EVOLVED-5G

NEWSLETTER #6

(April – June 2022)

evolved-5g.eu

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ISSUE HIGHLIGHTS

The sixth issue of EVOLVED-5G Newsletter presents the project activities during the period April - June 2022 focusing on the communication and dissemination activities, upcoming events, and deliverables.

In numbers, the EVOLVED-5G activities are:

- ➢ **1 Co-organised Workshop**
- ➢ **1 Journal Paper**
- ➢ **1 YouTube Video**
- ➢ **1 Presentation**
- ➢ **1 Booth Presentation**
- ➢ **5G Application Seminar**
- ➢ **Video recordings**
- ➢ **5G Forum participation**
- ➢ **1 Interviews**
- ➢ **EuCNC 2022 participation**
- ➢ **3 Submitted Deliverables**
- ➢ **3 Upcoming Deliverables**
- ➢ **1 GA Meeting & 1 Face-to-Face Meeting**

Communication and Dissemination Activities

Co-organised Workshop

➢ The 2nd International Workshop on Advances on Privacy Preserving Technologies and Solutions is co-organised by EVOLVED-5G project and will be held in the context of the 17th International Conference on Availability, Reliability and Security (ARES 2022) from August 23 to August 26, 2022 in Vienna, Austria. Call for papers deadline was on 2nd of May. You may learn more here: https://www.are-conference.eu/

Paper

➢ The EVOLVED-5G journal paper entitled "Towards Zero Touch Configuration of 5G Non-Public Networks for Time Sensitive Networking" by Francisco Luque-Schempp, Laura Panizo, María-del-Mar Gallardo, Pedro Merino and Javier Rivas from UMA was accepted in the IEEE Network Magazine, special issue NEW NETWORK ARCHITECTURES, PROTOCOLS AND ALGORITHMS FOR TIME-SENSITIVE APPLICATIONS magazine. You may find more information online here:
https://ieeexplore.ieee.org/document/9785739

YouTube Video

➢ The University of Malaga and CAFA Tech teams conducted the first Technical Tests on the campus of the University on April 26-28 2022. The aim was to test the connection of a CAFA Robot onboard 5G modem to 5G NSA (Non-Standalone) and SA (Stand-Alone) networks and 4K video streaming over 5G NSA and SA networks directly to the CAFA Video Safety Analysis Application (vApp) running on the University of Malaga platform. 4K video streaming worked over both the 5G NSA and the SA and a number of advances were made in the video analysis vApp deployment.

The video is available at the EVOLVED-5G YouTube channel here https://www.youtube.com/watch?v=8VyKktkykek

Presentation

➢ Dr Harilaos Koumaras (NCSR "DEMOKRITOS"), EVOLVED-5G's technical manager took part and presented "5G programmability and development of Network Applications (NetApps)" in the 1st Open Annual Workshop on Future ICT. The workshop was organised by 8BELLS and took place physically on May 25 in Athens.


Booth & Presentation

➢ PAL Robotics, EVOLVED-5G partner took place through a booth in the Advanced Factories 2022 on the 29-31 March 2022. At this event Pal Robotics had the chance to present the EVOLVED-5G project. You may learn more about the event here: https://www.advancedfactories.com/en/af-show/

EVOLVED-5G seminar entitled "5G Application"

