

Assignment: - Parallel Application

I have gone through whole article relating to road racing world championship grand prix. ING Renault F1 team is a racing car maker company for competitions in world championship grand prix.

scientific or engineering problem: aerodynamic simulations using Computational Fluid Dynamics application to reduce both development cost and design life cycle.

Achievement : Simulation is more accurate than physical testing because of its ability to capture small details that might not be present on a physical reduced-scale model during the early design stage, and its ability to duplicate actual road conditions without interference from the wind tunnel walls and floor.

It's all about reducing cost to design a vehicle

Super computer name : Appro Xtreme-X

64-bit quad-core AMD Opteron™ 6300 Series processors with each core frequency 2.3GHz .

Networking :InfiniBand

Number of nodes: 11,000 with nearly 300 racks offering over 25 PFlops of computing performance.
supports two or four socket connection

1480 power distribution with a choice of 208 or 277 volt power supplies.

Resources :

http://www.appro.com/solutions/industry_resources/white_papers/virtual_wind_tunnel_renault_f1/

http://www.hpcwire.com/hpcwire/2009-03-27/renault_f1_supercomputer_simulation_prepares_team_for_australian_grand_prix.html

http://www.appro.com/uploads/documents/appro_xtreme-x2_idc_white_paper.pdf

