

## Case Studies

### Cloud Computing and Industry Solutions for Development of Large-scale Smart Park

iSoftStone provided cloud computing and comprehensive industry solutions to establish a service-oriented management platform, which serves as a center for managing and supporting smart industries development.

### New Cloud-based Mobility Solution for Major Wireless Carrier

iSoftStone helped developed the Unified Messaging application to provide enhanced online message services for shared devices (home, mobile, etc.) as well as centralized access to messages via mobile device or web browser.

### BI Solutions Expedite Development with RapidStart® for US-Based Financial Services Company

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## News

### iSoftStone Participates in Cloud Connect China

September 15-17, 2013 – Cloud Connect China was held at the Shanghai International Convention Center. Mr. Ni Dun, iSoftStone Senior Vice President and Head of the Corporate Innovation Institute, spoke at the conference and shared his thoughts around Big Data.



### iSoftStone Wins 2013 Award for “China Green IT Services & Outsourcing Innovation” Contribution

July 9, 2013 – iSoftStone announced that it was presented with the “China Green IT Service & Outsourcing Innovation” award, celebrating its contribution to the industry, on July 5, 2013.



## Industry Commentary

### From small to big: 5 tips for managing clouds at scale



By Brandon Butler, Network World  
October 21, 2013

## Events

Look for us at these upcoming events.

### MIT Industrial Liaison Program China Conference

October 30 – 31, 2013  
Beijing, China

### IBM Software Information on Demand 2013 EXPO

November 3, 2013  
Las Vegas, USA

### China Mobility Forum 2013

November 8, 2013  
Beijing, China

## Industry Commentary

### From small to big: 5 tips for managing clouds at scale

By Brandon Butler, Network World

October 21, 2013

The enterprise adoption of cloud computing resources has taken a precarious path. Many organizations have started by running small workloads in the public cloud, reticent to use the platform for bigger mission-critical workloads.

But once they get comfortable with say a test and development use case in the cloud, or an outsourced e-mail platform, perhaps CIOs and CTOs warm up to the idea of using outsourced cloud resources for more jobs.

At a recent panel of cloud users, one thing became clear though: Managing a public cloud deployment at small scale is relatively straightforward. The problem comes when that deployment has to scale up. "It gets very complex," says IDC analyst Mary Turner, who advises companies on cloud management strategies. "In the early stages of cloud we had a lot of test and development, single-purpose, ad-hoc use case. We're getting to the point where people realize the agility cloud can bring, and now they have to scale it."

And doing so can be tough. The panelists at the recent Massachusetts Technology Leadership Cloud Summit had some tips and tricks for users though. Here are five.

#### **Consolidate account management**

Unfortunately, a common way that cloud usage starts in an enterprise is when various departments within an organization spin up public cloud resources behind the back of their IT departments. Known as "shadow IT," it can create a scenario where multiple different departments each have their own accounts with a public cloud provider, like Amazon Web Services. When the IT department attempts to take control of these services, the IT manager all of a sudden is juggling multiple accounts.

Instead of managing each of these separately, Amazon Web Services allows users to consolidate those into a single administrative account. By doing this, usage statistics are aggregated into a single billing stream, and users can re-allocate resources among various accounts, with some limitations. Jason Fuller, head of cloud service delivery of Pegasystem's software, says that's an immensely helpful feature when managing multiple accounts within the same organization. It helps not only from a technical standpoint to have oversight across all the accounts, but from a financial one too because of the aggregated and

streamlined billing.

### **Turn the lights off**

“Sometimes when I wake up in the morning I go downstairs and my kids have left the lights on all night,” says John O’Keefe, senior director of operations at Acquia, a company that supports open source Drupal, and one of the panelists at the Mass TLC event. He worries about the same thing with his developers using Amazon’s cloud. The beauty of self-service public cloud resources is that they’re incredibly easy to spin up – customers just swipe a credit card and click a few buttons. The problem is those resources don’t get shut off when users are done with them. To prevent this situation, O’Keefe tries to do a daily inventory – if not even more frequently – to ensure that only the resources that are actively used are “on.” De-provisioning resources is just as easy as spinning them up – someone just needs to remember to do it. AWS has a variety of tools to help customers monitor this, including CloudWatch.

### **Right-size your resources**

A common platform for IaaS resources nowadays is for providers to offer an a la carte offering of virtual machine instances sizes and storage platforms. Customers should take care when choosing exactly which resources to use, because if you don’t then there can be significant waste.

