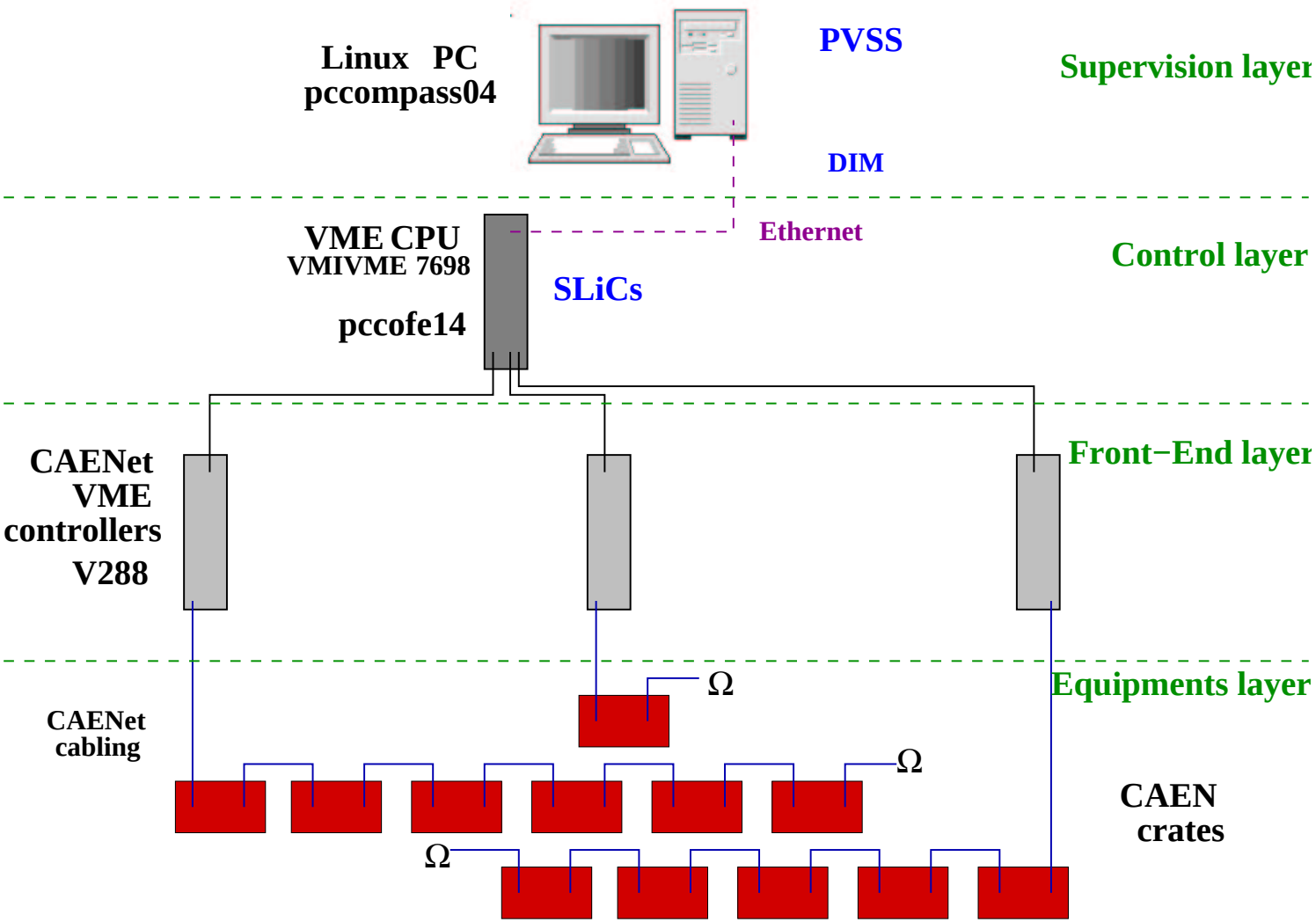
