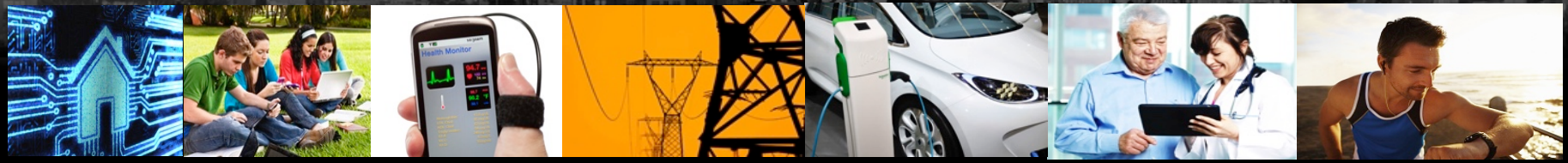
Connected Living

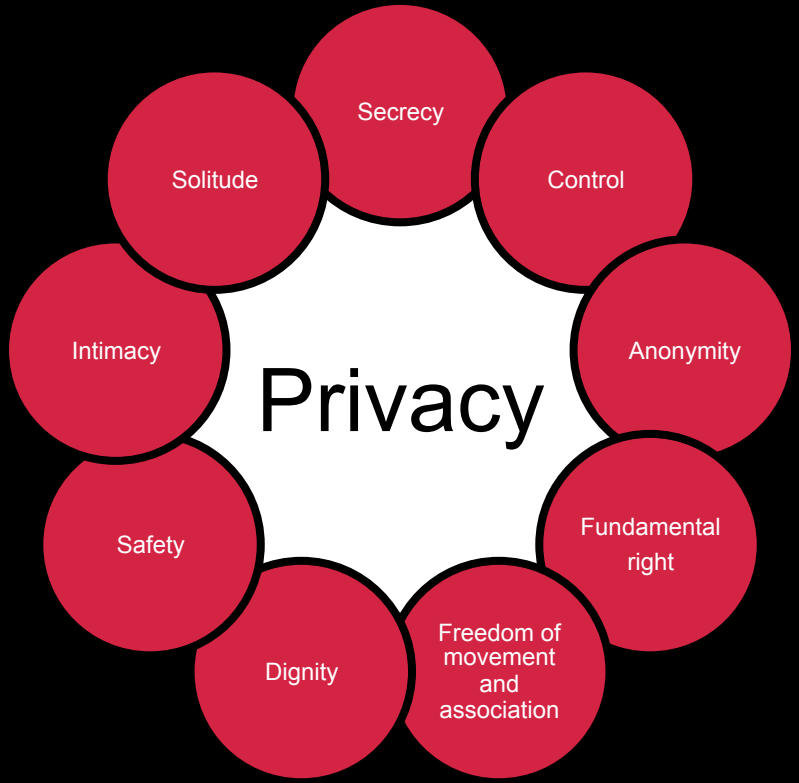


Building trust and respecting privacy in the 'Internet of Things' – An introduction

Yiannis Theodorou – Senior Manager, Regulatory & Public Policy, GSMA

- Mobile and IoT Privacy: Key considerations
- Key privacy challenges in consumer IoT space
- Conclusions and recommendations

