



**ITU Kaleidoscope 2015**  
*Trust in the Information Society*

**Fast-Forward Poster Session**  
**>>**

**Barcelona, Spain**  
**9-11 December 2015**



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**MUNIQUE: Multiview No-Reference Image  
Quality Evaluation**

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Barcelona, Spain  
9-11 December

# MUNIQUE: Multiview No-Reference Image Quality Evaluation

- ▶ MUNIQUE is a novel no-reference algorithm for stereoscopic image quality assessment that is based on the estimation of blurriness, blockiness, and disparity
- ▶ LIVE 3D Image Quality Database Phase I, which includes stereoscopic images impaired by Rayleigh fading and Gaussian blur, was used to validate the proposed mathematical and algorithmic approaches
- ▶ Statistical measures (correlation coefficients, confidence intervals, etc) show that MUNIQUE outperforms state-of-the-art and recently proposed algorithms. Furthermore, it also performs well in comparison with full-reference algorithms



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**A PRESENTATION FORMAT OF ARCHITECTURE DESCRIPTION  
BASED ON THE CONCEPT OF MULTILAYER NETWORKS**

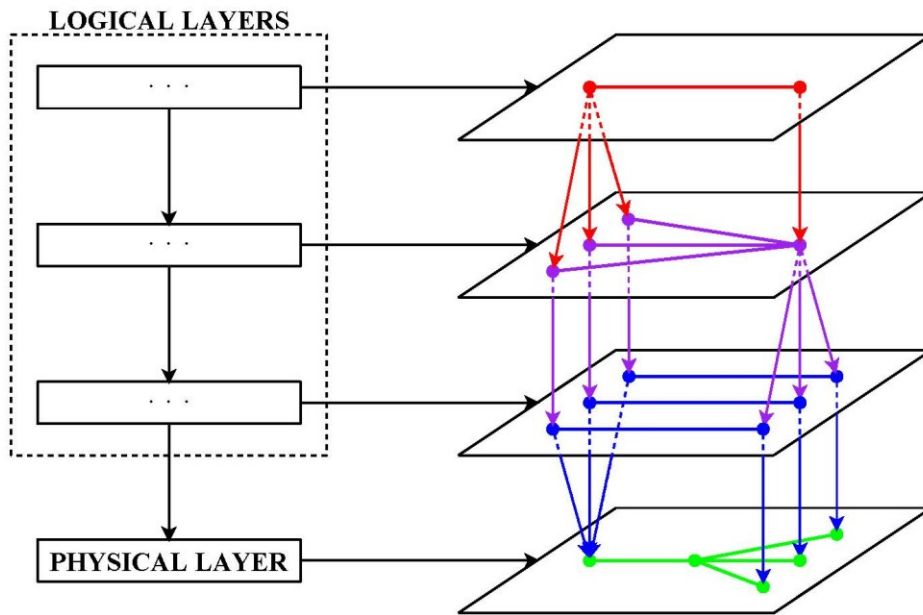
Andrey A. Shchurov, Radek Marik  
Department of Telecommunication Engineering  
Czech Technical University in Prague - Faculty of Electrical Engineering

**Session#**, Title  
**Name of Session Chair**  
Organization

**Barcelona, Spain**  
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# Multilayer Model of Network Systems

Complex computer networks can be denoted as a hierarchical multilayer projection network (a labeled 3D graph):



