

MIRION
Connect **21**
Annual Users' Conference



Being Part of Mirion's Community – Our Extended Service and Support Offerings

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Services Director, North America

Mirion Connect | Annual Users' Conference 2021
Aurora, Colorado

Welcome to MirionConnect!

- Introductions
- Who makes up the Mirion Service Team?
- What do we do?
- What do we want to cover today?

Overview

- Standard Core Service Product Offerings:
 - Installations
 - Technical Support
 - Repairs
 - Calibrations
 - Customizations
 - Customer Support Agreements

What we've been up to since we last met



vmware®



RingCentral®

Adapting to the Current Environment

- Incorporating a remote Service deliverable into an established In-Person Service business.
- Training
- Consulting
- Field Support
- Mirion Customer Community



Virtual Training



MIRION
TECHNOLOGIES

July-December 2021

VIRTUAL TRAINING COURSES

FUNDAMENTALS & APPLIED PRINCIPLES

COURSE	DATE	PRICE (USD\$)
GP-301-2 Applied Principles of Gamma Spectroscopy	September 14 - 15	\$1,800
	November 2 - 3	\$1,800

SYSTEM USER COURSES

COURSE	DATE	PRICE (USD\$)
SU-470-4 Genie™ 2000 Basic Operations	July 27 - 30	\$3,500
	November 30 - December 3	\$3,500
SU-472-3 Genie™ 2000 Algorithms	July 13 - 15	\$2,500
	November 30 - December 2	\$2,500
SU-474-3 Basic ISOCS Measurements	August 24 - 26	\$2,500
SU-477-3 LabSOCS™ Measurements	October 26 - 28	\$2,500
SU-568-3 Apex-Alpha™ Operations	October 19 - 21	\$2,500
SU-570-2 Apex-Alpha/Beta™ Operations	July 20 - 21	\$1,800
	November 9 - 10	\$1,800
SU-601-2 Interpretation of Gamma Spectra	August 10 - 11	\$1,800
	November 9 - 10	\$1,800
SU-635-4 Apex-Gamma™ Operations	July 13 - 16	\$3,500
	October 19 - 22	\$3,500
SU-734-3 Apex-InVivo™ Operations	August 17 - 19	\$2,500

Questions? Call
1-800-255-6370

Register Now



Technical Support Team



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Technical Services Team



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Order Administrator:



Bonnie Kent
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Sales & Dealer Administrator:



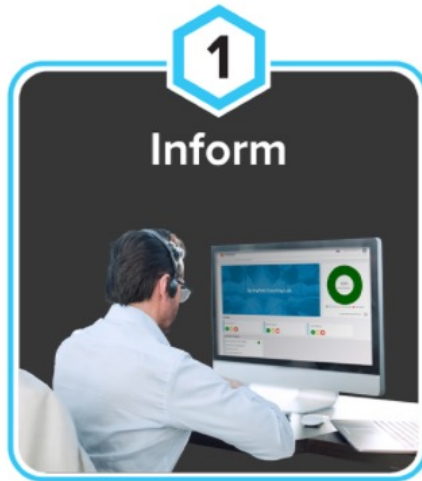
Anne Giblin
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Mirion Customer Community

The screenshot shows the Mirion Customer Community website. At the top is a dark blue header with the Mirion Technologies logo on the left, a search bar in the center, and a user profile icon labeled 'RUSSELLC...' on the right. Below the header is a light blue navigation bar with links: HOME, TOPICS (with a dropdown arrow), CASE LIST, KNOWLEDGE BASE, ORDERS, and MIRION WEBSITE. The main content area has a 'WELCOME!' message followed by the tagline 'A place where you can easily find solutions and ask questions'. There are three tabs: 'FEATURED' (selected), 'DISCUSSIONS', and 'MY FEED'. Under 'FEATURED', there are five dark blue tiles with white text: 'GAMMA SPECTROSCOPY', 'ALPHA SPEC & A/B COUNTING', 'CONTAMINATION MONITORS', 'HIS-20/OPEN-EMS', and 'SERVICE AND SUPPORT'. To the right of these tiles is a blue button labeled 'POST A QUESTION'. Below the button is a section titled 'What's the difference between Post a Question and Create A Case?' followed by a bullet point: '• Post a Question sends the question to the community at large, while Create a Case gives Mirion technical support a task'.