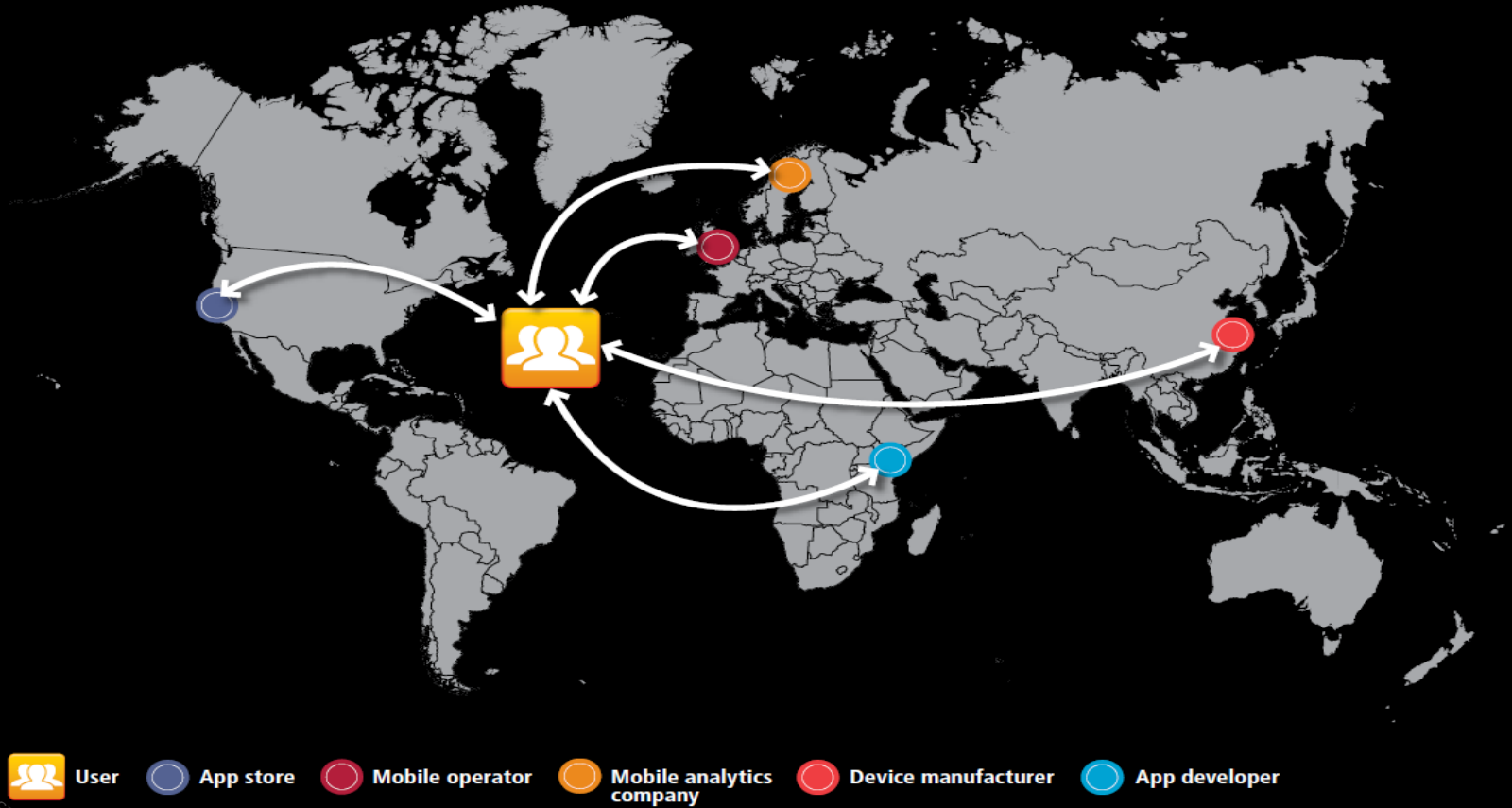
Privacy – What does it mean?



Mobile privacy on an internet – enabled device

- Broadcasting data by default
- Real time data collection / sharing
- Always on

Mobile privacy context: Data flows globally and accessed by multiple parties



While the IoT will create more data and insights… not all will be about consumers

The IoT will involve more connected sensors and devices which means:

- More data created and collected in real time, often without user awareness
- Accessed or shared by a potentially unlimited number of companies
- Better data analytics = **more insights**

'Purely industrial' IoT services are unlikely to impact consumers' privacy e.g.:

- A cargo monitoring company that tracks/reports real-time location of crates on a ship
- A wind turbine with sensors that gather data about the weather or environmental pollution
- A fish farm that gathers data about water temperature and correlates this with fish stock
- A cash-only vending machine that sends stock and machine-status info only

Mobile privacy on an internet – enabled device

Many IoT services can directly improve people's lives…

… But can also lead to negative consequences...

- Possible financial impact on consumer including price discrimination
- Impact on freedom of expression, movement and association
- Privacy concerns may drive people away from the benefits IoT technologies can offer

Security is NOT the same as privacy

- Good Security =
  - Ensuring data is secure both in transit and at rest (when stored)
  - Ensuring the confidentiality, integrity and availability of data
- Good Privacy =
  - Appropriate collection & use of information
  - Being transparent with individuals
  - Respecting rights & choices of individuals
  - … and always depends on context

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Challenge 1: Data protection laws apply to ‘personal data’…but non-personal data can *also* impact privacy

Data protection laws set out **rules** that seek to protect privacy by:

- Placing obligations and restrictions on the collection and use of 12‘**personal data**’
- Requiring consumer consent to process some categories of personal data e.g. health information
- **Changing definitions of ‘personal’ data**
  - ‘Personal data’ is any info relating to an *identified* or *identifiable* living, natural person

BUT!

