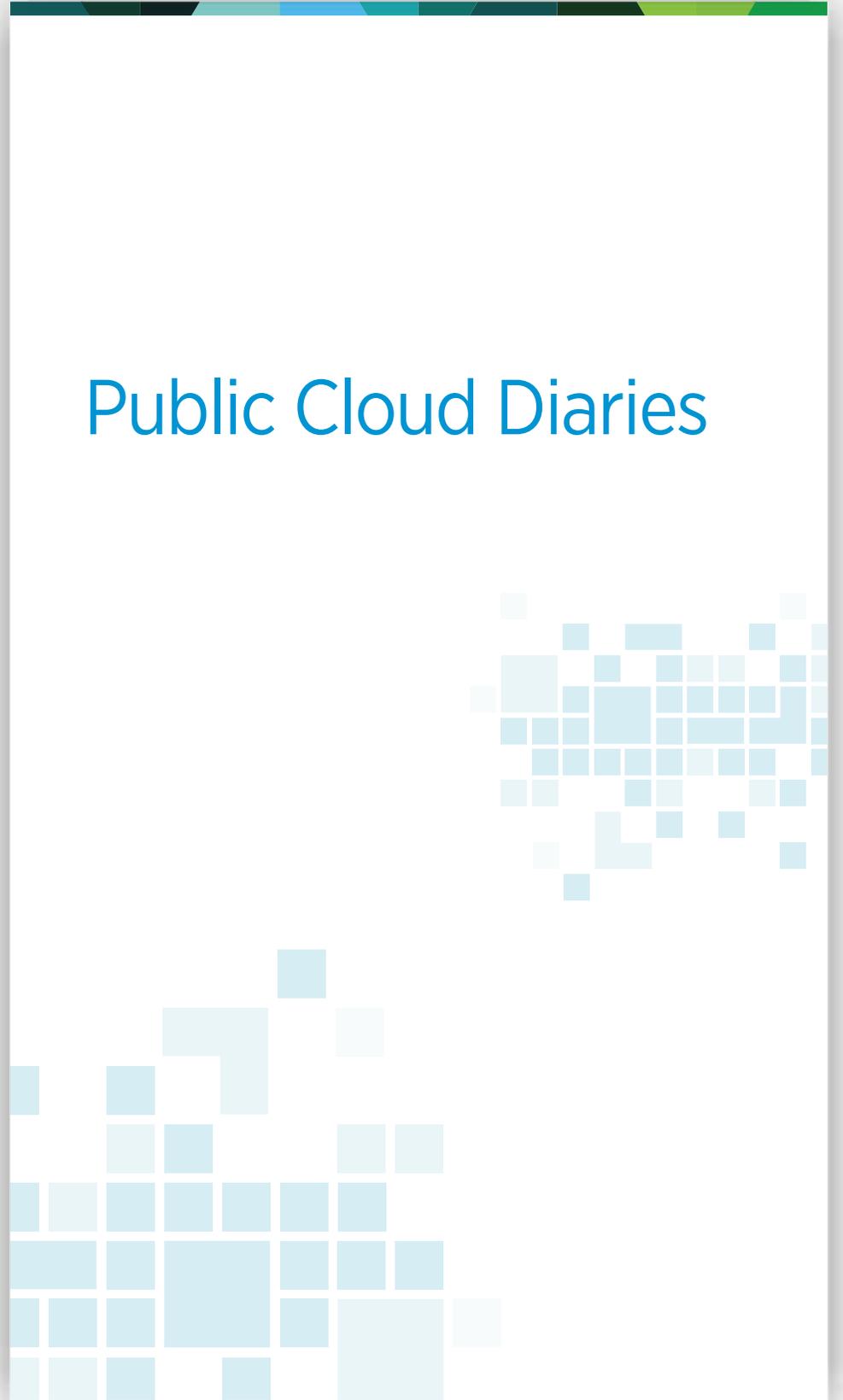


# Public Cloud Diaries



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## Real Companies Solve Real Problems by Moving to a Public Cloud

## Introduction



Welcome to the Public Cloud Diaries. The diaries share business situations and challenges that charted the course of many companies as they moved to the public cloud. The entries capture key requirements for selecting a cloud vendor and business benefits received with a public cloud solution.

To keep the information fact based, Dimensional Research was hired to find and interview companies and assemble a corporate biography of each personal conversation. The company and the respective spokespeople were promised anonymity in order to capture candid and accurate information that can be publicized.

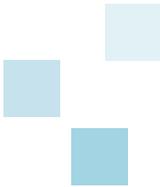
This is an ongoing project and we encourage you to visit [vmware.com/go/PublicHybridCloud](https://vmware.com/go/PublicHybridCloud) to keep learning how real companies are solving real problems with enterprise public clouds. You will continue to discover insights and ideas on how to measure return on investment leveraging the cloud. We hope you will find an entry that articulates business challenges and offers solutions that identify best with you.

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*“We always need to be concerned with “Safe Harbor” and may need to move our infrastructure to ensure we are providing our customers with the security and privacy they need.”*

## Business Service: Diary Entry 01



I talked to a company that offers home security solutions including both hardware and software. The security company is continuing to expand their offerings into home automation which requires integration with home appliances as well as the heating and air conditioning systems. The company needed to offer their services to the end customer, and as a development platform for partner integration. At the same time, security of customer data such as video feeds from surveillance cameras was paramount. A buggy software rollout and unreliable operations caused serious customer complaints, leading the company to reevaluate its ability to run and operate its own world class datacenter and focus on the development and delivery to its customers and partners.

