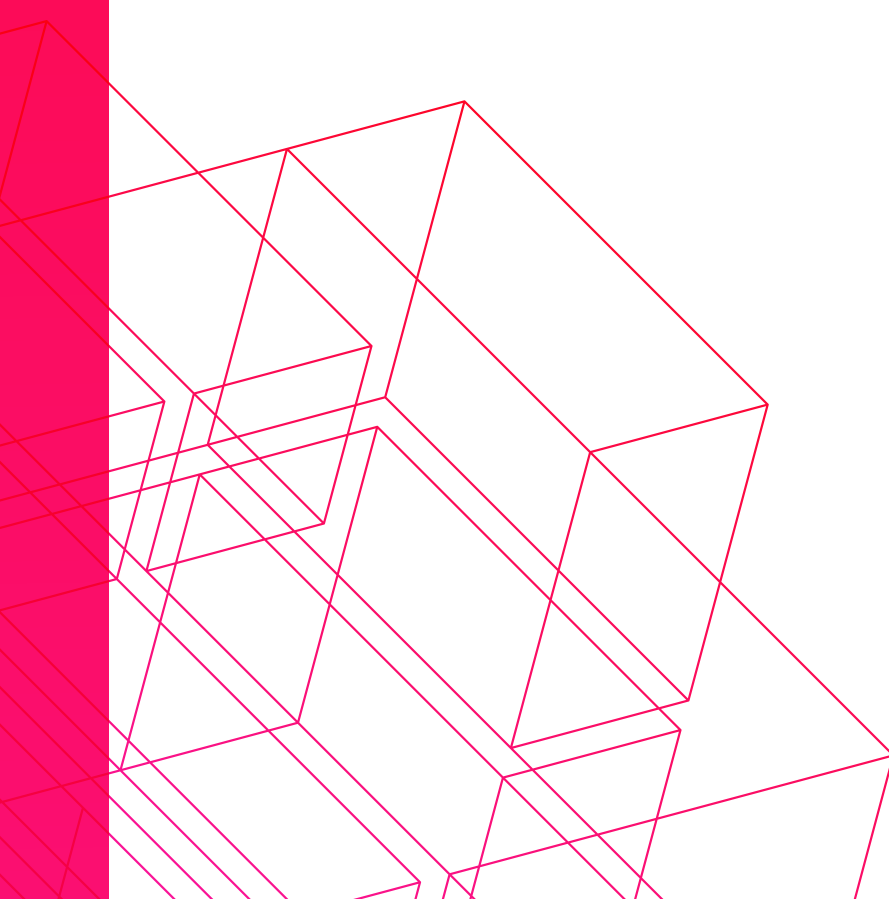# Case Study: Cloudscene

Provisioning direct connectivity to AWS to build a secure and high-performance website.

About Cloudscene

Established in 2016, Cloudscene is the world's largest connectivity directory for colocation data centres, Cloud Service Providers (CSPs), and network fabrics. The company's database consists of more than 6,100 data centres and 5,600 CSPs across 110 countries. Cloudscene has become the industry's go-to resource for independent data on colocation facilities.

CLOUDSCENE

Challenge

Cloudscene required a solution that would enable the development of a production-ready website, within a 30-day timeframe, to reach users across the USA, Europe, and Asia-Pacific. As a startup company, Cloudscene had no legacy infrastructure to migrate across to AWS. It was important to ensure that their network had the availability to handle the company's unpredictable traffic and database queries as the company scaled. In addition, they required an alternative solution to accessing their infrastructure via the public internet as this posed a security risk to the sensitive data being stored.

Solution

Cloudscene investigated multiple options, including the use of a local Data Centre Operator, but instead opted to develop a high-performing website with AWS through direct connectivity via Megaport's Software Defined Network (SDN). They chose a CSP and a network that could enable geographical coverage, cost flexibility, and agility as business ramped up across all markets.

The company moved their production environment from Sydney to the AWS US West (Northern California) Region. Their website uses ELB connected to an Amazon ECS cluster, with a backend database using RDS. The database is cached using an ElastiCache Redis instance. Their staging and development environments are completely separated and connected in Sydney via Direct Connect which is delivered via Megaport.

Cloudscene's additional AWS services include: *Auto Scaling, AWS Certificate Manager, AWS Lambda, AWS WAF, CloudFront, CloudWatch, EC2, EC2 Container Registry, Identity and Access, and AWS Relational Database Service.*

