

5G for industrial transformation telecoms workshops

Outcomes from Asia and Middle East summits

03/01/2020

Agenda

- 1** Material covered and attendees
- 2** Input from telecoms audience
- 3** Implications in Asia
- 4** Implications in Middle East
- 5** Additional resources

Agenda

- 1** Material covered and attendees
- 2** Input from telecoms audience
- 3** Implications in Asia
- 4** Implications in Middle East
- 5** Additional resources

The agenda at both events focused on the healthcare and manufacturing industry

Agenda

- **Headline results from our research**
 - Overview of the research programme
 - Methodology, interviews, survey, modelling
 - Economic and social benefits to enterprises, governments and consumers
- **Healthcare deep-dive: specific use cases and benefits from 5G**
 - The state of the healthcare industry
 - The ecosystem and value to the healthcare industry from three key use cases:
 - Remote patient monitoring
 - High-definition virtual consultations
 - Connected ambulances
- **Manufacturing deep-dive: specific use cases and benefits from 5G**
 - The state of the manufacturing industry
 - The ecosystem and value to the manufacturing industry from three key use cases:
 - Advance predictive maintenance
 - Precision monitoring and control
 - Augmented reality remote expert
- **Implications for the telecoms industry**
 - Commercial strategy considerations for operators and regulators
- *For more information or to access the deck presented at the events, please contact tilly.gilbert@stlpartners.com*

We had senior attendees from **11** different telecoms operators

Asia Summit 5/12/2019 (20 attendees)

- Globe Telecom
- China Telecom
- Singtel
- Telkomsel
- Bridge Alliance
- SK Telecom
- NTT Docomo
- Tata Communications

Middle East Summit 9/12/2019 (13 attendees)

- Etisalat
- Saudi Telecom Company
- Du

Agenda

- 1 Material covered and attendees
- 2 Input from telecoms audience
- 3 Implications in Asia
- 4 Implications in Middle East
- 5 Additional resources

The telecoms industry felt the biggest opportunity in 5G-enabled services was in application enablement

- When presented with the framework “**What are you doing for them?**” (see right), the majority of our telecoms audience (57%) felt that providing **platforms that can enable applications** was the biggest opportunity for them
- Our research indicates that only approximately **6-8% of the value of an end-to-end solution comes from providing the network**. Only 7% felt this was the biggest opportunity for operators
- **36%** felt they should be involved with **delivering the solutions** themselves, despite the fact this will likely require significant development of **new skills** through either partnerships or M&A

What are you doing for them?

Applications and solutions

Specific vertical solutions and applications.

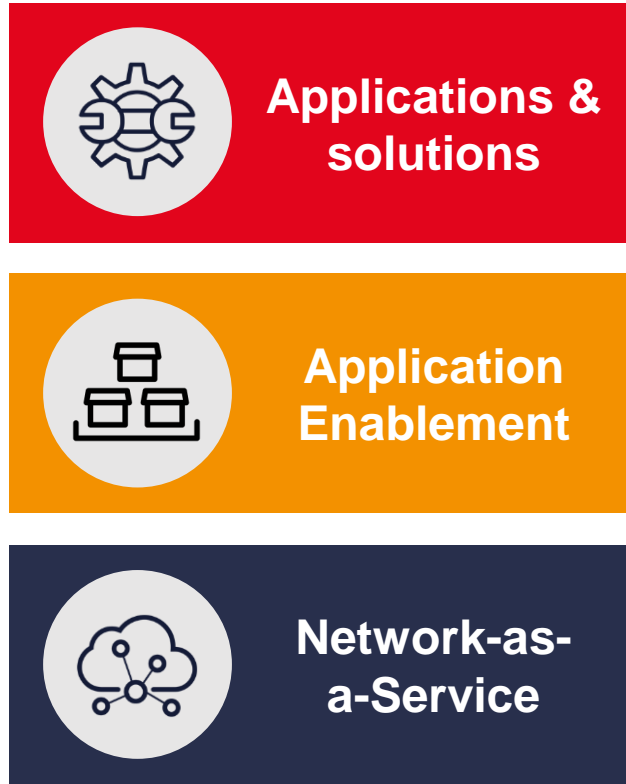
Application enablement

Aggregation platforms for data, applications and enablement services.

