



HYPERION RESEARCH

Conclusions

ISC24

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Conclusions

- **2023 was a flat growth year for HPC overall**
- **2023 was a down year for on-prem servers**
 - With a 2.7% decline
 - Supply chain issues and exascale acceptance delays along with a greater use of clouds
- **2024 is expected to be a strong growth year**
 - GPUs, cloud, AI/ML/DL/LLM are high growth areas
- **New technologies are showing up large numbers:**
 - Generative AI and LLMs is fueling a new level of growth
 - Processors, AI hardware & software, memories, new storage approaches, etc.
- **Storage will likely see major growth driven by AI, big data and the need for much larger data sets**
- **There are still concern about the supply chain and growing concerns around power & talent**
- **Diversity in HPC needs to be addressed**



A Concern: HPC/AI Expertise Shortage

The growing scarcity of HPC experts to implement new technologies is the number one roadblock for many HPC sites

Two major trends:

1) A shrinking HPC workforce

2) A massive increase in system complexity

- **HPC experts are an aging workforce**
 - The pipeline of new HPC staff entering the workforce does not adequately match the outflow of retirees
 - Competition for HPC staff will intensify
- **Increasingly complex workloads are more difficult to manage**
 - Augmenting traditional modeling/simulation with AI and big data
 - Incorporating multiple processor types, co-processors, accelerators, and other specialized hardware
 - Balancing on-prem and cloud
 - Enterprise IT users are entering HPC space, and need HPC expertise
- **HPC users will need major improvements in ease-of-use, ease-of-selection, & ease-of-optimization**



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And Hyperion Research Briefings
(www.hpcuserforum.com)**

- **September 4 & 5: Argonne National Laboratory, Lemont, IL**
- **October 21-25: HPC User Forums in Europe**
 - **Oct. 21 & 22 at BSC, Barcelona Spain**
 - **Oct. 24 & 25 at HLRS, Stuttgart Germany**
- **November: SC24 Breakfast Briefing**

Thanks For Joining Us Today! And Have A Great ISC24!



**We welcome questions,
comments and suggestions**

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