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### Move to the Cloud

The company's business plan requires a low per customer infrastructure cost to make their \$8 a month service profitable. Slow economic conditions, a reliance on partner integration and new product development

costs created concern about the hardware and operational costs of a datacenter. Flexibility and short term commitments were valuable attributes to the team, but hard to accomplish in a dedicated datacenter model.

### Cloud Requirements

Their decision between a traditional datacenter and cloud offering had several requirements: extremely tight security requirements, meeting ITIL and ISO standards, as well as co-location for back up and service reliability.

*“Security has to be top notch. We may have live feeds that cannot ever be hacked.”*

The company wanted to build their deployment to be self-contained, such that the security, load balancers, servers, database and file system could be moved as one if required. This meant multi-tenancy was never an option.

### Solution

The company had done some testing on Amazon EC2 but realized they needed a very specific solution for security and quality. They sent an RFP to all the top vendors in Gartner’s magic quadrant and the bids were very competitive. Some of the large vendors had problems offering and supporting a flexible and self-contained “virtual private cloud” hosted in a public cloud environment. The business went to a vCloud Service Provider based on a strong technical platform, but what weighed even more was their responsiveness and willingness to meet their exact needs.

*“With (the vCloud Service Provider) we are getting exactly what we want: F5 and Checkpoint technology up front, SQL server on backend and all self-contained and very portable. This is a top notch offering by some really solid guys.”*

### ROI

The company is on target with their IT costs at 20-25%, hitting the bottom line profit objectives. In addition to the peace of mind and the ability to focus on their core business, they cited several other key attributes of the hosted cloud solution at a trustworthy vendor:

- Cost scales with the business
- Ability to match billing to subscribers to track profit and loss efficiently
- Rapid scalability
- The company can focus on the business and partnerships, not hardware operation

*“The real ROI is that we can sleep at night. We have infrastructure and operations that are top notch, supported and maintained 24 x 7.”*

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*“We may want to store some of the data, or offer a specific service out of our datacenter or our partners.”*

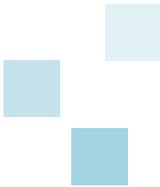
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*“Honestly, given the business, it could take a couple years to achieve the subscriber base we anticipate. We wanted to be able to scale with business and that just spells out cloud.”*

*“We work with many virtualization technologies and companies, but we prefer the combination of VMware’s vCloud and (the vCloud Service Provider).”*

## Business Service: Diary Entry 02



I interviewed the CEO at this value added reseller of services and infrastructure to deploy, integrate, customize and operate e-commerce, CRM, ERP and help desk applications. Client requests for cloud based deployments continue to increase, and the organization is looking to manage its balance sheet carefully and reduce IT costs.

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### Move to the Cloud

For most of the company’s clients, economics is the deciding factor for the deployments on the cloud. Moving to the cloud is in line with a client’s decision to outsource IT tasks and keep internal headcount low. The CEO went on to say that the continued influx of new mobile devices now makes the use of cloud computing more obvious to their clients. Many conversations with customers start with disaster recovery, which now costs 10% of what it did a few years ago.

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*“80% of our clients’ software applications now operate in the cloud. About 20% stay on the premises primarily for file sharing and printing needs.”*

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### Cloud Requirements

Even though this company is a value added reseller and provides a range of services themselves, they spoke of the importance of having the cloud provider offer managed services too. Most cloud vendors only offer raw virtual machines as commodities, and so instead they sought out cloud providers who offered managed services in addition to virtual machines. The company wanted VMware technology to enable the cloud infrastructure because of its reliability, business continuity and replication, something their clients need and at which VMware technology excels.

### Solution

When cloud deployment is the right choice for a new customer, the company initially recommends a vCloud Service Provider powered with VMware's vCloud technology. Most of their customers utilize 2-4 physical servers and up to 12 VMs run on them. The solution allows the company to operate and control cloud infrastructure whether it is an application, back up, or recovery, all from a centralized operations control panel.

### ROI

The CEO explained several other advantages his clients receive by moving to a cloud solution:

- Replacing a 3 or 4 year capital expense with an operating expense
- Reduced IT costs
- Focusing on their business, not on managing IT infrastructure
- 2-4 hour recovery time objective with minimal business impact

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*"For our clients, top ROI is risk management with disaster recovery. But shifting costs from CapEx to OpEx has proven to be of tremendous strategic value."*

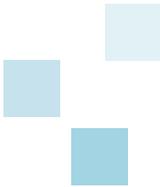
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*"Even though we have the skills and knowledge to do it all, sometimes it just makes sense to have the cloud provider provide an additional service. We want that option. VMware's vCloud is an example of technology that gives me a lot of options."*

*“Our team was spending a lot of time backing up to tape and disk, but it was not consistent. Fire drills or other demands often took precedence over backup, and that was very disconcerting.”*

## Business Service: Diary Entry 03



This company provides professional employer organization (PEO) services such as HR, payroll, and benefit administration. The CIO was interviewed and shared that his company was fanatical about customer service and maximum ROI. This company manages data that is sensitive and must meet regulatory standards, driving the requirements for a secure solution. Users need constant access to data, so uptime and availability cannot be compromised. With a growing client base, the effort and resources to manage IT, and more specifically, to back up services, was increasing rapidly. The CIO began investigating the cloud as a possible scalable growth option and a cost relief.

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### Move to the Cloud

The CIO cited cost savings and keeping his team focused on business and exceptional PEO services as top priorities for making their business successful. During his investigations of the public cloud, it became clear that both key requirements could be met and were the deciding factors in moving to the cloud. Employee applications, such as email and office applications, and their client software were targeted for

cloud deployment. The process of migrating applications to the cloud consists of several phases. The initial phase already moved email and office suites to a cloud based solution. The current project will move data backup and disaster recovery to the cloud. This will secure the data and provide improved application availability should their datacenter have problems.

