
AWS
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HLC204

Accelerating the transition to telehealth with AWS

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AWS re:Invent

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About your speakers



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Agenda

Industry challenge

- Telehealth functionality
- Amazon Connect

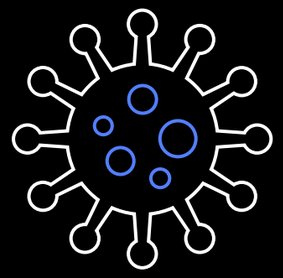
MedStar solution

- Challenges
- Architecture
- Patient and business impacts
- Experience with AWS



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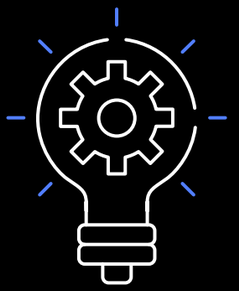
2020 and the rise of telehealth



COVID-19 and the rise of telehealth



Customer acceleration to telehealth



AWS collaboration


MedStar Health
MedStar Health

MedStar's telehealth acceleration

In February 2020, MedStar Health provided approximately **240** outpatient telehealth interactions (a typical month)

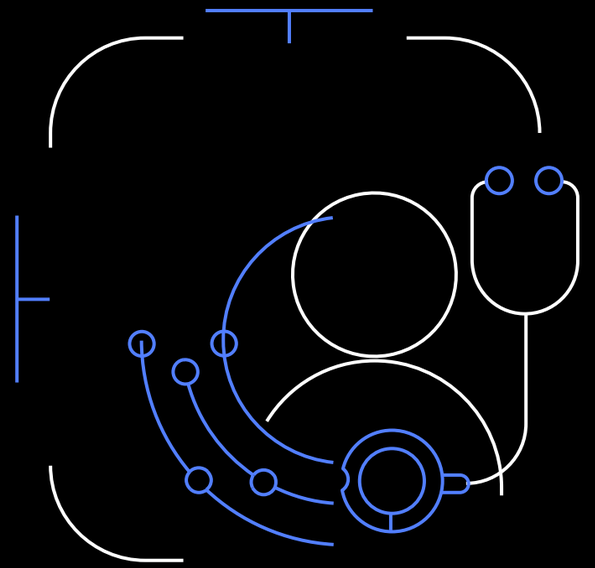
From March 13 through September 25, 2020, MedStar Health provided **more than 440,000** telehealth sessions

- 80% of scheduled visits (scheduled video appointments with primary care and specialty providers, through a platform built and launched at scale in just days during the pandemic)
- Expanded use of telehealth
  - Remote providers evaluate and treat some patients in the emergency department, then discharge them
  - Some nursing checks with patients are done from outside room (to conserve personal protective equipment)
  - Patients are connected with family members, overcoming visitor restrictions

Creating a connected experience

Challenge 1

Integrate all these new technologies into existing and emerging workflows in a way that provides a connected experience for patients and providers