Usually it’s pretty straightforward to decide between the three main flavors of storage from AWS: Elastic Block Storage (EBS), Simple Storage Service (S3) or Glacier. EBS is for block storage, which are volumes that are not connected directly to compute instances that use them. S3, on the other hand, is a massive file store system that can be used for granular storage of small items and scaled way up to larger files too. Glacier is a long-term storage platform with extremely high availability and low costs, but very (comparatively) long wait time for retrieving data. Within EBS there are tiers of storage though (see information about the options here). Customers should ensure they have the right performance, reliability and scalability requirements for their needs. If you don’t, you may end up overpaying for services you don’t need.

Another key is ensuring virtual machines are right-sized for your workloads. AWS has a catalog of more than a dozen different types of virtual machines, from high input/output VMs, to high memory ones. Evaluate what your application is and what kind of resource it needs, and get the right size VM for it. A variety of third-party AWS monitoring tools can help users make the right decisions. Other companies, like ProfitBricks and Cloud Sigma, allow customers to set their own VM instance (and pay for them by the minute, instead of by the house). These features allow customers to customize their VMs at granular levels, opposed to choosing from a menu of options from AWS.

### **Beware of noisy neighbors**

When using a public cloud, you’re typically going to be sharing infrastructure resources with a lot of other users. That’s in part why these IaaS clouds are so cheap – because providers can pack multiple customers into high-density virtual machines. You

may be sharing a virtualized server with other companies. For some applications and workloads that may not be a problem. But, for others that are performance-sensitive, it can be an issue.

While AWS says that it takes steps to avoid this by hard partitioning resources, users still worry about it. Panelist Greg Arnette, CTO of cloud data archiving company Sonian, says this used to be a bigger issue a few years ago, but network volatility is less common nowadays. Still, some users may be concerned about it. For those who are, customers can pay extra to have dedicated resources – which are isolated areas of the AWS cloud reserved for individual customers. There is also AWS Virtual Private Cloud, which is now the default setting in EC2, which uses a hardware VPN and allows customers to configure their virtual networks. The best way to avoid the noisy neighbor though is to right-size the VMs to make sure they have enough capacity for the application that’s running. If the VMs don’t meet their performance being advertised, that can be a breach of the service-level agreement (SLA).

### **Find efficiencies where you can**

Living in a cloud makes techies think differently about how they run their shop. Let’s say, for example, you have hundreds or thousands of files that you’re looking to store into S3 on a daily or weekly basis. AWS makes it easy to upload and download those files one at a time. But, in doing so each one of those is an API call, which AWS users are charged for. Instead, users should bundle their jobs, and load files up in blocks through a single API call to reduce API surcharges, Arnette says. Steps like these are what can be the difference between having an efficient, right-sized cloud and being nickel and dimed by your cloud provider.

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## **Case Studies**

### **Cloud Computing and Industry Solutions for Development of Large-scale Smart Park**

*iSoftStone provided cloud computing and comprehensive industry solutions to establish a service-oriented management platform, which serves as a center for managing and supporting smart industries development.*

#### **Situation**

Guangdong WIOT faces the challenge of transition from a traditional industrial park to the third-generation smart park. It needs to upgrade the existing information system to a new business-support platform in order to support the transition from labor-intensive to knowledge-intensive development model. Our client wants to use the advanced information system platform to enhance their quality of services and efficiency in order to provide the guaranteed basic service for the development of park.

Guangdong WIOT plans to establish a set of innovative operation services system through the approach of “government guidance, enterprise hosting, cooperation between the government and enterprises”. It not only aims to promote innovation deliverables which are quickly accepted by the market and improve the added value of products and services, but also provides

the investment opportunity for development of the park.

## **Solution**

Guangdong WIOT chose iSoftStone as the service provider to establish the operation platform. iSoftStone created a service-oriented operation platform, which can manage and support the development of Smart City industry. Generally, a smart park's construction can be divided into Cloud Computing Data Center and Smart Application Platform.

The Cloud Computing Data Center that iSoftStone built applied the cloud computing technology to effectively integrate software, hardware, and technical resources inside of the Smart Park. By using cloud computing, iSoftStone implemented the integration and information sharing among the human, material, intellectual, policy, and financial resources. We significantly reduced the cost and also achieved a higher benefit for accelerating the rapid flow of information to improve service capabilities both in technology and environment.

In addition, the innovation operation platform leverages iSoftStone's industry solution from the industry categories that are promoting the development of Smart Park. iSoftStone established a solid partnership with leading global companies to ensure the leading position in the various applications implementation.

