Enabling the Full Power of the Public Sector

How AWS Partners are modernizing government services in the cloud.

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Citizens are customers, too

The public sector represents so many critical services people depend on, including government, schools, healthcare, nonprofits, utilities, and more. These organizations not only impact people's daily lives—they can shape their futures.

Amazon Web Services (AWS) can empower the public sector to do even more with the resources it already has, helping to drive efficiency and cost savings that can be repurposed to support more benefits and programs. And AWS Partners invent on behalf of customers across the public sector so they can more effectively work towards achieving their missions.

For example, Tata Consultancy Services (TCS) worked with Horizon power to migrate to the cloud 50 percent faster. Deloitte helped build a telehealth solution for the U.S. Army Telemedicine & Advanced Technology Research Center to connect medical experts with remote patients or understaffed clinics in need—effectively making critical care available almost anywhere.

The North Carolina Division of Employment Security engaged Capgemini to develop a solution to process more unemployment claims more quickly and get people paid. Hillingdon London Borough Council collaborated with PwC to enhance customer service for its local residents. And IBM leveraged SXiQ, an IBM Company, to help Water Corporation modernize legacy technology and keep the water flowing in Western Australia.

AWS and AWS Partners are supporting a paradigm shift in the public sector—made possible by the security and economy of the cloud. It's an exciting change to be part of. After all, the people inventing and implementing these powerful changes? They're citizens, too.

Why AWS?

Public sector organizations across 190 countries turn to AWS to effect positive change and accomplish more with the following:

Cost savings

Benefit from the economies of scale offered by AWS infrastructure and avoid up-front expenses or long-term commitments with pay-as-you-go pricing.

Elasticity

Instantly deploy new applications and scale up or down as workload demands shift.

Security and compliance

Get support meeting security standards and compliance certifications for virtually every regulatory agency around the globe, including PCI-DSS, HIPAA, HITECH, FedRAMP, GDPR, FIPS 140-2, and NIST 800-171.

aws

North Carolina Division of Employment Security

Working with Capgemini

A government agency processes more unemployment claims more quickly to pay those most in need.

Capgemini

Paying citizens via the power of the cloud

In early 2020, the North Carolina Division of Employment Security (NC DES) was facing an unprecedented new reality—suddenly receiving around a third of their annual call volume in a single day from citizens experiencing a challenging time in their lives.

To efficiently handle the new record of 55,000 claims in one day, NC DES needed a solution offering scale, speed, and fraud management. As well, the solution needed to address the human element—90 percent of employees now working from home.

AWS and Capgemini delivered during a time of distress, helping North Carolina pay claims on time when citizens needed it most.

NC DES had begun modernization efforts years earlier as part of a consortium for unemployment benefits integration. However, the surge of daily claims presented a new challenge. The division needed to ensure the exponentially higher number of calls would still be handled with speed and precision—as well as balance on-time payments to those in need while also detecting and preventing fraud. So, NC DES engaged Capgemini to help modernize further, moving calls and claims into the cloud.

Leveraging Amazon Web Services (AWS), Capgemini helped NC DES enable automated self-service capabilities so North Carolina citizens, who were impacted by loss of employment, could get rapid access to information and claim status. Because NC DES recognizes that when a constituent engages in the claims process, they're in the middle of a difficult moment—wanting to figure out as quickly as possible how and when they'll get paid.