EVOLVED-5G seminar entitled "5G Application" took place on May 30th in Universitat Politècnica de València premises. The seminar was hybrid giving the chance to remote participants to participate and present their material. The seminar began with a presentation about the 5G framework by Prof. Carlos Enrique Palau and Regel G. Usach by UPV partner. Then EVOLVED-5G's technical manager took the floor presenting the overall EVOLVED-5G concept. Then, George Makropoulos and Anastasios Gogos, Research Associates, from "NCSR Demokritos" described in detail NetApps and 5G programmability. Finally, the Seminar closed with two demo sessions performed by INFOLYSiS – Researcher Engineer Ms. Theoni Dounia, (Chatbot Assistance NetApp) and IMMERSRION – Charles Bailly (Remote Assistance in AR for industry 4.0) SMEs of the project.
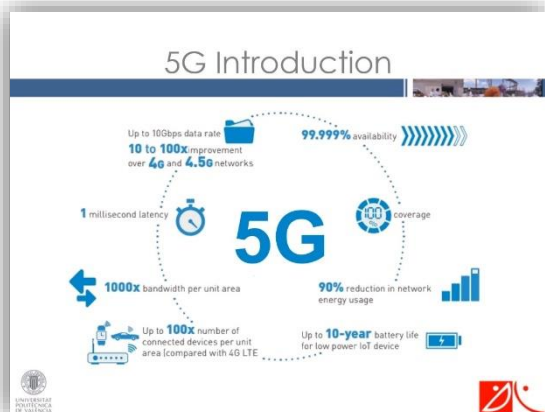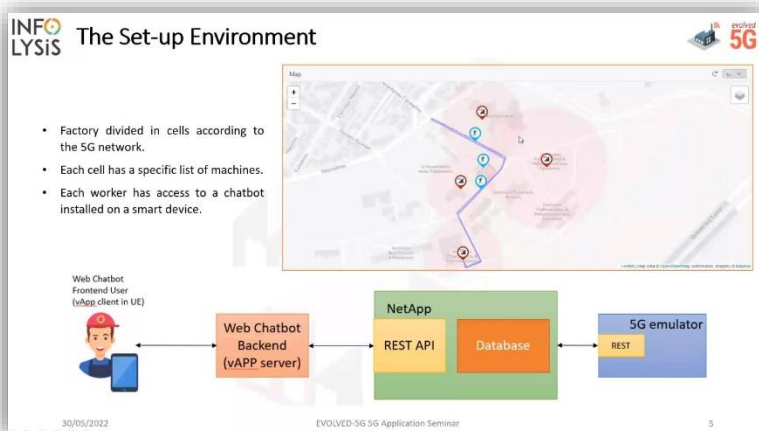
Video Recordings

➢ During May, EVOLVED-5G's technical manager Dr. Harilaos Koumaras from NCSR "DEMOKRITOS" along with Nikolaos Vrionis from INFOLYSiS partner visited the Universitat Politècnica de València (UPV) premises to record training videos about EVOLVED-5G NetApps and project's framework. These videos have been created in the context of WP6 and will be uploaded in the official UPV's channel in EDX. Additional content for this activity was also provided by ATOS and MAGGIOLI partners who shared their videos remotely and also UPV who coordinated and fully supported this activity.
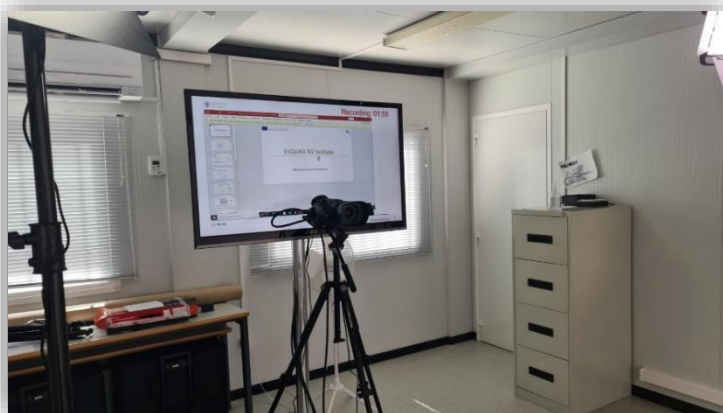
5G Forum 2022

> EVOLVED-5G partners from Telefonica and University of Malaga organized an EVOLVED-5G Special Session during 5G-FORUM 2022. The special Session, organized by EVOLVED-5G, took place on the 12 of May with the following presentations:
>
>> "EVOLVED-5G CAPIF core function", along with other 5G uses cases that TID is implementing with UMA in Málaga,
>>
>> "EVOLVED-5G Netapp ecosystem, 5G programmability and the Netapp lifecycle",
>>
>> "EVOLVED-5G agricultural use case and Netapp " to demonstrate that EVOLVED-5G activities go even beyond i4.0.