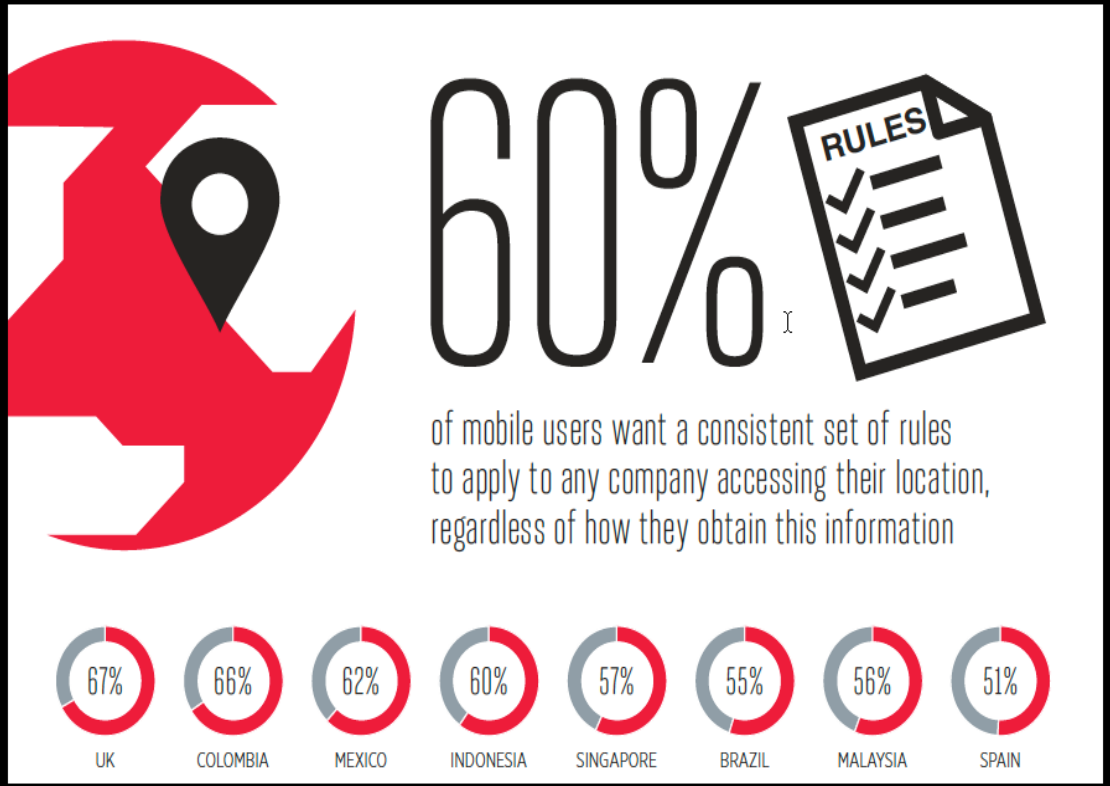
- The analysis of data obtained from consumers’ connected devices may have real privacy and other implications on their lives, even if not considered ‘personal’ in law

Challenge 2: Multiple and often inconsistent privacy regulations, or none at all !