### Cloud Requirements

The company initially evaluated seven vendors and narrowed their choices down to three. The company used the following requirement categories to review and select the winning cloud provider:

- Positive ROI
- Solid technology for both hardware and software
- High quality customer service and focus

The company selected a vCloud Service Provider powered with VMware's vCloud technology which excelled in all three areas. The CIO stated that the pricing created the right ROI. The entire process of selecting the vCloud Service Provider was pleasurable because the vCloud Service Provider team, technology and security implementation surpassed all of their requirements. The vCloud Service Provider uses VMware technology for their two datacenters and the company saw that as an additional advantage since the company also uses it. With both datacenters leveraging virtual machines (VMs), they can quickly update both datacenters or recover more quickly if an emergency occurred.

### Solution

The solution today is two physical servers and scaling VMs based on backup needs or if application user load was directed there. The security is managed by the vCloud Service Provider but the applications and backups are managed by the company. Both the vCloud Service Provider and the company's IT teams are able to see what the other did on the management console. This leads to a more effective and unified team, and provides an extra check and balance for changes and updates.

*"The vCloud Service Provider powered by VMware's vCloud implementation was outstanding. We enjoy working with them. They are on top of the technology and operation, and drive every project to success."*

### ROI

The CIO stated that all technology decisions have to make financial sense. Achieving a solid ROI was the minimal threshold, which was easily met. In addition, the following benefits are being received from the public cloud deployment:

- Ability to reduce CapEx expenditures for hardware
- Operating on a better platform
- The IT team's ability to refocus on developmental and customer driven tasks

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*"Right now we are looking for ROI as low as a 10% improvement. The cloud provides that and more, compared to our internal options."*

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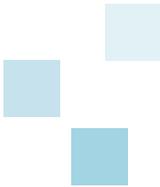


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*"We needed the right partner. We needed to trust them to protect our data, and we put that into the requirements. This meant we had to research their technology in depth and scrutinize their customer service during the evaluation process."*

*“The cloud’s scalable infrastructure is a perfect match for many applications that have a large number of users that are geographically-dispersed and create spikes in demand.”*

## Business Service: Diary Entry 04



This company is a European IT business services and consulting company based in Germany. They help their customers create and implement a cloud strategy and migrate applications to the cloud platform.

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### Move to the Cloud

The senior consultant shared that many of their customers are in the telecommunications business, primarily being larger mobile carriers. He stated that many companies in Europe are actively evaluating cloud solutions and are developing customer facing applications that will be deployed in the cloud.

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*“One perfect cloud based application is a mass update for a specific cell phone.”*

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### Cloud Requirements

When looking for a cloud infrastructure partner, the company needed to find a trusted source with multiple datacenters, top notch security, and leveraging VMware technology. A longtime customer and partner of VMware, the company relies on VMware for its security and reliability. The final requirements were that the cloud provider needed to be flexible to meet unique customer centric SLAs, adhere to regulatory requirements, produce compliance reports, and allow onsite audits for physical security verification.

The company selected a vCloud Service Provider powered with VMware's vCloud to be their IaaS provider based on their sterling reputation, broad international footprint and their use of VMware's vCloud technology. The vCloud Service Provider not only met all their requirements but also provided additional options where they could use the vCloud Service Provider infrastructure or pick services that the vCloud Service Provider provided to broaden their solutions to their customers.

### Solution

The company has a demonstration and testing lab onsite at the vCloud Service Provider. This allows them the ability to show customers a variety of cloud solution options and to demonstrate how the cloud solution works. They have noticed that cloud deployments are evolving with their customer base. Today, they are seeing a majority of companies focused on moving applications and services, which don't hold customer data, to the cloud. But that trend is starting to evolve with an upward swing of companies considering cloud-based applications that do hold customer data. The business benefits and cost savings can't be ignored with greater confidence in security and operations.

*"Most mid-size companies will actually get better security and operations from a cloud provider than they can affordably do for themselves. But it will take time for them to realize it and be comfortable with it."*

### ROI

The company shared the following reasons why their clients are considering the cloud:

- Time to market
- Saving money
- Instant scalability when growth occurs
- Backup and disaster recovery

*"We had a telecommunications customer see a 30% savings by moving to the public cloud."*

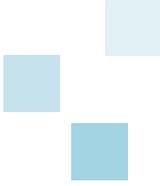
*"There is no hard and fast rule as to how much someone will save or the magnitude of the benefit. But it does make economic sense for all of our customers. It is not a risk if you will save. It is just a question of how much."*

*"It is fun to see customers get the idea. We were helping one customer build out a datacenter virtualized with VMware. When I explained that a virtualized server could be brought up instantly, anywhere, he immediately got it. Now it makes sense to him why backup and recovery could be so easy and that with a public cloud backing up their datacenter, they would never miss a transaction."*

*"I firmly believe over the next three years there will be an infrastructure revolution and the cloud is at the heart of it. With the technology advancements and reality of how secure they are, the only decision will be what type of cloud strategy a company will institute."*

*“It was a mess. Each datacenter was a different entity even though they were run by the same company. Resolving even the simplest issue took days.”*

## Business Service: Diary Entry 05



This Fortune Global 500 Company offers global management consulting, technology services and outsourcing with services ranging from architecting and deploying the latest IT infrastructures to managing and operating them, as well as developing and testing custom software. With service managers and clients around the world, the consulting firm must have immediate and secure access to their applications and client data.

