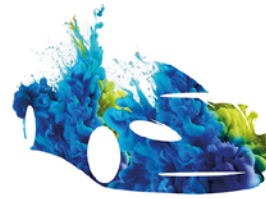


Tuesday				
09:00 - 10:45	Keynote 1: Opening Keynote			
10:45 - 11:30	Break			
11:30 - 12:30	Keynote 2: Connecting Everyone and Everything to a Better Future			
12:30 - 13:30	Networking Lunch			
13:00 - 14:00	Content & Media	The Fourth Industrial Revolution	Sustainable Development Goals	13:00 - 17:00 CTIA Policy & Regulation Sessions
	Content Strategies: Value Creation and Business Models	Artificial Intelligence and Quantum computing	Digital Inclusion: Transforming Lives Around the World	
14:00 - 14:15	Break			
14:15 - 15:15	Immersive Experiences: AR and VR in Entertainment	Digital Enterprise Infrastructure	Digital Education Tools for Sustainability	
15:15 - 15:30	Break			
15:30 - 16:30	Video & Entertainment in a 5G World	Smart Cities	Beyond Financial Inclusion: Mobile Money and Social Transformation	
Wednesday				
09:00 - 10:30	Keynote 3: The Fourth Industrial Revolution			
10:30 - 11:00	Break			
	Content & Media	The Fourth Industrial Revolution	Consumer IoT	The Network
11:00 - 12:30	Content: Origination and Advertising	Autonomous Vehicles	Artificial Intelligence: Virtual Assistants and Chatbots	The 5G Ecosystem
12:30 - 13:30	Networking Lunch			
13:30 - 14:30	Keynote 4: The Digital Economy			
14:30 - 15:00	Break			
	The Fourth Industrial Revolution: Digital Economy	The Fourth Industrial Revolution: IoT	Consumer IoT	13:00 - 17:00 CTIA Policy & Regulation Sessions
15:00 - 16:00	Blockchain	IoT Security	Cybersecurity: How Safe is your Device	
16:00 - 16:15	Break			
16:15 - 17:00	The API Economy	IoT Platforms & Services	Consumer Data: Privacy and Opportunity	
Thursday				
09:00 - 10:30	Keynote 5: Content			
10:30 - 11:00	Break			
11:00 - 12:30	The Network	Content & Media	Consumer IoT	
	IoT Connectivity	The Connected Stadium: Enhancing the Fan Experience	The Retail Experience	
12:30 - 13:30	Networking Lunch			
13:00 - 17:00				



Day 1

09:00 – 10:45

Keynote 1: Opening Keynote

10:45 – 11:30

Break

11:30 – 12:30

Keynote 2: Connecting Everyone and Everything to a Better Future

12:30 – 13:30

Networking Lunch

13:00 – 14:00

Content Strategies: Value Creation and Business Models

Content & Media

As businesses continue on their journeys to digital transformation, carriers are at a critical juncture of their own. Content is seen as key to customer acquisition and retention and many operators are well on the way to becoming fully fledged digital media and entertainment companies. There are several routes into, and business model approaches for, content. Operators may choose to pursue a multi-play approach, whilst others look to acquire content platforms, strike deals with content aggregators or even purchase rights themselves.

Whichever strategy they adopt, operators will inevitably face a number of challenges – communicating the value of content to investors, building a strong proposition with content producers & distributors and educating customers are all potential hurdles. Re-positioning from a connectivity provider to an entertainment business requires significant time and investment, not least into the understanding of consumer audiences and their behaviours, but the payoffs can be great.

13:00 – 14:00

Artificial Intelligence and Quantum Computing

The Fourth Industrial Revolution

As the world transitions from manual, human-controlled processes to an automated world, Artificial Intelligence has become a fundamental element of the transformation. The ability for machines, from robots to vehicles, and anything automated, to make decisions, learn and react to both expected and unexpected circumstances relies on their artificial intelligence. What impact will AI have on manufacturing, large scale organisations and complex logistical services such as aviation? What ethical implications does the prominence of robots have in the workplace? How will the development of quantum computing shape the future of robotics and artificial intelligence?

