

# Cradlepoint 5G Solutions Improve Construction Site Efficiency

## Breaking Ground With New Technologies

You're walking up to a new construction site in the heart of downtown, wondering what the building will look like once it's complete. You're there to meet a real estate agent to be shown around the work site and discuss purchasing one of the units.

As you greet the agent they hand you a set of glasses and suddenly you can see the building. It's more than steel beams and concrete. It's a full augmented reality rendering of the building.

It may sound like science fiction, but it's not. That's real, currently available, technology. Those glasses can also be used not only to show a full rendering of the final product, but elements of the construction process such as holographic structural steel, framing, or electrical schematics.

While the AR glasses may seem like magic, they're still firmly rooted in our day-to-day reality. There's a ton of technology making it all happen — the type of technology that requires robust, lightning fast, connectivity.



### Industry Profile

- Construction Companies
- Architectural Firms
- General Contractors

### Technology Solutions

- Cradlepoint W2005
- Cradlepoint W4005
- Cradlepoint R500-PLTE
- NetCloud for Branch
- Poynting XPOL-1-5G

### Targeted Results

- Increased Bandwidth
- Reduced Latency
- Improved Security
- Remote Management
- 99.99% System Uptime



## The Challenge | Wired Connections Don't Make The Grade

Construction sites are more than just workers showing up, putting in a full eight hours with their tools, and clocking out at the end of the day.

They're an entire company scattered around an empty lot, doing business in trailers and via mobile phones and tablets. An entire infrastructure must be created to connect office equipment — including laptops, tablets, and architectural printers — as well as provide for the security, safety, and inventory management systems needed to keep a site running smoothly.

And while some jobs last only a few months, others may take years to complete. Having a reliable, secure, and fast internet connection for the duration of the job is non-negotiable - especially as new applications are deployed to increase operational efficiency and safety.

Without a reliable and fast connection the necessary data won't be gathered, transmitted, or stored. The team won't be able to review designs, make adjustments, and communicate across the site in an efficient manner.

A wired broadband connection may provide the speed and security your team needs, but involves a lengthy deployment period, complicated decommissioning process, and an overall lack of flexibility — making it an inconvenient option, especially for shorter-term projects.

Alternatively, while cellular broadband connections are quicker to set up and decommission, 4G/LTE networks struggle to provide the bandwidth, low latency, and constant uptime that's required on a job site.

Previously, it's been a catch-22 when it comes to deciding which type of network to deploy; one that's quick and easy to setup and tear down (*but may not provide all required functionality*), or one that requires intensive setup and decommissioning but can provide the necessary speeds and reliability.

## The Solution | Cradlepoint Wideband Adapters with NetCloud Branch

The decision has often depended on a number of factors, with the decision coming down to dollars and cents, but all of that is changing as 5G networks become more widespread and companies no longer have to compromise. They can have it all - speed of setup and speed of use.

With Cradlepoint's NetCloud Service for Branch, companies have been able to successfully create the high bandwidth, lightning fast, secure networks they need to manage and monitor their entire infrastructure on the job site while also sending data back and forth to other sites and to the cloud.

Cradlepoint's ruggedized W2005 and W4005 endpoints are built to be installed outdoors for optimal signal acquisition and are architected to withstand extreme temperatures, water, and high winds. The exact kind of devices many construction companies need to bring their connectivity to the next level.

USAT delivers construction companies the end-to-end 5G communications solutions they need to support their mission-critical fixed and mobile operations.



### Cradlepoint W2005

And when paired with rugged, reliable outdoor wideband antennas from our manufacturing partners at Poynting, like the XPOL-1-5G and XPOL-2-5G (*selection to be based upon the nearness of local cell towers*), the signal strength and reliability of your wideband adapters will receive a significant and measurable boost.



#### The Results | Wireless Connections Increase Performance

As 5G coverage continues to expand, construction companies are increasingly deploying solutions to take advantage of these high-speed, reliable connections. The promised lower latency and higher bandwidth of 5G networks in particular means construction companies can now join other industries in deploying state-of-the-art applications to increase efficiency across the board.

#### Some of these next-gen applications include:

- Holographic building visualization glasses,
- 360-degree 8K wide-area safety scanning,
- IoT Structural Sensors (which can help determine if the concrete is poured correctly and if there is any structural shifting), and
- Real-time design displays that will allow the team to view designs, make changes in real-time, and display them on screens in the trailers.

### Poynting XPOL-1-5G

More widespread availability of 5G means that with the proper equipment and software - including Cradlepoint's NetCloud Service for Branch and their series of wideband adapters - more companies will be able to adopt these next-gen technologies, creating a more competitive market.



#### The Team | Device Provisioning, Activation and Installation Services

Over 25 years ago, the founders of USAT built a business at the intersection of information and operations technology. From day one, our team has dedicated their time to helping organizations improve the speed and efficiency of critical data communications for human and machine assets to excel in the field.

Since our founding, USAT has enabled hundreds of construction companies use secure wireless communications technology to improve operational metrics. Better communications keep critical systems running longer, enable faster repairs, and reduce operating costs. Reach out to USAT to procure, provision, activate, and install all the devices your organization needs to succeed in a technology driven world.

CONTACT US TODAY TO ENGINEER YOUR 5G COMMUNICATIONS SOLUTIONS



www.usatcorp.com • 888-550-8728 • info@usatcorp.com