

China UnionPay

Bankcard/credit card provider China UnionPay has experienced explosive growth in recent years. To keep satisfying a dynamic, demanding and increasing number of customers, the company aimed to launch innovative banking services faster than its competitors. By deploying OpenStack to run virtualized SUSE® Linux Enterprise Server environments, the bank gained a flexible, reliable and secure cloud platform that enables it to slash time-to-market and pursue its business goals.



Overview

Incorporated in 2002 and headquartered in Shanghai, China UnionPay is one of the country's leading banking groups.

Challenge

With the Chinese financial sector experiencing a boom, companies need to be prepared to seize new business opportunities as well as tackle unprecedented competition.

Ms. Zhen Liu, Senior Supervisor of System Support at China UnionPay, said: "With the recent digital revolution, tens of thousands of private customers started accessing our online resources simultaneously. In this dynamic, fast-changing landscape, we wanted the ability to seamlessly adapt to the requests of online users, who expect reliable, on-the-go access to leading-edge banking services."

"The flexibility of OpenStack means that it is fully adaptable to our evolving requirements, making it easier for us to devise and deploy new functionality as our business continues to grow."

MS. ZHEN LIU

Senior Supervisor of System Support
China UnionPay

The company's core operations were based on very traditional IT systems, which started experiencing bottlenecks when processing growing numbers of queries and service requests. This was threatening to disrupt service delivery, as well as the bank's ability to develop and launch forward-thinking services.

"Adding to this challenge, strict regulations in China also require us to deploy and host our systems in-house, in order to prevent the loss or disclosure of sensitive financial data," said Ms. Zhen Liu.

If it was to enlarge its market share and nurture its new, ever-connected customer base, China UnionPay knew that it needed to implement next-generation ways of working.

Solution

China UnionPay identified virtualization and cloud computing as ways to make its systems more efficient and help it tackle the challenges of an increased and diversified customer base.

The bank reviewed several solutions available on the market before selecting OpenStack as the best fit for its requirements.

Ms. Zhen Liu said: "OpenStack is a very mature platform which can count on the support of a large global community. It's



China UnionPay at a Glance:

Established in 2002, China UnionPay is one of China's leading bankcard/credit card providers. Headquartered in Shanghai, the group works with approximately 400 domestic and overseas associate member banks.

Industry and Location

Banking, China

Products and Services

SUSE Linux Enterprise Server
OpenStack

Results

- + Slashed time-to-market for innovative banking services
- + Supported future business expansion
- + Cut hardware costs by 10 percent

“The combination of our own application development and design with Xen live migration, SUSE Linux Enterprise Server and OpenStack means that the new cloud platform offers the availability we need to support critical business requirements.”

MS. ZHEN LIU

*Senior Supervisor of System Support
China UnionPay*

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basically a data centre in a box, which enables you to deploy virtualized compute, networking and storage resources in a private cloud environment.”

China UnionPay chose SUSE Linux Enterprise Server as the operating system for its OpenStack deployment, with virtualization technology from Xen—a built-in feature of the SUSE Linux Enterprise platform.

Ms. Zhen Liu said: “The combination of our own application development and design with Xen live migration, SUSE Linux Enterprise Server and OpenStack means that the new cloud platform offers the availability we need to support critical business requirements. We are therefore steadily migrating applications to the platform. The SUSE Linux Enterprise platform is also very cost-efficient, which is always a winning factor.”

OpenStack gives China UnionPay the autonomy and control that it needs to build a private cloud environment compliant with industry regulations, all while offering a single, central point of management of virtual resources.

China UnionPay currently runs approximately 4,000 virtual servers on just over 1,000 physical machines and has started migrating key business applications to the cloud platform, including an important online transaction system

“We manage high availability for critical workloads directly in the virtualization layer,” said Ms. Zhen Liu. “For example, we use Xen live migration to move running workloads from one physical machine to another if we need to do maintenance on the first machine.”

Results

With OpenStack running virtualized SUSE Linux Enterprise Server environments, China UnionPay has an agile, secure, stable and industry-compliant cloud platform that supports consistent business growth.

By eliminating the bottlenecks caused by inadequate infrastructure, the bank can deliver top-quality services to an increasingly demanding customer base and has also gained the ability to design, develop and launch new banking solutions three times faster than in the past. To create a new service, the bank can simply and quickly deploy a new set of virtual resources in OpenStack.

The OpenStack solution has also given China UnionPay a reliable technology backbone that can scale up to accommodate future needs, as Ms. Zhen Liu said: “The flexibility of OpenStack means that it is fully adaptable to our evolving requirements, making it easier for us to devise and deploy new functionality as our business grows.”

As an additional benefit, the company has saved 10 percent in hardware costs, as Ms. Zhen Liu said: “Because we manage high availability in the virtualization layer, we can achieve excellence in service delivery without needing to invest heavily in enterprise-grade server hardware.”

She concluded: “The OpenStack and SUSE project has been a great success. The support we receive from SUSE is tailored to our specific requirements, giving us peace of mind that we can keep leveraging next-generation technologies without worrying about technical hurdles.”



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