

## PUBLICATION 1 SERVICE DESCRIPTION FOR IOT CONNECT ANYWHERE

### 1.1 Definitions

The Specific Conditions for Orange Integration Services apply to the IOT Connect Anywhere service (the "**Service**"). The Service provides the Customer with end to end connectivity through a dedicated and secured Low-Power Wide Area local network for Customer compatible and registered Connected Objects (the "**Connected Objects**"); as well as a data management platform for the data captured over such network. The Service includes related maintenance and support.

The Service can only be used directly by the Customer for its own needs (business operations and process, monitoring, control, etc.) and cannot be resold or made available otherwise to any third party.

### 1.2 Service Overview

Elements of Service	Standard/Optional
A dedicated Low-Power Wide Area local network (LPWAN): the LPWAN based on LoRa® technology for dedicated Customer sites with the deployment of Gateways (optionally external WAN routers).	Standard
A centralized LoRaWAN controller for the Gateways: a centralized LoRa® Network Server / Join Server which is connected to the Gateways using Ethernet or 3G/4G access backhaul technologies.	Standard
A centralized Data/Device Management platform to collect and store the LPWAN messages and to manage the Customer Connected Objects.	Standard
A dedicated support for commercial and technical questions.	Standard
A dedicated Service Manager as a Single Point of Contact for Customer.	Optional

Access to the public internet is not part of the Service.

### 1.3 Dedicated LPWAN

1.3.1 **LoRa® Radio Network on Customer Premises.** The Service includes the supply, installation, and maintenance of the Gateways in order to provide LoRa® coverage of the Customer premises.

1.3.2 **Default Sizing and Configuration of the LPWAN.** Unless specifically agreed otherwise, Customer will provide all information and documentation required for Orange to evaluate the number and location of the Gateways. This information includes maps of the Customer premises, intended usage of the LPWAN (indoor or outdoor), connectivity, etc. Orange will not assume any responsibility for the proper functioning of the LPWAN if the information provided by Customer is inaccurate or incomplete, or in case the topology needs to change because of factors outside the control of Orange.

1.3.3 **Site Survey for LoRa® Radio Coverage.** Customer may request Orange to perform a remote or an onsite site survey during which a theoretical respectively real life LoRa radio coverage assessment will be performed. The details and Charges of such Site Survey will be specified in a Statement of Work.

1.3.4 **The Gateways.** The Gateways are the network equipment deployed on the Customer premises for the radio coverage. The Gateways support the following services:

Outdoor/ indoor	Yes
Bands	EU 868, US/AS 915/923
Nb of channels	16 / 64
WAN Ethernet	Yes
WAN 3GPP	Yes, with external router
WAN WiFi	No
IPSec client	Strongswan
Geolocation	Yes

The Gateways remain Orange property.

1.3.5 **Gateways deployment.** Unless specifically agreed otherwise, Orange will install the Gateways on the Customer site. In any event, the Gateways need to be installed and operated in accordance with the specifications and guidelines provided by Orange. The Gateways come with their accessories (LoRa® antenna, PoE injector) and optionally with an external 3G/4G WAN router.

The Customer will make available at no cost to Orange a place to install the Gateways and its accessories, including the power supply.

The Customer is not allowed to move or alter in any way the Gateways. In particular, Gateways will not be installed in the public domain or in a country subject to regulatory restrictions for LoRa®. Furthermore, the Customer will not alter the data transmission by using equipment in breach of Orange specifications and guidelines.

Civil works required for the installation of the Gateways are not part of the Service.

The Service will be deemed activated once the installation and configuration of the Gateways is completed.

## 1.4 Connectivity

1.4.1 The connectivity between the Gateways and the centralized LoRaWAN radio controller is not provided by Orange as part of the Service. Unless specifically agreed otherwise, Customer will ensure the connectivity through Ethernet. Exceptionally, 3G/4G connectivity can be authorized by Orange.

1.4.2 **IP Backhaul Service.** The Gateways and the Network Server will be connected over the internet with an IPSec encryption. Two types of connectivity are possible: Ethernet and 3G/4G connectivity.

When available, Customer will ensure connectivity through an Ethernet connection.

In case 3G/4G connectivity is authorized by Orange, Customer will be responsible for procuring SIM cards and mobile data plans, as these are not included in the Service. The mobile data plan will allow for at least 300 MB data volume per month for Internet connection (IP V4).

1.4.3 **IPSec Encryption Service.** Orange will use IPSec to secure communications of the Gateways over Internet: a security gateway and PKI infrastructure will be deployed for mutual authentication.

## 1.5 LoRaWAN Controller

The centralized LoRaWAN controller supports only LoRaWAN 1.0.2 specifications with Network Server and Join Server functionalities.

