MOBILTEX

TECNOLOGÍA TOTAL
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CorTalk® RMU1-SUB

SUBGRADE REMOTE MONITORING OF CATHODIC PROTECTION ON PIPELINE ASSETS AT TEST STATIONS, COUPONS, & BONDS

CorTalk

THE INDUSTRY'S TOUGHEST RMU TAKES SAFETY TO THE NEXT LEVEL.

Our new RMU1-SUB delivers a discrete yet powerful tool for remote monitoring of Pipe-to-Soil potential readings, CP single or double coupons and structure bond applications — engineered to perform in the most demanding subgrade applications utilizing B&T standard valve boxes for bullet-proof installations.

The RMU1-SUB collects and transmits CP performance data and GPS location as frequently as every few hours via satellite or cellular network. This provides technicians with a highly detailed, near-real-time view of the CP system and helps identify short-lived events that may impact CP performance.

When combined with the MOBILTEX CorView web analytics platform, a network of RMU1-SUB devices provides corrosion engineers deep insights into the performance of the CP system, powerful reporting, and instantly identifies areas of concern.

ELIMINATE PERMITS REQUIRED TO STOP TRAFFIC IN ORDER TO COLLECT READINGS — REDUCE COSTS AND COMPLETELY ELIMINATE RISKS TO WORKERS

The RMU1-SUB installation delivers a unique and intelligently designed solution for your most challenging urban and rural applications that improves safety, reduces expenditures, and optimizes integrity programs to become proactive, not reactive.

ADVANTAGES OF CORTALK RMU1-SUB

- Engineered to withstand extreme temperatures, immersion in water for long periods including total freezing within ice, and is HS-20 load rated
- Realize significant safety and operational benefits
- Configurable as a CP coupon or critical bond remote monitor and can obtain pipe-to-soil potential measurements from two connected reference cells
- Multiple analog measurement channels provide accurate measurements for all required AC and DC parameters to meet regulatory requirements and better manage pipeline assets.
- A user-replaceable battery provides up to 10 years of monitoring, data transmission and helps maximize lightning isolation
- Satellite or cellular transmission with cost-effective communication plans
- Intuitive configuration using any web-enabled device

"The RMU1-SUB has worked flawlessly and reliably under the rainiest of conditions here in the Pacific North West. Simple to install and transmitted the data that we needed in the easiest way possible. Being underground also helped deter theft and damage to the test station, which is a big plus in an urban setting."

Corrosion Technician, FORTIS BC™

RMU1-SUB SPECIFICATIONS

ENVIRONMENTAL:

Operating Temperature	-40° to +60° C (-40° to +140° F)
Storage Temperature	-45° to +80° C (-49° to +176° F)
Maximum Altitude	5000 meters above sea level
Humidity	0 to 100% RH
Ingress Protection Rating	IP68 1 metre, 7 days
Load Rating	AASHTO M-306 : HS-20

POWER | COMMUNICATIONS | DATA:

Battery Life	Typically 10 years : readings every 7 days
Internal Battery Measurement	OK, Warning and Low conditions displayed on CorView
Communications	Iridium SBD Satellite (RMU1I-SUB)
	Globalstar Simplex Satellite (RMU1S-SUB)
	Cellular LTE-M B2,4,5,12,13 (RMU1G-SUB)
GPS Receiver	72-channel u-blox 8 series
Datalogger Storage (Factory Enabled Option)	1 million reading points

PHYSICAL:

Weight	500 grams (1.1 lbs)
Size	110mm x 110mm x 230mm (4.33"x4.33"x9.06")
Enclosure	UV Stable, wide temperature polycarbonate

PERFORMANCE:

Pollution Degree	1
External Analog Channels	2 potential, 1 bond shunt, 1 coupon current
Measurement Type	Category 1 (as per CSA C22.2 – 61010)
Analog Ranges (DC & AC True RMS)	Potential: +/-31VDC, 22VAC Current: +/-6mADC, 4.25mAAC Low Range +/-60mADC, 42.5mAAC Med Range +/-200mADC, 140mAAC High Range Bond Shunt: +/-6mVDC, 4.25mVAC Low Range +/-60mVDC, 42.5mVAC Med Range +/-200mVDC, 140mVAC High Range
AC Rejection on DC Readings	>65dB @ 50/60Hz
Lightning Immunity	Survives multiple 30KV surges
Isolated Digital Input	+/-100VDC maximum
	<-3VDC or >3VDC for activation (bi-directional sense)
	Optically isolated (2500V_{RMS})
DC Measurement Accuracy (over operational temperature)	Potential: +/-1% + 1mV Current: +/-0.75% + 10uA Low Range +/-0.5% + 15uA Med Range +/-0.5% + 35uA High Range Bond Shunt: +/-0.75% + 2uV Low Range +/-0.5% + 5uV Med Range +/-0.5% + 15uV High Range
AC Measurement Accuracy (over operational temperature)	Potential: +/-1.25% + 5mV, 20mV floor Current: +/-1% + 5uA, 5uA floor Low Range +/-1% + 15uA, 50uA floor Med Range +/-1% + 50uA, 150uA floor High Range Bond Shunt: +/-1.1% + 25 uV, 5uV floor Low Range +/-1.1% + 35 uV, 50uV floor Med Range +/-1.1% + 75uV, 150uV floor High Range
Coupon Current Shunt	1 ohm
Input Impedance	>20 Mohm (potential) 130 Kohm (bond current shunt)
ADC Resolution	16 bits
Temp. Measurement Accuracy	+/-4° C (+/-7° F) over -40° to +60° C (-40° to +140° F)