Lab-Pulse: A quick Introduction

Comprehensive value-based Services for your HPGe system



Lab-Pulse Services proactively informs you of your instruments' status: wherever you are, whenever you want.

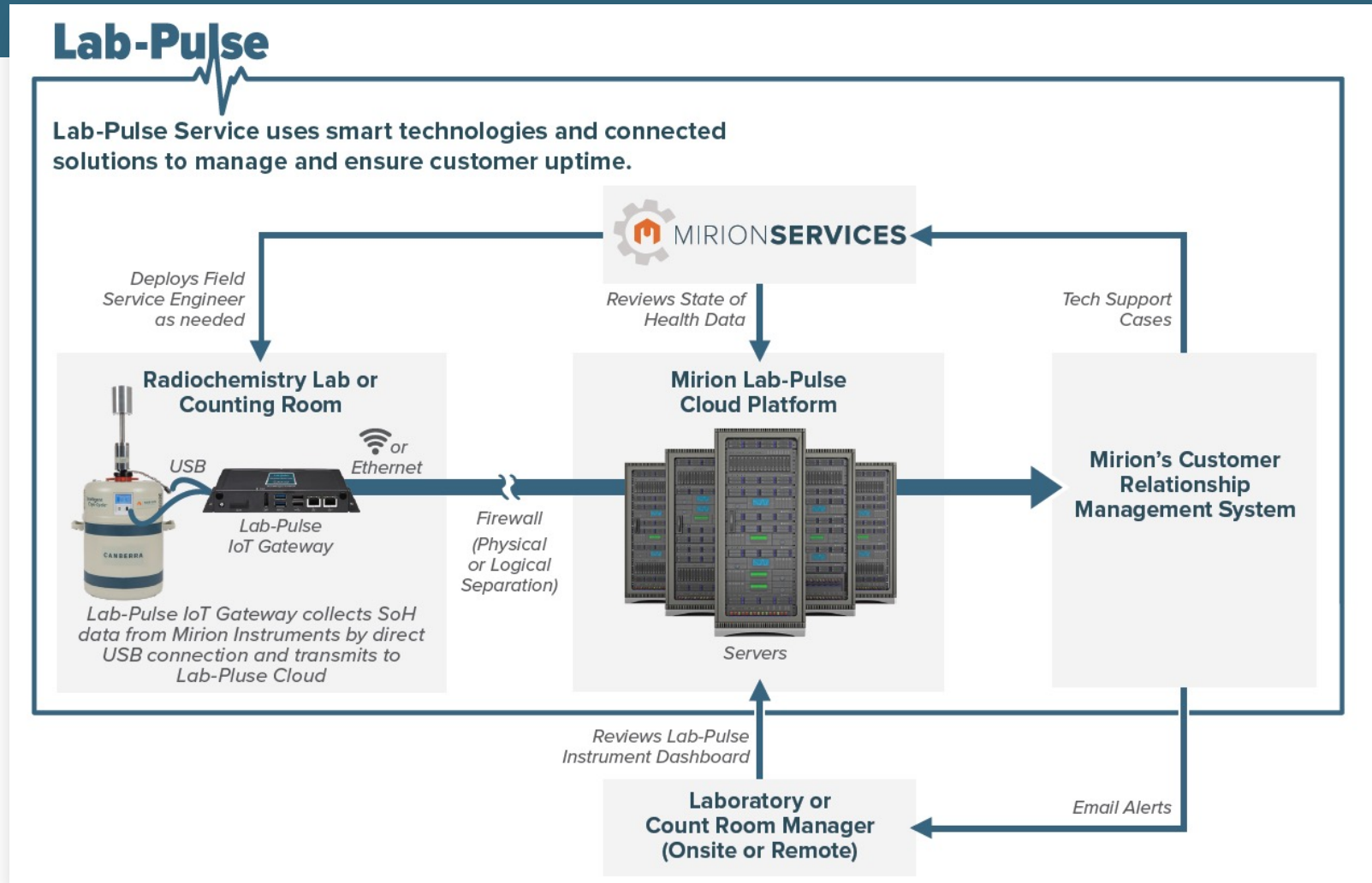


If an issue does occur, Mirion is prepared to get you back to normal operations quickly.



Extend the life of your Mirion products with detailed system performance evaluations, personalized recommendations and action plans.

Lab-Pulse: How it Works



The Lab-Pulse Managed Service: Uptime when you need it

