

VICTORIAN BIG DATA COMPANY TO POWER TAIWAN SUPER COMPUTER

CASE STUDY | JULY 2019

The United States is the first overseas move for many Australian tech startups. The Asian IT market is expanding fast, however, with multiple high-profile projects. In 2018, Taiwan's National Centre for High-performance Computing engaged Melbourne-based Arcitecta to provide its core data-management platform. With the help of Austrade at multiple stages in its export journey, Arcitecta is now part of one of the largest big data projects in Asia.

Arcitecta is a creative and innovative software company that has worked at the forefront of the big data revolution for almost 20 years. The company has 40–50 employees, with a development centre in Sydney, and a sales and marketing team based around the world.

According to Lewis Chen, Head of Healthcare Solutions at Arcitecta, the company forecast back in the mid-1990s that data would shortly underpin virtually all human endeavour.

'Our founder and Chief Executive Officer, Jason Lohrey, recognised that companies would soon be gathering more data than they could handle or make use of,' says Chen. 'We began to work out how to ingest and process vast amounts of data so that it is accessible and valuable.'

Within a few years, the data-management platform Mediaflux emerged, which Arcitecta sold predominantly to clients in the research, life sciences, geospatial, defence and health sectors.

Data management, however, is a fast-evolving, global industry. Arcitecta's target customers were distributed around the world, and so the company needed to be globally integrated to survive.



Lewis Chen, Head of Healthcare Solutions, Arcitecta

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Global expansion

'From the start, our goal was a global footprint, but that was more ambitious than it sounds,' says Chen. 'To win the trust – and to service an overseas client with our big data management platform – we needed to set up local companies. Our objective is to provide multiple in-country services, like local client engagement and support. But setting up local companies around the world is a major challenge for a small, privately owned company.'

In 2015, Arcitecta gained its first major overseas client, US-based DigitalGlobe. The company is a leading vendor of satellite space imagery, and one of the world's biggest repositories of geospatial imagery content.



Australian Government

Australian Trade and Investment Commission



The performance requirement for Mediaflux was huge. The platform would need to accommodate the whole of DigitalGlobe's imagery archive – an astonishing 20 petabytes of compressed data.

'Our platform had to ingest 70–100 terabytes of new data every day and apportion it into a mix of hot and cold storage platforms,' says Chen. 'To get our Mediaflux platform working in the US, we needed to set up a local operating company that could contract for all the services that Mediaflux requires, including data experts and consultants who can provide on-site local support.'

Chen says that Austrade advisers in Melbourne introduced Arcitecta's Chief Operations Officer, Graham Beasley, to the Senior Trade Commissioner (STC) in San Francisco – a vital step for servicing the DigitalGlobe contract.

'The STC helped us make contacts in the US, and to set up a company in the US to provision the Mediaflux service,' says Chen. 'Ever since, Austrade has helped us set up overseas companies, whenever we launch into new markets.'

The Export Market Development Grant

Managing the world's biggest satellite imagery repository proved just the start of Arcitecta's global expansion. In early 2018, Arcitecta broke into the life sciences industry.

Arcitecta is working with one of the world's largest pharmaceutical companies, Novartis NIBR, on one of the biggest ever storage virtualisation projects. This transformational change will help researchers spend less time managing data and more time on science, as well as providing a significant reduction in overall storage costs to NIBR now and into the future. To prove their credentials, Arcitecta proved the capability of their software Mediaflux with a small subset 2.3 billion files and ten petabytes of data. This provided Novartis with insights never before available, and a pathway to saving tens of millions of dollars in storage costs.

To help break into new markets, the company applied for the Export Market Development Grant (EMDG). Administered by Austrade, the grant enables companies that are entering new markets to reclaim some of their export promotion expenses.

'It's very expensive for smaller, privately funded companies to go overseas and set up new service companies,' says Chen. 'The EMDG is a great help, and it also mitigates the commercial risk of investing in a major new client. The EMDG gives us an extra kick as we expand in unfamiliar territory.'

Taiwan's super-computer

Arcitecta's latest overseas venture is also its first ever in East Asia. In early 2019, Lohrey gained an introduction to Taiwan's National Centre for High Performance Computing, in Hsinchu City, Taiwan. According to Chen, it is currently building an ultra-powerful computer, which is set to become one of the top 20 biggest supercomputers in the world.

Envisaged as a computing platform for the country's entire research community, it is a high-prestige project. It is also a mark of confidence in Arcitecta's proven big data platform technology. Says Chen: 'After five years of steady expansion, the US has proved a stepping stone into a key target market for us – the Asia Pacific.'

Cultural and commercial advice

According to Chen, Austrade has helped at multiple stages in Arcitecta's journey. The assistance ranges from understanding the local business culture and political situation, to tips on how to do business. Local Austrade advisers have also helped Arcitecta make valuable connections.

'It's very difficult for us to approach a new market without a local partner,' says Chen. 'In most cases we need to find a partner IT company that knows how to set up service contracts in the data storage industry. We've been working with Austrade for seven years, and they've helped us at every step of the journey.'

About Austrade

The Australian Trade and Investment Commission (Austrade) is the Australian Government's international trade promotion and investment attraction agency.

We deliver quality trade and investment services to businesses to grow Australia's prosperity. We do this by generating and providing market information and insights, promoting Australian capability, and facilitating connections through our extensive global network.

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