

Orange OpenTech 2024

Further, faster, together

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Demo Preview

Self-Automated Home

À la carte Home - C02

Orange TV GenAI Voice Interaction - C04

Predictive Cybersecurity

ThreatNet - C06

APIs Playground

All Safety Vision and Tracking - C10

Flux Vision and Population density API - C11

Adaptative Networks

Fiber RootCause AI Ready - C19

GenGraph RCA - C23

5G GenAI Assistant - C27

Future of Interactions

Orange Bot Collection - C28

Augmented Enterprise

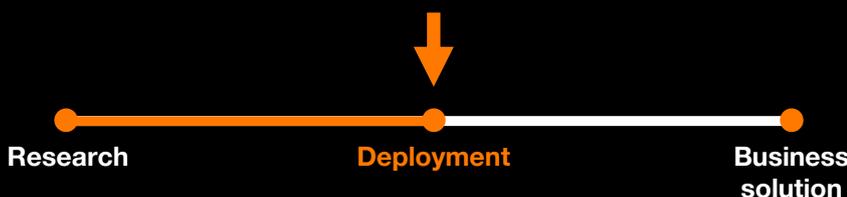
5G Edge Industrial Detection and Alert - C42

À la carte Home

Manage services through home gateway

The demonstration showcases Livebox personalization by downloading new services and applications.

Downloading an app has become extremely common practice for smartphone users. With this demonstration, Orange proves that it is possible to do the same with a Livebox compatible with prpl, an operating system that paves the way to new connected services. In this case, the demonstration is based on downloading an application dedicated to filtering inappropriate content from the “A la carte Home” store. In the near future, It could also be an application for optimising energy consumption in the home. The “A la carte Home” platform provides everything needed to publish, install and subscribe to these applications, and thus help personalize the customer experience. This innovation will allow a new monetized services offer to be proposed, capitalizing on the existing fleet of internet routers. On an operational level, “A la carte Home” simplifies the deployment of new services with Group subsidiaries, thanks to a pooled platform approach. Beyond content filtering, it sets the stage for other tailored applications and uses: cyber and home security, optimizing network coverage in the home, network outage troubleshooting, energy consumption of connected homes, managing time spent online, etc.

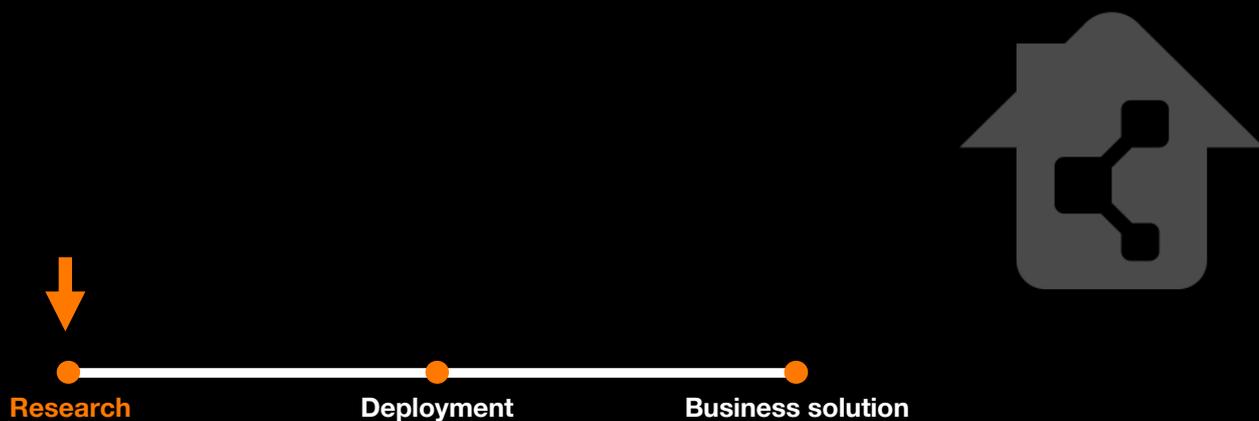


Orange TV GenAI Voice Interaction

Imagine it, watch it: effortless TV content discovery and interaction

How AI voice interaction can enhance access to digital entertainment.

