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5G and Techno-Nationalism: Choosing Sides?

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SYNOPSIS

While Singapore and other Southeast Asian countries will favour a pragmatic approach in navigating between the tech 'Great Game' between the US and China, the pressure to choose sides is likely to intensify.

COMMENTARY

ON 24 JUNE 2020, Singapore's Infocomm Media Development Authority (IMDA) issued final approval to Singtel and a StarHub-M1 joint venture to deploy 5G telecommunications networks across the island. TPG Telecom, a newer player, was awarded the remaining frequency to implement localised 5G networks.

Core equipment partners were also announced, with Singtel choosing Sweden's Ericsson and the StarHub-M1 joint venture picking Finland's Nokia for its nationwide 5G networks. TPG Telecom will be partnering China's Huawei for its localised 5G networks. This has raised eyebrows in some quarters, with speculation that Huawei is being "frozen out" on account of security concerns.

Not a 'Freeze Out'

Some Western media reports have glossed over the Singapore government's clarification that the telcos were free to choose equipment providers, and have instead been quick to frame the situation in triumphalist terms. Decisions to go with Ericsson or Nokia are now being seen as supporting a US-led push to promote "clean telcos" and shut Huawei out of the 5G game.

The reality in Singapore may well be more prosaic – that Huawei may have been an outside contender from the start, given the telcos' longstanding partnerships with

European equipment providers. For example, Singtel and Ericsson's collaboration on 5G dates back to 2017 and the two companies worked together on deploying 4G networks previously as well. In a similar vein, Nokia partnered M1 in 2018 for its first 5G small cell trial in South-east Asia.

IMDA's efforts to nurture 5G infrastructure highlight its desire to ensure a plurality of companies developing interoperable solutions. Avoiding over-reliance on a single point of failure is a reasonable and widely accepted risk mitigation strategy given the criticality of telecommunications infrastructure.

This is further emphasised by how Singapore's telcos will draw on vendors other than their chosen equipment partners to build out specific parts of their 5G networks, a process that will likely include Huawei given its market share.

Unpacking Sino-US Competition over 5G

The global roll-out of 5G networks has become a proxy battleground for tensions between China and the United States amid an atmosphere of heightened "techno-nationalism".

As technology and digitalisation become intrinsically linked with prospects for unlocking economic value and securing growth, both China and the United States have paid closer attention to their technology supply chains as well as associated flows of investments and talent.

The result of this scrutiny is an increasingly zero-sum dynamic, with the Trump administration demonstrating a willingness to push back directly against what it sees as longstanding unfair behaviour by China. In the case of 5G, the Trump administration has accused Huawei of racketeering and theft of intellectual property.

In its overtures to allies encouraging them to spurn Huawei, the US has emphasised a need to secure 5G networks from surveillance, pointing to China's 2017 National Intelligence Law that can be used to compel telcos like Huawei to hand over data to the government.

Lingering Doubts?

China has yet to convincingly refute this and doubts will remain over how entangled Chinese technology companies' commercial interests are with the government's political agenda.

But the fact is that no country is above surveillance when given the opportunity to further its national interests. As Chinese officials have pointed out, America's notion of "trusted" 5G vendors also rings hollow, given the Edward Snowden revelations and other surveillance disclosures such as the Crypto AG scandal.

China's response is now extending beyond rhetoric. Article 24 in Beijing's draft Data Security Law permits "corresponding measures" towards countries adopting "discriminatory prohibitions, limitations or other such measures… with respect to investment or trade related to data, data development and use, or technology".

This is likely a response to the Trump administration going for the jugular by cutting Huawei's access to American semiconductor foundries supplying the chips powering its equipment.

Pragmatism, not 'Techno-Nationalism'

Recent events might suggest the beginnings of a successful American "containment" of Huawei, but in South-east Asia, pragmatism is finding greater currency over "techno-nationalism".

For example, while Thailand's largest mobile operator AIS appears to have Huawei as a key player of its 5G roll-out, it has also signed agreements with Nokia and ZTE to develop use cases for 5G across a range of industrial applications.

Malaysia sought diversity as well by seeking expertise from China and Japan, although its 5G roll-out has been complicated by a reversal of spectrum allocation due to allegedly improper procedure and allegations of corruption.

The region's outlier, however, is Vietnam, with state-owned Viettel developing its own 5G hardware and software for roll-out by mid-2021. However, it remains to be seen whether Vietnam's effort lives up to its promise or whether these are actually localised 5G protocols played up by local sources.

Technological Cold War?

Nevertheless, a broader "decoupling" between China and the US will harm the economic and social potential of the next wave of general-purpose technologies. A technological cold war will likely see the creation of competing technology stacks lacking interoperability in the coming years.

Beyond 5G, this new "Great Game" will likely play out in other emerging general-purpose technologies such as artificial intelligence and cloud computing. We can expect greater contestation over supply chains, investments, technical talent and even the reach of individual software applications.

At the same time, Chinese technology companies will continue to expand their footprint while countries make pragmatic calculations based as much on cost as on security. This dynamic is already evident in South-east Asia.

For example, Alibaba's cloud computing arm headquartered in Singapore has outpaced global leader Amazon Web Services in South-east Asia even though it entered the market only in 2015. One reason for its success is a willingness to offer countries localisation and base infrastructure in the region.

Huawei is a target, but perhaps one of the easier targets in the US effort to thwart China's technological advancement. This Great Game will encompass much more than one company and one form of communications technology. It will also be about supply chains, software, and even about the effect and influence of dominant apps (think TikTok).

So what is going on is not just about Huawei – it might really be about everything.

Tough Binary Choices Ahead

These are still early days. If American efforts to thwart the growth of Chinese technology companies take on a more punitive character, countries may be forced to make difficult binary choices. However, the extent to which the US can force other countries to rethink involvement with Chinese technology is not yet clear.

5G enables connectivity at higher speeds for the burgeoning Internet of Things and for smart city infrastructure. In Singapore, numerous collaborations and innovations with partners have been ongoing for some time.

Last year, Huawei opened a new artificial intelligence (AI) lab in the Southeast Asian state which will, it is understood, feature space for test-bedding a wide range of 5G applications, also contributing to the AI talent ecosystem in the coming years.

Huawei also plans to make its cloud services business centre – launched here last year – among its largest outside China, serving industries and governments, including, as Huawei has been keen to point out, clients in Singapore's government.

Implications for Singapore

Besides these, Chinese technology is involved in AI research and development projects in areas ranging from autonomous vehicles to smart university campuses.

These are set to continue and be strengthened in the years to come. Key players in this will not just be Huawei but Chinese players such as Alibaba, which launched a global AI research facility in Singapore in 2018, in partnership with Nanyang Technological University (NTU), and AI company SenseTime, which launched a talent programme (also with NTU) to nurture AI researchers in 2019.

Singapore's approach to weather techno-nationalism will likely continue to be defined by pragmatism that seeks to maintain a dynamic equilibrium with the US and China.

Its leaders have consistently counselled against a zero-sum mindset and regularly reiterate the case for not being forced to choose a side. However, so monochromatic have views become elsewhere that even this notion of a measured approach has come in for criticism.

There is no guarantee that the next US administration – whatever its political orientation – will ameliorate this position, and the notion of choosing a side will undoubtedly be revisited across a range of issues as China and the US continue their contestation. China, too, will increasingly flex its muscles to protect its interests.

Big powers may in time attempt to exercise their clout further and force smaller nations such as Singapore to choose "their" side on a whole range of issues. But if these nations are indeed brought to that point, there may be more than a few surprises in store when it comes to how the chips eventually come down.

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