



OSCARS

Open Science Clusters' Action
for Research & Society

Funded Project

VISA: User experience enhancement

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What problem(s) did you plan to solve?

- VISA (Virtual Infrastructure for Scientific Analysis) is a Virtual environment for scientists to access, analyse/process data
- VISA was developed for the PaNOSC European project
- Current remote desktop solution (guacamole) has limitations:
 - Input lag
 - Graphical artefacts during movement
 - Lack of precision
 - CPU intensive on remote machine



What have you done to solve the problem?

- We choose and develop WebX solution.
- This solution correct graphical limitations
- CPU usage is better

```
caunt@visa-dev-instance-1490: ~  
top - 09:05:25 up 8 min, 5 users, load average: 1.76, 1.05, 0.57  
Tasks: 239 total, 1 running, 238 sleeping, 0 stopped, 0 zombie  
%Cpu(s): 68.7 us, 5.0 sy, 0.0 ni, 26.4 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st  
MiB Mem : 7935.7 total, 5724.0 free, 1330.2 used, 1164.3 buff/cache  
MiB Swap: 0.0 total, 0.0 free, 0.0 used, 6605.5 avail Mem  


| PID  | USER  | PR | NI | VIRT    | RES    | SHR    | S | %CPU | %MEM | TIME+   | COMMAND         |
|------|-------|----|----|---------|--------|--------|---|------|------|---------|-----------------|
| 1407 | root  | 20 | 0  | 1102284 | 124068 | 19324  | S | 86.3 | 1.5  | 1:40.70 | guacd           |
| 1565 | caunt | 20 | 0  | 390236  | 145292 | 59576  | S | 31.4 | 1.8  | 0:50.78 | Xorg            |
| 1430 | xrdp  | 20 | 0  | 122872  | 19580  | 11392  | S | 10.8 | 0.2  | 0:14.11 | xrdp            |
| 3002 | caunt | 20 | 0  | 325868  | 17564  | 8192   | S | 5.9  | 0.2  | 0:11.13 | webx-engine     |
| 3126 | caunt | 20 | 0  | 21084   | 6016   | 3840   | S | 5.9  | 0.1  | 0:04.95 | top             |
| 2848 | caunt | 20 | 0  | 744800  | 86048  | 56012  | S | 2.0  | 1.1  | 0:04.63 | x-terminal-emul |
| 1086 | root  | 20 | 0  | 328964  | 12156  | 2048   | S | 1.0  | 0.1  | 0:01.22 | guacd           |
| 2035 | caunt | 20 | 0  | 392156  | 7876   | 5888   | S | 1.0  | 0.1  | 0:01.12 | ibus-daemon     |
| 2434 | caunt | 20 | 0  | 1050896 | 133868 | 101184 | S | 1.0  | 1.6  | 0:02.42 | xfwm4           |
| 2526 | caunt | 20 | 0  | 486428  | 59640  | 42780  | S | 1.0  | 0.7  | 0:02.40 | xfce4-panel     |
| 1    | root  | 20 | 0  | 72876   | 13844  | 8264   | S | 0.0  | 0.2  | 0:01.74 | systemd         |


```

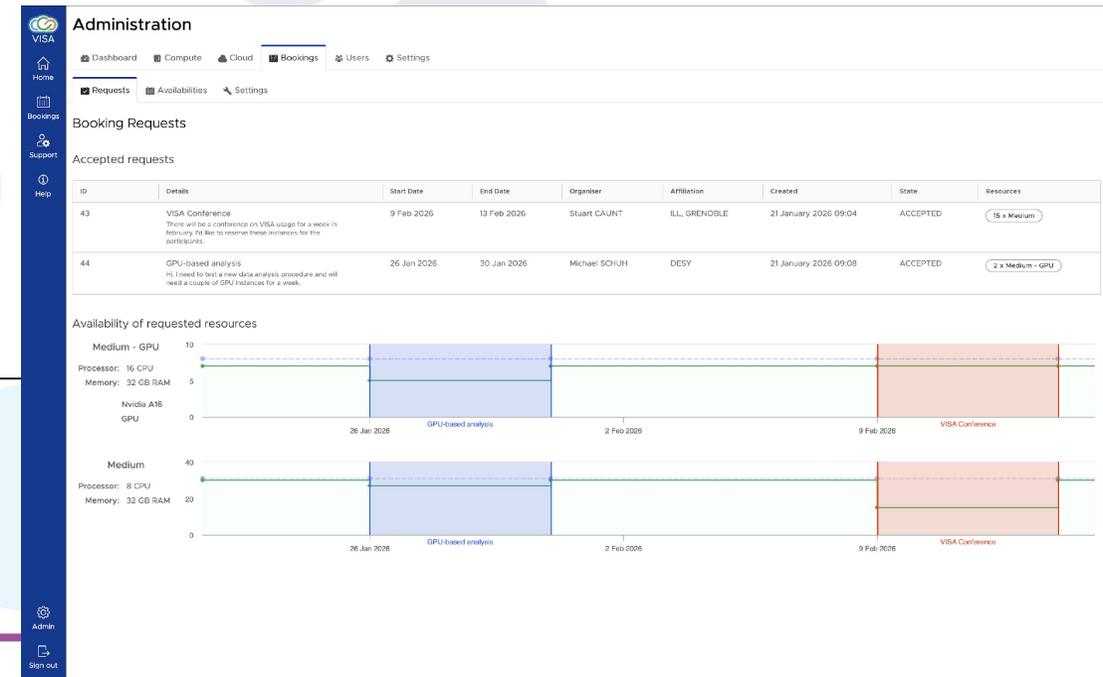
What are the key results achieved to date and how have you plan to made them available to the broader community?

- VISA is in production at ILL and in other scientific institutes
- Code is available on GitHub
- Public documentation is on Read the Docs



How will make your results sustainable over time – How will the scientific community/-ies further exploit them?

- MoU for VISA collaboration between ALBA, DESY, ESRF, ESS, EuXFEL, HZDR, ILL, MAX IV, PSI and SOLEIL
- We continue to develop (Ex: Booking requests)



Who has been doing it?

- OSCARS/VISA project team members:



Ludovic Leroux
Oscars project
principal investigator



Erwan Le Gall
ILL Head of IT



Stuart Caunt
VISA developer



Delphine Floret
VISA coordinator