### Move to the Cloud

The vCloud Service Provider practice manager we spoke with noted that their client had thirteen datacenters located around the world running seventeen different applications managed by a combination of internal teams and third party external teams. When applications or data was unavailable, the consulting firm's service managers were often frustrated by the runaround created when one application team blamed another team usually in a time zone where everyone had already gone home. With thirteen

datacenters it was a challenge to keep the hardware and software up to date. To make matters worse, each datacenter had its own operational procedure and best practices so operational efficiencies were lost. The consulting firm decided to consolidate the thirteen datacenters and utilize a cloud environment to drive consistency, improve efficiency, deliver cost savings and select a single vendor to own all operational responsibility.

### Cloud Requirements

The consulting firm had several key requirements that balanced desired business benefit with that of key technical requirements. In addition, datacenter responsibility was moving to a single vendor that could provide global infrastructure and operations along with world class support.

Business benefits were:

- Reduced number of datacenters
- Improved quality of service to employees and end customers with enforced SLAs
- ITIL compliance procedures and operations

Technical requirements included:

- Global experience and footprint for datacenter stewardship
- Planned disaster recovery to another datacenter
- Use of VMware technology for virtualization and private cloud construction
- Dedicated private network access to ensure data security
- Strict operational and compliance processes
- OS, virtual machine and application monitoring

The consulting firm proceeded with a thorough RFP and evaluation process. The vCloud Service Provider was selected based on its ability to deliver both the technical and business requirements globally.

*“It was key that after internal issues were addressed, to have one number to call to fix and scale infrastructure no matter where in the world it was located.”*

### Solution

There are now just six datacenters each with twenty to fifty physical servers combined to deliver 1100 Virtual Machines (VMs). The vCloud Service Provider operates the environment, patching, security and monitoring of the entire system. They also provide help desk services and respond to requests for increased capacity providing a key IT governance service. Scalability is easily provided by provisioning more machines based on hardened VMware VM images.

*“The vCloud Service Provider receives the request, validates authorization, and then stands up the hardware and VM image. Our client wanted this process to ensure proper IT governance and ITIL compliance.”*

### ROI

The consulting firm tracks consolidation benefits in a number of areas that will help both the top line and the bottom line:

- Better control over the physical and software environment
- IT governance for cost control and ITIL compliance
- Increased business agility and flexibility
- Ease of management
- Reduced operational costs
- No hardware refresh or migration concerns
- Improved security
- State-of-the-art disaster recovery

*“Moving thirteen datacenters run by thirteen teams to six data centers run by one team is the catalyst for huge improvements in many areas.”*

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*“Using VMware was key. It is known, proven, and secure. It takes the risk out of a cloud solution.”*

*“Security and operational issues have very little to do with where your hardware is. It has everything to do with the security strategy, technology, implementation and constant vigilance.”*

## Communication/Media: Diary Entry 01

This company does media and communications for many pharmaceutical companies, providing information about their drugs, benefits and clinical trial results for physicians and healthcare organizations. The company must satisfy HIPAA regulations for some of the information it provides, such as some clinical results. The latest communication project is to provide an interactive multimedia application for doctors.

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### Move to the Cloud

The company had experience with server co-location for client websites and information portals. However, they were not entirely happy with their current cloud vendor, and could only get a

commodity offering. The executive staff decided to seek out cloud providers, specifically ones that offer some value-added services and managed services expertise.

### Cloud Requirements

The move to the cloud meant HIPAA and SAS 70 security requirements for the public cloud service provider, and an ability to remain current with applicable certifications. The service must achieve five nines (99.999%) reliability and offer scalability.

*"We don't have the technical know-how or the resources to meet the SAS 70 requirements. That was the high bar for entry to the bid process."*

### Solution

Although the company looked at several cloud and datacenter companies, they ultimately chose a vCloud Service Provider.

### ROI

The customer said that value to their company is noticed in numerous areas but these rose to the top of their list:

- Avoid hiring more IT staff while not distracting current staff
- Did not have to find a SAS 70 consultant to help implement the solution

Another important benefit was local service from the vCloud Service Provider.

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*"We could not be profitable on this project if we had to provide the infrastructure, maintain it, and keep current with SAS 70 security requirements. I think that is pretty clear ROI."*

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*"(The vCloud Service Provider) has several other healthcare companies, a good reputation, and excellent services. While not the cheapest choice, it was clearly the best value."*

*“The (vCloud Service Provider) solution is excellent both for their technology offerings and their customer service. Their own redundancy between their centers with dedicated tunneling was a perfect solution.”*

## Communication/Media: Diary Entry 02

I spoke to the Senior VP of IT at a telecommunications company requiring secure back up services. Using their own facilities did not provide the required diversity for effective data protection and disaster recovery. Furthermore, even though they offer Internet services and some cloud services, they did not have modern back up technology and still relied on tape back up.

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### Move to the Cloud

The Senior VP of IT led the move to consider an external cloud provider. He knew cloud technology had come of age and could be the right choice for their needs. His decision met with internal resistance at

the operational level as the administrators wanted to maintain control and feared job loss. Some basic education and the assignment of new tasks and responsibilities helped remedy the situation.

### Cloud Requirements

The selection of a cloud provider for data back up had several key requirements such as location, technology used, managed services and expertise. They also operate in a hybrid cloud with their own internal private cloud and a public cloud. It was vital that the technology selected would work seamlessly across the two clouds. The company also uses VMware vCloud technology in their own cloud offerings. Staying with technology they knew worked, which also provided an optimal back up scenario was important.

