maximus Ad Hoc

Best practices for modernizing data systems across a vast and diverse public health ecosystem

CDC ONC Industry Day

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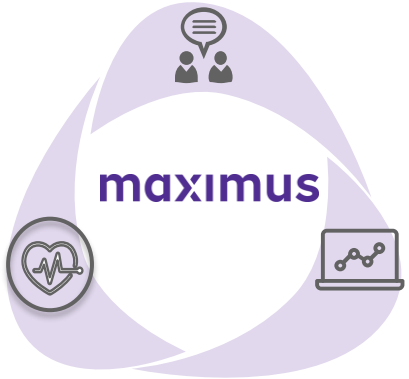
About Maximus

Empowering our Federal Government customers to innovate with agility and scale, delivering impactful outcomes and exceptional customer experiences

CUSTOMER SERVICES, DIGITALLY ENABLED

Delivering mission-focused outcomes while optimizing performance and enhancing omnichannel capabilities that deliver the highest value.

- Citizen Engagement Solutions (CX/UX)
- Predictive Analytics
- Business Process Optimization



FUTURE OF HEALTH

Advancing the nation's critical health needs by transforming clinical care, elevating public health, and streamlining healthcare operations.

- Public Health Modernization
  - Health Equity Assessments
  - Data Analytics/Visualizations
  - Disease Surveillance

TECHNOLOGY CONSULTING SERVICES

Accelerating digital transformation and modernizing IT systems, applying a foundation rooted in our deep knowledge of agency missions and operations.

- Application Development & Modernization (CI/CD, Code Management, Testing)
- Emerging Technologies & Advanced Analytics (AI/ML, Data Science, RPA)
- Infrastructure IT & Engineering (Cloud, DevSecOps, Data Management)

Ad Hoc delivers digital services with exceptional experiences through commercial expertise, collaborative processes, and proven capabilities.

1002%
Community Care scheduling
on VA.gov

41%
Completed applications
on HealthCare.gov

16%
Customer satisfaction
for VA.gov

10%
Customer confidence
on HealthCare.gov

Maximus & Ad Hoc Partnership for DMI

- Together we bring strong **public health domain knowledge** and proven **government digital transformation expertise** in support of CDC's data modernization goals
- For the past 7+ months, our companies have collaborated on the DMI problem set through dedicated sprint teams; these sprints analyzed the challenges and began developing solutions to CDC and other public health agencies' challenges related to **data ingestion**, **STLT infrastructure and workforce**, and **data platform needs**
- We are excited to continue to work together and in collaboration with CDC and public health agencies to support the creation of a 21st century public health ecosystem

What is the goal?

The goal of CDC's Data Modernization Initiative is to get better, faster, more actionable insights for decision-making at all levels of public health.

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From CDC.gov:

CDC receives data from 50 states and 3000+ local jurisdictions and territories. Each jurisdiction creates their own data sharing agreements with CDC and with each other. For the most part, **it is up to each city, county, and state to decide what information is collected**, as well as how and when it can be shared with CDC. These decisions can vary widely, leading to big differences in the data CDC receives.

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From the Council of State and Territorial Epidemiologists (CSTE) report:

Despite efforts and success to standardize and implement EHRs within the health care community, **a wide gap remains connecting health care data to the public health surveillance system**. Data standards are different between clinical care, CDC, and public health agencies, hindering the ability to efficiently share data across the clinical and public health sectors.

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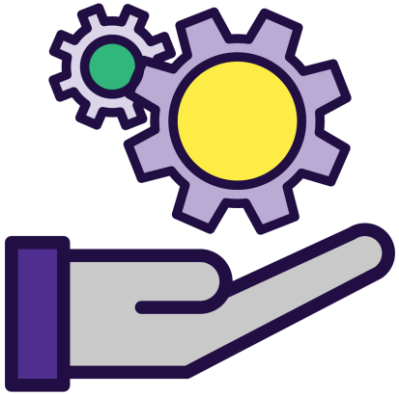
From General Accounting Office (GAO) report:

To ensure that information can be consistently reported, compared, and analyzed across jurisdictions, public health entities need a standardized data format. **Due to the lack of common data standards, information reported by states about COVID-19 case counts was inconsistent.** This in turn complicated the ability of the Centers for Disease Control and Prevention (CDC) to make comparisons.

A multi-pronged approach

An **API-first approach** to digital and data modernization

Next generation community public health **data platform**



Technical assistance to state and local public health agencies

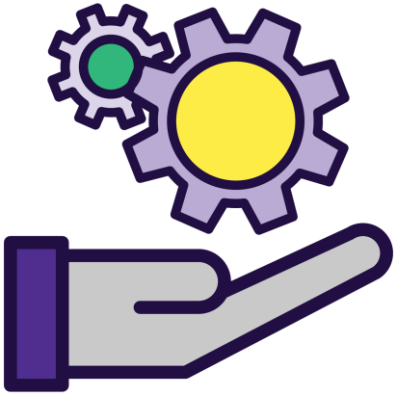
API-first approach to modernization

- APIs are an important component of system modernization efforts
- Allow monolithic applications to be decoupled
- Enables fast, more nimble system changes
- More frequent, smaller changes: Less risk!
- A foundation for common data standards
- Make data sharing and dissemination cheap and easy

Next-gen public health data platform

- Infrastructure and common tooling
- Adoption of new standards and guidelines
- Resources, tools, utilities, and documentation to enable data use and innovation
- Strategy for managing and growing a community around public health data