Discover a new way to access digital entertainment through the Orange TV service. Using your AI-powered voice control remote feature, you will be able to discover even more exciting and relevant content. A simple quote (“I am Groot”), describing an iconic scene, or even mentioning a “character with a red cape” will give access to a personalized selection of films. And by saying an artist's name, it will be possible to discover his entire output and related suggestions, through the various channels and content platforms available on the TV. This updated voice interaction feature, introduced with the Livebox 5 model, offers a new way to experience movies and series, as well as documentaries, plays, concerts, shows, video games, records and digital books. This level of interactivity and engagement has strong commercial potential with smart TV manufacturers as well as content and streaming platforms.



ThreatNet

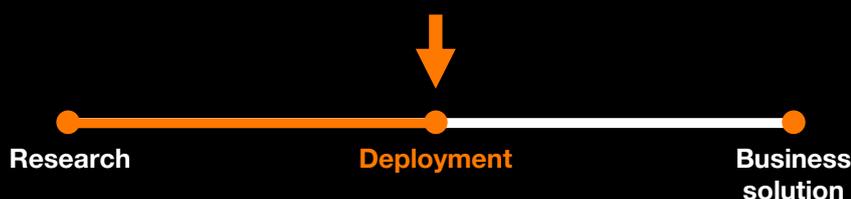
Catch the cyber-wave in real-time on networks

Combining network streams with a thorough understanding of cyber threats in an ultra-effective and customizable detection platform.

“ThreatNet” is an internal Orange group cybersecurity platform used to analyze huge quantities of data. Combined with the Orange Cyberdefense threat knowledge base, it allows real-time identification and ultra-effective categorization of cyberattacks on company networks. The innovation is three-fold:

- “ThreatNet” can process a significant stream of data in real-time, namely several million events every second;
- This data analysis capacity, combined with a dynamic cyber threat knowledge base, enables reciprocal and continuous updates. This combination really makes the solution stand out from the rest of the market;
- Finally, with this advanced solution, the customer can personalize their detection scenarios and alert notification channels depending on their needs.

Developed to protect the Orange group’s infrastructure and assets, the “ThreatNet” platform enables faster attack detection, to block them even before they can take hold. In the future, the solution could enhance Orange’s cybersecurity solutions.

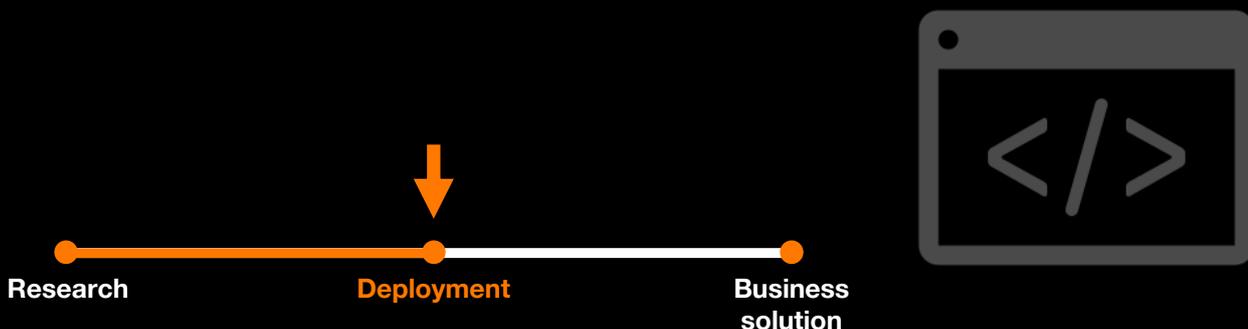


Network API-Driven Incident Response

Secure reliable protection with seamless video and precise tracking under any network conditions

Harnessing the power of network APIs for the safety of people and property.

