

WE CREATE

SOLUTIONS & EXPERTISE :
MULTIPLE ARCHITECTURES
SYSTEMS & SOFTWARE
TOOLS & APPLICATIONS

USING:
PROCESS
MODELING
TOOLS



Peter Braam, Founder & CEO

Who am I?



@ Xyratex – Chief Software Architect

Storage

Lustre, exa-scale storage, E10W

Large public company

@ Parallel Scientific – Founder & CEO

Parallel programming: solutions & services

Small profitable startup

Who is



Evolves parallel computing

Multiple domains:

Parallelization, Cloud, FPGA, Networking

Builds solutions & tools

Offers **Services**: solutions & consulting

New Services Group



Parallel Scientific has launched a Services Group in development and migration of Parallel Applications

- Highly specialized team in HPC system design and optimization
- Skilled mathematicians, domain experts and seasoned hardware and software developers for system and domains
- Analyze and impact customer solutions to exceed system performance targets and application goals

Solution Focus



Global System Performance

- Architectural design review and complete system performance analysis

Parallel Algorithms and Applications

- New design, development and optimization or reengineering of legacy code

Hybrid Solutions

- Architectural design, hardware/software analysis and GPU or FPGA design, distributed & cloud design

Approach



Global Review

- Problem, system architecture and configuration analysis
- Mathematical modeling in problem space

Architectural & Development Process

- from Software Engineering Institute (SEI @CMU)

Tools where possible

- automatic optimizers, parallelizing compilers, profilers, DSLs

Hybrid Hardware and Software Development



Our FPGA team has created a state of the art tool-chain

- Domain Specific Language (DSL) to Verilog compiler
- Integration can dramatically accelerate application performance
- Target environments:
 - FPGA's, CPU + FPGA, Arista™ switch based FPGAs

Where We Execute



- Finance
- Military/Department of Defense
- Oil and Gas
- Industrial
- Academic
- Manufacturers
- Integrators
- Service Providers

We offer solutions that quickly eliminate difficult parallel programming issues:

- We can help end-to-end
- Broad, world-class expertise
- Save time, ramp-up and effort
- Small & big jobs

Thank you!

