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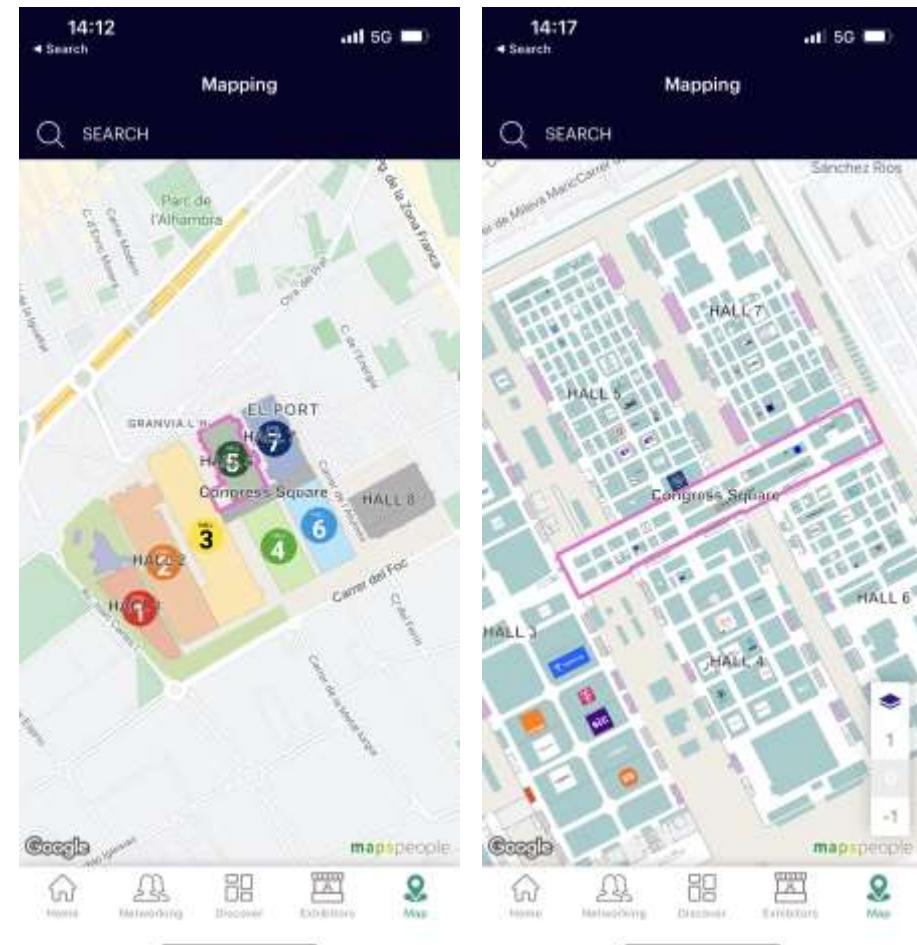
Mobile World Congress 2023

Ólafur Magnússon

Framkvæmdastjóri Tækni og Nýsköpunar

Mobile World Congress 2023

- MWC er ein stærsta og virtasta fjarskiptaráðstefna/sýning í heimi og er haldin árlega af GSMA (Global System for Mobile Communications) í Evrópu, Bandaríkjunum, Asíu og Afríku.
- Evrópuráðstefnan er þeirra stærst og hefur verið haldin í Barcelona síðustu ár og er óðum að ná fyrri styrk eftir COVID.
- Að þessu sinni heimsóttu um 100 þús gestir ráðstefnuna ásamt fjölda fyrirlesara, birgja og samtaka.
- Sýningarsvæðið er stórt, nær yfir allar hallir „Fira Barcelona“ auk þess sem fyrirlestrasaralir og hótélherbergi eru nýtt í nærliggjandi hótelum.



Meginþema 2023

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- **5G Acceleration**

5G is unlocking untapped value for all players across the entire ecosystem. With **millions of 5G devices** and huge waves of new data being collected, we are redefining how the world connects. Through greater software development, digital innovation and enhanced **5G delivery**, mobile led platforms are becoming even smarter, creating new use cases and business models that will transform industry and enterprises. Our evolutionary path is accelerating technology towards **6G, quantum computing and more efficient networks.**

- **Reality+**

Immersive technology and **5G** are fundamentally changing the way we live, work and consume information and media. As advanced technologies enable new touchpoints on the customer journey and business models begin to adapt, nothing engages attention like outstanding experience. As the exploration of extended reality and metaverse continues, **5G** will be key to enabling the latest innovations in the physical, digital and virtual worlds. The customer experience in the next five years will be completely transformed – and now is the time to start exploring how we can unlock this virtual vision and bring people closer together.