The technology solution offered via AWS and Capgemini delivered rapid response during a time of distress, helping North Carolina pay claims on time when citizens needed it most.
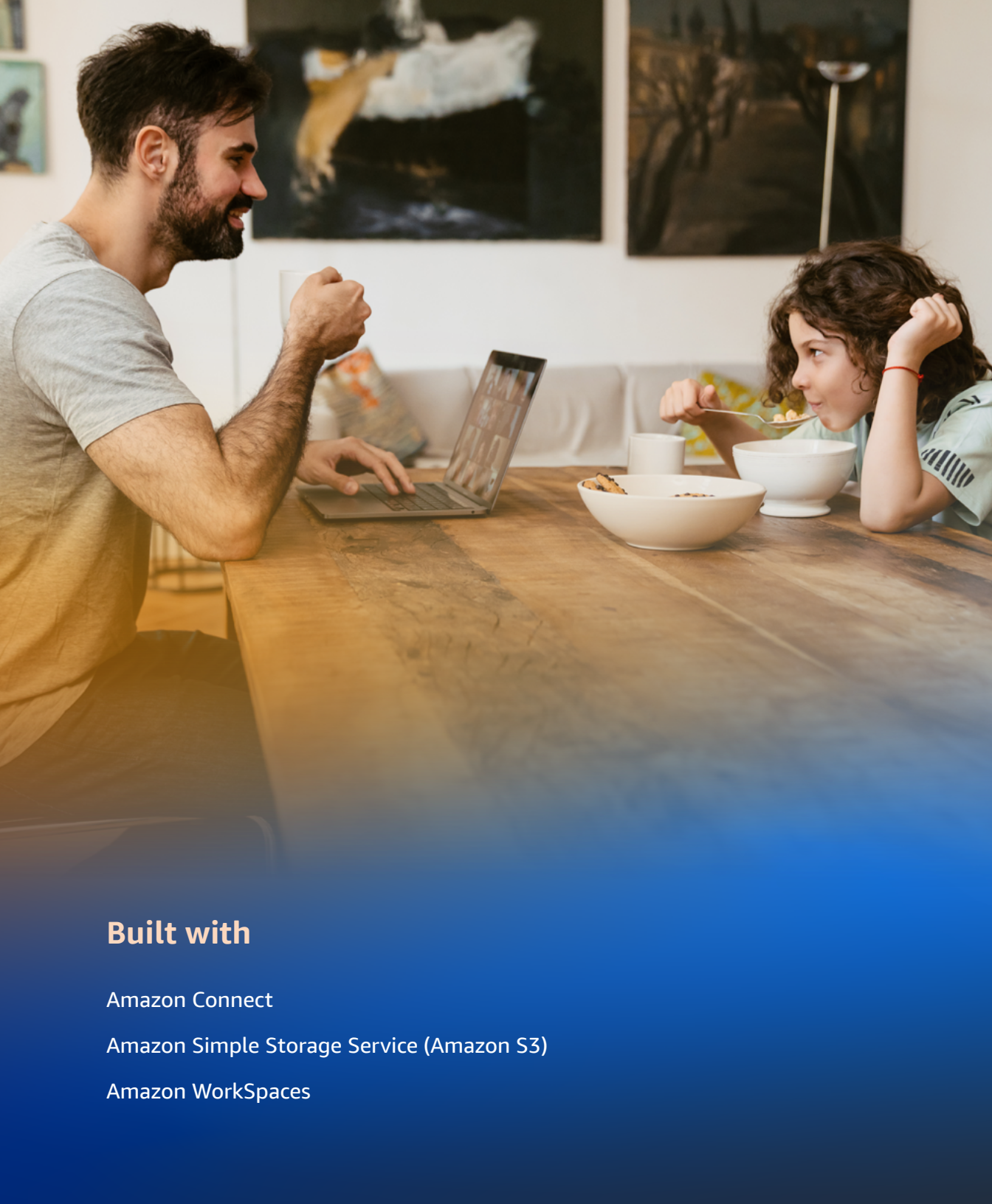
Project Highlights

Bias for Action

With claims skyrocketing from 3,000 per week to 55,000 claims in one day, Capgemini helped the North Carolina Division of Employment Security (NC DES) migrate its call center agents to an Amazon Connect–based platform in weeks. Automation helped reduce overall call volume by approximately 20 percent, and dashboards and analytics gave agents tools to better assess data and prevent fraud.

Deliver Results

NC DES had scaled to support up to 200,000 calls per day with the help of chatbots, third party service providers, and self service capabilities. The division worked with little or no interruption, implementing eight different state and federal relief programs in a matter of weeks—on time and paying more than a million claims in a few months.

