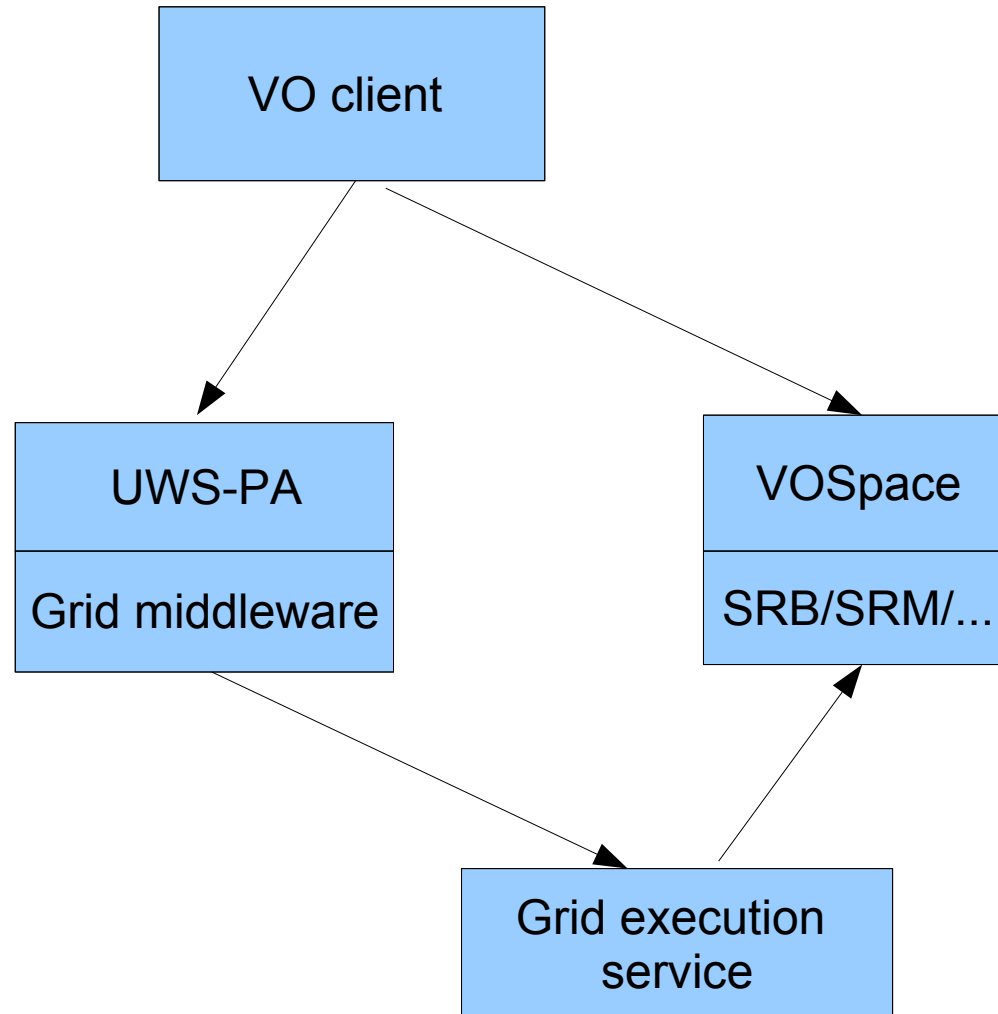


“Issues with the VOGrid interface”

