

xRover

CENTRAL ACQUISITION WITH DIGITIZER

High-Channel Control, One Box

Modular, low-noise central acquisition with Voyager® onboard—configure, synchronize, trigger, store, report, and stream from a single, rugged unit.

Why xRover

- Centralized topology with high-channel, low-noise digitization.
- Works with acceleration, velocity (geophone), strain/bridge, voltage/current, RTD, and weather stations.
- Voyager® built-in for live setup, triggering, Ring Buffer recording, streaming, and PDF reports.
- GPS/DigiSync® timing keeps every channel aligned across the site.
- Data resilience: local retention + Store&Forward®, MiniSEED/SeedLink, optional secure FTP/cloud.
- Optional xRover MAX: 10" industrial touchscreen for on-site control

What makes it different

- Modular I/O (up to four plug-in ADC/I/O boards) so the channel mix matches the project.
- Serious alarming: relays/TTL plus SMS/email notifications.
- Serviceable & rugged: industrial enclosure, OTA firmware, LEDs for Power/Battery/Sync health.
- Integrated UPS (~20 h) to ride through outages without data loss.

Made for

Long-term SHM of bridges, buildings, tunnels, dams, stadiums • Earthquake engineering & vibration • Centralized high-channel plants and corridors • Labs, PoC, acceptance testing • Sites needing immediate local visualization (xRover MAX).

CE • ISO • Calibration certificate

How xRover fits your SHM

- Acts as your central brain when you prefer a cabinet-based, high-channel architecture.
- Ingests many analog sensor types, time-syncs them, triggers actions, and publishes streams—all inside one device.
- Serve both field crews and remote teams with the same Voyager® workspace (MAX adds on-cabinet control).



Configure your unit

Comms: Multi-port Ethernet; optional Wi-Fi, DigiMESH®, 4G.

Timing: GPS/DigiSync® (sub-ms).

Acquisition: Up to 4 ADC/I/O boards; 24/32-bit; 50-1000 sps.

Recording: Ring Buffer + events; MiniSEED/SeedLink; Store&Forward®.

Alarming: Up to 10 relays/TTL; SMS/email.

Power/Physical: 110/220 VAC; UPS (~20 h); 250×380×120 mm, ~7.5 kg.

Outcome snapshot

- One cabinet delivers high-density, synchronized data with built-in resilience and alarms.
- Faster decisions via on-board processing and automated reporting—no extra PC software.
- Lower lifecycle cost and simpler operations with a single platform.

Result: High-channel, synchronized acquisition in one cabinet—faster decisions, fewer boxes to maintain, lower OPEX, easy scale-up.

Your workflow with Digitex

- **Instrument:** mount cabinet; wire sensors and backhaul; connect GPS.
- **Acquire:** configure channels in Voyager®; run Ring Buffer; stream via SeedLink.
- **Analyze & report:** preview live charts, review events, auto-generate PDFs; export MiniSEED.
- **Act:** map triggers to relays/SMS/email; verify with test events.
- **Operate & scale:** monitor health LEDs/UI; OTA update; add modules.

