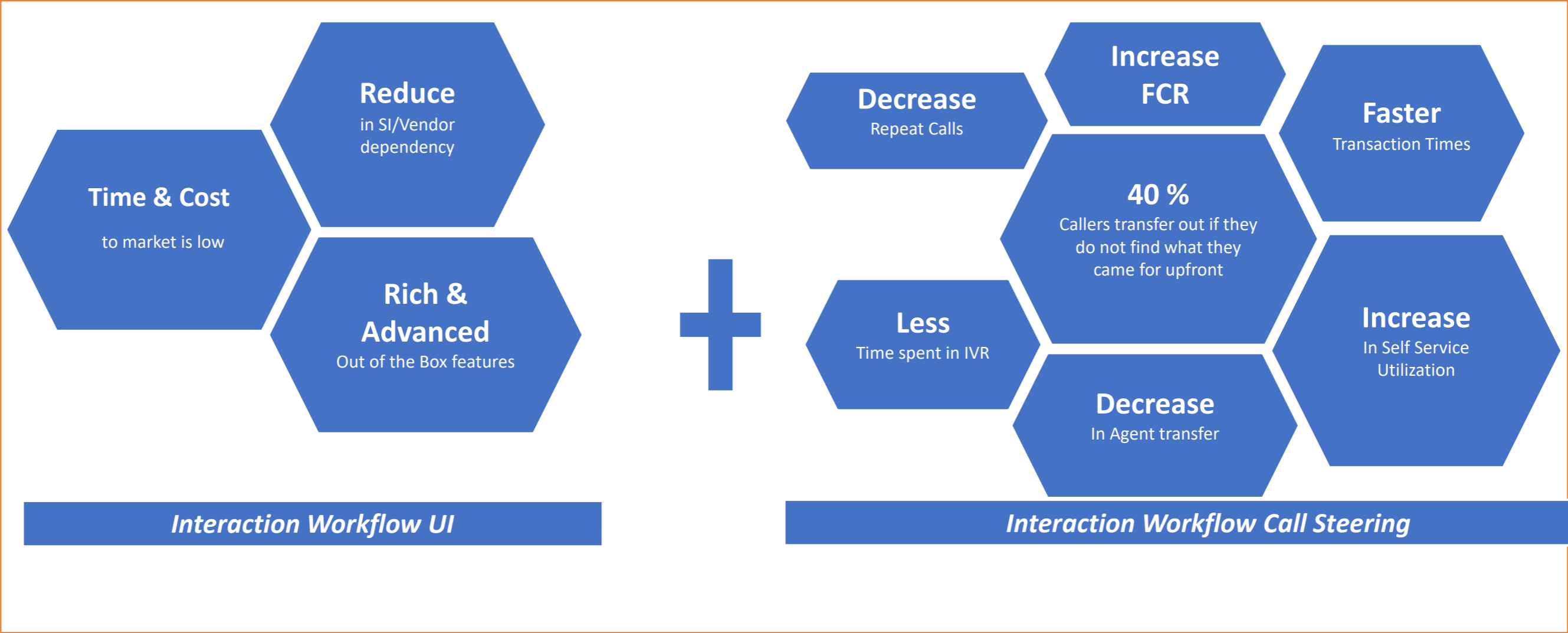
- GUI based, drag & drop based Interaction Workflow configurator
- Maker / Checker to ensure better control over the process of creative IVR call-flows
- Scheduling, Roll-back and Version Control provides ability to stay in control
- Interaction Workflow simulation for Voice Channel to ensure correctness of call-flow before they are put into production
- Multiple Languages options to cater to regional customer base

- Tetherfi's Interaction work flow engine provided customer with ability to make call flow changes in-house with faster turnaround time and agility
- Reduced yearly IVR changes related spend by 80%
- Ability to simulate IVR call flows, schedule call flows and rollback call flows enabled go-to-market advantages
- Ability to create call flows in-house with maker / checker feature meant faster turnarounds

Benefits – IWE with Speech Recognition



Eliminating navigational complexity and helps getting your customer where they want to go



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