Interview

> EVOLVED-5G Technical Manager, Dr. Harilaos Koumaras (NCSR DEMOKRITOS) gave an interview at the Greek Netweek magazine (May issue) on '5G private networks and the business opportunities' that are created for novel and innovative services, also making a special reference to 5G-PPP EVOLVED-5G Project that deals with building the ecosystem which will accelerate this digital transformation for the SMEs and the interested stakeholders.

EVOLVED-5G in EuCNC & 6G SUMMIT 2022

EVOLVED-5G project participated in the 2022's version of EuCNC & 6G Summit with 3 conference papers and the respective presentations in different special sessions of the event. EVOLVED-5G also participated in the 'NetApp for Verticals' Special Session. At this special session Dr. Harilaos Koumaras (NCSRD) EVOLVED-5G's technical manager had the chance to present the overview and the NetApp architecture of the project, in colleagues from the rest ICT-41 projects.

In detail the following activities took place on the EuCNC & 6G SUMMIT 2022:

• Papers & Respective Presentations
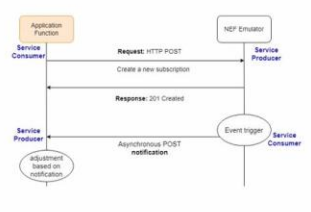
➢ *"NEFSim: An Open Experimentation Framework Utilizing 3GPP's Exposure Services"* by Dimitrios Fragkos (National Centre for Scientific Research Demokritos (NCSRD) & University of Peloponnese, Greece), Georgios Makropoulos, Anastasios Gogos and Harilaos Koumaras (NCSR Demokritos, Greece), Alexandros Kaloxylos (University of Peloponnese, Greece & The 5GIA, Belgium).

➢ *"Offering the 3GPP Common API Framework as Microservice to Vertical Industries"* by Alejandro Molina Sanchez (Telefónica I+D, Spain); Anastasios-Stavros Charismiadis and Dimitris Tsolkas (Fogus Innovations & Services, Greece); David Artuñedo Guillen (Telefónica, Spain); Javier Garcia Rodrigo (Telefónica I+D, Spain)

