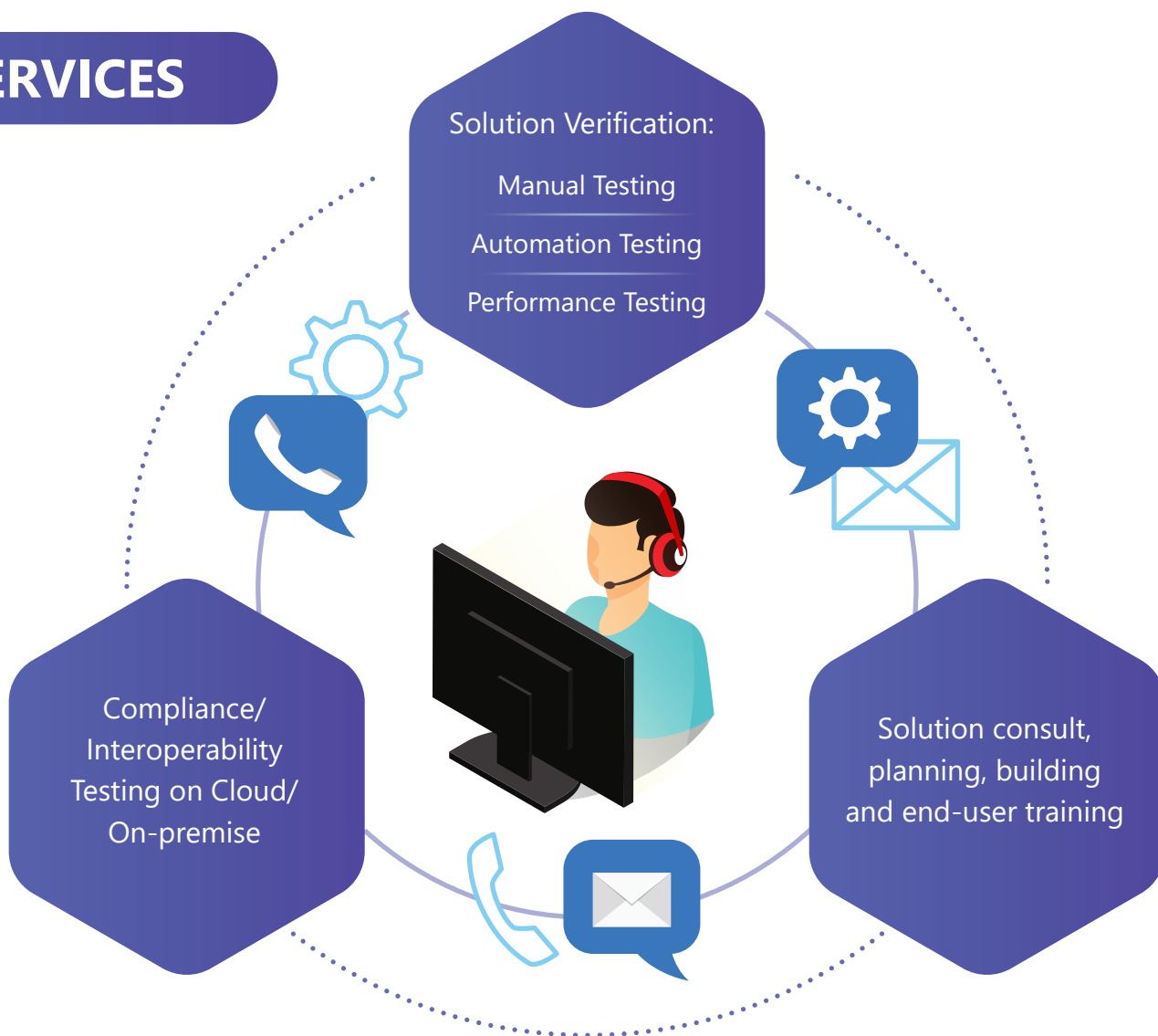# TMA solutions

Contact Center QA & Consulting services

Competent staff with mature framework make your Contact Center solution great with any Expericence

SERVICES

Solution Verification:

Manual Testing

Automation Testing

Performance Testing

Compliance/ Interoperability Testing on Cloud/ On-premise

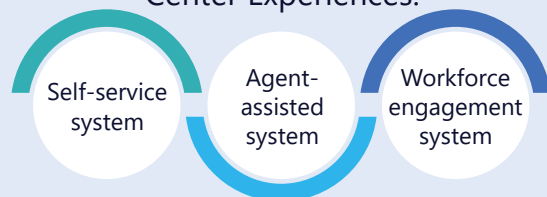Solution consult, planning, building and end-user training