### Solution

The company shopped around and considered popular cloud vendors but found that not all vendors were equal in both the technology and services. They selected a vCloud Service Provider and use multiple virtual servers at two physical locations. Should a disaster occur, this configuration would allow them to restore rapidly.

The solution today offers superior functionality that allows the company to quickly find and pull a single file for restoration or reporting. Hours used to be spent searching across tapes and then restoring numerous files instead of searching for just what was needed and restoring that.

### ROI

As a telecommunications company they have vast experience with technology and operational processes. Here are additional benefits they are receiving:

- Reliability of the solution
- Efficiency and proficiency of the IT team
- Ability to restore a single file via a GUI in minutes
- Control of the process remotely
- Removal of hardware responsibility

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*“The ROI is pretty obvious. It takes a lot less time to back up now, on better technology that frees up my team to work on more important projects.”*

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*“Our requirements covered strategic locations for disaster recovery, excellent tools, great customer service and VMware technology.”*

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*“It used to take six weeks to provision new hardware and software for a group, now it is just one day.”*

## Communication/Media: Diary Entry 03

This large European company publishes and prints magazines, periodicals and newspapers. While they have followed a traditional business model, their industry is being forced to adapt to meet the growing diversity of news media. The internet and information proliferation has impacted their profits and now requires that their operations and costs are as low as possible.

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### Move to the Cloud

The virtualization lead explained that historically they had a one to one ratio of applications to servers. Because they are located downtown, floor space is exceptionally expensive and remodeling costs to supply server room electricity and cooling is significant. The lead stated that the modern newspaper’s distributed workforce combined with the demands of modern newspaper creation and printing, requires a flexible infrastructure which must quickly provision hardware and software assets to new teams or projects. The need for flexibility moved the company to the world of virtualization years ago but is just now starting to utilize a public cloud as a more effective solution.

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*“Our CIO has set a goal to be 100% in the cloud in just four years.”*

*“We had more servers than we did people in the building, and that is just not right.”*

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### Cloud Requirements

The company had a set of requirements that covered basic security, disaster recovery, and dynamic infrastructure allocation. However what they emphasized as key evaluation requirements were the following:

- Ability to seamlessly operate their private cloud in concert with a public cloud
- Direct control of the public cloud environment
- The use of vCloud Director to make moving images and provisioning servers easy
- Location and management of data to meet regulatory requirements
- Good architecture and robust operating practices by a cloud service provider

*“The initial deployment is really a validation of the hybrid cloud model to ensure it will solve our needs.”*

*“We used VMware extensively for the last four years but we just did another evolution of virtualization software. If you want to bring up or down servers, or move them from one cloud environment to another, nothing is close to VMware.”*

### Solution

The news and publication company reached out to VMware to find vendors who were using the vCloud Director solution. VMware provided a list of providers from which the company evaluated each one and chose the vCloud Service Provider powered with VMware’s vCloud. Early testing on the the vCloud Service Provider infrastructure, which utilizes vCloud Director, proved it was easy to provision new servers. The initial deployment is only a couple of physical boxes and several VMs that could prove out the hybrid cloud operating model as well as running their operational monitoring software.

*“We have complete trust in the vCloud Service Provider, and the fact that they are a strong partner with VMware just made us more comfortable. I am confident they will be able to meet our growing needs.”*

*“Our public cloud solution is pretty simple: Right-click and deploy.”*

### ROI

The CIO and company often use cost reduction as a measurement of business benefit. And for this company cost reduction is not only savings in personnel and reduced infrastructure acquisition but reclaiming floor space for employee use. The virtualization lead said that while they expect significant cost savings, the true value of the public cloud solution is the flexibility to meet the changing demands of the business.

*“Our initial move reduced 150 servers to 10 and saved a ton of money. It has paid for itself ten times over.”*

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*“The other providers were ‘aloof’ when they showed up. They made us feel like we were too small for them. The vCloud Service Provider had better people and a better command of the technology anyway, so it was a really easy choice.”*

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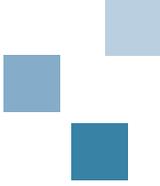


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*“The use of the public cloud will allow us to surge capacity as needed. We could handle a new project that way or validate if we really need more capacity in the long term.”*

*“(The vCloud Service Provider) was fantastic, they are a partner and their expertise and efficiency has truly benefited our company. They were absolutely the right choice.”*

## Healthcare: Diary Entry 01



This software company provides services and a scrub engine for claims processing in the healthcare industry. To ensure faster service and greater profitability, the company’s original business plan included building out an IT team, purchasing boxes, installing hardware, running the datacenter and doing maintenance and upgrades. However, the CEO and COO found that demand for services comes in peaks and valleys, making buying and maintaining hardware a significant and unprofitable investment. Was a virtual private cloud solution better than a traditional data center?

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### Move to the Cloud

This company was introduced to a VMware vCloud Service Provider during their funding and start up phases. Early meetings convinced them that the vCloud Service Provider could also be a trusted partner, and not just a vendor of virtual machines. The vCloud Service Provider helped them with analysis and design to demonstrate that a cloud solution could be operational and cost effective. They looked at other cloud providers but none had the people-oriented approach and experience of the vCloud Service Provider team.

After a few meetings and whiteboard discussions, the company had a plan to implement a virtual private cloud for their application. From there they could scale and spin up as the demand required.

### Cloud Requirements

One key technical requirement was security as this company is required to be SAS 70 Type 2 certified to meet the HIPAA certification requirements. The vCloud Service Provider and their VMware technology cloud environment already held that certification. The commitment from the vCloud Service Provider to maintain this status relieved one of their largest concerns. Early demonstrations proved that this software company need not be concerned about performance, reliability or back up. The company has an SLA for 99.9% uptime and no outages to report.