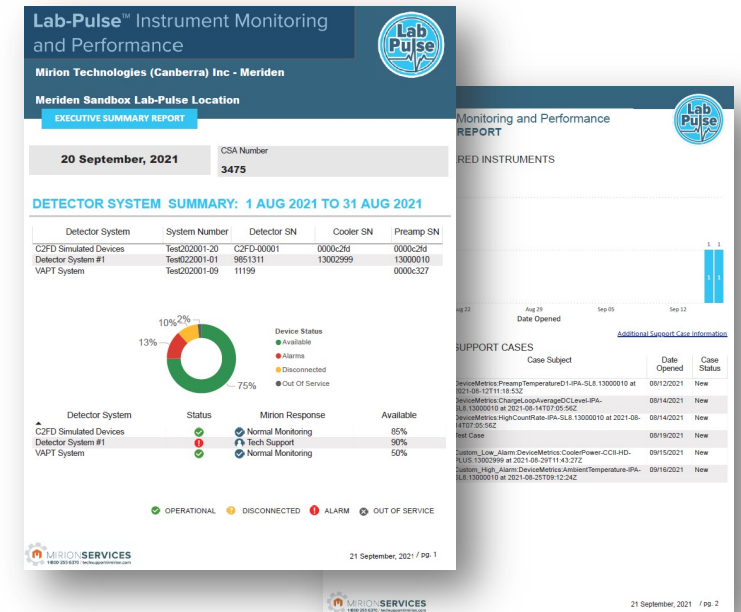
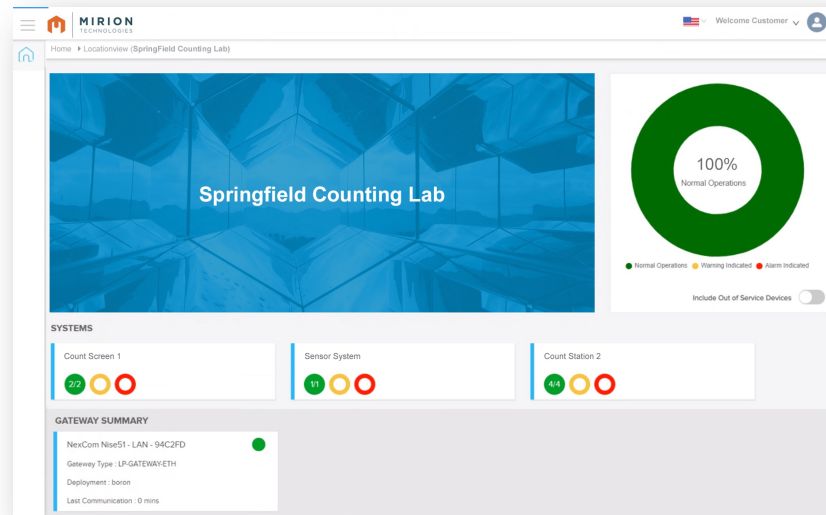
Inform

Respond

Prevent

Be informed of your instruments' status: wherever you are, whenever you want

- Automatic email notifications with instrument and alarm type
- Easy-to-access instrument dashboard from any web browser: Lab-Pulse.Mirion.com
- Automatically generated “Lab-Pulse Executive Summary” monthly report with:
 - Instrument uptime metrics and availability
 - Related Tech Support Cases / Work orders for covered equipment.