➢ *"Network Programmability Framework for Vertical Applications in the Beyond 5G Era"* by Harilaos Koumaras (NCSR Demokritos, Greece); Dimitris Tsolkas (National and Kapodistrian University of Athens, Greece); Javier Garcia Rodrigo (Telefónica I+D, Spain); David Artuñedo Guillen (Telefónica, Spain); Bruno Garcia (University of Malaga, Spain); Ricardo Marco (Atos Spain, Spain); Apostolis K. Salkintzis (Motorola, Greece); Dimitrios Fragkos (National Centre for Scientific Research Demokritos (NCSRD) & University of Peloponnese, Greece); Georgios Makropoulos (NCSR Demokritos, Greece); Fotini Setaki (COSMOTE Mobile Telecommunications S.A. Greece, Greece); Almudena Diaz Zayas and Pedro Merino (University of Malaga, Spain); Vaios Koumaras (INFOLYSiS P. C., Greece); Paula Encinar Sanz (Atos Spain, Spain); Yannis Karadimas (National and Kapodistrian University of Athens & Maggioli Spa, Greece).
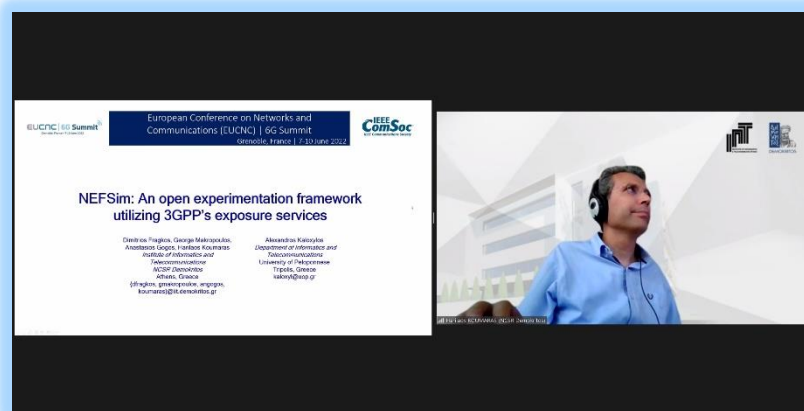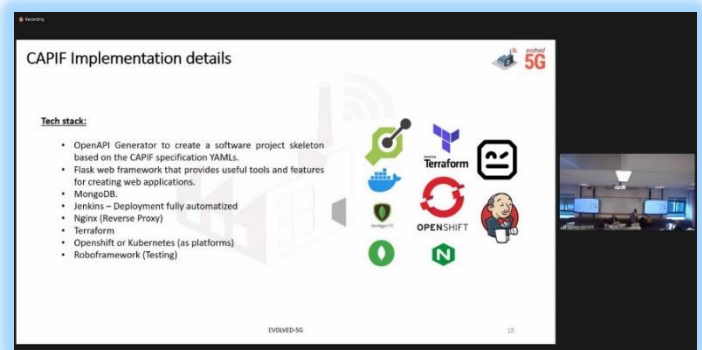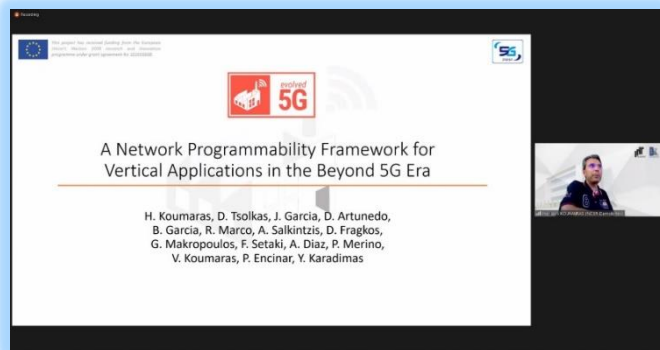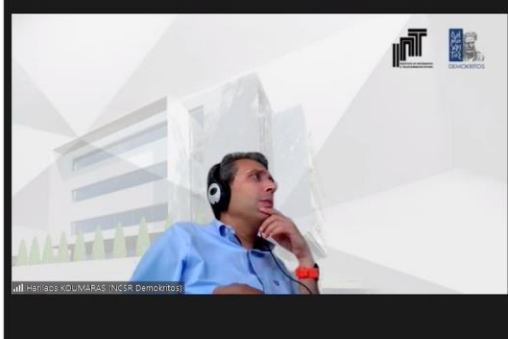
- **NetApp for Verticals Presentation**

Harilaos Koumaras EVOLVED-5G technical manager presented the nature and the NetApp architecture of the EVOLVED-5G in the 'NetApp for Verticals' Session of EuCNC 2022 on June 8, 2022, co-organised by all ICT-41 projects. The session focused on discussing how NetApp empowers the verticals on-boarding on 5G and reinforce the fact that 5G is a platform and not a pipe. Different actors from diverse vertical

domains shared their design and their interaction with the 5G platform owner. Through this session, we targeted to capture the community on the level of interaction and trust that a NetApp should support, the way services are provided to verticals and how a NetApp simplifies the implementation and deployment of vertical systems at large scale .

Submitted Deliverables

D4.2 EVOLVED-5G FoF NetApps (Public, M17): Initial release of NetApps based on the early prototypes provided by SMEs partners for the four pillars.

