PERSY Network Problems 2017-01-24
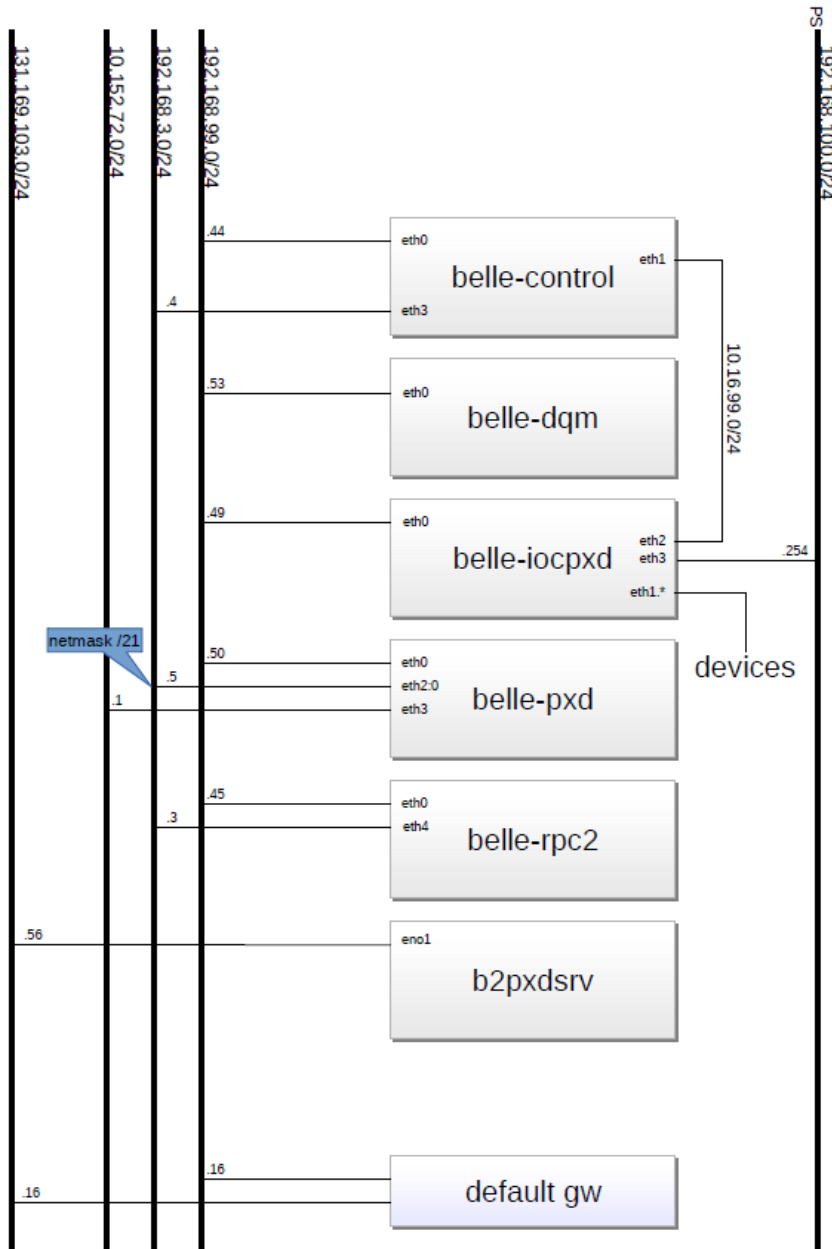
Michael Ritzert