### Solution

Implementation of the cloud infrastructure took only a couple of months. It also helped the company design their software to take advantage of the vCloud environment. Since implementation, the vCloud Service Provider's cloud solution has provided error-free operation and allowed them time to optimize their application and service for cloud deployment. When a new customer showed up with 4x the number of records previously processed, the company was confident it could get all the compute capacity it needed with a quick call. As a result, the company could focus on closing business, not managing technology.

### ROI

The business has compared their initial business plan IT costs and resources to real dollars paid for the hosted cloud solution. It showed a bottom line advantage in choosing a virtual private cloud vendor.

In addition to cost avoidance, they stated several key benefits of outsourcing to a cloud service provider:

- Immediate IT expertise
- Avoiding costs and processes of machine upgrades and maintenance
- Ability to focus on the core business

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*"We are healthcare experts and our technology is the leader in the space and that is what we are good at. Managing IT infrastructure is not our focus and the move to VMware-powered cloud with (the vCloud Service Provider) has allowed us to focus, drive, and grow our core business. Is there better ROI than that?"*

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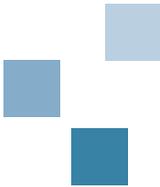


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*"We now know the cloud solution was the right choice. We are able to scale as needed without wondering if we have to buy and provision hardware or if we have enough technical resources. The (virtual) private cloud was the perfect choice to meet our varying business demands."*

*“I know exactly where the data is at (the vCloud Service Provider), and I can get direct access to all the firewall and security logs and reports. I always know what is going on and can report on that to be in compliance.”*

## Healthcare: Diary Entry 02



This company is a healthcare start-up with software in beta with hospitals. Their system helps doctors access, document, and evaluate risk with skin conditions and wounds. The application and database are accessed on hospital computers via the public Internet, and relies on a database that is constantly growing and frequently updated. Providing a traditional on-premises solution would require each hospital to deploy or assign hardware plus constant updates to the database and application. This type of up-front commitment by a hospital was a non-starter and thus, this company's product has been designed to run in the cloud.

### Move to the Cloud

Analysis of this healthcare start-up showed that a cloud solution was the most economical solution versus building a datacenter. The company initially deployed on the Amazon Web Services cloud but found that while the headline price was cheap, Amazon offered no support besides a forum or a for-fee support service. The for-fee support service often stated that “the problems are with customer's software” but offered no real guidance on how to find or resolve issues. In addition, the company could not get any information on how the Amazon cloud was secured, where their data was

stored, what controls were in place, and had no access to firewall or other logs critical for audits. The company reviewed several vendors and found a VMware vCloud Service Provider offered a more secure cloud with expert support, expertise and guidance. This allowed them to focus on their application and not question the cloud infrastructure. Today, the company's customer-facing application is on the vCloud and they expect that most of their on-premises applications will move to the cloud as they grow and expand.

### Cloud Requirements

Providing a solution to the healthcare industry required comprehensive security, strict records and data controls. They needed to know exactly what was happening to the infrastructure and where the data was at all times.

*“With Amazon, their system could be under a DOS attack and you would never know or be told. When I asked where records were stored, they said on the east coast. That is not good enough.”*

The vCloud Service Provider offered security knowledge and existing credentials for the healthcare industry.

The IT Director stated that they use VMware technology in their office and that having VMware used by their cloud provider was a tremendous benefit.

*“Amazon uses Xen and we really wanted VMware so we weren’t ever locked in. (The vCloud Service Provider) gives us access to our virtual machine images so if we decided to host our own cloud someday, we would already have those assets.”*

### Solution

Today the solution is in beta and running on the vCloud Service Provider’s product with no problems to report.

*“Today it is small but we go live in a couple months and we will need load balancing and redundant back up. We are absolutely confident scaling this system with (the vCloud Service Provider) will be easy.”*

### ROI

The company is enjoying hard ROI out of the gate, having saved a tremendous amount on upfront costs as well as having the expertise of the vCloud Service Provider.

The company further describes the benefits as:

- Savings by avoiding increased headcount
- Removed effort and ongoing expense to find experienced cloud operators
- Avoided the need to hire a compliance consultant
- Access to dynamic and instant scalability

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*“We could not afford the type of equipment, nor meet the requirement to be this protected and this secure. We have a large datacenter feel without large datacenter costs. It would have been \$500,000 to build the initial datacenter.”*

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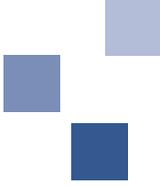


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*“Going with the cloud and with (the vCloud Service Provider) has removed a lot of risk for us. We just focus on our application and growing the business.”*

*“We only have a few IT people, yet we compete with the big guys in the industry. We are insurance experts, not IT experts, and the (vCloud Service Provider) cloud solution lets it remain that way.”*

## Insurance: Diary Entry 01



This insurance industry company provides business process outsourcing between primary insurers and reinsurance companies. The company was founded in 2004 and started providing services via a private cloud in 2008.

I talked to the COO and co-founder of the company. Business demand has significant fluctuations each month driven by the timing of policy and record transfers, as well as monthly profit and loss statements and reporting requirements for each client. Security and assurance of client data protection was also paramount. The acquisition of new clients or new business with existing clients can represent significant new demands for IT infrastructure.

### Move to the Cloud

An IT consultant first suggested that they should seriously consider moving to a cloud-based deployment. A 15-year IT veteran of the insurance industry, he cited the difficulty in managing a traditional data center to meet scalability demands and constantly changing security requirements.

