

xMet

WEATHER STATION GATEWAY

Weather, Synchronized with Structure

Professional met data—wind, temperature, humidity, pressure, rain, solar—time-aligned with your SHM streams for richer decisions.

Why xMet

- Plug-and-play with Gill MaxiMet®/MetPak® and other Modbus RS-485 weather stations.
- Correlate wind, rain, temperature, humidity, pressure, and solar radiation with strain, tilt, and vibration.
- Real-time streaming to Voyager® + Store&Forward® buffering to prevent data loss.
- GPS/DigiSync® timing for precise alignment with xWave®, xStrain®, xGeo®, and xInc®.
- Rugged IP67 aluminum enclosure; -20 °C to +60 °C operation; low power, PoE-friendly.

What makes it different

- Wide sensor compatibility: MaxiMet® series + any Modbus-capable device.
- Flexible comms: Ethernet standard; optional Wi-Fi, DigiMESH®, GSM/4G for remote sites.
- Time sync: GPS (sub-µs) or DigiSync® (sub-ms) across distributed networks.
- Local resilience: optional SD/eMMC MiniSEED logging with ring/trigger modes and compression
- Embedded web UI: configuration, live visualization, logs, backup/restore, diagnostics.

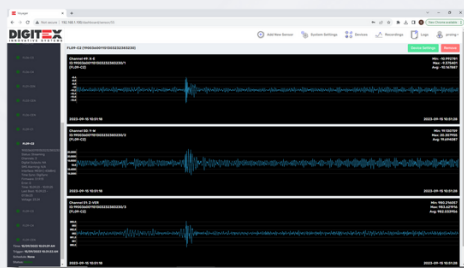
Made for

Bridges • Buildings • Dams • Tunnels • Pipelines • Mines/Industry • Research

CE • ISO • Calibration certificate

How xMet fits your SHM

- Add environmental context to your models—wind loading, thermal effects, precipitation events—then correlate with vibration, tilt, and strain.
- Deploy as a compact gateway on each site, streaming to Voyager® and your central xPlorer® node alongside other Digitex units.
- Any topology: wired CAT5e/PoE or wireless backhauls via Wi-Fi, DigiMESH®, or GSM/4G.



Configure your unit

Comms: Ethernet (10/100); optional Wi-Fi, DigiMESH®, GSM/4G.

Sensor link: RS-485 Modbus (e.g., MaxiMet®/MetPak®).

Streaming & storage: Real-time to Voyager® + on SD/eMMC with Store&Forward®.

Sampling & triggers: 1-1000 SPS; threshold/relative voting; pre/post buffers.

Time sync: GPS or DigiSync® (sub-ms alignment).

Power: 9-28 V DC, PoE-ready; low power; optional battery & surge protection.

Options: Wi-Fi, GPS, GSM/4G, power protection, 32 GB SD, battery pack, relay outputs

Outcome snapshot

- Weather-to-structure correlation from day one—clean, aligned channels across all sites.
- Resilient acquisition during link drops thanks to Store&Forward®.
- Unified workspace: configure, visualize, and export within the Digitex Sentry System stack.

Result: Faster root-cause analysis —because your alarms “know the weather.”

Your workflow with Digitex

- **Instrument:** mount gateway; connect RS-485 weather station; network.
- **Acquire:** stream in real time to Voyager® or log locally;
- **Analyze:** trend wind/rain/temperature vs. vibration; export MiniSEED.
- **Act:** set weather-aware triggers and stakeholder dashboards.

Scale from a single unit to hundreds—daisy-chain or star topologies across structures.

