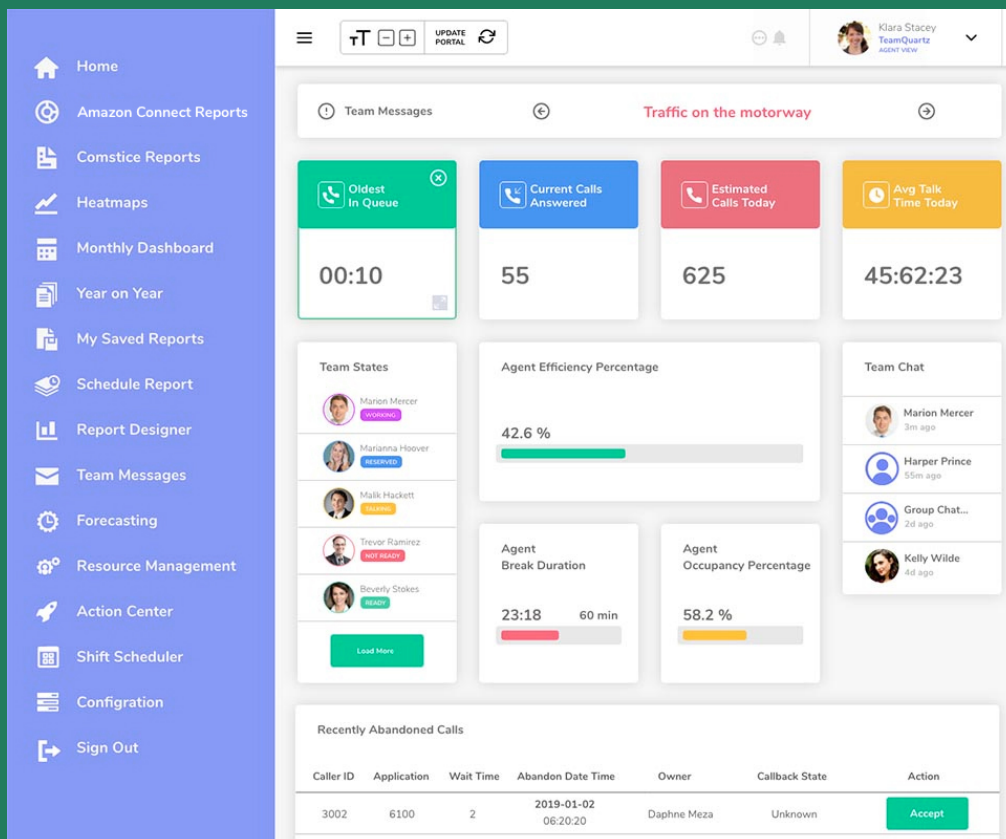# Comstice

Comstice Quartz Amazon Connect Reporting and Analytics

Data Sheet

Comstice Quartz Reporting and Analytics

Comstice Quartz Reporting and Analytics helps to access Amazon Connect stock reports, Comstice stock reports, report designer, scorecards, report scheduling and historical dashboards, daily actionable insights and six different analytics packages

Why Comstice Quartz Reporting and Analytics

Customer Service Best Practices Out of the Box

Comstice Quartz Reporting and Analytics offers all the best practices Comstice expertise has obtained in the last 20 years in IP Contact Center solutions. Quartz offers the following features out of the box;

- over 50+ stock reports by Comstice,
- report designer, with chart and table-based elements
- agent, queue thresholds and targets
- drilldown from monthly to weekly, daily, hourly charts down to individual call level
- Agent and Team scorecards for inbound and outbound
- Report scheduling and automation by email down to agent level
- Retention of data as long as customer prefers
- Migration of old data from previous call center platforms
- Weekly performance analysis in charts

New Reports for Your Business Goals

There is no "one size fits all" in customer service reporting and analytics. Every business has different goals. Comstice can help to create the reports you will need as part of the service.

Tracking of Calls, Recordings and Customer Journeys

You can search for an individual call and retain your data as long as you want. In case of any queries and reports about the quality assurance, you can search for the calling number and find the call details and listen to the recorded conversation.

No limit on number of concurrent users

Many reprting solutions are priced based on the number of user accounts. Comstice Quartz is priced based on the number of agents to be reported and there is no license limit on the number of concurrent users.

ROI For Customer Service Reporting

Here are some areas your business can benefit from Comstice Quartz Reporting;

Higher Customer Acquisition and Retention

With a better performing customer engagement model, you can convert more leads to paying customers and retain more customers in the business.

Agent Efficiency Increase:

You can improve agent occupancy, set goals and handle more contacts with the same agent resources by sending agent scorecards by email. If there is a 5% increase in the agent performance, this can translate into saving of 5 annual agent salaries in a 100 agent call center, only from agent occupancy improvements.

Customer Service Level Improvements:

Over 20% of the calls in a call center are repeat calls; same customer calling multiple times in a short time period. Quartz Reporting helps to minimise the multiple calls for the same issue. You can list and analyze the repeat callers and identify why they had to call multiple times for the same problem. This helps to reduce the repeat calls and improves customer experience.

Another point is to montor is Customer Patience. In some cases, customers are willing to wait longer since there will be a gain in the end such as "Black Friday Discounts". In other cases, user might wait much less. With Customer Patience Analysis feature, you can find the customer patience limits for each queue in different time intervals of the week. This helps to adjust agent resources more accurately, minimize abandoned calls and increase service levels.

Eliminating Data Specialist Roles

In any call center with 50 or more agents, there is a Data Specialist of a team of specialists. Comstice Quartz report automation and out of the box reports help team leaders to access and create reports without any specialist required.

Comstice Quartz vs Generic Tools

There are three main areas that makes Comstice Quartz the preferred option for customer service reporting and improving your customer engagement model;

Collecting and structuring the call center data on its own database: Applications such as Power BI do not have a datastore. They need to access to a database to show the data.

Others require a lot of CPU power to run the reports fast enough. Since they don't know the data structure, they need large resources to be able to accommodate any type of dataset. Also there is no report available out of the box; all the reports must be created from scratch.

Comstice Quartz database is optimized for Amazon Connect and Customer Service reporting best practices. That is how we run even year on year reports very quickly with comparably low CPU resources.

No Limit on Number of Users

Unlike other reporting tools, agents, team leaders, supervisors and other business stakeholders can access to their permitted reporting data with no additional cost.

