E-BOOK

AI in government

Enhance security, boost efficiency, and deliver advanced public services with AI-based solutions for the public sector.

NetApp

Contents

∏ NetApp

Transforming government with AI

Modern governments rely on modern technologies to keep them safe and to provide the services their citizens demand. Data is a critical strategic asset used to carry out any mission, from mundane paperwork to top-secret intelligence.

To get the most from their mountains of data, governments around the globe are turning to artificial intelligence. With AI, they get:
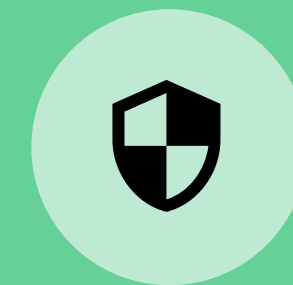
- Deep insight into their data to help them make better-informed policy and security decisions.
- Automation capabilities to help make time-consuming processes more efficient and to respond instantly to security threats.
- The ability to expand medical and social services to remote populations.

With AI, the possibilities are endless. But building an AI infrastructure comes with its own set of challenges. How do you make sure that your use of AI is ethical and responsible? How do you make sure that your data is secure and protected? How do you get backing from leadership and citizens? How do you enable effective human-machine interaction?
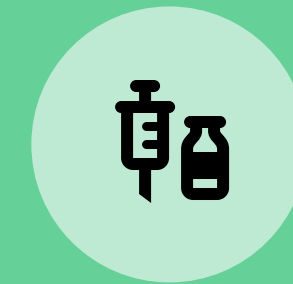
Security
AI helps identify and respond to cyberthreats such as ransomware faster than traditional software or manual methods.

Defense
AI enables military units to keep soldiers safe and equipment always ready with autonomous vehicles and predictive maintenance.

Public health
AI helps manage infectious diseases, enables remote populations to get medical services, and empowers citizens with targeted information to help them take control of their own health.

Government services
AI helps government organizations streamline paperwork, monitor infrastructure resources, and improve public safety.

■ NetApp

Security

Government agencies and organizations are top targets for cybercriminals. With everything from personal identities to national security on the line, preventing cyberattacks is a top priority.

To prevent cyberattacks, you need a solution that can keep pace with cybercriminals. With a ransomware attack happening every 11 seconds,[1] you need round-the-clock monitoring that can anticipate an attack (whether the threat is known or not) and respond instantly.

AI keeps pace with ever-evolving cyberthreats. It can automatically detect the smallest anomalies (that traditional software can't see) to prevent attacks before they can enter your system. Instant response reduces the time to remediate a breach by 12%.[2]

90%

or more of all known and unknown threats can be detected quickly with AI.[3]

69%

of companies say that they can't respond to cyberthreats without using AI.[4]
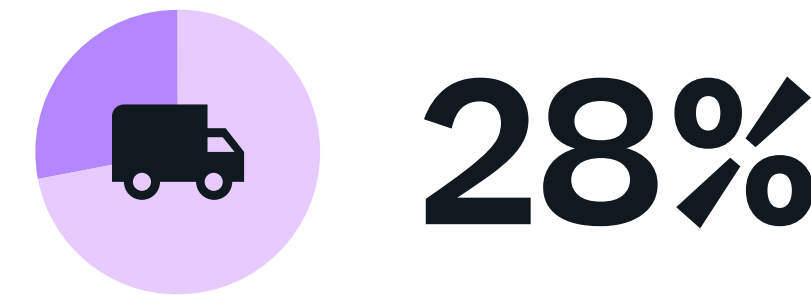
■ NetApp

Defense

Data is crucial in any government's defense strategy. With AI applied to the data, governments can make faster, smarter, safer, and more efficient defense plays.

- **Autonomous vehicles.** Governments have used satellites and drones to gather data for decades. With the development of autonomous ground vehicles, military units can gather and process data in real time and react quickly to any situation while reducing the number of soldiers at risk in a combat environment.
- **Predictive maintenance.** Military equipment must be ready to go anytime, anywhere. Using AI to continuously monitor equipment and predict when a repair may be needed keeps military units safe and ready.
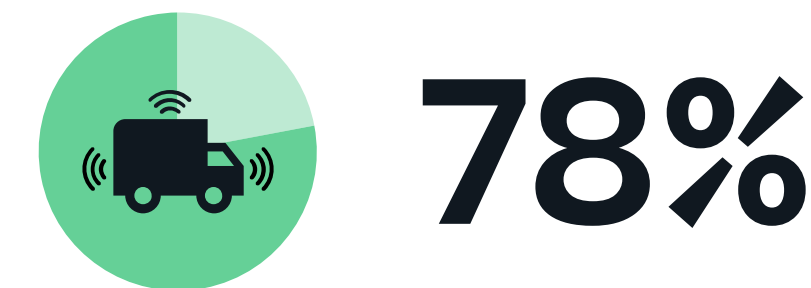
Saving lives with AI

