

Four things Brainboxes does inside a panel

You need four more Ethernet drops, the enclosure is full, and a bigger enclosure is not on the table.

1



Sixteen ports where eight were

SW-7617: sixteen 10/100 ports and an SFP slot on one DIN-rail footprint. Four more drops stops meaning **a second switch, a second power feed and a second thing to fail** daisy-chained off the first.

2



Power the camera off the switch

SW-525 PoE on the DIN rail feeds cameras and PoE devices from the switch port, so **one fewer power supply in the panel** and one fewer terminal to land for each device that takes it.

3



I/O that lands on the network

Remote I/O on the rail next to the switch picks up states, counts and temperatures and presents them as **Modbus TCP devices**, without spending the controller's I/O budget or opening its program.

4



The serial device gets a port too

The drive, meter or scanner that only has RS-232 or RS-485 goes on the same network through an Ethernet-to-serial unit, and **the host still sees a COM port**. One network in the panel instead of two.

A data layer beside the controls

Sits outside the control loop and moves information up to MES, historians and dashboards without interfering with machine operation.

One network from inside the panel

Switch, I/O and serial on the same DIN rail, so what leaves the enclosure is one uplink, and the drawing shows one network instead of three.

Where consolidation is the wrong answer

Where the plant network needs segmentation or port-level diagnostics, that is a different class of switch. We will say so, and so will the drawing.