Orange has developed a solution combining two Network APIs to reinforce the surveillance and safety of people and property. The first is an integrated “Quality on Demand” API, developed in collaboration with the US company Radisys, specializing in mobile technologies. In the event of a fire or any other similar event, automatic network adjustment will prioritize the quality of the site’s internal video surveillance stream. Once the alert state has ended, the network will return to its normal status. The second one, co-developed with Innova Solutions, a technology solutions provider, will warn people located in the vicinity through notifications, in order to help with their evacuation. This second API can also help locating people, which can be especially useful if the GPS network is out of order. Adapted to the needs of businesses specializing in property security (surveillance of offices, warehouses and sensitive sites), the solution might also interest companies wanting to improve the security of their real estate assets and employees. This solution will be available soon thanks to Nokia’s Network as Code API platform.



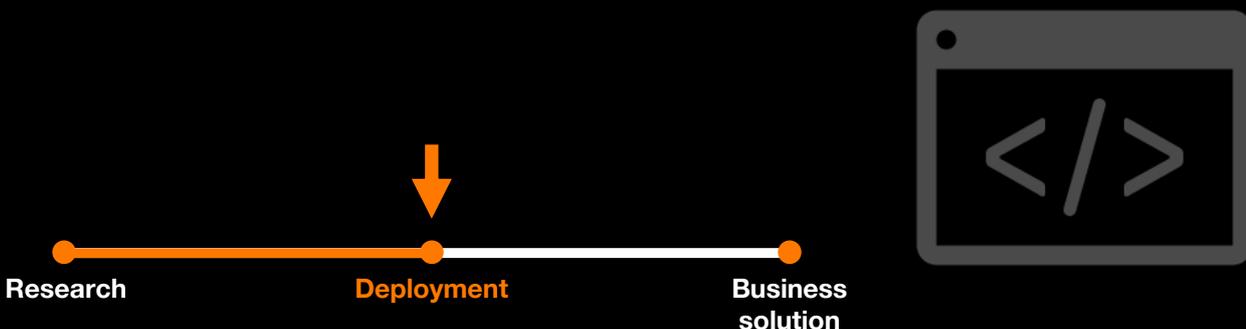
Flux Vision and Population density API

Enhance drone trajectory prediction in real-time with CAMARA standards

A comprehensive and predictive vision of population flows to improve safety.

The demonstration presents advanced logistics use of network data aggregated by “Flux Vision”, the solution developed by Orange to analyze population flows. The addition of an API, designed in partnership with the open-source community, provides a layer of predictive and dynamic information on population density. Also, its standardized API format simplifies the integration process, allowing developers to seamlessly incorporate the system into third-party applications for transparent functionality. For example, drone operators can adjust flight paths in real time, avoiding densely populated areas and ensuring safer flights.

In terms of usage, this technology might also interest companies in the events and security sectors. The public could be made aware in real-time about crowd movements and busy areas during large sporting or cultural events. In the future, this API could, beyond the anonymized data from the Orange network, be compatible with other data from European operators.

