### Welcome

- Induction to Grid Computing and the NGS
- A Personal View of Computing: What Have Computers Ever Done For Us?
- Ray J Paul
- Emeritus/Visiting Prof at Brunel/LSE
- Discombobulating pensioner

### **First Impressions**

- Post degree exams, before results
- Voluntary FORTRAN course
  - Programming hurts the head
  - Resolved to avoid computers for life
    - Should have kept to this
- MSc OR required computer usage
- ICL 1900 series running GEORGE 2
- £500K m/c, air conditioned, trial O/S

#### Who served who?

- The Computer was a God, served by white coated wizards who continually kept it fed with heavy solid disks, paper tapes and punched cards
- I could put my punched cards in for an over night run.
- One mispunched card ...
- Once program worked first time ...

#### What did the computer do for me?

- Wrong write line format, every line new page.
- Any error within any loops or worse would generate an error message each turn
- Add both of above together ...
- I was always to blame
- Unforgiving, demanding, I was a stoker on a steamship

## 10 to 15 years progress

- Screens!
- Interactive (sometimes)
- Could waste more time with turnaround in minutes so treated debugging as a lottery
- Emphasis still on feeding the beast, with screens increased only as m/c improved, not with demand

## **Personal Computing**

- Running water, central heating, straight roads, public order
- This was the Roman equivalent
- PC served the user if an enthusiast
- Sinclair ZX80 the first real attempt at time wasting
- BBC B
- Apple II

#### **Personal Business**

- Persuaded LSE to give us £25K to buy and show potential
- Pete and Pam's terraced house in Streatham
- £16K of equipment in boot of car, no id, invoice to follow
- Spreadsheets, word processing, soldering irons, disk security, disk copiers (success)

#### Power to the people

- No control, limited time. PC largely inactive
- Pete and Pam educ discount 10%
- As dealers, 25%
- We could buy and sell at a profit to us and employer!!
- And to others. And other stuff
- Nearly opened a shop (cash flow)
- Selling systems became box shifting

## Rome engulfed by barbarians

- Networking
- Power back with computer services
- PC expansion so big, given to computer services
- Standards, controls, supported and unsupported software
- Now users served services

## **Computing and People**

- What do you use computers for?
- To save time
- What do you use with the time you save?
- (pause) use the computer

## Grid Computing and History

- 1. One computer, must be 100% fed with human sacrifices
- 2. Interactive computing changed this to load balancing of screens input and output
- PCs allowed users to maximise their time, computers become increasingly idle – huge computing power free

# Grid Computing

- Currently
- Big problem, bigger computer single processor probably more cost effective
- Lack of access or money might make grid computing "effective"
- Lots of barely used m/cs
- Would NGS like our cluster to give a home to and allow us to be full 'members'

## The Future

- Can Moore's Law carry on indefinitely?
- Felipe Fernandez Armesto writing in 1995
- P708
- Grid Computing will then dominate to meet greedy demands

### Thank You

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- Questions
- What has computing ever done for us?
- Well, today !