Automated & integrated operation of global e-commerce system

Case of applying SRE model for effective collaboration and automated application deployment *SRE: Site Reliability Engineering

Challenge

Global e-commerce system is a site where you can buy and sell identical products anywhere in the world according to the characteristics of each country.

A cutting-edge IT provider urgently needed rapid development and global deployment of e-commerce systems to provide timely service in a global environment including global simultaneous launch and shorter new product launch cycles. However, non-standardized and silo development scheme has greatly reduced flexibility of the systems and agility of the development and operating environment. The DevOps scheme was introduced to support quick service, but it was difficult to manage the country-unique configuration for application deployment, and it needed lots of time to make changes. In addition, the company faced difficulties in global collaboration due to lack of change information sharing which comes from scattered the development teams and the operation teams around the world.

The company had adopted public cloud to flexibly respond to the fluctuating transaction volume of its global e-commerce systems, but decided to accelerate the service launch by enhancing latency in application development/deployment and automation.

Non-standardized process in development

- System flexibility ↓
- Development and operation agility ↓

Passive DevOps system

- Development and operation productivity \$\diam\eta\$
- Delayed application deployment

Difficulties in global collaboration

- · Unable to manage changes
- · Unable to respond quickly

SDS Cloud Service

SDS SRE

SDS SRE offers optimal processes and integrated tools for improving operational productivity through effective collaboration between development team and operation team.

- Reduce operating costs by increasing productivity
- Automated failure recovery, automated resource allocation, etc.
- Reduce time to implement a new system through automation of code, build, test and deploy
- Improve service reliability through S/W engineering
- Support S/W engineering such as automated script writing, tool and framework development, etc.
- Design high-availability architecture and adjust environmental variables regularly

Solution

Script standardization and integrated management

- · Standardize all scripts in infrastructure, software and applications
- · Build a global single repository and integrate storage management

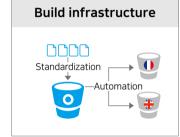
Enhance application deployment pipeline

· Automatically generate a pipeline through codifying all manual processes when a new micro service is created

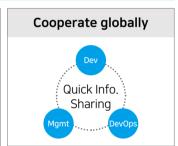
Improve response to development team

- · Improve collaboration processes and provide collaboration tools for issue management, real-time communication and data sharing
- · Provide secured environment for the engineers across the region

Apply integrated SRE model







Benefit





Application deployment time 14 weeks → 2 days



Stabilize development and operation

Source code management 840K lines → 110K lines



Expand SDS SRE globally

24X7 responsiveness to global development team

FOR MORE INFORMATION

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