13:00 – 14:00

Digital Inclusion: Transforming Lives Around the World

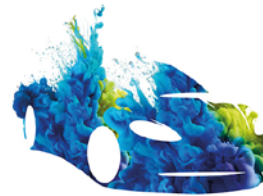
Sustainable Development Goals

Digital technology is evolving rapidly, leading to the emergence of new services and applications that are transforming the way people live, work, play and communicate. A coherent and feasible digitisation strategy is key to enabling three interrelated components required for digital societies to function effectively and deliver benefits to all sectors of society: digital citizenship, digital lifestyle and digital commerce. Are current national policies and governance structures supportive of these components and what is required to move Asia-Pacific countries up the digital society value chain?

This session will deep dive into the pillar of digital lifestyle and, underpinned by Internet of Things (IoT), explore its impact on key government initiatives including privacy and security, healthcare, education and industrial development.

13:00 – 17:00

CTIA Policy & Regulation Sessions



14:00 – 14:15

Break

14:15 – 15:15

Immersive Experiences: AR, VR & UHD in Entertainment

Content & Media

Previously, the rise of virtual reality had been driven by video games, such as the PlayStation VR. But now viewers are increasingly enjoying wider access to immersive entertainment experiences. 2016 was the year that mass market VR headsets became available to consumers and there has subsequently been an appetite by Hollywood studios and broadcasters to explore the potential of VR in film, TV and entertainment. Major film festivals, including Sundance and Tribeca, have championed innovative and high-quality immersive content from independent filmmakers. Advances in VR cinema coupled with the evolution of HDTV & AR technologies, including, 360 and UHD 4K have the ability to create previously unimagined immersive experiences, taking the viewer directly into the heart of the action.

14:15 – 15:15

Digital Enterprise

The Fourth Industrial Revolution

Business productivity tools have become a focal point for companies as they incorporate millennials into their workforce. These new employees expect seamless connectivity, the latest gadgets and the appropriate tools, online or otherwise, to carry out their work effectively. A new generation of tools is available to companies, but a generational shift also requires a change in culture; an enterprise that puts connectivity and mobility first. The inevitable shift to online and mobile has created a need for different skillsets within the workforce, different processes and tools for employees to fulfil their responsibilities. How can firms continue to attract tech-savvy employees, change their “DNA” and become digital entities? What tools, networks and equipment do companies and employees require? How can operators

shift their business models to be a Network as a Service provider and capitalize on this opportunity?

14:15 – 15:15

Digital Education Tools for Sustainability Sustainable Development Goals

Public schools in the US now provide at least one computer for every five students and spend over \$3 billion per year on digital content. Led by the federal government, the country is in the midst of a massive effort to make affordable high-speed Internet and free online teaching resources available to rural and remote communities.

As you would expect, there is a booming ed-tech industry, with an \$8 billion-plus annual opportunity for hardware and software. While there are exceptions, implementation has generally been slow and unequal, often exacerbating an existing education and technology access gap. Even successful implementations are struggling to show clear ROI.

Optimism remains, however, around the potential for learning management systems, student information systems, and other software used to distribute assignments, manage schedules and communications, to improve learning, personalization, and therefore achievement and opportunity. This session will look at the learnings from the successes and the failures in the US and how these can be applied elsewhere in the Americas.

15:15 – 15:30

Break

15:30 – 16:30

Video & Entertainment in a 5G World Content & Media

Media & content professionals are under unprecedented pressure to manage growth and optimize key asset infrastructure in order to serve the audiences of the future. Developments in viewing capabilities continue at a break-neck speed, while mobile data traffic continues to explode, with a global increase of 63% in 2016 and a



predicted nine-fold increase in video consumption by 2021 (Cisco). How will broadcasters and carriers deal with the huge spikes in traffic and where should they invest for the most return? What will tomorrow's superfast networks mean for video and interactive entertainment? The emergence of 5G will of course have a crucial impact on the way we watch content and the form that this takes. Some operators are well underway with developing immersive media services, such as 360-degree Live VR, that will require 5G bandwidth to go mobile. In the future, social media will mostly be video; and most social video will be mobile. Carriers will need to think about downstream capacity, but also, increasingly, upstream capacity. Join us for a discussion on the networks of the future and how they will enable the transformation in video and entertainment.