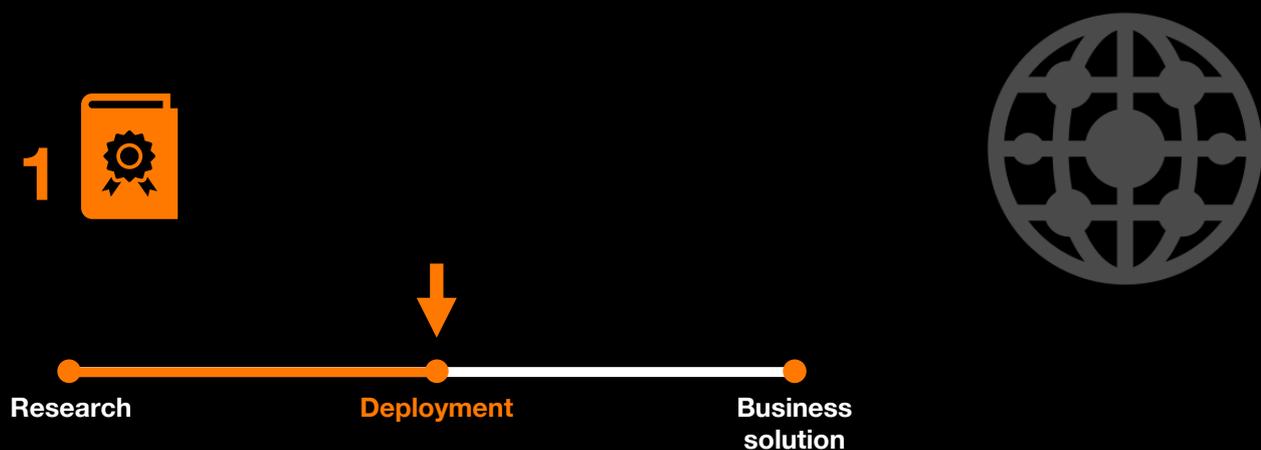


Fiber RootCause AI Ready

Improve the reliability of optical networks and accelerate failure resolution

An innovative AI solution to automate fiber network troubleshooting at national level and reduce technician call-out times.

Orange's technical services handle 50 incidents per day on average, across the entire national optical fiber transmission network. A complex task and a time-consuming process, which until now relied on manually identifying and pinpointing failures. In order to automate the diagnostic phase, the dashboard in the demonstration features an in house developed generative AI system. It allows different alarms to be grouped together effectively and to locate their source. The failure is therefore automatically identified and located, whether caused by hardware – a faulty transponder or amplifier - or purely software-based. This smart dashboard is currently being tested with Orange France and Orange Poland. It guarantees reduced call-out times, helps maintain operational efficiency and improves optical network resilience.



GenGraph RCA

Harness digital twin AI and GenAI to revolutionize operations

Efficient use of digital twins with Graph technology and generative AI to optimize proactive analysis of network incidents.

As a trusted Telco player, Orange must ensure continuous and efficient maintenance for the entire network. Analyzing thousands of alarms to understand their source is a complex task today. With this demonstration, discover how a digital twin solution using generative AI and graph techniques can improve the “root cause analysis” (RCA) of incidents in mobile networks. This demonstration illustrates how our system, triggered by critical events, proactively displays:

- Failing nodes and their impacted connections;
- A summary of essential KPIs;
- Relevant alarm sequences;
- Incident history on affected nodes, based on our end-to-end topology

This innovative approach aims to improve monitoring, maintenance, and root cause analysis (RCA), this enhancing network reliability in an unprecedented manner.



5G GenAI Assistant

Simplify the management of cloud-native network

The new generation of generative AI to simplify 5G network management.

The integration of generative AI can help telecommunications operators when managing network services and infrastructure. Orange has developed an AI-powered smart assistant, who is helping teams to easily and effectively manage the 5G network life cycle.

The demonstration presents a graphic interface which includes a large language model (LLM) and several smart agents. This interface helps convert text queries into specific actions. For example: “Create a cluster for me to host the network service”. The tool will then deploy the requested cluster.

Via the same interface, it will also be possible to deploy the 5G service hosted by the cluster. The tool also offers a monitoring interface, which helps ensuring actions have been successfully carried out. This streamlined approach allows to hand the controls of network management over a larger portion of telco professionals. There are many potential benefits: simplified network management, greater efficiency and reduced operational costs.

