For many of you, the 3500 has been the premier turbomachinery protection system choice for decades. For others, you may have heard about the reputation of the 3500, but felt it lacked some key feature you needed for plant-wide asset monitoring. Here is a quick comparative overview highlighting some key enhancements with Orbit 60 helping you make the best decision for your application and organization overall. For more information, please visit [bently.com/orbit60](http://bently.com/orbit60).

### 3500

- Centralized architecture
- Size: 6U (typically 2–3 in a cabinet)
- Single module (TDI) for Configuration access and Condition Monitoring requiring bidirectional data flow
- Only front modules are hot-swappable
- Wide range of unique application-specific cards

### Orbit 60

- Centralized and Distributed architecture
- Size: 3U (4+ in a cabinet)
- Segregated Configuration and Condition Monitoring modules (SIM and CMM)
- All modules are hot-swappable
- PAV card alone can cover 90% of typical inputs, allowing greater flexibility and parts consolidation
  - 50%+ reduction in spares requirement
- Any input channel can have redundant processor providing multiple levels of redundancy (increase availability)
- Distributed deployment: multiple modules can communicate within the chassis and among other chassis through bridging
  - 50%+ reduction in field wiring requirements for a new project
- Any dynamic input channel can be used for Keyphasor input
- Publishes sensor data to CS and receives process data from the CS

### Key Features

- **3500**
  - Each A/D processor supports the 4 channels on that module
  - Single chassis architecture: only modules within the unit can communicate with each other
  - Supports 4 Keyphasor inputs
  - Publishes sensor data to the control system
  - No status indicators on I/O (rear) side of rack
  - OK/Not OK status in fault types
  - Electro-Mechanical relays
  - Modules are designed for specific functions
  - External display only (VGA)
  - Dynamic vibration channel fixed and limited to 800 lines of spectral resolution
  - Optimized for fluid Film Bearing Machines
  - Jumper-configurable input modules
  - No front-end rack health telemetry data

- **Orbit 60**
  - Any input channel can have redundant processor providing multiple levels of redundancy (increase availability)
  - Distributed deployment: multiple modules can communicate within the chassis and among other chassis through bridging
  - Any dynamic input channel can be used for Keyphasor input
  - Publishes sensor data to CS and receives process data from the CS
  - LEDs for each channel with detailed health data covering module, wiring, and transducer (front and rear)
  - Electro-Mechanical and Solid-State relays
  - Modules are architected to make all data available for a broad range of applications
  - Configurable on-board and external display—ethernet
  - Configurable dynamic vibration resolution (3200+ lines)
  - Optimized for all machine types including REB
  - Jumperless, channel-level configuration, native support for positive voltage powered transducer types
  - Telemetry data available for device health monitoring and diagnostics

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