Fact Sheet

DIGITAL PLATFORMS TO ENABLE
ARTIFICIAL INTELLIGENCE (AI) AND DATA SERVICES

In line with the drive to build Singapore's digital economy, the Infocomm Media Development Authority (IMDA) today announced it would support the growth of four digital platforms offering artificial intelligence (AI) and data services, to catalyse the digital transformation of businesses.

Digital platforms create value by facilitating exchanges between two or more interdependent groups[1]. Typically, such platforms aggregate ecosystems of end-users and producers (demand and supply) to transact with each other through technology. This enables increased information sharing, enhances collaboration, drives innovation in new products and services, and encourages growing network effects as more players join.

While some companies have the opportunity or resources to be platform providers, others may find it more effective and quicker to leverage existing platforms as their means to enter new ecosystems. IMDA sees an opportunity to work with industry partners to catalyse such sectoral digitalisation through platform-driven ecosystems.

Critically, such platforms serve to enable cross-sector synergies, such as the 'BAT[2]' platform companies in China. Alibaba, for example, started off as an e-commerce retail sector player. However, as adoption on its digital platforms grew, its strong digital capabilities enabled them to enter into other sectors such as finance (Alipay), cloud (Aliyun), and others. Like-wise, Uber started off matching commuters to rides providers in the transport sector, but then entered into adjacent sectors such as logistics/food delivery with Uber Eats.

While primarily seen in business-to-consumer models, there is significant potential in business-to-business platforms, with IDC predicting[3] that more than 50 percent of MNCs will either create their own platform-based business model, or partner with industry to do so, by

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[1] "Five Ways to Win with Digital Platforms", Accenture, 2016
[2] Baidu, Alibaba, Tencent
[3] "IDC Predicts the Emergence of "the DX Economy" in a Critical Period of Widespread Digital Transformation and Massive Scale Up of 3rd Platform Technologies in Every Industry," IDC, 2015

2018. Examples in the B2B market include Zhubajie, an online marketplace offering B2B services such as logo design, translation and offer professional corporate solutions.

Enabling AI and data services

An Accenture report[4] suggests that AI and data services can enable industries to approach problems differently and find new, innovative approaches or solutions. Data has thus been described as the "quintessential currency" for digital platforms to do so. Those platforms which have both unique data and the capacity to package innovative new services around this data for third-parties are expected to gain larger market shares more quickly[5]. Particularly, IMDA sees platform-driven ecosystems as helping to drive potential revenue streams for adopters of tech such as AI.

Award of digital platforms players to enable AI and data services

IMDA sees there is room to capitalize on utilizing digital platforms to enable AI and data services. Thus, IMDA issued a Call for Submission in July 2017 to identify leading industry partners to catalyse adoption through platform-driven ecosystems. Submissions were required to include making AI and data services available as part of their platform proposal. Following an evaluation, IMDA will be supporting the following four:

- CMS Data Technology Pte Ltd

- DataStreamX Pte Ltd

- Sentient.io Pte Ltd

- Singapore Telecommunications Limited

IMDA will be working with the awardees to develop their business proposal into proof-of-concept prototypes and eventually, production. The awarded digital platform operators will simultaneously develop deployment plans and formulate their respective go-to-market strategies to drive adoption.

Additional Resources:

Annex A: List of Awarded Digital Platform Companies

About Infocomm Media Development Authority (IMDA)

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[4] "Why AI is the New Electricity", Stanford GSB, 2017 ,
[5] "Five Ways to Win with Digital Platforms", Accenture, 2016

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List of Awarded Digital Platform Companies

CMS Data Technology Pte Ltd

Business Model and Benefits:

A digital platform to support digitalisation in managing construction projects. This platform will integrate business processes and stakeholders in the construction process such as Building Information Models (BIM), project management, manpower and safety. It also plans to interface with existing software solutions used in the construction industry through open Application Programming Interfaces (APIs).

Key platform features include a one-stop collation of construction-related information from industry and government sources, a business-to-business (B2B) e-commerce function for service providers (e.g. sub-contractors), and project management functions to support the construction process. Construction-sector related datasets could also be made available, with AI services to potentially follow suit.

Timeline:

Proof-of-concept pilot testing by end-2018, with full deployment planned by end-2019.

DataStreamX Pte Ltd

Business Model and Benefits:

DataStreamX (DSX) is a data marketplace and transaction platform launched in 2015. It will develop and implement a new Blockchain protocol termed Quadrant Protocol, to address key challenges facing the data economy. Some challenges include: a widening AI data gap between companies; data authenticity; unsustainable data feeds breaking production systems when they go offline; and unfair revenue distribution for data providers.

Quadrant Protocol will be integrated with DSX's existing platform, and enable a new layer of AI and micro-service capabilities. This will open the market further to allow AI and machine learning companies to access authenticated data for algorithms. In

addition, Quadrant will enable individuals to create complex data products that solve real-world problems.

Timeline:

Quadrant Protocol will launch by mid-2018, with Data Smart Contracts by end-2018 and its AI and micro-services layer by mid-2019.

Sentient.io Pte Ltd

Business Model and Benefits:

The Sentient.io AI-as-a-Service (AIaaS) and Data-as-a-Service (DaaS) platform facilitates accelerated AI and data service adoption across business domains.

Sentient's AIaaS platform will help developers skip the complexity of developing algorithms, scientific methodologies or data analytics from scratch by offering quick and easily embeddable AI models, both pre-trained and data-driven. AI models are offered in bite-sizes to cater for varying needs of different developers and industries.

The platform will also make available rich data sets, curated from partnerships with early data providers from the government and telecommunication sectors. HDB believes that Sentient's digital platform offers a unique opportunity for data owners and data users to innovate and tap on the power of AI easily, and is keen to explore a collaboration with Sentient to see how the platform can enable a digital ecosystem to be developed for use by and for the benefit of the community. Sentient's services are available as DaaS products for software developers and delivered through APIs.

Timeline:

Sentient AIaaS and DaaS are expected to be commercially ready by the third quarter of 2018

Singapore Telecommunications Limited

Business Model and Benefits:

Singtel will launch the Industry Digital Enablement Platform (IDEP) to support the implementation of the Industry Transformation Maps (ITMs). IDEP would enable AI

or data analytics service providers to deliver targeted solutions to help enterprises accelerate their digital transformation. IDEP will also provide curated data for businesses, give them access to innovative technology, develop go-to-market industrial solutions for sector ITMs, and enable businesses to go regional.

Timeline:

Singtel IDEP platform will be progressively released in the second half of 2018.