5G-Bot: Evaluation of 5G on QoE of Chatbot applications

Motivation – The objective of the 5G-Bot experiment was to test the behaviour of chatbot applications under different mobile reception conditions, network traffic, processing power schemes and battery utilisation plans in order to quantify and assess their impact on the QoE level as perceived by the user and to stress the reliability of the chatbot app under different network conditions.

Key Objectives

The objective of experiment was to measure and benchmark chatbot app performance and QoE in different realistic network scenarios while measuring power usage

How Does It Work?

Three different types of chatbots over Viber platform have been used for the deployment of the 5G-BOT

- Informative Chatbot
- Contest Participation Chatbot
- Order Placement Chatbot
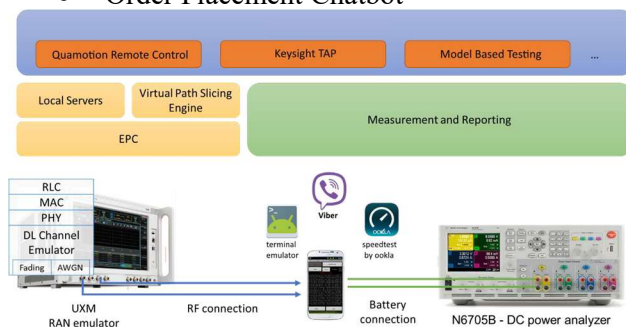
These were run in a number of network scenarious:

4. Suburban: Festival, Shopping Mall Busy Hours, Shopping Mall off Peak, Stadium
5. Urban: Traffic Jam, Internet-café busy hours, Internet-café off peak, Office, Pedestrian
6. A 5G-Bot Custom made scenario

Key Results

Overall, chatbot performance and functions were not remarkably affected upon changing factors/scenarios such as mobile phone models, environment conditions, reception conditions, network traffic, processing power schemes and battery use Infolysis acquired experience and documentation on which factors and parameters may affect the
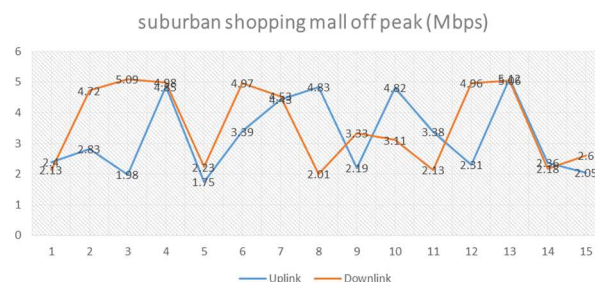
performance of chatbot apps and up to what degree of severity. 5G-Bot experiment gave the opportunity to Infolysis to create a performance map under different scenarios, KPIs and metrics

Testbed Components Used

UXM RAN Emulator	Test Automation Platform (TAP
Quamotion WebDriver	TestelDroid
DC Power Analyser	Android UEs

Facts		
Company:	infolysis	
Coordinator:	V. Koumaras	**Company Mission:** Provide IT cutting edge innovative solution
Duration:	01/01/2018 - 01/05/2018	

Experimenter's Impression: "I added value to the performance credibility of chatbot applications and improved users QoE!"