



eduroam.cz monitoring

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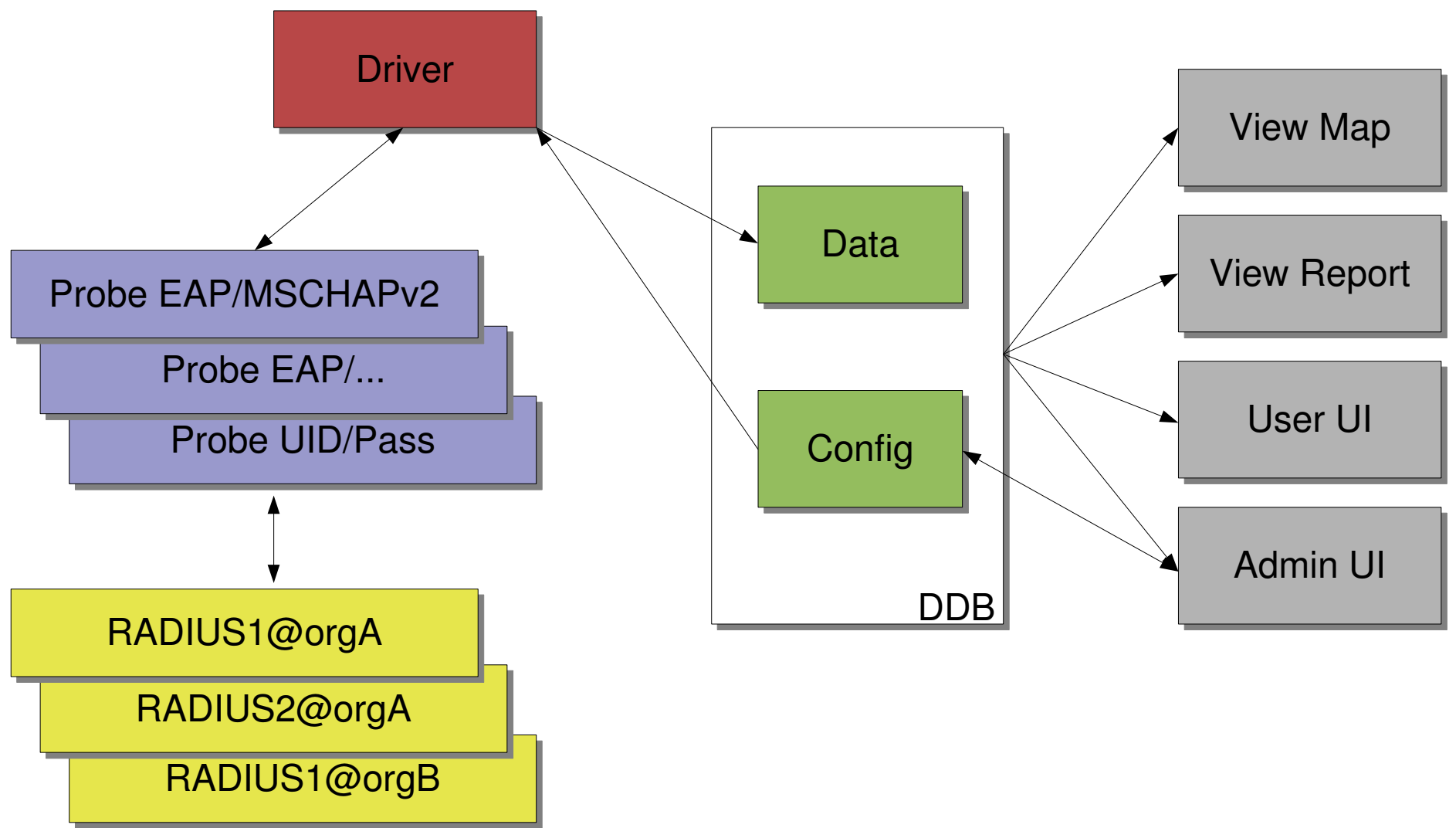
motivation for building monitoring

- help **admins** to deliver reliable service
- “force” **admins** to deliver reliable service
 - only few users are really using roaming
 - it's easy forget about service which is rarely used
 - it's better to get info from machine than from user
(at moment your user see service down you failed in your job)
- provide simple and clear info about roaming for **users**
 - **users** can see if roaming will work for them
 - **enthusiastic users** get nifty tool to play with
 - **enthusiastic users can help** us to improve service
(boss asks “Mike, why has our eduroam RADIUS server been down for three days?”)

