HPC Edge Computing: Supercomputing Power Where You Need It

Operational Need—Cyber attacks in INDOPACOM
- Urgent need to design and field cyber solutions to eliminate network intrusion RAPIDLY
- Goal is to be PROACTIVE/PREDICTIVE against cyber threats, not REACTIVE

HPC Edge Computing (HPEC)
- Rapid AI/ML analysis of streaming cyberdata
- Batch HPC system performing deep packet analysis, R&D and training
- Integration with Cyber Command analysis tools allows longer data-sampling intervals

3 TRILLION DOLLARS IN NAVAL COMBAT POWER IN THE PACIFIC
15 BILLION ANNUAL BUDGET—enormous financial risk

MHPCC Demonstration

Technical Specs
- 8 Tesla V100 GPUs → 1 petaFLOP in mixed precision
- 1 PB storage system
- 100 GB/s internal network switch
- IP64-rated high strength welded aluminum case with shock mounting up to 325 lbs.
- Dedicated internal cooling system can operate in ambient temps up to 150 F
- Detachable heat exchanger

Revolutionizing support for military and civil works missions by proving supercomputing power at the site of critical need

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