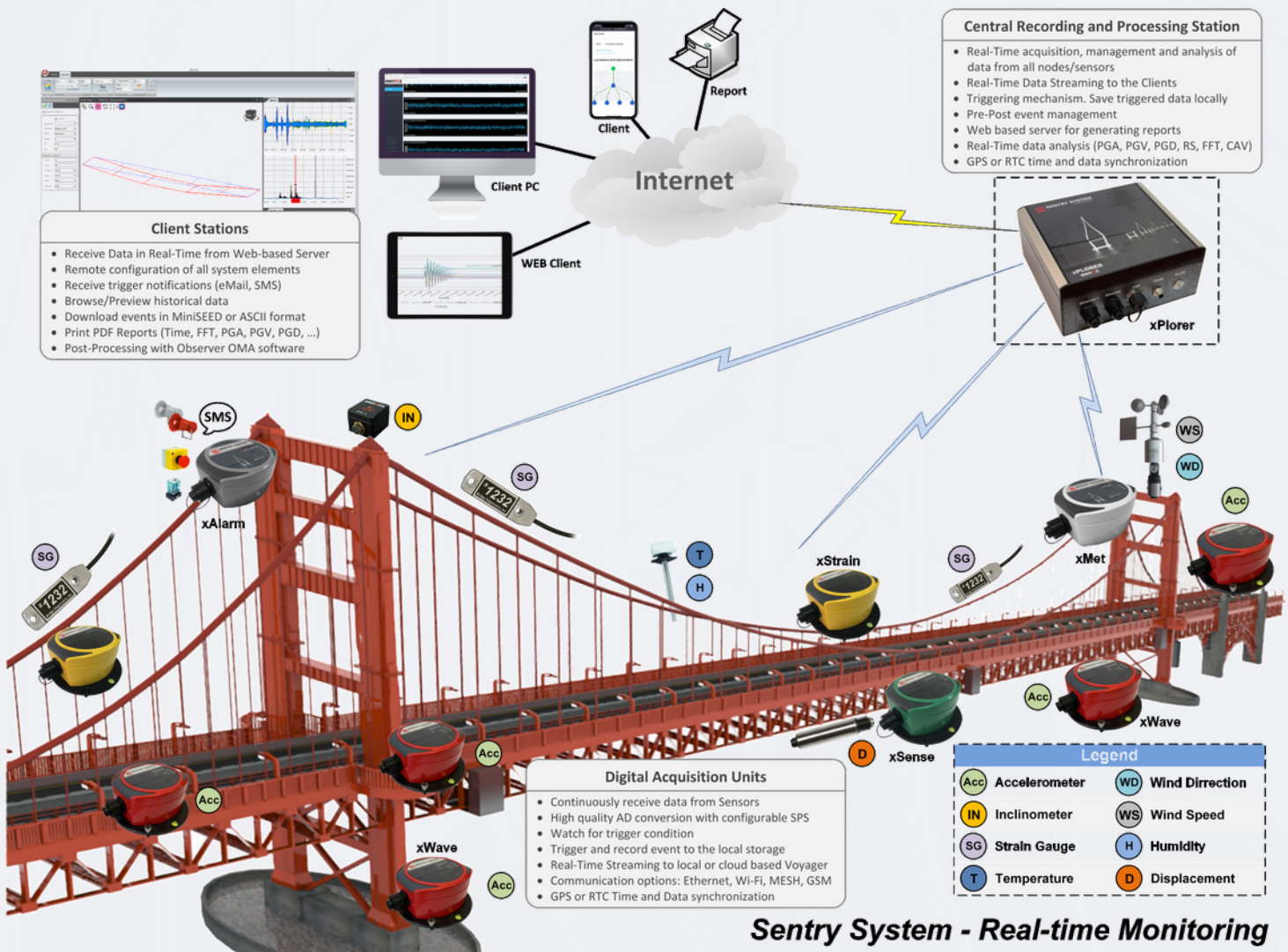
DISTRIBUTED SYSTEM OVERVIEW

xDAS® is Digitex Systems' distributed Structural Health Monitoring (SHM) solution, designed to instrument large and complex structures with networks of intelligent sensors. By combining multiple digital acquisition units, xDAS provides a scalable, modular, and reliable way to capture the dynamic response of structures in real time. From bridges and dams to skyscrapers, tunnels, pipelines, and industrial facilities, xDAS delivers the 'pulse' of any structure continuously, enabling operators to assess safety and performance instantly.

The system integrates seamlessly with Digitex's Voyager® software running on xPlover® or in the cloud, providing centralized acquisition, storage, and analysis. Each xDAS node digitizes sensor data directly at the source, ensuring noise-free transmission over Ethernet, Wi-Fi, DigiMESH®, or low-cost CAT5 cabling. The modular architecture allows hundreds of units to be combined in daisy-chain or star topologies, making it ideal for projects of any scale.

DISTRIBUTED SYSTEM MEMBERS

The Distributed Sentry System family of products consists of several units that can be installed as standalone devices or as part of a complete SHM deployment: **xPlover** – Central Acquisition and Processing Unit, **xWave** – Digital Accelerometer Unit, **xSense** – Voltage Sensor Digitizer Unit, **xStrain** – Bridge Sensor Digitizer Unit, **xGeo** – Digital Geophone Unit, **xInc** – Digital Inclinator Unit, **xMet** – Weather Station Gateway, **xAlarm** – Digital Alarming Unit.



ABOUT DIGITEX

Digitex is a company specialized in design and development of real structural health monitoring systems for a variety of industries and applications including: bridges, tall buildings, campuses, windmills, oil rigs and more. Digitex's innovative solution for ambient vibration measurements and quick health assessment of structures is jointly developed and validated with our partners and advisors from the Universities. When properly configured, the Digitex system is capable of measuring and responding to both natural and man-made events such as: earthquakes, wind, explosions and accidental heavy impacts.