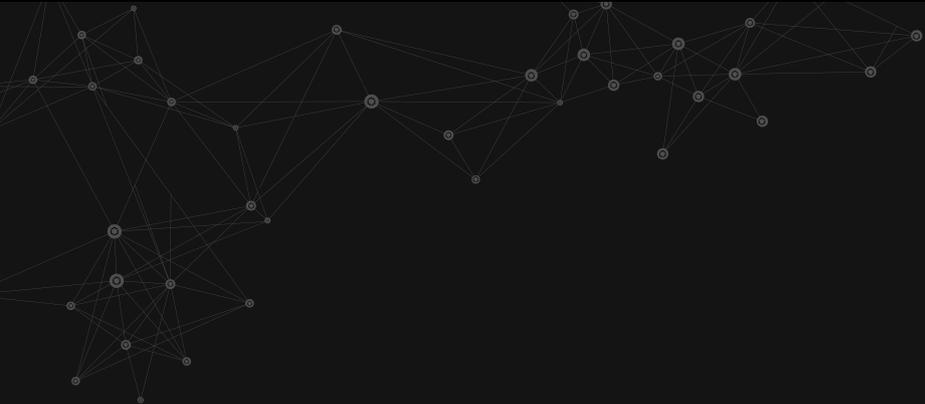




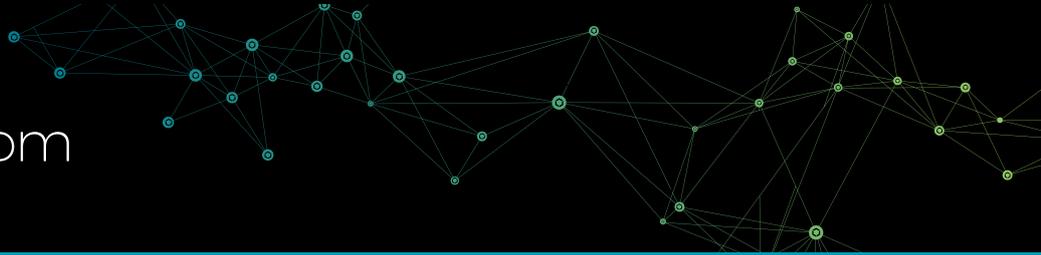
# Connected Software Driving Performance

## *Agriculture*



### CONTENTS

- 2 Industry Challenges
- 3 The Cubic Solution
- 5 PACE
- 7 PLXOR
- 9 INSIGHTS
- 10 Case Study



## INDUSTRY CHALLENGES

The agriculture industry is undergoing profound transformation. There is a rapid change in technology and a move towards precision farming. The driving factors of this change are the features of digitalisation, sustainability, urbanisation and the challenges that they bring.

### The number of cellular IoT connections will reach more than 5 billion by 2025\*

Manufacturers of agricultural machinery and vehicles expect to connect these to the cloud from anywhere in the world. To succeed globally, these agricultural OEMs must negotiate agreements with many different mobile operators, grapple with the technical complexities of integrating their vehicles and machinery across various backends, and be compliant with regulatory and operational constraints in each country they sell into. A complicated, expensive and time-consuming process.

#### Cubic Telecom cuts through all of these complications to deliver a single global solution:

- Data management and analytics
- Globally connected software
- Remote device connectivity management
- End-to-end security
- Seamless integration with OEM IT business systems
- Regulatory and tax compliance
- One management platform and one integration across the manufacturing and supply chain
- Access to our global portfolio of Tier 1 mobile network partners

\* Source Ericsson, Nov 2019

# Cubic Solutions Overview



## Complete Control for OEMs

Deployed across 6 continents, instantly provisioned, managed through the cloud

Our connected software solutions offer unique capabilities, all in one package.

Today, we power globally connected software for millions of vehicles and devices across 100+ countries for some of the world's largest OEMs. With our PACE, PLXOR, and INSIGHTS products we make it easier for agricultural equipment manufacturers to manage next-generation connected software across global fleets, and offer advanced analytics to enable data-driven farming.

## Cubic Telecom's products and services offer agricultural equipment manufacturers:

### Data-Driven Insights

Connected intelligence is integral to our Connected Software solutions. We use data generated across an ecosystem of connected services for analytics tailored to multiple use cases, from engineers involved in performance improvements to executives making strategic decisions.

### Scale & Agility

Our solutions are cloud-based with PaaS (Platform-as-a-Service) capabilities, enabling the agile implementation of new services to drive revenue or the scaling up of existing propositions to extend their global reach.

