



# OAKWOOD

Powering Transformation. *Together.*

## HPC ON AZURE

Azure, Microsoft's cloud computing platform, offers a comprehensive suite of services tailored for high-performance computing (HPC) applications. These services empower businesses, researchers, and developers to run compute-intensive workloads on-demand, without the overhead of managing physical infrastructure.

With Azure's HPC services, enterprises can harness the power of high-performance computing in a flexible, scalable, and secure environment. Whether it's for research, simulations, data analysis, or any other compute-intensive task, Azure has the right tools and infrastructure to drive innovation and results.

# ABOUT

**Oakwood Systems Group, Inc.** stands at the forefront of High-Performance Computing (HPC) on Azure, committed to powering transformative computational solutions that drive the next wave of innovation. Over the years, our deep-rooted expertise in Azure's infrastructure has positioned us as the go-to authority for businesses seeking to harness the full spectrum of HPC capabilities available on the Azure platform.

Our seasoned team of professionals brings together a unique blend of technical prowess, industry insights, and a genuine passion for pushing the boundaries of what's possible with Azure HPC. This allows us to craft solutions tailored to the specific needs of each enterprise, ensuring optimized performance, scalability, and cost efficiency.

Beyond mere implementation, we pride ourselves on offering a holistic HPC approach. From meticulous planning and strategy development to seamless deployment, and from rigorous optimization to continuous post-implementation support, our end-to-end services ensure that our clients' HPC endeavors are always aligned with industry best practices and poised for success.

# HPC ON AZURE: MIGRATION ASSESSMENT & POC

OAKWOOD HPC ENGAGEMENT

## DELIVERABLES

- **Assessment Report:** Detailing current state analysis, compatibility checks, cost benefit analysis, and recommendations
- **Presentation:** A slide deck summarizing the assessment's key findings, suitable for stakeholder meetings or executive reviews
- **Roadmap:** A visual representation or timeline suggesting a path from the current state to a working PoC
- **Objective & Scope of The PoC**
- **Configuration Details**
- **Results & Analysis**
- **Comparisons (if applicable)**
- **Recommendations for potential full-scale implementation**

**Oakwood's HPC on Azure Assessment & PoC engagement** provides a thorough evaluation of an organization's current computational infrastructure, workflows, and objectives. With deep insights garnered from this evaluation, Oakwood's HPC Team will have the knowledge they need to embark on a Proof-of-Concept (PoC) that will serve as a tangible testbed so that clients can visualize and understand how Azure HPC would integrate with and elevate their specific workloads without yet committing to a full-scale implementation.

This PoC dramatically reduces the risk associated with cloud transitions. By creating a controlled environment where Azure HPC solutions can be tested, refined, and validated, organizations can confidently move forward, knowing that the proposed solutions align with their requirements.

### WHAT TO EXPECT (*Assessment Phase*):

- **Azure HPC Compatibility Check**
- **Cost Benefit Analysis:** Tentative Cost Estimates
- **Security & Compliance Overview:** Discuss Azure Security and Compliance Certifications

### WHAT TO EXPECT (*PoC Phase*):

- **Scope:** We'll work together to choose a representative workload or application, meaningful to the client, to showcase Azure's HPC capabilities. Here we will identify VMs, storage, and/or other Azure resources to control costs and complexity.
- **Setup:** Our Team will deploy a subset of Azure HPC components relevant to the PoC and use sample datasets, preferably provided by the client, to make the PoC results more relevant.
- **Execution:** We'll assist the client in migration and execution of one of their workloads in the HPC environment. Our Team will monitor and analyze performance metrics, resource utilization, etc.
- **Comparison:** Assist client in providing a comparison of the same workload or application running in the client's on-premises environment. Highlight improvements, scalability, and cost-efficiencies.



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