



**tech**<sup>UK</sup>

**Trust in an Internet of Things World**

# Trust in an Internet of Things World

The Internet of Things (IoT) can deliver significant benefits to our society and economy, enabling better health services, cleaner and safer societies, more efficient industries and stimulating new businesses. To achieve those benefits, the IoT will leverage unprecedented volumes of detailed, and often real time, data.

But data is a sensitive subject and customers and end-users are wary of sharing data for fear that it will fall into the hands of criminals, or be used in ways they consider inappropriate. We, the technology industry, need to address these concerns, by pro-actively leading the way in providing technology to enhance data security, and identifying best practice in data management.

Industry needs to earn the right to derive value from data by demonstrating transparency, integrity and security, showing the benefits of data usage to the public.

**“Trust is the oxygen which will breathe life into the internet of things. Industry needs to show data is safe and that it is properly treated. Otherwise we endanger the potential of the IoT. techUK is right to focus on this.”**

**Stephen Pattison, VP Public Affairs, ARM, techUK IoT Council Chair**

In addition to building consumer trust with regards to data, we acknowledge that industry must also build trust through high standards of physical safety. Where everyday actions are enhanced with the use of the IoT it is important that consumers feel safe and trust the digitally enabled actions.

Nothing in this document is intended to create any new legally binding commitments or be considered as advice on legal requirements.

**“These principles demonstrate that industry takes concerns about data, consent and transparency seriously. I believe that they will help ensure that the IoT has a smooth transition from theory to reality”**

**Julian David, CEO techUK**

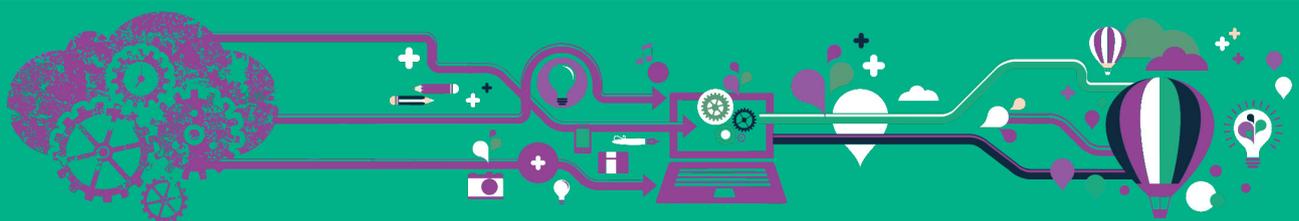
The principles below offer key considerations for companies operating in this sector. They cover the three core issues of Data Transparency, Interoperability and Protection against cyber attack.

Compliance with Data Protection and Cybersecurity legislation is beyond the scope of this document. Although we recognise that there is an overlap between the principles below and the legal and contractual requirements that apply under existing Data Protection legislation or, in the EU, the new General Data Protection Regulation (GDPR) or the Network and Information Security (NIS) Directive. For more information on these visit [www.techuk.org](http://www.techuk.org).



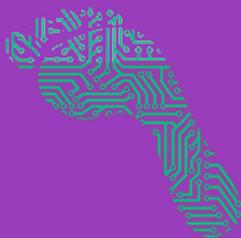
## Section 1: Data Transparency and Customer Empowerment

1. Start from the assumption that an individual from whom personal data is collected has rights over that data;
2. Promote transparency about what data is collected and how it will be processed and handled. In line with the General Data Protection Regulation and other applicable laws this should;
  - Explain clearly and upfront where data collection and use is necessary to provide the paid or free service;
  - Provide sufficient, easy-to-find and easy-to-understand detail of the specific data being collected and the manner in which it will be used, including any sharing with third parties;
  - Use clear opt ins and/or prominent notices for any non-obvious collection or use of data, together with details of an individual's rights to opt out immediately or at a later point (at all times consistent with applicable data protection, privacy and other laws); and
  - Draft easily comprehensible legal terms and privacy policies without hiding consents, rights or exclusions of liability in the small print.
3. Promote compliance with data protection, privacy and security laws, as well as good industry practice throughout our supply chains;
4. Help end users distinguish categories of data that are personal or sensitive;
5. Make clear the purpose and benefits to customers and end users of supporting data sharing;
6. Promote privacy by design in all our products and services.



## Section 2: Interoperability

1. Acknowledge that for the IoT to succeed, customers need to be able to exercise choice and the ability to switch between multiple providers of products and services;
2. Enable personal data portability through the adoption of appropriate industry standards.



## Section 3: Protection Against Cyber Attack

1. Promote security by design in all our products and services;
2. Encourage all involved in the operation of the IoT to develop and adopt appropriate security postures, including:
  - Taking appropriate measures to ensure the protection of data in storage and in transmission from attack;
  - Ensuring, wherever possible, that over the lifecycle of any products and services regular updating of security measures is available but recognising that many devices will operate without updates and be vulnerable, demanding very different trust models.
  - Where appropriate, new software and hardware technologies relating to authentication, identification, and data access controls;
3. Comply fully with any regulatory and/or certification requirements relating to the security of the IoT in countries where we operate;
4. Develop strategies to preserve security and limit loss when data breaches or data corruption have occurred.

These Trust Principles have been developed by techUK's Internet of Things Programme. techUK's members are responsible for making the IoT a reality. From sensors to communications, consumer electronics to data - without our members, there is no IoT.

**techUK represents the companies and technologies that are defining today the world that we will live in tomorrow.**

The tech industry is creating jobs and growth across the UK. In 2015 the internet economy contributed 10% of the UK's GDP. 900 companies are members of techUK. Collectively they employ more than 700,000 members, about half of all tech sector jobs in the UK. These companies range from leading FTSE 100 companies to new innovative start-ups. The majority of our members are small and medium sized businesses.

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