
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

BIZ211

Optimize your workforce with Amazon Connect

Sajith Kaimal

Product Leader, Amazon Connect
Amazon Web Services

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Amazon Connect

EASY-TO-USE CLOUD CONTACT CENTER



Pay only for what you use

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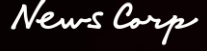


Amazon Connect has tens of thousands of AWS customers supporting more than 10 million contact center interactions a day



























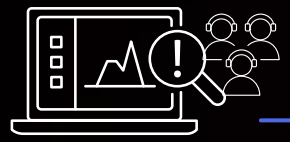




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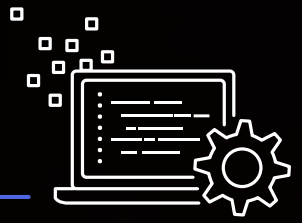
Challenge: Optimizing contact center to deliver amazing customer experiences



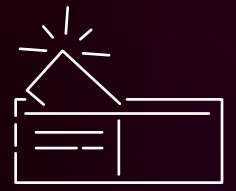
Missed service-level targets due to inefficient staffing



High attrition rate due to agent dissatisfaction



Disparate tools create disjointed user experiences



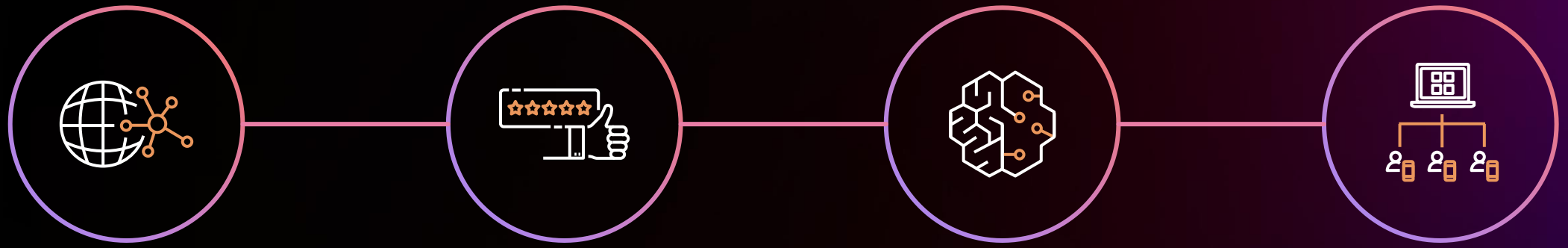
High cost of ownership for traditional offerings

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Amazon Connect forecasting, capacity planning, and scheduling

RESPOND TO CAPACITY, STAFFING, AND WORKFORCE CHANGES WITH ML-POWERED CAPABILITIES



Native capabilities

Built-into Amazon Connect, saving cost and time for integration

Easy to get started and use

Simplify staffing using intuitive management UI

AI/ML powered

Achieve your business goals with precision

Automated workflows

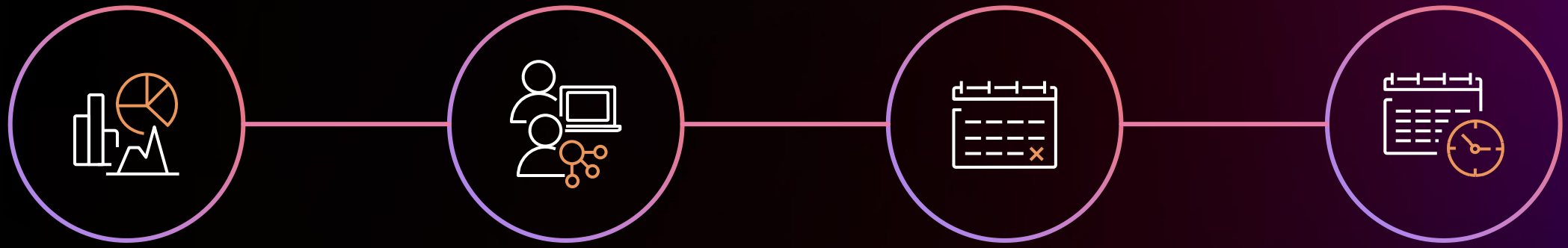
Improve productivity for agents and managers

aws

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Amazon Connect forecasting, capacity planning, and scheduling

RESPOND TO CAPACITY, STAFFING, AND WORKFORCE CHANGES WITH ML-POWERED CAPABILITIES



Forecasting

What will future demand look like?

Capacity planning

How many agents will we need to hire and staff in the long run?

Scheduling

How many agents are needed in each shift? Which agent works in which slot?

Schedule adherence

Which agents are adhering to their scheduled activities, which agents are not?

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Amazon Connect forecasting, capacity planning, and scheduling

CAPABILITIES AT A GLANCE

Onboarding
(Admin)

- Enable service
- Set permissions

Forecasting
(Forecaster)

- Set interval
- Import historical data (optional)
- Create forecast groups
- Generate forecast
- Override forecast (optional)
- Publish forecast

Capacity planning
(Capacity planner)

- Create scenarios
- Upload shrinkage and available FTE data (optional)
- Generate capacity plan
- Override plans (optional)
- Publish plan

Scheduling
(Scheduler)

- Create shift activities
- Create shift profiles
- Create staffing group
- Set staff rules
- Generate schedule
- Publish schedule

Schedule management
(Supervisor, Agent)

- Supervisor schedule access
- Agent schedule access
- Historical and real-time schedule adherence
- Overtime and VTO request management
- Time off request management

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Onboarding

SELF-SERVICE, ONE-TOUCH

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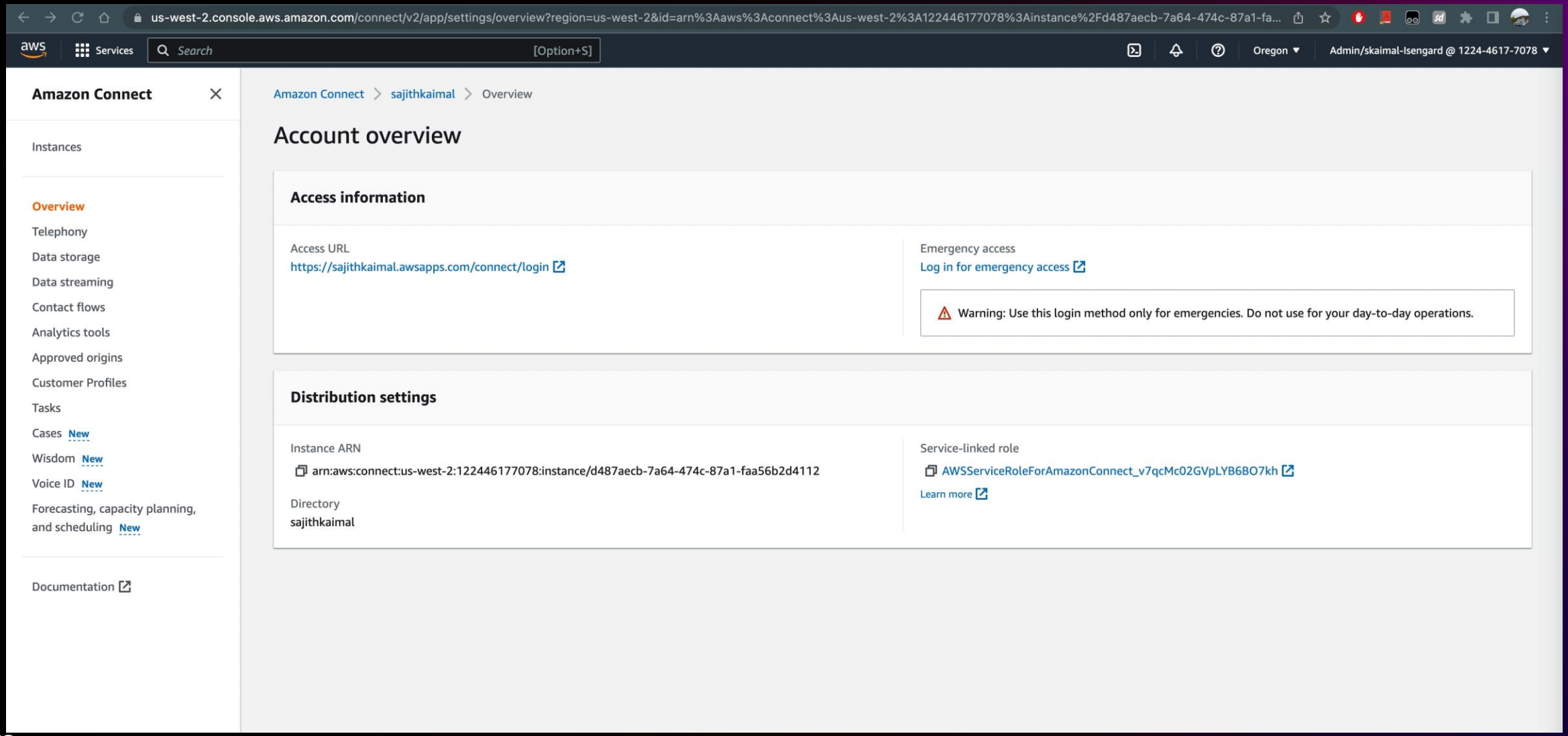
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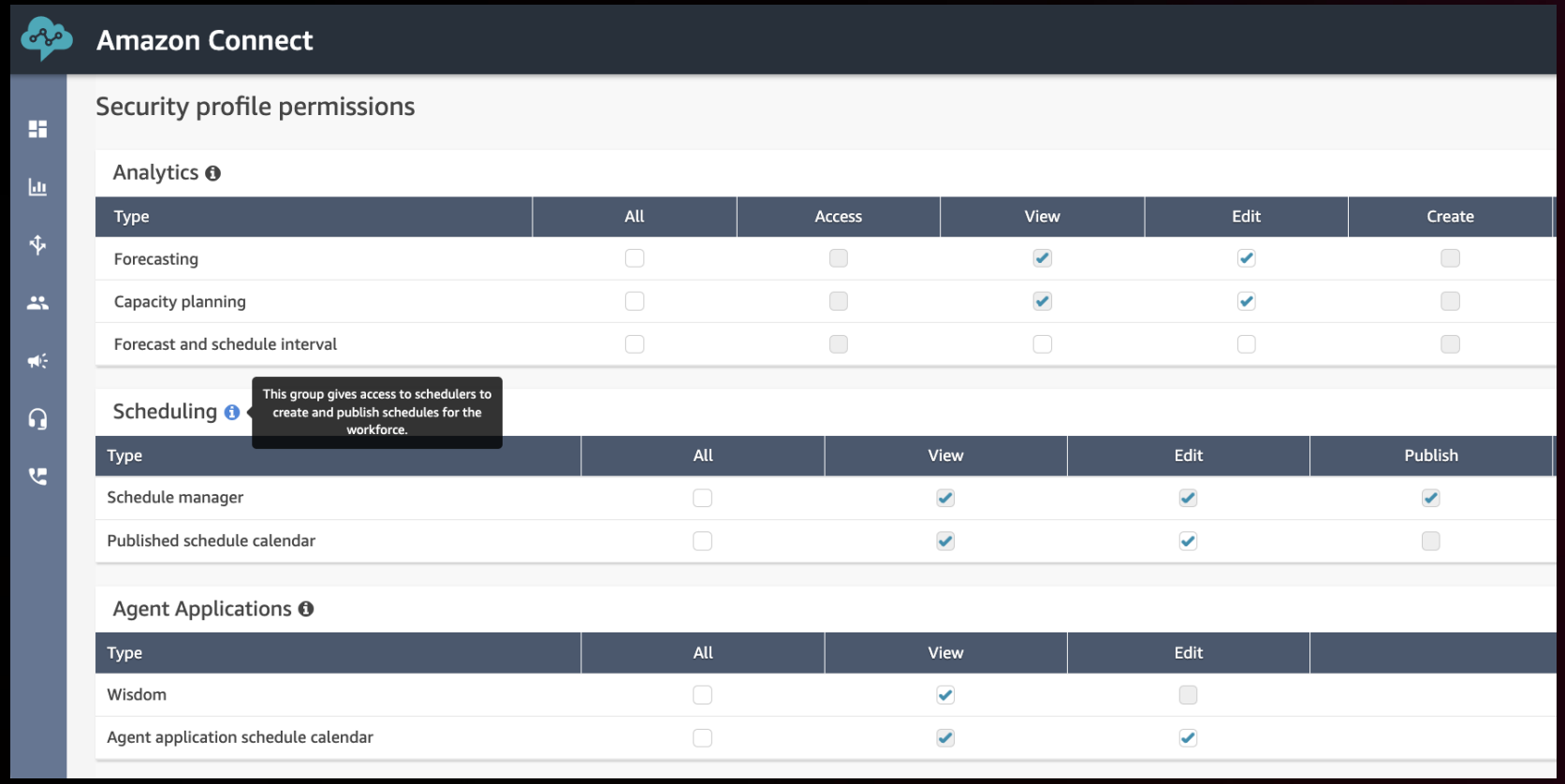
How do you enable these capabilities?