Traditional call center



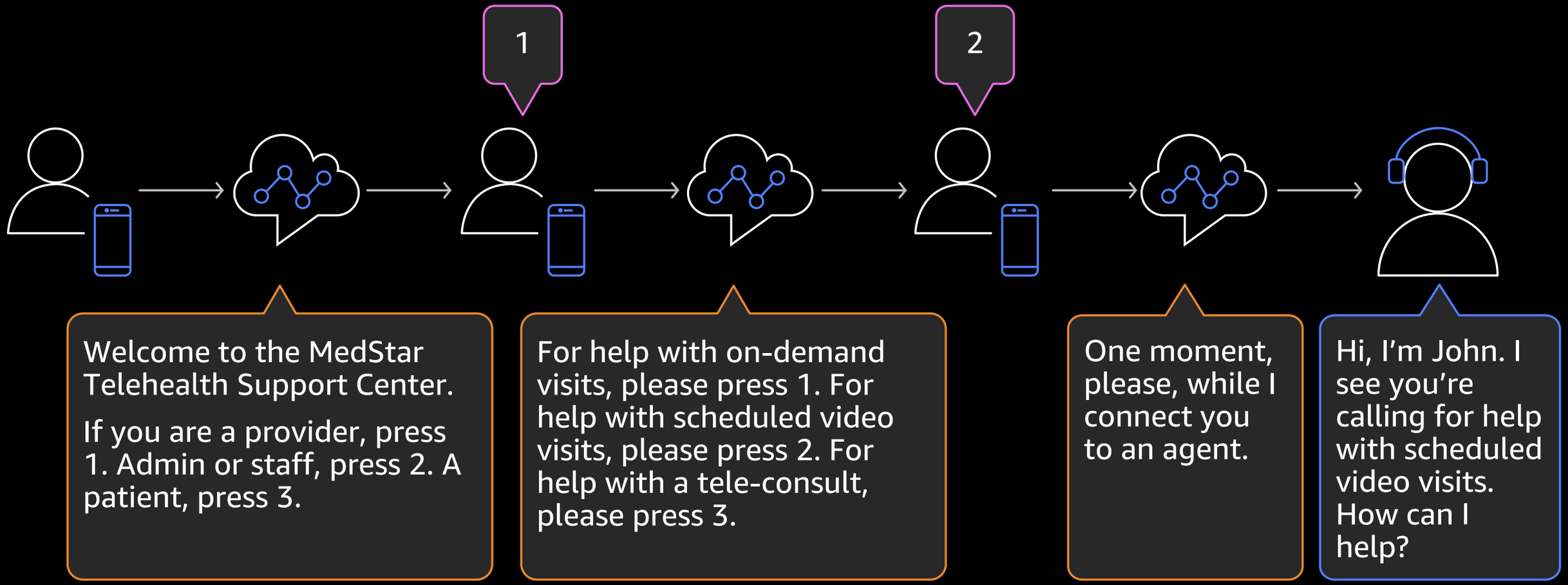


These photos were taken in the initial days of the COVID-19 pandemic response, before current guidelines were in place for wearing masks and physically distancing

All patients, providers, and associates are expected to follow the current MedStar Health safety guidelines, including proper masking and physical distancing, where appropriate