Customer Service Reporting Best Practices

Comstice includes over 50 commonly used call center reports in other platforms out of the box. It also includes;

- Heatmaps for forecasting
- Customer Patience Index
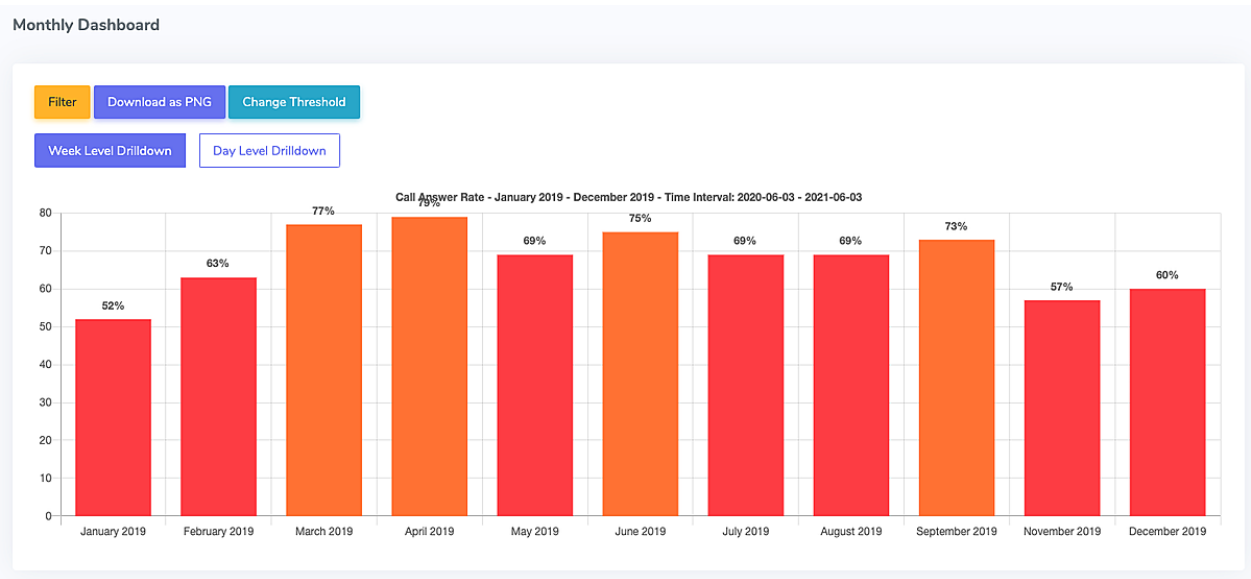- Repetitive Call Analysis
- IVR Retention Analysis features.

These features help to increase first contact resolution, reduce handle time, minimize the number of calls transferred to the agents, increase service levels and minimise the abandoned calls.

You can calculate the quantitative benefits of Comstice Quartz based on your customer retention, customer acquisition and call center agent costs.

Comstice Quartz Reporting Benefits

Year on Year Charts and Weekly Heatmaps: Comstice Quartz offers historical charts and heatmaps. User can drill down from monthly charts to weekly, daily and hourly. Quartz also shows the YoY data.

Year On Year

Filter | Download as PNG

Calls Answered

2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Average Handle Time

Change Percentage

Heatmaps

Filter | Change Threshold | Download as PNG | Ignore Saturday | Ignore Sunday

Call Abandon Rate - Start Date: 2020-10-01 - End Date: 2020-10-31

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Monday	34%	37%	40%	43%	40%	45%	40%	24%	44%	24%	80%	0%	0%
Tuesday	37%	44%	39%	49%	41%	36%	31%	57%	64%	30%	33%	0%	17%
Wednesday	22%	34%	44%	43%	47%	41%	31%	44%	26%	17%	64%	20%	0%
Thursday	23%	27%	38%	40%	37%	39%	20%	27%	41%	18%	45%	27%	50%
Friday	24%	26%	24%	22%	28%	30%	22%	20%	24%	9%	35%	29%	63%
Saturday	25%	27%	36%	57%	27%	50%	25%	0%	0%	0%	0%	0%	0%
Sunday	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

11% - 20% | 21%

Comstice Quartz Reporting Benefits

Drilldowns from Year on Year to Monthly, Weekly, Daily, Hourly and individual call and state activity: Quartz reporting offers multi-tenancy and full isolation of data among different teams and departments. Using drilldown feature, users can go from a summary report to a detailed report. Quartz replicates the call center database into its local database and runs the reports locally for a better performance.

Monthly Dashboard

Filter | Download as PNG | Change Threshold

Week Level Drilldown | Day Level Drilldown

Call Answer Rate - January 2019 - December 2019 - Time Interval: 2020-06-03 - 2021-06-03

Month	Value
January 2019	52%
February 2019	63%
March 2019	77%
April 2019	79%
May 2019	69%
June 2019	75%
July 2019	69%
August 2019	69%
September 2019	73%
November 2019	57%
December 2019	60%

Monthly Dashboard

Filter | Download as PNG | Change Threshold | Back to Weekly

Week Level Drilldown | Day Level Drilldown

Call Answer Rate - undefined - undefined - Time Interval: 2020-06-03 - 2021-06-03

Values: 70%, 57%, 54%, 61%, 59%, 58%, 60%, 54%, 57%, 57%, 63%, 71%, 51%, 62%, 65%, 72%, 76%, 76%, 62%, 70%, 66%, 71%, 68%, 70%, 66%

Comstice Quartz vs Generic Reporting Tools

Comparison of Comstice Quartz with Generic reporting tools;

	Generic Tools	Comstice Quartz
Out of the Box 50+ Stock Reports	No	Yes
Limitless Data Repository for Historical Data	No	Yes
Daily Actionable Insights By Email	No	Yes
Drilldowns from summary reports to detailed reports	No	Yes
Unlimited Concurrent Sessions	No	Yes
Repetitive Call Analysis	No	Yes
Visual Cradle to Grave Report per Call	No	Yes
Customer Patience Analysis	No	Yes
Omnichannel Customer Journey Maps	No	Yes
Agent Efficiency and Occupancy Analysis	No	Yes
Call Result Wrap Up Analysis	No	Yes
Call Variable Analysis	No	Yes

Comstice Quartz AWS Reporting Benefits

Comstice Quartz Reporting and Analytics helps to access vendor stock reports, Comstice stock reports, report designer, scorecards, report scheduling, historical dashboards and drilldown features;

Visual Scorecards by Email: By using the Quartz report designer, users can design visual reports and schedule them to run daily, weekly and monthly, team level or individual agent level. Recipients will receive an email weblink with the report link once the visual report is generated.

Agent Scorecards by Email: You can schedule and send emails to each agent for their Inbound and Outbound performance with their own data, their targets and their performance.

Limitless Data Retention: Comstice Quartz stores your Aamzon Connect on your AWS EC2 as long as you want.

Daily Actionable Insights by Email: Team leaders can set goals for agent and queue related indicators and receive daily emails about the agents and the queues exceeded each threshold. They can then drill down and analyse the data further.

Repetitive Call Analysis: Analyse repeat callers and increase first contact resolution

Customer Patience Index Analysis: Monitor customer patience using abandon buckets report and estimate customer patience for each queue in different timeframes

**Visual Cradle to Grave Reports per Call:** Visualise caller's journey and identify the bottlenecks.

Visual Historical Charts: Comstice Quartz offers historical charts and heatmaps. User can drill down from monthly charts to weekly, daily and hourly. Quartz also shows the YoY data.