Challenge 2 (cont'd): Focus on location data

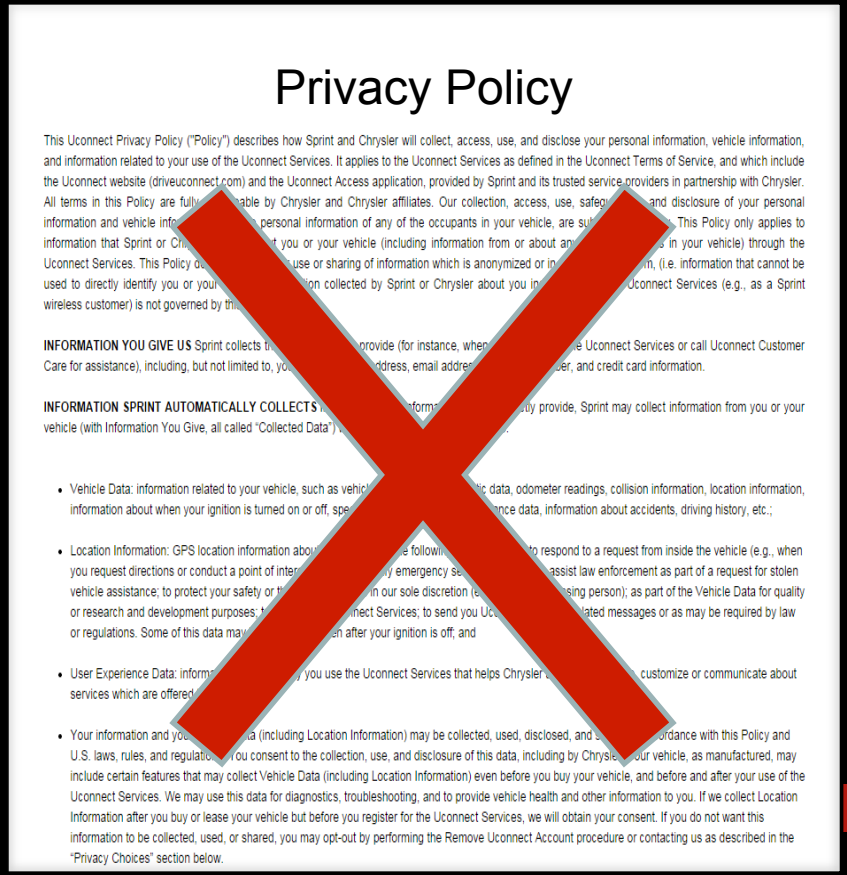
- What is location?
  - Where I am now + activity/context?
  - Where I am not (normally)?
  - Where I am heading?
  - Where I have been?
  - Which route have I travelled?
  - Which way I am facing / what is my elevation?
  - What people and things I am connected to?

Challenge 2 (cont'd): inconsistencies in regulating location data is affecting consumers and businesses



- Cellular location and traffic data are often regulated and their use restricted
- The equivalent traffic processed by Internet companies — W-Fi and GPS location data — is not regulated or restricted
- This has implications for:
  - Users
  - Businesses
  - Big Data
  - Governments

Challenge 3: ‘Buried’ Ts&Cs no longer meet consumers’ or policymakers’ expectations



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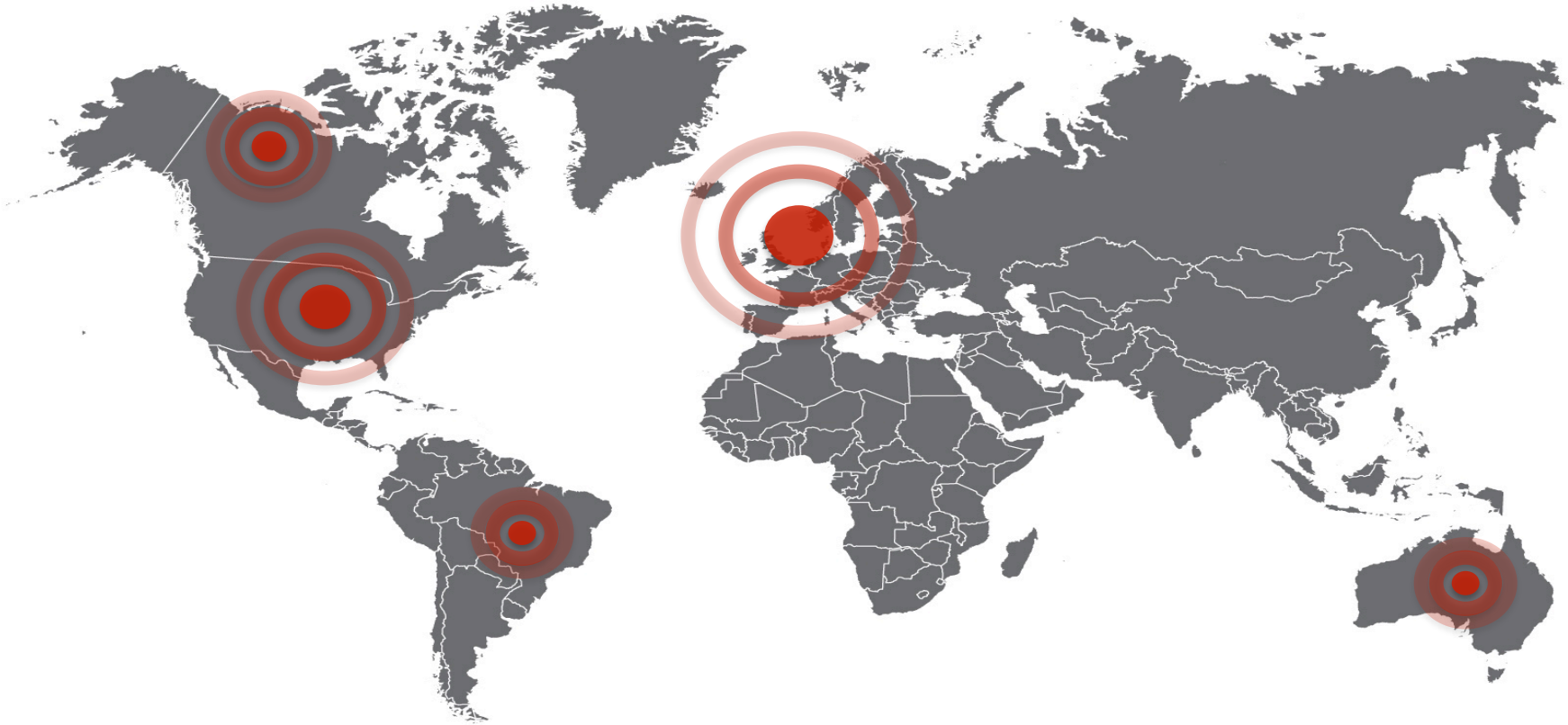
Many ‘IoT’ / connected devices lack a User Interface (Screen) – no privacy policy / settings?