$$M = (V, E)$$

$$V = \bigcup_{n=1}^N V_n$$

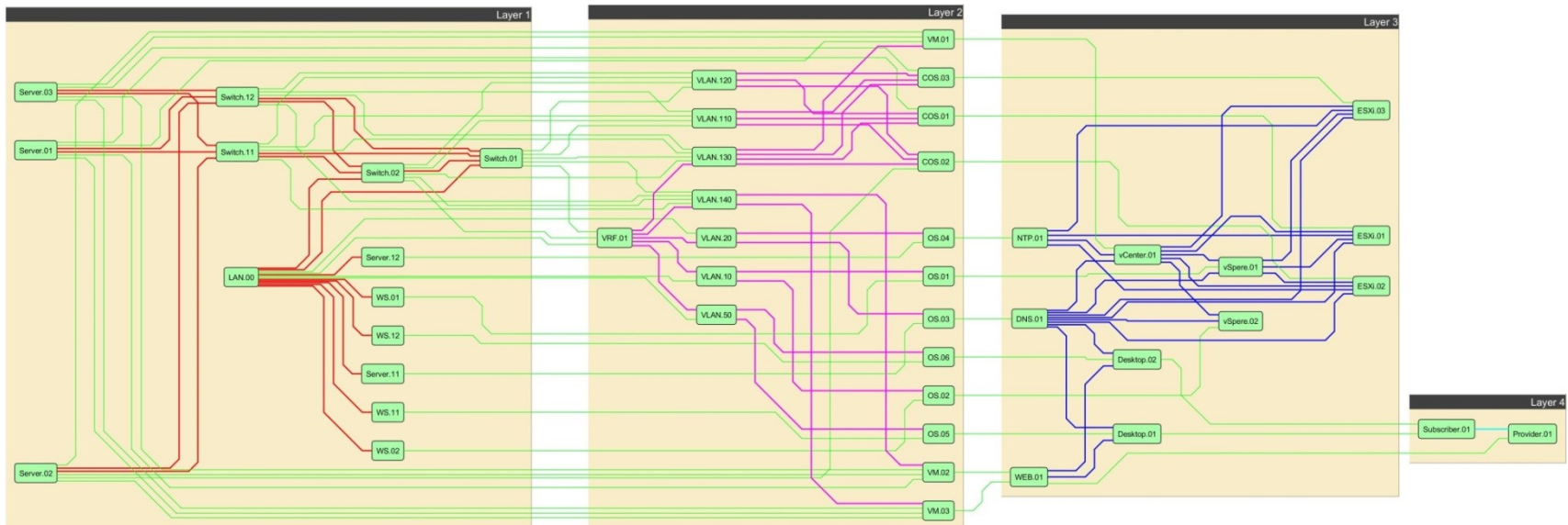
$$E = \left( \bigcup_{n=1}^N E_n \right) \cup \left( \bigcup_{n=2}^N E_{n,(n-1)} \right)$$

- Vertex labeling defines a set of supported communication protocols
- Edge labeling defines a set of used communication protocols

# A Presentation Format

## A trusted model from the viewpoint of network/system designers

- Layer component specification (components detail representation).
- Intralayer topology specification (layer topology detail representation).
- Interlayer topology specification (resources distribution – cross-layer topology – detail representation).



The background of the slide features a repeating kaleidoscope pattern of colorful polygons (hexagons, pentagons, and heptagons) in shades of green, blue, purple, red, and yellow, each surrounded by a complex, brown, fractal-like border. The central text is set against a large, light yellow, angular shape that overlaps the pattern.

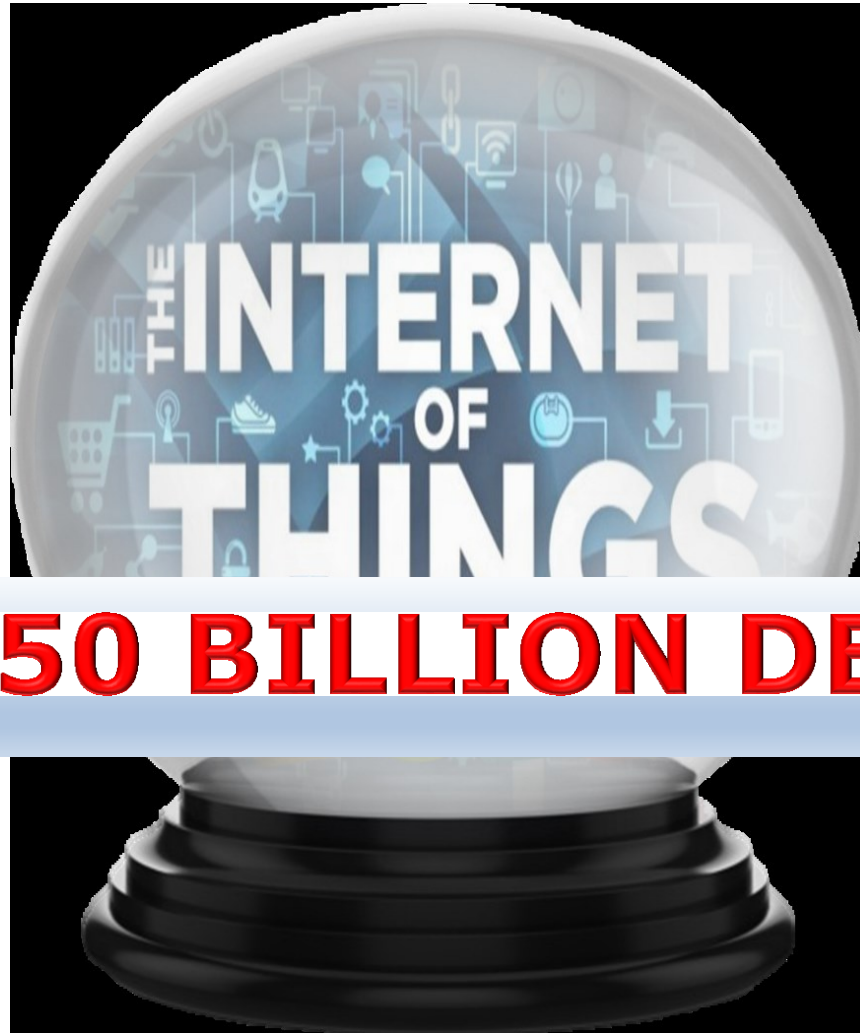
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**Privacy, Consumer Trust and Big  
Data: Privacy by Design and  
the 3 C's**