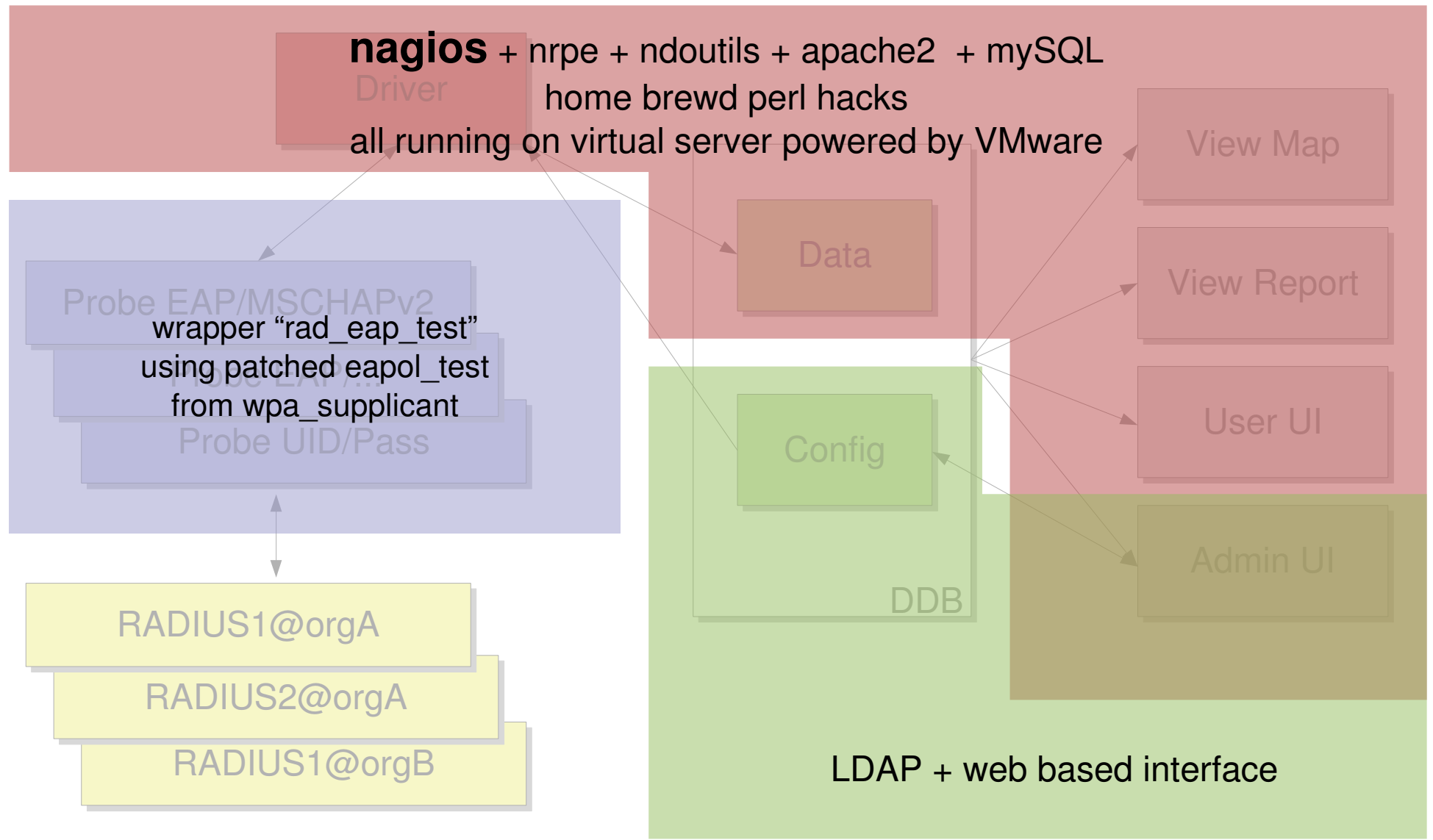


it's good to trust, but to know is better

architecture of monitoring



our implementation of eduroam monitoring



eduroam availability matrix

Shows what realms (services, columns) are available at selected location (server, organization).