"EASY BUTTON" SELF-SERVICE ENABLEMENT FROM YOUR CONSOLE



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Set permissions via security profiles



Enable access permissions for forecasters, capacity planners, schedulers, supervisors, and agents via Amazon Connect security profiles

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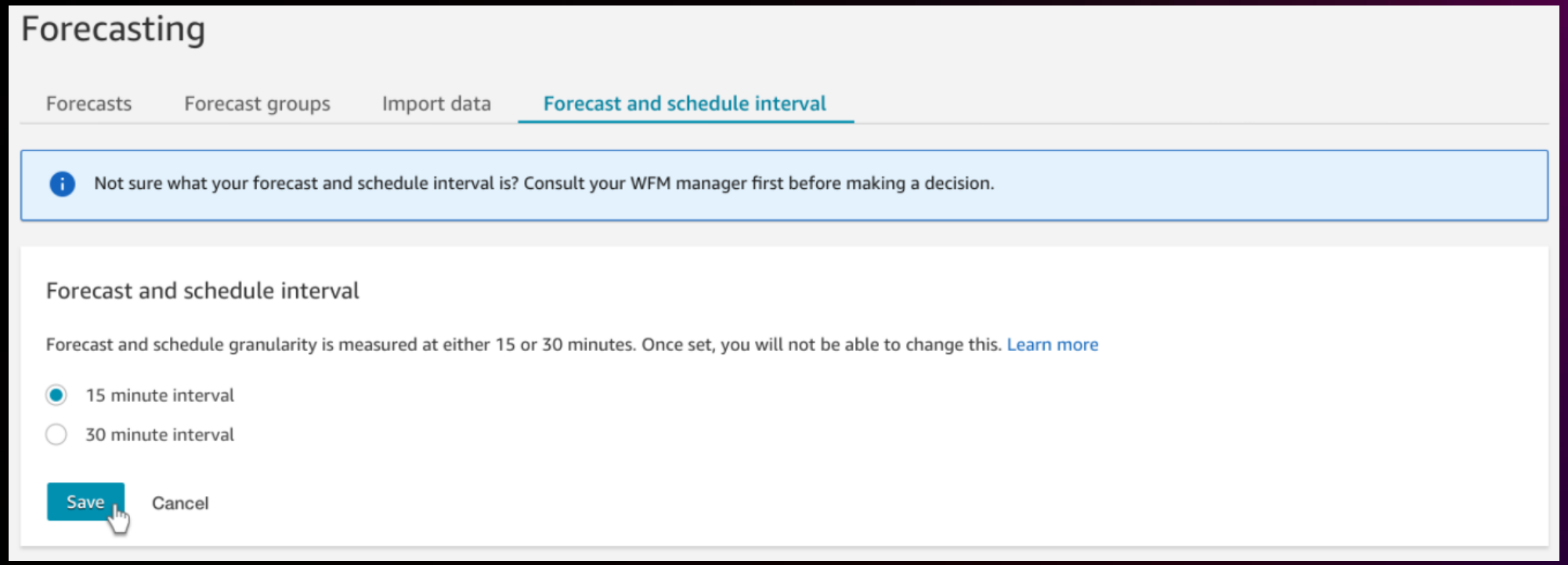
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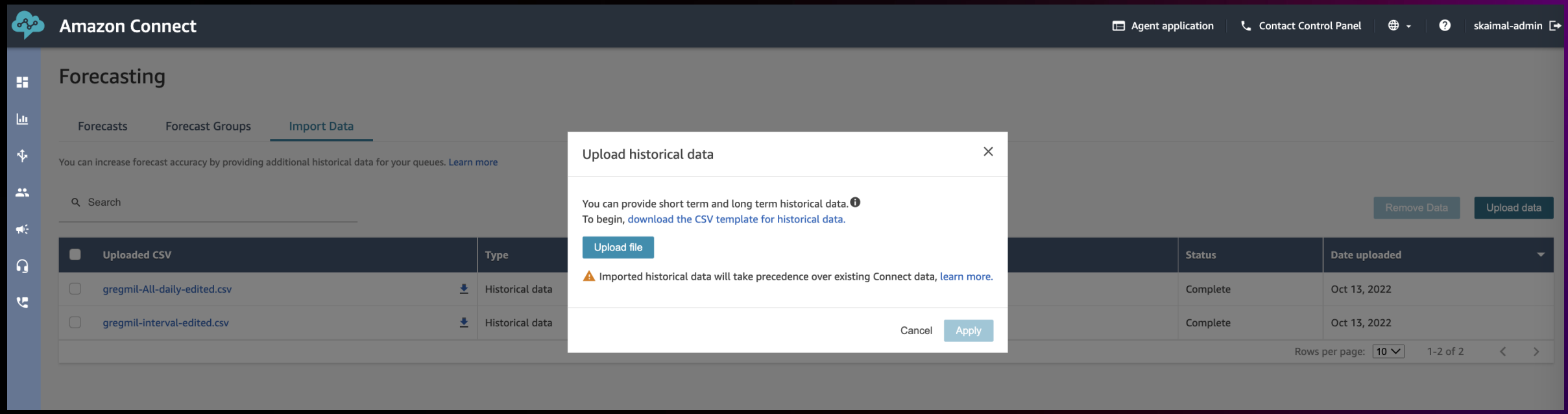
Set the forecast and schedule interval



Interval can be set to either 15 or 30 minutes

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Import historical contact data (optional)



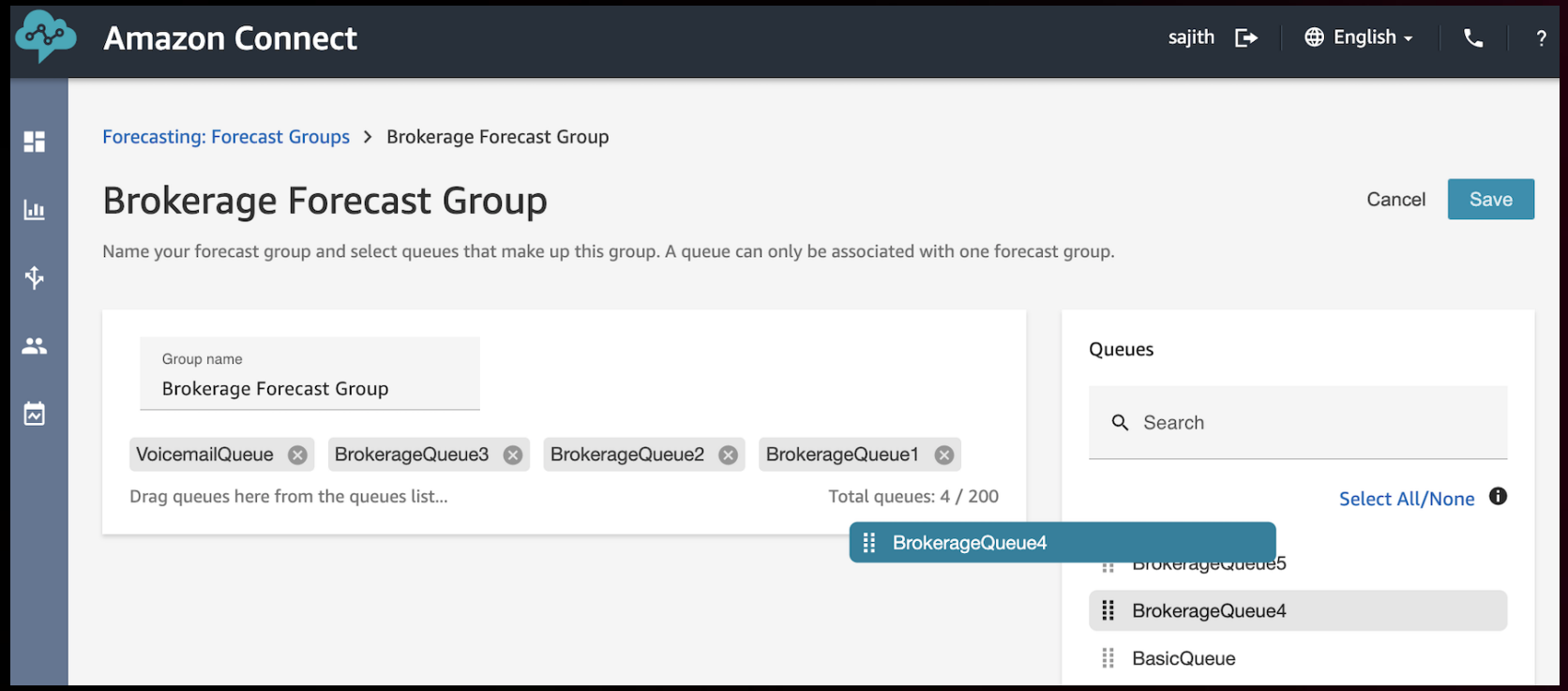
CSV file sample

	A	B	C	D	E	F	G	H
1	QueueName	QueueId	ChannelType	TimeStamp	IntervalDuration	IncomingContactVolume	AverageHandleTime	ContactsHandled
2	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T00:00:00Z	15mins	777	180	100
3	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T00:15:00Z	15mins	912	180	100
4	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T00:30:00Z	15mins	785	180	100
5	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T00:45:00Z	15mins	181	180	100
6	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T01:00:00Z	15mins	744	180	100
7	BasicQueue	4199dcd1-2a81-4bd3-90c2-746e1057a283	CHAT	2022-01-01T01:15:00Z	15mins	851	180	100

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Forecasting: Create a forecast group

