

HUBBING IN REVIEW

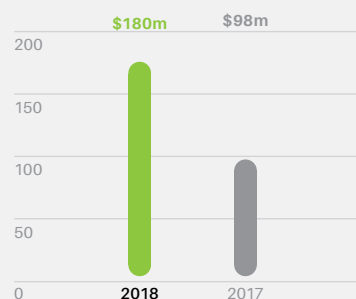
ENTERPRISE

Ensign InfoSecurity merges StarHub's Cyber Security Centre of Excellence, our subsidiary ASTL and Temasek-owned Quann, to form one of the largest cyber security companies in Asia.



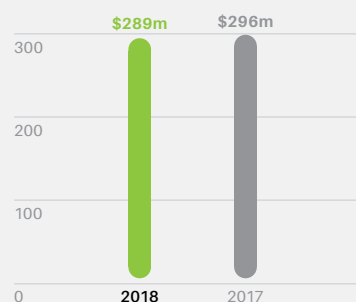
Managed Services

+84.3% YoY



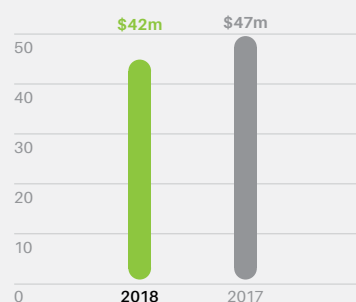
Data & Internet Revenue

-2.2% YoY



Voice Revenue

-11.5% YoY





IT infrastructure remains as key to support wider implementation of digitalisation and StarHub has expanded our data centre facilities to support enterprises' increasing demand for data centre. To enhance enterprise network agility and business performance, we have also started offering SD-WAN services.

The Enterprise business continues to grow at a steady pace, highlighted by a service revenue increase of 16% to \$511 million. This is primarily attributable to the growth in managed services and the consolidation of enterprise solution businesses.

StarHub has also expanded our offerings into areas such as data centre, cloud services, data analytics, cyber security, IoT, robotics and digital platforms to enable digital transformation for our business customers. We have also strengthened our capabilities in ICT, Digital and AI.

The headline development in 2018 for Enterprise is the formation of a joint venture company called Ensign InfoSecurity in collaboration with Leone Investments, an indirect wholly-owned subsidiary of Temasek Holdings.

Ensign merges StarHub's Cyber Security Centre of Excellence, our subsidiary ASTL and Temasek-owned Quann, to form one of the largest cyber security companies in Asia, and the only Singapore-based pure-play cyber security company with end-to-

end capabilities, comprising Professional Services, Systems Integration and Managed Security Services.

IT infrastructure remains as key to support wider implementation of digitalisation and StarHub has expanded our data centre facilities to support enterprises' increasing demand for data centre. To enhance enterprise network agility and business performance, we have also started offering Software-Defined Network WAN (SD-WAN) services.

In November, StarHub and SBS Transit started to commercially offer free WiFi to passengers of selected bus routes in Singapore. StarHub's IoT Connected Vehicles Solution ensures that travellers remain connected when on the move – supporting Singapore's Smart Nation strategy. The solution applies purpose-built technology for moving vehicles using a mesh network for vehicles (such as 4G, WiFi, or meshed enabled DSRC – dedicated short-range communication).

Each vehicle has been fitted with an onboard unit that always selects the best

HUBBING IN REVIEW

Enterprise (Cont'd)

Enterprise Sector

Hubbing



Enterprise

To include an expanded range of new services and solutions to complement our existing offers.

Hubbing



Digital

Creating marketplaces for enterprises to serve and target customers better.

Hubbing



Vertical

Stay focused on selected verticals like the government, financial services, hospitality, transport, SMEs, and healthcare.



StarHub Speaker Series on AI with Keynote Speaker Prof Pedro Domingos

available wireless network and enables customers to have a fully managed mobile hotspot. The solution also allows rich data sets to be collected about bus fleets, vehicles, and people that can be co-related for predictive transportation planning. A cloud-based managed service is applied for the ease of network control and system integration.

In December, Yippy, Inc., an enterprise data intelligence company known for its leading EASE 360 enterprise search and insight engine, entered an exclusive sales distribution alliance with StarHub for the Singapore market.

Under the agreement, we will offer Yippy's enterprise search solution to a variety of industries such as government, banking, legal, insurance, education and healthcare. Companies are now able to implement their very own enterprise search engine with built-in smart bots, connectors and machine learning to extract meaningful data in real time across all internal and external sources.

In August, StarHub launched our integrated Smart Retail Suite, as part of our commitment to support Infocomm Media Development Authority (IMDA)'s 'SMEs Go Digital' programme to help businesses adopt digital solutions.

The StarHub Smart Retail Suite offers SMEs in the F&B and Retail sectors digital solutions that have been pre-integrated and configured for use as a single, seamless service at their outlets, removing the barriers of implementation cost and helping to ensure seamless interoperability between solutions. These digital solutions digitalise the common retail operations, enabling operators to improve business productivity and customer experience.

In addition, StarHub is an appointed partner in the 'Start Digital' programme launched by Enterprise Singapore and IMDA that aims to help newly incorporated SMEs adopt basic digital solutions and kick-start their businesses. These solutions are Accounting, Cyber Security, Digital Marketing, Digital Transactions, and HR Management System and Payroll.



New growth opportunities:

- Smart Retail: appointed by the government to support digital transformation at Kampong Glam;
- Robotics: made inroads at a number of hotels and the MICE industry in Singapore;
- Eldercare Solutions: partnership with Orange Valley Nursing Homes - testing several aged-care technologies with our clients in this space;
- IoT Connected Vehicles Solution: working with SBS Transit to improve passenger experiences across the island.

StarHub's IoT Connected Vehicles Solution ensures that travellers remain connected when on the move – supporting Singapore's Smart Nation strategy.

In support of the Smart Nation initiative, StarHub has collaborated with Housing Development Board to build a digitally connected community between heartland merchants and residents via a mobile application.

To support the manpower demand for elderly care due to Singapore's aging population, StarHub has partnered with Nanyang Polytechnic's Centre for Connected Care to train students to meet future demands of nursing and apply AI, big data, IoT and robotics technology to advance healthcare in hospital.

StarHub has partnered with Google to develop AI capabilities and drive business innovations. We have started offering AI solutions to enterprise customers in 2018 to drive business decisions and operational excellence through data-generated insights.

In September, StarHub and OCBC deepened their partnership when StarHub's in-house digital and social

analytics hub 'Curiosity' was appointed as OCBC Bank's social listening agency. By employing up-to-date social media intelligence powered by StarHub Curiosity, OCBC Bank can easily tune in to the customer voice, identify topics that customers care about, and drive more meaningful conversations.

Launched in 2017 to leverage insights for in-house stakeholders, StarHub Curiosity expanded our social media analytics capabilities and with a dedicated team of analysts, now serves clients from the retail, fast moving consumer goods, and financial services industries.

2019 And Onwards

2018 was a busy but fruitful year. StarHub has evolved rapidly to meet the changing infocommunications landscape. We expect the same rapid pace to continue in 2019. We are confident that we can weather through our current challenges, transform our business and grow the trust and confidence of our customers.