

Turning to
Cloud Technology
for IIS and Supporting
Programs



“The next pandemic will likely be substantially different than COVID, and so the U.S. government must prepare now to deal with any future viral threat.”

Eric Lander, Director of the Office of Science and Technology Policy



Partnering with AWS
allowed STChealth to move clients to
the Cloud and be better prepared
during the COVID-19 pandemic



AWS Partnership Benefits

- STChealth's platform transition to Cloud Native Technology combined with our SaaS Platform offering, and Agile Methodology of Development allowed increased efficiency for updates and data exchange across systems
- STChealth clients were better prepared to handle requests for data and adjust to changing requirements throughout the COVID-19 pandemic



Customer Case Study

“The LINKS system prepared our state’s Immunization Program to be able to properly *manage every aspect of vaccine management* needs throughout the phases of the COVID-19 response ...and most importantly, *at the times when effective and efficient vaccine distribution was most urgent.*”

Quan Le
LINKS Program Manager



- Delivered Data Based Information used to Plan Vaccine Allocation Needs prior to the **Initial Vaccine Distribution**
- Provided Data for **Efficient Vaccine Distribution** Decisions as Additional Vaccine Supply was Available
- Served as an Effective Tool to **Coordinate Vaccine Transfers** from areas of Less Demand and Document Receipt of Vaccine when it Arrived in areas of Higher Need
- Tracked up-to-date Data regarding **Vaccine Availability** at the Provider, Organization & **Geographic Level**
- Conveyed Data Based Information to **Forecast Future Vaccine Inventory Needs** for Future Doses
- Supported **Interoperability** for Accurate Data Collection of Electronic Messages and Proper Inventory Decrementing

Customer Case Study

“The most important role the LINKS system has played during the COVID-19 response is *providing the needed data for urgent decisions* made by State Leadership.”

Quan Le
LINKS Program Manager



- Geographic and Social Vulnerability Index (SVI) Information used to **Ensure Equitable distribution**
- Vaccine Administration, Vaccine Inventory, and Vaccine Coverage Rate Information was Continuously up-to-date and **Available to State Leadership via Real-Time Dashboards**. This information was supplied at the Individual Provider-Level and at an Aggregate Geographic-Level to ensure decisions involving differentiations of population-sets could all be accounted for.
- Serves as a **Vehicle for Data Exchange** with outside States and Organizations
- **Delivers CDC Reporting needs** and Provides Confirmation of State-Data for Federal Systems

STChealth Vaccine Intelligence

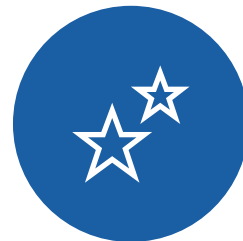
Improve Data Integrity



Discover Meaningful Insights



Rapid Response Essentials



Improve Data Integrity



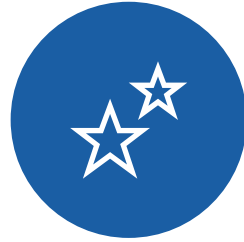
Data Quality Analysis | Data Enrichment Services

Through an analytical and consultative approach, STC assesses the overall completeness and reliability of data to advise on best practices to reach the highest level of data quality to drive downstream impact.

“Being able to target individuals who are more likely to seek follow up care can help manufacturers and providers tailor their efforts to maximize resources and improve overall coverage.”

-Dr. Kyle Freese, MPH PhD

Discover Meaningful Insights



Epidemiology and Data Science Consulting

Leveraging over 33 years of experience and thought leadership within the immunization industry, we take a scientific approach to transform data into actionable insights.

“We know reminder recall programs are effective in our populations, but now we can measure how effective with data reported through the robust infrastructure in the state. The new dashboard built by STChealth gives us a real time view into how long it takes for the reminder recall efforts to work, as well as tracking vaccine uptake.”

-Tim Neely, West Virginia
Department of Health

Rapid Response Essentials



Cloud Native Technology | Agile Development | SaaS Platform

2021

- 236% Increase in Functionality Updates for our Platform
- 976% Increase in Forecasting Releases
- 241% increase in Data Volume
- As High as almost an 800% increase in Data Volume
- Vaccine Transaction Increase from 250K to 2.5 Mil per Day

The wildly unpredictable scenario that COVID-19 presented has required a widely flexible platform in all aspects, from data requests to memory adjustments and rapid functionality updates.

The delivery pipelines available within these technologies provided rapid scaling abilities to meet changing needs and was paramount in our ability to handle such a rapidly volatile situation.

STC's forethought to establish this architecture, combined with our AWS partnership, allowed us to respond to our client base, approximately 20% of the country, with the rapid response the situation required.

- Joe Kelly, STChealth Chief Technical Officer



COVID-19 Urgency Brought Gaps In Preparedness To Light

**This Highlighted The Crucial Role
Data and Technology Architecture Play in
Healthcare**



COVID-19 Ripped The Band-Aid Off

- Expanding Interoperability with other Systems - Disease Surveillance, Syndromic Surveillance, School Information Systems, Consumer System Expansion
- Answering population-based Disease & Disease Immunity questions

How do we collectively ensure that Public Health has the data needed in the future to avoid shut downs to the US workforce, to education, to family engagements - weddings, funerals, birth of children... and ultimately how do we ensure that Public Health has the data needed to save lives?



Modernization of Public Health Systems is not
just about adding new features or updating to a
new, trendy look and feel to current systems ...
it is much more than that!



How Cloud Services Can Help



Break down data silos



Achieve fine-tuned governance & analysis at scale



Support data discovery for program influence



Automate processes to focus on operations & programs



Experiment and scale rapidly

Areas of Focus



Data Modernization

- Real time data exchange across multitude of systems
- Improved person matching
- Data quality improvements
- Trend monitoring and notification
- Flexible reporting



Engagement

- Consumer access
- Extensible user-based vaccine administration
- Increased school needs

Long-Term Outcomes of Modernization

- Rapidly **identify** and **mitigate** gaps in care and emerging threats across contagions and departments.
- Promote trusted data to increase **evidence-based interventions** and solutions to protect our populations.
- Provide the ability for the populations we serve to have the **right information at the right time**.
- Provide the health care workers who treat them the **information needed to provide the highest level** of health care possible.
- Ensure our nation is ultimately **prepared and protected** from the dangers that health threats present to individuals and our county collectively – for acute and chronic illness.

In reality, Modernization of Public Health Systems is about:

- Ensuring the **sustainability** of our country's workforce by reducing resource strain.
- Continuing to have **open doors for our children** to pursue their hopes and dreams.
- Protecting the **collective wellness** of the entire global community!

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