

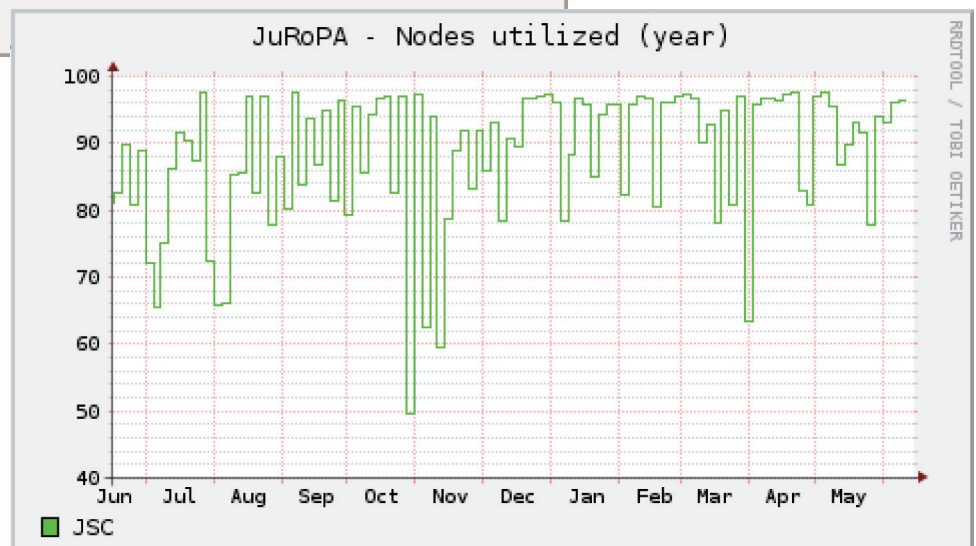
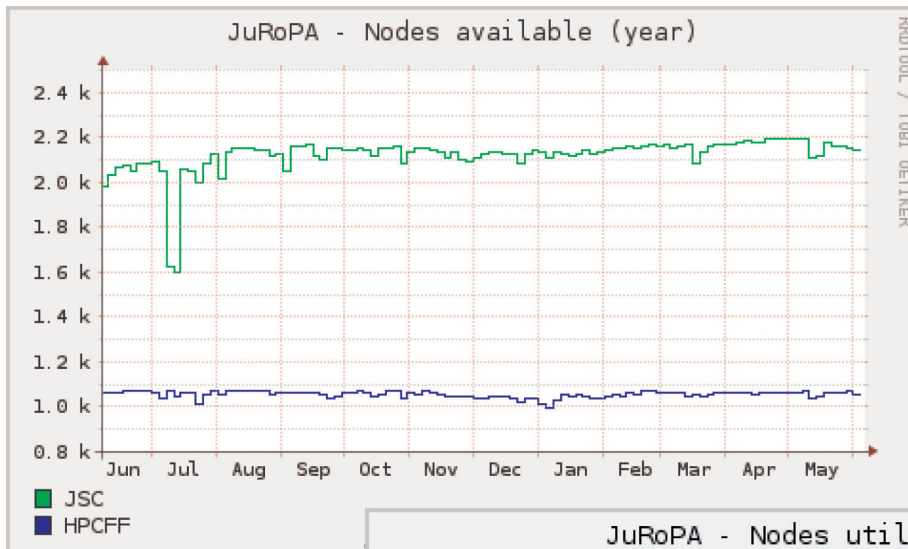


JuRoPA – two years on

Core features (basically unchanged since initial operation):

- Intel(R) Xeon(R) X5570 (Nehalem) quad core processors
- 3288 compute nodes = 26304 cores
- QDR Infiniband interconnected
- SuSE Linux SLES11 SP1
- *ParaStation MPI*
- *ParaStation HealthChecker*
- *ParaStation GridMonitor*
- *ParaStation TicketSuite*
- *ParaStation ClusterTools*
- *ParTec Support*
- 274.8 Teraflops Linpack performance
- 91.6 % efficiency
- 8 times overbooked
- > 90 % utilization
- production partitions:
 - JSC: 2208 compute nodes
 - HPCFF: 1080 compute nodes