Network-as-a-service

Customised cloud-like networks.

Despite the opportunity higher up the stack, the majority of telcos felt their starting point was with network services



The majority of telcos felt that their starting point to entering a vertical should be with network services. However, we at STL Partners would challenge this – those that have experienced success in new verticals tend to offer **applications and solutions in a network agnostic way**, or essentially as an OTT play. This may mean that starting with the network and moving up is more challenging than operators believe.

1. Network-as-a-service
42%

2. Application enablement
33%

3. Solutions and applications
17%

4. Other
8%

Within healthcare, there are telcos who currently primarily offer **network services** (e.g. the IoT connectivity that Vodafone offer). However, there are also examples of telcos who **entered the healthcare market through M&A** (e.g. Telus) that has enabled them to offer **applications and solutions** from the beginning.

Telcos highlighted manufacturing as the key opportunity for delivering 5G-enabled services

1. Energy and extractive industries

8%

2. Healthcare

8%

3. Manufacturing

31%

4. Retail

0%

5. Financial services

8%

6. Logistics and distribution

15%

7. Agriculture

8%

8. Media and entertainment

15%

9. Other

8%

- We asked telcos “**What vertical do you think provides the biggest opportunity in your market for providing 5G-enabled services?**”
- 31% of operators felt that **manufacturing** provided the biggest opportunity – unsurprising as we forecasted that **almost half of the value of 5G for industries will be in manufacturing** (\$740 billion)
- Those that voted for “other” highlighted the use of 5G in connected shipping ports – something we would have considered under logistics and distribution
- **8% voted for financial services** – a large industry, but one that we at STL believe **will not benefit** highly from 5G-enabled services, primarily because the data being transferred generally does not require high bandwidth and there is already a prevalence of fixed infrastructure

Operators overwhelmingly voted that collaboration directly with enterprise was required to build 5G B2B(2X) opportunities?

1.Regulators

18%

2.Informal partnerships with fellow telcos

0%

3.Network equipment vendors

0%

4.Direct with enterprises

73%

5.Other

9%

- We have seen increased efforts by the telecom industry to engage **directly with enterprises** when developing 5G standards and solutions.
- For example, in the UK the Worcestershire 5G Consortium focusing on 5G solutions for manufacturing has members including Huawei, O2 and BT as well as end-enterprises Worcester Bosch and Yamazaki Mazak (for more information, see [here](#)).
- At STL Partners, we agree that to be **successful telcos will need to collaborate more widely** – for more information, see our research on [The Coordination Age](#).