Multi-tenancy and user profiles: You can set permission profiles and apply them to each user or to a group of users.

Unified OmniChannel Scorecards for Teams and Each Agent by Email

Daily, Weekly and Monthly Scorecards for Teams and Each Agent by Email:

By using the Quartz report designer, managers can design visual reports using chart and table-based omnichannel indicators for Amazon Connect data as well as the data from the third-party platforms integrated with Comstice Quartz. Designed reports can be scheduled to run daily, weekly and monthly on a team level or individual agent level. Recipients will receive the URL of the report by email.
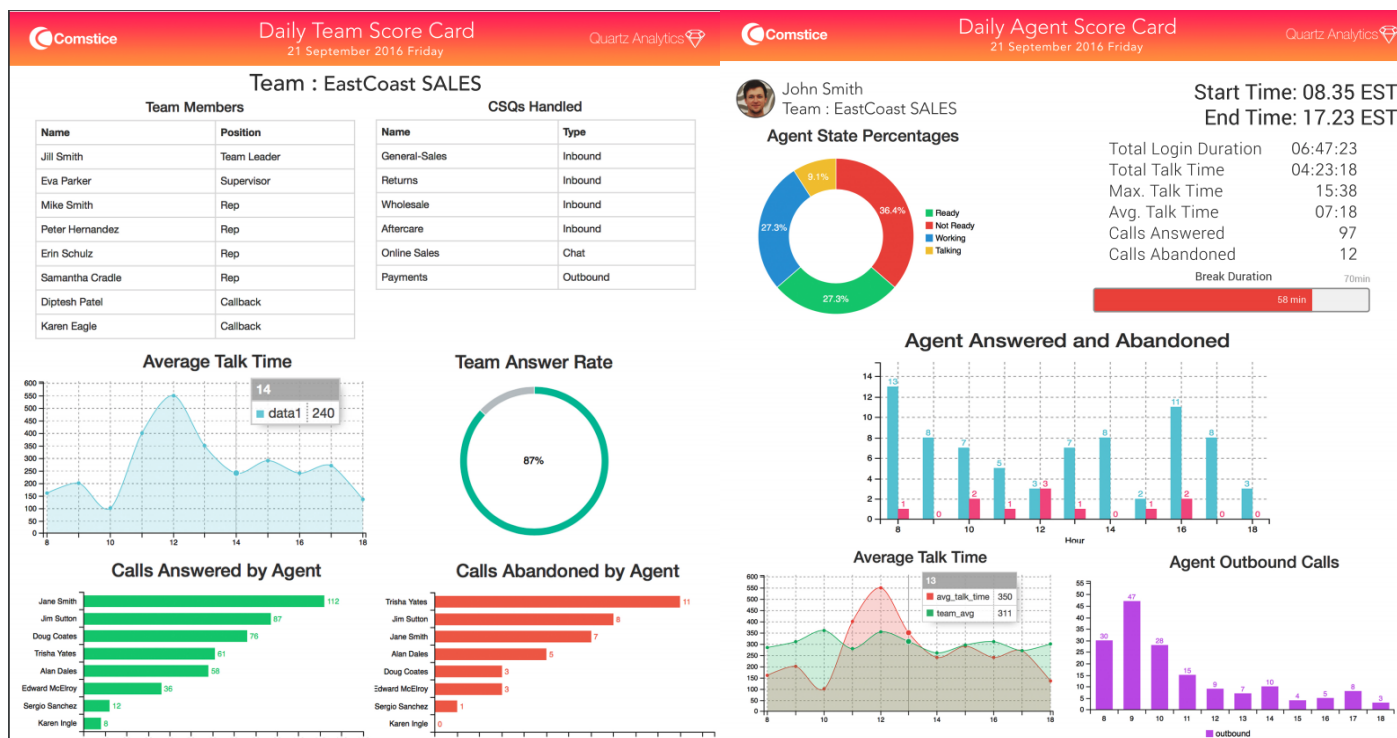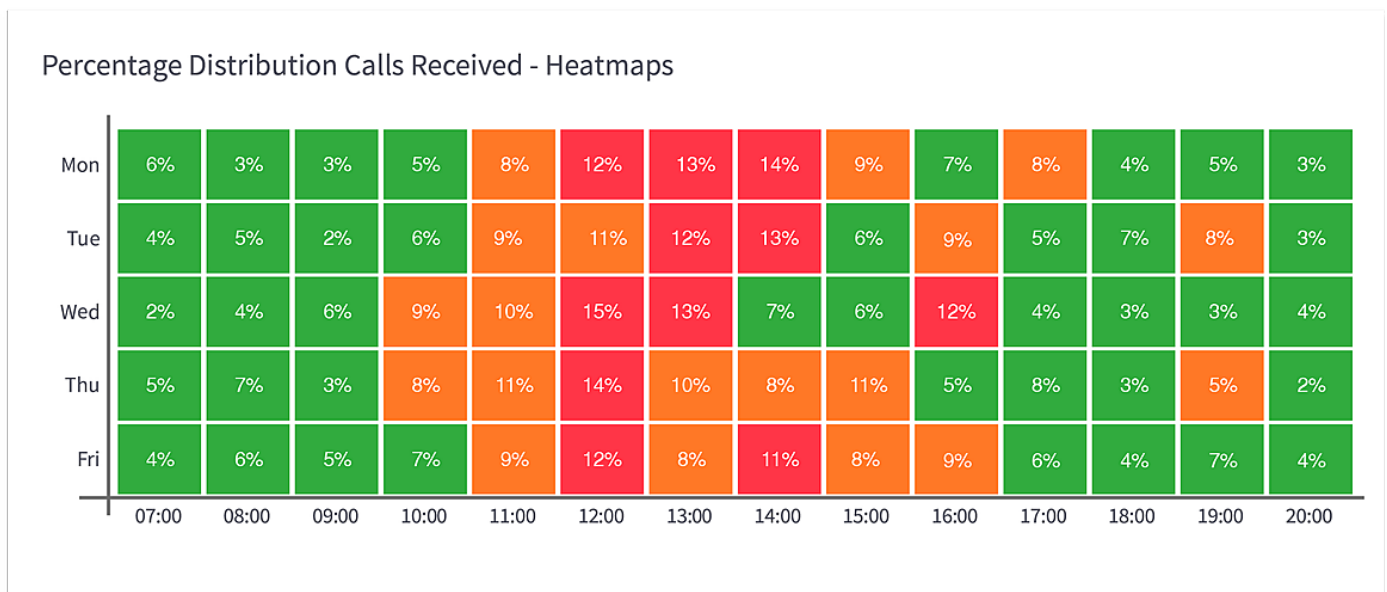
Comstice Quartz Features

Multi-Tenancy

Comstice Quartz helps to restrict access to the call center historical data. This helps to isolate the data from other teams, businesses, even team members. Agents can access to their own data and check their performance as well.