GROUP QUEUES TOGETHER USING FORECAST GROUPS

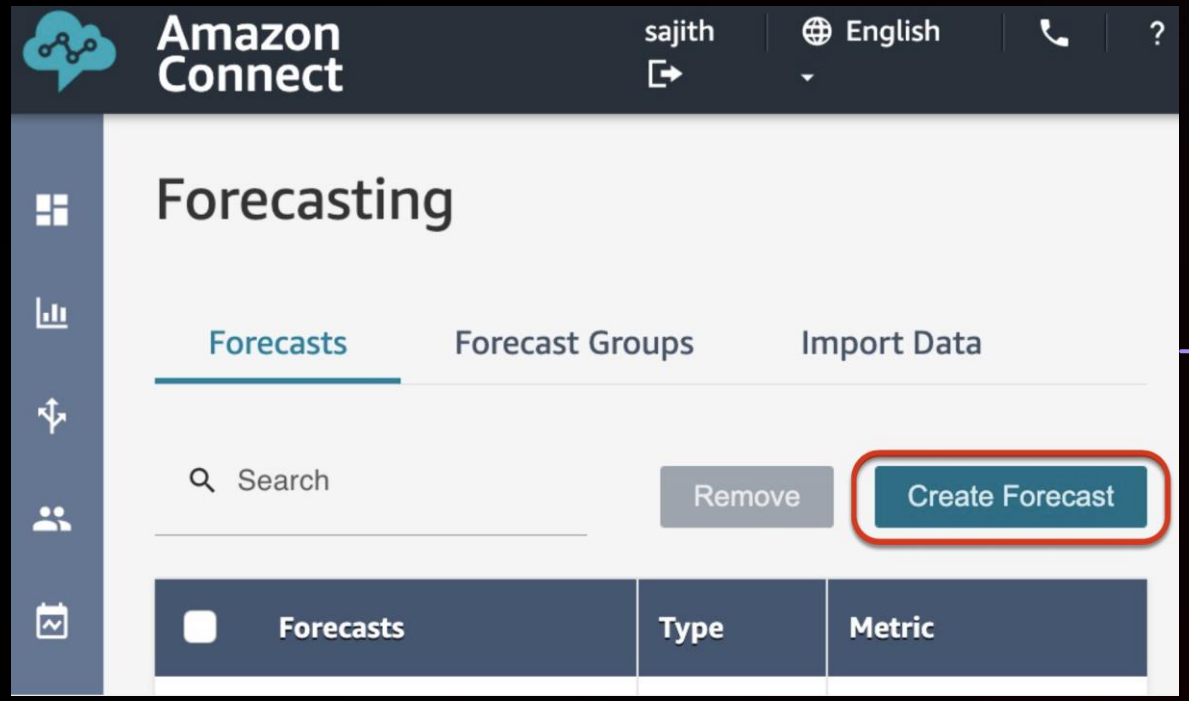


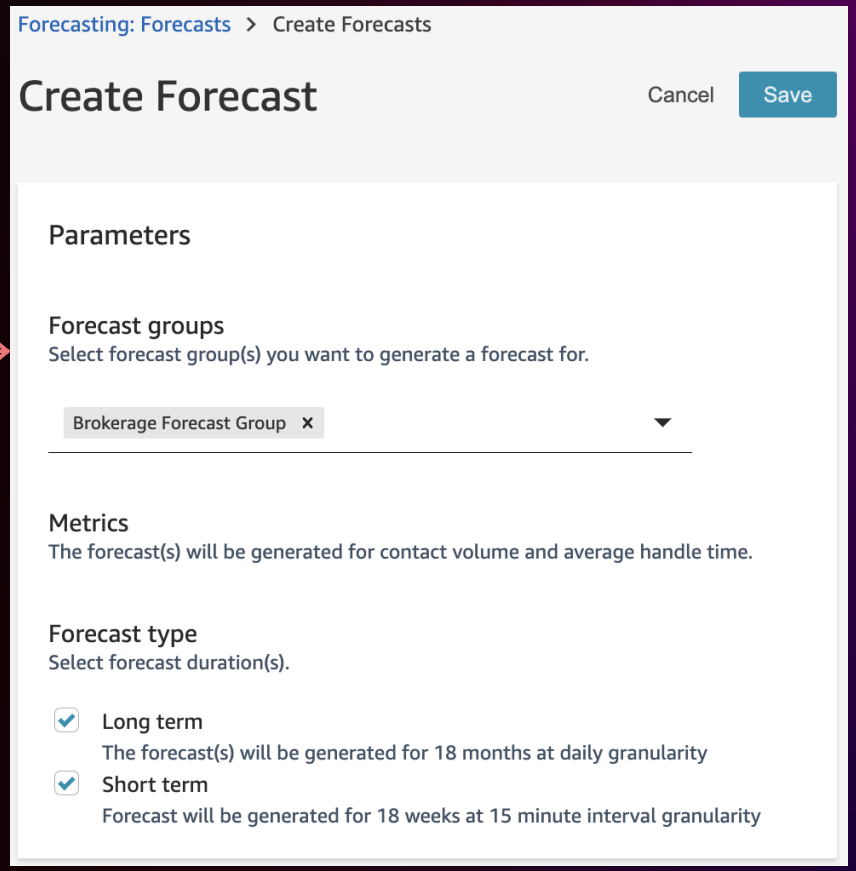
Forecast for queues that share the same pool of agents

Accuracy is maximized at forecast group level

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Forecasting: Create a forecast

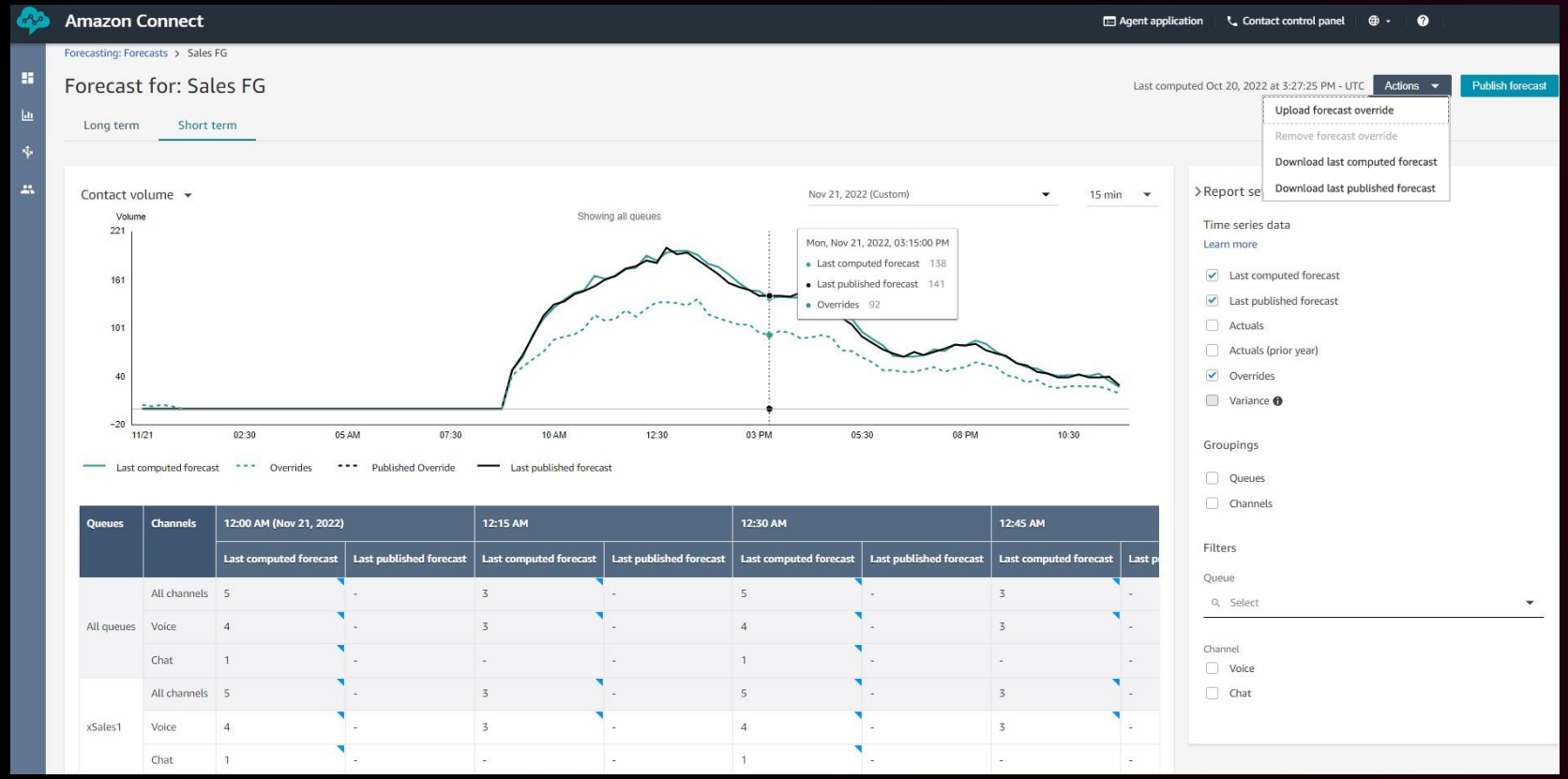




Once saved, long-term and short-term forecasts are automatically updated

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Forecasting: Review and publish forecasts



- Use AI/ML tailored for contact center business needs
- Help business planning with high accuracy forecasts
- Auto generate long-term and short-term forecasts

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Capacity planning

Onboarding
(Admin)

- Enable service
- Set permissions

Forecasting
(Forecaster)

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- Create forecast groups
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- Override forecast (optional)
- Publish forecast

Capacity planning
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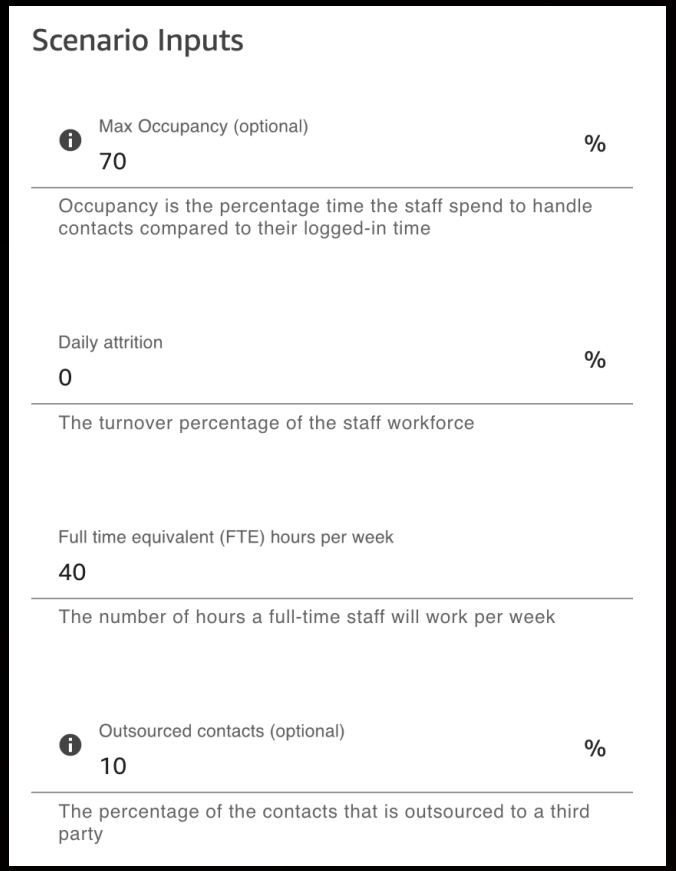
Schedule management
(Supervisor, Agent)

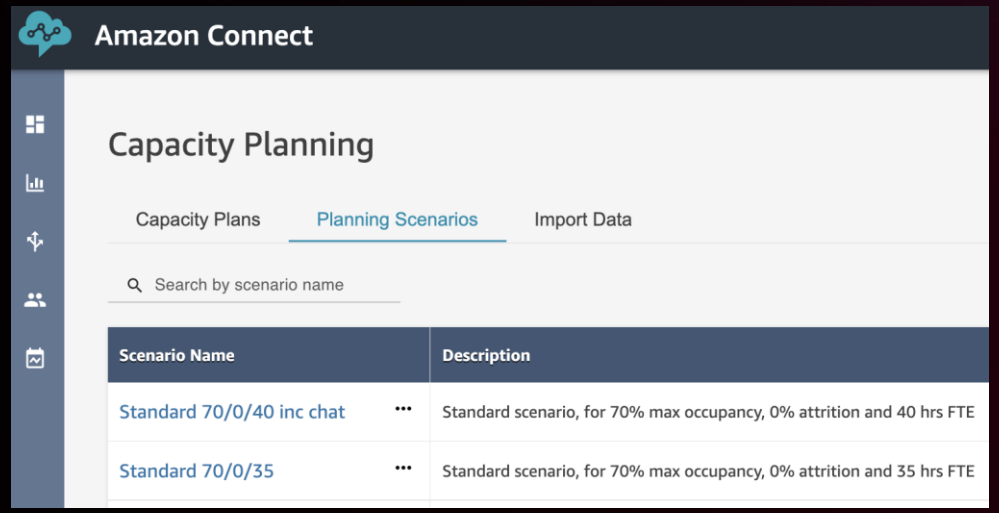
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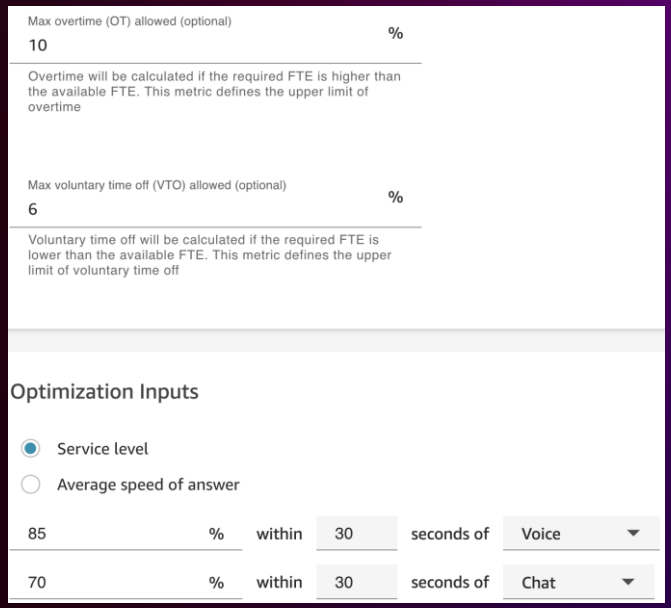
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Capacity planning: Create scenarios