Technical assistance to STLTs

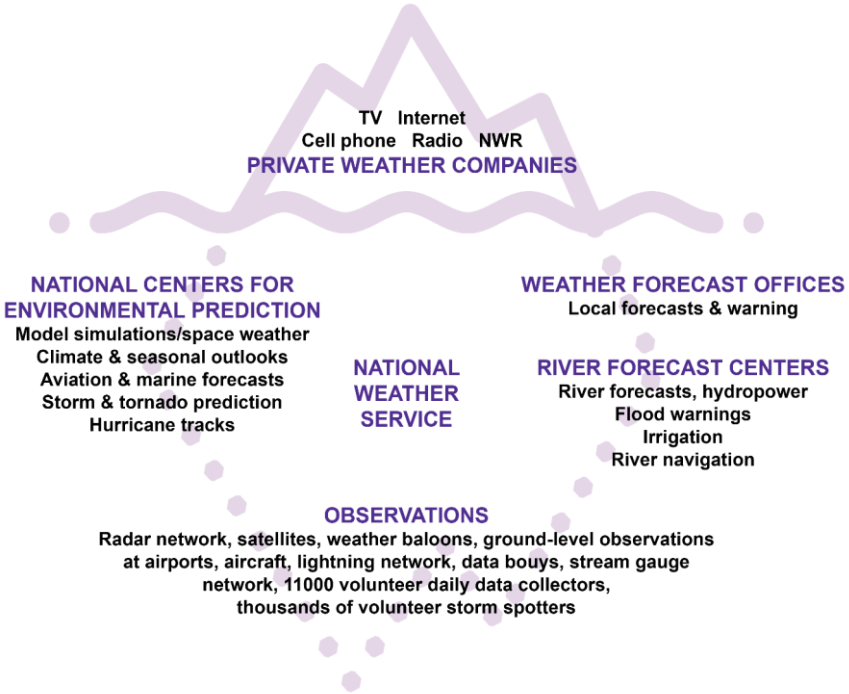


- 3,000+ STLT public health jurisdictions that must modernize to align with complex and evolving DMI requirements.
- STLTs have unique laws, policies, structures, and politics that must be addressed.
- Insights on what the ONC-CDC North Star Architecture “blueprint” for a common public health ecosystem means for STLTs and customized support to meet requirements.
- Trusted partners and solutions from technology infrastructure to human-centered operations and workforce development.

Core technical assistance principles

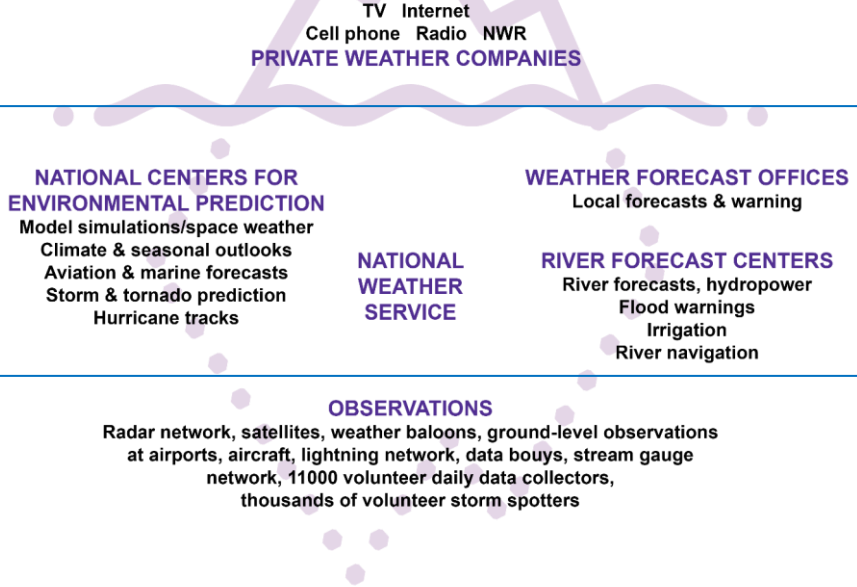
Systematic	Needs assessment and strategic planning follow a systematic and orderly approach to the challenge
Targeted	Identify areas to prioritize technical assistance for the biggest impact and where improvements can lead to early wins
Adaptive	The process is adaptable, flexible, and collaborative
Customized	Technical advisors customize services to meet the specific needs of the community and the site
Results-driven	Outcomes are measurable and integrate health equity

A framework for the future



Adapted from The Weather Enterprise. Image credit: National Weather Service

A framework for the future



The Weather Enterprise. Adapted image credit: National Weather Service

A framework for the future

Data Dissemination

TV Internet
Cell phone Radio NWR
PRIVATE WEATHER COMPANIES

Data Collaboration & Innovation

NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION
Model simulations/space weather
Climate & seasonal outlooks
Aviation & marine forecasts
Storm & tornado prediction
Hurricane tracks

NATIONAL WEATHER SERVICE

WEATHER FORECAST OFFICES
Local forecasts & warning

RIVER FORECAST CENTERS
River forecasts, hydropower
Flood warnings
Irrigation
River navigation

Data Aggregation

OBSERVATIONS
Radar network, satellites, weather baloons, ground-level observations at airports, aircraft, lightning network, data bouys, stream gauge network, 11000 volunteer daily data collectors, thousands of volunteer storm spotters

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WEATHER FORECAST OFFICES
Local forecasts & warning

RIVER FORECAST CENTERS
River forecasts, hydropower
Flood warnings
Irrigation
River navigation

Community Data Platform

Data Aggregation

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API-first Approach

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Questions / Discussion

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