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**Barcelona, Spain**  
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# PREDICTION: # OF DEVICES CONNECTED TO THE INTERNET IN 2020



**25 – 50 BILLION DEVICES**



# DATA DATA EVERY WHERE

THE NEED FOR BIG PRIVACY in a WORLD of SURVEILLANCE & BIG DATA  
... Dr. Ann Cavoukian ...



# DATA ASSETS

## PRIVACY GOALS:

UNLINKABILITY

TRANSPARENCY

INTERVENABILITY

## SECURITY GOALS:

CONFIDENTIALITY

INTEGRITY

AVAILABILITY

**PRIVACY**

**BIG DATA  
INSIGHTS**



**CONSUMER  
TRUST IN  
THE  
INTERNET**

# PRIVACY BY DESIGN AND THE 3 C'S

1. Proactive not Reactive Privacy Measures
2. Privacy by Default
3. Privacy Embedded into Design
4. Positive-sum/Full Functionality
5. End-to-end Security
6. Accountability = Visibility, Transparency
7. Respect for User Privacy – User-centric design

□ Consultation

□ Co-operation

□ Collaboration

# PRIVACY BY DESIGN AND THE 3 C'S **BIG DATA**

- Online Trust Alliance (OTA) IoT Trust Framework
- Pharmaceutical Users Software Exchange (PhUSE) De-identification standard
- Assessing Surveillance Technologies (SURVEILLE – Surveillance: Ethical issues, Legal limitations and Efficiency)



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**P.4 SOSLite: Lightweight Sensor  
Observation Service (SOS) for the  
Internet of Things (IoT).**

Juan Vicente Pradilla, Carlos Palau, Manuel  
Esteve (Universitat Politècnica de Valencia,  
Spain)

**Barcelona, Spain**  
**9-11 December 2015**



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**Future Mobile Communication  
Service on Balance between  
Freedom and Trust**

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**9-11 December 2015**

# Background and Purpose

- What kinds of applications will lead mobile communication markets in 5G-era and more future?
  - Traffic safety, Smart cars, Mobile healthcare, IoT, ---, ?
- Who will provide 5G service?
  - Mobile communication carriers as same as 4G?
  - Anybody deploy base stations as same as WiFi?
  - or ????