CREATE WHAT-IF SCENARIOS



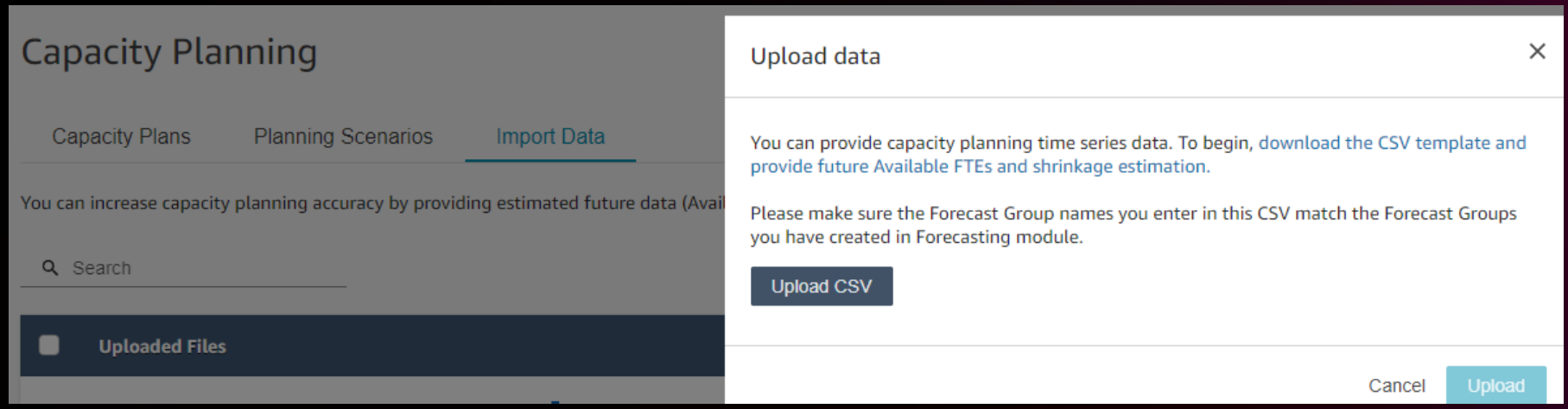




Quickly generate accurate long-term staffing plans using what-if scenarios with varying optimization inputs

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Capacity planning: Upload additional data



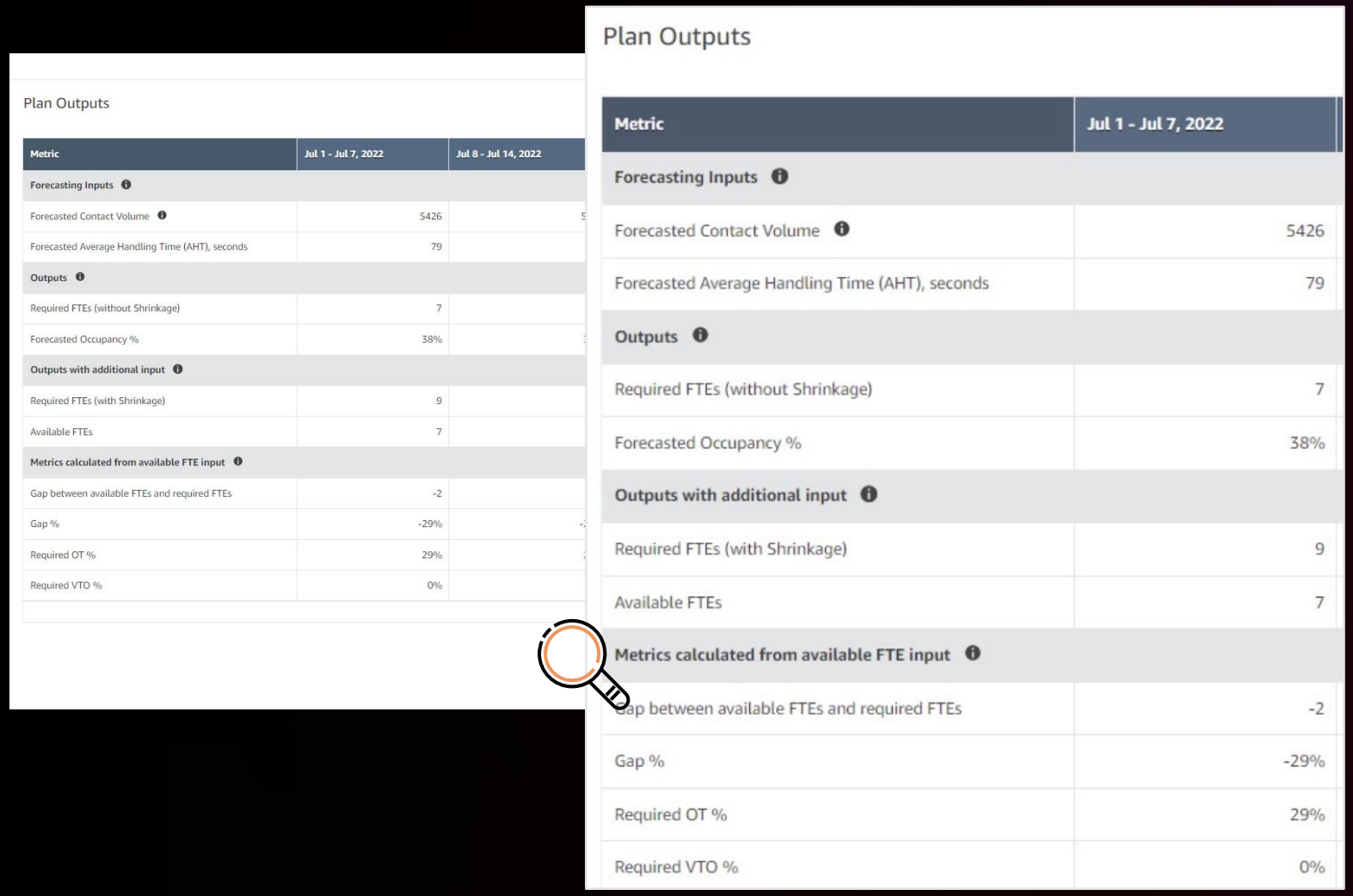
CSV file sample

	A	B	C	D	E
1	FORECAST_GROUP	Date (use ISO 8601 format: YYYY-MM-DDThh:mm:ssZ)	AVAILABLE_FTE	IN_OFFICE_SHRINKAGE	OUT_OFFICE_SHRINKAGE
2	EN - US - Voice	2022-01-01T00:00:00Z	0	15%	20%
3	EN - US - Voice	2022-01-02T00:00:00Z	0	15%	20%
4	EN - US - Voice	2022-01-03T00:00:00Z	100	15%	20%
5	EN - US - Voice	2022-01-04T00:00:00Z	100	15%	20%
6	EN - US - Voice	2022-01-05T00:00:00Z	100	15%	20%
7	EN - US - Voice	2022-01-06T00:00:00Z	100	15%	20%
8	EN - US - Voice	2022-01-07T00:00:00Z	100	15%	20%
9	EN - US - Voice	2022-01-08T00:00:00Z	0	15%	20%
10	EN - US - Voice	2022-01-09T00:00:00Z	0	15%	20%
11	EN - US - Voice	2022-01-10T00:00:00Z	100	15%	20%
12	EN - US - Voice	2022-01-11T00:00:00Z	100	15%	20%
13	EN - US - Voice	2022-01-12T00:00:00Z	100	15%	20%
14	EN - US - Voice	2022-01-13T00:00:00Z	100	15%	20%
15	EN - US - Voice	2022-01-14T00:00:00Z	100	15%	20%
16	EN - US - Voice	2022-01-15T00:00:00Z	0	15%	20%
17	EN - US - Voice	2022-01-16T00:00:00Z	0	15%	20%

Upload in-office and out-of-office shrinkage data, and available FTEs

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Capacity planning: Create scenarios



Plan Outputs

Metric	Jul 1 - Jul 7, 2022	Jul 8 - Jul 14, 2022
Forecasting Inputs		
Forecasted Contact Volume	5426	5
Forecasted Average Handling Time (AHT), seconds	79	
Outputs		
Required FTEs (without Shrinkage)	7	
Forecasted Occupancy %	38%	
Outputs with additional input		
Required FTEs (with Shrinkage)	9	
Available FTEs	7	
Metrics calculated from available FTE input		
Gap between available FTEs and required FTEs	-2	
Gap %	-29%	
Required OT %	29%	
Required VTO %	0%	

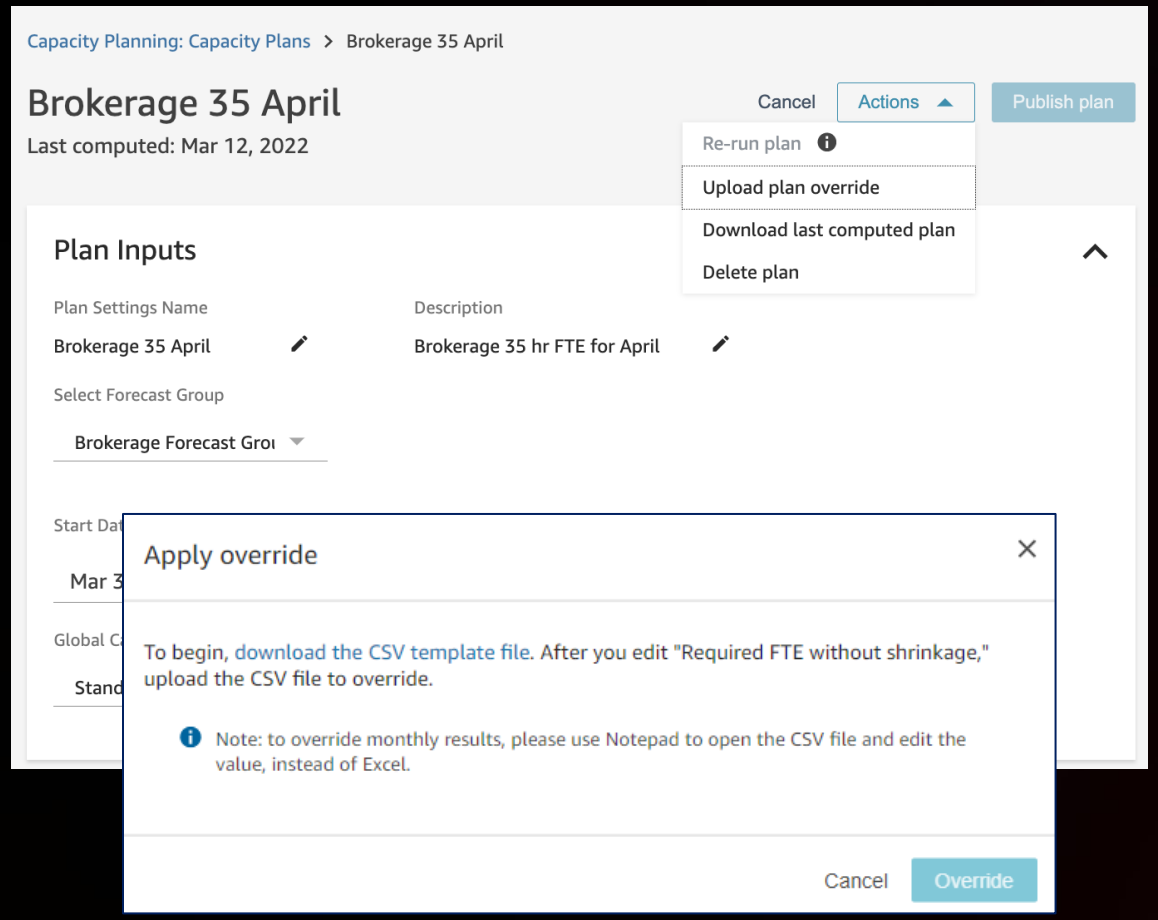
Plan Outputs

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Forecasted Contact Volume	5426
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Outputs	
Required FTEs (without Shrinkage)	7
Forecasted Occupancy %	38%
Outputs with additional input	
Required FTEs (with Shrinkage)	9
Available FTEs	7
Metrics calculated from available FTE input	
Gap between available FTEs and required FTEs	-2
Gap %	-29%
Required OT %	29%
Required VTO %	0%

