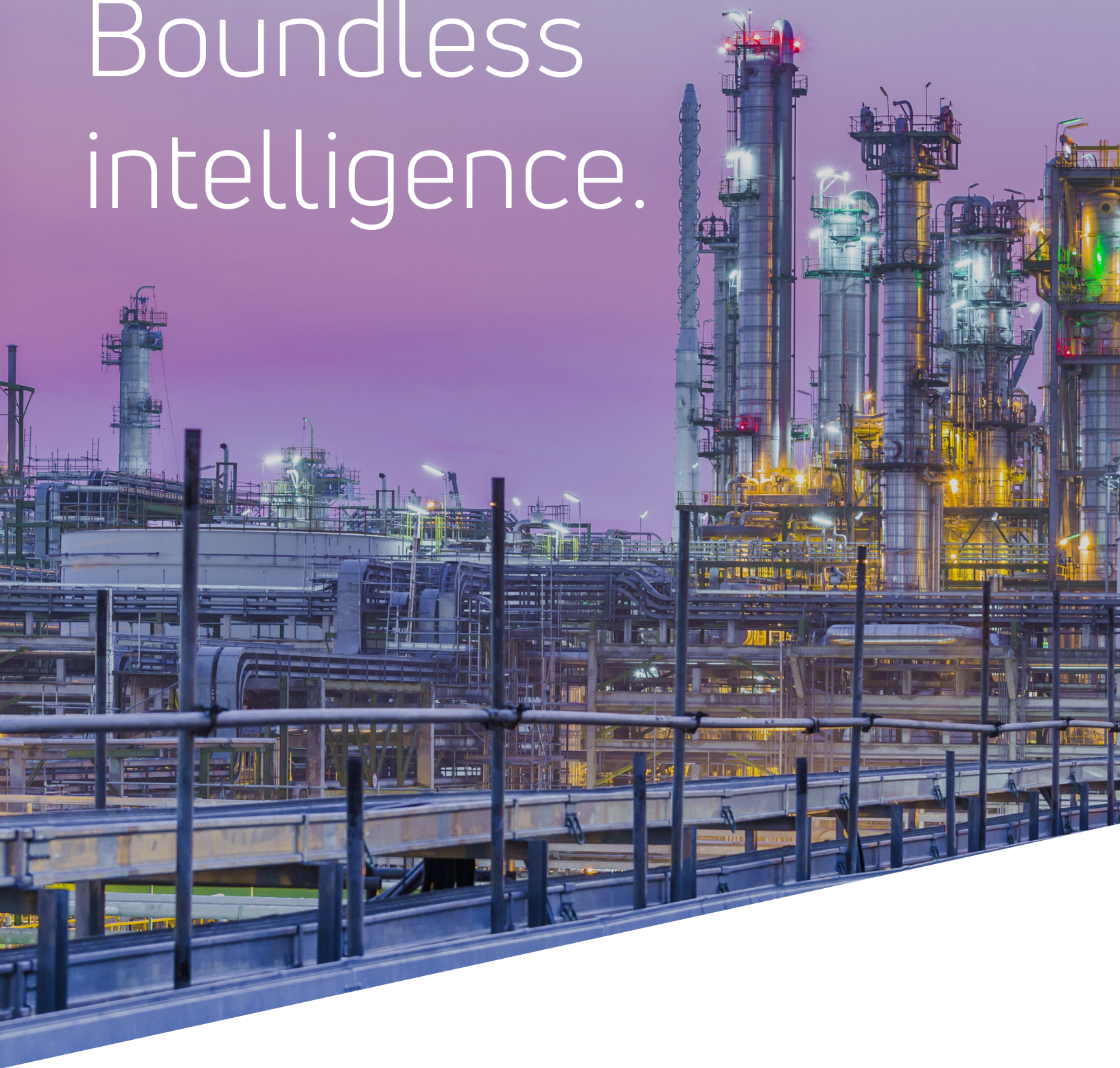


# Boundless intelligence.



**Systems integration and automation (SI&A)**

Global communication infrastructure, fire, gas, and safety for remote operations.