Report Designer

Comstice Quartz helps to create visual score cards by using Report Designer feature. These scorecards can be scheduled to run daily, weekly and monthly. You can find sample scorecards at the end of this document.

Heatmaps

Comstice Quartz can report popular indicators as weekly heatmaps for the last few weeks so you can monitor the performance of each hour of each day in the week.


Percentage Distribution Calls Received - Heatmaps

	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Mon	6%	3%	3%	5%	8%	12%	13%	14%	9%	7%	8%	4%	5%	3%
Tue	4%	5%	2%	6%	9%	11%	12%	13%	6%	9%	5%	7%	8%	3%
Wed	2%	4%	6%	9%	10%	15%	13%	7%	6%	12%	4%	3%	3%	4%
Thu	5%	7%	3%	8%	11%	14%	10%	8%	11%	5%	8%	3%	5%	2%
Fri	4%	6%	5%	7%	9%	12%	8%	11%	8%	9%	6%	4%	7%	4%

Year on Year Charts

Historical data can be presented in YoY charts for forecasting and the trend in certain indicators.
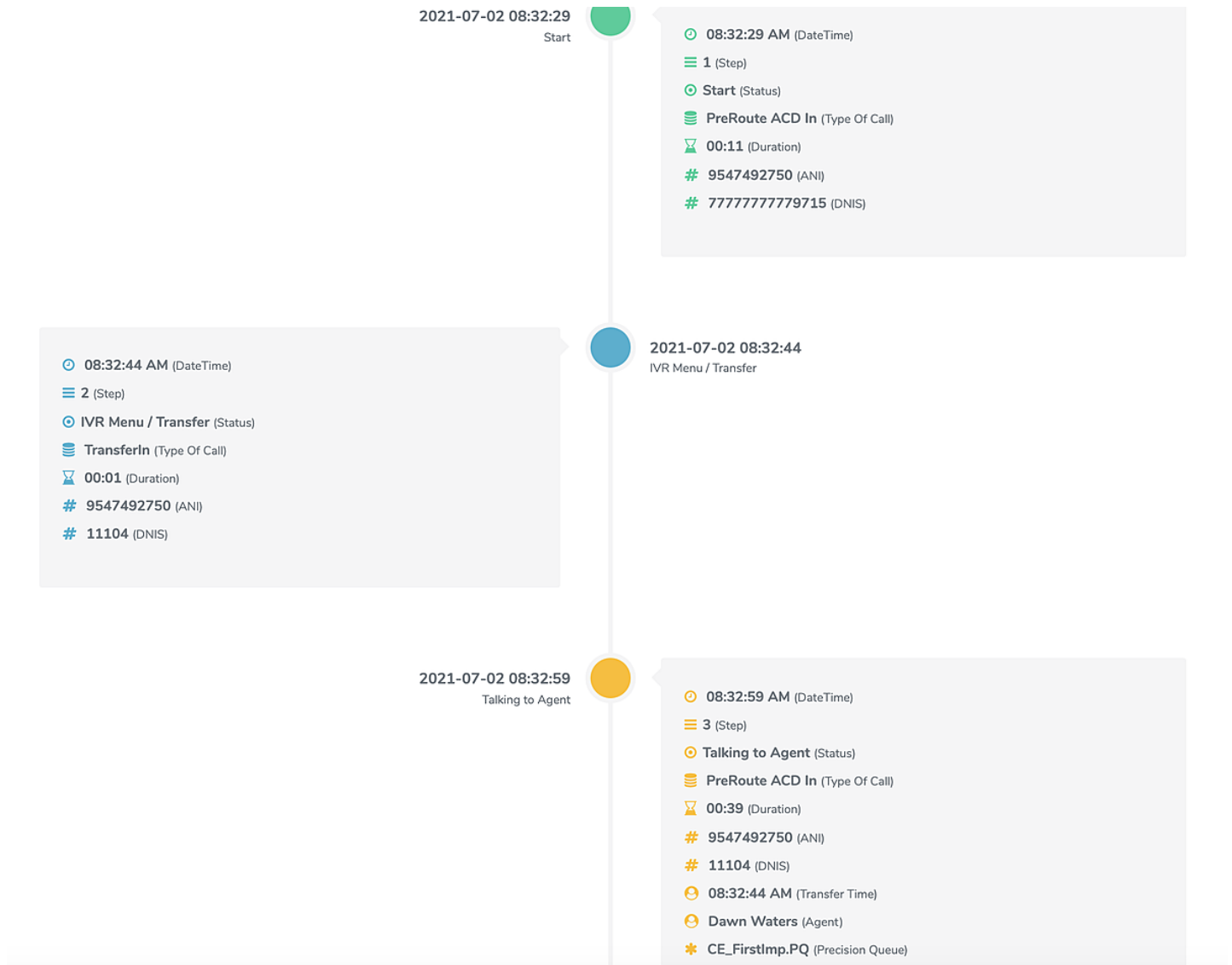
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Amazon Connect Infrastructure

Here is the topology that Comstice utilises for Amazon Connect Reporting and Wallboard. Real-time Amazon Kinesis feeds are captured using a lambda function and stored in Comstice PostGreSQL Database. **Comstice Server can be hosted in AWS EC2, in your AWS account or by Comstice.**
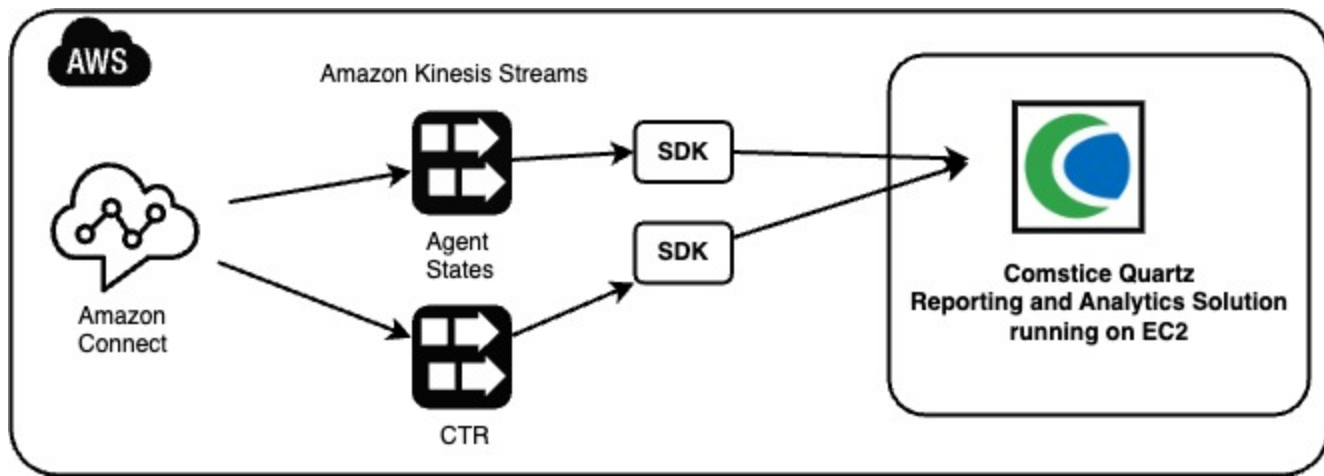
Kinesis data streams offer the flexibility of working with the raw data. Comstice saves this unstructured data into its SQL database and offers fast, reliable reporting and analytics.

