

Valve Condition Monitoring Enters a New Era

Score Diagnostics Limited, part of the Score Group of companies, are proud to present an easy to install, intrinsically safe solution for wirelessly monitoring through seat leakage in valves with isolating capability.

The initial release of the MIDAS® Sensor was widely welcomed in the marketplace, as the benefits of having a non-intrusive method to detect, quantify and trend through valve leakage was clear to process owners and operators. Because of the benefits it delivered, its reliability and relative ease of installation, MIDAS® Sensor was very quickly adopted and deployed on new-build projects and sites around the world. However, the areas where the market could best benefit from the use of MIDAS® Sensor were on existing aging assets and remote sites, where knowing the condition of aging valves is critical, but there are technical and financial challenges associated with adding wiring and cable trays. This therefore required a new solution.

The wireless MIDAS® Sensor solution comprises of a wireless transmitter, mounted locally to the MIDAS® Sensor and a wireless receiver located up to 650m from the transmitter. The MIDAS® Sensor and both wireless devices are certified for use in Zone 1 hazardous areas. The transmitter gathers data from the MIDAS® Sensor, encrypts the data for security purposes then sends the data wirelessly, using a proprietary communication protocol. The transmitted data is collected by the receiver then transmitted through 3G, TETRA, WLAN or Ethernet to either a secure offsite server or a client owned local server, depending on the client's requirements.



**Midas Sensor
Installed on Valve**



**Wireless Transmitter Unit
Local to Midas Sensor**

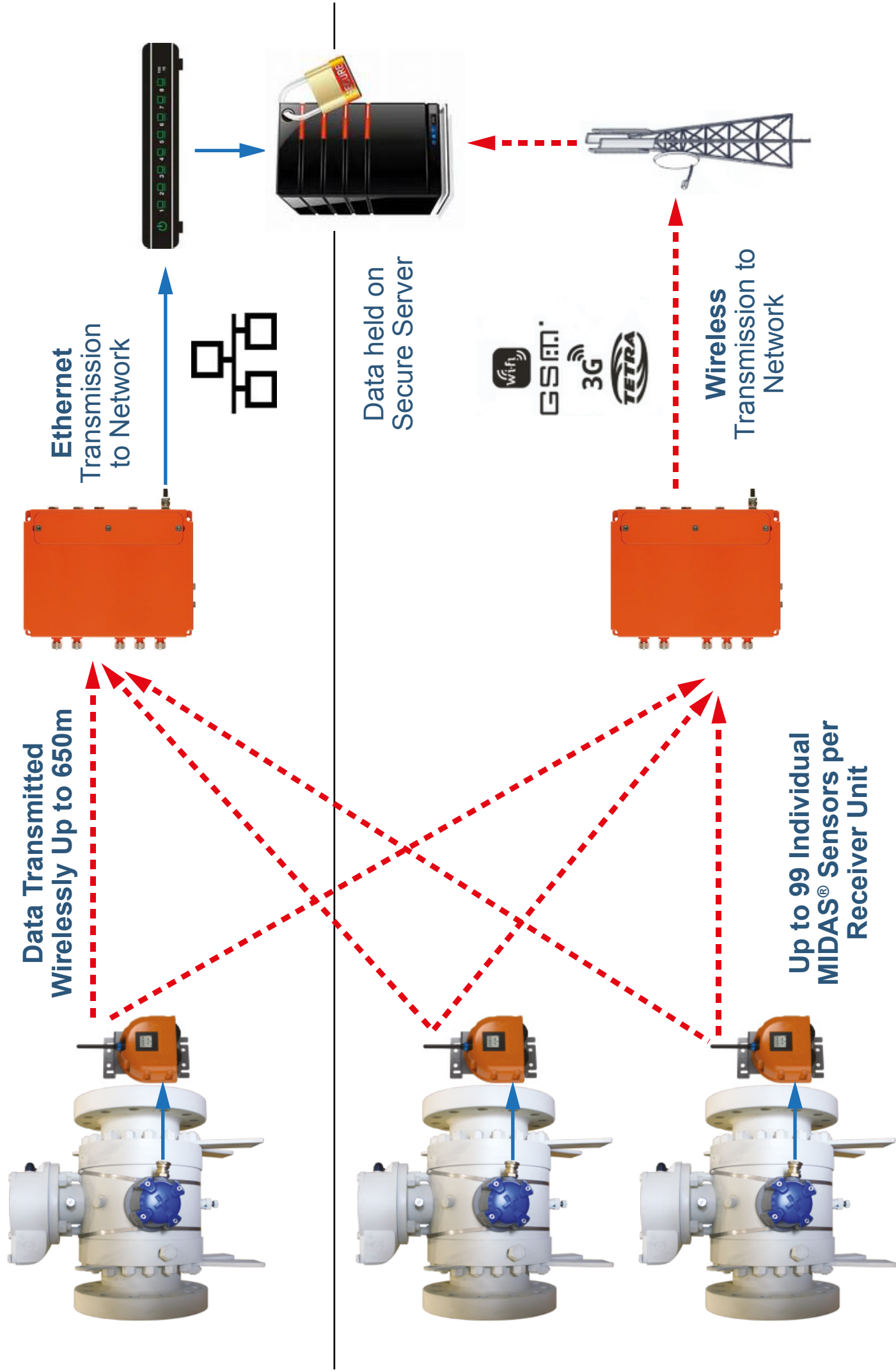


**Wireless Receiver
650m from Midas Sensor**

The proprietary wireless communication protocol has been designed to make the system truly a “plug and play” solution. With ‘out of the box’ preconfigured devices, the network automatically self-organises on startup, reducing network setup time compared to other wireless systems, such as Wireless HART. The transmitter devices continually scan to determine the best frequency channel and receiver for the data to be transmitted to, so that in the event a receiver fails or communication is lost, data will be automatically routed to another receiver within the network, thus ensuring reliable and continuous monitoring capability is maintained at all times.

Our existing customers understand that Score Diagnostic's range of products introduced a step change in valve safety and performance management, putting the customer always in control. The wireless MIDAS® Sensor extends this monitoring coverage even further and provides benefits such as;

- Cost effective installation – Less cabling and less engineering
- Easy setup, installation and configuration of network
- Up to 650m wireless range
- Secure data transmission through existing infrastructure: 3G, TETRA, WLAN or Ethernet
- Internal sensor and network diagnostics
- Flexible solutions for both new-build and existing sites
- Easy to expand sensor network over time
- No special tools required for unit configuration
- ATEX/IECEX Certified (Wireless Transmitter: II 2G Ex ib IIC T4) (Wireless Receiver: II 2G Ex mb (ib) IIC T4)
- CSA Certification Pending (Q1 2017)



Data Transmitted Wirelessly Up to 650m

Ethernet Transmission to Network

Data held on Secure Server

Wireless Transmission to Network

Up to 99 Individual MIDAS® Sensors per Receiver Unit