

Orange Business Services - Global Industrial IoT Services



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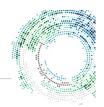
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Competitive Strengths

- Orange's Datavenue, launched in France in 2015, was expanded globally in 2016; it offers a comprehensive set of building blocks for IoT, with connectivity management, object integration, data and app platforms, partner solutions, and professional services.
- Orange has a growing set of app developers, analytics experts, R&D engineers, and regional resources, representing over 700 employees dedicated to IoT.
- Orange has a mobile network in 28 countries, global MPLS connectivity, 500+ roaming agreements, WiFi, satellite, radio/mesh networks and a LoRa network in France which will reach 120 urban areas (2600 towns) by January 2017.
- Orange's IoT business has grown to more than 11.3 million connections, a three-year growth rate of 35%. It also saw 16% revenue growth in IoT from 2015 to 2016.
- Orange's participation in the Global M2M Association (GMA) with DT, TeliaSonera, Telecom Italia, SoftBank, Bell Canada, and Swisscom, reinforced by partnership with the Bridge Alliance, enables it to provide IoT 'beyond roaming' solutions in 77 markets in Europe, the Middle East, Africa, and Asia.
- Live Objects is a framework allowing businesses to design and implement IoT projects by connecting objects and machines, extracting data from connected objects, presenting the data and transforming it into relevant information.





Competitive Weaknesses

- Orange will have to look out for other strong European competitors that are pursuing pan-European, global, and U.S./European deals and are also forming alliances.
- Regional players are enhancing market position through partnerships for extended footprints; similarly, Orange is part of the GMA alliance of seven operators, which also partners with the Bridge Alliance in Asia-Pacific.
- Vodafone is the European leader by numbers of connections, leveraging its large wireless network, dedicated IoT BU, internally developed SDP, and acquisitions of integrators and connected car specialists.
- All other Tier 1 operators are also looking for differentiation beyond connectivity with end-to-end deployments and service/hardware/software bundles.

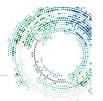
Current Perspective

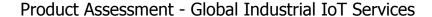
Orange Business Services holds a very strong position within the global IoT services market. Orange targets four main verticals – automotive, smart territories and transport, industry and logistics, and healthcare – with a dedicated go-to-market strategy for each, including vertical partnerships. It fosters collaboration between all players in the value chain to increase value creation, from startups to academic and economic partners.

Orange has a number of key benefits in offering IoT services: it has its own IoT service delivery and application enablement platforms; offers widespread network coverage across fixed, cellular, and local access technologies (with a LoRa-based LPWAN network up and running in France that has 1 million objects in the pipeline); has a BU (Orange Mobile Enterprise) dedicated to mobile and IoT connectivity solutions for MNCs (in addition to local enterprise solutions from Orange operating companies); has experience in many vertical industries; and differentiates with Orange Applications for Business (OAB), dedicated to application development. Orange has also made a stake in the data analytics market empowered by its Flux Vision flexible data platform that provides indexing, prediction, log correlation, and collaboration tools.

In 2015, a group initiative brought together all Orange IoT and analytics expertise, structured to find profitable and addressable growth with the right value proposition, verticals, and geographies, leveraging both Orange organic assets and partners. Orange launched the Datavenue suite of services for developers, startups, and enterprises, providing professional services, systems integration, security and identity management, and co-innovation enablement. Datavenue was expanded globally in 2016. Orange also introduced Live Objects, a framework allowing businesses to design and implement IoT projects by connecting objects and machines, extracting data from connected objects, and transforming this data into relevant information. The data is hosted on a secure, SaaS environment and can be displayed either on personalized dashboards or existing CRM systems.