Learn more at MedStarHealth.org/Safe

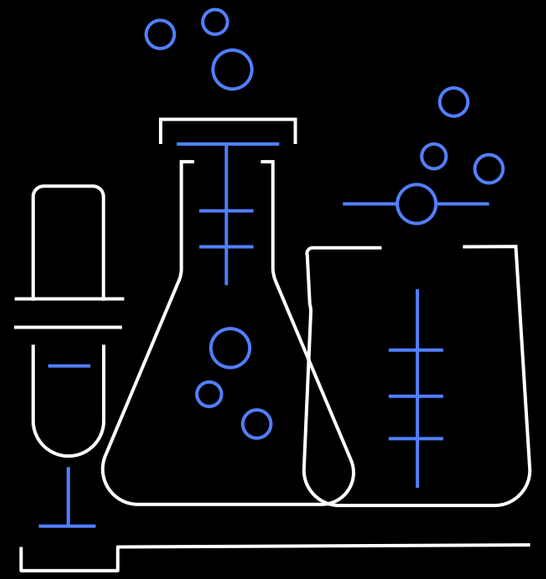
MedStar's telehealth call center



Increase scale and speed of communications

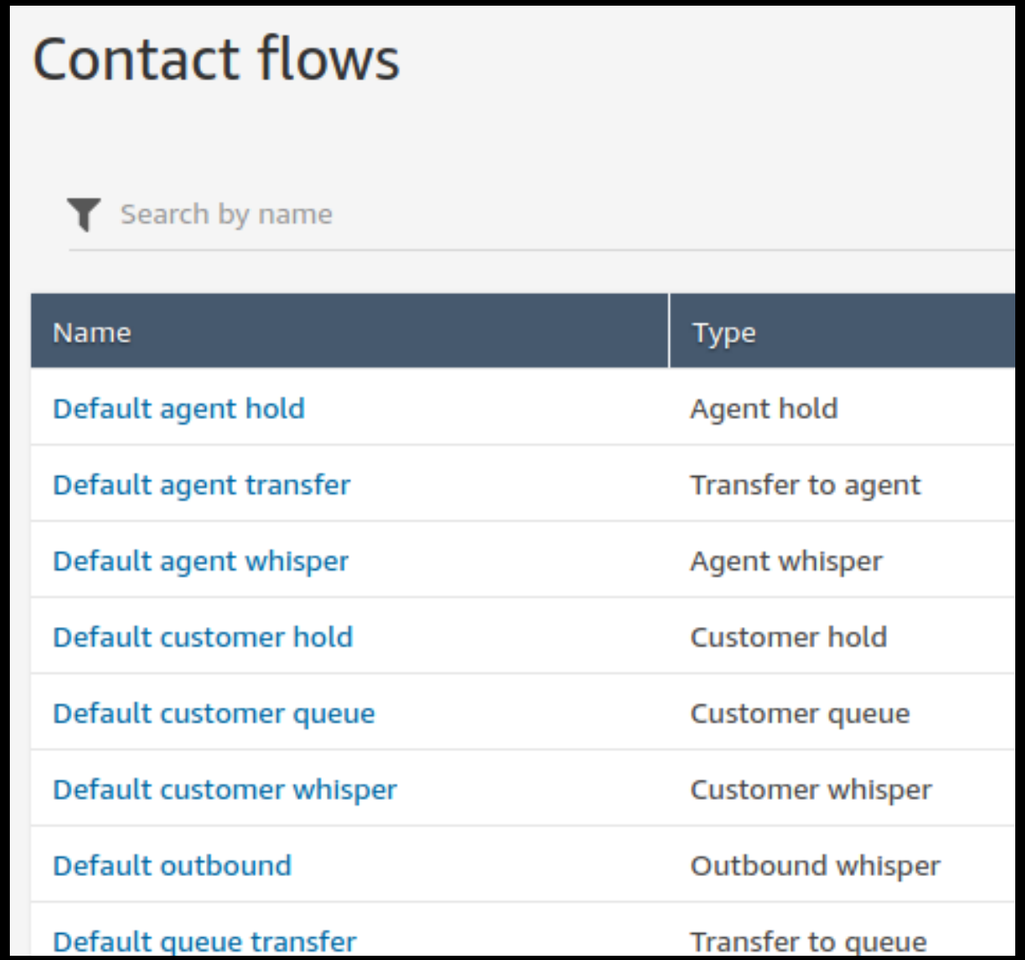
Challenge 2

Many people were seeking laboratory results, and in the first few months these tests were taking 2 to 7 days to resolve. How do we speed up the process of getting thousands of test results to patients and counseling them on what to do next?