### Customization & Control

Thanks to open APIs and the use of industry standards, new devices and services can be easily added to our suite of solutions and seamlessly integrated into client systems and architecture, driving efficiency, value, and innovation.

### Device Lifecycle Management

From monitoring single devices at the point of manufacture to fleet device oversight with filtered alerts, our connected software solutions provide remote device lifecycle management, putting our clients in control so they can optimise their own value propositions.

### Regulatory & Tax Compliance

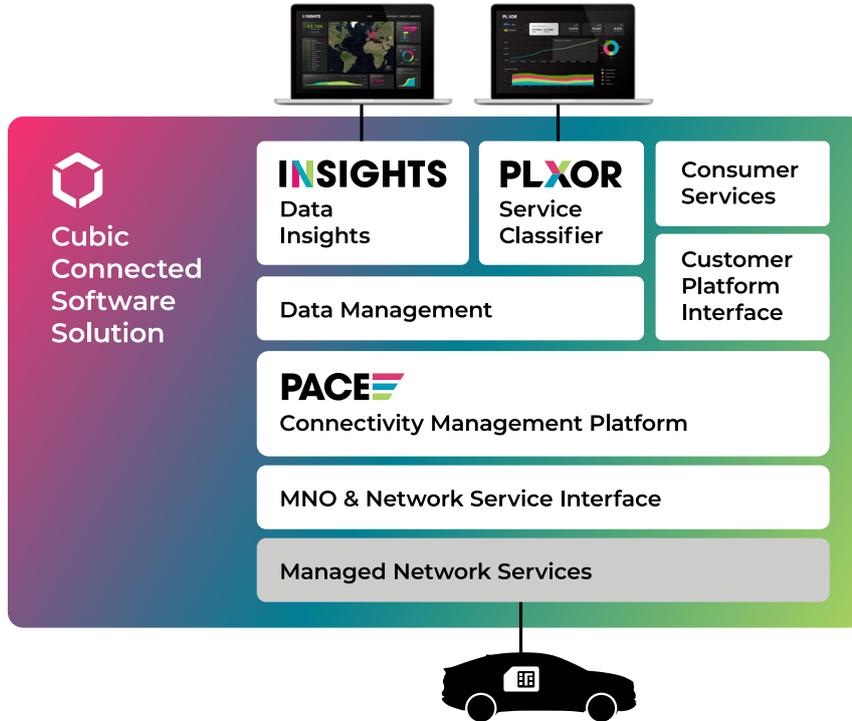
Not only are our connected devices pre-configured with local telecom and tax regulations for destination countries, they can be efficiently and cost-effectively updated Over-The-Air to stay aligned with regulatory changes and industry standards. We are fully compliant in all of the markets we support including: Brazil, China, Russia, Singapore, Turkey, Thailand, UAE.

### Global Coverage

With zero-touch registration for LTE, 5G, and satellite, we provide high quality connections in even the remotest corners of the planet. Our seamless transitions across technologies, service providers, and borders make global strategies easier to deliver.

# Our Connected Software Solutions

With PACE, PLXOR, and INSIGHTS, agricultural equipment manufacturers avail of globally connected software and real-time analytics solutions.



## Cubic provides seamless global device connectivity across all wireless technologies.

Our highly scalable core network includes our HLR/ HSS, DNS, SMSC and OTA infrastructure with regional Packet Gateways providing local breakout for minimal latency and PCRF for policy management and control.



### NETWORK

Global radio access network coverage is provided through integration of Cubic Telecom 2G, LTE, 5G, and VoLTE Core Networks with our worldwide portfolio of Tier 1 MNO partners.

### MANAGEMENT

Seamless global device connectivity with zero-touch remote management and provisioning enables you to securely manage and monitor your connected device fleet from anywhere in the world.

