

WHAT I CONNECTED WITH MY CAMBIUM NETWORKS EQUIPMENT

Giving Business Owners a New Perspective

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Cape Aerial Telepresence™ is the world's premier software platform for full drone telepresence, offering a unique solution that delivers live control, streaming video, and telemetry data from drones in the field to operations centers and offices located anywhere in the world.

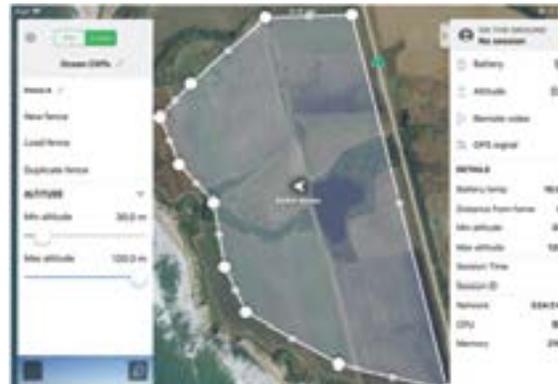
Cape puts drone control in the hands of subject matter experts, making aerial operations safe and user friendly for any enterprise. For example, with a Cape-enabled drone and just one technician onsite, an entire management team can take a live, high-definition tour of a facility while sitting in a conference room or at their desks. This enables fast, accurate decision-making and in turn, significant cost savings on capital projects. Additionally, in emergency response scenarios, safety teams can provide live aerial intelligence to stakeholders throughout the enterprise.

Of course, the radio link to the drone is proprietary. But in Cape's case, **the link to the drone control location** – the link that connects the drone to the cloud and enables it to be controlled from anywhere in the world – is vitally important. It must have low latency and be so reliable as to work every time. That is why Cape chose Cambium Networks equipment.



SEEING - AND FLYING - IS BELIEVING

People understand the concept of livestreaming, but the real “Wow Factor” comes when they use a mouse and keyboard to control the drone for themselves. Users are invited to experience the system in this [video demonstration](#) and [LinkedIn video blog](#) post from West Texas.



Also, check out how CAPE aerial telepresence makes it easy for organizations to inspect a field site in this [video blog post](#) from oil fields in North Dakota, which features thermal imaging to read the liquid levels in the tanks and trucks.