- Outputs include required FTEs
- Forecasted occupancy
- Forecasted overtime
- Forecasted voluntary time-offs

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Capacity planning: Override



Rerun the plan with revised scenario or start/end dates

Override required FTE

Download plan output as CSV file

Publish plan

	A	B	C	D
1	Metrics	Mar 5 - Mar 11, 2022	Mar 12 - Mar 18, 2022	Mar 19 - Mar 25, 2022
2	Available FTEs	102	124	126
3	Forecasted Average Handling Time (AHT)	173	173	173
4	Forecasted Contact Volume	51719.13403	54303.16284	53931.54199
5	Forecasted Occupancy %	64%	63%	62%
6	Required FTEs (without shrinkage)	99	103	103
7	Required FTEs (with shrinkage)	116	128	128
8	Required OT% (-VTO %)	14%	3%	2%
9	Gap between available FTEs and required FTEs	-14	-4	-2
10	Gap %	-14%	-3%	-2%

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Scheduling

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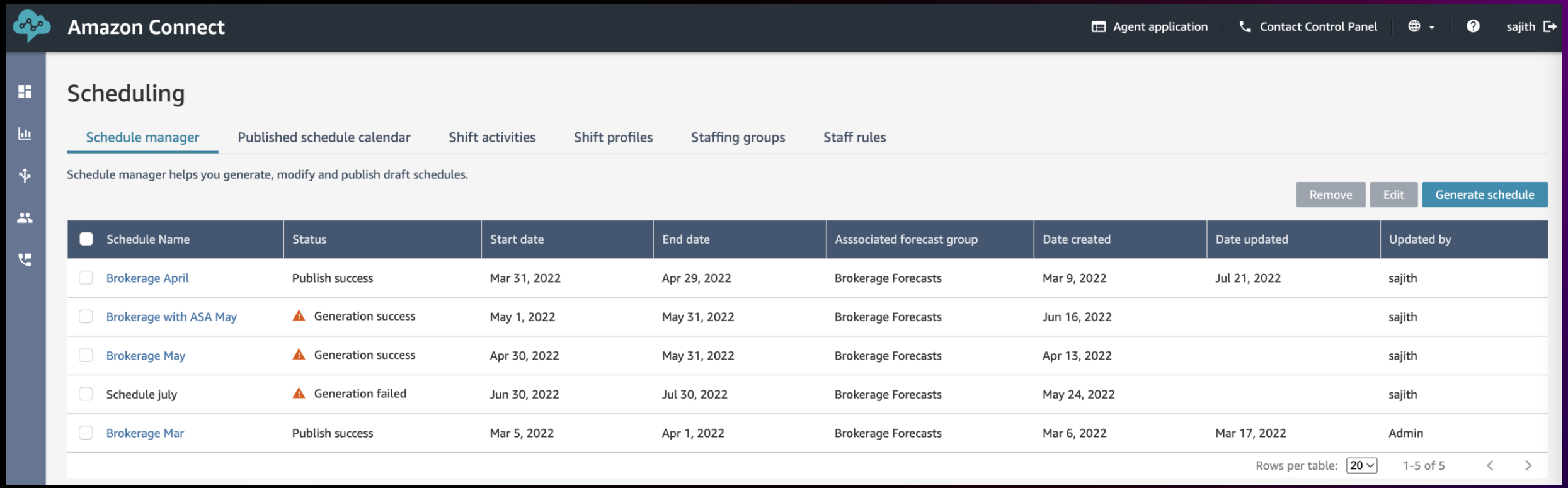
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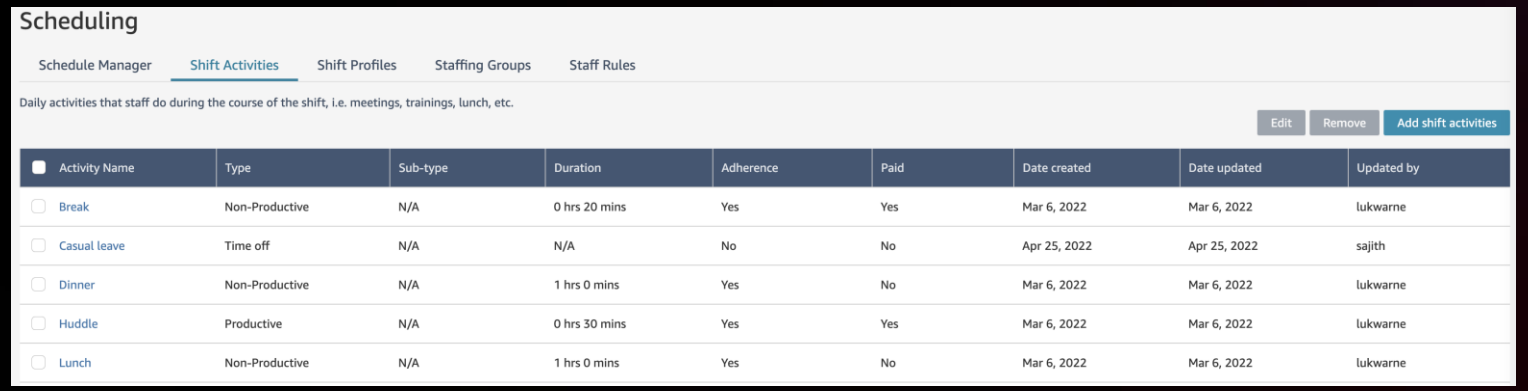
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Scheduling



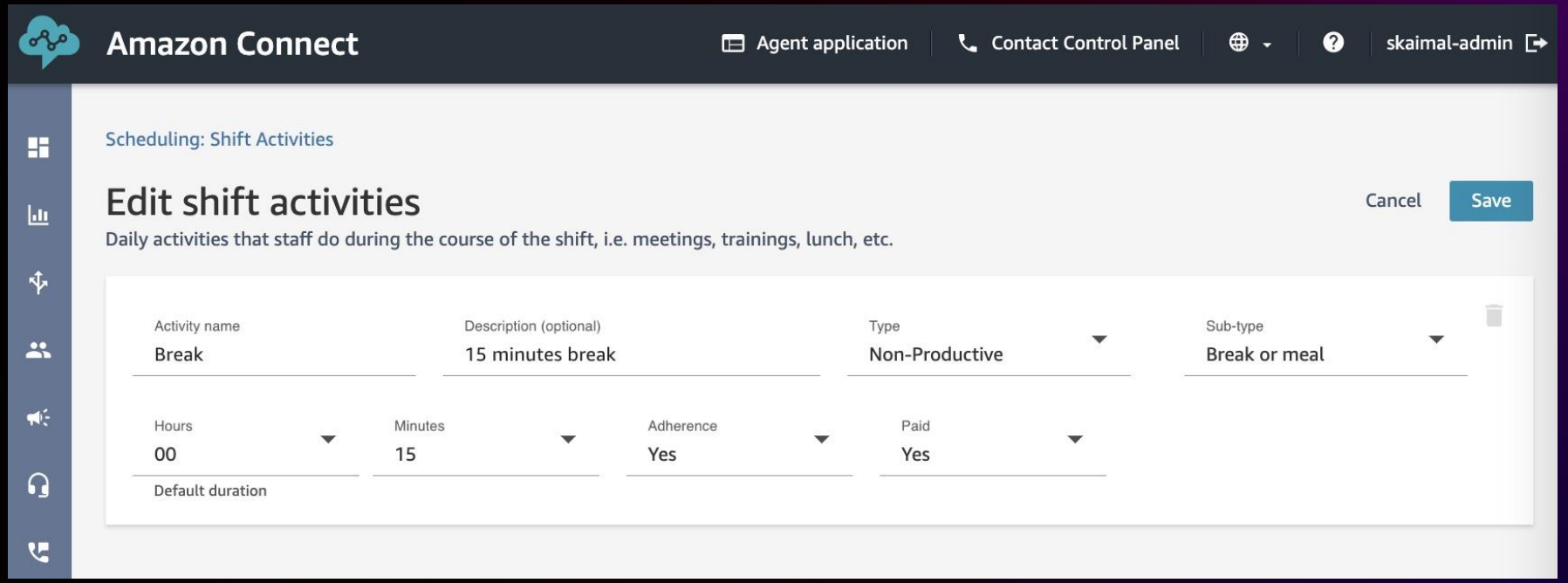
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Scheduling: Shift activities



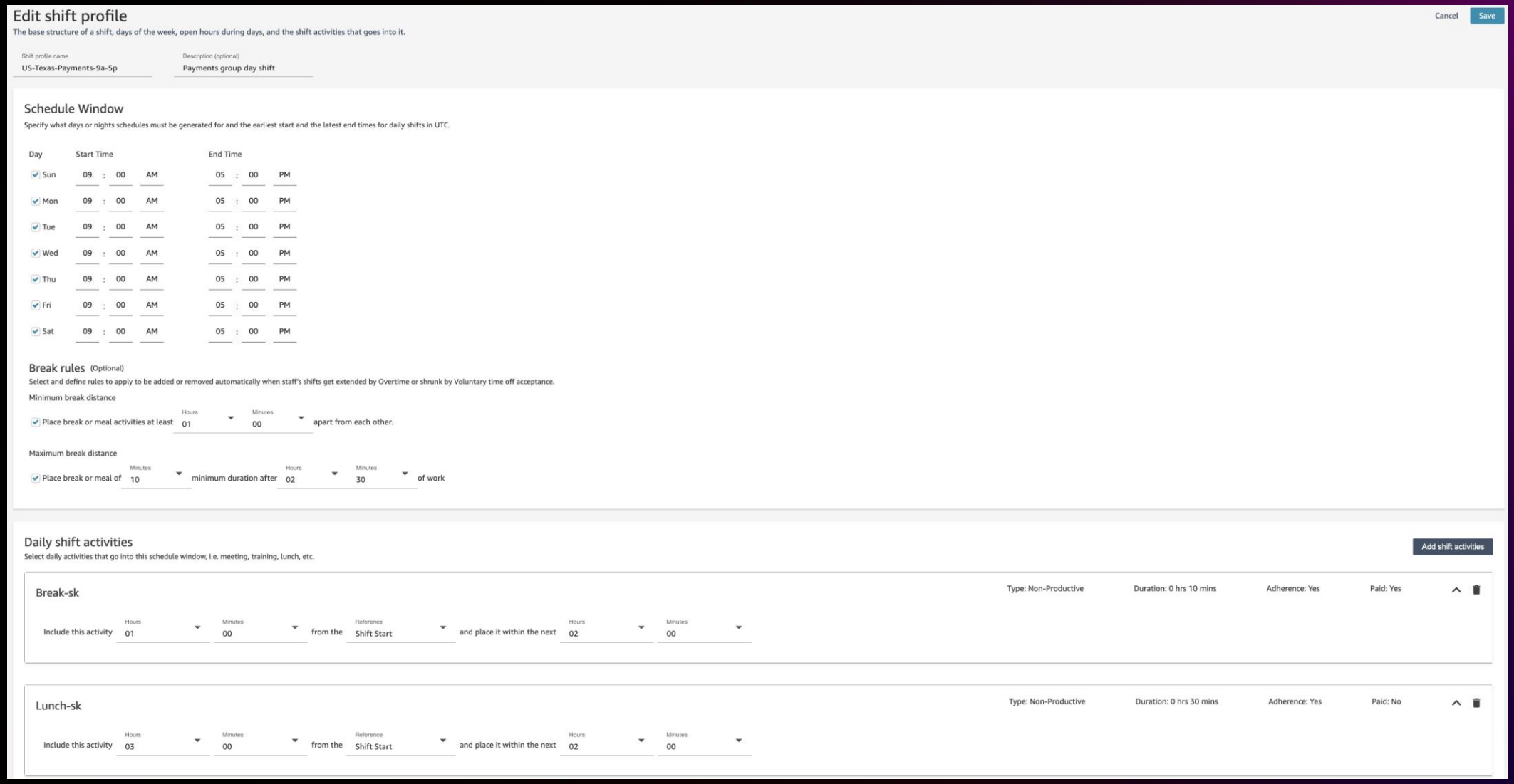
Helps scheduler manage activities agents perform during their shift

