

# Digital Workforce

## Oil & Gas



**Mobile office**



**Collaboration spaces**



**Enhanced location and safety**



**Augmented reality**

## Increase field employee safety and productivity

With field workforces often scaling to more than 10,000 employees, the business benefits of innovation and digital technologies are becoming clear. Internet of Things (IoT) technology aimed at remote and field workers can directly affect key industry metrics such as safety and productivity and can provide a means to attract a younger and more tech-savvy workforce.

Field crews have long worked with technology and connectivity that is many steps behind those used by their traditional office colleagues. As a result, they have been unable to easily collaborate with coworkers and remote experts, their time in the field has been limited, and they have felt less connected to the corporate organization and culture.

As the industry picks up momentum again, hiring new employees brings new challenges. These employees are often new to industry, and rely on more experienced employees as they build expertise. It is during this period that safety incidents can increase and productivity suffers.

## Benefits

- Enabling these workers with a mobile office and collaboration tools such as Cisco Webex Teams™ will begin to address many of these challenges. A mobile office provides an employee or a crew with access to enterprise and cloud apps through a secure corporate hotspot. Webex Teams makes it easy to share files and photos and to collaborate using voice and video with remote experts to solve problems faster. Together, they provide a foundation for future applications such as augmented reality (AR).
- For geographically dispersed environments, such as oil and gas fields and pipelines, employee safety can be enhanced with location services, using sensors connected to both public and private wireless networks. Operational staff can have a complete view of employee and asset location in real time and can respond to health and safety incidents faster.

“Estimates show that by 2020, nearly 50 percent of the workforce will be millennials, and Generation Z will also be entering the workforce. These younger workers approach work differently to previous generations ... and, of course, they are tech-savvy.”

Inge Oosterhuis

Managing Director  
Talent & Organization  
Accenture

### Mobile office

The most fundamental capability that oil and gas companies can provide for their field workers and crews is solid and secure connectivity. It must be as easy to use as connectivity at the corporate office (wired and wireless) and must use purpose-built industrial network equipment. A mobile enterprise hotspot allows an entire crew to leverage one broadband connection, which reduces operating expenses.

Managing these mobile offices at scale becomes straightforward because they run Cisco IOS® software, and can use existing templates, best practices, and training.

Finally, support for security and SD-WAN architectures can be extended from enterprise sites into mobile field sites, which extends the value of these investments.

### Collaboration spaces

A field team's ability to quickly solve problems is increasingly dependent on their ability to share information and to interact with remote experts. These experts might reside within the organization or at an equipment OEM a thousand miles away.

Additionally, this ability to access remote expertise is crucial for new field employees responsible for deploying and maintaining critical operational machinery and assets. In many cases there are health and safety (HSE) issues at stake during field work.

Webex Teams is the ideal platform to enable field teams to collaborate with internal and external resources. Spaces allow for easy sharing of files, documentation, photos, and videos. Along with instant-message-style group communication.

Voice and video calls are also available within Webex Teams when circumstances require that level of interaction.

### Enhanced location and safety

Location services in remote fields and along pipelines are challenging when relying only on public LTE networks. But when LTE is combined with a private LoRa network, access to GPS location in any location is possible.

By adding sensors to both networks, oil and gas operators can be confident that they will know the exact location of all of their field workers in real time. If location data shows a vehicle stopped somewhere between company assets, it can be inferred that an HSE incident may have occurred, and teams can respond accordingly.

### Augmented reality

A mobile office paired with Webex Teams also provides the ultimate digital foundation for future use cases. Webex Teams is already integrated with Atheer's leading AR platform to enable “see-what-I-see” and “step-by-step task guidance” use cases for field workers.

## Take the next step

Cisco has the infrastructure expertise, services, and strategic partnerships needed to secure business IT and operations, spur faster decision making and enable new business models without compromising reliability, security, or network response time.

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