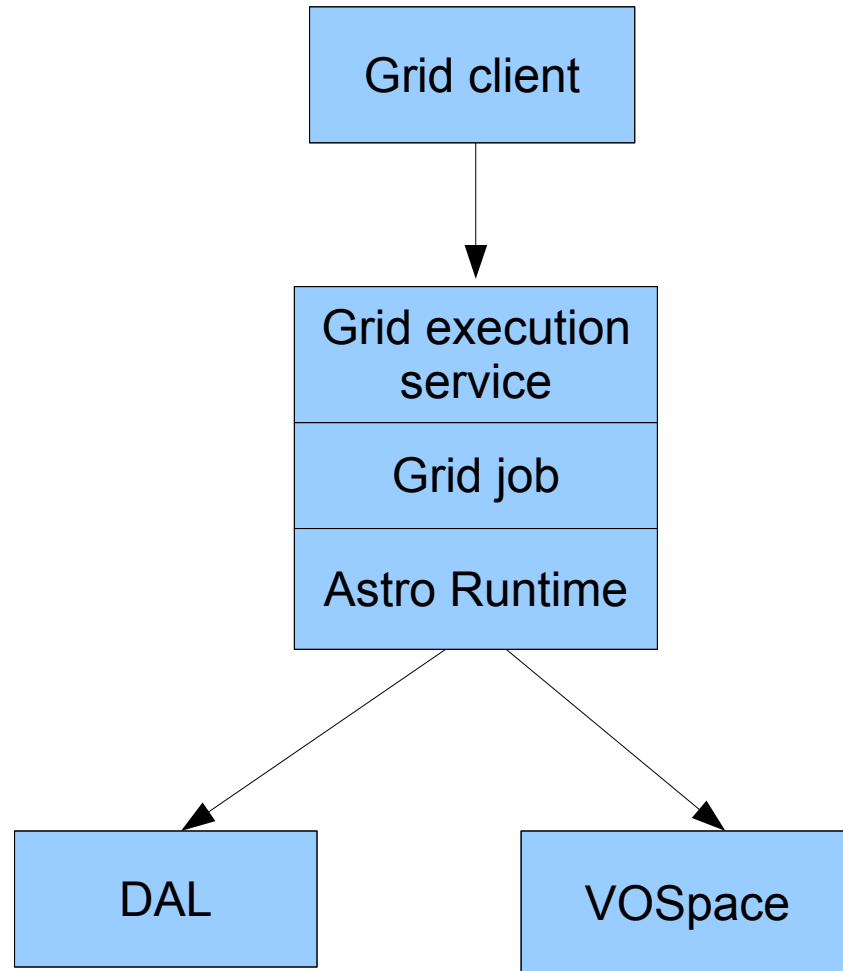
Guy Rixon

Astro-RG-IG session,
IVOA Beijing Interop
May 2007

Use case: VO delegating to grid



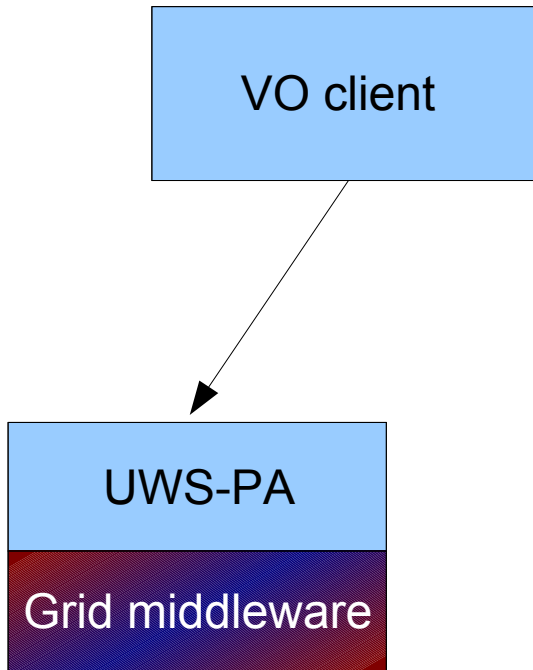
Use case: Grid delegating to VO



Issues? What issues?

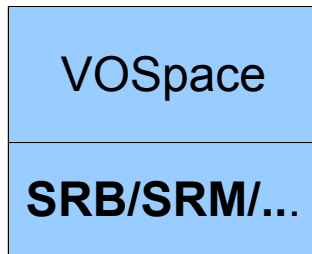
- Neither of these are scarily hard
- Both are reasonably well understood
- Both need some new code
- “We” can do it if allowed development time
- Since Nic asks, lets go look for some problems...

Issue 1: multiple middleware



- Each grid has different middleware
- We have to adapt to each one separately
- Supporting multiple middlewares in same service is difficult/impossible (e.g. VOTech grid broker)
- Need triage: choose specific grid(s) to support

Issue 2: data grid



- Different compute grids use different data grids; we need to support more than one
- If VO and compute grid don't share a data grid, need other data-sharing mechanisms
- SRB is covered. Who will do SRM?

Non-issue: certificates and authentication

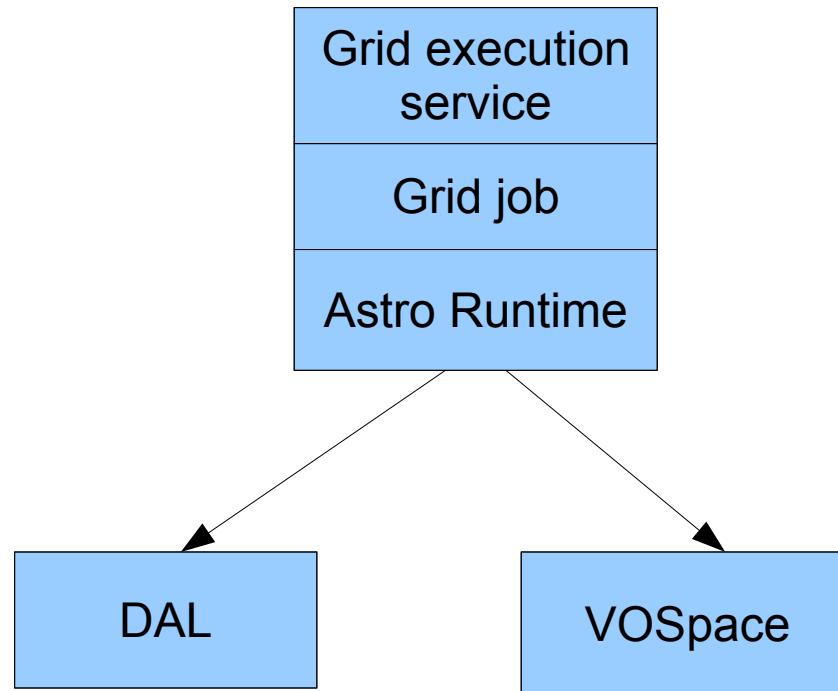
- IVOA credentials are the common format used in grids.
- Provided we use PMA certificate authorities, no problem.
- OK, OK, someone needs to prove this by experiment. Need a test service.