**Viasat**   
™

# Systems integration and automation (SI&A)

## Customized network communications

Viasat's system integration team develops custom designed and developed telecommunications and security solutions engineered, assembled, and tested by Viasat's personnel. Each project is developed with a focus on eliminating the complexity and difficulties that may occur during planning, development, and implementation. Viasat's SI team provides internal and external project scheduling, budget planning, and coordination in order to eliminate any issues over the project lifecycle.

With 24/7 live monitoring and technical support through our Global Customer Care (GCC) Network Operations Center (NOC), Viasat's team of internationally dispersed SI service centers are able to provide support for our customers' range of communications, security, and safety requirements. Through SI solutions, Viasat provides best-in-class vendor-agnostic integration and deployment of communications systems during capital construction projects for processing facilities and industrial sites. The SI portfolio consists of:

### **Front-end engineering design (FEED)**

Viasat's front-end engineering design (FEED) is the baseline for project success, focusing not only on the budget but the specific technical needs of your remote facility. At this stage, Viasat will consult with you to help customize solutions for telecommunications requirements that fit the need of your project after conceptual design or a feasibility study is complete.

### **Detailed engineering design**

With detailed engineering design, Viasat partners with your organization to design and engineer services for your project needs. Each project is assigned a highly skilled engineering design team consisting of experienced telecommunications professionals.

### **Project management**

Viasat has a dedicated department of highly experienced and motivated project managers. Each project is assigned to a project manager who handles both internal and external project scheduling and budgeting using a range of software applications that will track each detail during the project timeline.

### **Equipment procurement**

Our engineering department procures all equipment through our worldwide network of manufacturers to ensure full compliance with your operational specifications and final engineering design. As an independent systems integrator, independent of any specific manufacturer, Viasat takes an objective procurement approach, allowing us to acquire the optimum equipment for each project and budget requirements.





### **Factory acceptance testing**

Factory Acceptance Testing (FATs) operates from a dedicated Custom Integration Center, equipped with the necessary tools and facilities to assemble, connect, and integrate the system components based on the engineering design drawings approved by the client. The Integration Center is capable of staging equipment FATs and full system integration tests, or iFATs, which can be witnessed by clients before packing and shipment to the project site.

### **Quality management**

To ensure the highest quality management of each project, Viasat's business processes are governed by ISO 9001, ISO 18001, and ISO 14001 certifications; we are committed to the highest standards in design, engineering, project management, procurement, integration, installation, commissioning, and after-sales services.

### **SI proposal offerings**

SI proposal offerings are available in various formats, allow flexibility in support for PRE-FEED, FEED, EP, EPC, EPCM.