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> *Cloudscene's partnership with Megaport and AWS provided us the agility and scalability to reach and expand into multiple markets, fast."*
>
> – Sean Bofinger, Technical Architect, Cloudscene
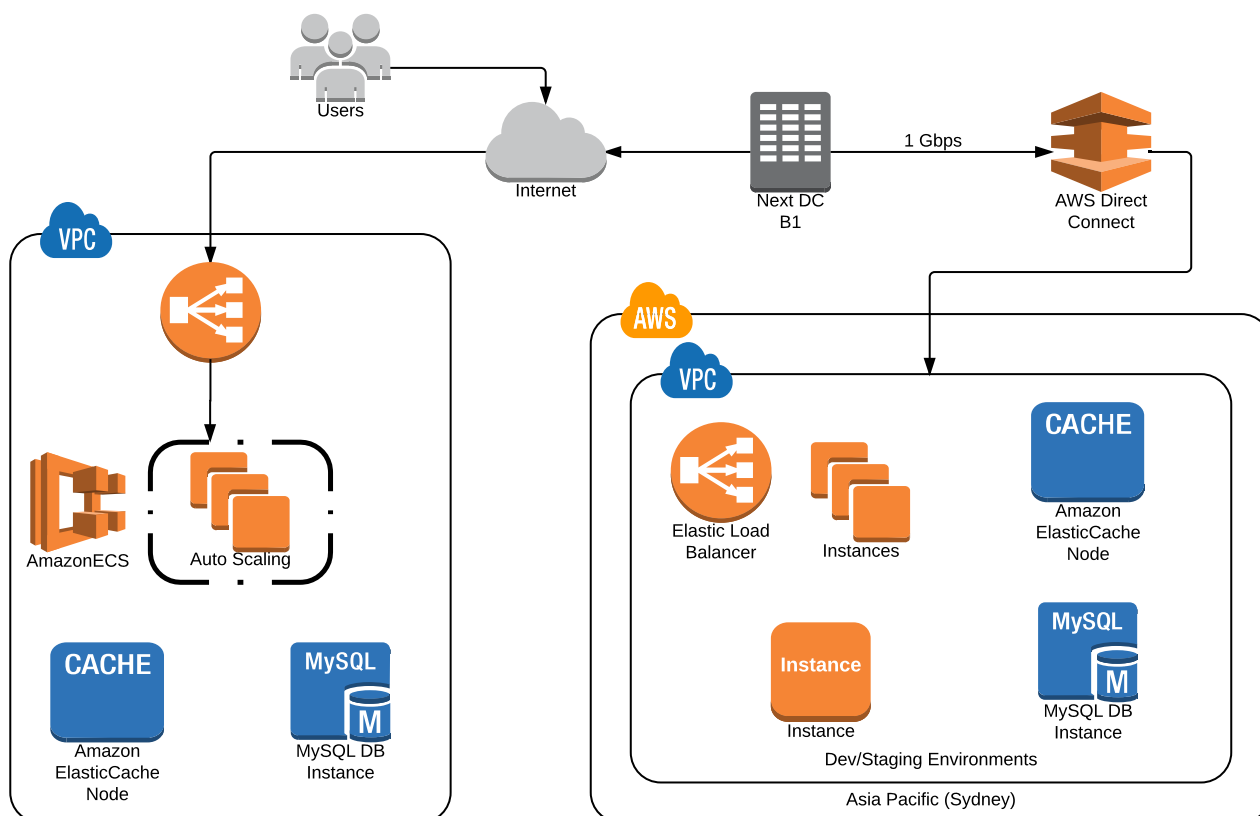
Megaport Services Used

Cloudscene leveraged private, dedicated network access to AWS through Megaport's SDN which enabled low-latency and high-performance data uploads for website content. A 10 Gbps Port, VLAN trunk was established within NEXTDC Brisbane Data Centre with a 1 Gbps Virtual Cross Connection (VXC) to AWS (Sydney) region. When connecting to AWS via Direct Connect with Megaport, the VXC forms the Layer 2 component of the connection, and Layer 3 BGP connectivity is established directly between the customer and AWS.

Megaport's software-based technology allowed Cloudscene to integrate using both AWS public and private interfaces, providing the company with the access and ability to scale their AWS direct connection in tandem with their AWS services. After three months of running their connection at 1 Gbps, Cloudscene reduced the bandwidth to 100 mbps by simply enabling this in the Megaport Portal. The company only paid for the bandwidth they required and could dial their connection up and down during development in order to save on costs.

Benefits

Implementing the AWS platform via Megaport connectivity was an effective solution to Cloudscene's challenge. They were able to deploy a high-performance website and database on time, under budget, and with the ability to replicate and scale as the company expands. The solution saved the company $20K in infrastructure and network costs; this capital has been reinvested back into the company and its people. Since the deployment, the company's volume of data has substantially increased and can be easily managed without compromising performance.

> "
> *Implementing AWS and Megaport services was the fastest and most cost-effective option across our criteria."*
>
> – Sean Bofinger, Technical Architect, Cloudscene

Future Plans

Cloudscene has several new features roadmapped; they aim to leverage a number of recent AWS services to achieve these. The company are planning further global expansion into new regions while potentially offering APIs to their API Gateway. Cloudscene are also continuing to increase their use of serverless functions with *AWS Lambda* to streamline processes and control costs.

Megaport

Megaport is the world's leading Network as a Service (NaaS) provider. Using Software Defined Networking (SDN), the Company's global platform provides the most secure, seamless, and on-demand way for enterprises, networks, and services to interconnect. The Company's extensive footprint in Australia, Asia Pacific, North America, and Europe, enables a neutral platform.