Built with

Amazon Connect

Amazon Simple Storage Service (Amazon S3)

Amazon WorkSpaces

aws

U.S. Army Telemedicine & Advanced Technology Research Center

Working with Deloitte Consulting LLP

A cloud-based telehealth solution connects healthcare workers across the United States to help expand lifesaving, critical care during emergencies.

Deloitte.

When medical teams need secure access to trained specialists, reinforcements are standing by on the cloud

During the COVID-19 pandemic, many U.S. hospitals met a surge of critically ill patients without an adequate number of intensive care unit beds, let alone specialists on staff. Medical teams put in heroic efforts, working long hours and stepping up to deliver treatment beyond their normal training.

In response, the federal government funded the U.S. Army Telemedicine & Advanced Technology Research Center (TATRC) to find a way to help relieve and reinforce providers during the pandemic and enhance preparedness for future medical emergencies.

"Ultimately, the solution can improve the survivability of patients."

Matt Quinn, Science Director,
U.S. Army Telemedicine & Advanced Technology Research Center (TATRC)

TATRC selected Deloitte Consulting LLP and two other performers to build a HIPAA-compliant, cloud-based, standalone health information system. Known as National Emergency Tele-Critical Care Network (NETCCN, pronounced "Net-sin"), the resulting application enables physicians to consult at virtually any bedside via audio/video calls or chats. Built on cloud-native Amazon Web Services (AWS) products, it can be downloaded onto most smartphones, where caregivers can access on-demand, 24/7 virtual assistance from a network of vetted, licensed clinicians.

NETCCN has been successfully deployed in Guam, Puerto Rico, Iowa, Minnesota, and the Dakotas, where it has already delivered game-changing results. For example, one hospital nurse at an under-resourced facility found herself caring for multiple, intubated COVID-19 patients—with no local physician available. Communicating via the NETCCN smartphone app, an experienced physician coached her through diagnosing and successfully treating a tension pneumothorax, a life-threatening condition the nurse had not seen first-hand before.

After initial success in supporting COVID-19 care, Deloitte continues to expand NETCCN capabilities to augment military medics' capabilities in austere facilities and natural disaster sites, where patient transport is out of the question. Deloitte even integrated AWS Wickr and AWS Private 5G to offer a highly secure, private cellular network that can accommodate soldiers in areas with poor connectivity.

Supported by Deloitte and AWS, NETCCN is designed to help care providers deliver lifesaving procedures with expert support on standby, no matter the location or conditions.

Project Highlights

Invent and Simplify

Designed by Deloitte Consulting LLP to enhance, not complicate, healthcare, the National Emergency Tele-Critical Care Network (NETCCN) can immediately extend the reach of experts during emergencies almost anywhere via a smartphone app.

Dive Deep

NETCCN enables voice-to-text transcription for efficient note-taking and automated patient flow so high-risk patients receive care first. An artificial intelligence-driven virtual health assistant can answer patients' non-emergency questions, giving clinicians more time to focus on critical care.

Think Big

Using real-time data visualization of patient vitals and labs, NETCCN also facilitates remote home monitoring. This can be a lifeline to overstretched clinics because it enables earlier discharges and diverts some patients from having to be admitted—delivering healthcare to all while also allowing providers more time with patients most in need.

Water Corporation

Working with IBM and SXiQ

Modernizing legacy technology helps a public utility keep the water flowing in Western Australia.

Water runs more reliably and efficiently using the cloud

Your next glass of water depends on your water utility, which depends on back-office systems to help ensure there's no service disruption. In relying on legacy, on-premises hardware, Water Corporation in Australia knew it needed a new approach. A principal supplier of water, wastewater, and irrigation services throughout Western Australia, Water Corporation is a massive operation. It spans more than 1.5 million square miles and serves over 2 million people at their homes, businesses, and farms. Facing risks associated with critical systems nearing end of life and looking for a modern solution to better support operations and production, integrate data, and enhance security, Water Corporation turned to the cloud.