TMA COMPETENCIES

15 Years of Experiences with Contact Center solution from Small and Medium Business to Enterprise

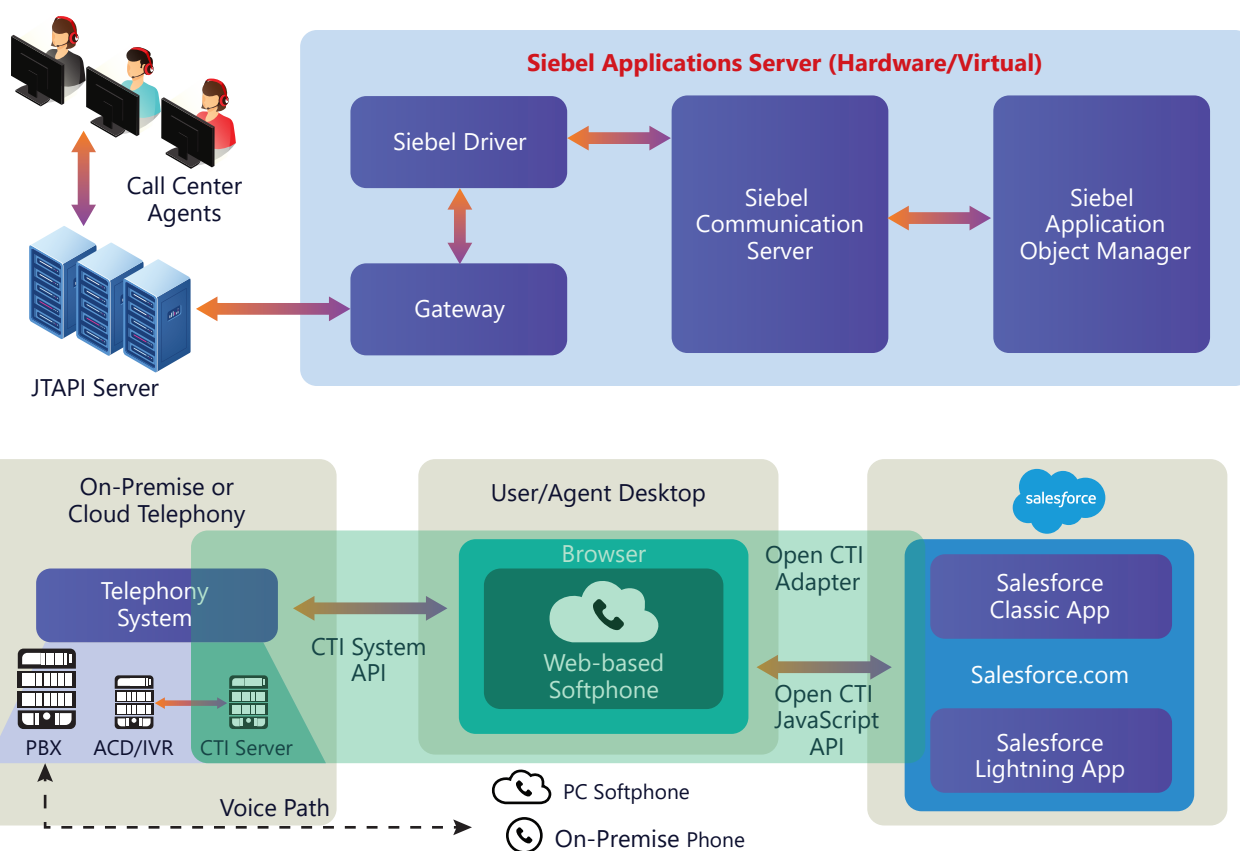Product variety from Legacy Call Center to Next Generation Omni Channel Contact Center

Extended Customer Experience Solution with Salesforce, Seibel

Wide range of Contact Center Experiences:

Self-service system

Agent-assisted system

Workforce engagement system

ORACLE SIEBEL

salesforce

Siebel Applications Server (Hardware/Virtual)

