# CELLWATCH
### POWERING CONFIDENCE™

# Virtualized iBMU Solution

This new NDSL solution expands customer options allowing Cellwatch customers to operate in a virtual machine environment. Cellwatch Control Units and Thermal Runaway Controllers (CU/TRC) now support options to communicate over an ethernet network.

## Design Enhancements

There are two design enhancements introduced in this new solution. Several years ago, NDSL introduced a new version of Cellwatch software that runs as a Windows Service. Cellwatch 5.X software has been updated to support COM port to IP drivers for messages sent from Cellwatch software to the Cellwatch Control Units/Thermal Runaway Controllers and Data Collection Modules.

This new software version is called Cellwatch 5.2.2. Additionally, NDSL added a TCP/IP interface module to the CU/TRC. This interface can be added to an existing CU/TRC or can be purchased for a new CU/TRC at the time a new system is purchased.
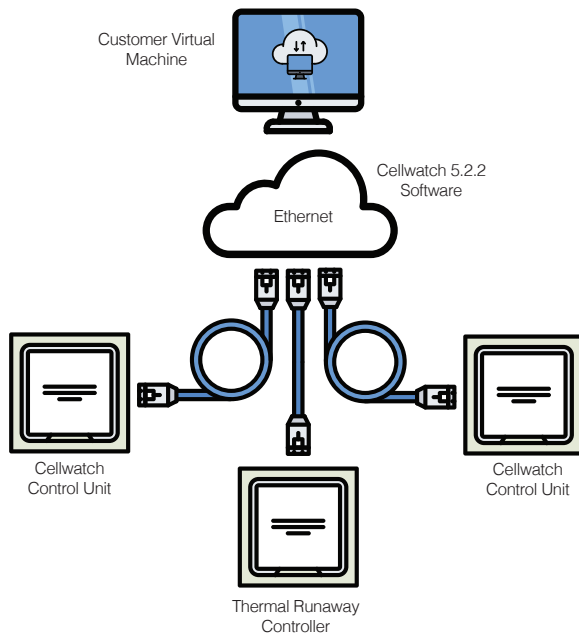
## iBMU options

1. Standard Cellwatch appliance (integrated Battery Management Unit (iBMU))
2. Cellwatch software running on a Virtual Machine
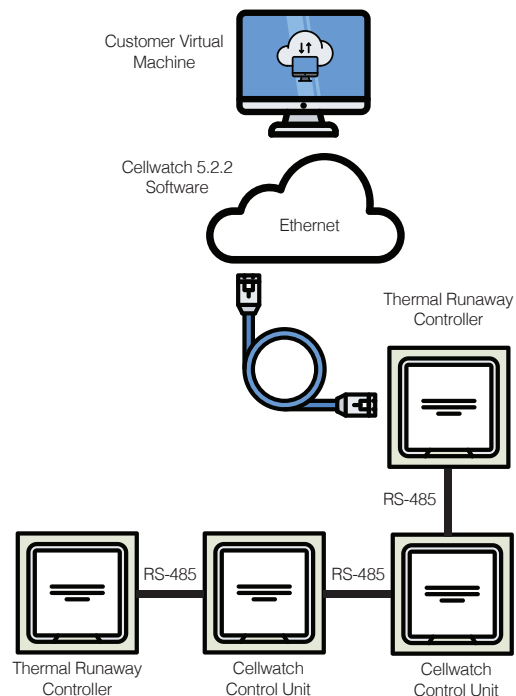
## CU / TRC network options

1. Standard RS-485 network (serial cable connecting iBMU to CUs)
2. TCP/IP connection to each CU/TRC
3. TCP/IP connection to the first CU/TRC in the network and RS-485 from first CU/TRC to additional CU/TRCs

**Option 1**



*Connect up to 31 devices.*

**Option 2**

## Benefits

- Moving to a virtual machine environment reduces server management overhead

- Ensures Operating System (OS) updates are timely and consistent with IT practices

- Reduces hardware cost by eliminating the need for a dedicated iBMU

- Expands network design flexibility

## Who should consider this solution?

- Any Cellwatch network with a virtual machine environment and the associated expertise to support the integration of Cellwatch into a Windows VM container.

- Large Cellwatch deployments with multiple iBMUs

- Large Cellwatch deployments with aging iBMU hardware that will need replacing soon

# SYSTEM REQUIREMENTS

### Virtual Machine

VM should meet the minimum requirements for the operating system being used. In addition, reserve 20 Gb of storage for the Cellwatch data.

### Control Units and Thermal Runaway Controllers

All existing CU and TRC hardware manufacturered after March 2014 is compatible with this solution and can be upgraded.

New systems can be ordered with:
- **RS-485 compatible units using existing part numbers**
- **IP compatible CU and TRC**
  - **Control Unit – IP**
  - **Thermal Runaway Controllers – IP**

### Cellwatch Kit Orders

Any Cellwatch Master Kit or Control Unit Kit can be ordered with IP compatible Control Units or Thermal Runaway Controllers. The portal will support an option for selecting the interface type on the kit configuration section of the Cellwatch portal.

# HOW TO ORDER

Contact your Cellwatch sales rep for more information about ordering the following parts:

| | |
|---|---|
| 721030-IP | Thermal Runaway Controller with IP Interface |
| 721004-IP | Control Unit with IP Interface |
| 721019 | Upgrade for Control Unit to add IP Interface |
| 721029 | Upgrade for Thermal Runaway Controller to add IP Interface |
| 541012 | SW 5.2.2 Upgrade Supporting VM Solution |