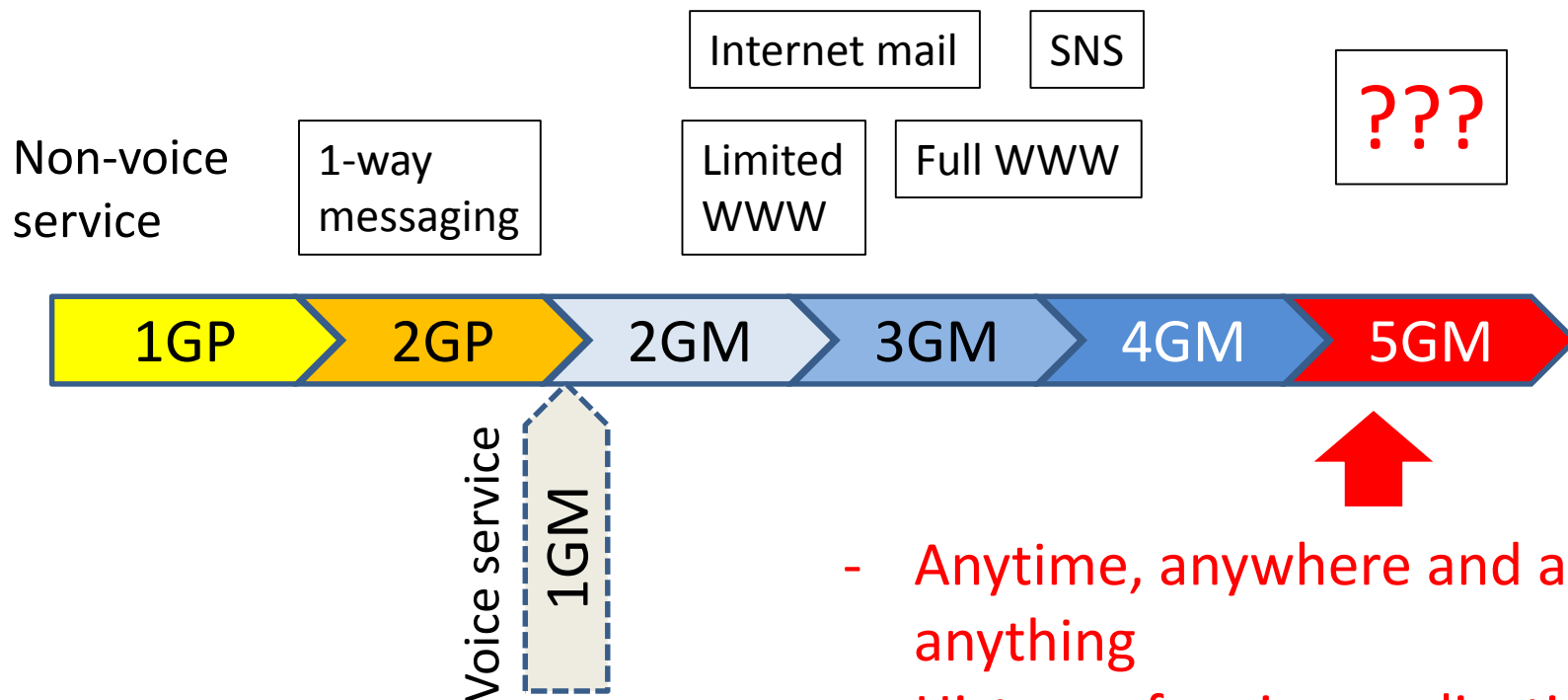


## Freedom vs. Trust

- Forecast killer applications based on basic demands / history / research trend of existing mobile communication service.
- Consider scenarios who will provide indoor wireless units and voice exchange units.