	realm: @cesnet.cz	realm: @faf.cuni.cz	realm: @jionice.cuni.cz	realm: @lf1.cuni.cz	realm: @lfhk.cuni.cz	realm: @prf.cuni.cz	realm: @uvtuk.cuni.cz	realm: @fel.cvut.cz	realm: @fffi.cvut.cz	realm: @vc.cvut.cz	realm: @ics.muni.cz	realm: @osu.cz	realm: @sssvt.cz	realm: @tul.cz	realm: @ujep.cz	realm: @upce.cz	realm: @vscht.cz	realm: @vse.cz	realm: @fm.vse.cz	realm: @vutbr.cz	realm: @zcu.cz
locality: cesnet.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: faf.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: jionice.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: lf1.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: lfhk.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: prf.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: uvtuk.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: fel.cvut.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: fffi.cvut.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: vc.cvut.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: ics.muni.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: osu.cz	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
locality: sssvt.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: tul.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: ujep.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: upce.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: vscht.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: vse.cz	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
locality: fm.vse.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: vutbr.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0
locality: zcu.cz	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0

It can hold M x N data.

Almost every one is **running (0)**, except of **osu.cz (2)** and **vse.cz (2)**.

	realm: @cesnet.cz	realm: @faf.cuni.cz	realm: @jionice.cuni.cz	realm: @lf1.cuni.cz	realm: @lfhk.cuni.cz	realm: @prf.cuni.cz	realm: @uvtuk.cuni.cz	realm: @fel.cvut.cz	realm: @fffi.cvut.cz	realm: @vc.cvut.cz	realm: @ics.muni.cz	realm: @osu.cz	realm: @sssvt.cz	realm: @tul.cz	realm: @ujep.cz	realm: @upce.cz	realm: @vscht.cz	realm: @vse.cz	realm: @fm.vse.cz	realm: @vutbr.cz	realm: @zcu.cz
locality: cesnet.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: faf.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: jionice.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: lf1.cuni.cz	2	1	1	0	1	1	0	0	0	0	0	0	2	2	2	1	1	0	0	0	1
locality: lfhk.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: prf.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: uvtuk.cuni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: fel.cvut.cz	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
locality: fffi.cvut.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: vc.cvut.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: ics.muni.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: osu.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: sssvt.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: tul.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: ujep.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: upce.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: vscht.cz	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
locality: vse.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
locality: fm.vse.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: vutbr.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
locality: zcu.cz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1) **lf1.cuni.cz** have troubles to host some visitors. Some of them get **timeout (2)** some **access-reject (1)**.

2) **fel.cvut.cz** asked not to be tested (planned maintenance), state is **unknown (3)**.

3) **vscht.cz** fails to host visitors at all. Their users can roam without problems.

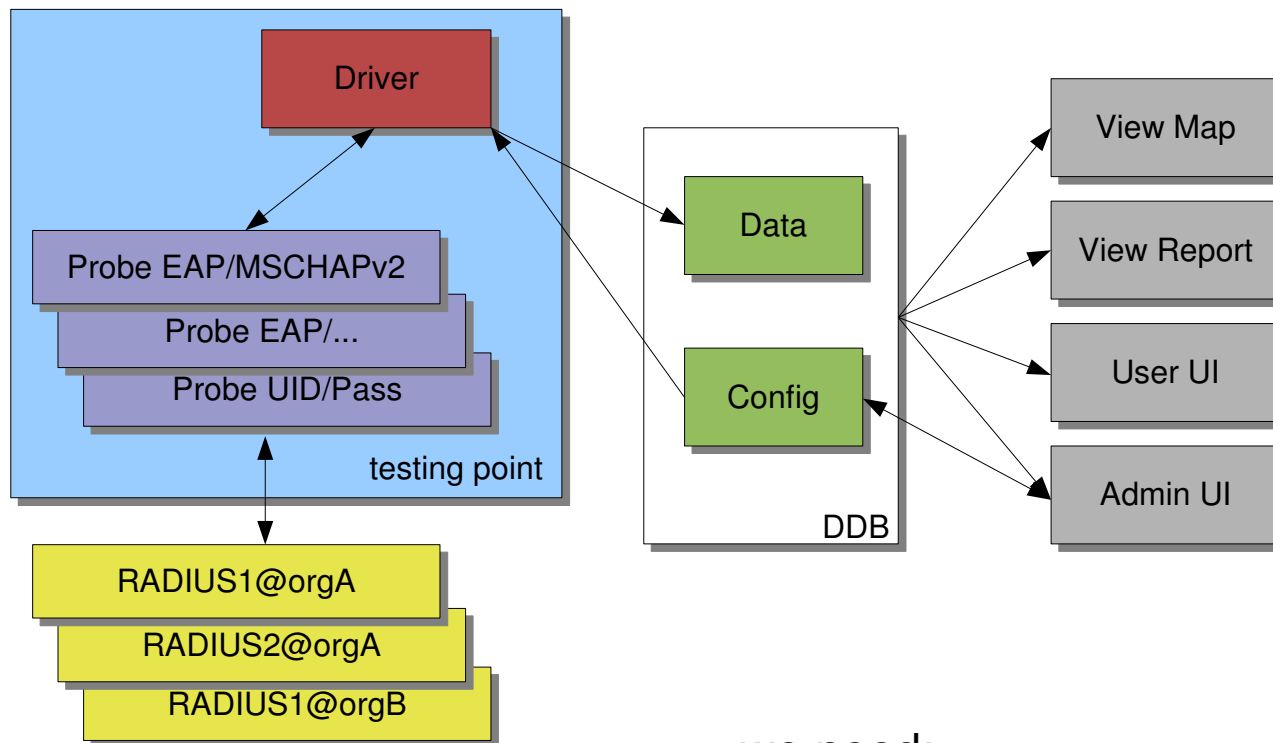
4) visitors from **@fm.vse.cz** won't be authorized at **vse.cz**. They get **access-reject (1)**.