D1.4 Report on Ethics, Legal Aspects and Data Management (Confidential - M18): Updated report on the data management plan and ethics, legal aspects considering requirements and specifications for the Industry 4.0 NetApps to be developed and tested in the context of the project.

D3.2 NetApp Certification Tools and Marketplace development (Intermediate, Public - M18): This deliverable reports on the intermediate version of the Task 3.4 results with respect to the certification tools and marketplace development.

Upcoming Deliverables

D5.1 System level evaluation and KPI analysis (Intermediate, Public – M20): Intermediate report on system evaluation specifying the KPIs and analysing initial monitoring data.

D5.2 NetApps Validation and onboarding to Open Repository (Intermediate, Public – M20): Intermediate report on the use of validation tools and open repository (first release)

D7.3 Dissemination, Communication and 5GPPP Engagement Activities (Intermediate - Public – M20): Intermediate report on the dissemination, communication and 5G-PPP engagement activities.

EVOLVED-5G First Face-to-Face Meeting

For the first time, in the COVID-19 era, EVOLVED-5G partners met face-to-face in Madrid for focusing on the review preparation. The meeting lasted two days (10 - 11 May 2022). The discussions were mainly about work-packages progress, demonstrations, and review preparation. In this EVOLVED-5G meeting, partners had the chance to meet each other for the first time. Group photos were taken this time in the traditional way! Also, partners had the chance to test Mixed Reality environments through the augmented reality headset of Immersion, part of EVOVLED-5G test cases.

5th GA Plenary Meeting

The EVOLVED-5G 5th GA virtual meeting took place on the first days of April (5 - 7 April). The discussions on this GA meeting were about the Work Packages and deliverables statuses, upcoming activities as well as the update on the communication and dissemination processes. At this GA meeting there was also discussion and planning about the first EVOLVED-5G face to face meeting that took place on May. Group photos from the consortium members were also taken in a rather virtual and remote way.
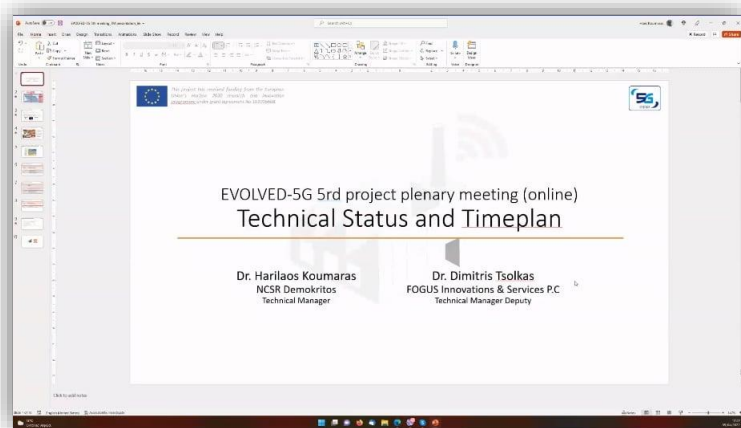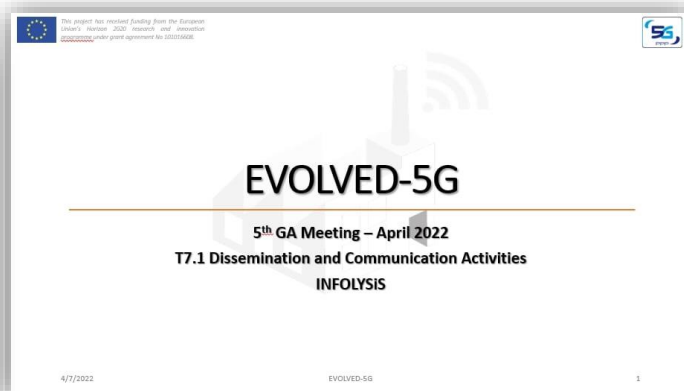
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