15:30 – 16:30

Smart Cities

The Fourth Industrial Revolution

What makes a smart city smart? How are citizens interacting with city services, and what do they expect from services? Smart city projects, by nature, are each very different and focused on the different challenges that cities face. However, themes such as traffic, environmental impact, security and open government initiatives are frequently core elements of smart city projects. Whilst projects in different parts of the globe might bear resemblance, they often live in silos, not allowing lessons learnt, common technology and experience to be shared cross-nationally and across cities. How can the industry come together to bring down these silos, and create truly "smart" cities?

15:30 – 16:30

Beyond Financial Inclusion: Mobile Money and Social Transformation

Sustainable Development Goals

Mobile money has gained global recognition as a powerful driver of financial inclusion, extending access to financial services to millions of people over the past decade. Less

recognised, however, have been the wider implications of that access for social and economic development. The ability to store and transact money in digital form is, for example, making people safer, saving them time, delivering transparency, keeping kids in school, facilitating aid delivery, and helping to empower women to have greater control over household finances. But for governments and public institutions, do the benefits of making digital payments obligatory outweigh the risk of excluding some? This session will explore the transformative ability of mobile money to generate broader benefits for society, beyond financial inclusion.

Day 2

09:00 – 10:30

Keynote 3: The Fourth Industrial Revolution

10:30 – 11:00

Break

11:00 – 12:30

Content: Origination and Advertising *Content & Media*

Part 1. The Film & TV world is in the midst of a period of huge disruption, some say a golden age, with traditional studios and broadcasters battling emerging internet platforms with big budgets for audience attention. At the same time. Companies such as Netflix and Amazon are leading the charge and shaping a totally new market of high-quality, high-budget original content, as part of a larger personalized engagement model, designed for seamless anywhere, any device, anytime viewing. But competition in the streaming film & TV industry continues to intensify as new entrants vie for their place in this crowded but, potentially lucrative, market. Traditional broadcasters, studios and carriers are also seeking to stake their claims and come out with compelling offerings of their own. Original programming and content



are the key to gaining a competitive edge – and locking in consumers longer term - but knowing what your audience wants to watch and is willing to pay for is crucial.

Part 2. With consumers now spending two-thirds of all internet time on mobile devices, brands must focus on business growth, customer expansion and measurable activation. There are many opportunities for advertisers to use mobile in more engaging and effective ways than ever and to embrace innovative content. Location data, VR and 360 content, live video, data, and consumer insights are all factors in creating compelling and interactive consumer experiences. Brands need to understand what consumers want in relation to mobile content, as well as their position in the market. But how can brands measure this relationship and ROI? Where are brands betting big with their advertising budgets and how can they make use of content to enhance their relationship with the consumer?

11:00 – 12:30

Autonomous Vehicles

The Fourth Industrial Revolution

Autonomous and semi-autonomous cars seem to have quickly moved from science fiction to an inevitability. Trials are ongoing, and in Mobile World Congress Barcelona, Robocar launched the first-ever driverless race car. As the reality of driverless cars comes closer, cities, laws, drivers and the public as a whole need to adapt to accommodate this upcoming technology. What ethical implications will autonomous vehicles have in the case of accidents? What cellular technology, inside and outside of the car, will be required to deliver this driverless revolution? These connected vehicles will not only be driverless, but ownerless, especially in crowded urban areas, where cars remain unused 95% of the time and rapidly depreciating. In order to deliver a regular tailored service, partnerships are forming between media companies, automotive manufacturers and other ecosystem players. The surge in self driving technology and the connected user will allow cars to provide a

service entirely customised to the person riding it, their mood, time of day or even their destination.