Cradle to Grave Reports

One of the great features of Comstice Quartz is that it can report the individual call legs of each customer call and visualise it as a customer journey map. You can see the every step of each call in detail and visually follow the steps which caller has taken.

2021-07-02 08:32:29
Start

- ⊙ 08:32:29 AM (DateTime)
- ☰ 1 (Step)
- ⊙ Start (Status)
- ⬡ PreRoute ACD In (Type Of Call)
- ⧖ 00:11 (Duration)
- # 9547492750 (ANI)
- # 77777777779715 (DNIS)

- ⊙ 08:32:44 AM (DateTime)
- ☰ 2 (Step)
- ⊙ IVR Menu / Transfer (Status)
- ⬡ TransferIn (Type Of Call)
- ⧖ 00:01 (Duration)
- # 9547492750 (ANI)
- # 11104 (DNIS)

2021-07-02 08:32:44
IVR Menu / Transfer

2021-07-02 08:32:59
Talking to Agent

- ⊙ 08:32:59 AM (DateTime)
- ☰ 3 (Step)
- ⊙ Talking to Agent (Status)
- ⬡ PreRoute ACD In (Type Of Call)
- ⧖ 00:39 (Duration)
- # 9547492750 (ANI)
- # 11104 (DNIS)
- ⊙ 08:32:44 AM (Transfer Time)
- ⊙ Dawn Waters (Agent)
- ✳ CE_FirstImp.PQ (Precision Queue)

Omnichannel Customer Journey Maps

Comstice Quartz can store data from multiple platforms for different channels. You can visualize the customer's historical contact points for your customer service starting from monthly and drill down to each contact instance in a particular day.
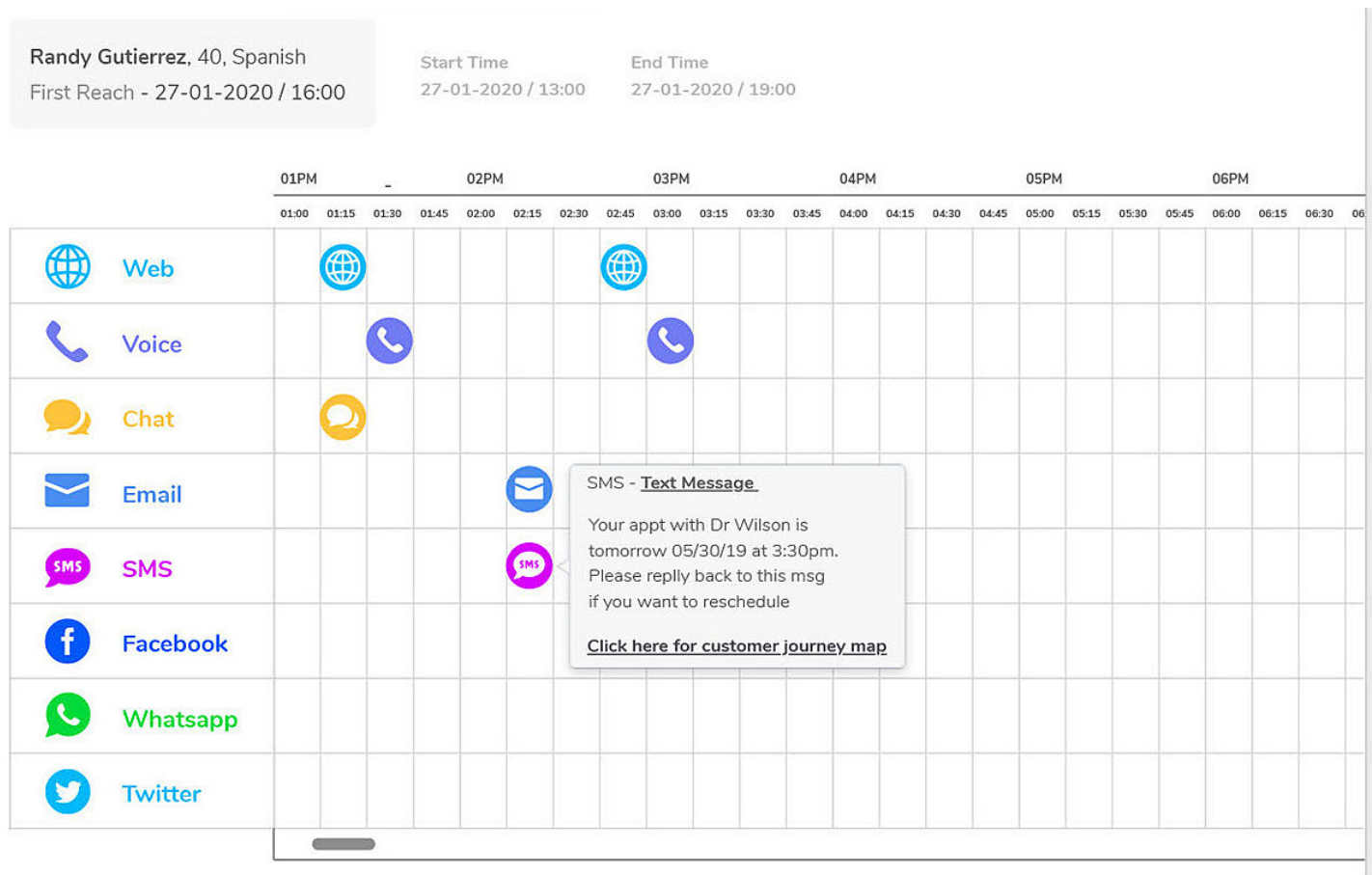
Daily Actionable Insights by Email

You can set agent and queue-level daily thresholds for your teams and receive an end-of-day email to see which agents ad queues exceeded these thresholds.