Orange has 700 people dedicated to IoT and analytics within the Orange group (from Orange Labs, Orange country BUs, Orange Application for Business, and Orange Business Services). Orange can provide IoT connectivity across its footprint of 28 mobile networks and at attractive rates through partners' footprints, for a total of 220 countries and territories. Its partnership with Deutsche Telekom, Telecom Italia, and TeliaSonera, with additions of SoftBank, Swisscom, Bell Canada (the Global M2M Association), and a partnership between the GMA and the Bridge Alliance, provides an extended footprint, agreed-upon service levels, and an enhanced escalation process, with devices certified consistently across networks. GMA offers a Multi-Domestic Service which strengthens its ability to provide consistent services across its combined footprint as well as consistent service enablement and subscription management through Ericsson's service platform and Gemalto's eUICC. GMA estimates it can reach 77 markets in Europe, the Middle East, Africa, and Asia. Orange's LoRa network in France is live in 18 cities and is also seeing traction, with a healthy sales pipeline, especially for smart city applications.







Orange has been offering IoT solutions to businesses since 2005. Midsize/large national companies are serviced by domestic mobile networks such as Orange France or Spain, while international customers are managed by the dedicated Global M2M team within OME. Orange's SDP is accessible to all customers regardless of location via a web portal and provides service management, customer management, incident management, billing and invoice analysis, and traffic reporting. Orange offers a module certification program, designed to simplify and accelerate time to market, reduce costs, provide performance assurance, and minimize field testing. Orange provides a global SIM (although roaming is required beyond the Orange footprint) for simplified logistics and service delivery.

Orange provides integration and end-to-end IT solutions. It helps select compliant modules, devices, sensors, etc. to fulfill the customer's requirements. Orange develops and implements business applications that process, consolidate, and deliver information and offers storage and management of data collected from IoT devices, leveraging its cloud solutions. Throughout the project lifecycle, Orange Business Services provides consulting, project, and service management.

Strengths and Weaknesses

Strengths

- Orange's Datavenue, launched in France in 2015, was expanded globally in October 2016; it offers a comprehensive set of building blocks for IoT, with connectivity management, object integration, data and app platforms, and professional services. Orange's Flux Vision flexible data platform, available in France, Belgium, and Monaco, adds indexing, prediction, log correlation, and collaboration tools.
- Orange has a growing set of IoT app developers, analytics experts, R&D engineers, and regional resources, for a total of over 700 employees dedicated to IoT. Its ability to develop IoT applications and provide data analytics remains a key differentiator.
- Orange's global connectivity includes cellular access in 28 countries as well as global MPLS for fixed connectivity, in addition to WiFi, satellite, radio/meshed networks, and support of LANs/WLANs for in-building access. It also offers a LoRa-based LPWAN network in France which will reach 120 urban areas (2600 towns) by January 2017. Orange and Porto Seguro Conecta are collaborating to support IoT projects in Brazil for multinational corporations. This enables Orange to provide its global customers with IoT coverage in Brazil through the Porto Seguro Conecta connectivity and mobility platform, used primarily for tracking car and residential alarms.

Weaknesses

- Orange will have to look out for other strong European competitors such as Telefonica and Vodafone. These rivals are betting on the fact that theirEuropean footprints, combined with that of their U.S. and global partners/affiliates, will provide a superior story when it comes to serving U.S.-based MNCs or European MNCs with U.S. operations.
- Other regional European players are enhancing their position in IoT, including KPN, which is strong in Benelux but starting to see more global deals, and Telenor, which has been very actively pursuing IoT opportunities for many years in the Nordic countries. EE, recently acquired by BT, and Cubic Telecom in Ireland also have regional strengths. For its part, Orange is part of the GMA alliance composed of seven operators (Deutsche Telekom, Telia, Softbank, Bell Canada, TIM, Swisscom, Orange) and benefits from a partnership with the Bridge Alliance in Asia-Pacific. GMA covers a total of 77 countries.
- Clearly, Vodafone is considered the biggest rival of all European contenders in IoT; by virtue of its large wireless network as well as its own dedicated IoT business unit and internally developed SDP, it is a formidable competitor. Vodafone has been the European leader in terms of its numbers of active connections for many years.





- Orange's participation in the Global M2M Association helps it in pan- European M2M opportunities, spanning 94% of the European population in 33 countries, as well as deals in North America, Latin America, and MEA. Orange can also provide services via 500+ roaming relationships to 220 countries and territories.
- Orange developed and launched Live Objects in 2015, a framework allowing businesses to design and implement IoT projects by connecting objects and machines, extracting data from connected objects, and transforming this data into relevant information. This is a key capability of the 'manage and control' aspect of the Datavenue platform.