28% A minimally manned Army convoy would put 28% fewer soldiers at risk.[5]

37% A partially unmanned convoy would put 37% fewer soldiers at risk.[5]

78% A fully autonomous convoy would put 78% fewer soldiers at risk.[5]

Public health

Detecting and preventing the spread of diseases. Providing medical services to remote rural populations. Empowering citizens to take control of their health through targeted education campaigns. AI is at the heart of it all.

- **Disease control.** AI helps quickly detect infectious diseases, provides real-time insight how and where they spread, and enables authorities to develop effective mitigation plans. For example, AI is used to identify weather and land-use patterns associated with dengue fever transmission in Manila.[6]

- **Medical services.** To be most effective, public health services need to reach the entire population. Telehealth and remote monitoring devices built on AI bring medical services to everyone, no matter where they live.

- **Education.** AI can be used to identify at-risk populations and deliver targeted information to help improve their health. For example, an AI-based nutrition campaign can help at-risk heart patients lower their risk of a heart attack by providing the information they need to make better food choices.

Learn how organizations like Hannover Medical School are putting healthcare data to work with NetApp.
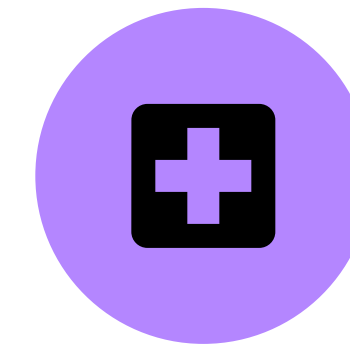
Government services

AI benefits government agencies and organizations by increasing efficiency and reducing costs, and it also helps them to deliver innovative services that improve public safety.

Here are some of the ways in which governments can use AI to enhance public services:

- Chatbots use natural language processing technology to efficiently answer citizens' questions and quickly connect them to the right resources.
- AI-based automation streamlines the process of filling out contracts, taking the workload off employees and enabling projects to get started faster.
- AI helps governments gain deeper insight into their data so that they can make smarter, more effective policy decisions.
- Computer vision helps governments continually monitor infrastructure such as water resources to help make sure there is enough supply and that it is safe to use.
- AI technologies improve public safety with the ability to instantly identify a drowning child at a public pool or to quickly identify suspicious activity at a crowded event.
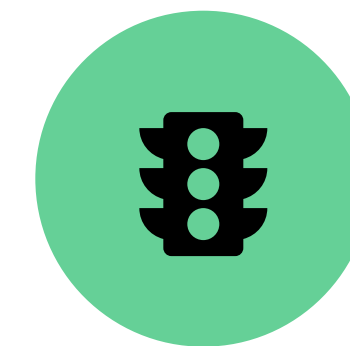
AI helps government organizations increase efficiency and reduce costs

Response times for emergency services can be reduced by **35%** using chatbots to route calls.[7]

96.7M hours and **$3.3B** can be saved annually with AI-based paperwork automation.[8]

AI-based traffic lights adjust the flow of traffic to reduce travel time by **25%** and idling by more than **40%.**[9]

Three keys to success

AI is key to building a modernized e-government.

But many approaches to AI involve architectures that silo analytics, training, and inference workloads.

These silos create unnecessary complexity, increase costs, and make it hard to scale. Here are three keys to building an AI infrastructure that enhances security, boosts efficiency, and enables you to deliver advanced public services.
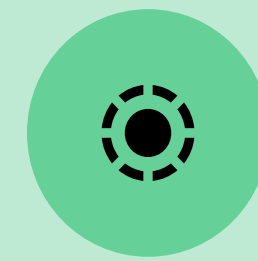
1 More accurate models

When it comes to AI, the more data, the more accurate the model. But more data means larger AI models—some with millions or billions of parameters.

Not only does all of this data need to be managed, it also needs to be protected within the strict limits of internal and external compliance regulations. Having a data management solution with integrated data protection capabilities is especially important for highly sensitive government data that could put national security on the line in the event of a breach.

2 Seamless data movement

Effective AI requires a data pipeline that spans the entire ecosystem, from ingest and data preparation all the way to analysis and tiering. Data must be able to flow quickly and freely throughout the pipeline at every step. When access to this data is limited by a siloed infrastructure, deep learning only scratches the surface.