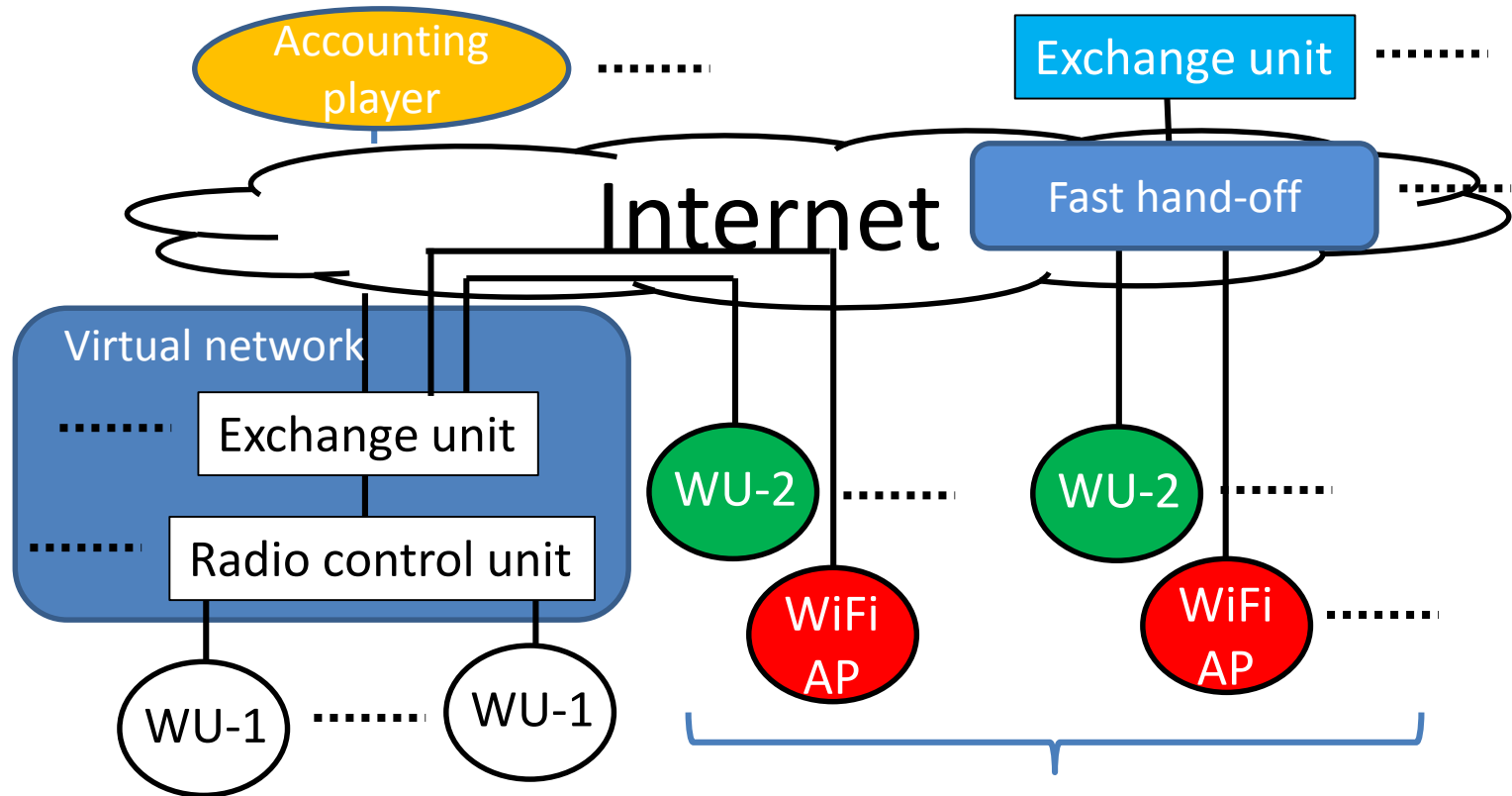


# What kinds of application will lead mobile communication markets?



- Anytime, anywhere and anyone, anything
- History of major applications
- New trends in communication research
  - CACN
  - UCN, D2D

# Who will deploy communication equipment?



- \*WU-1: Wireless unit for outdoor
- \*WU-2: Wireless unit for indoor

Who will deploy?

- Initiative
- Frequency band allocation

# Mauritius eHealth – Trust in the Healthcare Revolution

Dr. Bholah Leckraj Amal (MSc Global eHealth University  
of Edinburgh)

Dr. Beharee Kemley (MBBS, University of Mauritius)

# What is eHealth?

- eHealth is the use of ICT for health

*World Health Organization (WHO)*

- It is concerned with improving the flow of information, through electronic means, to support the delivery of health services and the management of health system

*National eHealth Strategy Toolkit*

# Doctor Assistant

- Electronic Medical Record Application
- Available on Google Play for FREE
- Has 2870 worldwide downloads
- Coded by two medical Doctors in the world
- Published in WHO Compendium of Innovative Health Technologies for Low-Resource Setting 2014



### PRESENTING COMPLAINTS

1. Cough since 2 days
2. Fever for 1 week
3. Headache for 1 week

### HISTORY OF PRESENTING COMPLAINTS

1. No history of recent travel
2. Family member presented with similar symptoms recently
3.

### PAST MEDICAL HISTORY

- |  |                          |
|--|--------------------------|
| <input checked="" type="checkbox"/> DIABETES | <u>Metformin 1gm TDS</u> |
| <input type="checkbox"/> HYPERTENSION        | <u>Hypertension</u>      |
| <input type="checkbox"/> ASTHMA              | <u>Asthma</u>            |
| <input type="checkbox"/> OTHERS              | <u>eg. gastritis</u>     |

### PAST SURGICAL HISTORY

Appendectomy 1987

Progress: 20%

Next View



### PRESENTING COMPLAINTS

- 1. cough
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

### HISTORY OF PRESENTING COMPLAINTS

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

### PAST MEDICAL HISTORY

- DIABETES Diabetes
- HYPER-TENSION Hypertension
- ASTHMA Asthma
- OTHERS eg. gastritis

### PAST SURGICAL HISTORY

**cough** Cough tough Gough sough

123 Sym English(US)

Cough



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**For more information and details,  
please see the authors, 1230-  
1330, in front of the Cafeteria**

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