IAV Controller vs. Other Control Options

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| Costs | *IAV Analog Computer Controllers* | *Central BAS Systems* | *Distributed Controls (Smart Thermostats / Controllers or Actuators* |
| **Original hardware** | Low initial hardware costs compared to digital systems. | Requires less hardware, so less cost, but still more expensive than IAV Analog Computer Controllers. | Requires one controller per zone, so initial hardware costs tend to be higher. |
| **System installation and wiring** | Controller comes tested and factory mounted on the IAV valve. Wiring to inputs and outputs are local using network type plugs and cables except for power, which is plugged into a central power supply. Up to 8 controllers with a potential 56 I/O, including occupied/unoccupied, can be tied back to one power interface board. | With less cabinets to install, installation costs are less. Wiring to inputs and outputs is more extensive and more costly. | Smart actuators come mounted to the valve and do not require wiring, making overall wiring costs less than central BAS. However, subnetwork installation and wiring is required. |
| **System programming and commissioning** | Contains dedicated logic requires no programming, no software or commissioning. | Less complicated sub networks. Potential difficulty programming large processors. Trouble- shooting and commissioning programs are more extensive and more costly. | Commissioning is more expensive. Updating software can be expensive and time-consuming. |
| **Hardware and software maintenance** | All control logic is provided in the controller. Points are limited to keep software licensing costs negligible. | Usually more points and high ongoing software licensing. | Usually more points and high ongoing software licensing. |
| **Unit costs** | Typical costs are less than **$700 per unit.** | **$2,500 - $3,500 per unit.** A building with 1,000 controllers and 10 points per controller can add $10,000 per year to software licensing costs. | **$1,800 - $3,000 per unit.** |