



Collection Server

In certain industrial applications, it is not possible to place the Primary Receiver Node and the Machine Condition Monitoring (MCM) software computer in the same location. For these scenarios, KCF Technologies offers a Collection Server.

The Collection Server hosts one or several primary receivers that receive data wirelessly from their nearby sensor nodes. Then, the Collection Server relays the data to the MCM software computer via a local or wide area network. This capability enables the user to organize a set of receiving nodes far from the MCM software computer (on the roof of a building, or through a steel-walled enclosure for example). The Collection Server also makes it possible to set up wireless sensor groups in several locations throughout the plant, or to have a semi-portable receiver station.



Give Your Machines a Voice™

REMOTE ACCESS

KCF's Collection Server enables the user to place wireless sensors in remote locations where wireless transmission is not possible, setting up a local receiver station that communicates to the MCM computer via hardwire. A single Collection Server can pull data from a series of isolated locations in a plant. The device can operate unattended and can be managed remotely if necessary.

RELIABLE DATA

The SmartDiagnostics® Collection Server is essentially a computer serving a single purpose: to analyze the data collected from the sensor nodes, providing guaranteed delivery of sensor information even when MCM is offline. The Collection Server is not an alternative to the MCM application, but instead complements it by preprocessing the sensor data before conveying the information to the computer.

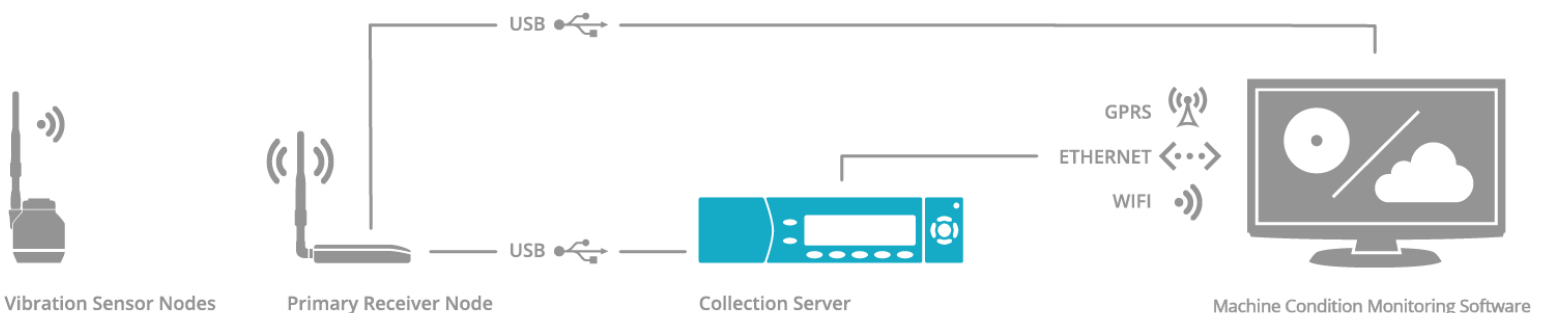
POTENTIAL NETWORK

In addition to running the MCM software straight from a computer, the server can be connected to the network via:

- Ethernet (IEEE 802.3)
- WiFi (IEEE 802.11)
- Cellular data network

Each option has its own benefits depending on the setup of the plant.

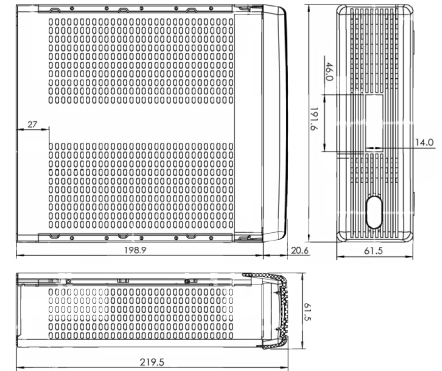
The SmartDiagnostics® System





Collection Server Specifications

Size	198.1mm x 248.9mm x 83.8mm (7.8in x 9.8in x 3.3in)								
Weight	1.28kg (2.82 lbs)								
Power Supply	110-240 VAC 50/60Hz								
Power Consumption	≤ 65 Watts								
Network Communications Supported	Wi-Fi, Ethernet, Cellular								
Environment	Operating temperature 0°C to 50°C Storage temperature -20°C to 70°C								
Max Number of PRNs Supported	Tested up to 5								
Software	Ubuntu Linux 12.04								
Offline Cache	<ul style="list-style-type: none"> Offline caching up to 1.5 million vibration data samples Automatic transmission of cache when communication is restored <p>Example: 50 sensor system with 1 Collection Server</p> <table border="1"> <thead> <tr> <th>Burst Vibration Collection Frequency</th> <th>Days of Offline Storage on Collection Server</th> </tr> </thead> <tbody> <tr> <td>1 hour</td> <td>1250 days</td> </tr> <tr> <td>10 min</td> <td>208 days</td> </tr> <tr> <td>1 min</td> <td>20 days</td> </tr> </tbody> </table>	Burst Vibration Collection Frequency	Days of Offline Storage on Collection Server	1 hour	1250 days	10 min	208 days	1 min	20 days
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APPLICATIONS

The KCF SmartDiagnostics® Collection Server is an excellent choice when an expensive personal computer is not needed or financially feasible.

Ethernet and WiFi would be good choices for a local network of nodes. WiFi would be a better choice if some of the machinery or nodes are in remote or hard-to-reach areas of a facility, but still accessible to the WiFi network. For remote facilities that need monitoring, connecting the Collection Server via a cellular network would be the best option.

FEATURES & BENEFITS

- Simple setup and configuration
- Enables location of sensor clusters in remote and varied locations
- Data is automatically passed through to the MCM Application Server
- Three options for connectivity: WiFi, Ethernet, and Cellular network