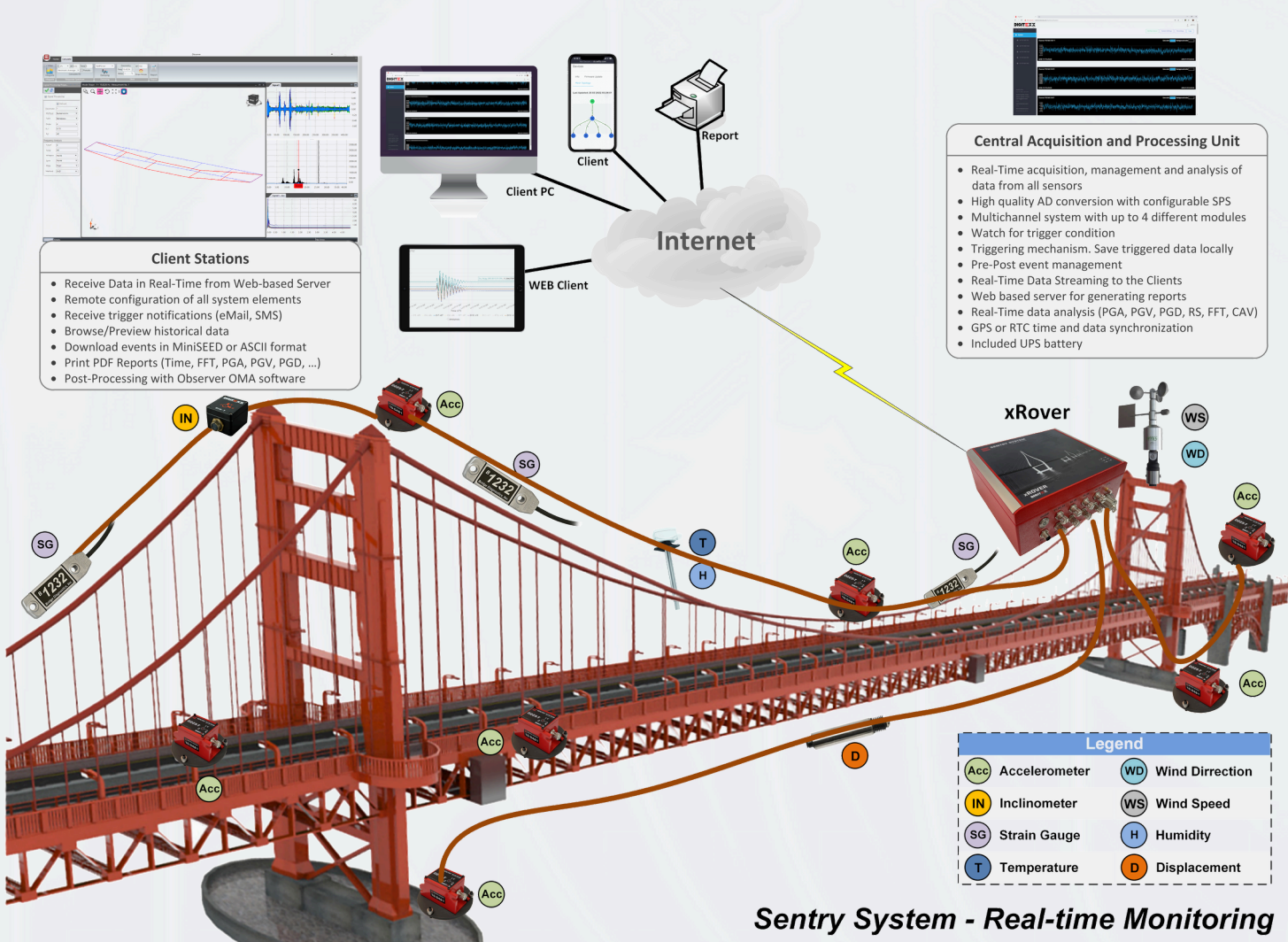
CENTRALIZED SYSTEM OVERVIEW

xCAS is Digitex Systems' centralized Structural Health Monitoring (SHM) solution, built around high-channel acquisition cabinets and a central processing hub. By concentrating multi-type sensor inputs into one modular unit (xRover) and managing them with Voyager® on xPlorer® or in the cloud, xCAS delivers synchronized, low-noise data, real-time streaming, automated reports, and event-driven alarms from a single, serviceable platform. It fits projects where cabinet-based wiring is preferred—plants, buildings, tunnels, dams—while scaling cleanly in channel count and functionality.

The system integrates seamlessly with Voyager® for centralized acquisition, storage, analysis, alarming, and publishing. Each cabinet digitizes signals at the source with 24/32-bit ADCs and applies GPS/DigiSync® timing for sub-ms alignment, then streams to client stations for live preview and reporting. Local Ring Buffer + Store&Forward® protects continuity during outages, and automated PDF reports keep stakeholders informed.

CENTRALIZED SYSTEM MEMBERS

xRover — Central acquisition & processing cabinet with Voyager®; GPS/DigiSync® timing; Ring Buffer & Store&Forward®; alarms & reporting. **D-Series Digital Accelerometers** — D-305 / D-230 / D-225 / D-211; high-fidelity, synchronized acceleration measurement for distributed mounting points feeding the xRover hub. **Together:** synchronized, low-noise acceleration data, event logic, and reporting from one cabinet.



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.