I took our CZ NREN #1 server down just for this cool image...

Why they are not using #2?!

Only faf.cuni.cz, lfhk.cuni.cz, osu.cz, tul.cz and upce.cz seem to be (at least partially) well configured.

	realm: @cesnet.cz	realm: @faf.cuni.cz	realm: @jionice.cuni.cz	realm: @lf1.cuni.cz	realm: @lfhk.cuni.cz	realm: @prf.cuni.cz	realm: @uvtuk.cuni.cz	realm: @fel.cvut.cz	realm: @fffi.cvut.cz	realm: @vc.cvut.cz	realm: @ics.muni.cz	realm: @osu.cz	realm: @sssvt.cz	realm: @tul.cz	realm: @ujep.cz	realm: @upce.cz	realm: @vscht.cz	realm: @vse.cz	realm: @fm.vse.cz	realm: @vutbr.cz	realm: @zcu.cz
locality: cesnet.cz	0	2	2	2	2	2	2	1	1	2	2	1	2	1	2	2	1	1	2	0	1
locality: faf.cuni.cz	0	0	0	0	0	2	0	0	2	0	0	0	3	0	0	0	0	0	2	0	2
locality: jionice.cuni.cz	2	2	0	2	2	0	1	2	2	1	2	2	2	2	2	1	1	1	2	1	2
locality: lf1.cuni.cz	2	2	2	0	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2
locality: lfhk.cuni.cz	0	0	0	0	0	2	0	0	2	0	0	0	3	0	0	0	0	0	2	0	2
locality: prf.cuni.cz	2	2	0	2	2	0	1	2	2	1	2	2	2	2	1	1	1	1	2	0	2
locality: uvtuk.cuni.cz	2	2	0	2	2	0	1	2	2	1	2	2	2	2	1	1	1	1	2	1	2
locality: fel.cvut.cz	3	3	3	3	2	3	3	1	3	3	2	3	3	3	3	3	3	3	2	3	3
locality: fffi.cvut.cz	2	2	1	2	2	2	2	2	0	1	2	2	2	2	1	1	2	2	1	2	2
locality: vc.cvut.cz	0	1	2	2	2	1	1	0	0	0	2	1	3	1	1	1	1	2	0	1	1
locality: ics.muni.cz	1	1	2	1	2	2	2	1	2	2	0	1	3	1	1	1	1	1	2	1	1
locality: osu.cz	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1
locality: sssvt.cz	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
locality: tul.cz	0	1	0	1	0	1	0	0	1	0	0	1	3	0	0	0	0	0	1	0	1
locality: ujep.cz	1	2	1	2	1	1	1	0	0	0	1	1	3	1	0	2	0	1	0	0	2
locality: upce.cz	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	2	2	0	0	0
locality: vscht.cz	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	0	1	1	1	1
locality: vse.cz	1	1	1	1	0	0	1	1	1	1	1	0	1	0	0	1	1	0	1	1	1
locality: fm.vse.cz	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	0	1	1
locality: vutbr.cz	1	1	1	1	1	1	0	1	1	0	1	1	1	1	0	1	0	1	1	0	1
locality: zcu.cz	2	0	2	2	2	2	2	0	1	1	2	2	2	2	2	2	2	2	1	1	0



we need:

- distributed config info
 - sharing testing accounts (security?)
- distributed data storage
- some central web interface to show results