Operations Group

Tom McGlynn

Mark Taylor

Registry of Registries Transfer

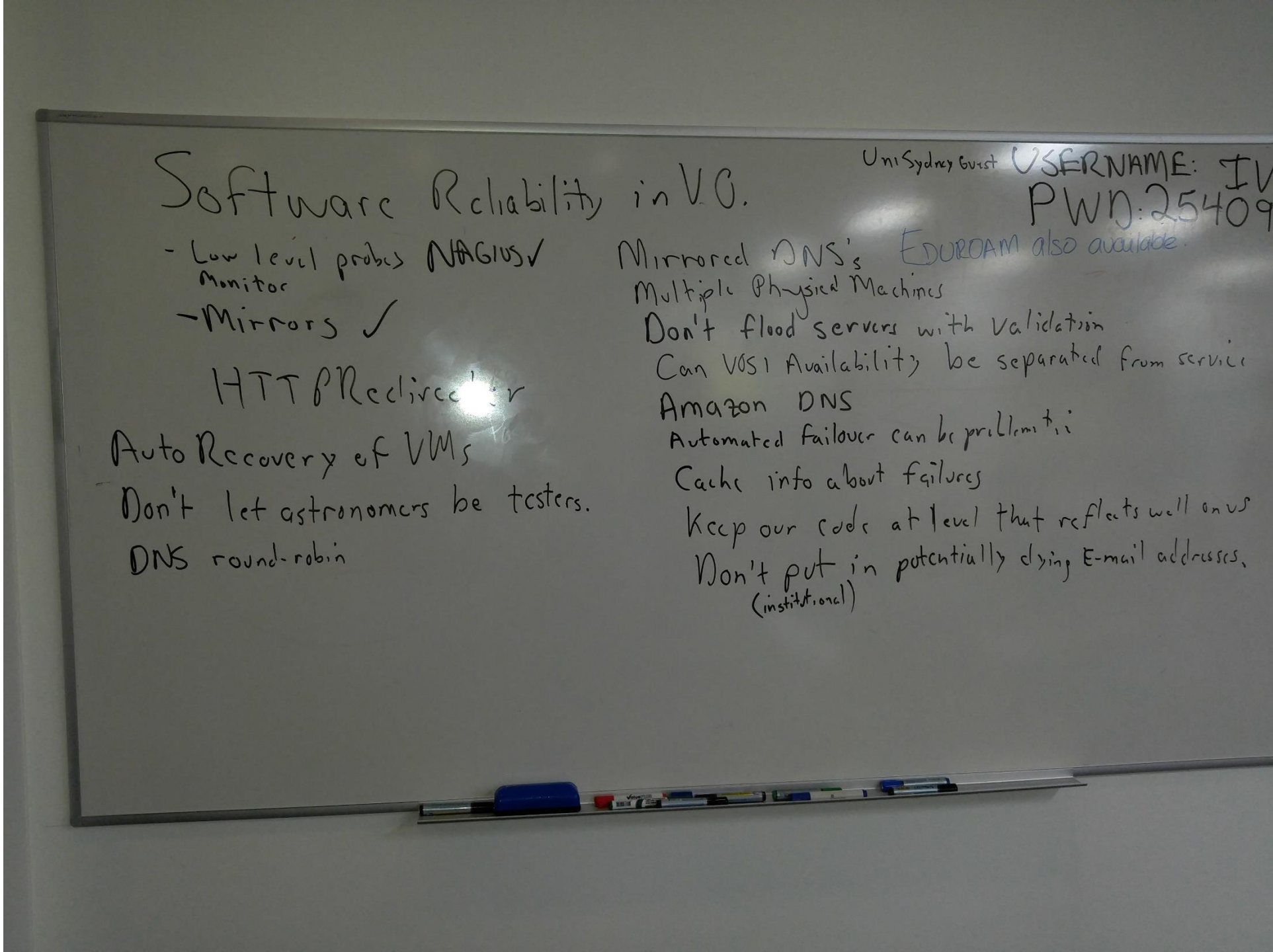
- Complete with no (known) hiccups
- Code issues needed to be resolved.
- Incomplete notice to some parties involved in transfer

Building Systems in the VO

- Embedding existing systems in GWS framework
  - Enables putting legacy systems on web very flexibly
  - May require special case coding

- China VO
  - Complete framework with elements for outreach, publication, storage, research support. VOSpace support for community.
    - Managing distributed VMs

How do we build robust & reliable services?



Building Robust code

Many ideas brought forward

- Automated checking of system components
- Multiple physical (and virtual) machines under load balancers
- Self healing VMs
- Mirroring
  - Can we do automated failover or is that dangerous?
  - New technologies: HttpRedirector, Amazon DNS services
  - Cache info about failures so next query doesn't need to wait to fail
  - DNS round-robin
- Should VOSI isUp queries be allowed to be at different site?
- Don't flood servers with validation queries.
- Don't put obsoletable contact info (emails) in registry and elsewhere
- Critical code needs proper engineering

- Astronomers are not quality assurance testers

VO Health

- Presentations from VOParis, ESA and NAVO on validation/monitoring results: “weather reports”.
- Number of completely non-responsive services has been substantially reduced.
- Updated procedure from VOParis for removal of such services in future.
  → endorsed IVOA note
- ESA sees little change in validation statistics and has identified some issues with >90% failure rates.
  - Some may be validator issues.
  - Should we treat all “must”s the sames
- Per NAVO: Average site uptime (including some non-responsive sites) is ~96%. Weights small sites same as Vizier.
- Fraction of non-Vizier, non-HEASARC services passing validation is 26% (but even this is much higher than ESA would give for same criterion).
- Need to separate out largest sites to get useful statistics
- Need for SIAv2 (testing) and DataLink (?) validators

How should we characterize VO health

- Tables (per center/service) of validation statistics and up time?
- Responsiveness
- # of VO services
- Want to give realistic assessment and not show services as failing with non-critical errors.
- Provide overview summary for IVOA next May