Call Center Agents

JTAPI Server

Siebel Driver

Gateway

Siebel Communication Server

Siebel Application Object Manager

On-Premise or Cloud Telephony

Telephony System

PBX   ACD/IVR   CTI Server

CTI System API

User/Agent Desktop

Browser

Web-based Softphone

Open CTI Adapter

Open CTI JavaScript API

salesforce

Salesforce Classic App

Salesforce.com

Salesforce Lightning App

Voice Path

PC Softphone

On-Premise Phone

CONTACT CENTER CAPACITY

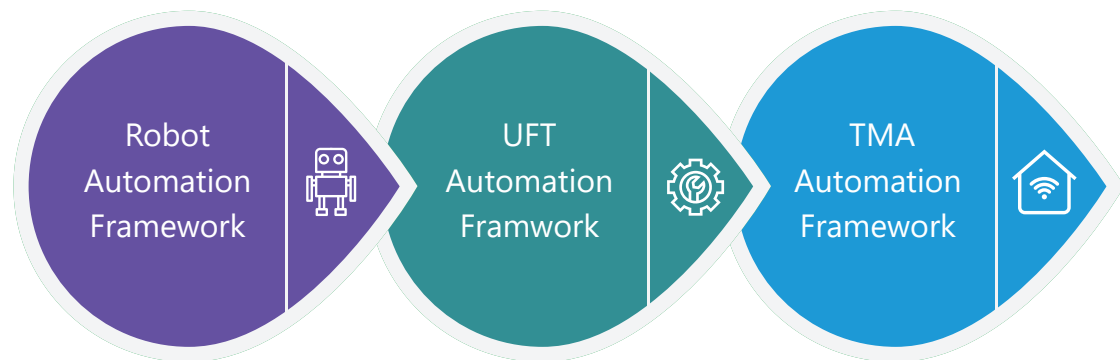| Media	Maximum Number of Active Agents			Maximum Supported Call/Contact per Hour		
	Small	Medium	Enterprise	Small	Medium	Enterprise
Voice only	400	1000	5000	5600	10000	45000
Inbound Email only	400	400	3000	1200	4000	12000
Chat only	400	200	3000	600	4000	12000
Voice/Email/Chat	400	1000	3000	8000	6000	80000
Outbound		300	500		3000	1500
Social			300			18000

TECHNOLOGIES

Technologies

Agent endpoint:
Analog, H323, SIP, IP Office

Window services:
DNS, Exchange, Web server, LDAP, Certificate Authority...

Framework

Robot Automation Framework

UFT Automation Framwork

TMA Automation Framework

Programming

Perl, Python, Bash/Shell, Java, VB Script, .Net, C++, C#

Testing Tools

- HP QC, Atlassian Suite (JIRA, Confluence, Crucible, Zephyr), Wireshark, TCPdump, SSH/Putty, Colasoft Packet Play, SmartBits, SIPp
- Security tool: (Nessus, OWASP, NMAP, BurpSuit)
- Development tools: Eclipse, JRE 1.8, Maven 3.5, Intellij

Platforms

- Contact Center solutions:
    SIP-enabled Unified Communications for Enterprise and SMB
    AML-based Communication Server 1000 for Enterprise and SMB
    IP Office based Communication Server
- Operation System: Window server 2012/2016, Linux Redhat 6.x/7.x/8.x

CASE STUDIES

CONTACT CENTER TESTING

Testing service

| Functional testing | System/solution level testing | Performance testing | Automation testing |

Features Cover

- Intelligent contact routing (skill/attribute based algorithm)
- Extensive real-time and historical reporting tools - to improve efficiency and productivity
- Support for multiple platforms such as TDM, IP, and SIP
- Inbound and Outbound voice, and multimedia contact support
- Multimedia-enabled agent desktop and supervisor tools that you can use to manage multimedia contacts
- Integrated outbound capability to create, modify, and monitor outbound campaigns

PROFESSIONAL SERVICES

Services

- Installing
- Configuring
- Troubleshooting
- Supporting and Handover

Customer

- Agoda: Migrate the AACC High Available system from Hong Kong to Singapore
- FCC: Fresh install the AACC High Available system
- ESL: Upgrade AACC system from 7.0 SP0 to 7.0.1 FP1

CONTACT CENTER AUTOMATION TESTING

Services

- Testing services: Automate agent user cases at REST Api level, Web automation testing
- Development services: maintenance MOCK code for testing new functions

Frameworks and Tools

- Behavior Driven Development Cucumber testing framework bases on Java Maven project
- Development tools: IntelliJ (community version), JRE 1.8, Maven 3.5, Cucumber for Java plugin, Git 2.16, Docker Selenium
- CI Tools: Jenkins, Bamboo
- Code Quality: Crucible, Bitbucket