11:00 – 12:30

Artificial Intelligence: Virtual Assistants and Chatbots

Consumer IoT

Consumers around the world are using messaging apps to not only chat with friends but also connect with brands, shop and watch content online. Advances in AI combined with this rising popularity of mobile messaging apps are sparking a new wave of innovation which is more conversational and more personal in nature.

Messaging apps have become the preferred means of communication on mobile devices exceeding social apps in popularity. Brands have realized the enormous opportunity in creating more personal, conversational experiences for interacting with customers and exposing these through an array of platforms.

This session will showcase the latest innovations in AI technology. Experts will explore the increased desire and expectations of endless, personalized convenience, creating branded experiences that provide a better, more personalized and real time customer experience.

11:00 – 12:30

5G Networks

The Network

The 5G story continues to develop, with new business cases being discussed or developed further as early stage trials and deployments are announced. The acceleration in the standardisation process, as well as the R&D taking place throughout the telecommunications ecosystem has put the industry on alert to decide how, when and where 5G will be deployed into its networks. With competing views and approaches to 5G, the industry and its partners will need to find the sweet spot for the technology, a necessary step to creating a successful business case and ROI opportunities for operators and infrastructure providers



worldwide. During this session, the discussion will revolve not only on the core technology that will become the building blocks of 5G, but also the merits of this new generation, why it is necessary, and where we will see the early deployments and developments.

12:30 – 13:30

Networking Lunch

13:00 – 17:00

CTIA Policy & Regulation Sessions

13:30 – 14:30

Keynote 4: The Digital Economy

15:00 – 16:00

Blockchain

The Fourth Industrial Revolution: Digital Economy

No discussion about blockchain can avoid mentioning Bitcoin; the blockchain-enabled crypto-currency, and its disruptive impact on the financial services industry. However, the ability to record transactions, contracts and agreements and have them verified by users of the distributed ledger, has the potential to disrupt a wide range of industries, including telecoms, legal, manufacturing, and transportation. Blockchain is rapidly evolving from a digital currency infrastructure into a platform for digital transformation. This session will highlight the areas where blockchain could have the most impact, and what challenges need to be addressed for the technology to realise its full potential.

15:00 – 16:00

IoT Security

The Fourth Industrial Revolution: IoT

A significant amount of IoT projects do not make it past the prototype stage due to security concerns. Investment is increasing to meet this challenge and secure not only active IoT solutions, but future use-cases. The GSMA estimates that worldwide IoT security will increase by 73% by 2019 to US\$195 million to address this gap. Security is at the heart of enabling IoT. The Enabling

IoT Security session will explore best practice security strategies for IoT deployments, discuss the impact of security on the different layers and explore the opportunities for cross-industry consensus on security for devices, sensors and users alike.

15:00 – 16:00

Cybersecurity: How Safe is your Device Consumer IoT

IT analyst forecasts are unable to keep pace with the dramatic rise in cybercrime, the ransomware epidemic, the refocusing of malware from PCs and laptops to smartphones and mobile devices, the deployment of billions of under-protected Internet of Things (IoT) devices, the legions of hackers-for-hire, and the more sophisticated cyber-attacks launching at businesses, governments, educational institutions, and consumers globally according to the Cybersecurity Market Report.

This session will feature hackers and heroes, demonstrations and case studies. We will explore the cyber threats facing America today, and how companies are making changes based on these. Leading experts will discuss the challenges as well as the responsibilities and measures that need to be taken in data protection and technological innovation on how to minimize exposure to cyber security threats.

16:00 – 16:15

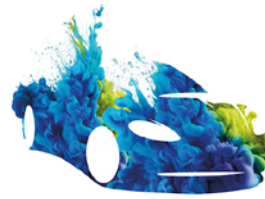
Break

16:15 – 17:00

The API Economy

The Fourth Industrial Revolution: Digital Economy

APIs are the components that enable diverse platforms, apps, and systems to connect and share data with each other and have been referred to as the connectors of the 21st century. Customer needs are driving the most efficient API development programs across a range of industries, including automotive, healthcare, retail, transportation, financial services and media. Companies, big



and small, are using APIs to level the playing field and start-ups and established companies alike are using APIs to cut the cost of innovation and entry to new markets. This session will discuss a range of real-world experiences, from marketing and business models to community building and business transformation through APIs.