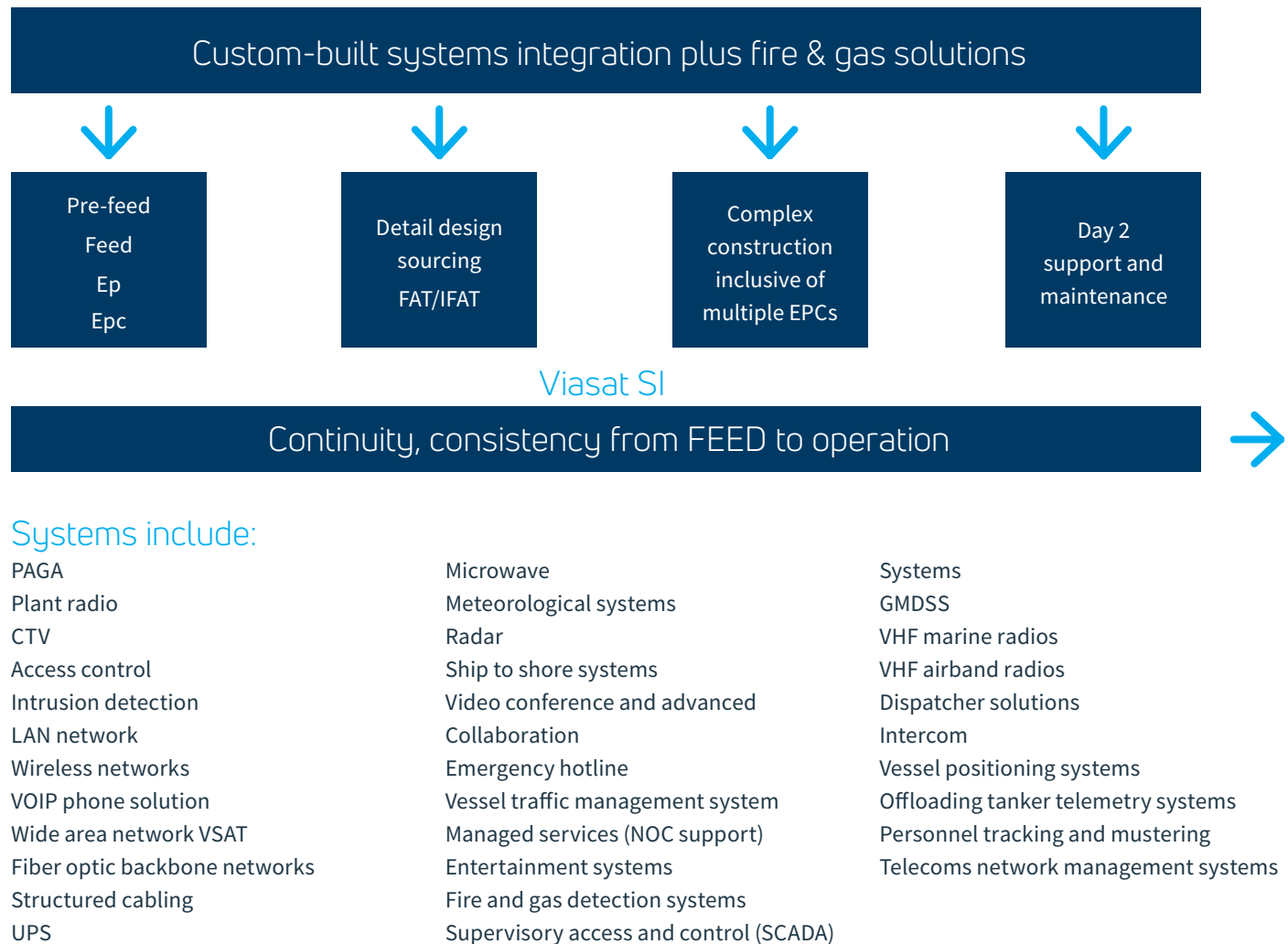
### **Execution activities**

- SAT and Commissioning
- Project Management
- Detailed Design
- Construction Management
- HSE Site Management
- QA/QC Site Management
- Site Services
- Supervision/Commissioning/Training
- Day 2 Support and Maintenance

### **A range of systems integration services**

With any capital IT projects by an EPC or Operator who requires Engineering, Detail Design, Sourcing, Integration, FAT/IFAT, Commissioning, Site Supervision, and overall Construction services; Viasat's SI team is prepared to support your new facility around the globe for any system requirement.

# Systems integration and automation (SI&A)



## Total system solution

Industry professionals demand safety while also minimizing total cost of operations. Viasat offers safety system solutions that can monitor and control both hazardous and nonhazardous sections of your facility and is certified to function in extremely challenging environmental conditions.

