

# MAC Solution

## Improved Speed to the Mission for Hard Data Problems Powered by the MAC

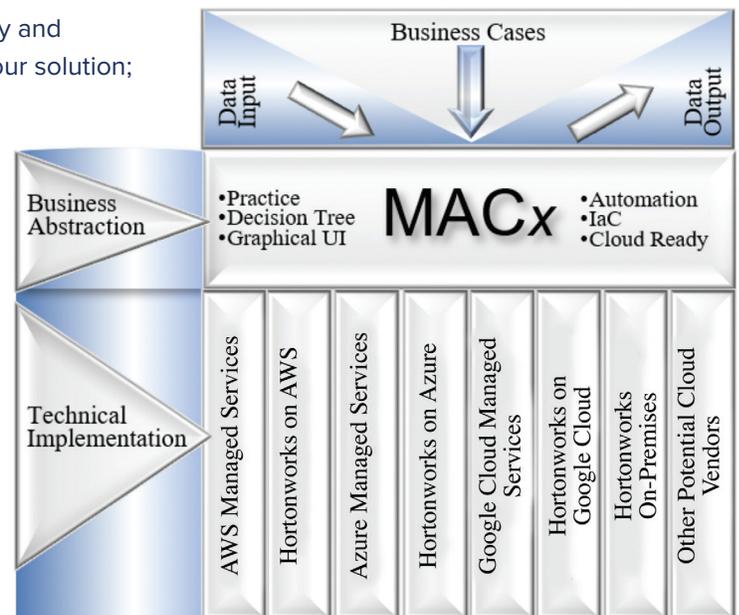
ManTech Analytic Center (MAC) is a big data platform coupled with analytic capabilities on a variety of virtual environments at the push of a button. It provides analytic governance, automation, and data processing on a framework and platform to greatly increase the speed to mission for hard data problems. Our ManTech MAC includes:

- MACx, an accelerator that uses our mature analytics practices and processes to provision analytics capabilities using different cloud service providers, managed services, and tools
- MACp, a platform to explore advanced analytics on AWS

MAC enables you to standup an analytic environment rapidly and eliminates the need to procure different tools to build out your solution; everything you need to be successful is at your fingertips.

### ManTech Analytics Center Accelerator (MACx)

The MACx is a provisioning portal that will deliver multiple levels of abstraction allowing users to provide a minimal set of information to launch a custom analytics environment quickly. The MACx is supported by a decision tree; a robust analytics practice; and trained model, ETL patterns and other artifacts to deliver a fully customizable analytics solution at speed. The wizard driven approach steps users through the design process for selecting the platform and components to deploy while asking for the smallest set of information required to spin up the solution. The framework easily supports demos, tech challenges and hack-a-thons (instantiating an analytic environment quickly) to deliver consistent results and provide a near-realistic analytic demo environment.



**ManTech Analytic Center Accelerator (MACx).** A set of methodologies to determine what technologies need to be used in the process of analytics and how to provision them automatically.

- Approach
  - A Practice, that creates and maintains the process documentation
  - Decision Tree, that guides users through the process
  - An Automation Portal, that creates IaC to generate custom analytics environments
- Scope includes:
  - Data modeling, ML & AI; Data model lifecycle (build, train, operate)
  - Analytics on multiple verticals: Cyber, Health, Border Protection, Space
  - Uses multiple data sources to demo a near-real analytic environment

## ManTech Analytic Center Platform (MACp)

- Challenge
  - Need for a viable platform to address complex data-related needs and to rapidly to keep pace with dynamic mission
- Solutions
  - Provides a comprehensive and accredited industry solution for many long-standing problems in big data and analytics
- Benefits
  - Provides an AWS-based architecture using existing FedRamp approved components; speeds up the A&A process
  - Leverages proven, extensible data curation processes already operating on a global scale
  - Uses the Amazon DoD Cloud Computing Security Requirements Guide (SRG) to advance the cloud security model
  - Provisioning driven from MAC-x; provides a path for a multi-cloud model in the future
- Scope
  - Provides a platform to test and evolve the data curation processes, platform, analytics and visualization capabilities using existing tools (AWS Glue, Athena, S3, RedShift, Quick Sight)
  - Explores ML and narrows AI using existing tools, like Sagemaker
  - Uses both cleared and uncleared resources to develop a pipeline for ML talent



### LEARN MORE

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