Transforming Business Through HPC Innovation

Empowering Businesses Through Expert HPC Solutions

As the UK's leading provider of end-to-end High-Performance Computing (HPC) consultancy, we offer:

- Independent, unbiased expertise.
- Tailored solutions for your unique needs.
- Proven track record of success.
- Third-party validation for credibility in HPC and digital transformation initiatives.

Our consultants play a key role by addressing change, removing obstacles, and fostering understanding. Only with the right expertise can you extract the necessary information for a successful HPC solution.

145+	99%	45+
High-Performance Computing projects delivered	HPC projects delivered on time	HPC procurements ranging from £100K to £500 milion

100%	40+
Proven track record of customer satisfaction	HPC in the Cloud projects

Our mission: To secure your HPC future by making the right business choices, balancing technical capabilities, business needs, and cost-effectiveness.

Red Oak Consulting
Expert advice, exceptional delivery

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Why HPC Matters

HPC is the backbone of scientific research and business innovation. Unlock the potential of your business with HPC and pave the way for a data-driven, innovative future to yield significant long-term benefits.

HPC is critical for:

- **Driving Innovation:** Enable researchers to solve previously unsolvable problems.

- **Data Analysis and Insights:** Process vast data to unlock valuable insights.

- **Speed and Efficiency:** Perform complex calculations quickly, increasing efficiency.

- **Enhancing Decision-Making:** Make informed decisions with real-time data processing.

- **Gaining a Competitive Edge:** Bring products to market faster and optimise operations.

- **Accelering Time-to-Market:** Rapidly prototype and test new products through simulations.

- **Complex Problem Solving:** Solve resource-intensive problems and go beyond standard computing.

- **Innovation in Products and Services:** Develop new products using advanced computational capabilities.

- **Analysing Complex Data:** Extract insights from complex datasets using advanced algorithms and computational power.

- **Economic Impact:** HPC underpins scientific, industrial, and societal progress.

- **Scalability:** Unlock the power of scalability, reduce time to solution and improve efficiency

- **Cloud Integration:** Make HPC more accessible and cost-effective through Cloud computing.

Investing in HPC is not just about purchasing hardware; it's about investing in a future-proof infrastructure that will support the growing demands of a successful business. Unlock the value of your business data through enhanced capabilities and new opportunities.

" It has been a pleasure working with Red Oak. They are real experts in the field of HPC.

Royal Botanic Gardens **Kew**

Navigating Your HPC Journey

Charting a course through the complex waters of HPC requires expert guidance. Our specialist team will help guide you towards your optimal HPC solution.

Each HPC solution should be unique and distinct to deliver for its users:

On-Premises:
Pros: Direct control, low latency, and data privacy.
Cons: High upfront costs, maintenance, and scalability limitations.

Cloud:
Pros: Flexibility, scalability, pay-as-you-go pricing, and global availability.
Cons: Variable performance, ongoing costs, and data transfer latency.

Hybrid:
Pros: Combines on-premises and cloud benefits, overcoming limitations.
Cons: Complexity in managing both environments.

We help you evaluate:

- **Performance Expectations**
- **Cost Considerations**
- **Geographic Distribution**
- **Scalability Needs**
- **Hybrid Possibilities**
- **Workload Requirements**
- **Data Security and Compliance**

"Red Oak's expertise, enabled us to successfully transition all our On-Premises HPC workflows to the Cloud. The use of CycleCloud, to implement our batch files dependent workflows was particularly valuable.

Ultimately, the decision depends on your organisation's unique needs, workload characteristics, and budget. Sometimes it is the hybrid approach, combining On-premises and Cloud resources that strike's the right balance.

Elevating HPC:
Our Comprehensive Approach

A well-rounded HPC specialist combines knowledge, experience, problem-solving abilities and much more.

Not all HPC specialists are created equal

Our team brings:

- **Diverse educational backgrounds:** From research to system administration.
- **Extensive industry experience:** Over two decades of successful HPC implementations.
- **Cloud certifications:** All our consultants are Cloud certified solution architects with a proven track record in successful HPC project delivery.
- **Proficiency:** Unrivalled team with over 150 years of HPC technical skills, including strategy and planning, programming, cluster management, and optimisation and expansion.
- **Problem-solving capabilities:** Proven capability in troubleshooting complex HPC issues.
- **Experience:** Over 145 HPC projects successfully delivered, 45 Cloud computing projects and over 15 procurement and strategy projects.

Our consultants are more than technologists; they're strategic partners in your success.

- Realistic application assessment
- Resource characteristic evaluation
- Relative performance comparisons
- Future-proofing strategies

The procurement was highly successful. Red Oak smoothly integrated into the KAUST team, and believed in our mission to support the global ambitions of KAUST and the Kingdom of Saudi Arabia.

We don't just solve today's problems; we prepare you for future success in the ever-evolving world of HPC.

Meet the team

Secure Your HPC Future by Making The Right Business Choice

As an independent business, our success hinges entirely on our customers' success. We're dedicated to providing you with the expertise and support needed to make the right HPC choices for your organisation's future.

Why Choose Red Oak Consulting?

- Independent, highly skilled HPC Expertise.
- Leaders in more than 45 HPC Procurements.
- Leaders in HPC & Cloud Computing.
- Providers of HPC solutions for a stronger future.
- Pioneers in HPC innovation.
- Indisputable HPC & Cloud Computing knowledge.
- Acknowledged and trusted in HPC solution delivery.
- Working with our customers, for our customers.
- Leaders in HPC Strategies & long-term investment when reviewing Cloud.

Determining the best High-Performance Computing solution involves several considerations. Our team of experts will work with you to explore how to evaluate and ensure the effectiveness of an HPC solution.

- Stress-free implementation of cutting-edge HPC solutions
- Risk mitigation and transparent communication throughout your HPC journey
- Added-value services that drive innovation and efficiency
- Competitive edge in the data-driven world

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Owen Thomas is respected and established in the HPC Ecosystem. Having known and collaborated with him for many years, I am fully convinced of his HPC expertise. I continue to be impressed by his willingness to support others in building business and R&D relationships.

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Together, we'll achieve the extraordinary and redefine what's possible.

Talk to an Expert

Trusted HPC services from the **UK's leading provider**

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Microsoft CERTIFIED — AZURE SECURITY ENGINEER — ASSOCIATE ★★

bsi. ISO/IEC 27001 Information Security Management

bsi. ISO 9001 Quality Management

GOV.UK

HM Government
G - Cloud 13
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HPC·AI ADVISORY COUNCIL
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