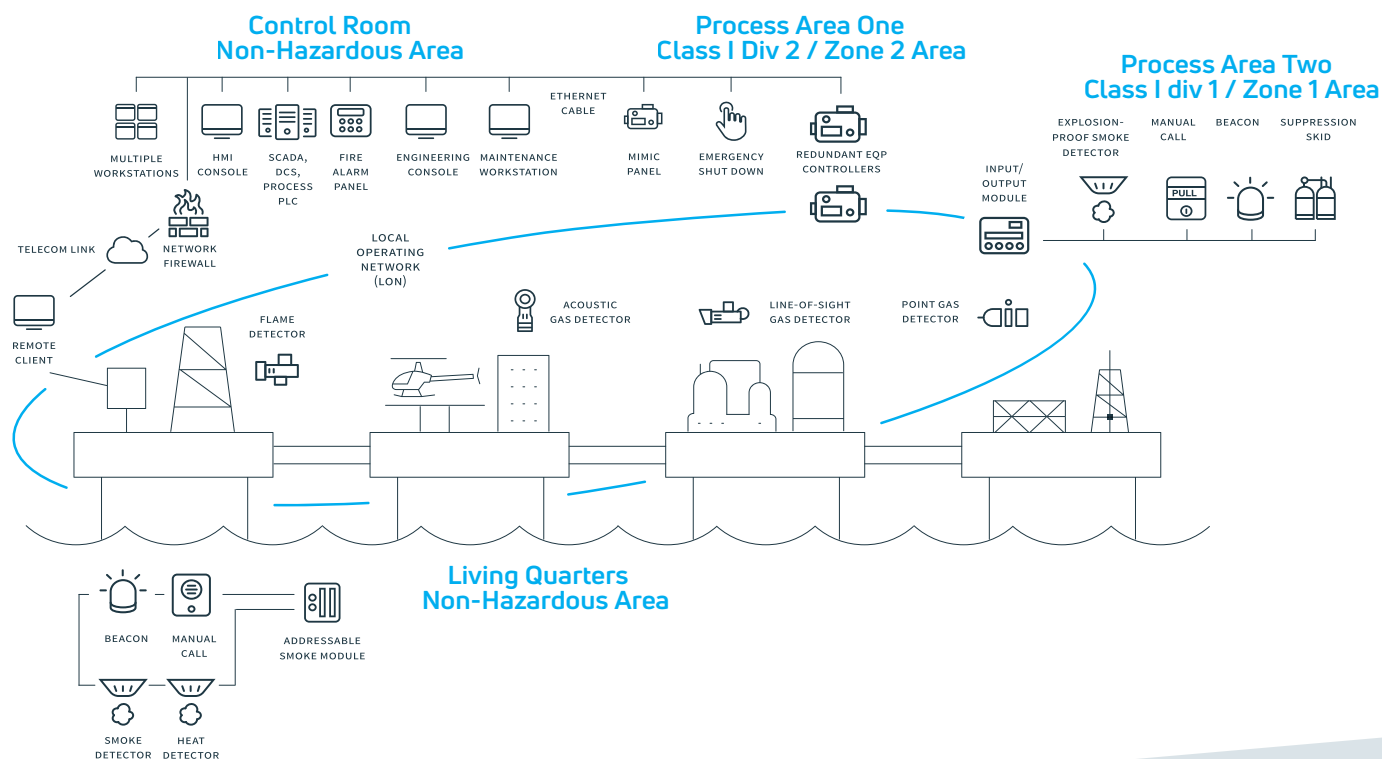
# World-class fire and gas safety solutions

## Custom designed for the location and specific needs

Viasat's teams work across your safety system projects providing system design expertise, dedicated project support personnel, and engineering services in order to meet a project's custom requirements.

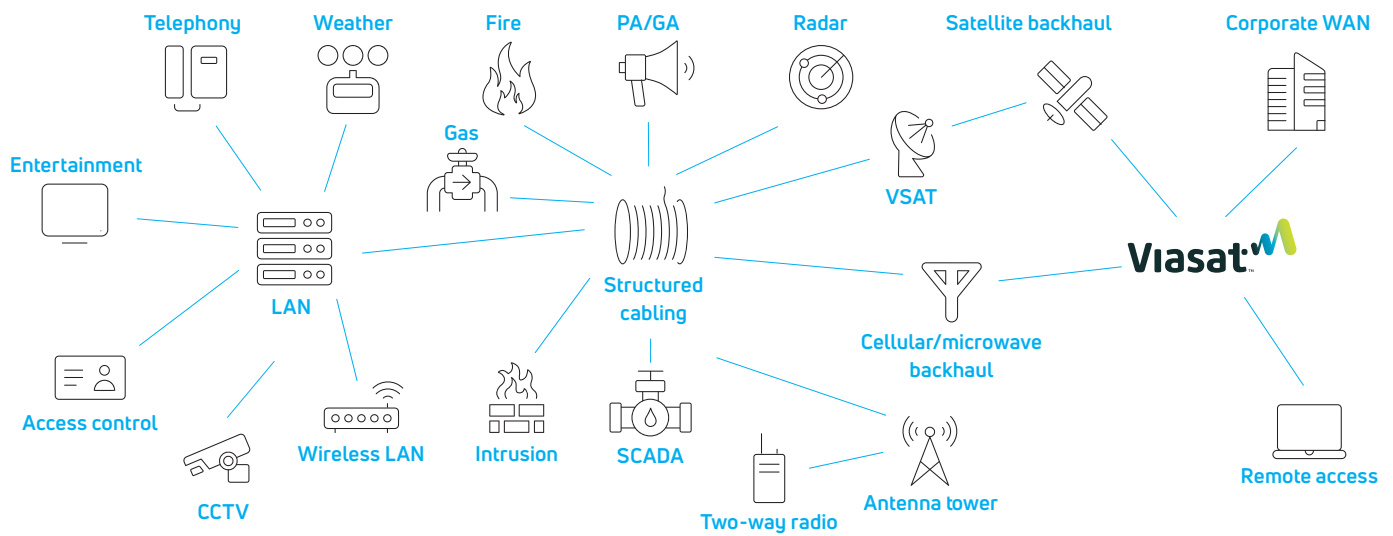
## Offering industry leading fire and gas safety systems and equipment