Define productive, nonproductive, or time-off activities



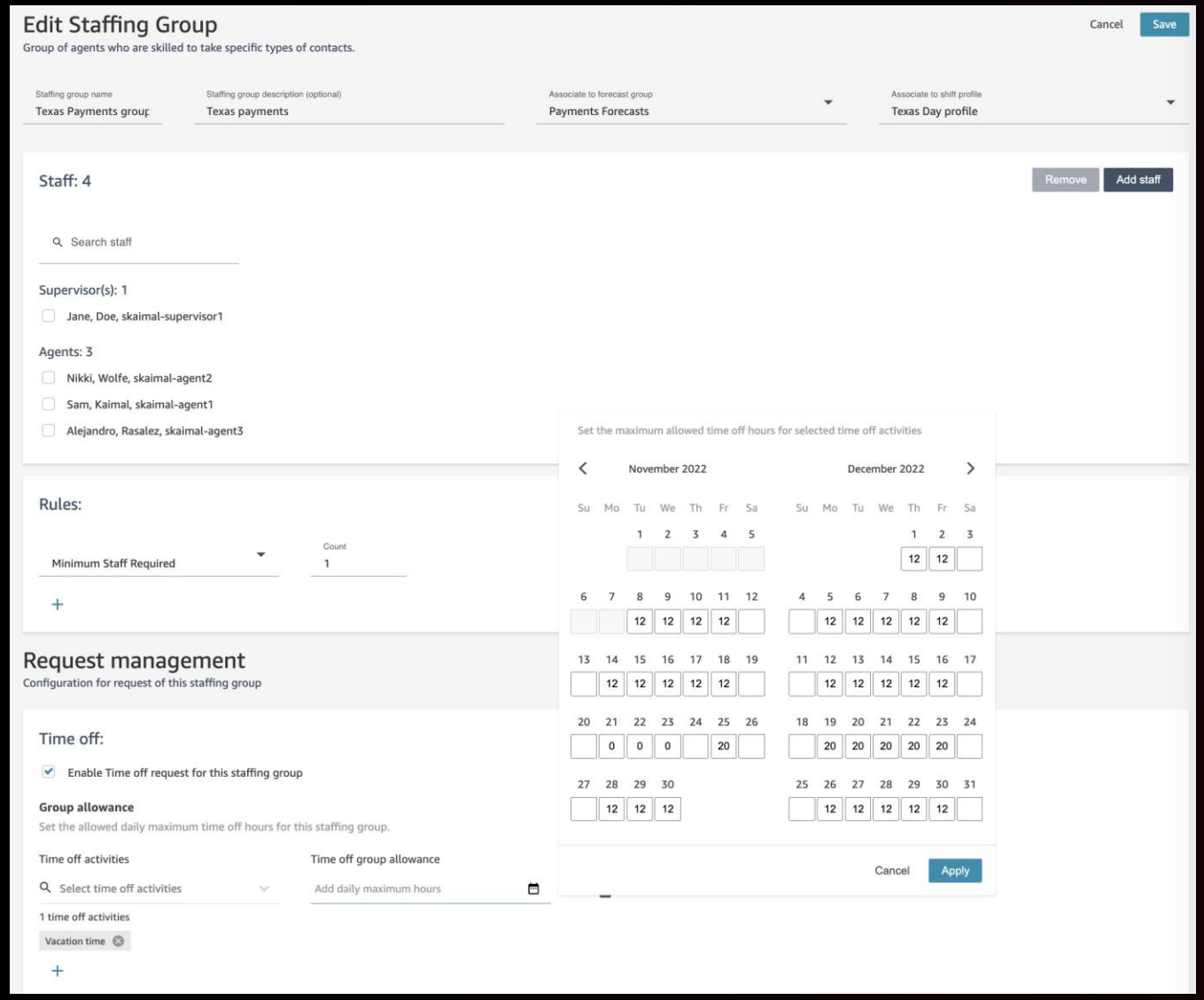
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Scheduling: Shift profiles



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Scheduling: Staffing group

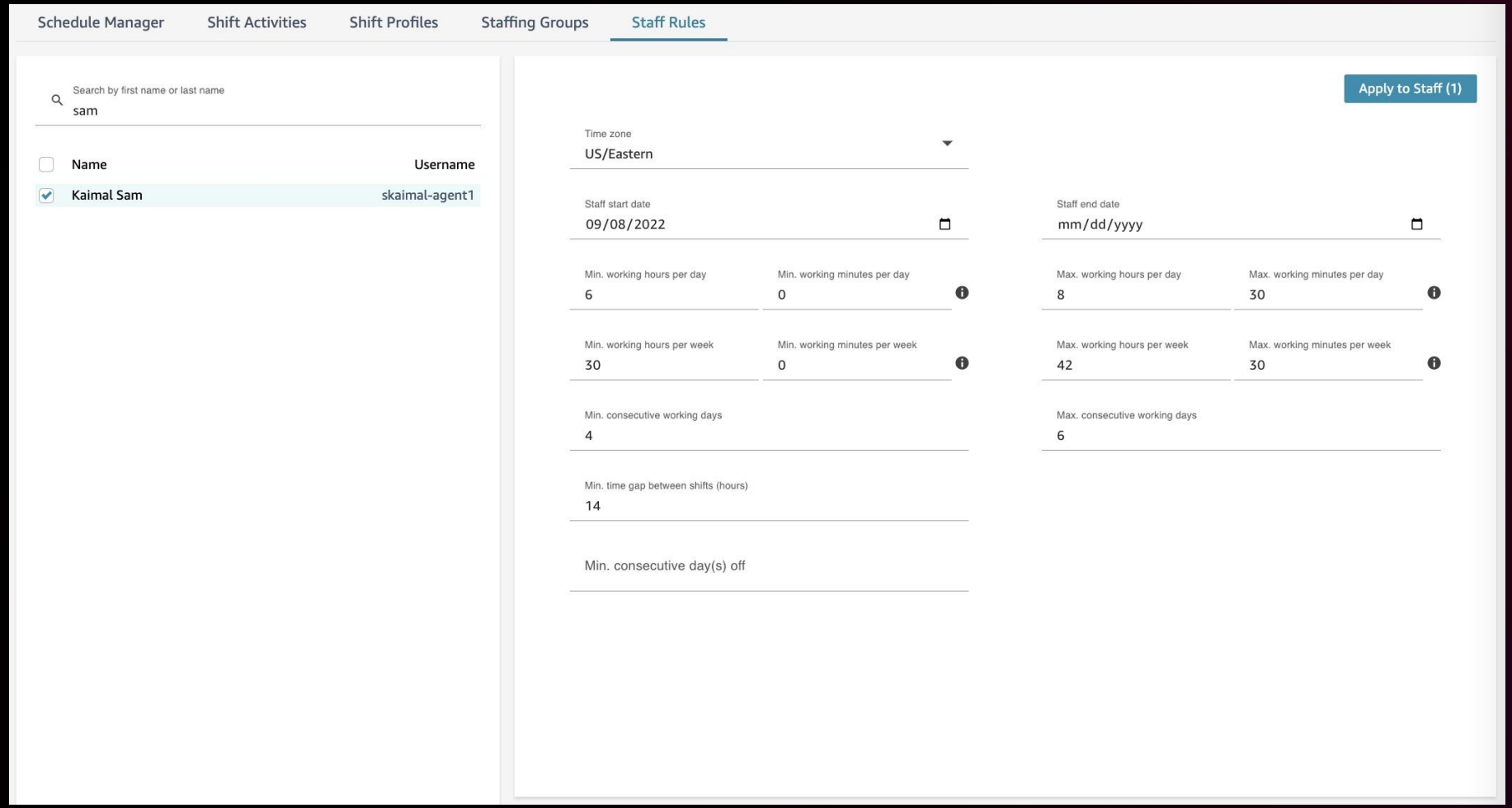


A staffing group groups agents based on skill or team for scheduling

Specify group level settings like minimum number of agents to be scheduled, time off group allowance, etc.

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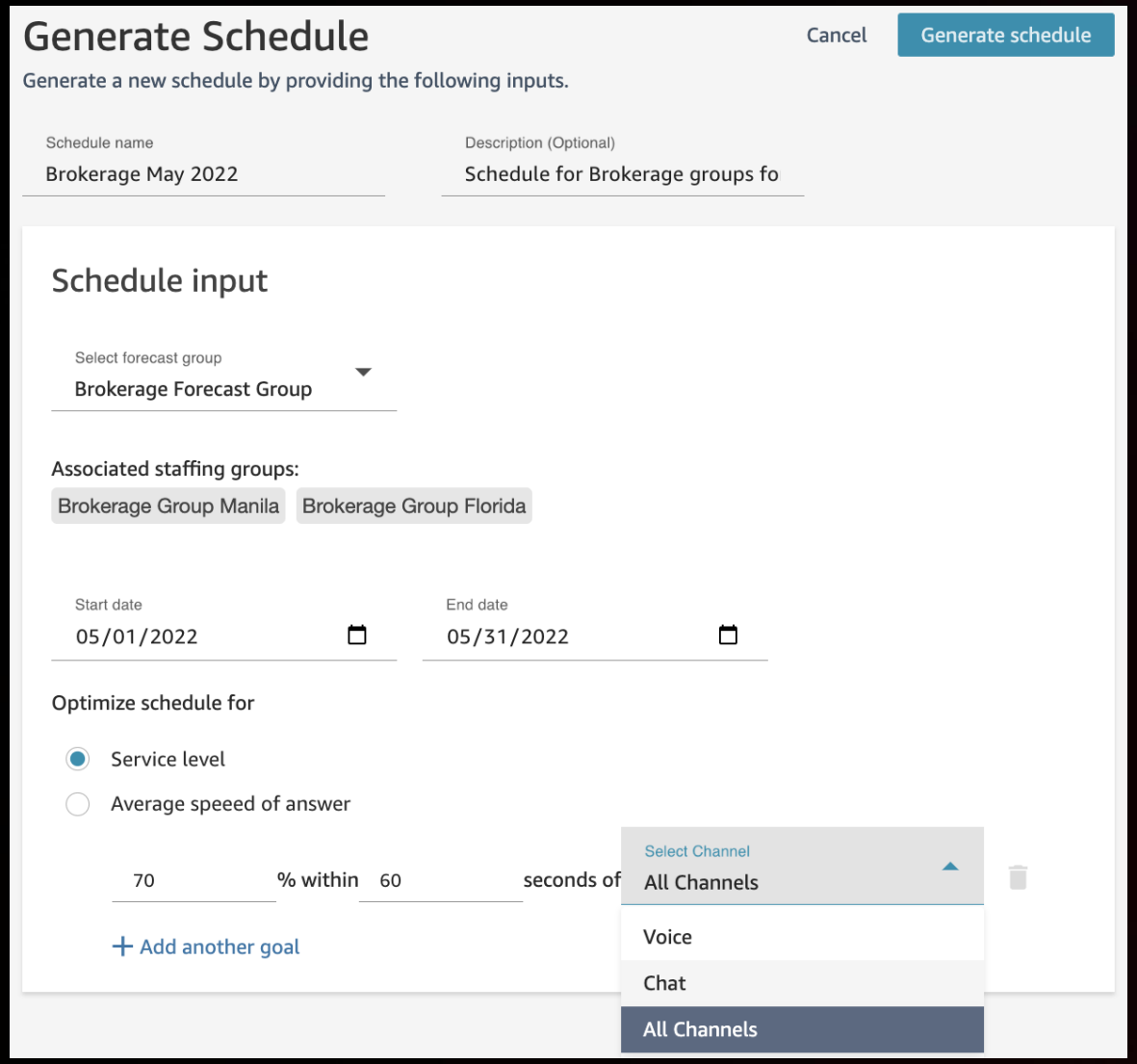
Scheduling: Staff rules