No one else in their industry had moved to a cloud solution, so the company became an early pioneer. Key leaders in the company who owned the business commitments were uncomfortable with cutting edge concepts like cloud. However, the vCloud Service Provider provided detailed cloud education and technical assurance that encouraged them to move ahead with the project.

### Cloud Requirements

Security topped the list for technical requirements, followed by utilizing VMware technology and scalability requirements. The infrastructure needed to scale up and down to maximize performance and minimize costs. Latency needed to be minimized as excessive responses time can give false indications of processing errors.

*"We didn't need to pile risk on risk, so we required VMware, the proven industry leader."*

### Solution

The solution is comprised of multiple virtual servers that scale dynamically based on transaction processing demands. Three applications are hosted in the cloud: the primary processing engine, a secure FTP site and a financial ledger. A secure server with access keys ensures no one has unauthorized access and includes additional passwords for each tier of security. They utilize a SQL database with flat files for storage so enterprise class SAN was unnecessary.

*"(The vCloud Service Provider) offers the best value, the ability to respond quickly to our requirements and a business ethic like our own."*

### ROI

At the one-year anniversary of the cloud deployment, a thorough analysis of the operational costs was performed. The company compared their costs to what it would have been if they had chosen a traditional datacenter. That analysis revealed they would have purchased too much hardware, creating unnecessary expenditures, under-utilizing infrastructure and creating tough decisions about upgrades and software costs for 'extra' capacity equipment.

Several additional areas were mentioned as generating strong measurable ROI:

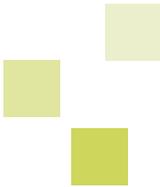
- Reduced startup investment costs
- Improved ability to bill clients based on real IT utilization and costs
- Ability to instantly book new business and know they have the infrastructure to deliver it
- Focus on the business, not IT

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*"As our business grows it is easy to look back at the decision to choose a hosted cloud approach and realize that was one of the best decisions we made. The size and costs match our business needs."*

*“We really felt the move to a cloud provider gave us increased security options, redundancy, uptime and the ability to grow without hiring our own IT team.”*

## Non-Profit: Diary Entry 01



This nonprofit company offers information, services and social media to the art community. The website supplies information and logistics about art shows, artists, collections and other art related activities. The site is well trafficked and the organization was already outsourcing development, system administration and operation of their web site.

### Move to the Cloud

While the site has been hosted for years at a small hosting provider, the company's president had seen a number of performance and availability issues that caused their site to be unusable. Security was not adequate as the site was hacked and infused with a Trojan spam generator and numerous illicit redirects. They decided it was time to seek a solution that provided more security, better uptime and improved customer service.

*“Our hosting provider turned out to be a nightmare; we experienced multiple site crashes, being hacked, and poor customer service.”*

### Cloud Requirements

The hacking was so invasive that the entire site had to be rebuilt and the new website developer wanted to run the new site on a Debian Linux OS. The company wanted the ability to grow over time, handling increasing traffic as well as adding new services. After the company's previous issues, they wanted to select a vendor who would provide remote management capabilities and have a local data center so that support and dialog could be done live if required.

### Solution

The company has migrated and rebuilt the website at the vCloud Service Provider. With VMware vCloud Director they are able to create and upload server images whenever they need to. This allows them more flexibility to react to new art information and make both structure and content changes to the website.

### ROI

The biggest benefits are peace of mind and access to top technology without major expense. They also enjoy the following advantages from moving their website to a cloud based solution:

- High level of security
- Painless growth options
- Increased flexibility to update or change the web site

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*"The biggest benefit to us was the ability to focus on our service and what we love: Art. That is a big change from a state of constant worry when our site crashed and was hacked, and we couldn't get a live person on the phone."*

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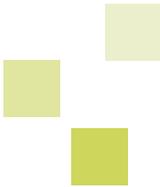


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*"Even though we are a small shop, we get big shop service and are running on the same technology as the largest enterprise without the expense."*

*“When the company started, everyone was excited about building everything ourselves. Now, we look at getting the best IT infrastructure with the lowest cost.”*

## Non-Profit: Diary Entry 02



I interviewed the VP of IT at a company that provides charitable fundraising systems designed for special fundraising events. As the application and infrastructure grew, the company was looking for improved IT system management and operations without driving up headcount or equipment costs.

### Move to the Cloud

The company needed improved operational excellence but could not afford the 24x7 personnel for each event. They knew for a small company to get world class IT infrastructure, the best way would be to move to a managed cloud solution, with full 24x7 support. Although they started with just their customer-facing application, they expect to migrate all of their applications to the cloud.

The executive team was on board but a lot of the IT staff was concerned about the change in operation and the impact to their jobs. By moving to the cloud, no one has lost a job. The team now spends time ensuring the technology that supports fundraising events effectively supports their clients rather than focusing on operational tasks.

*“When I got here, it was like many other companies; the servers were not taken care of, not patched regularly, back ups were sporadic and undisciplined, and there was poor monitoring. And we were not able to adapt to changing business conditions that required quick changes and increases in process and storage.”*

### Cloud Requirements

The company has 99.99% uptime requirements that extend to their clients. Storage was not a major consideration given their model is completely event based and data is not retained. In addition, they needed monitoring and diagnostic tools to observe and manage system and application performance.

*"It is key that we can see how the system and our application is performing and use that information for diagnostics or improvements should the need arise. (The vCloud Service Provider's) offering has some excellent tools."*

Most importantly, they needed accessibility to more computing power on short notice to capitalize on business opportunities.