16:15 – 17:00

IoT Platforms & Services

The Fourth Industrial Revolution: IoT
Investment in IoT is increasing, and the applications are becoming far-ranging and varied. As the volume of services, data and opportunities continue to expand, enabling technologies and platforms will need to surface and be widely adopted to create an IoT ecosystem across industry sectors. Enabling IoT solutions should aim to facilitate synergies between use-cases to create economies of scale, providing security for the technology and users, and identifying the core network technology that will uphold and meet demand. Interoperability is the first step towards creating IoT ecosystems that cut across use-cases and industry sectors, but security has to be a primary focus.

16:15 – 17:00

Consumer Data: Privacy and Opportunity

Consumer IoT

With the explosion of digital technologies, companies are gathering vast amounts of data about consumers' activities. Devices, apps and services are broadening users' digital footprints on a massive scale. Although consumers are aware of information being collected, they may not know to what extent or the specific types of data collected about them, this lack of end user visibility and control threatens the trust that enables most services to function. Instead, this can be a valuable way to generate and maintain a good relationship with your customers and transform into a positive customer experience.

This session will explore data privacy management approaches and solutions that are emerging in this area. Focusing on how

Operators have the opportunity to enhance their relationship with users as well as increasing the value of their services.

Day 3

09:00 – 10:30

Keynote 5: Content

10:30 – 11:00

Break

11:00 – 12:30

IoT Connectivity

The Network

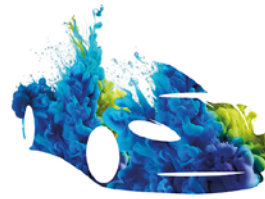
With the rapid development of IoT use cases and deployments, further pressure is placed on cellular networks. The development of LTE-M and specific network technology aimed at IoT has driven the network deployments targeted solely at IoT applications and services, but new networks and frameworks are also available to deliver IoT services. As these options become available, and the use cases for IoT increase in scope, a careful discussion and analysis of each option will have to be carried out before deployment. How can MNOs work together with different industry verticals to ensure quality of service and bandwidth, as well as understand their particular requirements? How should these operators organize their resource and network capacity to manage IoT services through their networks? Will cellular and non-cellular IoT networks continue to be seen as "competitive", or is there space for co-competition, at the very least?

11:00 – 12:30

The Connected Stadium: Enhancing Fan Engagement

Content & Media: Morning Sports Fans

As technology continues to exert its enormous impact on sports, the definition of a connected stadium is constantly evolving. Future-proofing technology investments, and enhancing the fan experience is a challenge



facing large venues and stadia around the world. This is being overcome by continuously increasing and improving wireless access in a smart way and building digital services over great connectivity. By providing an immersive and digital experience through wireless networks, stadiums can provide a greater customer experience while also creating business models new revenue opportunities. Fast and seamless connectivity is critical in allowing fans to engage at a higher level via mobile concessions, in-app purchases, instant replays, player stats and more. By keeping fans better engaged with what's happening and interacting with each other, teams and stadiums can increase their fan retention and build new sources of revenue.

Leading executives in the field will discuss new approaches for the connected stadium and monetizing venues beyond ticket prices, reviewing technology platforms that are central to powering the connected business model while also addressing public-safety responsibilities that come with a mobile-first environment.

11:00 – 12:30

The Retail Experience

Consumer IoT

Consumer adoption of IoT devices is expected to rise quickly – a recent study from Accenture found that nearly two-thirds of consumers intend to purchase a connected home device by 2019 and ownership of wearable technology is expected to double year over year. IoT is already disrupting the retail sector, particularly when it comes to the customer relationship. Smart shelves, shopping carts and in-store robots are all part of a smarter, IoT-enabled vision for an enhanced customer experience. It may be early days, but, retailers are investigating how IoT will reshape the customer experience, create new revenues and enable them to enter new markets.

12:30 – 13:30

Networking Lunch