Configure agent level settings including their location, working hours, and joining and termination dates for better schedule generation

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Scheduling: Generate schedules

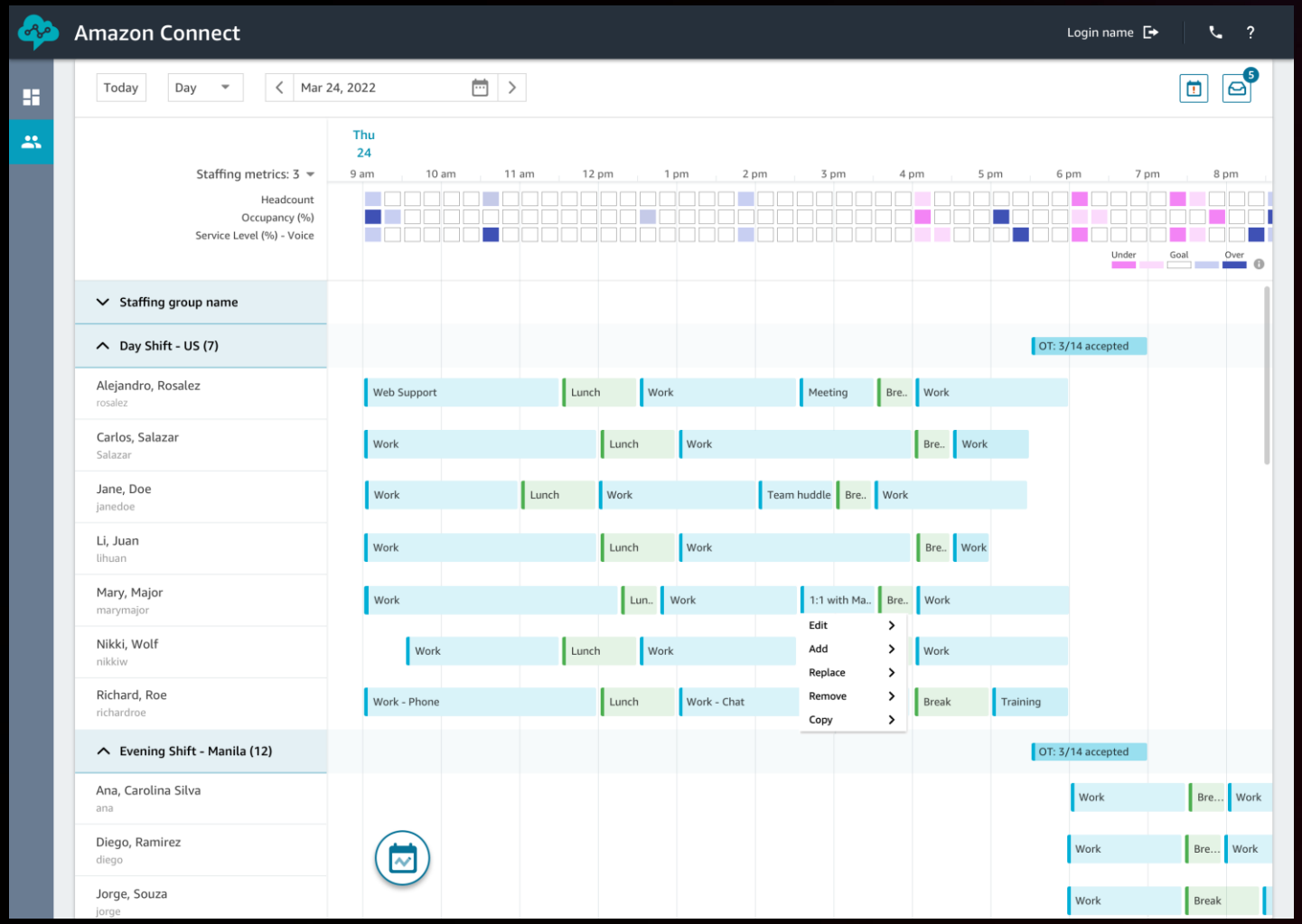


Pick the forecast group and input the schedule optimization goals – Service Level (SL) or Average Speed of Answer (ASA) targets

Click the generate schedule button to generate optimal agent schedule for up to 18 weeks to ensure the least number of agents are scheduled to meet the set goal

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Scheduling: View and adjust draft schedules



- ML-powered efficient staffing and agent scheduling
- Generate schedules that comply to HR/legal/business rules
- Metrics view shows impact of manual adjustment

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Scheduling
(Scheduler)

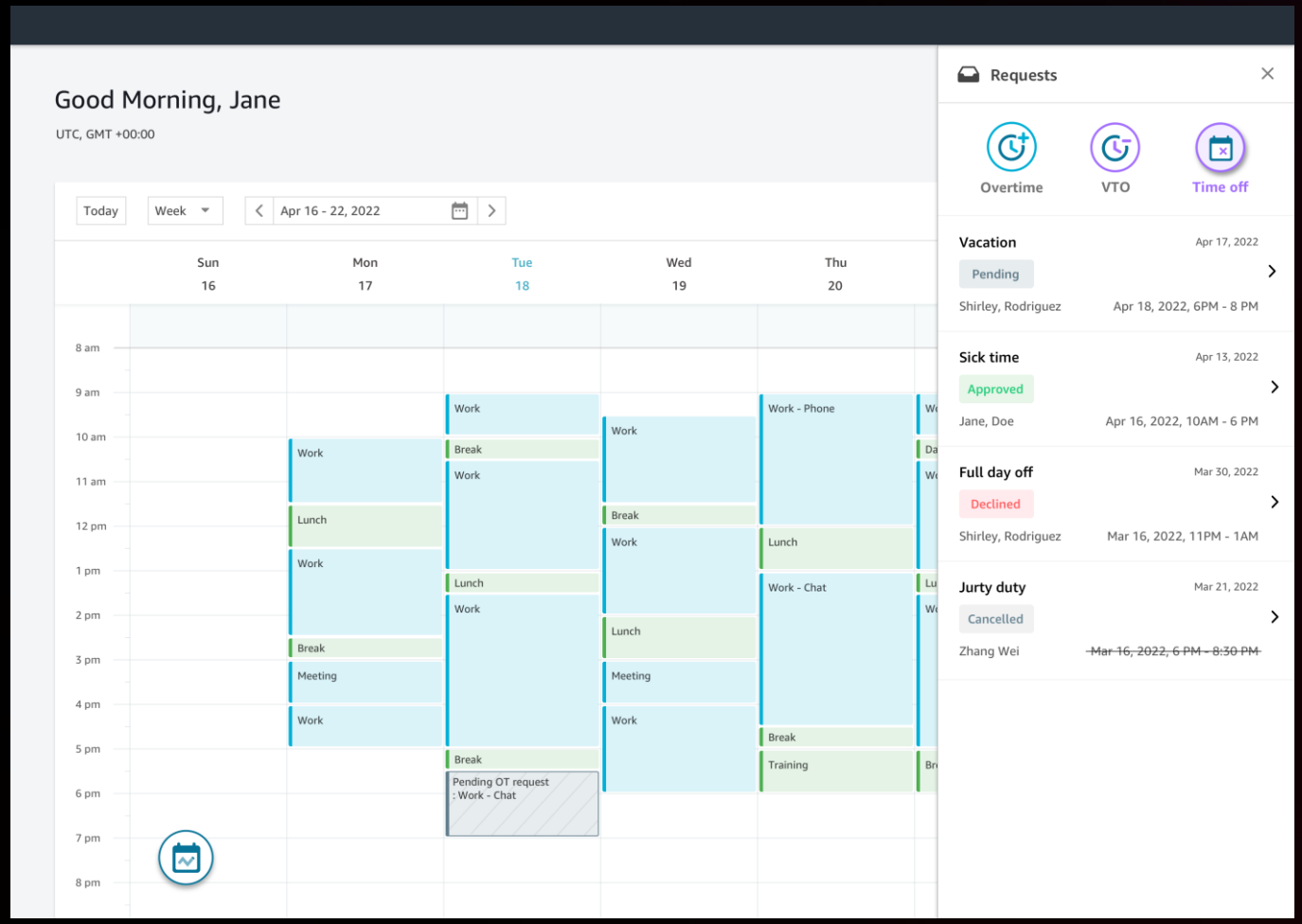
- Create shift activities
- Create shift profiles
- Create staffing group
- Set staff rules
- Generate schedule
- Publish schedule

Schedule management
(Supervisor, Agent)

- Supervisor schedule access
- Agent schedule access
- Historical and real-time schedule adherence
- Overtime and VTO request management
- Time off request management