Agent Insights:
>   4 agents have missed more calls than the threshold (2 calls): **List agents**
>   3 agents exceeded lunch break threshold (30 minutes): **List agents**
>   1 agent exceeded the total short break threshold (30 minutes): **List agents**
>   2 agents exceeded maximum handle time per call threshold (10 minutes): **List agents**
>   1 agent was below minimum agent efficiency % (30%): **List agents**
>   2 agents were below minimum agent occupancy % (40%): **List agents**
>   5 agents exceeded Maximum after call work (ACW) time (5 minutes): **List agents**

Queue Insights:
>   3 queues exceeded maximum abandon rate (20%): **List queues**
>   2 queues exceeded maximum ASA (120 seconds): **List queues**
>   4 queues exceeded maximum handle time per call: (10 minutes): **List queues**
>   1 queue was below the mimimum answer rate per queue (70%): **List queues**
>   15 Repeat Callers calling more than threshold (3 calls): **List callers**
>   8 calls exceeded maximum wait time before answer (300 seconds): **List calls**
>   4 queues were below mimimum daily service level (60%) : **List queues**
>   3 queues exceeded the maximum number of not ready agents (11 agents): **List queues**

Comstice Quartz AWS Stock Reports

Comstice Quartz Reporting provides reports which are not available in Amazon Connect.

Agent Reports;

- Agent Login / Logout Summary
- Agent Not Ready / AUX Reason Summary
- Agent State Trace Agent State Summary
- Agent Call Summary
- Agent Call Detail
- Agent Wrap-Up Summary
- Agent Wrap-Up Detail

Queue and Call Activity Reports;

- Call Tracker
- Repetitive Calls Summary
- Repetitive Calls Detail
- IVR Containment Report
- Inbound Queue Summary
- Inbound Queue Daily
- Inbound Queue Hourly
- Inbound Queue Monthly
- Inbound Queue Yearly
- Outbound Calls Summary
- Outbound Calls Daily
- Outbound Calls Monthly
- Outbound Calls Yearly

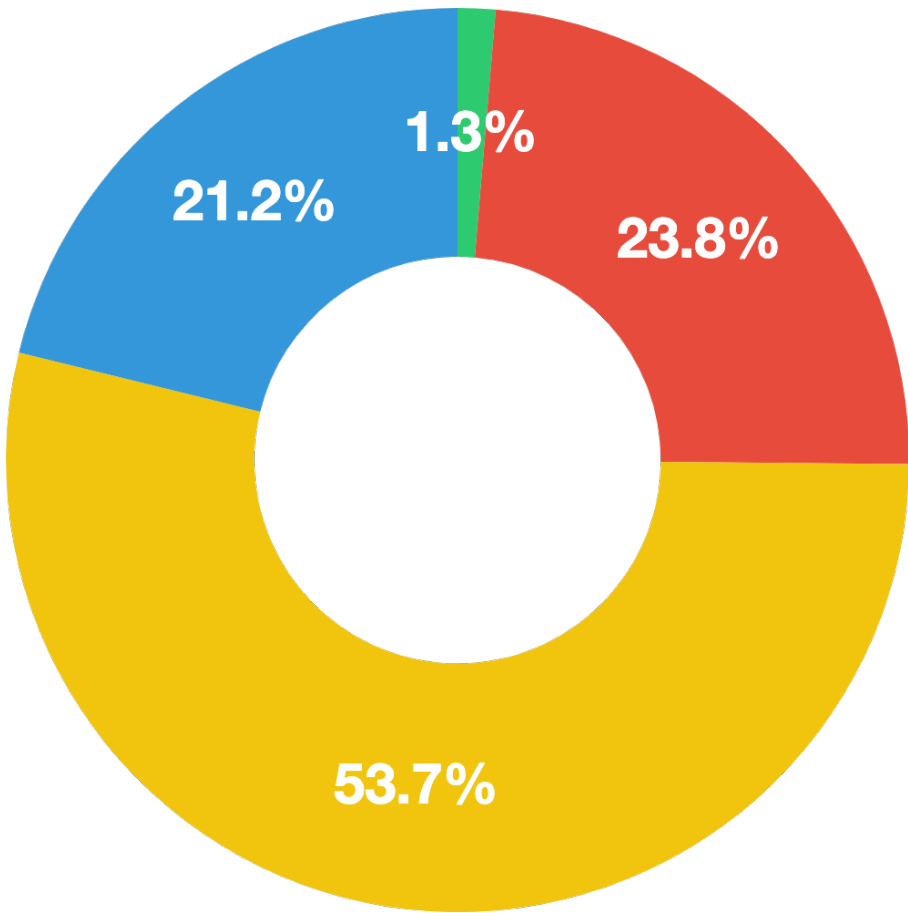More information can be found as;

https://comstice.com/blog/post/comstice-amazon-connect-reporting

Agent Scorecard

Faith Allsop

Total Login Duration	28:00:22
Inbound Answered	125
Outbound Calls	12
Start Date	10.04.2023
End Date	16.04.2023

	Actual	Target
Average Talk Time	07:13	09:23
Average Wrap	02:51	01:15
Average Handling Time (AHT)	10:04	10:38

Not Ready Activity Code	Total Time Spent	Occurrences
BreakFormal	01:04:36	5
EndShift	00:01:19	3
ExtendedWrap	05:47:30	124
Handover	00:35:59	4
OutboundCalling	00:02:10	4
ScreenBreak	01:14:42	17
SetBreakLunch	01:00:18	2

- 🟢 Idle Time
- 🔴 Not Ready
- 🟡 Talk Time
- 🔵 Extended Wrap

Chart values: 1.3%, 23.8%, 21.2%, 53.7%

Report Scheduling

You can schedule reports to be run daily, weekly amdn monthly and to be sent as an email weblink. You can schedule agent scorecards to send periodic emails to each agent about their performance and goals.

Selected Recipients

Select Report Period

Daily

☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Run the report for each selected day at

--:-- 🕐

Weekly

Run the report every

--:-- 🕐

Monthly

Run The Report

☐ First day of the next month ☐ Last Day On The Month ☐ Last Friday On The Month
☐ Last Sunday On The Month

Select Time

--:-- 🕐

Cancel OK

Managing Outbound Campaigns

Around 30% of the call center traffic is the outbound calls. Remarketing to existing client base, better managing renewals and also acquiring new customers are often the purpose of the outbound campaigns. Campaigns are revenue-generating practices, therefore managing the campaign with better reporting has a direct effect to your revenues.