- **OpenNet**

Openness in mobile networks is providing significant value, as well as promising to make networks more agile and futureproof. Whilst open radio access networks have seen a significant shift in functionality, this market change must be managed carefully to deliver on that promise, whilst maintaining security and performance levels. Leveraging **5G, IoT, Edge and Cloud capabilities** with open API functionalities will help mobile operators to create a differentiated value proposition that delivers scalable next-generation digital services. The long-term network evolution has begun – is it time to embrace open networks?

- **DigitalEverything**

The expansion of digital technologies represents an immense opportunity to create value for every industry. From entertainment, manufacturing and smart mobility, the industrial and enterprise world is facing rapidly moving challenges. Our resources are finite and we all need to do more, with less. **Digitalisation, IoT** and the combination of the real and the digital worlds are game changers for meeting these challenges, as we continue our evolution to Industry 4.0 and beyond.

- **FinTech**

With the rise of NFTs (Non fungible tokens), cryptocurrencies and blockchain technology, there is no denying that fintech is taking on an entirely new meaning and revolutionising the financial industry. Whilst technology in financial services has been around for a long time, the pandemic accelerated mobile banking and its adoption across generations. Human behaviour has shifted as a result, with growth in digital currencies and trade in NFTs opening new opportunities and risks. But given the speed at which technology is evolving today, mobile banking and digital currencies are not just about making payments more efficient; they are providing a new way to transact within a global digital economy.

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5G Business Success



5G – Hagnýting og nýir tekjustraumar

- Stóra spurningin á MWC var hvernig ætla fjarskiptafyrirtæki, birgjar, og aðrir hagsmunaaðilar að nýta nýja tækni til að búa til nýja tekjustrauma?
- Fjarskiptafyrirtæki eru sum hver að selja og markaðssetja nýjar áskriftarleiðir sem byggja á mismunandi hraða og/eða aðgengi að 5G
- Þróaðri viðskiptalíkön byggja upp á hagnýtingu á 5G tækninni sem gera fjarskiptafyrirtækjum kleift að bjóða viðskiptavinum sínum upp á þjónustu sem nýta sér möguleika í forgangsþjónustu (bandbreidd, latency) til að styðja við mismunandi þarfir
- Næstu skref hjá fjarskiptafyrirtækjum er áframhaldandi uppbygging á dreifikerfi og innviðum samhliða útfösun á eldri tækni (2G/3G þjónustu lokað á Íslandi fyrir árslok 2025)
- Hvað gerist svo eftir 5G? Nýting hærri tíðnisviða MM Wave, **6G** 

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Notendatilvik – Use Case

	Consumer	Home	Business			B & C			
Scenario									
Service	Voice <ul style="list-style-type: none"> • VoLTE • VoNR 	Video <ul style="list-style-type: none"> • SD/HD 4K/8K • VR/AR/XR • Interactive/ Panoramic live video • New Calling 	FWA <ul style="list-style-type: none"> • WTTx (data +video) 	Healthcare <ul style="list-style-type: none"> • Remote diagnosis • Remote surgery 	Smart Grid <ul style="list-style-type: none"> • Feeder automation • Intelligent power distribution 	Smart city <ul style="list-style-type: none"> • Video surveillance • parking, street lamps, and traffic lights etc. 	IoV <ul style="list-style-type: none"> • Platooning • Remote driving • Automatic driving 	Manufacture <ul style="list-style-type: none"> • Industrial Control • Remote Control 	Campus <ul style="list-style-type: none"> • Government • Enterprise • School
Requirements	<1M	>100M (instantaneous >1G)	>200M	>100M	>30M	>100M	>100M	>20M	>100M
Band-width	<100ms	<30ms	<50ms	<5ms deterministic delay	<10ms deterministic delay	<50ms	<10ms	<10ms	<50ms
Delay	<100ms	<30ms	<50ms	<5ms deterministic delay	<10ms deterministic delay	<50ms	<10ms	<10ms	<50ms
Func.	Better than 2G/3G voice quality	<ul style="list-style-type: none"> • Edge rendering • Codec compression 	<ul style="list-style-type: none"> • Multicast to multicast • CDN collaboration 	<ul style="list-style-type: none"> • Reliability >6*9 • UP bandwidth scheduling 	<ul style="list-style-type: none"> • Reliability >6*9 • Precise control 	<ul style="list-style-type: none"> • Massive connections 	<ul style="list-style-type: none"> • Reliability >6*9 • Platooning management 	<ul style="list-style-type: none"> • Reliability >6*9 • deterministic delay 	<ul style="list-style-type: none"> • public and private networks Access • Roaming