After engaging Amazon Web Services (AWS) and IBM Consulting, the combined team activated to assess the situation and determine the best modernization course following a Well-Architected review. IBM leveraged SXiQ, an IBM company, to deliver the migration effort. In working with SXiQ, the team migrated Water Corporation's entire SAP workload to Infrastructure as a Service (IaaS) on AWS, as well as upgraded underlying systems and databases, delivering end-to-end automation capabilities that helped ensure service continuity.

AWS technology enabled IBM to accelerate the migration of more than 125 SAP servers and 65 terabytes of data in record speed, while increasing security and reducing technical complexity. The move to the cloud also improved scalability and helped reduce carbon emissions.

Thanks to a successful migration, Water Corporation can work more efficiently and has improved resilience as it continues to develop innovative ways to keep water flowing.

Project Highlights

Dive Deep

Amazon Web Services (AWS) teams operated behind the scenes to support IBM to develop a Well-Architected, secure framework and simplify complex technology to make it easier for Water Corporation to support its 2 million customers.

Success and Scale Bring Broad Responsibility

Water Corporation is striving to reduce dependence on rainfall water sources—and at the same time, achieve net zero by 2035. By working with IBM and AWS, Water Corporation is on a path to powering its cloud operations with 100 percent renewable energy by 2025.

Built with

Amazon CloudWatch

Amazon Elastic Compute Cloud (Amazon EC2)

Amazon Elastic Block Store (Amazon EBS)

Amazon Simple Storage Service (Amazon S3)

Amazon Virtual Private Cloud (Amazon VPC)

Hillingdon London Borough Council

Working with PwC

Deploying an AI-supported call centre delivers faster responses to questions about important local services.

Conversational AI helps a UK town council serve residents better

Hillingdon London Borough Council manages high volumes of calls as it supports enquiries from local residents about critical services, such as housing, waste collection, road repairs, and more. Despite making improvements to online support capabilities, the Council continued to receive an increasing number of calls. This strained the contact centre during times of peak demand, for example, when the waste collection day changed in some areas and prompted a surge of calls from people seeking more information. The Council's plan was to improve services for residents—and give them access to important information 24/7 by way of modernising services so that efficiencies would follow doing the right thing. This led the Council to realise they needed to deploy more modern, efficient solutions.

To maintain high-quality service levels and find the efficiencies described above, the Council engaged AWS Partner PwC to bring digital transformation to its call centre using the power of Amazon Connect and artificial intelligence (AI). PwC deployed a conversational, AI-powered call-and-web-chat facility to automate calls and give residents faster answers to frequently asked questions.

The AI-powered solution helps fortify the contact centre resources, supporting existing teams by adding the equivalent capacity of another 26 full-time employees. This means enquiries can be handled faster and agents are available to focus more time on resolving complex or time-sensitive resident concerns.

Using sentiment analysis within the solution, the Council can identify when a resident needs extra assistance, understand call success rates, and help improve operations at the call centre in the future. It also monitors call completion times and data consumption to assist call centre managers in determining if residents' needs are being met. Handling more than 30,000 phone enquiries, the system delivers an improved service in a more efficient way.

And the Council continues to innovate, seeking new ways to leverage the cloud to serve its residents better—getting residents the information they need when they need it, so they can get back to enjoying their day.

Project Highlights

Customer Obsession

PwC found that approximately 40 percent of residents' calls to Hillingdon London Borough Council could be addressed more quickly with automation—for example, the 20,000 plus calls received annually for rent payment questions.

Deliver Results

Artificial intelligence (AI) is helping convert the cost per call to just 5 percent of the cost as compared to when handled by human operatives alone. The AI-powered solution will provide an estimated 5:1 return on investment over three years.

Built with

Amazon Connect

Horizon Power

Working with
Tata Consultancy Services

Accelerating a major migration to the cloud to support a more efficient energy transition.