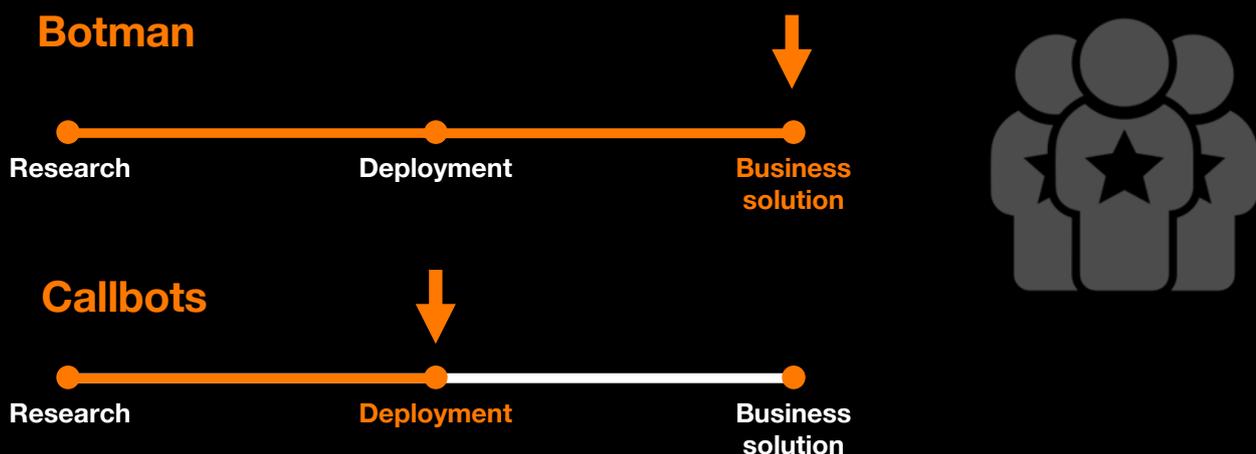


Orange Bot Collection

Elevate the online experience and customer engagement with Chatbot and Voicebot

Botman and Callbots are intelligent development platforms that contribute to the next generation of customer journeys.

Launched in France in 2017, “Botman” shifted up a gear in 2024 with deployment in MEA countries. This bot orchestrator was developed by Orange and recommended by the internal Fédération IT. It simplifies the implementation of intelligent bots. This powerful solution serves as an intermediary between WhatsApp, Facebook Messenger, web and mobile app portals and bot engines – Rasa and Smartly – as well as Customer Service platform suppliers – Ringcentral and Liveperson. Artificial intelligence is also used. Chat optimization using OpenAI’s LLMs, combined with the expertise of Orange’s AI Virtual Agents and the Data Factory, improves customer relations. A goal also shared by the second solution in this demonstration. The “Callbots” project allows the bot to be used as a voice chatbot on a customer hotline, using the same bot engines as “Botman”. This voice bot can be entirely configured by API. These chatbots can reply naturally to the customer’s spoken questions. As an example in Africa, Callbots are currently meeting the needs of the company OCP Africa. Callbots can also be created to answer farmers’ questions: crop techniques, water management, regulations, etc.



5G Edge Industrial Detection and Alert

Optimize production, data collection, network virtualization, generate with AI algorithm

This solution improves the efficiency of industrial production lines by combining 5G, AI and virtual networks.

Industrial production machines are increasingly complex and automated. The operator supervising them must be constantly vigilant and regularly on the move. The demonstration presents a hybrid system, combining private 5G connectivity and artificial intelligence to make production line supervision easier. In partnership with Ekinops for on-site equipment and DeepHawk for the AI model, the solution will be deployed in early 2025 at the Prolann factory, which produces machines aviation parts. The site operator will be informed in real-time of the status of different machine tools and will be able to take action in the right place at the right time. As the service is local, no sensitive data leaves the site, which ensures total security for industrial clients. This approach improves efficiency and reduces production costs. Thanks to its combined expertise in networks, AI and 5G, Orange demonstrates its ability to quickly deploy new services for the industrial, agricultural and logistics industries.

An innovation that could be deployed at fixed sites and on moving vehicles, like a public bus or farming machinery.

