



From SimOps 1.0 to SimOps 2.0

From Optimizing Simulation Operations to Transforming Engineering Organizations

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Executive Summary

Two years ago, when the SimOps Foundation was established, engineering organizations faced an urgent operational challenge. Engineering simulations were becoming increasingly complex. HPC infrastructures were growing rapidly. Cloud computing was emerging as a practical alternative. Engineering data volumes were exploding. AI had begun entering engineering workflows. Yet many organizations struggled to use these technologies efficiently . . . The result was SimOps.

Inspired by the success of DevOps, SimOps introduced a practical operational framework that helps engineering organizations automate simulation workflows, improve processes and collaboration between engineering and IT, optimize infrastructure, reduce operational complexity, and increase engineering productivity. Over more than a decade of practical experience and hundreds of engineering projects, the SimOps community collected best practices, developed a comprehensive framework, established professional education and certification programs, and built an independent global community.

SimOps 1.0 has been remarkably successful. But engineering itself is changing. And that requires SimOps to evolve.

The World Has Changed

When SimOps began, the central question was: **How can we operate engineering simulations more effectively?**

Today a different question has emerged: **How can engineering organizations successfully transform themselves in the age of AI?** That question is fundamentally different. It cannot be answered through technology alone.



SimOps 1.0

Operational Excellence

The first generation of SimOps focused primarily on helping engineers, infrastructure experts, and HPC organizations solve immediate operational challenges. Its emphasis included:

- simulation workflow automation
- HPC and cloud operations
- hybrid cloud
- resource optimization
- engineering productivity
- cost optimization
- software assessment
- operational best practices
- practitioner education
- certification
- community building

It answered a practical question: **How do we build and operate better engineering simulation environments?** That remains an essential mission.

But Engineering Entered a New Era

Over the last five to ten years, HPC has become the common platform for many new innovations, technologies and applications. Artificial Intelligence. Agentic AI. Digital Engineering. Engineering Data. Digital Twins. Autonomous Engineering. Quantum Computing.

These technologies are no longer isolated innovations. They are converging. As a result, the primary challenge has shifted. Technology is no longer the principal bottleneck. Organizational capability is.

SimOps 2.0

Engineering Transformation

SimOps 2.0 begins with a different observation: Technology leadership alone is no longer enough. Competitive advantage belongs to organizations that transform advanced computing technologies into everyday engineering capability. This changes everything.

The objective is no longer simply to improve simulation operations. The objective is to help engineering organizations continuously adapt as technology evolves.



A Higher Level of Leadership

SimOps 1.0 primarily served engineers, simulation specialists, HPC administrators, and IT organizations. SimOps 2.0 continues serving those communities. But it also addresses a new audience: Executive leadership. Engineering directors. Chief Technology Officers. Chief Engineering Officers. Business transformation leaders. Human resources and workforce development. Innovation organizations. And Boards. Because engineering transformation is no longer solely an engineering problem. It has become a leadership challenge.

A New Definition of Success

SimOps 1.0 asked: How can we automate engineering simulation? SimOps 2.0 asks: How can engineering organizations become continuously capable of adopting new technologies? That is a much broader objective.

New Best Practices

SimOps 2.0 best practices will therefore extend the SimOps 1.0 best practices beyond operational excellence, complementing - not replace - the original operational best practices. They will increasingly include

- Executive leadership for engineering transformation
- AI strategy for engineering organizations
- Workforce development
- Organizational learning
- Engineering culture
- Cross-functional collaboration
- Change management
- Capability maturity
- Strategic ecosystem development
- Community leadership

Education Also Evolves

Training remains central. But education is expanding. From practitioner training . . . to executive education. Future offerings may include

- Executive Briefings
- Leadership Roundtables
- Strategic Workshops
- Podcasts
- Executive Blogs
- AI Engineering Academies
- Workforce Development Programs
- Board Education
- Industry Thought Leadership



The SimOps Philosophy

The future of engineering will be shaped not only by better technologies, but by better ways of people working together. Technology creates possibilities. People create innovation. Communities create transformation. This philosophy becomes the foundation of SimOps 2.0.



The Mission Remains

The altitude changes. SimOps continues helping engineers. It continues improving simulation operations. It continues developing best practices. It continues educating practitioners. But it now also helps organizations understand how engineering itself is changing.

In that sense, SimOps 2.0 is not a replacement for SimOps 1.0. It is its natural evolution. Operational excellence remains essential. Engineering transformation becomes the destination.

SimOps 1.0 helps engineers become more productive.

SimOps 2.0 helps engineering organizations become more capable.