Lab-Pulse™ Instrument Monitoring and Performance



Mirion Technologies (Canberra) Inc - Meriden

Meriden Sandbox Lab-Pulse Location

EXECUTIVE SUMMARY REPORT

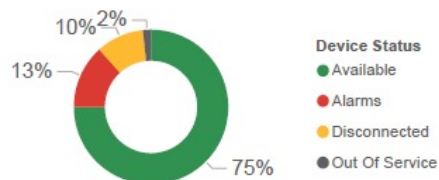
20 September, 2021

CSA Number

3475

DETECTOR SYSTEM SUMMARY: 1 AUG 2021 TO 31 AUG 2021

Detector System	System Number	Detector SN	Cooler SN	Preamp SN
C2FD Simulated Devices	Test202001-20	C2FD-00001	0000c2fd	0000c2fd
Detector System #1	Test022001-01	9851311	13002999	13000010
VAPT System	Test202001-09	11199		0000c327



Detector System	Status	Mirion Response	Available
C2FD Simulated Devices	✓	Normal Monitoring	85%
Detector System #1	!	Tech Support	90%
VAPT System	✓	Normal Monitoring	50%

✓ OPERATIONAL ? DISCONNECTED ! ALARM ✗ OUT OF SERVICE



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Lab-Pulse Instrument Monitoring and Performance EXECUTIVE SUMMARY REPORT



CASE HISTORY OF COVERED INSTRUMENTS

Origin ● Lab-Pulse ● Web



[Additional Support Case Information](#)

ASSOCIATED TECHNICAL SUPPORT CASES

Case Number	Device	Case Subject	Date Opened	Case Status
00038154	iPA for Tunde Test	DeviceMetrics:PreampTemperatureD1-IPA-SL8.13000010 at 2021-08-12T11:18:53Z	08/12/2021	New
00038155	iPA for Tunde Test	DeviceMetrics:ChargeLoopAverageDCLevel-IPA-SL8.13000010 at 2021-08-14T07:05:56Z	08/14/2021	New
00038156	iPA for Tunde Test	DeviceMetrics:HighCountRate-IPA-SL8.13000010 at 2021-08-14T07:05:56Z	08/14/2021	New
00038163	Parent HPG Simulator SQA - 4	Test Case	08/19/2021	New
00038209	CCII-PLUS for Lab-Pulse validation	Custom_Low_Alarm:DeviceMetrics:CoolerPower-CCII-HD-PLUS.13002999 at 2021-08-29T11:43:27Z	09/15/2021	New
00038215	iPA for Tunde Test	Custom_High_Alarm:DeviceMetrics:AmbientTemperature-IPA-SL8.13000010 at 2021-08-25T09:12:24Z	09/16/2021	New



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The Lab-Pulse Managed Service: Uptime when you need it

Inform

In case something does go wrong, Mirion will get you back on your feet quickly

Respond

- Automatic Tech Support case opened, and Service team member assigned. Guaranteed Response by next business day

Prevent

- Remote review of instrument SoH to get to a diagnosis faster

The Lab-Pulse Managed Service: Uptime when you need it

Inform

Respond

Prevent

The Bi-Annual Lab-Pulse Review

- A comprehensive review of instrument maintenance and Lab-Pulse data with personalized recommendations and action plans.
- Includes:
 - Uptime Metrics and current status
 - Tech Support Case History and Work Orders with personalized summary
 - Instrument State of Health information reviewed against benchmarks and evaluated for long term behavior changes by our technical analysts using a 26-point checklist
 - Environmental parameters analyzed for best operating conditions
 - Personalized recommendations to extend system operational life and optimum instrument performance

The Lab-Pulse Service: How do we deliver?