Both Comstice Quartz and Comstice Wallboard can help to manage the performance of the agents, call success rate and the overall campaign performance. You can monitor the overall performance of the Outbound Campaign as well as the individual agent outbound scorecards by email at the end of each day to show their performance, their goals and any suggestions about the improvements they can make.
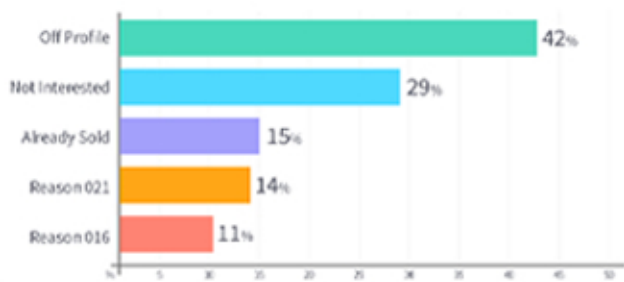
Outbound Campaign Progress

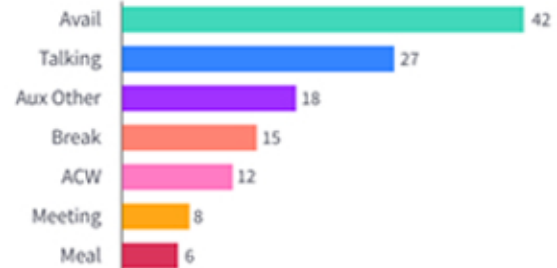4538 (15%) | 9867 (33%) | 14752(49%) | | 30,000
Completed | Ongoing | Accessed

Total Agents
128

Completed Call Analysis

Success	Success %	Target %	Fail %	Other %	Revenue $
2896	64	70	28	8	128.5K

Top 5 Fail Codes

Off Profile	42%
Not Interested	29%
Already Sold	15%
Reason 021	14%
Reason 016	11%

Agent States

Avail	42
Talking	27
Aux Other	18
Break	15
ACW	12
Meeting	8
Meal	6

Agent Campaign Stats

Name	Target	Accepted	Accept %	Rejected	Completed	Success	Fail	Other	Revenue	Rev. Target %
Leigh Brooks	200	117	47	32	68	41	18	9	$ 2,328	32.6
Denny Owen	200	104	41	26	53	37	9	6	$ 1,867	37
River Nicholson	200	142	72	41	48	52	23	11	$ 2,045	29.8
Silver Booth	200	76	34	37	41	38	11	3	$ 1,960	24.3
Clem Nicholson	200	37	23%	42	27	41	8	2	$ 1,782	30.5
Eli Davidson	200	92	43%	24	15	54	14	8	$ 1,907	32.2
Brett Gordon	200	39	21%	12	22	27	6	6	$ 1,012	19.4
Shay Jenkins	200	56	32%	10	37	54	7	9	$ 1,572	21.5
Sidney Lawson	200	82	42%	17	41	63	12	7	$ 1,812	15.2
Casey Lloyd	200	91	43%	15	34	37	16	6	$ 2,072	12.6

Calls Sent to Agent

Received : 68
Accepted : 134

Daily Outbound Score Card
26 November 2016

Not Ready Percentage

Time	Percentage
09:00	38%
09:30	24%
10:00	32%
10:30	58%
11:00	53%
11:30	64%
12:00	49%
12:30	35%
13:00	27%
13:30	40%
14:00	46%
14:30	41%
15:00	52%
15:30	72%
16:00	69%
16:30	62%
17:00	45%
17:30	65%
18:00	57%
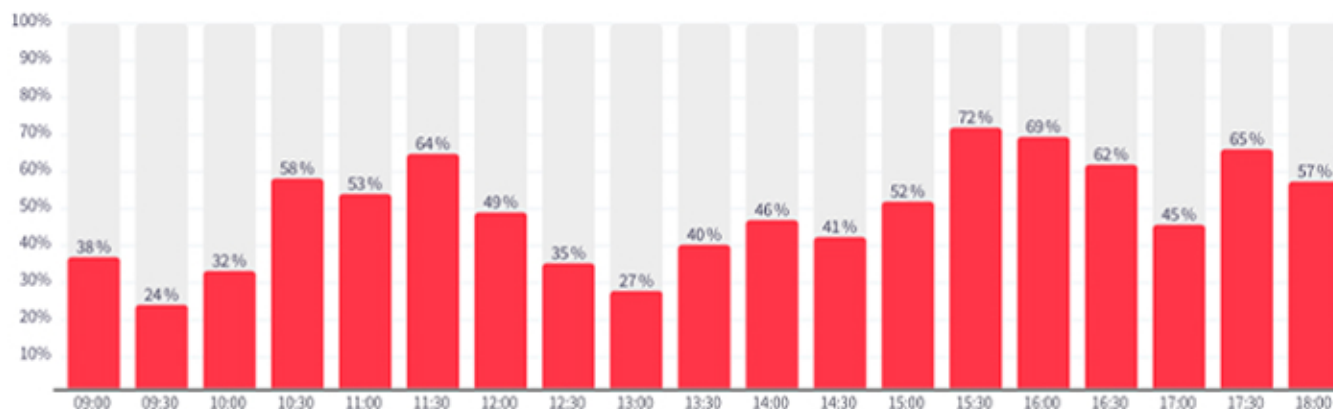
Campaign Attendance

97 (75.7 %) 128

Reason and Finish Code

Success	Total	%
Sales	320	78%
Accepted Offer	126	57%

Failure	Total	%
Not Accept	36	21%
Existing	15	43%

No Answer	Total	%
No Answer	56	21%
No Connection	23	43%

Top 10 Agent Breaks

Agent	Time
Drew Andrews	58:45
Cory Hussain	56:15
Bret Gallagher	54:38
Casey Newman	52:54
Taylor Mccarthy	51:20
Jaden Macdonald	49:05
Hayden Mccarthy	48:15
Silver Woods	43:30
Carol Hart	37:41
Nicky Parry	35:50

Top 10 Non-Break AUX

Agent	Time
Brett Dawson	33:46
Quinn Collins	31:51
Jody Richardson	22:38
Billie Davis	17:59
Alexis Austin	15:06
Harper Sutton	13:54
Casey Lloyd	11:46
Avery Mcdonald	09:04
Skyler Duncan	06:58
Rowan Harris	05:40

Top 10 AHT Agents

| Agent	Time
Jesse Hopkins	04:32
Taylor Nicholson	04:19
Bret Howard	04:02
Skyler Anderson	03:37
Shay Thomson	03:19
Ashley Ross	03:07
Jaden Rees	02:58
Quinn Francis	02:44
Eli Houghton	02:23
Jamie Hall	02:15