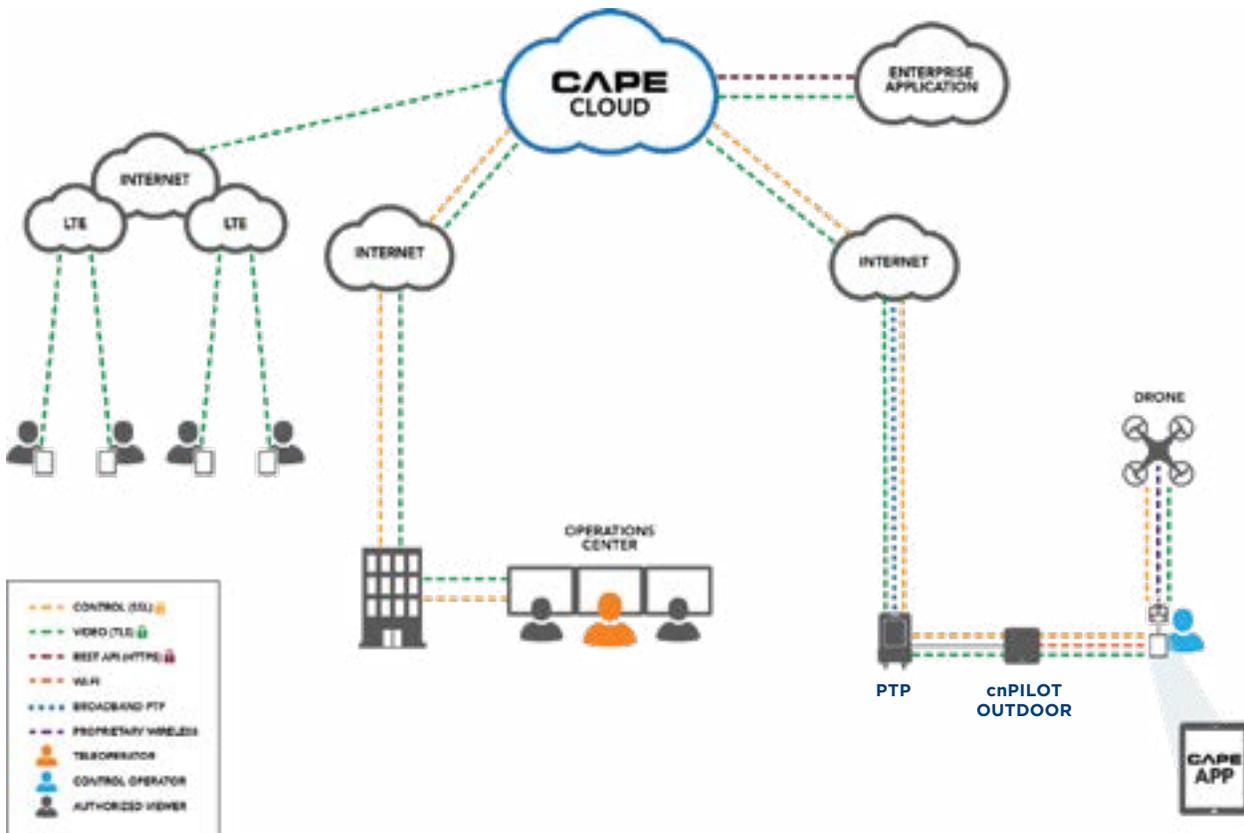
THE VITAL COMMUNICATIONS LINK IN THE FIELD

None of this happens without communications. In the field, Cape has used the [PTP 670](#) long range backhaul and a [cnPilot™](#) enterprise outdoor Wi-Fi connection.

- The long-range link delivers up to 1.36 Gbps throughput and outstanding reliability, and wireless access solution provides the high throughput, low latency, and high reliability that Cape customers demand for Aerial Telepresence. Best of all, it can be planned rapidly with [LINKPlanner](#) software and installed very quickly in remote locations.
- Outdoor Wi-Fi connectivity is the critical last contributor to the drone control area. cnPilot 802.11ac outdoor access points provide the capacity and coverage needed to create field control areas, empowering technicians with confidence in their connectivity to stream video and control commands.

FIELD COMMUNICATIONS INFRASTRUCTURE

SOLUTION	PRODUCT		KEY SPECS
Long range backhaul	PTP 550		<ul style="list-style-type: none"> • 1.36 Gbps throughput • LINKPlanner connectivity design • Rapid installation • High reliability
Outdoor Wi-Fi	cnPilot e700 AP		<ul style="list-style-type: none"> • 802.11ac Wave 2 • Omnidirectional coverage • Rapid installation • High reliability





FIELD EXPERIENCES

A major gas and oil company has established a regional operations center in San Antonio that monitors their production assets in West Texas. The Cape team performed a site visit to show how Aerial Telepresence can be used to conduct live remote inspections and provide emergency response situational awareness from this center.

INSPECTIONS AND OPERATIONS EFFICIENCY

Managers and senior engineers can participate live from the operations center, enabling faster, more accurate decision-making. From their desktops in the center, operators were able to inspect:

- Central Tank Batteries, checking liquid volume levels, looking for signs of leaks and corrosion, blocked access for tanker trucks, etc.
- Central Processing Facilities, checking flare stacks to ensure pilot light is on and excess VOCs are not escaping, piping runs for damage, integrity of perimeter fence (important for physical security -- ensuring human and local wildlife safety)
- Compressor stations, checking meter runs for pipe damage



EMERGENCY RESPONSE

When an alarm or other event causes the security team to evacuate a facility, they will establish a remote command center nearby in the field. From there, all decisions are made remotely, using standard procedures and information gathered from Aerial Telepresence capabilities.

- Drone fly-overs with HD and Thermal cameras determine the presence of excessive heat, smoke, methane, and other dangers to human workers.
- Better situational awareness for the entire company — management in San Antonio and Houston can also participate in these fly-overs, from the convenience of a conference room or individual desks.



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