IoT Privacy has captured the attention of policymakers across the world



Areas of particular interest to policymakers

- User awareness and control
- Understanding and addressing privacy risks in specific contexts
- Companies' **compliance and accountability** in relation to data protection and privacy
- **'Anonymisation' of** data, where appropriate?
- How to balance **encryption**, users' privacy & lawful government access to information?
- Setting appropriate **sanctions**

European policymakers are leading the way towards strengthening data protection rules – others following?

The new 'GDPR' is intended to apply to any company targeting European citizens

- Creates a set of **harmonised rules** across all EU member states
- Introduces **fines** of up to 5% of company's annual global turnover
- Strengthens obligations to provide **information and choice** for consumers
- **Stricter requirements on consent: must be explicit, prior and informed**
- **Requires Data Protection 'by Design' and 'by Default'**
- **Requires impact assessments**
- Encourages support for **privacy certifications**/seals/'icons'
- Extends the definition of personal data (to include **location data**, device identifiers)
- Gives individuals the **right to data portability**
- Extends **data breach notification** to all sectors (not just telcos)

How can companies maintain consumers' privacy in a connected world?

- The GSMA developed a few core privacy principles that all companies dealing with consumers' data should consider ***before*** launching a service or product

1 — Openness, transparency and notice

2 — Purpose and use

3 — User choice and control

4 — Data minimisation and retention

5 — Respect user rights

6 — Security

7 — Education

8 — Children and adolescents

9 — Accountability and enforcement

- The GSMA has also developed an 'IoT Privacy Design Decision Tree' to illustrate the key privacy considerations for providers of a new IoT service (see separate attachment)

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Conclusion: Why privacy?

WHAT IS IT REALLY ABOUT?

It's about strengthening consumers' **TRUST** in a service or brand name

It's about **RESPECTING LAWS & CONSUMERS' RIGHTS** and expectations

It's about industry **SELF-REGULATION** and mitigating unwarranted and restrictive laws

WHAT DOES IT MEAN FOR IOT SERVICE PROVIDERS?

- Higher uptake of service / less churn
- Better reputation for service provider
- Higher brand loyalty

- Respecting consumers' rights/expectations
- Committing to / implementing best practices
- Non-compliance with privacy & data protection laws can lead to fines, sanctions, and reputational damage

- Proactive and effective industry-led measures are necessary to minimise the need for formal regulation which may impact innovation and revenues
- Allows flexibility to respond to new threats

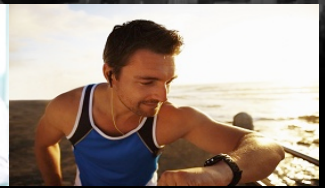
Conclusion: Recommendations

- IoT Service Providers
  - → Consider consumers' privacy when initially designing a service/product
  - → Collaborate with partners to ensure end-to-end privacy
- Software developers and UX/UI designers
  - → Offer tools that enable the consumers to control their privacy settings
- Policymakers
  - → Adopt a risk based approach and incentivise industry self-regulation
- Data Protection Authorities
  - → Provide independent guidance and promote global best practices

Connected Living





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