

PRESENTATION AT THE ICASA 2017 - 2021 STRATEGY SESSION

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Who we are?

- **Our Vision**

- The Wi-Fi Forum SA is a voluntary forum of operators, service providers, technology providers and associated parties with a shared vision of accelerating the adoption of high-speed, reliable and cost-effective broadband services in South Africa and a shared focus on Wi-Fi technologies as a means for doing so

- **Our Mission**

- To create a collaborative self-regulating body that promotes the effective utilisation of Wi-Fi technologies in the delivery of ubiquitous, interoperable and seamless connectivity in South Africa

Objectives include:

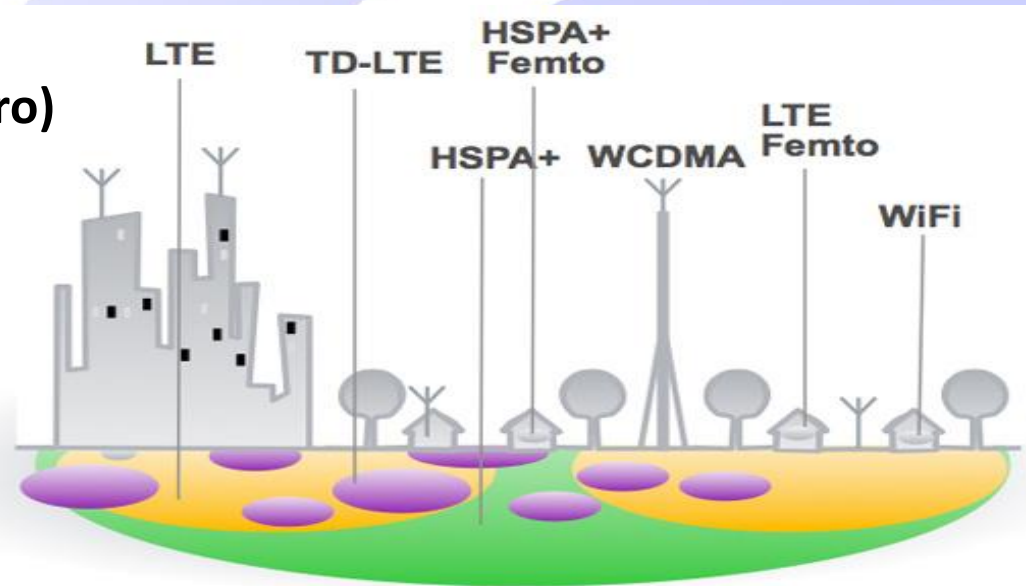
- Provide an effective collaboration forum for Wi-Fi industry stakeholders
- Provide a mechanism for the self-regulation of the Wi-Fi industry
- Promote the application of open access principles in the operation of Wi-Fi and other networks used for the delivery of broadband
- Provide input to regulatory processes that would impact on the Wi-Fi community

Why we are passionate about the industry

- Growing maturity of the Wi-Fi technology (standards like Hotspot 2.0/Passpoint) and industry (business models)
- Advantages of the technology for industrial and commercial applications
- Significant societal benefits for efforts aimed at providing affordable access to broadband
- Entrepreneurial opportunities for new entrants

Heterogeneous Networks

- Consists of macro cell, small cell and Wi-Fi access elements
 - Macro cell (3G/4G)
 - Small cell (Femto, Pico, Micro)
 - Wi-Fi (Carrier grade)
- Multi-zone
 - National
 - Regional
 - Local
 - Proximity



Wi-Fi Coverage

Global public Wi-Fi hotspot numbers *

- 2011: 1.3 million
- 2013: 15 million
- 2015: 50 million
- 2018: 340 million

By Country (2015)

- France: 13 million
- USA: 10 million
- UK: 6 million
- SA: 10,000***



*Source: iPass Report 2015

Wi-Fi driving change*

Wi-Fi Calling

Venue/Retail Wi-Fi

New types of Wi-Fi

Wi-Fi M2M

Internet of
Things

New monetisation
models

Community Wi-Fi

Interoperability

New standards fulfilling the needs of the sector **

- 802.11ac offers very high throughput >1Gbps @ 5GHz
- 802.11ad offers very high throughput >1Gbps @ 60GHz
- 802.11af addresses the needs for effective deployment of TV whitespaces

** Source: Institute of Electrical and Electronics Engineers

Why is this important for ICASA?

- Technology is changing (that is what they all say)
 - But we really mean it!!
- Standards are being finalised for commercialisation that will increase access speeds to beyond 1Gbps
- Wi-Fi is increasing its footprint as the default access medium - *ubiquity*
- Applications are leveraging these developments
 - not just voice, but also M2M, data analytics and Internet of Things

What does this mean for ICASA's strategic focus

- Internet of Things (IoT)
 - Growing adoption of IP connected devices continues to gather steam
 - Ability to send small and (sometimes) large data packets across a communications network critical
 - Security of transmission growing in importance
 - Wireless (incl. WLANs) will be required to manage this surge in traffic
- Wholesale open access
 - Key to effective definition: Openreach offers a useful starting point
 - Will provide the same products and services to all customers on the basis of "Equivalence of Inputs", which means (subject to some limited exceptions):
 - at the same prices
 - using the same processes
 - to the same timescales
 - Ability to provide different service levels at different prices and Service Level Guarantees, but these are the same for all communications providers

What does this mean for ICASA's strategic focus

- Spectrum regulation
 - Traditional models of allocating dedicated chunks of spectrum require review
 - Pricing of spectrum needs to contend with the need for dynamic spectrum assignment and lower price points for data traffic
 - New entrants will play critical role at expense or in conjunction with traditional operators
 - Light touch spectrum regulation needs consideration

Future of Wi-Fi

- Developing Wi-Fi (WLAN) deployments to operate in high density scenarios – rapid connections to end user devices
- Improving efficiency by spatial re-use and enhanced power-saving technology
- Enhancing the security layer and privacy of data being transported across the medium

Conclusion

- Need for improved self-regulation models to be supported by the regulator – possible light touch regulation
- Re-think required for the pricing of spectrum as IoT drives use of large bands of small quantities of spectrum
 - commercial feasibility
 - dynamically assigned
 - temporary “ownership”
 - coordination of assignment to avoid interference
- Shared infrastructure models to be drivers of greater efficiency as well as ensuring effective coordination



THANK YOU