Cyber Security:

- Connects directly to instruments by USB. No need to interface with Instrument Data network
- Gateway devices use auto-provisioning.
- Each gateway authenticated/authorized via unique X.509 certificates
- Gateway/Cloud connectivity is supported by one of the following connection modes Ethernet; WiFi; 4G/LTE
- Supports Over-the-Air (OTA) to manage security updates
- Uses Trusted Platform Module (TPM 2.0) for secure provisioning of gateway and storing secret key-pair
- System, policies, and procedures are designed and evaluated against NIST standards
- Periodic Penetration Tests performed and remediations implemented as required

Reporting :

-> Lab-Pulse Executive Summary Report provided on monthly basis.

-> Bi-Annual Lab-Pulse Review executed by our Technical Analysts. Includes review of instrument Case history and Lab-Pulse data. Analysis report is developed and sent to customer.

Bi-Annual Lab-Pulse Review: iPA State of Health Tests

1. Leakage Current Check:

Test 1	Compare the current “ChargeLoop Average DCLevel” from Lab-Pulse against the Leakage current reported on the detector specification sheet [or updated specification as documented in TBD]. These should agree within 0.2 volts. The chargeloop Average DC Level should be read during periods in which there is no source on the detector.
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2. Vacuum Health Check:

Test 1	Look at the “Preamp Temperature Difference” over the period of review. Verify the ending value is within 5 degrees C of the initial value
Test 2	Look at the “Preamp Temperature Difference” over the period of review. Ensure there were no excursions greater than +/- 5 degrees C from the baseline value. Excursions during a thermal cycle are not included in this analysis.

3. Temperature Health:

Test 1	Review PRTD1 temperature (crystal temperature). Compare temperature to detector specification sheet [or updated specification as documented in TBD]. Measured temperature should be within 5 degrees of specified temperature. In the case of thermal cycle events the PRTD1 should exceed 0 C degrees before the detector starts cooling again.
Test 2	Review PRTD2 temperature (cold source temperature). Compare temperature to detector specification sheet [or updated specification as documented in TBD]. Measured temperature should be within 2 degrees of specified temperature. In the case of thermal cycle events the PRTD1 should exceed 0 C degrees before the detector starts cooling again.

4. IPA Power Supply Check:

Test 1	Review the 9 parameters for the iPA Power Supply displayed on the Lab-Pulse dashboard. Verify each parameter is reporting a reading and none are in alarm state.
Test 2	Review the 9 parameters for the iPA Power Supply displayed on the Lab-Pulse dashboard. Verify each parameter is reporting a reading within about 5% or 1 Volt from expected.

DEMO

So...Why Lab-Pulse?



Increased Uptime

- Less lost revenue
- Fewer missed deadlines



Confidence & Reliability

- Know your systems will perform during surge operations, such as at outages
- Fewer spares required



Better Return on Investment

- Equipment lasts longer
- Equipment performs better



Better Operational Efficiency

- Advanced planning for system maintenance
- Faster problem resolution time
- Fewer emergency visits



Deliver Reliable Results

- Know your instruments are performing to specification
- Reporting to support your audit needs



Allows you to focus on what you do best

- Sample counting, Radiometric analysis, and people safety
- Mirion will take care of the rest

There's more to work than solving problems.



Lab-Pulse: Supported Instruments

- Supported Instruments
 - HPGe detector with iPA
 - iCC: New Intelligent hybrid cryostat
 - CP5-Plus: HPGe Electrically Refrigerated Cryostats
 - CCII-Plus: upgraded HPGe hybrid cryostats

Thank you!

Any Questions?