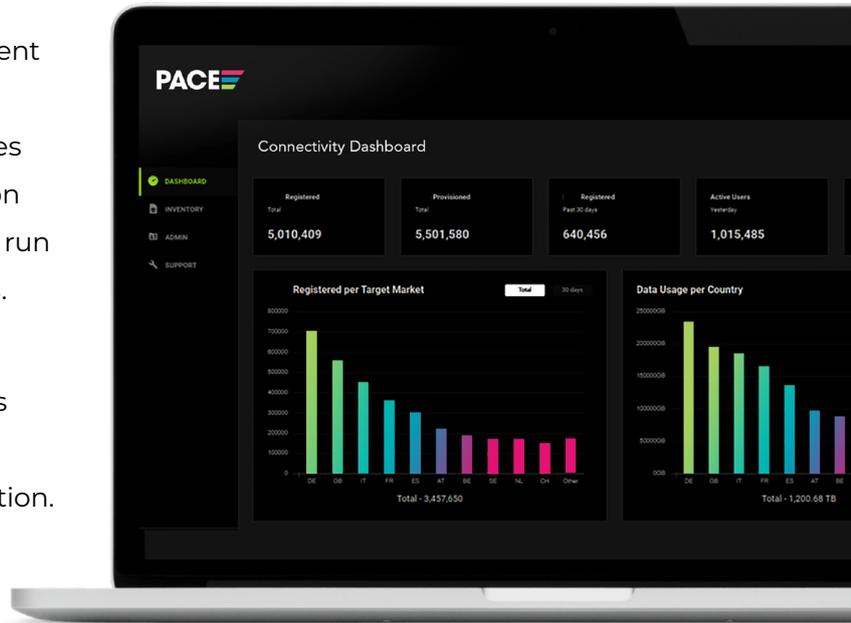


# PACE

## Global Connectivity Management Platform

PACE is a global connectivity management platform that enables a single point of access to various mobile network services across 190 countries. More than six million (and counting!) live devices and vehicles run on PACE today across over 100 countries.

PACE offers secure infrastructure and a scalable software platform that supports various product designs and industries: Automotive, Agriculture, and Transportation.



With PACE, multiple ecosystem partners and diverse MNOs can easily achieve global zero-touch device deployment across generations of vehicles, vehicle line ups, territories, and functionalities.

### BUSINESS VALUE

Our secure unified MNO solution simplifies regulatory compliance, as well as legal, tax, and security compliance in accordance with each country's specification.

PACE is a vendor agnostic platform that ensures no lock-in to MNO, SIM, and platform providers across the globe.

Accelerate Time-to-Market with a readily available, scalable platform solution that serves a global ecosystem and optimizes supply chain management.

### KEY CAPABILITIES

- Zero-touch global device and vehicle onboarding to your chosen network.
- Connectivity coverage across 190 countries with one standardised integration interface.
- GSMA compliant and vendor-neutral Subscription-Management.
- Remote SIM provisioning and eSIM localisation.
- Highly customisable billing capabilities that cater to your customer's preferences.
- A software-based Multi APN capability for independent B2B and B2C traffic channels.
- OEM device and service management platform integration.
- In-vehicle Wi-Fi and various B2C models to support technologies such as 'carrier of choice' and 'pair to plan.'

# PLXOR

## Optimise and Personalise

### UNLOCKING THE TRUE VALUE AND POTENTIAL OF CONNECTED VEHICLES AND MACHINERY

With PLXOR, agricultural equipment manufacturers can classify and visualise the services fleets of vehicles or machines are consuming in a simplified way, providing insights to enrich customer experience.

By leveraging Cubic Telecom's wide range of device technology solutions, IP, and expertise in complex systems engineering, PLXOR is designed to help agricultural vehicle makers improve cost efficiencies, create service revenue opportunities throughout a vehicle's lifecycle and provide advanced user experiences for customers and drivers.

PLXOR is a data traffic classification service, meaning it collects real-time data to visualise and segment individual services and usage levels. Using PLXOR, services consumed by the connected vehicle can be controlled on a per-vehicle, per-fleet or per-region basis.

#### BUSINESS VALUE

- **Informed decision making:** With PLXOR agricultural equipment manufacturers monitor demand for specific navigation or telemetry services, helping them decide which 3rd party providers to partner with.
- **Business Intelligence:** Live monitoring helps OEMs identify peak usage and patterns over time. Alerting can be set up to send triggers during abnormal traffic behaviour.
- **Personalised services:** OEMs can tailor pricing strategies and offer personalized service packages.



#### KEY CAPABILITIES

- Single point of control over what services are consuming your data flow; stay up-to-date on your connected vehicle.
- Service identification and control means that vehicle makers can manage multiple devices through a single window, and retain control of data consumption, becoming the gatekeeper of content streaming.
- With global split-billing, content and services consumed by vehicles can be classified and controlled on a per-vehicle, per-fleet, per-region basis.
- Highly redundant and configured over web-standard API's and / or web-portal.
- Quick and simple configuration by the customer without complex IT integration.
- PLXOR shows real-time results on a single APN.

# INSIGHTS

## BECOME DATA-DRIVEN



### HOW IT WORKS

With INSIGHTS we provide state-of-the-art data analytics to give agricultural OEMs the connected intelligence they need to optimize customer experience and maintain competitive advantage.

Data from multiple devices and services enables real-time performance monitoring and advanced reporting.