Supported AWS Regions

Comstice Quartz supports all the AWS Regions that has Amazon Connect service enabled. EC2 can be run on any instance, including regions where Amazon Connect is not available.
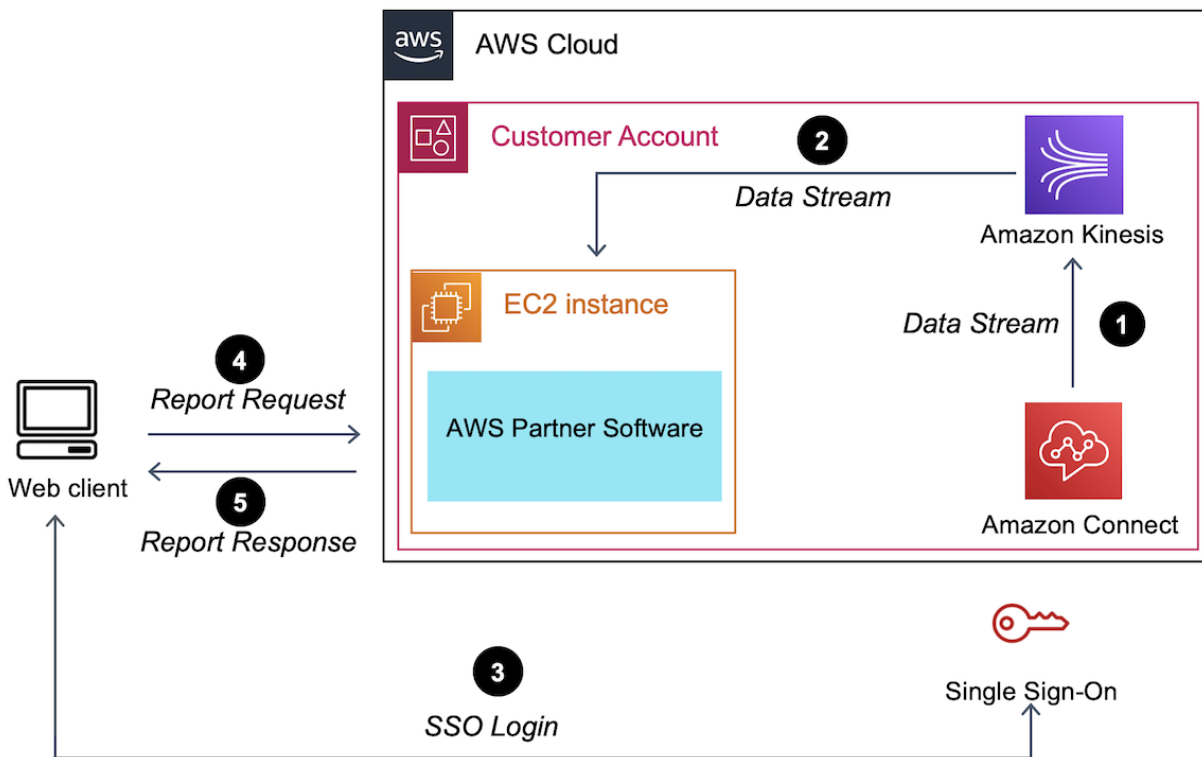
Usage of Public Resources

Comstice Quartz solution does not utilise any public resources such as AWS s3 Buckets.

Comstice Quartz may have access to AWS S3 bucket recordings. User can drilldown and find a specific call record. They can then listen to the recording of the call if S3 Bucket access is configured.

Comstice Quartz Solution Sizing

Comstice Quartz solution runs multiple services as Docker containers. Solution sizing is based on the number of logged in agents. Comstice recommends the following EC2 models for the agent counts listed;

Agent Count	EC2 Model	EC2 Disk Size
Up to 100	t3a.medium	80GB
Up to 500	t3a.large	200GB
Up to 1000	t3a.xlarge	1TB

If the user count is higher than 1000, Comstice recommends to have additional EC2 Servers, not has HA servers but as active servers.

Comstice Quartz Server can support multiple Amazon Connect instances.

Skills Required to Configure Comstice Quartz

Here are the skills needed to configure Comstice Mobility solution;

- Ability to configure a new IAM user
- Ability to create a new EC2 instance
- Ability to create a new secret in AWS Secrets Manager
- Ability to execute commands on LinuxOS
- Ability to configure email whitelisting to automate and send the reports by email

High Availability

There are two levels of high availability;

- High availability on Amazon Connect instance levels (primary/secondary)
- High availability on Comstice Quartz VM Server

Comstice Quartz offers high availability options on the EC2 server level as well as the Amazon Connect Instance level.
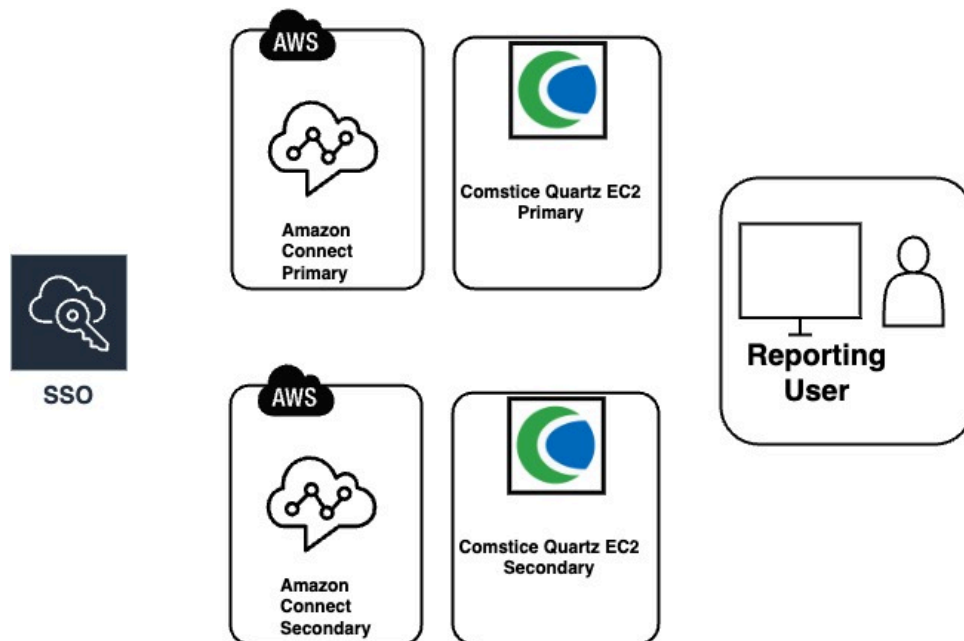
Quartz can retrieve Kinesis data streams from different Amazon Connect Instances simultaneously. If you fail over from one side to the other, Quartz will retrieve the data from the second instance with no interruption required.

Users can also have a high availability; using a single URL and distributing the HTTPS requests with a web proxy, you can achieve high availability.

Support

What does it cover?

Comstice provides a software maintenance support for the Comstice Quartz software. It is a break-fix support.

Standard Support is provided on a 24-hr email response and up to 5 business days fix basis due to all the dependencies around the solution. It is available in weekdays, between 4AM-11PM US Eastern.

Priority Support is provided on up to 1-hr response and up to 24 hours fix basis due to all the dependencies around the solution. This is not guaranteed, however we aim to resolve 90% of all support queries within this time frame. Priority support is available 24/7 and requires High Availability server.

Support service provided by qualified engineers via email or WebEx. Troubleshooting steps are performed via Webex.

How to raise a support ticket?

End customer IT personnel or partners can raise a support tickets online from www.comstice.com/support or by calling Comstice Support Desks from +1-713-929-3714 or +44 203 051 7796. Alternatively, you can send an email to support@comstice.com or use webchat feature at comstice.com

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