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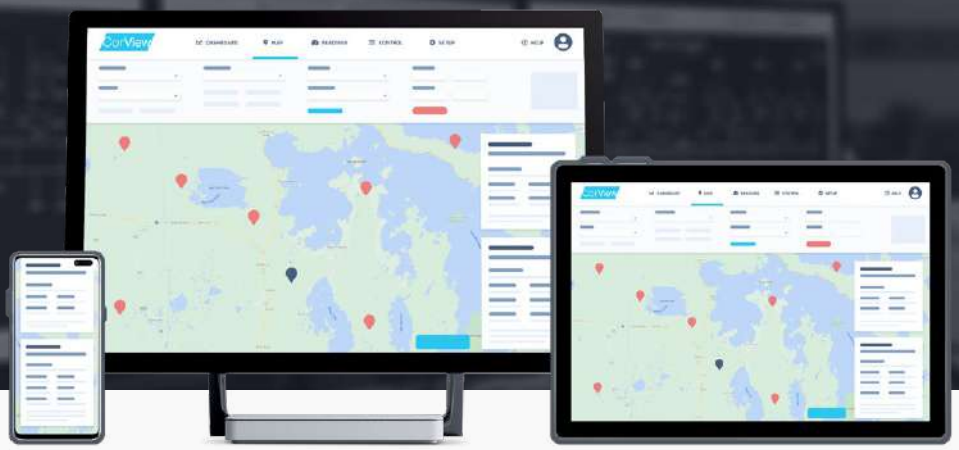
CorView

CORVIEW PLATFORM



MOBILTEX CORVIEW:
POWERFUL VISUALIZATION AND CONTROL — IN ONE PLATFORM

CorView delivers powerful, secure two-way communication capabilities, data storage and reporting for the entire range of MOBILTEX CorTalk remote monitoring devices.

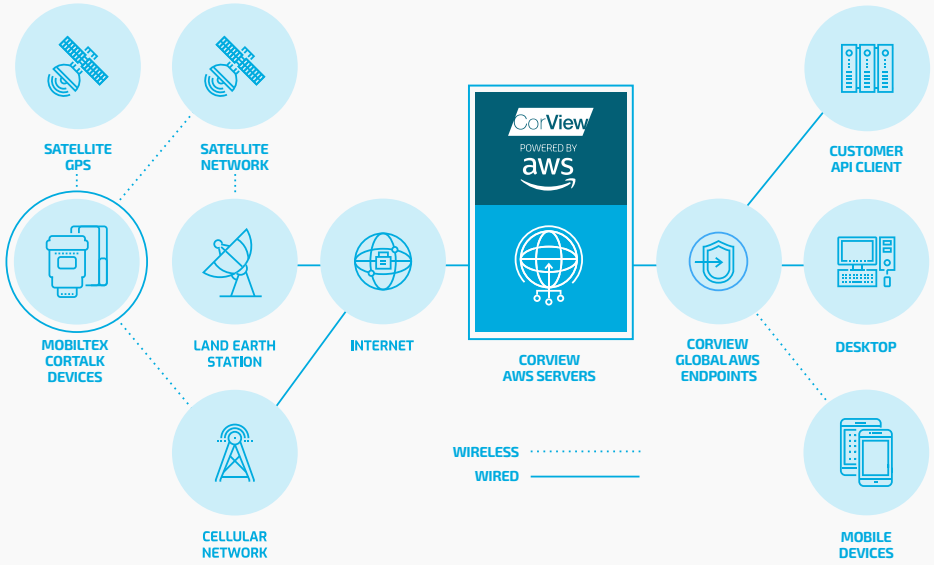
- **INTUITIVE INTERFACE DESIGNED FOR EASE-OF-USE**
  The CorView platform is designed for simplicity. Its thoughtfully engineered UI enables key personnel to quickly and easily access the data repository, reporting functions and remote RMU controls with virtually no training.
- **ACCESS ANYWHERE, WITH ANY WEB-ENABLED DEVICE**
  All data that is transmitted from the RMU devices is stored in the secure MOBILTEX database and can be accessed from any location, providing users instant, comprehensive access to all performance data and activities.
- **CREATE DETAILED REPORTS, GRAPHS AND MAPS**
  Technicians and managers can easily view and download measurement data, create trending graphs and generate reports. CorView also displays easy-to-read maps that provide near real-time display of system status so technicians can see where CorTalk devices are operating normally, performing interruption activities or experiencing alarm conditions.
- **REMOTELY CONTROL AND UPDATE IN-FIELD DEVICES**
  CorView's robust cellular or satellite communication capabilities enable two-way communication with most RMU devices to remotely modify device configurations and to apply software updates and eliminate the need for time-consuming manual system updates.
- **NO I.T. OVERHEAD**
  The CorView platform is entirely hosted and supported by MOBILTEX, all updates and enhancements to the platform are automatic and ongoing.

