National Digital Identity

The Government Technology Agency (GovTech), a statutory board of the Singapore government under the Prime Minister's Office, is using Cloud services from leading partners like AWS to innovate on new capabilities and accelerate its Smart Nation initiatives. The agency is removing complexities in managing highly available services to allow developers to focus on achieving end-to-end seamless services for citizens. This includes reducing deploying pipeline with no loss of service, as well as auto-scaling to allow infrastructure to meet elastic demands in real-time, while enabling interoperability across government agencies and future expansion.

One of GovTech's Smart Nation initiatives using AWS Cloud is the implementation of Singapore's National Digital Identity (NDI), where AWS security measures and tools like AWS Key Management Service (KMS) is used and architected across three Availability Zones in the AWS Singapore Region for high resilience and fault-tolerance. Through the NDI platform, GovTech brings various digital initiatives like SingPass Mobile, MyInfo, and MyInfo Business together to provide greater online convenience and transactional security for citizens and businesses. Using AWS, NDI allows Singaporeans to use secure, passwordless credentials to carry out transactions in both public and private sectors. GovTech has successfully leveraged cloud technologies to deliver a citizen-centric digital identity system that consistently brings benefits to the lives of Singapore residents.

Virtual Intelligent Chat Assistant

The Virtual Intelligent Chat Assistant (VICA) is the Singapore Government's next-generation virtual assistant platform developed by the Government Technology Agency of Singapore (GovTech). Launched in December 2020, VICA taps on Amazon Web Services (AWS) Cloud and uses Machine Learning and Artificial Intelligence technologies to power chatbots that provides improved citizen experience for conversational interactions (text, voice, and call centre) with the Singapore government ministries and agencies.

Hosted on AWS, it enables one of VICA's goals towards making the chatbots Natural Language Processing (NLP) engine-agnostic; which would mean that the chatbots can leverage on the latest NLP technology to achieve better performance and accuracy.

"AWS has been helpful and responsive in working with GovTech's VICA team to design and deploy a system that meets the VICA platform's extensive scalability and high-availability requirements. This reduces the risk of project delays and downtime, enabling GovTech to launch VICA 1.0 platform in December 2020 successfully," says Bertrand Lee, Smart Nation Fellow at GovTech.