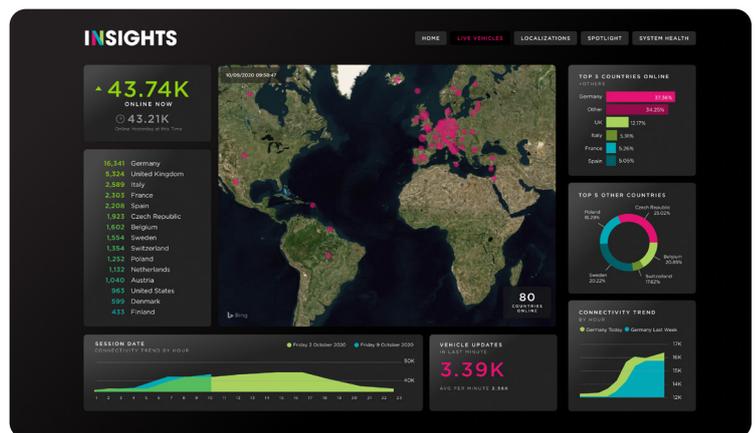
We collect and correlate millions of data points generated by vehicles and devices each day.

INSIGHTS pulls this all into a data lake where it is transformed and surfaced using a range of

Business Intelligence tools.

We present it back to customers through real-time dashboards and monthly reports, customized to their specific requirements.

With real-time monitoring and alerting notifications, our customers ultimately better understand their end users and the way they interact with vehicles and connected services.



### BUSINESS VALUE

- Access more insights faster for data-driven decision-making.
- Correlate data from network, vehicle, and device for multiple insights.
- Use data from real-time events to proactively manage performance.
- Identify emerging trends and new business opportunities.
- Leverage historical data for predictive analytics and strategy planning.
- Develop a deeper understanding of market segmentation.



Cubic Telecom delivers intelligence to the field, enabling precision farming for CNH Industrial.

**GOAL**

To deliver on our focus of sustainability and the use of data analytics to reduce the overall impact of our customers through connected software.

**SOLUTION**

CNH Industrial customers can remotely collect and manage data on their terrain and machines to maximize productivity and crop yield, whilst accessing the strongest networks in countries around the world.

“ We are excited to be collaborating with Cubic Telecom as the global connectivity provider for CNH Industrial. With Cubic Telecom’s proven solution and track record in the automotive marketplace, we look forward to future-proofing our agricultural vehicles across key regions with the integration of their technology. By optimizing our agricultural machinery now, farmers will increase productivity and competitiveness, experiencing the benefits of digital transformation.

**Andrea Rodella**

Digital Operations, CNH Industrial

**Farming has shifted its focus to include digitalization.**

- CNH Industrial needs to ensure automatic agronomic and machine data synchronization from the field to the cloud at a global scale, to enable the most advanced precision farming applications and provide data and insights needed to maximize productivity.
- Connected software is the key technological enabler for these use cases, and CNH industrial was looking for a strong player to bring its connected offering to the next level but keeping it simple: one partner, global coverage.
- Cubic Telecom’s PACE platform enables worldwide connections to LTE and 5G.
- PACE has initially been deployed across tractor, harvesters and crop protection models.
- CNH Industrial can save on CapEx and OpEx as the need to manage several global contracts is removed, and analytics for cost saving activities can be run via the PACE platform.
- By gaining access to Cubic Telecom’s best in class operators and full compliance with local regulations across the globe, CNH Industrial can significantly reduce complexities and, ultimately, enjoy cost reduction.
- Hundreds of thousands of vehicles will be connected in Europe, Brazil, North America and the Asia- Pacific market.



There is an opportunity in the fast-emerging market for connected agriculture services that manufacturers cannot afford to miss.

Cubic Telecom provides a partner on the journey, helping take the steps necessary to becoming software-driven, reaping the rewards of monetising new services and increasing customer loyalty.

Ready to learn more? Let's connect:

**+353 1 486 0600**

**[info@cubictelecom.com](mailto:info@cubictelecom.com)**

## ABOUT CUBIC

Cubic Telecom delivers innovative IoT connected software solutions to Automotive, Agriculture, and Transport manufacturers. Its ecosystem of revenue-generating services combines real-time analytics with global connectivity in 190+ countries, always aligned to regional regulatory requirements.

## AWARDS



2021 Cubic is winner of 'IoT Analytics Innovation' category



Frost and Sullivan Key Technology Innovator 2019



Gartner Magic Quadrant Upgraded to 'Challenger' for Managed IoT Connectivity Services Worldwide 2021



Winner of IoT Global Award 2020 'Automotive, Transport, and Travel' category for PACE