5G Helps Siriraj Build a World-Class Smart Hospital



5G Smart City Brings Quick Win-win to Pattaya City and Telco



Benefits for the Pattaya City

Better Governance
Traffic Jam

Better Livelihood
Polluted Days

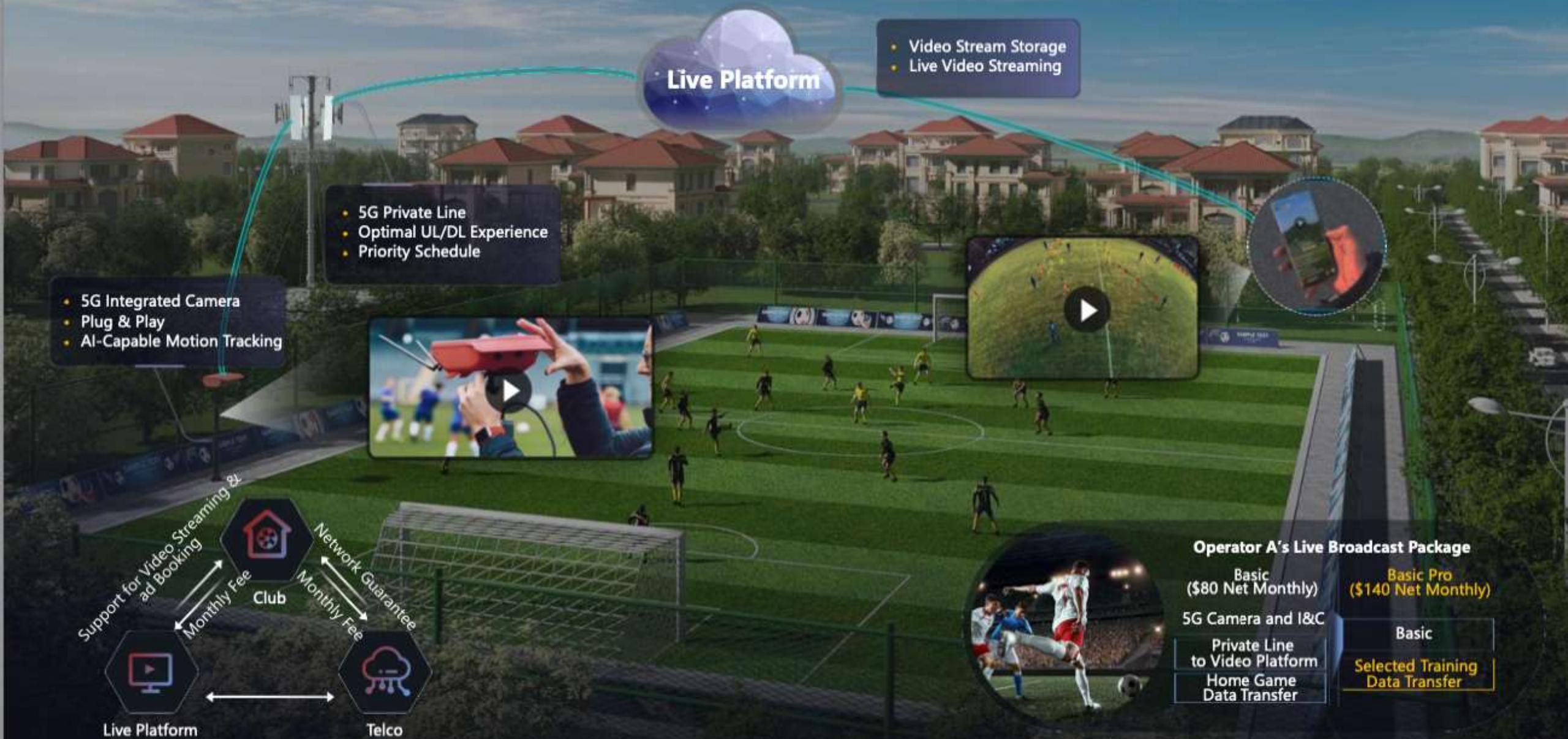
Better Tourism
Tourists

Business Model

MEC Installation & 5Y Usage
\$XXX K/one time + Connectivity
\$XX/pole/month, 5X vs. ToC + Private Line
\$X K / month

