A Paradigm Shift in Managing a Gas Detection Program

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aihce

Gas Monitor Management

- Gas monitors are life-saving devices that need to be ready at a moments notice
- Reliable performance of gas monitoring instruments depends on regular calibration and a preventive maintenance schedule
- Program is usually self administered
- Hardware based

Current Scenario (Hardware Based)

- Gas detection instruments are purchased
  - Typically through a capital acquisition
  - Leasing is an option
- Employee training
  - Company-specific gas detection hazard training
  - Hands-on instrument training
- Function test and calibration program established
  - Typically a manual process
  - Automated systems are becoming more popular

Current Scenario (Hardware Based)

- Instrument maintenance program developed
  - In-house staff
  - 3rd party (outside contractor)
- Instrument parts inventory established
  - On-site inventory
- Instrument repair program implemented
  - In-house
  - 3rd party (outside contractor)

Current Scenario (Hardware Based)

- Record-keeping protocol is established for:
  - Function testing
  - Calibration
  - Maintenance
  - Employee exposure
- Record-keeping options
  - Manual (paper-based or electronic)
  - Automated (docking systems)

Current Scenario (Hardware Based)

Current Scenario (Hardware Based)

- Who is responsible for ensuring all this happens?
  - Typically the down-sized, re-engineered and right-sized safety or industrial hygiene department
- How much priority does this get when the staff looks at the big picture?
  - It varies, but almost never as much attention as it once received

Current Scenario (Hardware Based)

- What happens when these programs break down or fail to exist?
  - Unplanned work stoppages
  - Unplanned maintenance costs
  - Employee exposure
  - Gas related accidents
  - Gas related fatalities
  - OSHA fines and penalties

Current Scenario (Hardware Based)

- What have users been telling manufacturers about their gas detection programs?

Current Scenario (Hardware Based)

1. We don't want to calibrate

2. We don't want to maintain records

3. We don't want to perform service, and

4. We didn't want to buy the equipment in the first place, but we are regulated and must comply

Why?

- It's not *their* core business

Current Scenario (Hardware Based)

- Bottom line…
  - In today's competitive market, we are all forced to do more with less!
  - The further a task takes us from our core business the less attention it receives!
- What can be done to alleviate these issues?

iNet™ Instrument Network

- A new way to look at gas detection
  - Service based program, not hardware based program
  - Fully automated and comprehensive gas monitor management solution – *manage by exceptions*

Instrument Network

Manage by exceptions

- Weekly status report
- Allows attention to be focused on core business functions and not managing a gas detection program
- Confidence in knowing someone else is also looking out for your program

Gas Detection Program With iNet™

Under iNet™ the following functions are assumed by the Instrument Manufacturer;

- Supply
- Calibration
- Maintenance
- Record keeping

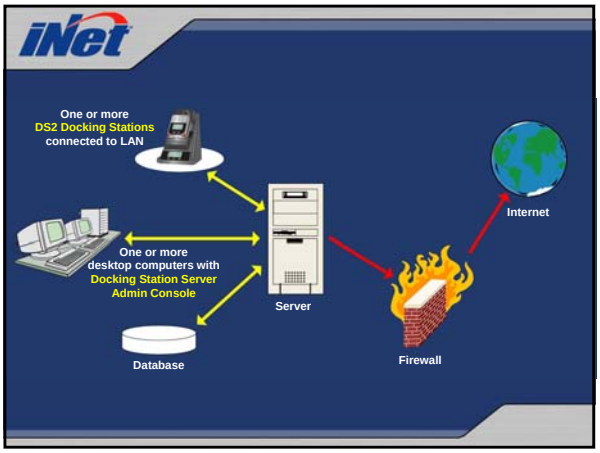
The user can focus on their core business

Under iNet™ (service based)

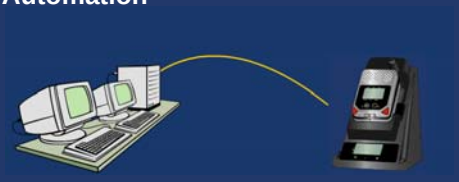
- Hardware and software is supplied
- Via the internet, the condition of the instrument fleet, including docking systems and calibration gas, is monitored
- Weekly status reports are automatically e-mailed, and exception alerts occur between weekly reports

Under iNet™ (service based)

- Service is automatically dispatched as necessary to maintain user's fleet of instruments
- Capital assets are available for user's core business…they simply pay an all-inclusive monthly usage fee



1) Automation

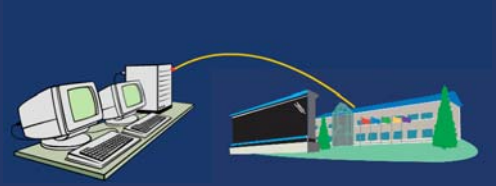


iNet™ automates routine maintenance procedures such as calibration and function testing; in addition, documentation of such procedures is automated.