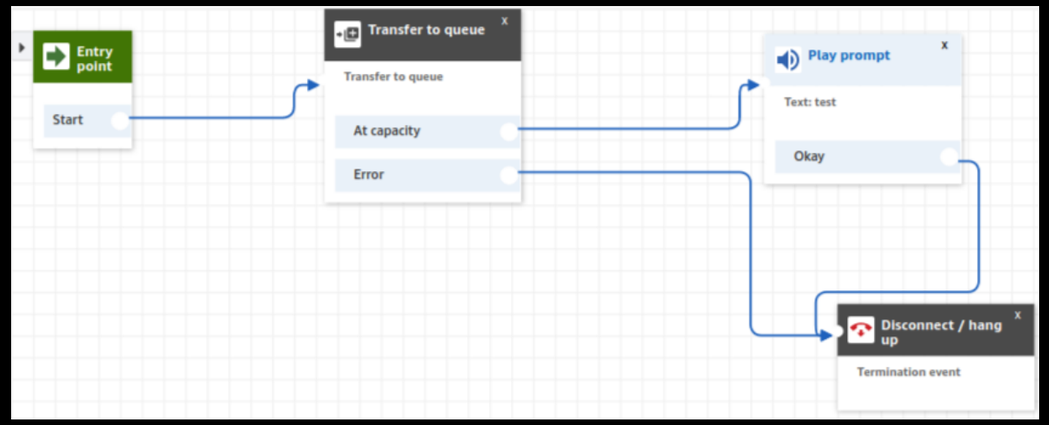


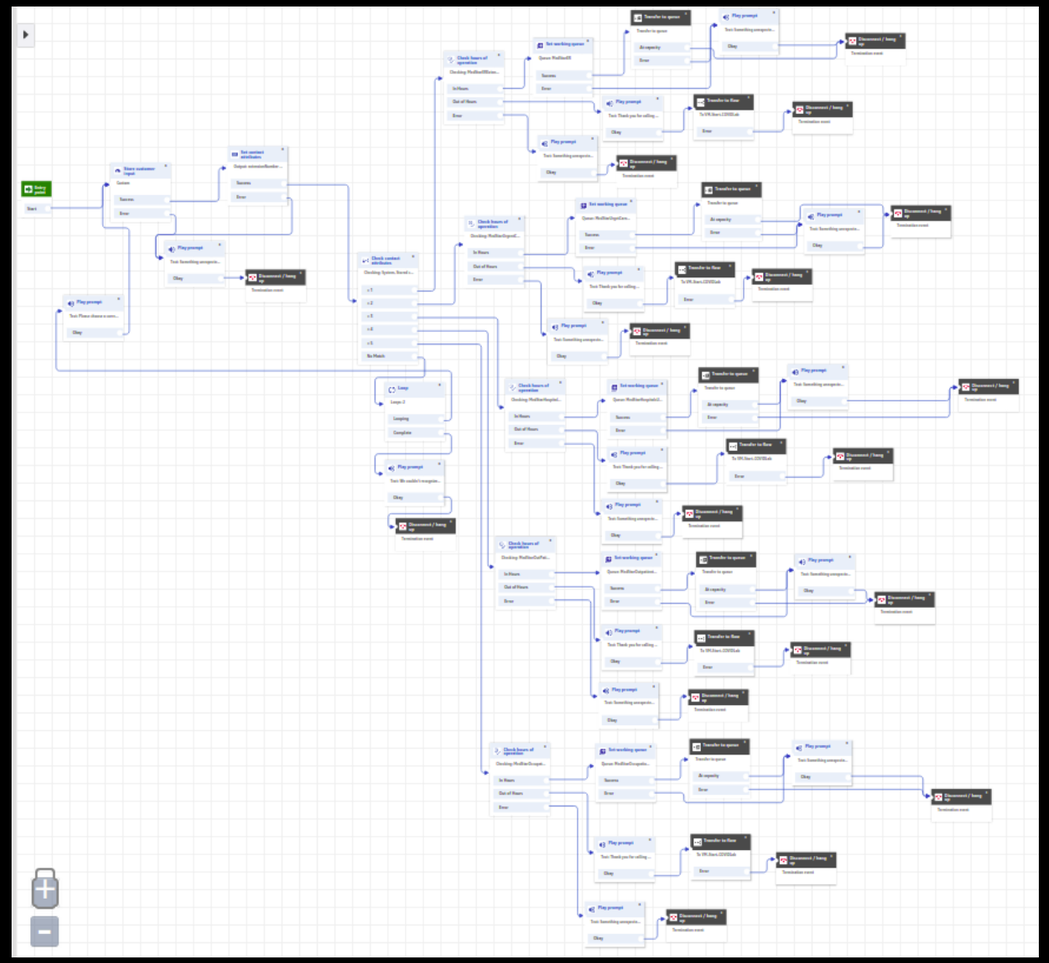
Amazon Connect contact flows

Start by looking at example flows in the Amazon Connect instance



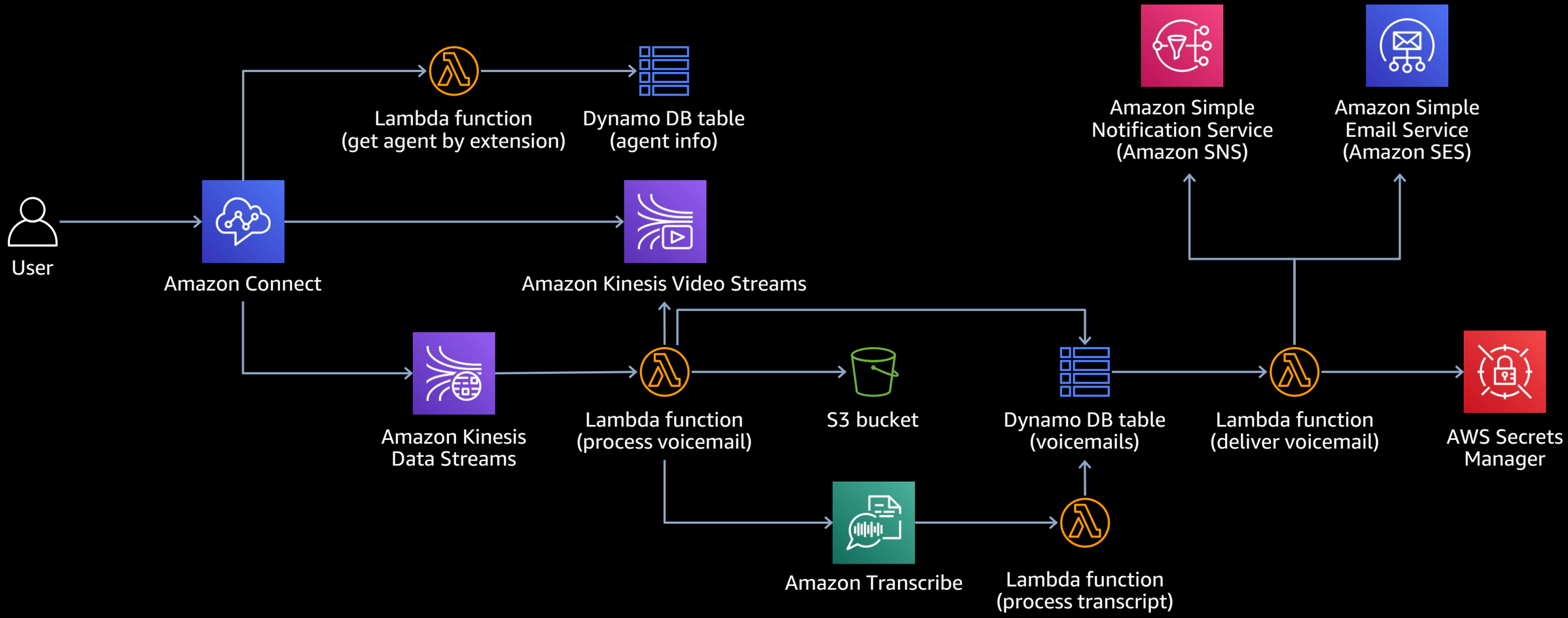
Speed and scalability





Built, tested, and deployed a call center in 2 days without any prior knowledge

The Amazon Connect voicemail stack



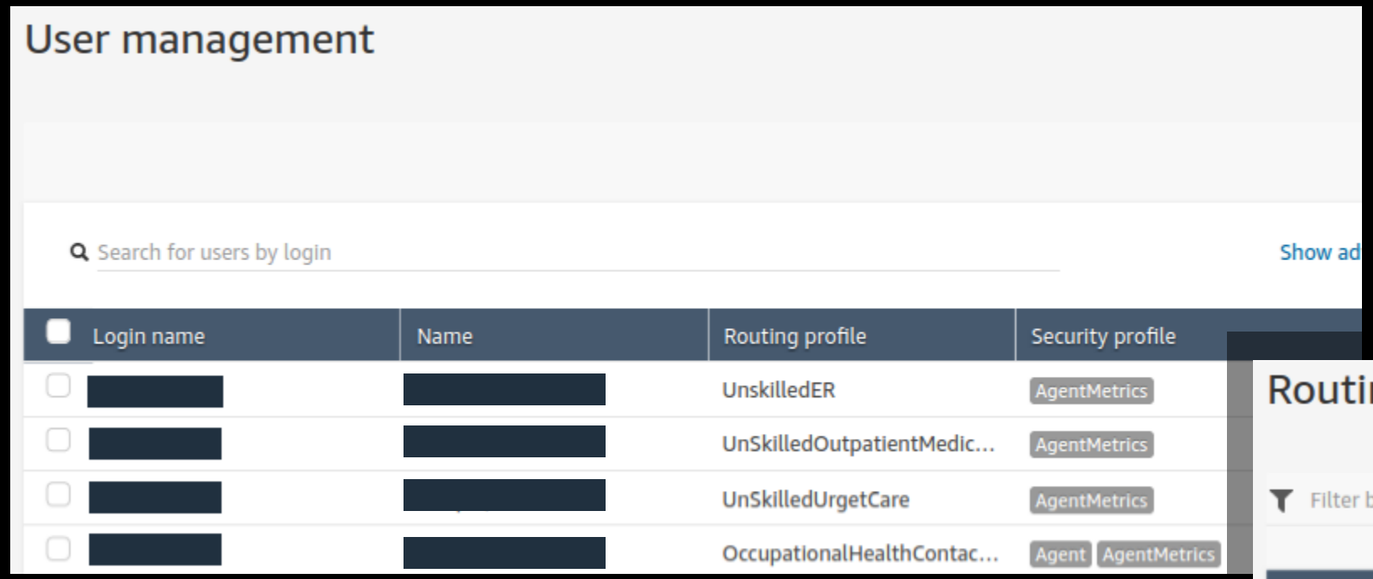