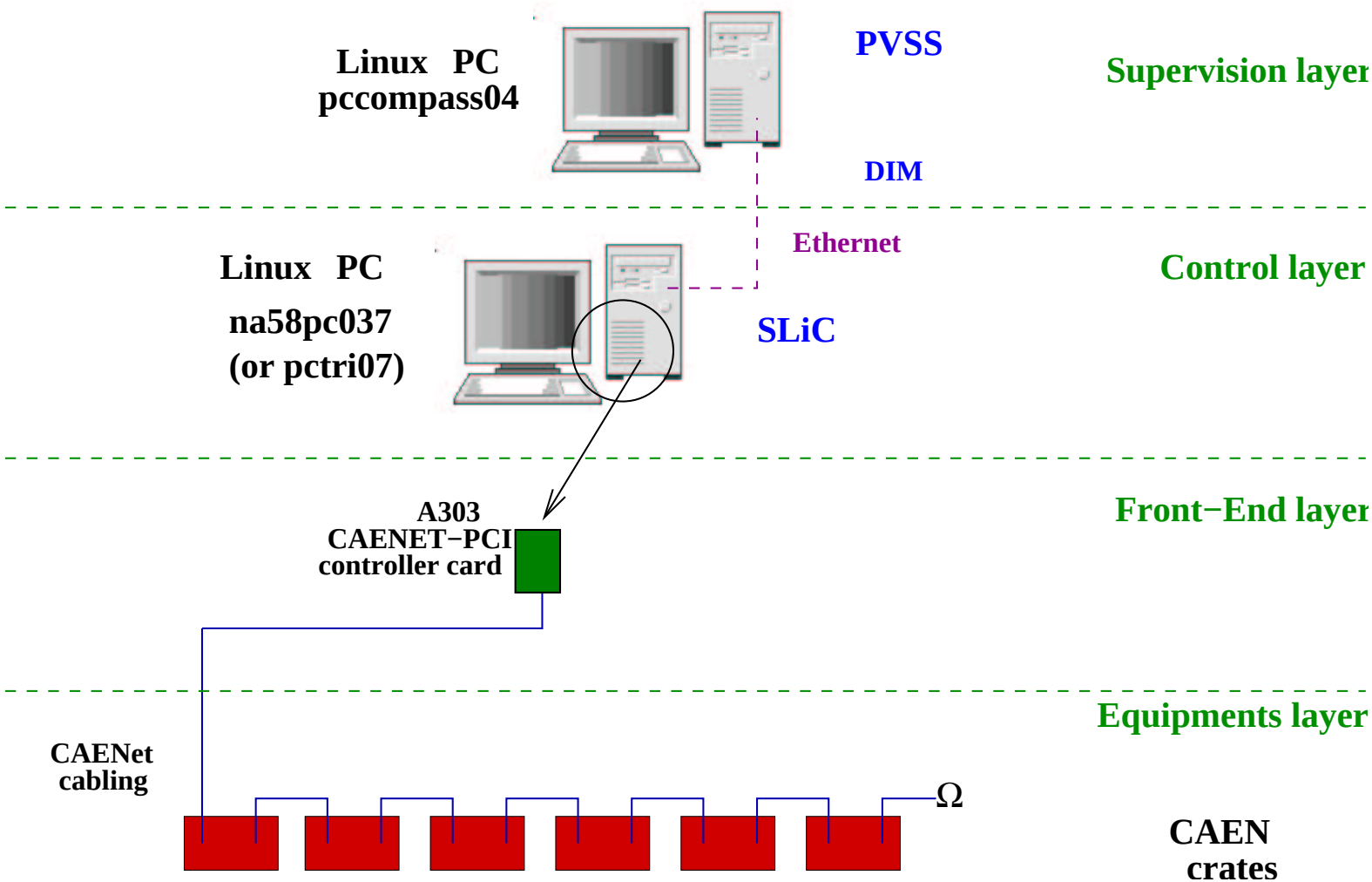
CAEN performance tests

