

Group Meeting: Dec. 15th, 2017

Jonathan Michalon

Quick history

- Arrived Jan. 7th, 2013 to work on a cloud platform for image processing, with Rémy (former IT leader, kind of fired...), as an internship, and sitting in the library with Arnaud and Véronique.
- Moved to CBI with the first groups, when it was still closed, more than one year before teams.
- Rémy was already in good terms with Bruno and Patrick, and as such we started to work for EM, which is still my main topic now that I'm officially a member of the BioStruct department

Local Infrastructure

- Throughout these almost 5 years, we bought a lot of hardware. Now I manage :
 - 1.2 PB raw disk space as img-data
 - 4 super-computers
 - 4 GPU servers with 6 GPUs
 - 2 10 gbps switches
 - Around 10 desktops, including 3D machines
 - 4 servers at the EM instruments
 - Various stuff all around like a server for the imaging center, virtual machines, wiki, identification directory, ...

Developments

- A web application to help keeping track of system availability for the imaging center
(was a side-project as intern, deployed but never used, <http://sysaman.igbmc.fr/>)
- GridFiles, a standalone application to keep track of microscopy grids, from sample preparation to acquisition
- Backphilo, a tool to download, filter amino acids sequences and compute likely ancestors' sequences “backwards”
- 3DClusterVisu, a tool to visualize clusters of 3D fluorescent points through Voronoi cells
- Various tools (Titan pipeline, data transfer forms (HPC and microscopes), external storage synchronisation, ...)

IT Environment

- We were 4 at the beginning, with Rémy highly motivated, pushing everything forward, undoubtful, and optimistic
Arnaud had to leave (no-one willing to keep him), then Rémy, and I couldn't continue to work with Véronique so I split. Now Luka joined
- We were always aside from all official stuff, needing to redo a lot of work, and being blocked from time to time
- This means a lot of responsibilities on my shoulders, and plenty of boring stuff to handle, so that I had to progressively stop to develop and keep going on day-to-day maintenance
- We work very nicely with HPC, University's computing center, and we regularly buy machines there: they manage everything, and as a counterpart other HPC users can run jobs on our machines when they are idle. Mutualization for the win!

Future

As far as I know, the aforementioned stuff works sufficiently well so we should keep it running, updated (software and hardware) but stay on the same basis.

Future could be:

- Integrate more with other instruments (X-ray, fluorescence, ...) and unify all that stuff (a lot of duplicate work is done by Cavarelli's team)
- GPU computation (28 GTX cards should arrive Soon™ at HPC)
- Develop the Titan Pipeline, and maybe a CS-corrector machine-learning based algorithm and automatic configuration tool (FEI gave up)
- Get out of the small useless fights with the regular IT people that keeps having us doing workarounds, wasting time with them, etc.
This will/should/can be hopefully fixed by the arrival of a new scientific IT leader and a new engineer on their side

Me

- 5 years here
- Current statement:
 - boring, system administration becomes repetitive as you have to continuously fix breaking things, make upgrades, install new programs in a never-ending flow
 - big issues, from the very beginning, and at all levels, on human and political stuff, which wastes a lot of time and kills motivation

Me

- I'm a lonesome, hidden and independent boy, and I don't like to mess up with all that administrative/political/human aspects, and as such I do not want to stay 40 years in such a huge, bloated environment.
Moreover, I'm not punchy enough to fight for the department's ambitions, and only provide a loose IT outlook that, given the hard context, is not sufficient to ensure a shining future...
- Based on this assumption, I see no interest in continuing to help and assist here, and I'm willing to step down from IT system administration. Since this is 95% of my current real work, I will take the opportunity to leave and try to boost my own life on new stuff, out of regular employment, and away from Strasbourg!