michael.ritzert@ziti.uni-heidelberg.de
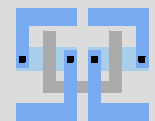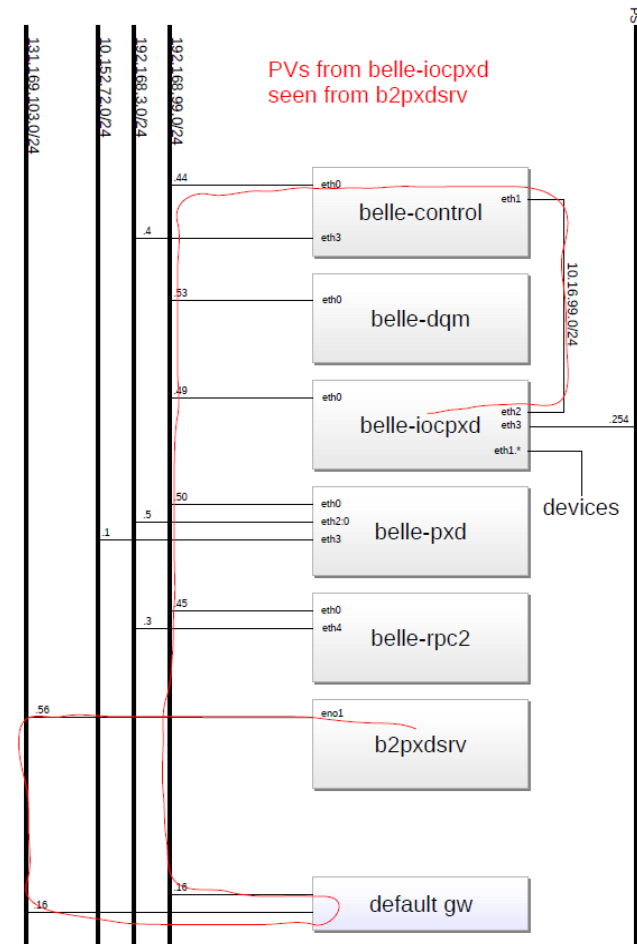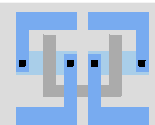
PERSY Meeting

25.01.2017

- Slightly updates picture from last TB.
- Should still be correct.

- Two incidents on Tuesday:
  - In the morning, the direct line between belle-iocpxd and belle-control was down
    => no access to PVs.
  - In the evening, belle-iocpxd started to go in and out of the DESY network
   => no remote access to the host, but PVs accessible.

- The direct line between -iocpxd and -control was down.
  - Seen as „link down" on both ends.
  - This is the cable „over the wall", 10.16.99.0/24.
- Solved by re-plugging the connectors on both ends.
  - Was there really a loose cable or did sth. else happen?
    => to be examined more closely should it happen again.
- Icinga was still down after the move.
  - Missed opportunity to detect it closer to when it happened.
  - Disabled because a lot of errors were to be expected initially.
  - Forgotten to restart once things stabilized.
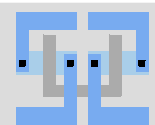 - Running again now.
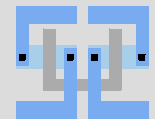
- -iocpxd disconnected from the DESY network.
  - this means we cannot log in remotely, NTP is lost, etc.
  - BUT: the PVs are served over the direct line to -control
    => no immediate effect on module operations.
- Problem traced to a bad connection to the 192.168.99.x switch behind the hut.
  - A device that is in the 131.169.103.x network was in the switch for the 192.168.99.x network together with -iocpxd.
  - Connection to -iocpxd stable again after the offending cable has been moved to the correct switch.
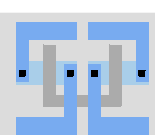
- We have PCs in two network segments managed by DESY:
  - 192.168.99.0/24 — our private TB network.
    No internet access from this network.
  - 131.169.103.0/24 — the general DESY network.
- My interpretation(!) of what happened:
  - Details might be different, but the general idea should be correct.
  - DESY's switches can dynamically assign each port = wall plug to any network. I assume they decide based on which MACs are connected. This is similar to what the „big switch" does for our devices, but we have a static assignment.
  - Each port can only be in one network at a time.
  - When MACs from two networks are seen on one port, the port assignment „jumps around".
    => either devices from one net or from the other net are reachable, but never from both nets at the same time.
- Lesson: Be very careful which switch you connect to. Everywhere!
  - Those behind the hut are labeled with the network identification.

Thank you!