C. Quintans

What we are using (I)



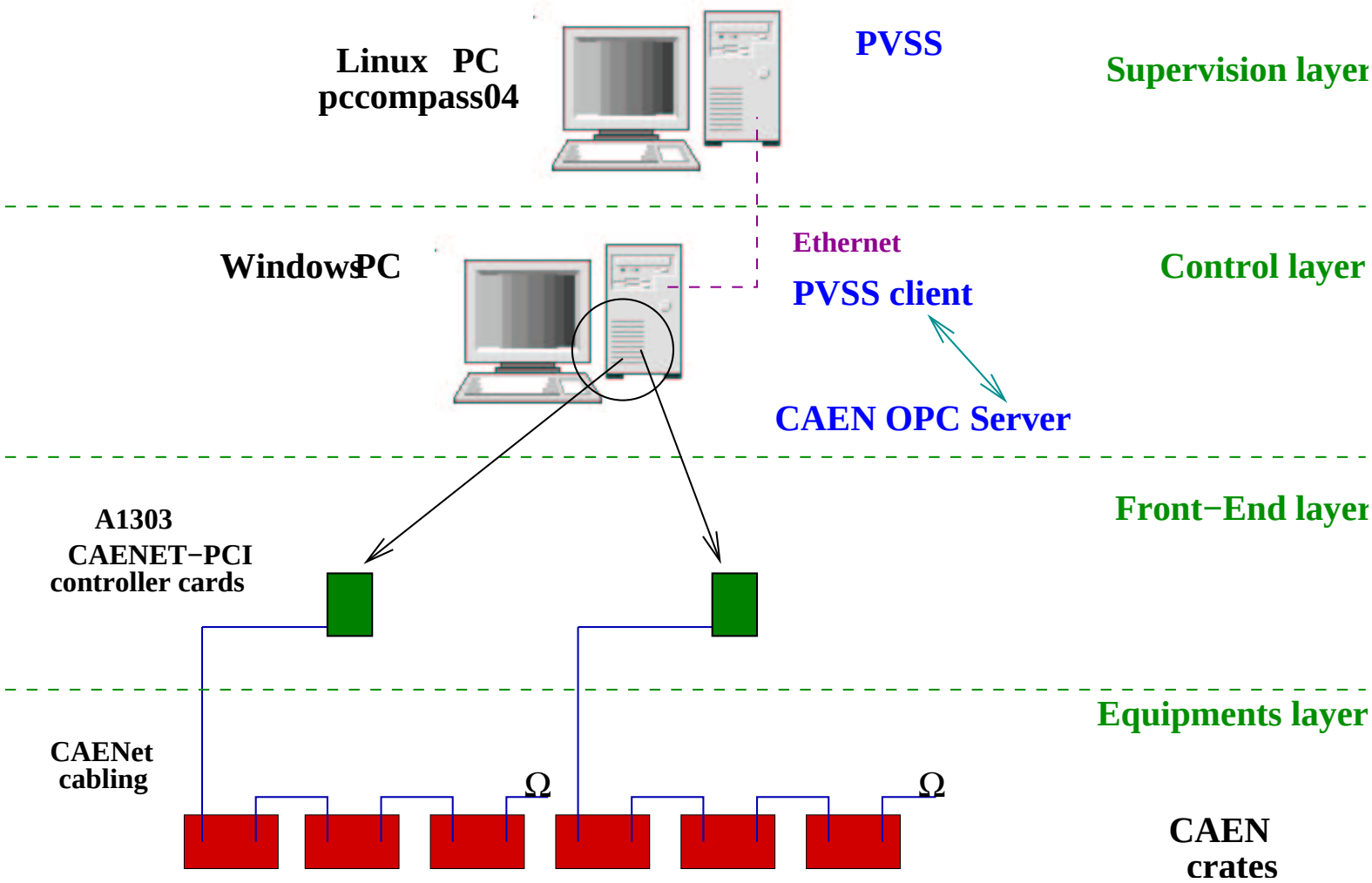
What we are using (II)



What we are using (III)

- COMPASS uses more than 20 CAEN crates of old types (SY127, SY403, SY527), and only one of new type (SY1525)
- Connection from OPC Server to the device is only via CAENET in the case of old type crates. For new type crates, Ethernet is also possible and recommended.
- If we move to the CAEN OPC Server, the goal is to achieve the same performance as with SLiC: fast cycle of 1 to 5 seconds, slow cycle of 3 minutes.