## 1.6 Data Monitoring and Management Platform

A centralized Data and Device Management Platform, Live Objects, is used to collect and store the LPWAN messages and manage the Connected Objects.

The Customer is allowed to view its LoRa® messages through a web portal or retrieve it through an API (secured over HTTPS) or MQTT protocol towards its Application Server.

Live Objects is a cloud-based Orange IoT platform. Live Objects is accessible via the Internet using the Live Objects Web Portal, available at: <https://liveobjects.orange-business.com>. The administration functionalities can be accessed via a login/password provided by Orange, which the Customer is required to treat as confidential.

Orange provides the Customer with addresses and usernames to access to Live Objects.

The Customer is solely responsible for any communication, use, and conservation of the usernames provided by Orange.

Live Objects has the following features:

Message Management	Connect multiple Connected Objects to the Customer's IT infrastructure; and enable message routing between Connected Objects and the Customer's business applications. Optimize and simplify communications to and from Connected Objects regardless of their location. Collect, deliver, filter and route messages in near real-time.
Device Management	Monitor and maintain an inventory of Connected Objects. Configure and monitor the activities and status of Connected Objects (including implementing updates and carrying out diagnostics). Customize interface dashboards and reporting tools, including: <ul style="list-style-type: none"> <li>▪ sending notices when Connected Objects malfunction;</li> <li>▪ optimizing business processes; and</li> <li>▪ monitoring performance of Connected Objects.</li> </ul>
Data Management	Store and process data. Data from Connected Objects is time stamped. Advanced indexed storage. APIs allowing multi-criteria search to enable users to search and extract data.

## 1.7 Connected Objects

Customer will:

- (a) register its Connected Objects on the Live Objects web portal;
- (b) ensure that the Connected Objects will be compatible with LoRaWAN 1.0.2 specifications; it being understood that even in case of compatibility, Orange does not warrant the proper functioning of the Connected Objects and that in any event Orange recommends testing the interoperability of the Connected Objects on the LPWAN;
- (c) only use the Services for data transmission between Connected Objects and servers and platform;
- (d) not use the Services for transmitting or receiving data or anything else that:
  - (i) is in violation of any applicable local, national, or international law or regulation;
  - (ii) is defamatory, abusive, obscene, indecent, or harassing; or that threatens or encourages bodily harm, destruction of property, or infringement of the lawful rights of any party; or
  - (iii) contains software viruses, Trojan horses, or any computer code, files, or programs designed to disrupt, destroy, invade, gain unauthorized access to, corrupt, observe, or modify without authorization, data, software, computing or network devices or telecommunications equipment;

- (e) be responsible at all times for the use of the accounts and passwords and protect the confidentiality of thereof;
- (f) be responsible for obtaining at its own expense any permission, consents or licenses in relation to the use of the Service or any Connected Objects, if required in any particular Location; and
- (g) ensure that it and its Affiliates and the Users use the Services in accordance with:
  - (i) the laws and regulations applicable in the countries where the Service is provided; and
  - (ii) any reasonable instructions communicated by Orange to the Customer regarding, e.g. security, network and device requirements;

and to that end will procure that its Affiliates make aware all Users of the restrictions of use of the IoT Connect Anywhere Services as set out in this Service Description.

#### 1.8 Dedicated Implementation Team (Build Phase)

Orange will appoint an Implementation Manager who will supervise the build phase in accordance with the Statement of Work. The Implementation Manager has the responsibility to communicate implementation planning and progress to the Customer, setup the Customer's account and service, ensuring handover towards support team for production. During this build phase, the account manager remains the central point of contact for any commercial matters.

#### 1.9 Dedicated Support Team (Run Phase)

As soon as the Service is available, the Orange Customer Helpdesk will assist the Customer when using the Service. During this run phase, the account manager remains the central point of contact for any commercial matters.

- 1.9.1 **Service Operations.** The Orange Customer Helpdesk provides direct assistance and supply professional and circumstantiated answers to the Customer requests. Its role covers daily management for technical matters and incident escalation when requested.

Regardless of time zone, calling the contact numbers will result in the call being handled by the most appropriate Service Operations.

Support is available in English and in French. The Helpdesk is available 24x7x365 using the "follow the sun" model for first level support. The Customer will be proactively informed of any progress. Should the first level support be unable to solve the issue, the matter will be automatically escalated, and the Customer will be contacted directly. Orange will use reasonable efforts to answer within 4 hours.

- 1.9.2 **Incident Management.** Customer will report incidents to the support team via My Service Space through the Internet at <https://my-service-space.orange-business.com> or such other URL as Orange may indicate.

- 1.9.3 **Service Manager (Optional).** By default the Service does not include a Service Manager. If the Customer orders Service Management, such service will be described in a separate document.

#### END OF SERVICE DESCRIPTION FOR IOT CONNECT ANYWHERE