Fast migration for an even faster renewable energy evolution

The use of solar power and other distributed energy resources (DER) is growing rapidly in Australia. Experts estimate that by 2050, DER, such as rooftop solar panels, electric vehicles, and smart meters, may contribute up to 45 percent of electricity generation capacity[1].

That's great news for utility customers who depend on the environmental impact of decarbonization, however, it's also a complex challenge. As sources of electricity generation and transmission grow more diverse, more technology upgrades are required to keep the energy supply stable and reliable. Digital transformation is key if utilities want to transform traditional systems in time.

[1] Australian Renewable Energy Agency. "Distributed Energy Resources." 2023.

As energy generation becomes increasingly decentralized, providing a reliable supply of electricity demands more resilient digital infrastructure.

For that reason, Horizon Power is working with Tata Consultancy Services (TCS) to migrate dozens of mission-critical applications from on-premises data centers to Amazon Web Services (AWS).

Horizon Power provides electricity to over 100,000 residents and 10,000 businesses across 2.3 million square miles of Western Australia. As energy generation and distribution become increasingly decentralized, providing a reliable supply of electricity demands new operating models and more resilient digital infrastructure. Systems must be built to scale up or down with seasonal customer demand—and to accommodate innovative programs, such as solar-powered schools, standalone power systems for remote communities, and green hydrogen solutions.

On the cloud, TCS can help Horizon Power achieve many benefits, including optimizing total cost of ownership, increasing scalability, and providing expert support with migration, DevOps, security, and storage.

TCS teams reimagined Horizon Power's existing operating model for workloads running on AWS. They also provided support for user testing, release management, and post production. All of these elements contribute to a resilient, foundational digital core, complemented by an ecosystem approach.

Just as circuits carry electricity to schools, hospitals, and homes—AWS and TCS connect essential digital tools so utility companies can build a more brilliant energy future.
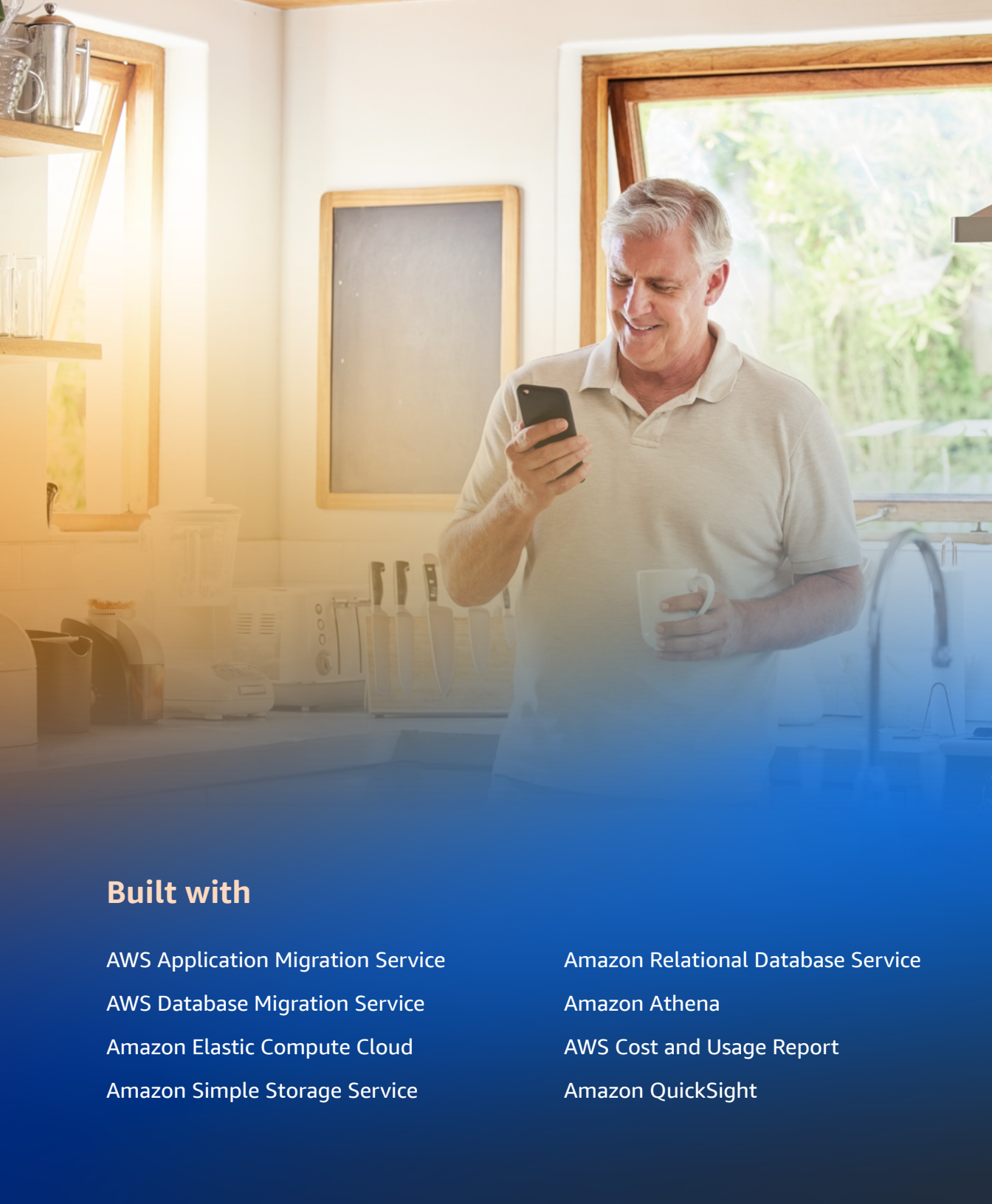
Project Highlights

