

## NetApp

## Top Takeaways:

# Artificial Intelligence

#### Top Challenges with Al Today

#### Expertise

- Having the right experts and the right tools at the right time
- Maximizing researcher efficiency

#### Data

- Model management, traceability, and data integrity
- · Data pipeline management
- Preventing data from creating discriminatory models

#### Technology

- Building an optimized AI platform, reporting, and tools
- Performance tuning and management of burst modes
- Moving from proof of concept
  into production

#### Infrastructure

- Al environment configuration and troubleshooting
- Optimizing compute, network, and storage for predictable performance
- Support for multivendor technology stack

## Transform Your Agency with Next-Generation Al Infrastructure

Artificial Intelligence (AI) and Machine Learning (ML) are helping public sector agencies to accelerate innovation and provide better citizen services. But, as government organizations increase their use of AI and ML, they face some major challenges such as workload scalability, deployment complexity, and data availability.

Al can unlock the power of enterprise data and leverage ML, computer vision and deep learning, and natural language processing (NLP) to impact every government process. Although the transformative impact of Al is clear, how can you ensure that your investment in Al resources and technology will deliver maximum value?

Whether you're starting your first AI project, transitioning a team into AI workloads, or looking at AI blueprints and expansions, these five steps will help set your AI projects up for success:

## **Identify the Right AI Pilot Project**

Instead of trying to map a larger transition, start small with one use case. Starting small and replicating success will create momentum that can help your team secure support and an increased budget for bigger and more complex projects.

#### **Evaluate your Data**

Data can make or break your Al project, so be sure to create a data strategy. Work with business analysts to understand where the data currently resides and if it holds the potential for feeding Al models that can be trained for your problem. The data you choose to train with directly affects the quality of the resulting model. Select your datasets carefully, perhaps experimenting with a smaller subset, and spending time preparing the data properly will accelerate your time to usable insights.

## **Build the Right Team and Identify Roadblocks**

Start with defining what you want to accomplish. From eliminating cross-workflow silos, to providing the right resources, building and aligning the right team means thinking outside the box. Ideally, your team should include a business analyst, a data scientist, a data engineer, a DevOps engineer, and an application developer who can launch your models into production.

Artificial Intelligence (AI) and Machine Learning (ML) are helping public sector agencies to accelerate innovation and provide better citizen services. But, as government organizations increase their use of AI and ML, they face some major challenges such as workload scalability, deployment complexity, and data availability.



#### **Avoid Shadow AI**

Following steps 1 – 3 without IT leadership and a prescribed infrastructure to support your efforts creates shadow AI, which contributes to the sprawl of development silos that often prevent well-meaning enterprises from truly transforming with AI. Work collaboratively with the IT team from the beginning to ensure resources and infrastructure are in place to support end-to-end AI development, including platforms and tools that are optimized for the unique demands of AI workloads in the data center. Forward-leaning enterprises are building AI centers of excellence that combine people, process, and technology to centralize AI development and achieve faster time to AI insights. Plan for similar success with a robust and powerful platform that's scalable for your infrastructure to accelerate data science, machine learning, and deep learning.

#### **Use Experts and Start with a Pilot Project**

A team of AI experts can provide the knowledge and know-how to make AI and machine learning not just part of your production environment but integral components to achieving your agency goals. With the right partner, you can move from answering high-level why questions to putting the how into action for your agency. A partner fluent in the areas impacted by AI – business, operations, and IT – can work with you to avoid the mistakes that stall AI initiatives and ensure access to the skillsets, best practices and enterprise technologies needed to succeed.

#### **NVIDIA & NetApp ONTAP AI**

NetApp has built out a set of tools that help you build in a data fabric that facilitates the seamless data movement across edge, private cloud, public cloud sites all while providing enterprise class data management and data protection capabilities to get a faster ROI for your Al investments, future proof your investments and reduce your total cost of ownership. With ONTAP AI, you can:

**Improve your models** – NetApp Data Fabric creates a true end-to-end pipeline with the best machine learning platform

**Enable seamless hybrid cloud AI training and inferencing** – Bring data where your data scientist resides and let them seamlessly collaborate

**Get a faster ROI from your AI investments** – Eliminate hours and days of configuration, support and other non-data science essential tasks

**Future proof** – Protect your investment, start small with a POC and scale efficiently and limitless on-premises and/or the cloud

**Reduce your TCO** – Not all of your data is hot, our automated data tiering will reduce your overall infrastructure cost by moving cold data into a lower tier

**Bring your "data rivers" into a unified lake** – eliminate infrastructure silos. Serving HPC, Hadoop, Analytics and Al

The NetApp ONTAP AI integrated solution is a preconfigured offering from NetApp and NVIDIA for optimal performance while delivering the best TCO for your enterprise. We can deliver a predefined, configured, delivered and installed, optimized and supported stack that's available for AI- and ML- based use cases that can be deployed in your agency environment today.

## About World Wide Technology

World Wide Technology (WWT) is a technology solution provider with \$13.4 billion in annual revenue that provides digital strategy, innovative technology, and supply chain solutions to large public and private organizations around the globe. Based in St. Louis, WWT employs more than 7,000 people and operates over 4 million square feet of warehousing, distribution, and integration space in more than 20 facilities throughout the world. For more information about World Wide Technology, visit **wwt.com**.

#### **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 you 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. For more information click here.