Metrics

Organizational Elements and Assets

M2M Organization	Dedicated organization named 'Datavenue Program' to capitalize on the company's existing global M2M activities launched in 2009, Orange Labs, Country BUs, and the Application Development BU (Orange Application for Business). This 'IoT & Analytics' B2B program is driven by a program director, sponsored by the Orange Business Services CEO. It is federating business units involved in connectivity, IT system integration delivery, and innovation to create synergies between M2M and business mobility services. Overall, 700+ dedicated employees within Orange for IoT and Analytics, including Orange Applications for Business, Orange Labs, country BUs, and Orange Mobile Enterprises.
Network Coverage for M2M	Local in-country rates via global SIM within Orange footprint in 28 countries, plus roaming to a total of 220 countries and territories. Through its global footprint complemented with the Bridge Alliance footprint, GMA can cover 77 markets in Europe, the Middle East, Africa, and Asia. Orange can also provide its global customers with IoT coverage in Brazil through the Porto Seguro Conecta connectivity and mobility platform, used primarily for tracking cars and residential alarms.





Go to Market and Core Service Elements

Vertical Target Segments	IoT solutions address all verticals, but Orange has a specific focus on: automotive, smart territories and transport, industry and logistics, and healthcare.
Service Delivery Platform Elements	Orange has an in-house connectivity platform and also uses Ericsson's connectivity platform for multinational automotive and consumer electronics deals. Elements include: deployment (ordering, SIMs, and options); customer ID association; SIM status management (test mode, sleeping, activated, suspended, coverage verification); proactive management, control, and security (consumption tracking, alarms, terminal locking, white and black lists, overflow protection); incident diagnostics (network status, SIM connection test, session history); and mobile services (remote wake-up, geo-location). Recent enhancements include bulk SIM ordering, SIM lifecycle management and testing facilities; simplified operations (alerting, diagnostics, and SIM directory); advanced management (machine monitoring, QoS, and consumption reporting); proactive alarming/alerting and consumption tracking; terminal locking; white and black lists; and overflow protection. The Ericsson platform has also been adopted by GMA for global deals. Orange offers Datavenue, which includes Live Objects framework allowing businesses to design and implement IoT projects by connecting objects and machines, extracting data from connected objects, and transforming this data into relevant information.
SIM Options	Standard 2FF/3FF, Reinforced 2FF/3FF, MFF1, MFF2 (VQFN8-like) proposed in consumer, industrial, automotive versions. Embedded SIM (EUICC) includes GSMA standards for remote profile management.

Value Added Capabilities

Professional and valueadded Services	Pre-sales support, advice and consultancy, dedicated account support, dedicated multilingual and help support desk, hardware and software integration for selected verticals. Guaranteed QoS for missioncritical applications (i.e., network availability SLAs). For targeted MNCs, IoT dedicated sales specialists, solution architects, and commercial managers provide consulting and advisory services. OAB unit builds
	custom apps and provides systems integration, customer care, and data analytics for M2M. Datavenue ties together development tools and end-to-end integration along with dashboards, data visualization, and data analytics.







Traction

Numbers of Connections	11.3 million+ active SIMs in service as of the end of Q3 2016, representing a connection growth rate of 35% from 2013 to May 2016. Orange expects IoT to be a EUR 600 million business by 2018. Acquisition of Ocean made Orange number one in the French fleet management vertical, with 5,000 global customers and 110,000 vehicles.
Named Customers	LivaNova, Qualcomm Life (healthcare); SITA, Splitsecnd, Transics (connected transportation); flaik, Cotecna (track and trace); IntraTone (security systems); Renault, Tesla, Peugeot (connected car); SIA (point of sale); m2o city (a JV with Veolia Water for remote environmental data and water meter reading services); Dacom (smart agriculture); Manitowoc (remote crane monitoring solution); EMT Malaga (fleet management and connected buses); WayRay (automotive aftermarket); C&P Rental (fleet management, Singapore); Tractive, Yummypets (GPS + cellular trackers for pets); Smartseille (eco city in Marseille); Harmonie Mutuelle (insurance, remote assistance)