Bias for Action

Tata Consultancy Services (TCS) assessed, designed, built, and migrated the infrastructure for roughly 47 applications from on-premises to Amazon Web Services (AWS) within 18 months—including critical applications that support convenient customer payment options and smart meters. As a result, Horizon Power saw its migration schedule shortened by 50 percent. Exiting data centers ahead of schedule also resulted in cost savings.

Success and Scale Bring Broad Responsibility

TCS offers a flexible and scalable talent model that allowed Horizon Power to use subject-matter experts' time strategically, enable migration scale at speed, and bring the benefits of digital innovation to energy customers faster.

Built with

AWS Application Migration Service

AWS Database Migration Service

Amazon Elastic Compute Cloud

Amazon Simple Storage Service

Amazon Relational Database Service

Amazon Athena

AWS Cost and Usage Report

Amazon QuickSight

Meet the partners

These AWS Partner Innovators have demonstrated technical expertise and customer success in building solutions for the public sector.

Capgemini

HQ: PARIS, FRANCE

With a team of 265,000 people in over 40 countries, Capgemini can address the breadth of clients' opportunities in the evolving world of cloud, digital, and platforms.

Deloitte.

HQ: LONDON, UK

Deloitte is one of the largest professional services firms in the world and a leader in digital transformation strategy. Deloitte assists clients in turning complex business issues into opportunities.

IBM

HQ: ARMONK, NY, US

IBM solutions cater to hybrid cloud requirements with end-to-end management of cloud services. Its tiered service model and integrated brokerage platform help organizations choose services designed for the cloud.

pwc

HQ: SAN FRANCISCO, CA, US

PwC helps clients seize opportunities in the cloud—especially on AWS—to create innovative services and business models that decrease time to market, create efficiencies, and engage customers.

tcs TATA CONSULTANCY SERVICES

HQ: MUMBAI, MAHARASHTRA, INDIA

Tata Consultancy Services (TCS) offers IT services, consulting, and business solutions and has worked with many of the world's largest businesses in their transformation journeys over the last 50 years.

This is the power of public service in the cloud

Learn more about AWS in the Public Sector ❯