

# PAWSEY CAPITAL REFRESH STATUS



## LONG TERM STORAGE

### Tape library expansion

Additional tape storage has been procured to expand the existing tape libraries from 50 to 63 Petabytes in each library.

### Long term storage

Server and hard disk storage and networking will be refreshed, along with the tape library's total maximum storage capacity. Both ingest and egress data transfer services will be upgraded, improving upload and download times.



## CLOUD/HIGH THROUGHPUT COMPUTING

Pawsey is partnering with Dell EMC to expand its current cloud system with 5x more memory and 25x more storage to form a new cutting-edge flexible compute system. This expansion aims to better service emerging research areas and communities who benefit more from a high throughput compute.



## HIGH SPEED STORAGE

**Astronomy high speed storage:** 3x more storage and performance. The existing **Astro filesystem** was expanded to service the MWA community. Powered by HPE, it has been upgraded to 2.7 PB of usable space and capable of reading/writing at 30 GB/s.

The new **buffer filesystem**, a dedicated resource for ASKAP researchers, provides 3.7 PB of usable space and is capable of reading/writing at 40 GB/s. It is manufactured by Dell.

### High speed storage filesystems

Designed to deal with thousands of users accessing them at the same time, high speed filesystems will be procured to increase speed and storage capability to general purpose science.



## MWA CLUSTER

The **MWA cluster** will be a resource better tuned to MWA's needs. It will be procured ahead of the Main Supercomputer, allowing ASKAP to use the full CPU partition of Galaxy. When available, the new MWA cluster will provide:

- The latest generation of CPUs
- More memory bandwidth
- More memory per node, which will allow users to process larger datasets quicker.



## NETWORK INTERCONNECT

The high-speed interconnect ties all the pieces of the Pawsey 'puzzle' together. When procured, all parts will sit on the same fabric as first-class citizens, allowing Pawsey researchers to run their workflows quicker.



## REMOTE VISUALISATION

The remote visualisation capability will be procured as part of the main supercomputer. When the new capabilities become available, researchers will be able to visualise their science in real-time, while being processed.

This new capability will allow researchers to steer their visualisation while the data is processing and fine tuned to the desired outcome.



## PAWSEY SUPERCOMPUTER SYSTEM

Delivered in two phases, the Pawsey Supercomputer phase 1 will be delivered by mid-2021, it will provide researchers with a system that is at least equivalent in capacity to what they are currently using. Phase 2 is expected to be in production by mid-2022; it will provide an exponential expansion in capacity and the latest state-of-the-art technology.



out in the market



evaluation

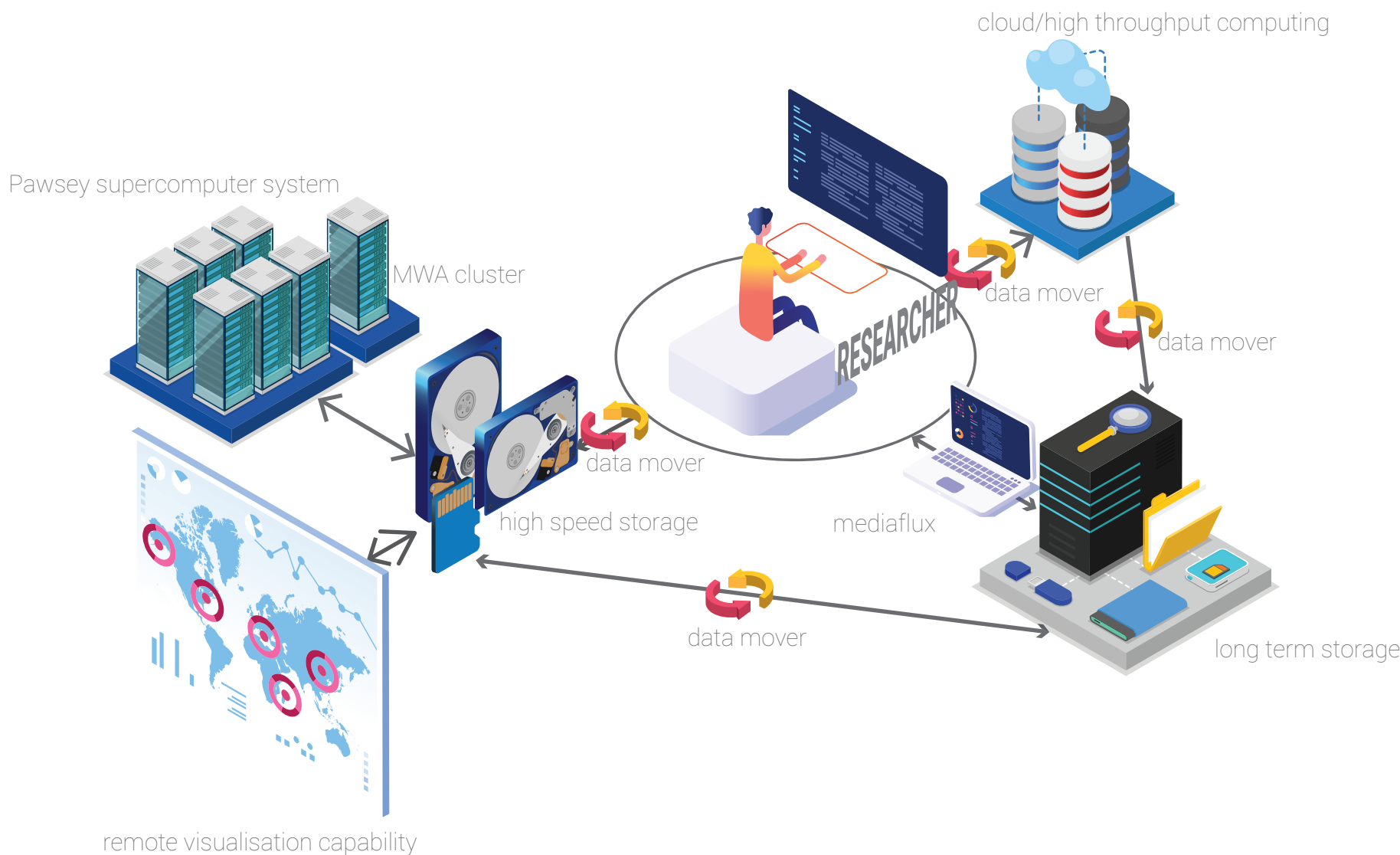


vendor selected



delivered

# PAWSEY DATA WORKFLOW



updated on Friday 15/11/2019