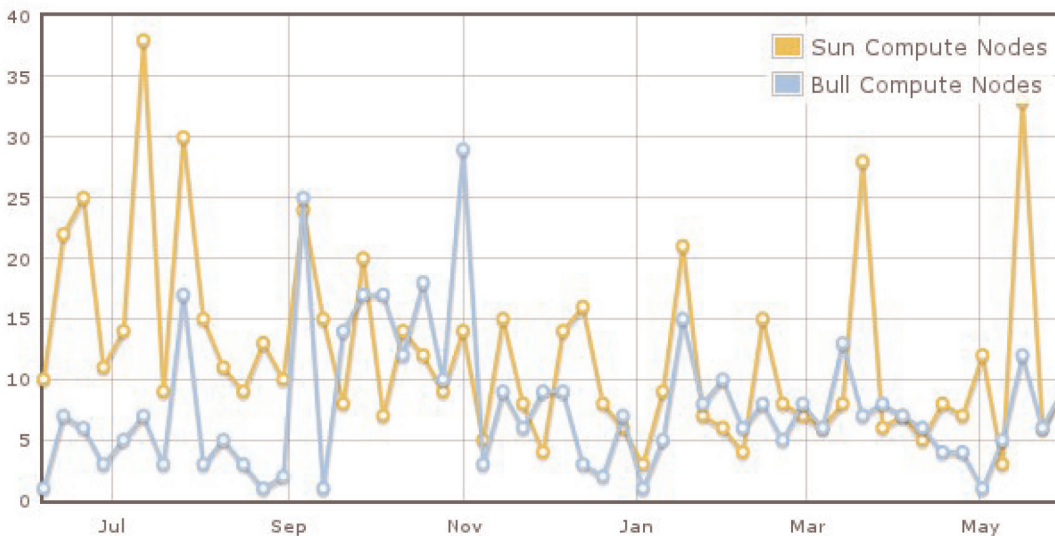
Increased stability and overall utilization:



- Made possible by enhanced ParaStation HealthChecker
 - locates bad nodes/components
 - removes bad components from production
 - automatically opens tickets
- Automatic periodic checking takes repaired/healed nodes back online
 - updates tickets

Ticket Statistics

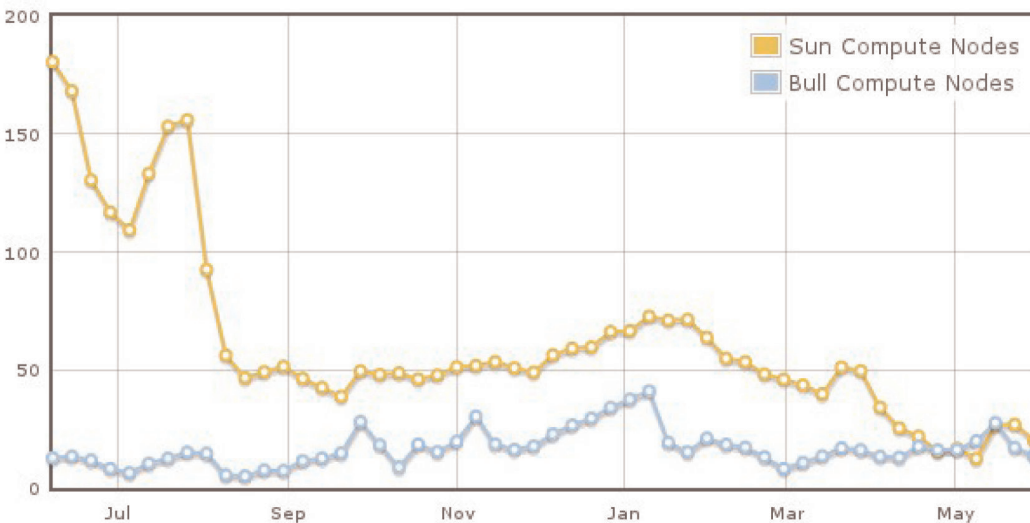
Ticket Open Rate



Time range: from to

Ticket Statistics

Open Tickets



Upcoming ParaStation MPI enhancements:

- psmom: seamless start of large applications (> 3000 nodes)
- currently testing