Issue 3: authorization

- We know how to authenticate
- How do we get/assert authorization to use a grid?
- E.g.:
 - which grids require individual users to be members?
 - which grids require astro VOrgs to be members?
 - what kind of fiddly software/tokens do we use to express membership?
- Hint: these all use different schemes:
 - UK NGS
 - EGEE
 - TeraGrid

Non-issue: calling VObs from grid

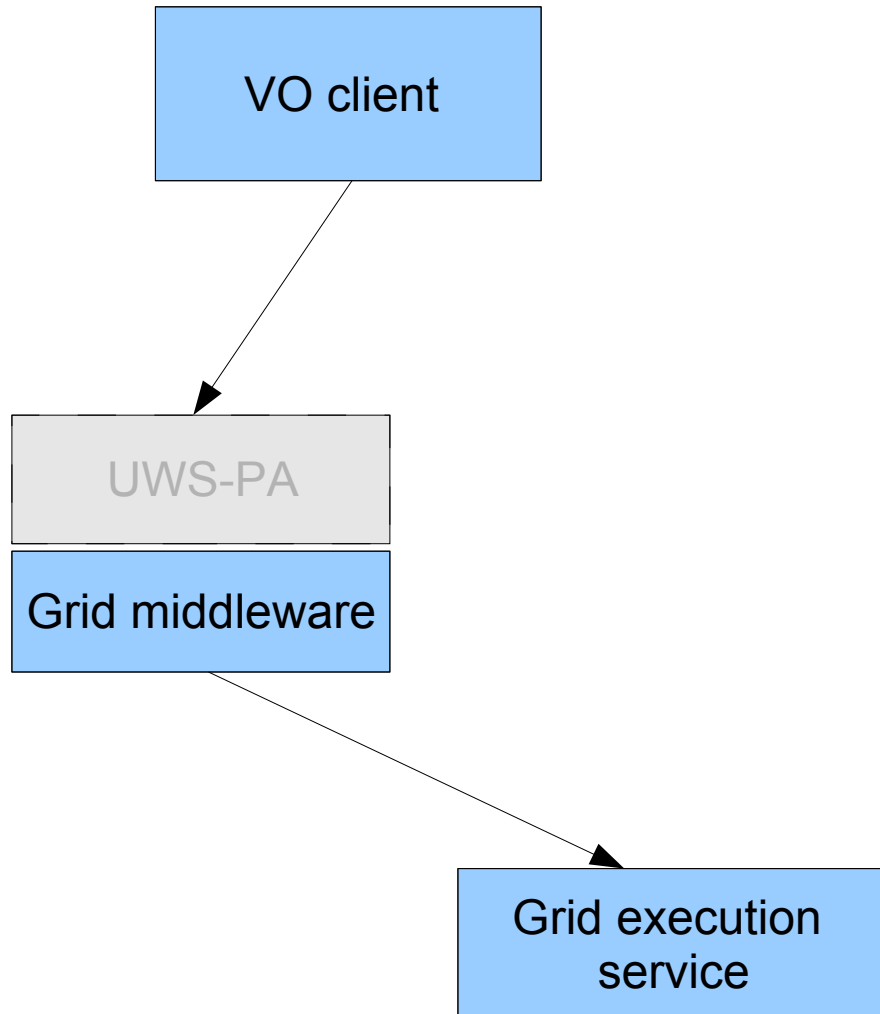
- No reason why this bit shouldn't work:



Issue 4: parameter sweeps

- Grids give us most for whole parameter sweeps
 - I.e. grid middleware parallelizes the sweep
- Most CEA apps accept single parameter sets
 - I.e. VObs code does the parallelization
- Need to define some new CEA apps to use grid goodies

Issue 5: bring forward UWS-PA



- Grid gateway uses CEA
- CEA should now use UWS-PA
- UWS-PA isn't finished yet
- People trying to finish UWS-PA shouldn't be diverted *excessively* into *premature* grid work
- However, can experiment with existing CEA

Issue 6: who and when (and who for)?

- Setting up VObs→Grid gateways costs effort
- (Conversely, Grid→VObs already has gateway and costs almost nothing more)
- Who will invest the effort?
 - AstroGrid will do some but not all
- How high the priority?
- Who is *waiting* to use this?