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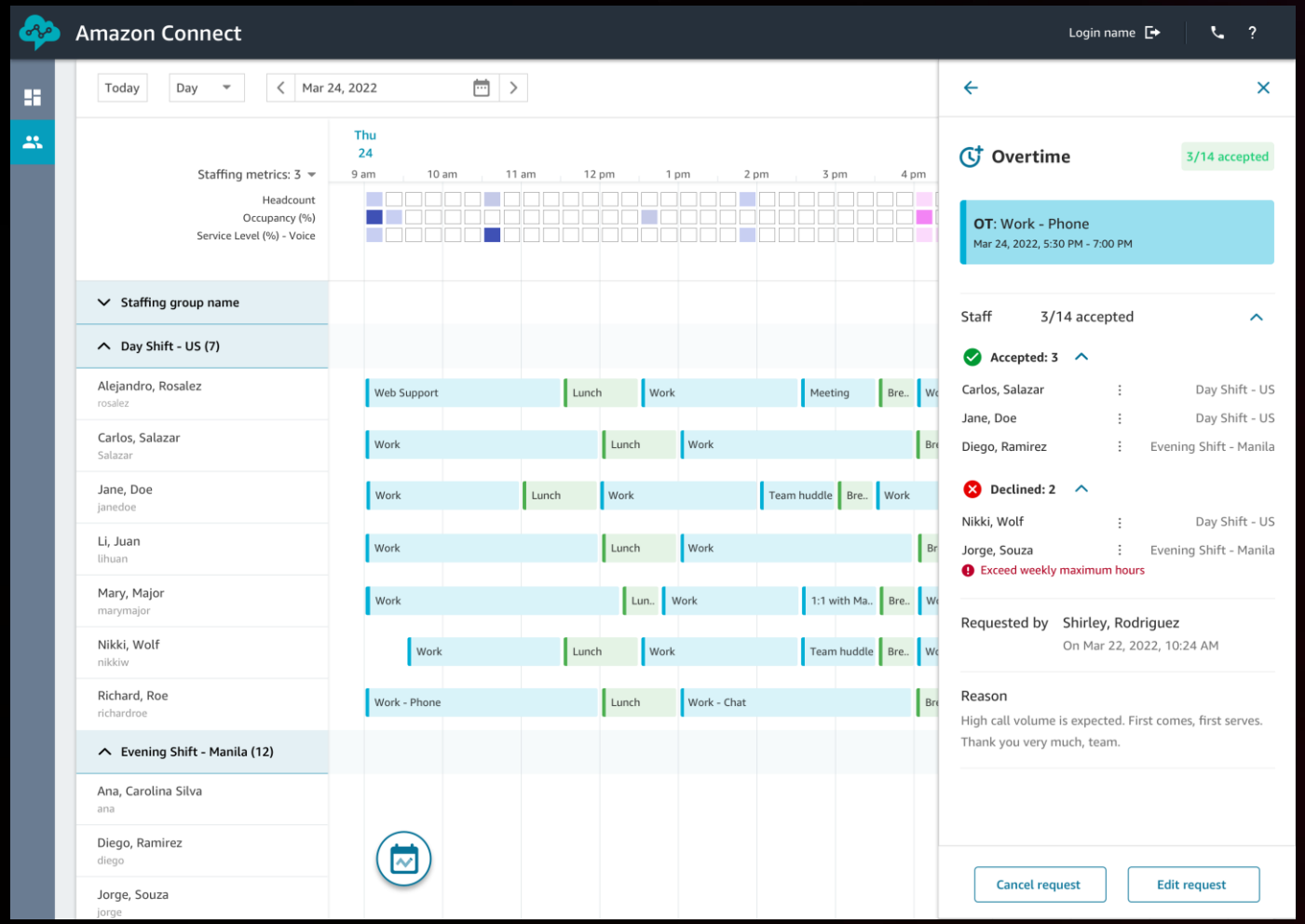
Scheduling: Agent schedule view experience



- Easy-to-use agent schedule management experience
- Integrated with Amazon Connect agent workspace
- Self-service request management

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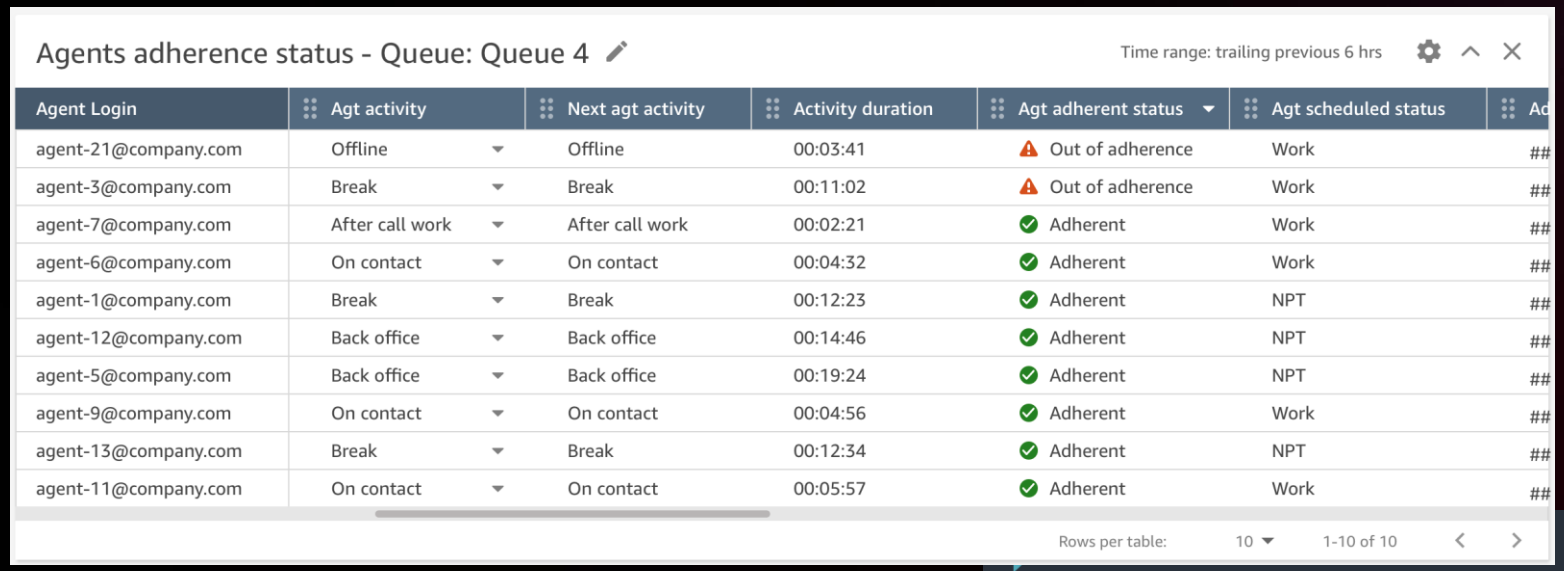
Scheduling: Overtime and time offs



- Request management workflows—overtime, voluntary time off, time off
- Automatic rules check including daily max. group allowance
- Self-optimizing schedules

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Scheduling: Schedule adherence



Agents adherence status - Queue: Queue 4

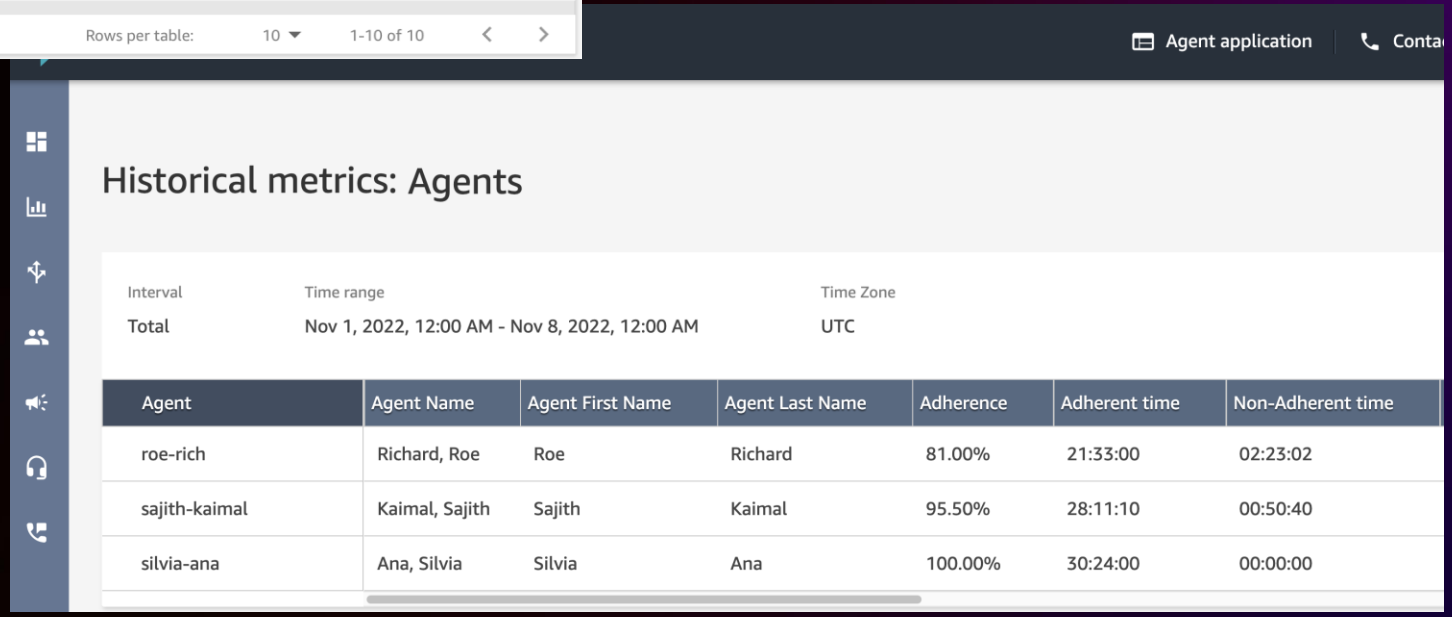
Time range: trailing previous 6 hrs

Agent Login	Agt activity	Next agt activity	Activity duration	Agt adherent status	Agt scheduled status	Ad
agent-21@company.com	Offline	Offline	00:03:41	Out of adherence	Work	##
agent-3@company.com	Break	Break	00:11:02	Out of adherence	Work	##
agent-7@company.com	After call work	After call work	00:02:21	Adherent	Work	##
agent-6@company.com	On contact	On contact	00:04:32	Adherent	Work	##
agent-1@company.com	Break	Break	00:12:23	Adherent	NPT	##
agent-12@company.com	Back office	Back office	00:14:46	Adherent	NPT	##
agent-5@company.com	Back office	Back office	00:19:24	Adherent	NPT	##
agent-9@company.com	On contact	On contact	00:04:56	Adherent	Work	##
agent-13@company.com	Break	Break	00:12:34	Adherent	NPT	##
agent-11@company.com	On contact	On contact	00:05:57	Adherent	Work	##

Rows per table: 10 1-10 of 10

Monitors agent activities in real-time and notifies managers on shift activity adherence lapse

Historical adherence % metrics



Agent application | Conta

Historical metrics: Agents

Interval	Time range	Time Zone
Total	Nov 1, 2022, 12:00 AM - Nov 8, 2022, 12:00 AM	UTC

Agent	Agent Name	Agent First Name	Agent Last Name	Adherence	Adherent time	Non-Adherent time
roe-rich	Richard, Roe	Roe	Richard	81.00%	21:33:00	02:23:02
sajith-kaimal	Kaimal, Sajith	Sajith	Kaimal	95.50%	28:11:10	00:50:40
silvia-ana	Ana, Silvia	Silvia	Ana	100.00%	30:24:00	00:00:00

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Customer stories

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Ameriflex

"As a business with seasonally driven volume, it is imperative that our contact center can scale up and down without being locked into expensive licenses. We needed a dynamic, easy to learn and administer telephony solution that is also cost effective, drives efficiency, and integrates seamlessly with our current and future technologies. We are 18 months into our AWS journey and have found Amazon Connect to be user friendly and easily adaptable to our ever-changing needs.

We've started using Amazon Connect forecasting, capacity planning, and scheduling to administer scheduling plans and coordinate real-time adjustments with multiple internal and external partners. Our business users without workforce management experience find the capabilities easy to use.

AWS has been proactive in providing optimization recommendations and responsive to our development requests. Being able to work with AWS to test and build these forecasting, capacity planning, and scheduling capabilities that meet our business needs, rather than force fit a solution, has been an important part of our decision to move forward with additional AWS services."

– Anjanette DeCoudreaux, Director of Participant Services

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LITIGATION PRACTICEGROUP

“One of our biggest challenges with our legacy contact center was forecasting customer demand based on historical data so we could predict surges. The AWS team works with us closely to solve our business pain points and innovate quickly together. With Amazon Connect forecasting, capacity planning and scheduling, we are finally confident we can reliably hit our service-level targets and gracefully navigate fluctuations in customer demand.

When searching for a new provider, Amazon Connect stood out to us because of how easy it is to harness data and leverage machine-learning (ML) to deliver highly accurate (>95%) forecasts and optimized schedules. It is simple and flexible to set up, and allows us to create agent schedules with high efficiency, even when our agents have many unique schedule requirements. It ensures the right agent is available at the right time to take an end-customer’s call.

The AWS team works with us closely to solve our business pain points and innovate quickly together. With Amazon Connect forecasting, capacity planning and scheduling, we are finally confident we can reliably hit our service-level targets and gracefully navigate fluctuations in customer demand.

– Alex Miles, Director of Business Intelligence

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Q&A

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Thank you!

Sajith Kaimal

Twitter: @sajithkaimal



Please complete the session survey in the **mobile app**

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