Plan for 2006



The NA60 experience with CAEN OPC Server

The NA60 CAEN HV system (for old type crates only):

- NA60 15 CAEN SY403 crates ($\approx$ 900 HV channels).
- 3 CAENET branches with 5 crates each.
- 1 CAENET-PCI controller card per CAENET branch (3 CAEN A1303 cards in total).
- 1 CAEN OPC Server running in a Windows XP computer.
- 3 groups defined on the OPC client side (1 per CAENET branch), with a refresh cycle of 1 minute.

Performance

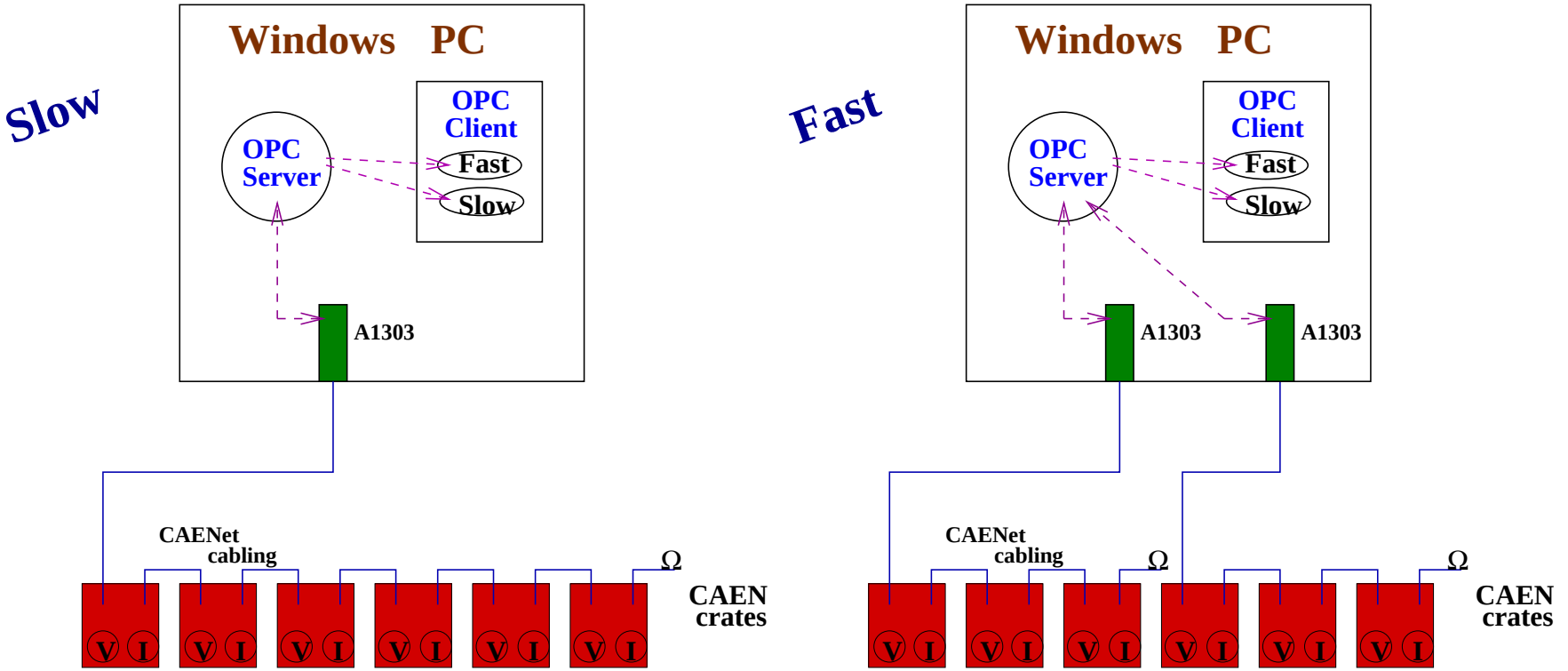
For some items, we need a fast reading cycle (like for Imon). But:

- COMPASS SY1527 crate controlled via CAEN OPC Server consists of only 24 channels, with a cycle of 30 seconds.
- The NA60 15 SY403 crates are controlled in groups of 190 channels (at max) with a cycle of 1 minute.