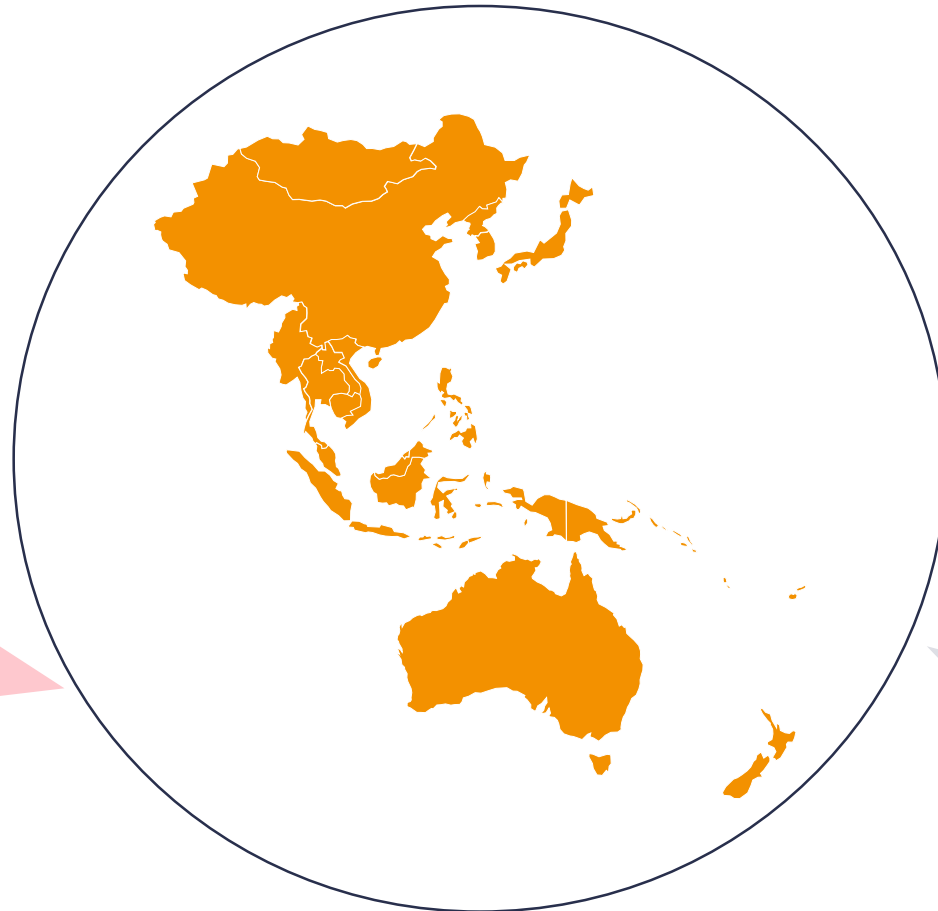
Agenda

- 1 Material covered and attendees
- 2 Input from telecoms audience
- 3 Implications in Asia
- 4 Implications in Middle East
- 5 Additional resources

At our Asia summit, held in Singapore, we asked operators about the regional specific implications of our research

In some of the smaller, more advanced countries, such as Singapore, 4G in the field may already be able to support some of our use cases, such as remote patient monitoring.

The aggressive roll out of 5G in some APAC countries, like South Korea and Japan, is likely to have been underestimated in our global model.



Some of our 5G use cases, particularly in healthcare, are potentially more applicable to countries with larger rural populations, for example, because high definition virtual consultations would reduce the need for patients to travel long distances to visit specialist healthcare professionals.

In some APAC markets, such as Indonesia, operators are still in the process of rolling out 4G infrastructure. For them, 5G adoption is likely to be relatively slow.

Agenda

- 1 Material covered and attendees
- 2 Input from telecoms audience
- 3 Implications in Asia
- 4 Implications in Middle East
- 5 Additional resources

At our Middle East summit, held in Dubai, we asked operators about the regional specific implications of our research

For countries in the GCC, oil and gas is the largest industry, contributing 304 billion USD annually. This means is likely to be an attractive opportunity for Middle Eastern operators – we predict 5G enabled services could increase the global GDP contribution of extractive industries by almost 5%.



Many countries in the Middle East have high occurrences of chronic diseases like obesity and diabetes. As these require repeat, routine appointments they could benefit significantly from 5G enabled use cases like remote patient monitoring.

Manufacturing, while globally the largest industry, is less significant in the Middle East. This means in addition to it, industries like construction, which is growing rapidly, are of interest to operators.

Operators in markets such as Saudi Arabia and UAE have embraced aggressive 5G roll out strategies so are likely to be at the forefront of developing 5G-enabled services.

Agenda

- 1** Material covered and attendees
- 2** Input from telecoms audience
- 3** Implications in Asia
- 4** Implications in Middle East
- 5** Additional resources

Additional resources



- The research material from these two events stems from five reports into the importance of 5G for industry
- For more information or to request access to these reports, email contact@stlpartners.com

Backup: New Agenda