- Flame detection
- Gas detection
- Suppression equipment
- Control equipment
- HMI programming
- Combined Fire and Gas systems that provide detection, notification, and mitigation
- Sample of communications options: RS485 Modbus RTU, Ethernet Modbus TCP/IP, ControlNet™, DLR, and OPC



# Systems integration and automation (SI&A)

## The SI&A toolbox





## Safety-focused connected solution

Viasat offers a range of services focused on workforce safety monitoring. These solutions not only enhance a project's safety, they drive overall performance through safety by providing a complete picture of who and what is where on large scale projects and remote sites at any time. These solutions offer:

### **Complete**

All-in-one: installed, maintained, and managed for a per-tag cost

### **Compact**

Wearable, low power asset tags. The only end-to-end connected worker solution leveraging a tag containing multiple radio technologies (including Bluetooth, GPS, LoRa, and USSD)

### **Independent**

Completely autonomous from on-premises power and networks. The technology is more secure, faster to deploy, and adaptable to the site

### **Multipurpose**

Capable of monitoring both people and hardware assets, providing the data to drive increased project performance

### **Event monitoring, management, and incident response:**

Create custom analytics by combining geofenced zones with events and personnel groups to:

- Trace worker movements over time
- Monitor restricted areas
- Trigger worker down, restricted area, and dwell time alerts
- Automate emergency mustering check in
- Facilitate edge/remote worker management

# Systems integration and automation (SI&A)

## Promote project certainty

Near real-time information flows from across the entire job site providing:

- Quick status visuals for project first starts, time in work zone, and safety certainty index
- In-depth reports for safety event and key performance indicators
- Custom reports by category, department, and subcontractor

## World-class fire and gas safety solutions

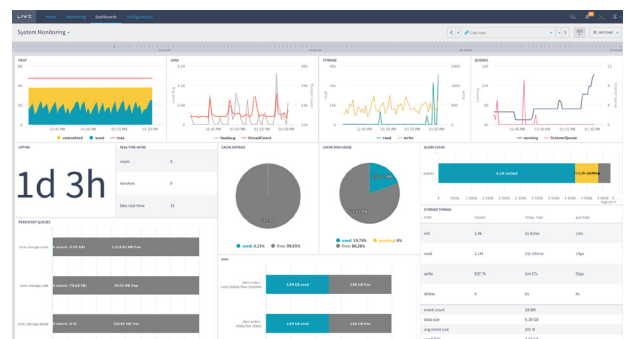
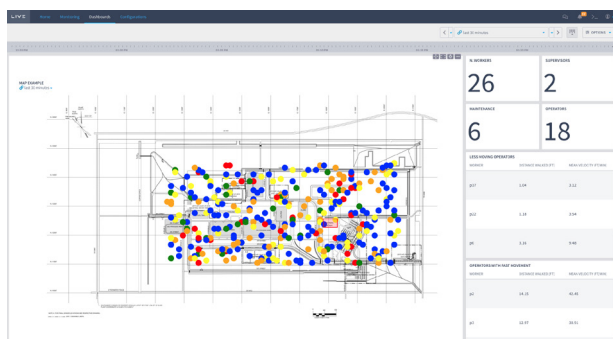
### Intelie Live with SmartConnect

Real-time satellite imagery integration into dashboards to:

- Obtain and update imagery 5-7 images/week
- Enables look-down view of progress on maintenance or construction event
- Incorporates geofenced zones directly over current satellite image
- Create customized system alerts for severe weather
- Quantitatively understand impact of weather on productivity and safety
- Enable increased planning capabilities
- Incorporate real-time and forecasted weather overlays

