

# Cloud Constructs Real-Time Project Reporting System

## Construction Company SaaS-Up Operations

Magnificent Seven Corporation Pte Ltd is an established construction company which has served the regional market for more than 20 years. From plumbing and sanitary works, to hotel buildings and public works, the company has grown in size and scope of projects handled. To prepare for future growth in the industry, Magnificent Seven needed a more efficient system of handling project elements: manpower, job schedules, communication, as well as inventory management—all on the go. However, with the present labour crunch, the company had to juggle more variables in running its operations, including the variable levels of human error. Magnificent Seven needed a way to optimise operational efficiency and accuracy—fast.

*“When a company is small, there is more team work and communication,” said K.T. Lau, former interior design firm project manager. “We meet for coffee carrying blueprints, documents and make calls immediately to solve issues. Back then, the need for auditable documents was not as stringent as current rules. It can be back-breaking.”*

### The Challenge

To prepare the building industry for evolving changes and to promote better work processes, the Building and Construction Authority of Singapore (BCA) has been actively promoting the implementation of technology-based products and services to gain overall efficiency in the industry.

Magnificent Seven was one of the firms which heeded the call. In the past 20 years, the company has completed numerous projects for clients in the government, hospitality, residential and commercial industries. Like most of its peers, it began operations by having its project managers manually process invoices, purchase requisition forms, worker requisition forms and reports.

In 2013, the management of Magnificent Seven decided it was time to automate some processes, and approached MagicSoft Asia Systems for possibilities. It was then that a cloud-based system was brought up for evaluation; and its benefits convinced Magnificent Seven to adopt cloud immediately.

### ORGANISATION

Magnificent Seven



### INDUSTRY

Construction

### CHALLENGE

Magnificent Seven needed to improve its on-site operations to meet with challenges posed by the construction industry. It needs to replace the manual handling of paperwork at sites, and improve team communications habits of its staff members.

### SOLUTION

The company took its key project management operational processes to the cloud, by automating approval processes and securely storing confidential documents.

### BENEFITS

- Implementation took less time as compared to on-site systems
- Subscription-based cost model means low CAPEX
- Solution is customisable
- Allows anywhere, anytime access by authorised personnel



### **On-site Project Management Gains Accuracy**

“With the labour crunch and associated rules, my site managers found themselves spending more time on paperwork than monitoring on-site activities,” said Mr Alex Lim, human resource and business development manager of Magnificent Seven. “That should not be their focus. These managers were employed to ensure quality site work, so we decided to get on the cloud and complement their need for ‘anywhere’ access.”

The appeal of the SaaS solution, said Lim, was its 99.9 per cent uptime, low CAPEX requirements and gave mobility accessibility easily to all authorised users. He said: “We needed to raise productivity, as well as make work processes sensible, sustainable and easily taught. Most managers know how to use mobile devices, and also Web-savvy themselves, so a Web-based solution made sense.”

The first process to be overhauled was the reporting process. Site managers are now able to access a Web-based reporting portal with any connected mobile device. The portal links the inventory management, human resource requisition and the site work payroll modules.

Site supervisors are also able to take photos with these mobile devices and upload them into the reporting system. All data entered are stored on the cloud storage, and accessible by Magnificent Seven’s management team, through the same portal.

“This means the bosses gain access to real-time information, both reports and photos, even while travelling. As a team, we communicate frequently so timely and accurate information is crucial to the company,” said Lim.

With all the information stored on the cloud, Lim has omitted the need to purchase “expensive servers and budget for associated IT manpower expenses”. The other savings, he said, include unknown amounts for hardware and software upgrades, so being on cloud has “saved the company a bundle”.

### **Better Human Resource Management**

A creative use of the firm’s mobile-enabled application is in the management of its site workers. Using a handheld biometric attendance reader (see above picture), site supervisors are able to get each worker to scan their unique staff card barcodes and have their thumbprints verified. This way, the actual working hours, assigned tasks and quality of output by each worker can be filed accordingly. The biometric system itself is enabled “anytime, anywhere” and connected to the cloud-based infrastructure

With the implementation of the biometric attendance system, Lim has observed higher productivity across all sites, and this has translated into less overtime pay expenses for the company. “With such readily available information, the management would be able to decide if job rotation or training is needed to improve the situation. Our efforts must go towards producing a quality project for the client, and at times quick decisions need to be made.”

Lim is now a convert to the benefits of managing operations from the cloud. “I would strongly encourage peer companies to consider implementing a similar system to what we have done. Less hassle of handling hardware ourselves, lower costs, and real-time access are just some of the benefits,” he said. “Personally, I feel this system has enabled most of our staff members to focus on what he or she is really good at. And that creates job satisfaction.”

This case study is part of the National Cloud Computing Office (NCCO) efforts in creating awareness for cloud computing. NCCO aims to advance cloud adoption and development of cloud computing ecosystem in Singapore so as to sharpen its overall economic competitiveness and enhance the growth and vibrancy of the Singapore infocomm sector. For the latest updates and events on cloud computing in Singapore, visit us at [www.ngp.org.sg](http://www.ngp.org.sg).

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