## **Technical Support (Middleware)**

- Solution uses IBM Workload Deployer (IWD) to implement the management of PaaS platform and meet the requirements of application and automatic deployment and performance scalability of its runtime environment
- At the level of basic services support, FileNet ICM provides content management and BPM to support the unstructured data management and to provide a platform and tools for BPM modeling, management, and operation
- Accomplishes functionality of data analysis, data mining, prediction, and data report modeling by integrating Cognos BI, Cognos TM1 and SPSS to support decision analysis and performance assessment of business operation
- Utilizes the functions of Websphere Message Broker integration, route, and data transformation that is used in data exchange and service integration to implement cloud platform services bus
- In hardware facilities, uses IBM B24 optical switch, IBM 3850/3650 PC Server, IBM BladeCenter, IBM HS22, IBM DS5020 Disk Array, and IBM TS3100 tape library

## **Benefits**

The Smart Park implementation that iSoftStone established is not only environmental friendly and value-adding, but also improves the software environment and promotes industrial upgrading of Smart Park. After the construction of this Smart Park, the operation platform will provide services and support to the enterprises operating inside it. It also will adopt a method to charge a fee through leasing from the enterprises in the Smart Park.

This project is based on the commanding height of Smart Industry. The intelligent applications and services equipped the companies with the necessary environment for their sustainable growth. It will attract more outstanding companies to move into the park which will achieve industrial clustering and upgrading.

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## **New Cloud-based Mobility Solution for Major Wireless Carrier**

*iSoftStone helped developed the Unified Messaging application to provide enhanced online message services for shared devices (home, mobile, etc.) as well as centralized access to messages via mobile device or web browser.*

### **Situation**

Our client is recognized as a world-leading provider of IP-based communications services to businesses. They also have the nation's fastest mobile broadband network and the largest international coverage of any U.S. wireless carrier, offering the most phones that work in the most countries. They provide service to 98.6 million Americans.

The challenge for our client was to find an industry leading partner to provide platform verification testing and lead testing coordination for a new Cloud based mobility solution. Drivers included:

- Launch competitive Cloud based mobility service
- Maintain existing customer base and attract new subs

### **Solution**

The process involved developing a test plan, defining project scope, designating testing resources, identifying schedule risks, executing the test plan, and managing triage communications.

The team applied waterfall and agile SDLC project methodologies to deliver through the various project phases. iSoftStone remained open and flexible to all client and vendor scheduling changes and served as lead partner across all testing activities.

We used industry leading testing tools and expert resources (Android OS / SDK, Firebug, Wireshark, HP Quality Center, Vendor supplied de-bug tools, Network Traffic Capture).

iSoftStone's platform verification testing allowed the carrier to launch a beta version of its Cloud based messaging solution. The product team is preparing to launch a commercial service for all its customers.

iSoftStone stood above its peers by going above and beyond to deliver solutions and resources, and leading the coordination between all third party vendors teams. iSoftStone was quickly recognized as the preferred testing vendor within the Encore

program.

Our client received thorough validation and verification of all preproduction and post-launch product platforms.

### **Benefits**

iSoftStone QA Testing was able to troubleshoot specific product issues in the lab environment and drive product quality for launch of version 1.0. iSoftStone created over 4,000 test cases, and logged over 400 defects. Based on this QA effectiveness, we helped launch the product with minimal open defects(5 total defects - Severity 1/Severity 2).

### **Best Practices**

- Created a traceability matrix to trace all test cases back to requirements to ensure complete testing coverage.
- Implemented deep level reporting using HP Quality Center to demonstrate defects and bug closure rate by feature area and severity.
- Created a high-level executive testing report to report on overall progress of testing by severity, as well as blocking issues for management's attention.

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## **BI Solutions Expedite Development with RapidStart® for US-Based Financial Services Company**

*This solution has helped internal users and business groups identify upcoming costs, preventing excessive spending and adhere to current budgets.*

### **Situation**

Integrating financial data with related Intellectual Property (IP) data has been a long-standing challenge for the Intellectual Property Group (IPG) of this Fortune 50 software manufacturer company. To overcome this issue, different teams had created their own manual processes and business logic to integrate IP data with the corresponding revenue figures. This led to non-conforming dimensionality and resulted in different teams looking at inconsistent versions of the truth.

The company's IP data resided in multiple different repositories. Doing ad-hoc reporting was a cumbersome and difficult process that required custom queries across multiple systems and manual data stores. The manual efforts involved in creating reports were leading to inefficiencies, poor business decisions, and increased risk.

### **Solution**

iSoftStone's dual-shore team located in both China and the US managed the process of requirements gathering, analysis, development and testing with the goal of integrating the disparate data sources to create an end-to-end reporting solution for the

IP group of this customer.

iSoftStone leveraged its RapidStart Business Intelligence Solution Accelerator to quickly create multiple ETL pipelines to feed into a unified data store. The pipelines leveraged business logic to ensure a consistent view of the data. Working closely with client business subject matter experts, iSoftStone's reporting analysts created a standard reporting package and dashboard interface to access the data.

### **Benefits**

iSoftStone's solution has helped internal users and business groups identify upcoming costs, thus preventing excessive spend and supporting alignment to current budgets. The new BI portal provides visibility to upper management to get accurate details on their IP spend in near real time.

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