

# Nokia 5G smart campus event

October 11th

We create the technology to connect the world



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## TECHNOLOGIES DEMOS

### Nokia Experience – 14 demos

Visitors can take a demo tour into the network of the future to discover live 5G network, new 5G processing boards, Cloud based architecture and platform, microwave transport, Mobile Edge Computing, network management, IoT applications, cyber security.

#### 25 Nokia Campus 5G Experimental Network iFUN demo

Come and see the first steps of Nokia 5G experimental network on Paris-Saclay campus!

The first 5GNB is live in 28GHz for internal feature testing. Next ones coming soon to open experimentations externally! Learn more during 5G Smart Campus event and then... stay tuned!

#### 26 5G CV demo in anechoic room

Experience the beamforming in 5G by attending to an end-to-end 5G call over-the-air in one of anechoic chambers developed for 5G.

You'll see a call performing data transfer over the air with high data rate and the ingenious test solution put in place to validate gNB Beam Management when user position is changing during the call.

#### 27 BBP ASIK/ABIL 5G Ready boards

Deliver 5G Ready capability with the ASIK controller and the ABIK/ABIL signal processing boards  
The BaseBand Hardware team has designed and implemented the ASIK and ABIL boards based on Intel Xeon processor.

In this demo we will present the ASIK/ABIK ready to run boards as well as the brand new ABIL board. We will run some performance tests in order to show the performance increase brought by these new boards to support 5G.

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## 28 X-HAUL 5G Ready 10 Gbps Over The Air

Microwave Transport is 5G ready: 10 Gbps through the air

This demo will show the available capacity increase between former Microwave MPT (used in 3G/4G backhauling) and new Wavence Radio which addresses 5G needs

## 29 Cloud RAN architecture: what is it and how does it change the eco-system

With this presentation:

You will better understand the motivation, the promises and drivers of the cloud RAN.

You will get an insight into the technical challenges and learn about the disruptive architectural changes.

## 30 How to tackle complexity in network configuration using WPS product

Demo of WPS (Wireless Provisioning System) Advanced features:

- \* Configuration of heterogeneous networks (from 4G LTE ENodeBs to 4G AirScale & Flexizone MRBTS and 5G SBTS)
- \* Easy network deployment and extension
- \* Management of zones of interest
- \* Advanced operations, mass updates and network audit
- \* Network consistency checks
- \* Interactions with multiple EMS
- \* Smooth integration into customers' workflow (RAML, CM XML)

## 31 MEC Smart cities crowd analytics

The Nokia Mobile Edge Computing (MEC) platform can rapidly process content at the very edge of the mobile network, delivering an experience that is ultra-responsive as latency is significantly reduced.

Demo demonstrates several technical showcases such as critical communication, augmented reality, virtual reality, WiFi AC200i live, indoor tracking and MEC streaming and stadium solution.



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## 32 AirFrame OCP hardware management

AirFrame Open Compute Project (OCP) hardware management provides an augmented reality 3D interface via Microsoft HoloLens glasses to view, monitor and maintain equipment (servers, switches etc.) within data center.

Demo shows how an Augmented Reality approach with 3D wearable technology allows workers to have access to critical information as they work on servers within a live data center environment, saving time in maintenance operations.

## 33 Fast start to global Internet of Things (IoT)

Current IoT deployments force enterprises who need to work with multiple technology providers to look for a global IoT connectivity that rapidly and with little efforts allows them to realize new revenue streams. In this context, Nokia worldwide IoT network grid ('WING') enables enterprises to get access to a single partner with a reach across geographical borders to connect and manage a range of their IoT applications.

In this demo we will show how, for a number of connected applications, the right technology is dynamically allocated (cellular/non-cellular) and how we can guarantee, for example, SLAs arrange billing or customer care.

## 34 Cyber security and threat intelligence

One main challenge is to develop a fundamentally new approach to cyber defense to help security operation organizations to make the best use of their people, processes and technologies through automation. IoT security monitoring, detection and mitigation are performed by integrated function of our NetGuard Endpoint Security solution.

Demo shows how NetGuard security portfolio allows to secure traditional and cloud-based network architectures and protects end users and Internet of Things (IoT) devices from cyber threats. For the first time, demo combines our NetGuard Endpoint Security solution with our IoT platform called IMPACT (Intelligent Platform for All Connected Things).

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## 35 Nokia AVA – Analytics unleashed

Nokia AVA is a cloud-based platform that combines big data storage, intelligent analytics and extreme automation, allowing operators to move away from traditional reactive network operations to a cognitive approach that predicts faults and solves them rapidly.

Through this demo, we will show analytics capabilities of the Nokia AVA platform, such as the minimization of Drive Testing, the Cognitive Network Optimization and the Predictive Repair, to spot anomalies and predict hardware failures.

## 36 Virtualized box brought to reality

Today almost every household is equipped with a 'box' provided by telecom operators to access various services from home. The box delivers various features such as device management, portal, routing and address translation. In the future, most of the box features will move to the cloud in order to facilitate advanced services enhancement, time to market and cost efficiency.

While simplifying the management of the box features, virtualization will create new complexities and critical aspects such as performance and security.

Nokia enables carriers to fully assess the potential risk areas and secure flawless execution of virtualization projects such as vBOX. The proposed demo will showcase a Virtualized Network Function (vNF) through the connection and management of the Vbox.

## 37 Tactical bubbles for secured communications

Secured communication should be quickly deployed in case of specific event or in case of crisis.

Nokia tactical bubble allows to quickly deploy a compact communication system, back pack type, with needed applications linked to the public network or on fully independent manner. The solution is completed with secured terminals.

The demonstration will show how such independent communication solution can be deployed with MN Advanced Mobile Solution (MN AMS) and GS GEPS Services.

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## 38 Energy Saving IoT

Energy consumption measurement is the first step towards energy savings, in particular in the hospitality environment.

Nokia IoT solution for hospitality, based on LoRa technology, allows to measure energy consumptions of all devices of heterogeneous types, consolidate them, communicate in order to be able to analyze it and optimize this consumption.

The demonstration will show how such a flexible Nokia solution powered by GS GEPS Services can be easily replicable.