Automated reporting

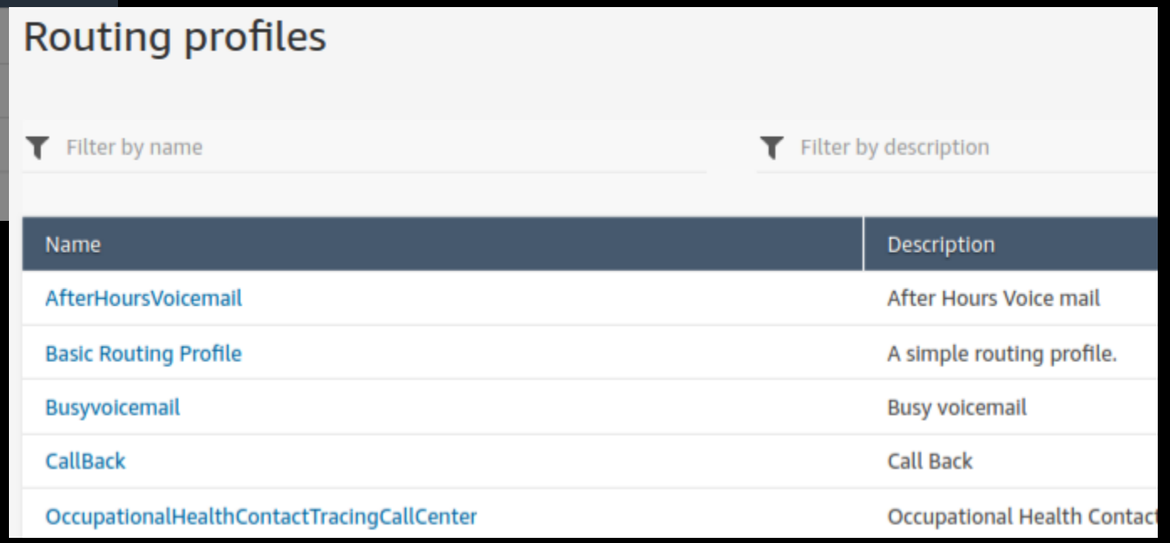
Historical metrics: Agents

Interval	Time range	Time Zone
Total	Sep 21, 2020, 12:00 AM - Sep 28, 2020, 12:00 AM	UTC

Agent	Agent on contact time	Agent idle time	Non-Productive Time	Average after contact work time	Average handle time	Average customer hold time	Average agent interaction time	Contacts handled	Contacts har
	03:29:25	157:19:08	-	00:00:01	00:01:29	00:01:14	00:01:26	140	48
	-	-	-	00:00:00	00:02:50	-	00:02:50	35	-
	03:36:26	12:43:25	-	00:00:01	00:03:36	-	00:03:35	56	-
	07:56:21	101:32:09	-	00:00:01	00:01:20	00:01:46	00:01:16	282	66
	-	133:59:44	-	-	-	-	-	-	-
	-	-	-	00:00:01	00:01:50	-	00:01:49	8	-
	-	16:32:48	-	-	-	-	-	-	-
	02:20:44	74:30:05	-	00:00:01	00:01:20	00:02:26	00:01:18	87	12
	-	160:12:55	-	-	-	-	-	-	-
	-	167:47:33	-	-	-	-	-	-	-