Real-time location of assets within a job site

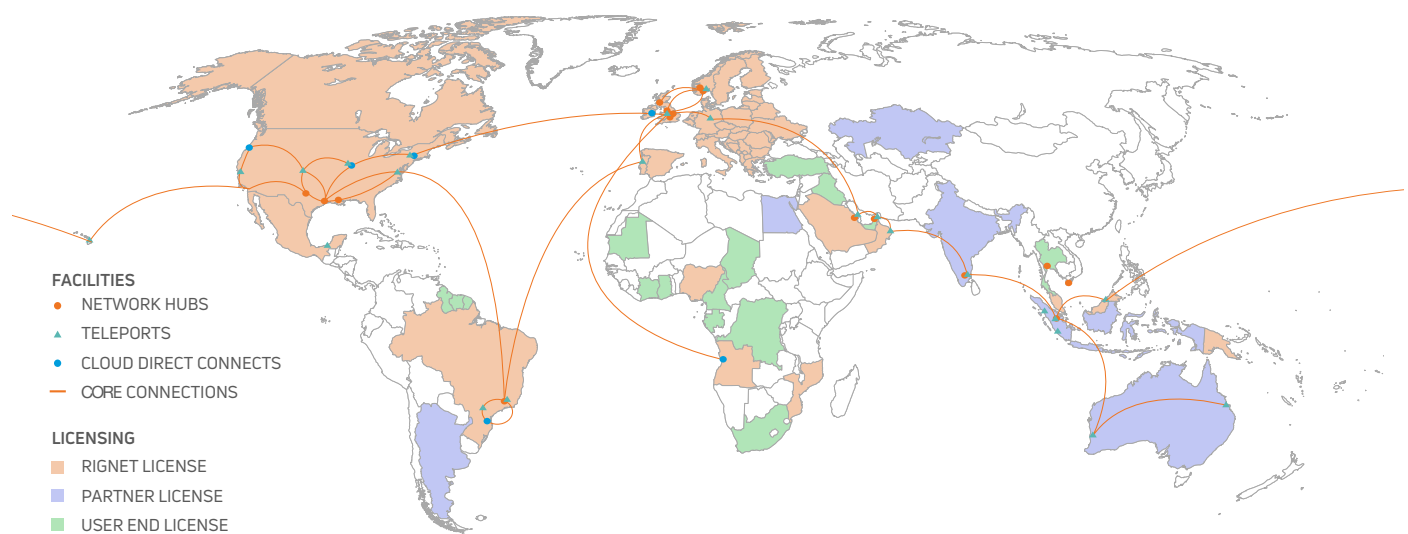
Valuable information always available







## Global presence



# Viasat systems integration offerings

## **Project types including:**

- Site prep work
- Greenfield Construction/Brownfield Construction expansion
- Design build
- National roll-out system upgrade

## **Engineering and integration of multiple systems including:**

- PAGA-plant radio-tower-LAN-WAN-WIRELESS
- SCS-FIBER-radar-weather-TMS (up to 35 systems)
- Fire and gas detection-SCADA

## **Fully managed turnkey integration projects both onshore and offshore for new and existing assets:**

- Pre-FEED, FEED, and EPC phase proposal development
- Early works and permanent plant systems/infrastructure
- Advanced integration expertise
- Fully engineered, integrated, assembled and tested at our facilities by our personnel
- Vendor agnostic

## **Fire and gas detection systems:**

- Reliable, cost-effective solutions for the detection of fire and gas in hazardous environments
- Stand-alone conventional analog systems for distributed self-verifying systems with a wide range of end devices for the environment for which they will be installed
- Inspection, design and install of AFFF systems, CO2, FM200 and other types of suppression systems to protect your facility against fire

## **Aids to navigation:**

- We offer a wide range of ATN equipment to include lighting, horns, and solar systems with battery backup to ensure your facility is in compliance to minimize risks

## **Best-in-class remote access technologies:**

- Fully managed turnkey capital integration projects
- Voice and data communications, radio, safety, and security subsystems
- Early works and permanent plant systems/infrastructure
- Delivering SI solutions for more than 30 years with over 100 executed projects globally
- Onshore and offshore for new and existing assets
- Platforms, FPSOs, refineries, LNG and ethane cracker facilities
- Successfully converted projects into recurring revenue businesses

