

IoT-Enabled Backpacks Spread Internet Access Everywhere with Multi-WAN Functionality



Imcon Uses Cradlepoint's Cloud-Managed Solution to Provide Information & Communication for Students, First Responders & More

Solution: NetCloud Service for Mobile ■ **Industry:** Public Sector ■ **Use Case:** Pop-Up Network



Constant connectivity allows us to ensure our customers can get the data and information they need at any time, whether it's children accessing educational tools or first responders using technology to save lives."

J. Rob Loud,
CEO, Imcon International

Summary

Imcon International's self-contained Internet Backpacks offer the mobility and flexibility to connect students, first responders, and many others in remote areas across the globe. To successfully manage their customers' Internet access beyond the wired world, Imcon relies on edge networking solutions that are just as agile, reliable, and robust as their own proprietary services.

Imcon leverages Cradlepoint's NetCloud Service for mobile — including cloud-managed multi-WAN functionality through a router featuring embedded LTE — in all of its Internet Backpacks. It's the best, most cost-efficient way for them to help users keep the lines of communication and information open across the earth.

Company Profile

Imcon International, Inc., is a connectivity solutions provider that builds mobile platforms that connect team members and their devices in stressed environments and remote locations. Imcon's edgware services and device solutions include the Internet Backpack, a remote connectivity solution that includes a wide range of IoT devices.

Company Needs

Imcon's self-powered and self-contained Internet Backpacks come with a variety of technology tools, including:

- High-powered Lithium Ion battery
- 50-watt foldable solar panel that allows the battery to recharge when AC recharging is unavailable
- Off-grid communication devices
- Power adapters, AC adapters, USB cables, and international converters
- At least two smart devices such as a phone or tablet
- Small satellite connectivity device

To bring all of these pieces together, and to keep a variety of key apps always connected, Imcon needed an all-in-one edge routing solution that supports cellular-based broadband, satellite, WiFi, and GPS.

Perhaps most importantly, Imcon knew the global distribution of these Internet Backpacks required a robust network management system that would allow its IT team, or its customers' in-house teams, to monitor and troubleshoot connectivity challenges remotely.

“We needed a solution that we could pull out of the box and would be straightforward, do exactly what we need it to do, and have a whole cloud management system behind it,” said J. Rob Loud, CEO, Imcon International.

Solution

After trying many wireless solutions to provide network access in its Internet Backpacks, Imcon selected Cradlepoint's NetCloud Service for mobile networking. The service includes routing, a WiFi accept point, content filtering, GPS and telematics integration, WiFi-as-WAN, and cloud configuration and troubleshooting — all delivered via a router with embedded LTE, 24x7 support, and a limited lifetime warranty.



The core of our Internet Backpacks is Cradlepoint's mobile routers and cloud management, which enable us to control everything in one solution. It allows us to build out a network from any source, and to provide WiFi for our end users.”

J. Rob Loud
CEO, Imcon International

Cradlepoint provides the multi-WAN functionality and ease of use that Imcon needs to confidently send students, emergency specialists, and others out into the field with expectations of instant Internet access that always works.

In Imcon's expanded EMS backpack, Cradlepoint's COR Extensibility Dock provides the dual-modem functionality necessary for wireless-to-wireless failover and SD-WAN features such as intelligent traffic steering.

“The ability to use two modems, each of which has two SIM slots, allows our customers to have access to as many cellular carriers as possible, which is extremely helpful during emergencies,” Loud said.



Benefits

Flexible Multi-WAN Capabilities for Always-On Connectivity

Cradlepoint's all-in-one edge routers enable a network architecture that prioritizes cellular broadband as the primary connection, WiFi-as-WAN as a secondary link, and satellite as the third WAN option — with automatic and instant failover between links.

“Constant connectivity allows us to ensure our customers can get the data and information they need at any time, whether it's children accessing educational tools or first responders using technology to save lives,” Loud said.

Cloud Management for Easy Remote Monitoring & Troubleshooting

Neither Imcon nor its customers can afford to put IT personnel in the field with the Internet Backpacks. NetCloud Manager provides extensive analytics and control features that make remote management easy.



Cradlepoint solutions do what other solutions can't do: provide the ability to remotely monitor and manage systems in remote regions of the world.”

J. Rob Loud
CEO, Imcon International

When something at the edge goes wrong, NetCloud Manager makes it possible for Imcon's IT specialists to diagnose and fix the issue within a few minutes — without having to fly there or pay for a third-party truck roll.

“NetCloud Manager is a built-in and ready-made management solution that saved us about a year's worth of back-end work by reducing development time and costs,” said Loud.

Tasks such as renaming an SSID, updating firmware, deploying security patches, and changing a password for an Access Point can be done with point-and-click ease.

“NetCloud has a vast array of features, all of which can be used remotely, which helps us provide the most efficient use of data and improve the overall customer experience,” Loud said.

GPS for Visibility Into Backpack Location & Data Usage Patterns

Cradlepoint's mobile routers provide GPS data that can be viewed through NetCloud Manager. Thus, Imcon's IT staff can easily track the location of Internet Backpacks all over the world.

“The GPS functionality of Cradlepoint's routers allows both Imcon and our Internet Backpack customers to track the location of each backpack and the data usage patterns of each user,” Loud said.

24x7 Support for Immediate Response When Challenges Arise

When a challenge regarding connectivity or Imcon's edge solution arises, the company trusts Cradlepoint's 24x7 support services, which include phone and online support, as well as Cradlepoint Connect, a collaborative community that includes how-to guides, best practices, and collaborative interaction with Cradlepoint experts and industry peers.

[Learn more at cradlepoint.com](https://www.cradlepoint.com)