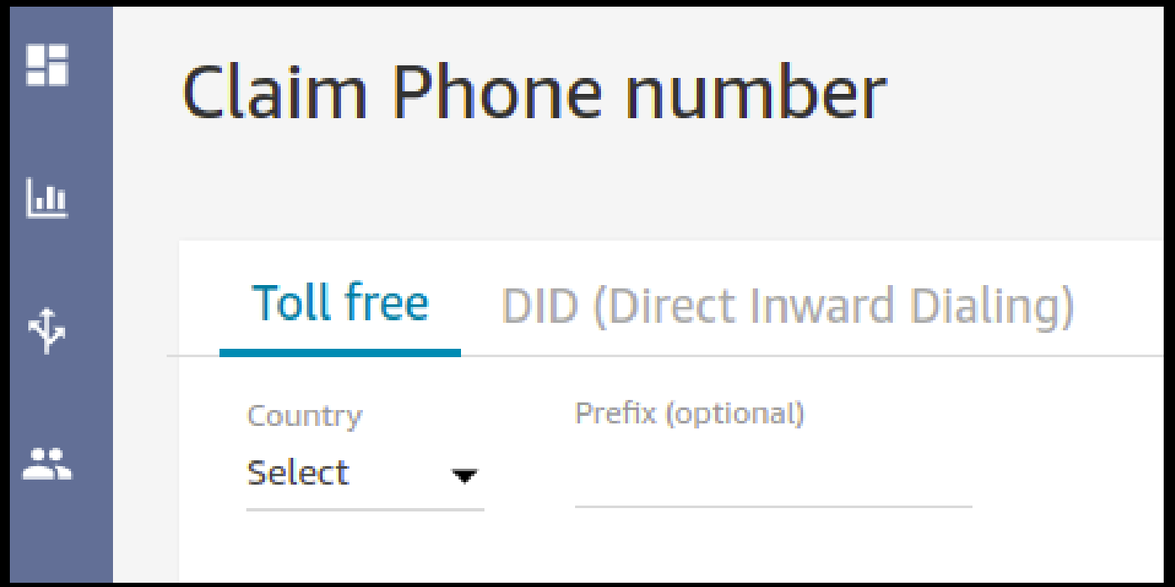
User management and routing





Lessons learned

Toll-free number vs. direct inward dialing



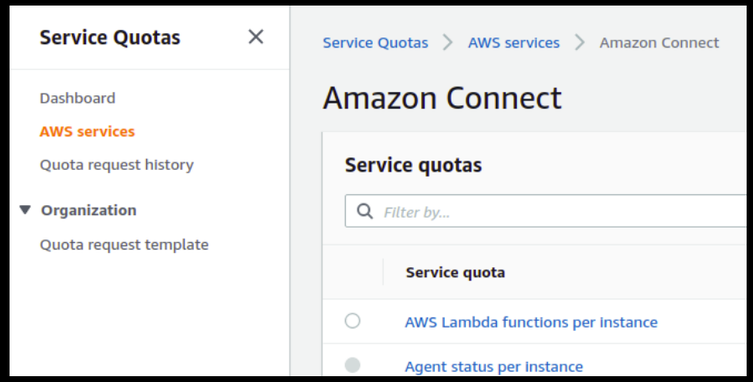
Train your agents on how to properly log off



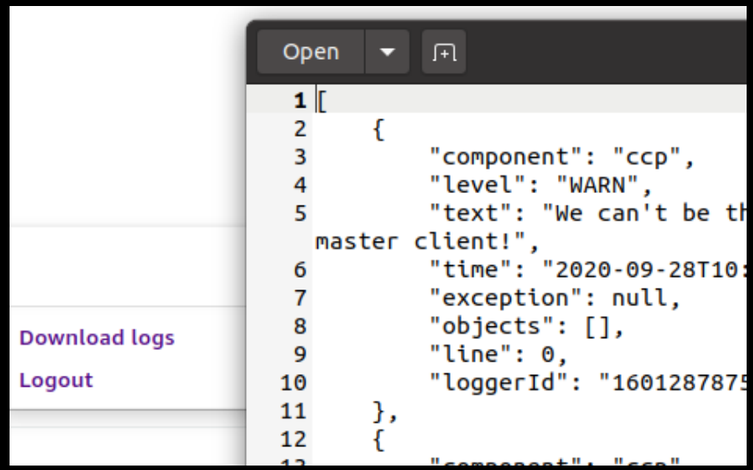
Lessons learned

- Start small, break down, build piece by piece, test each one
- Involve end user in each step, including testing

