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BACK-END ELECTRONICS FOR LOW BACKGROUND AND MEDIUM SCALE PHYSICS EXPERIMENTS BASED ON AN ASYMMETRIC NETWORK

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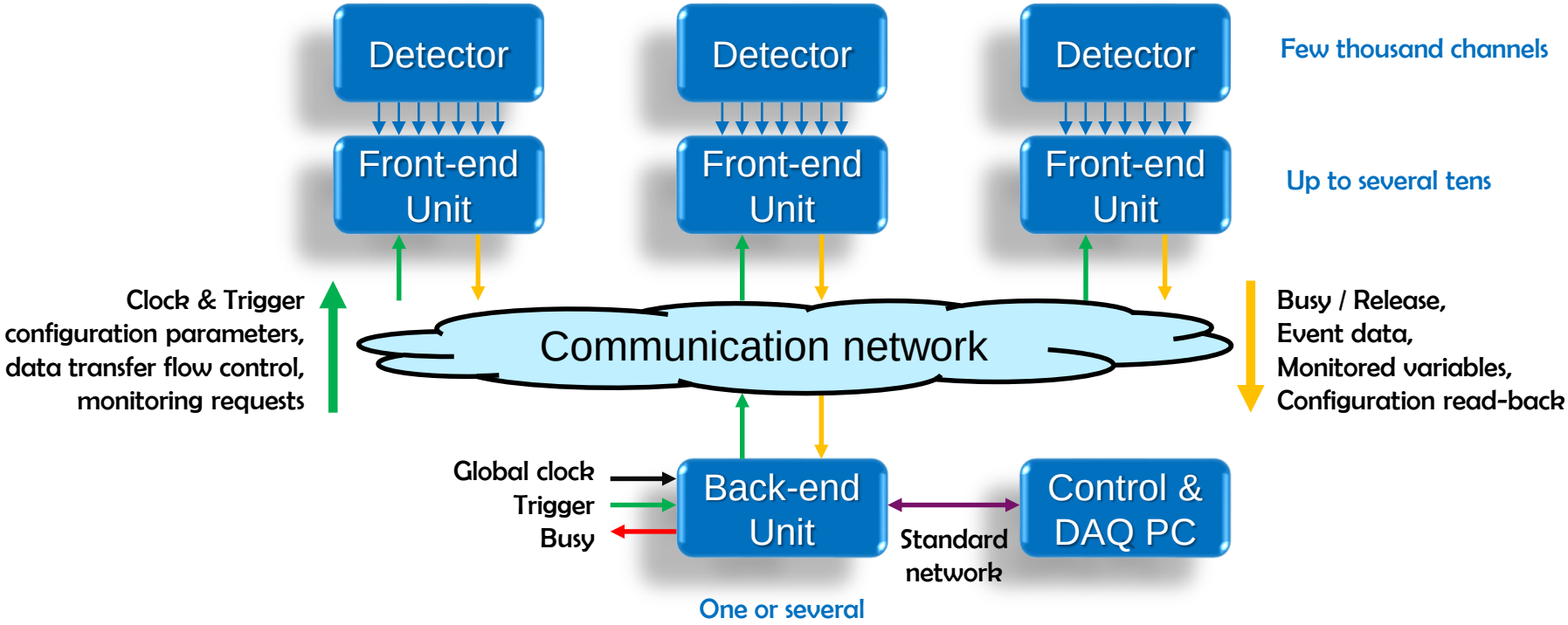
TYPICAL DAQ FOR A SMALL / MID-SCALE PHYSICS EXPERIMENT



DAQ rate typ. < 1 Gbps i.e. 10 Tbyte/day

Proposed concept

- A fanout structure in the back-end to front-end direction

  → *natural choice for deterministic latency clock and trigger distribution*

- A set of medium-speed point-to-point links in the opposite direction

  → *bandwidth per link = DAQ bandwidth / Number of front-ends = typ. ~100 Mbps only*

BACK-END UNIT DESIGNED