CLOUD ACCESS

01 **DATA ACQUISITION & CONTROL**

02 **VISUALIZATION & ANALYSIS**

03 **REPORTING, ALARMS & COLLABORATION**



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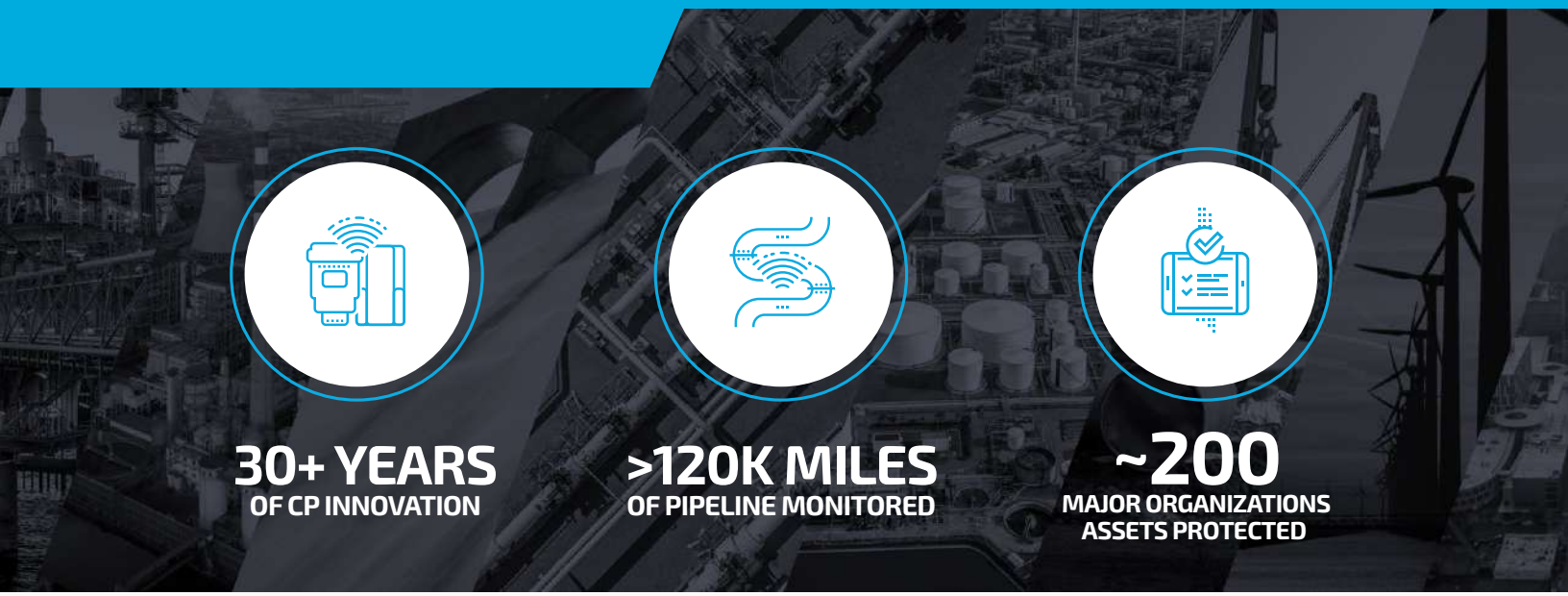
ABOUT MOBILTEX®

At MOBILTEX, technology is just the beginning. We've been leading the industry in cathodic protection monitoring for corrosion prevention on over one hundred thousand of miles of pipelines throughout North America and around the world. That's why pipeline and corrosion engineers across all industries have come to rely on us.

With our innovative engineering, design and manufacturing, we've created dependable IIoT technology that's built smart, built tough, and built to last. Our success comes from thinking like our customers and we always engineer to effectively solve your unique challenges. We're proud to say we've proven our technology in the harshest, most challenging of environments — time and time again.

But it doesn't stop there, every one of our solutions is backed by our industry leading customer service and support team that's ready to take you from product selection, to the initial set-up, through to our ongoing support.

THIS IS MOBILTEX.
WE'RE THERE.



30+ YEARS
OF CP INNOVATION

>120K MILES
OF PIPELINE MONITORED

~200
MAJOR ORGANIZATIONS
ASSETS PROTECTED

MAGELLAN MIDSTREAM PARTNERS, L.P. · KINDER MORGAN · Dominion Energy · PHILLIPS 66 · Williams · Chevron · bp · ENBRIDGE · MARATHON · Shell · TC Energy

READY TO SPEAK TO ONE OF OUR PRODUCT SPECIALISTS?

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