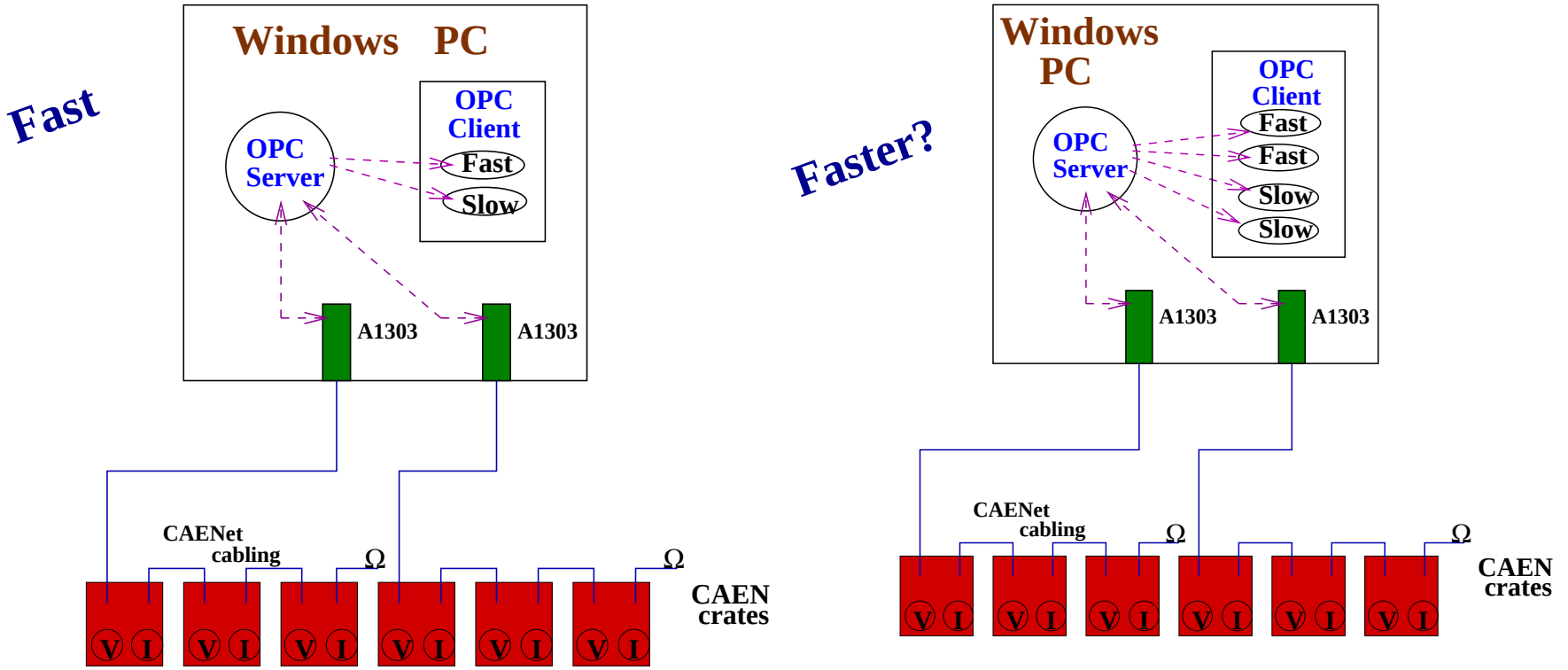
We need performance tests!

We must learn where the bottlenecks are.

Performance: identify limitations (I)



Performance: identify limitations (II)



Performance: identify limitations (III)