3 Speed

AI infrastructures must be able to react in a heartbeat. Your computer vision and natural language processing applications need to be able to ingest, process, and respond instantly.
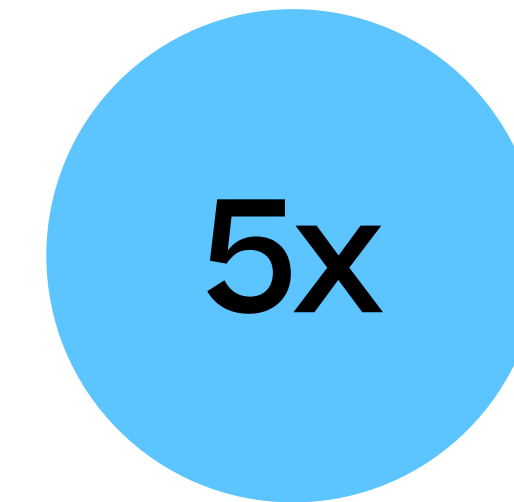
Reinvent your IT with AI solutions from NetApp

NetApp helps keep your data available in the right place at the right time to meet your mission objectives.

We remove data silos to provide real-time detection of cyberthreats, improve public health and safety, enable smart policy making, and streamline bureaucratic processes. Our proven AI solutions integrate with your legacy IT infrastructure and the world's biggest public clouds.
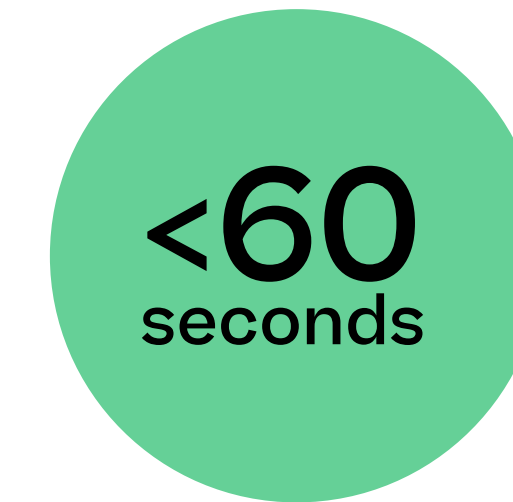
As the data authority on hybrid cloud, NetApp delivers AI solutions that remove bottlenecks at the edge, core, and cloud. By removing these bottlenecks, NetApp enables more efficient data collection, accelerated AI workloads, and smoother cloud integration. You get the performance, mobility, protection, and scalability you need with AI solutions that enable you to:

- **Optimize.** Operate with greater efficiency and speed than you ever thought possible.

- **Protect.** Keep data secure and remain compliant, without sacrificing availability or performance, whether data is at rest or in motion, in the data center or in the cloud.

- **Innovate.** Seize every opportunity to transform experiences and create new value by unlocking the power of all your data.

Make AI easier with NetApp

5x
Run five times more data through your pipeline.

<60 seconds
Copy datasets in seconds rather than hours or days.

~20 minutes
Configure your AI infrastructure with Ansible integration.

∏ NetApp

Make any mission possible with AI

Whether you're hunting cyberthreats, operating military drones, tracking infectious diseases, or monitoring bacteria in water supplies, having the right data at the right time is crucial. Learn more about NetApp® solutions for AI:

- [NetApp AI solutions for government and public sector](#)

- [NetApp AI solutions](#)

- [NetApp ONTAP® AI](#)

- [NetApp AI solutions for medicine](#)

- [NetApp AI solutions for computer vision](#)

- [NetApp AI solutions for natural language processing](#)

Questions? Our [AI solution specialists](#) are standing by.

→ **Learn more about NetApp solutions for government and public sector**

1. SailPoint. How AI and Machine Learning Are Improving Cybersecurity. February 2022.
2. AI Multiple. 46+ Cybersecurity Stats: Market, Attacks, Tech & Covid19 Impact. March 2022.
3. TechBeacon. AI and security: Why machine learning is a threat detection game-changer.
4. The Startup. Automation of Cyberattack Countermeasures Using AI and Machine Learning. October 2022.
5. RAND. Autonomous Vehicle Technology May Improve Safety for U.S. Army Convoys. February, 2020.
6. BMJ Global Health. Artificial intelligence (AI) and global health: how can AI contribute to health in resource-poor settings? July 2018.
7. Deloitte. Surveillance and Predictive Policing Through AI.
8. AI Multiple. AI in government: Examples, challenges & best practices in 2022. February 2022.
9. Recode. How AI can help us clean up our land, air, and water. October 2018.

About NetApp
In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services, and applications to the right people—anytime, anywhere.

+1 877 263 8277

NetApp