2) Service

iNet™ provides a rapid response service organization to support the installed hardware and software base, and the networked instrument components.

3) Information



iNet™ allows user to outsource the storage of data from instrument readings and measurements.

4) Anticipation

iNet™ eliminates instrument downtime by anticipating failures through predictive diagnostics.

iNet On-Site™ Program

- Designed for customers who want to outsource their gas monitoring maintenance program, and will provide access to their site(s)

iNet Exchange™ Program

- Designed for customers who want to outsource their gas monitoring maintenance program, and *don't want outside personnel on their site(s)*

iNet Parts™ Program

- Designed for customers who want to *automate* their gas monitoring maintenance program, and *want to utilize their own staff for service work*

iNet™ Service Programs

iNet On-Site™ iNet Exchange™ iNet Parts™

All 3 Programs

- Based on 48 month term
- Include
  - All necessary equipment
    - Server & software
    - Docking Station(s)
    - Instruments
    - iGas Readers
  - Weekly Status Reports

iNet On-Site™ Program

- Includes:
  - Necessary replacement parts, and associated labor
  - 48 hour response time
  - Service performed on-site
- User responsible for:
  - Internet connectivity
  - Providing security access to their site(s)

iNet Exchange™ Program

- Includes:
  - Replacement instrument when a repair becomes necessary
  - Replacement instrument will arrive by 3:00 PM the next business day
  - User returns instrument needing repair in a pre-paid package
- User responsible for:
  - Internet connectivity
  - Returning instruments requiring service

iNet Parts™ Program

- Includes:
  - Replacement part(s) when a repair becomes necessary
  - Replacement part(s) will arrive by 3:00 PM the next business day
- User responsible for:
  - Internet connectivity
  - Performing maintenance

iNet™ Service Programs Summary

All 3 programs

- Allows user to focus on their core business by:
  1. Eliminating instrument down time
     - Manufacturer responsible for maintenance
  2. Increasing safety
     - Manufacturer responsible for ensuring calibrations are done accurately and on time
  3. Limiting liability
     - Manufacturer responsible for record keeping
       - Calibration records
       - Exposure data

What does it cost?

Cost Comparison - Actual Scenario

Example 1 (In-House Service)

- 400 multi-gas instruments (O_2, LEL, CO, H_2S)
- Calibration, bump test & documentation labor
  - Monthly calibration
  - Weekly function test
- Labor for repair
  - $50/Hour
- Annual calibration & maintenance training
- Repair / maintenance parts cost
- Purchasing transaction costs
- Freight costs for shipping / receiving parts or repairs

Average cost / unit / year

Example 1	iNet™ Exchange
$1,234.20	$931.68

Savings: $302.52
x 400 = $121,008.00 Total savings per year

Cost Comparison - Actual Scenario

Example 2 (Outsourced Service)

- 60 multi-gas instruments (O_2, LEL, CO, H_2S)
- Calibration, bump test & documentation labor
  - Monthly calibration
  - Daily function test
- Labor for repair
  - $50/Hour
- Annual calibration & maintenance training
- Repair / maintenance parts cost
- Purchasing transaction costs
- Freight costs for shipping / receiving parts or repairs

Average cost / unit / year

Example 2	iNet™ Exchange
$1,985.04	$956.60

Savings: $1,028.44
x 60 = $61,706.40 Total savings per year

Cost Comparison - Actual Scenario

Example 3 (In-House Service)

- 76 multi-gas instruments (O_2, LEL, CO, H_2S)
- Calibration, bump test & documentation labor
  - Monthly calibration
  - Function test every other day
- Labor for repair
  - $26/Hour
- Annual calibration & maintenance training
- Repair / maintenance parts cost
- Purchasing transaction costs
- Freight costs for shipping / receiving parts or repairs

Average cost / unit / year

Example 3	iNet™ Exchange
$1,599.60	$1,216.44

Savings: $383.16
x 76 = $29,120.16 Total savings per year

Benefits of iNet™

- Manage by exceptions
  - Weekly status report and and exception alerts between weekly reports
- Peace of mind
  - Calibrations are done correctly and on-time
  - Calibration gas is fresh and in-date
  - Automatic calibration gas replenishment

Benefits of iNet™

- Flexibility
  - Instrument fleet size can be increased as needs change
  - Spot needs caused by outages, shutdowns and turnarounds
- Automated data gathering and retention
  - Redundant data bases

Benefits of iNet™

- Capital is freed up for core business functions
- Fixed monthly cost (no unplanned expenditures)
  - Consolidated monthly billing
- Flexibility to upgrade to new equipment as technology changes

iNet™
INDUSTRIAL SCIENTIFIC INSTRUMENT NETWORK

"Managing your gas detection program so you can focus on your core business"

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