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“From the Internet of Things to Personal Data: The Future of Mobile”
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Future of Mobile

Globally, we now have 7.1 billion mobile connections, which is a very significant milestone number given that our industry has existed only a relatively short time. It is important to note, though, that this does not mean that nearly every person on the planet has a mobile. There are more mobile connections than subscribers, as individual subscribers can have multiple connections or devices – number of users is far lower and stands at about 3.6 billion unique subscribers, about half the world’s population.

Clearly, there is much to be done to extend the reach of mobile around the world and to deliver innovative new services that will positively impact the everyday lives of our customers.

In the last year, the GSMA undertook a strategic consultation process with its members worldwide, identifying several areas in which the mobile industry can add enormous value to the evolving digital economy. The GSMA has aligned its activities around four key areas:

- **Personal Data** – establishing operators as the secure guardians of consumer data through interoperable digital identity solutions, utilising the simplicity of the mobile phone number to enable an individual to access a wide variety of online services.
- **Connected Living** – equipping operators to support the transformation of adjacent industries, enabling a wide range of new mobile connected devices and services in healthcare, automotive, utilities and education.
- **Digital Commerce** – putting mobile devices and digital wallets at the heart of the digital commerce ecosystem, supporting a range of secure and straightforward payment services, and enabling globally interoperable mobile money services in the developing world.
- **Network 2020** - placing mobile networks at the heart of the all-IP broadband era, enabling secure, smart, interoperable and seamless IP-based communications services.

Personal Data

Individuals will be able to use mobile technology to authenticate themselves securely whenever they are using digital services, regardless of whether they are using a phone, tablet or computer. For consumers, mobile-based digital identity solutions offer privacy protection, reduce the risk of identity theft and simplify the login experience for a range of services, such as retail, healthcare, government and banking, among others. For enterprises, reliable digital identity services will allow greater security around corporate data, as well as enabling more efficient and effective workflows.

In February, we launched the GSMA Mobile Connect service, which will simplify consumers’ lives, offering a single, trusted, mobile phone number-based authentication solution that fully respects their online privacy. Consumers will no longer need to create and manage multiple user names and passwords as the authentication and identification solution being developed will use the subscriber’s mobile phone number or mobile user name and information contained in the secure SIM card.

This digital life brings great benefits, but also introduces new concerns over the security of online identities. Mobile operators are ideally placed to provide the necessary authentication capabilities to enable consumers, businesses and governments alike to interact and access services in a private, trusted and secure environment.

Connected Living

Our industry is set to play a central role in the emergence of the Internet of Things or Connected Living. Connected Living promises a revolutionary step change in customer quality of life and enterprise productivity. Connected Living is a very significant opportunity – there will be more than 25 billion connected devices in 2020, transforming sectors such as health, education, automotive, smart cities, consumer electronics and others, enabling a range of new services and experiences for customers.

To realise the full potential of this opportunity, operators need to address new requirements and business models. Near term, we need to deliver increased network efficiency to accommodate the increasing number of devices. Longer term, we need to define the evolution of the network and operator capabilities.

We are in the process of agreeing the definition of an Embedded SIM that addresses remote provisioning requirements – this is a critical point, as these devices will be in the field for 10-20 years, have wide-ranging form factors and may be remotely located, all of which make traditional removable SIMs unsuitable.

We need to remove barriers that may be hindering the growth of this market, such as regulatory or policy issues. Operators must engage with stakeholders in adjacent industries, as well as governments and regulators, to create a vibrant ecosystem for the next generation of connected services.

Digital Commerce

The combination of mobile and contactless technologies provides a seamless interface between the physical and digital worlds, enabling a wide range of services in payment, ticketing, access and couponing, supported by secure and interoperable digital wallets. Individuals will use digital commerce services from many different providers and in many different ways.

Consumers need a straightforward and consistent approach to organising digital vouchers, loyalty programmes, payment cards, tickets and other items. The GSMA is working with mobile operators to develop mobile wallets that can aggregate and manage multiple digital commerce services, supporting payment cards, tickets, loyalty cards, receipts, vouchers and other items that might be found in a conventional wallet (or purse).

One of the biggest challenges in driving digital commerce forward is that no single group of stakeholders has the assets required to offer an end-to-end proposition. Mobile operators are just one piece of the digital commerce puzzle. We need to foster relationships with banks, forward-thinking retailers, local and national government authorities and many others to quickly deliver solutions that address consumers' needs.

Another important element of our Digital Commerce initiative is Mobile Money Interoperability. We are working with members around the world to accelerate the implementation of scalable, interoperable mobile money services, which are bringing convenient, affordable and ubiquitous financial services to people across developing markets.

Network 2020

If mobile services are to migrate into the cloud and deliver on the promise of anytime, anywhere service access through any device, they will need ubiquitous and consistent high-speed, low-latency connections. This presents business opportunities for mobile operators in providing the requisite connectivity, together with monetisable service delivery components, such as differentiated QoS.

Operators need to invest in enabling new network functionalities and the delivery of interoperable native IP services, such as Voice over LTE and Rich Communication Services (RCS).

Adoption of next-generation services is quickly gaining pace. At the end of 2013, LTE connections stood at 200 million, or approximately 3% of global connections. This is set to grow to 2.6 billion connections by the end of 2020 – by then, LTE will represent more than a quarter of all mobile connections worldwide. Momentum is gathering behind VoLTE, with several recent launches/announcements by operators including PCCW HKT, SingTel, T-Mobile, AT&T and NTT DOCOMO.

The GSMA is supporting the development of all-IP mobile networks that are more “self-aware” and dynamically configurable, to efficiently cope with increased traffic demand and provide the optimal experience to customers, together with policy-based charging. We are working to avoid fragmentation, guarantee interoperability of services and enable new business opportunities.

Advocating for the Industry

To deliver in all of these areas, mobile operators will, of course, need a supportive regulatory environment. Today, that environment varies widely from region to region; some policy makers understand the vital role mobile technologies and services can play, while others adopt policies that damage the business case for investment. The GSMA continues to engage constructively with regulators, governments and multinational institutions to help shape regulation and secure sufficient spectrum to enable the mobile industry to fulfill its vast potential.

A hugely important area is spectrum - the lifeblood of the mobile industry. Global mobile data usage is growing strongly, with GSMA research indicating that this growth means an additional 600-800MHz of spectrum will need to be allocated for mobile use by 2025. Given that the timeframe it takes to secure new spectrum is typically around 10 years, it is vital that governments and regulators act now in order to meet the expected mobile data demands in 2025. Securing additional long-term harmonised spectrum is critical to the future of our industry.

In the regulatory arena, we are encouraging the EU to implement more ambitious reforms that can deliver a true single telecoms market that encourages investment in mobile broadband connectivity, enables innovation and helps build consumer confidence in mobile services.

We are focused on helping our members harness the transformative power of mobile technologies to drive digital and financial inclusion for billions of men and women around the world. For instance, our Mobile for Development programme brings together our mobile operator members, the wider mobile industry and the development community to drive scalable, commercial mobile services for underserved people in emerging markets, such as the Mobile Money for the Unbanked, Green Power for Mobile and mWomen programmes.

I hope that this has given you insight into some of the areas that we view as priorities for driving the mobile industry forward over the next 7 years or so. Thank you very much for your time today.