Service quotas

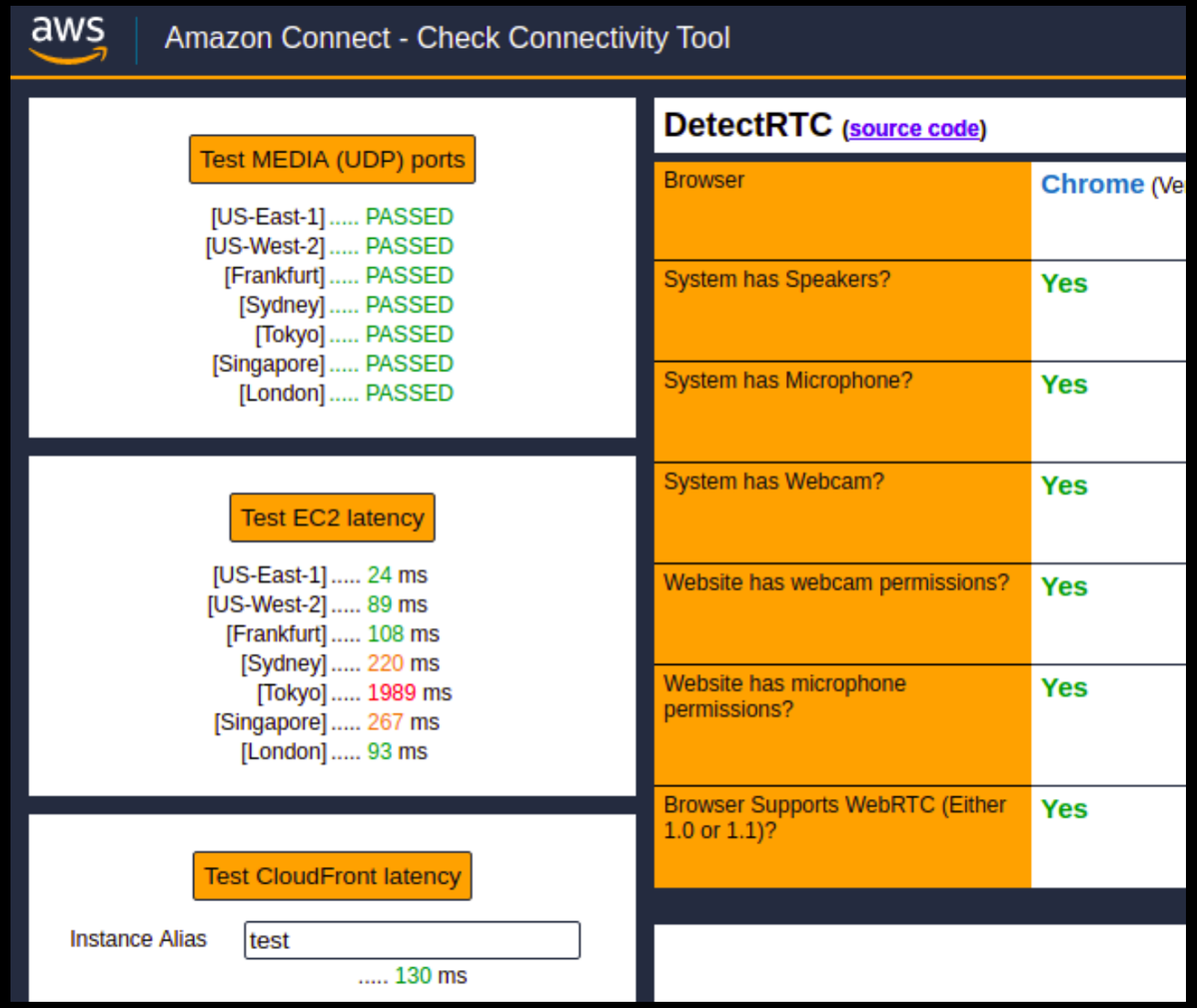


CCP log

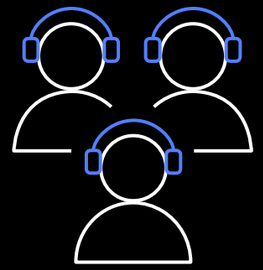


Lessons learned

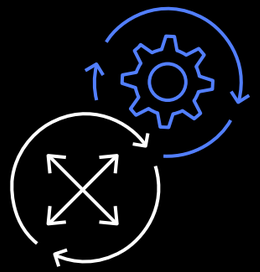
- Amazon Connect's Check Connectivity Tool https://s3.amazonaws.com/connectivitytest/checkConnectivity.html
- Have a naming convention, e.g., Active_, Dev_, Old_V#_



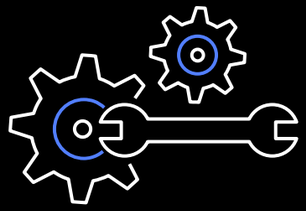
Working with AWS



Support



Development and deployment



Maintenance

Business impact

115,000 calls and **200,000** minutes in our 3 call centers as of mid-September 2020

- Telehealth operations and support center
- Laboratory results callback
- Contact tracing

37,000 eVisits (on-demand urgent care by video, offered 24 / 7 / 365)

5,100 providers conducted **350,000** scheduled visits



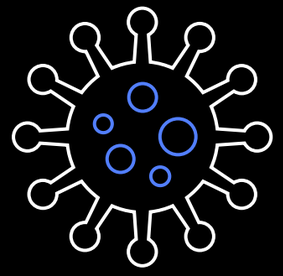
Patient impact

"Initially, I had some difficulty downloading and accessing the [MedStar] eVisit portal; however, I was able to use the technical support number to contact a specialist who helped me. My [MedStar] eVisit with the doctor was excellent. She answered my questions, diagnosed my issue, and prescribed an antibiotic. I am recovering well and am very grateful to have had this resource. Thank you."

"I loved being able to see a doctor without leaving my bed and not feeling that I am clogging the ER. The fact that the doctor sent the prescription to CVS, who then delivered, was also a great help. I am recommending this to everyone."

"The process was easy. During the COVID-19 epidemic, MedStar provided the service to help me with social distancing."

Summary / next steps



COVID-19 and the rise of telehealth



Future accelerations of telehealth



AWS collaboration

Healthcare sessions at re:Invent 2020

ID	TITLE
HLC201	Healthcare executive outlook: Accelerating transformation
HLC202	Making healthcare more personal with MetroPlus Health
HLC203	Securing protected health information and high-risk datasets
HLC204	Accelerating the transition to telehealth with AWS
WPS202	Transform research environments with Service Workbench on AWS
WPS209	Reinventing medical imaging with machine learning on AWS
WPS211	An introduction to healthcare interoperability and FHIR Works on AWS
AIM303	Using AI to automate clinical workflows
AIM310	Intelligent document processing for the insurance industry
MKT206	Simplify healthcare compliance with third-party solutions
GPS211	AWS Partners driving innovation amidst COVID-19

Want to learn more?



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