Hint = New Growth and Social Responsibility with Low Cost

5G Private Lines Bring Sport Clubs to the Big Stage



Dreifikerfi – Innviðir

- Eftir því sem þéttleiki netsins eykst þá eru framleiðendur iðnir við að koma út nýjum búnaði sem svarar kröfum fjarskiptafyrirtækja um hagkvæmni
- Loftnet verða sífellt öflugri og með víðtækari virkni
- Hagkvæmari “aktívur” búnaður, smærri, léttari og öflugri með meira innifalið í hverju boxi
- Lægra carbon footprint, minni „vírun“, færri kaplar, betri kæling
- Aukin krafa um orkusparnað „*0 bit => 0 watt*“



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Búnaður og tæki

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5G Beinar

Magenta 5G Box -
With stable high speed
into the future



- Supports 5G SA/NSA (up to 3.4Gbps download speed)
- Flagship 5G chipset Qualcomm® Snapdragon™ X62
- Dual-band Wi-Fi 6, wireless speeds up to 5,378Mbps
- Easily connects to Android phones with NFC
- Stable mesh with Xiaomi/Redmi Wi-Fi 6 routers

Xiaomi's first 5G CPE is now available in Europe.

In partnership with Deutsche Telekom.

With DT's Magenta 5G Box co-developed with Xiaomi, you can surf the high-speed internet easily and conveniently.

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Wi-Fi 6 Mesh

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WiFi 6 Beinir

WiFi 7 Mesh

Sýndarveruleiki



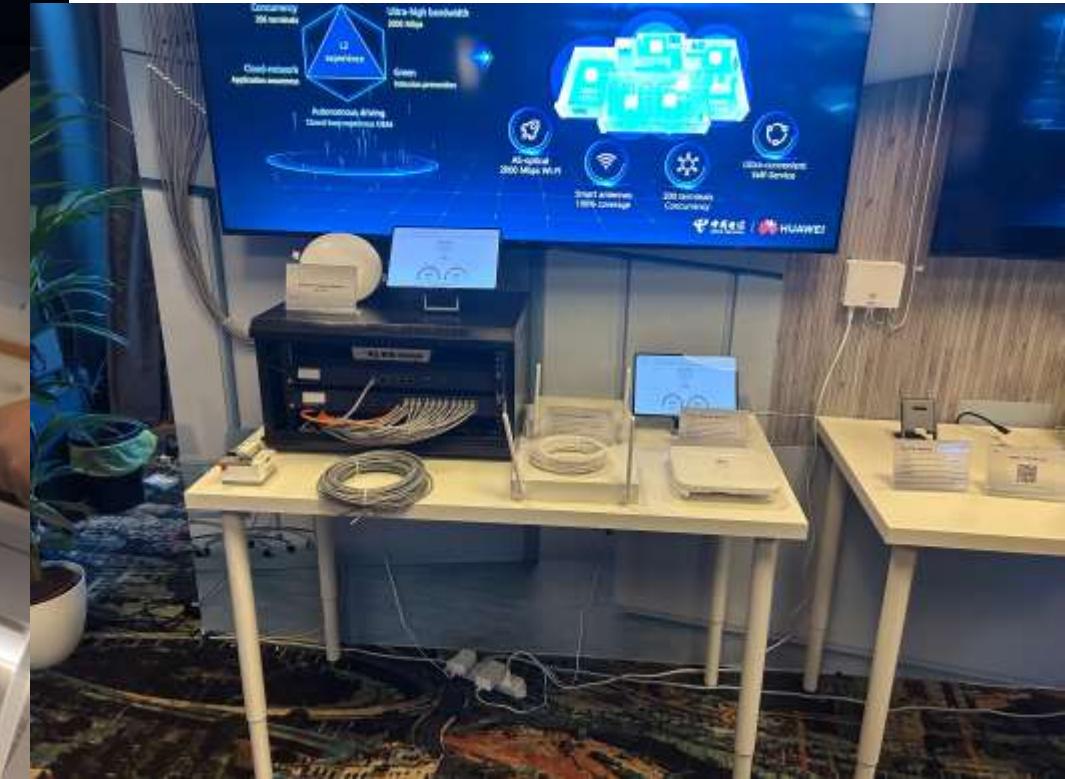


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Power Over Fiber (POF)



Innanhúsljósleiðari

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Sköpunargleðin



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Takk fyrir