Is it a paperweight, light dimmer, patio heater or a high performance computing centre?
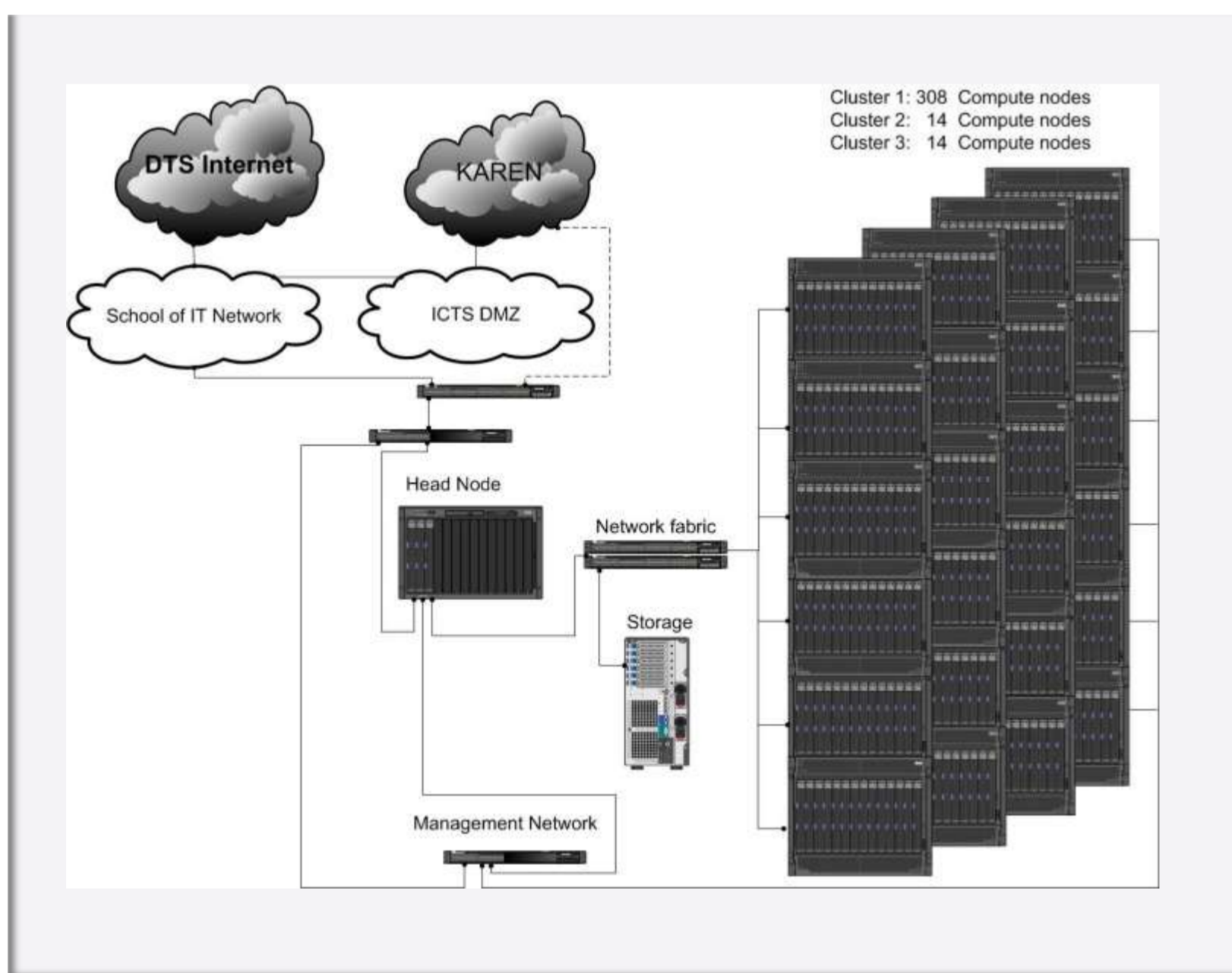
336+ IBM HS21 Blade Servers, Cabinets and Chassis
**> 4 tons**

Portacom plant from de-commissioned data centre Power required
> 100kw

Assemble
Cable
Power up
Wipe HDD
Flash Bios
Network

Applications	**Rocks Rolls installed** Blender, R, Zen, MatLab
System Environment	**Rocks Cluster Management** Centos operating system; MYSQL node database: DHCP for cluster nodes; Sun Grid Engine (SGE) workload manager; Ganglia monitoring, QMON graphic interface; Area 51,(Tripwire and chkrootkit) software and data security; HPC (OpenMPI, MPICH2, PVM) enable parallel processing across cluster Compilers C, C++ and Fortran
Hardware	**336 64-bit blades, (311 currently installed):** 3.4GHz Xeon (two per blade) with hyperthreading 8GB RAM; 36GB HDD **44 x 32 bit blades (28 currently installed), with** 2.8GHz Xeon (two per blade) CPU 6GB RAM; 36GB HDD **IBM Blade Management Modules; Nortel and IBM Switch Modules;** **Juniper EX series switches** 2x 48 port virtual chassis Cluster **Juniper EX series switches** 2 x 24 port 10 Gigabit fibre trunk

Cluster 1: 308 Compute nodes
Cluster 2: 14 Compute nodes
Cluster 3: 14 Compute nodes
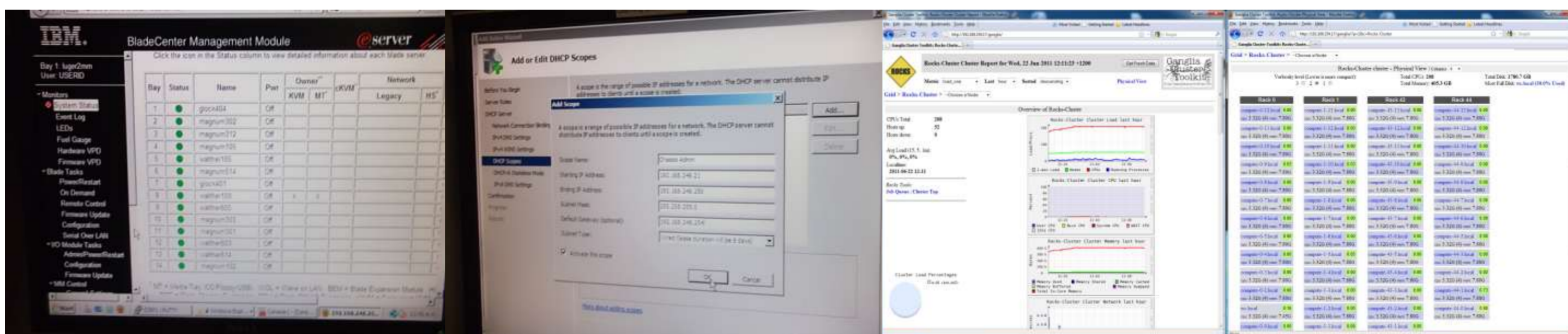
1200 CPU's running as a rocks cluster

Next ?
Benchmark, Add gateway to BestGrid
Make available to users with Academic and Research requirements

Sue Chard and Steve Cosgrove
Whitireia NEW ZEALAND eResearch, Otago 2011