*"An event can grow or swell just a day or two before and we need to know we can get the processing and storage to meet the needs."*

### Solution

The company has just completed their move to the vCloud Service Provider which offers more dynamic response to computing and storage needs. The number of virtual servers scales to the demand.

*"We have never had a performance problem."*

In addition, they run VMware technology on their own servers and are looking forward to using vCloud Director so they can migrate the rest of their applications to the vCloud Service Provider's Virtual Datacenter (VDC).

### ROI

By their calculations, they have saved 37% of their operational costs when compared to running the application internally. The company went on to share several other key benefits:

- Higher service levels and uptime
- Tracking and reporting for all compliance and customer requirement issues
- Superior monitoring and management system
- Scalability to grow capacity within a few hours

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*"I know (the vCloud Service Provider) takes care of their infrastructure really well. I don't even worry about it. They provide helpdesk, root cause analysis and monitoring. All of this is better than we did for ourselves without increasing costs or resources."*

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*"I think their communication is outstanding."*

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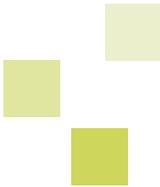


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*"I had used (the vCloud Service Provider) at my previous company. They are solid, reliable and affordably priced."*

*“We know that reality is starting to fulfill the cloud hype and with the outage we had, the time was right for real investigation.”*

## Non-Profit: Diary Entry 03



I interviewed the Director of IT at this technical research company, which commissions semiconductor research projects with universities. It processes, compiles and packages the information for its subscribers and offers direct research data access. The IT system facilitates the interaction with the universities, internal analysts and experts, and clients. Availability and data protection is critical. Some staff are remote and the requirement to access and analyze large datasets is problematic.

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### Move to the Cloud

One senior executive had been reading about the cloud and the virtues it can provide. The research company currently has its database and web servers in-house. The Director of IT knew they were exposed to data loss

and downtime. Recently, a local power outage created a significant hardship and loss. Strong encouragement from the executive and a compelling event prompted them to look for a cloud solution.

### Cloud Requirements

The Director of IT shared several key cloud requirements that drove their decision. The first was VMware, which they had used in-house for several years and was key to a long-term hybrid cloud strategy. They also wanted to use just a few cloud-based services initially, such as load balancing and back up, and then grow over time. Costs were a big factor, and they were starting small and they wanted a matching price tag. Some vendors bid too much in their smallest package. Lastly was their desire to extend their network domain to the cloud. The cloud provider had to be able to secure both the public cloud services and make servers and applications available to remote employees – with better performance than they had on-premises.

### Solution

Initially the research company did a trial deployment with one of the big commodity cloud providers but they just didn't have the right technology, service options or customer service. Their public cloud selection criteria required a vCloud Service Provider powered with VMware's vCloud technology. The company recently deployed phase one and are running a single virtual machine on a single box with load balancing and back up services. They expect that will change rapidly and they will build in more redundancy as they build out their web server and databases in their hybrid cloud strategy.

*"We attended a VMware vCloud webinar and knew that was the right technology. At the end of the presentation they showed a list of certified cloud providers using that technology and that is where we started."*

### ROI

As the company is still deploying, most of their ROI is anticipated. Here are areas in which they are expecting to receive benefits:

- Reduction in hardware purchases and maintenance costs
- Improved throughput for remote users and employees
- Redundancy for emergencies both for data and uptime

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*"Availability and reliability is why we are doing this, and I see no reason why this won't pay off well for us."*

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*"While we are just starting small we needed to know the cloud provider could grow with us toward a hybrid cloud in the future, and that was a combination of services and VMware technology."*

*“After the last outage a few items made it to the top of the requirements lists: geographic redundancy, scalability, and that VMware is at the heart of the technology.”*

## Retailer: Diary Entry 01



This company is a growing national retailer that relies on a franchise business model. The combination of national diversity and franchisees adds tremendous complexity to their IT systems, which must serve each store, each of which may carry any combination of over 475,000 items (SKUs) at different price points. Since the IT system must support every physical store, uptime and availability is critical. The company was hosted at a local mom-and-pop facility, which went down for an entire weekend while the provider was unaware of the outage. It was time to find a new solution.

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### Move to the Cloud

The company had been doing research for some time and looking for a comprehensive software package to manage their ecommerce, marketing,

CRM and store by store tracking. They found one that met all their needs, and the software vendor encouraged them to look to cloud computing for their infrastructure.

### Cloud Requirements

The company sees an incredible increase in volume over the Christmas period. The day after Christmas is their top business day of the year when gift certificates are redeemed. Finding a solution that allows them to scale and process transactions that are several times normal capacity for a few weeks was a key requirement. The company also wanted geographic redundancy to prevent an outage from a cloud provider site failure. Finally, they wanted easy scalability, redundancy and recovery, as well as ease of building and managing technology in a development and production environment.

### Solution

Although a few other cloud providers were considered, the customer picked a vCloud Service Provider based on references, personal experience and their partnership with VMware. Their software is very complicated, with display, indexing and authoring servers. It would have been difficult to implement on a stripped down commodity provider such as Amazon, and expensive to purchase each component needed on Amazon's a la cart menu of services. The company's ecommerce system is deployed on customer facing VMs that are load balanced and secured with a backend server running a dedicated SQL database. They are also connected with the ecommerce software providers on the backend to form a hybrid public/private cloud.

### ROI

As the deployment is recent, they are still measuring the benefit, but the company now has:

- Geographical redundancy
- Scalability for seasonal business
- SAS 70 and SSAE 16 security certification
- Ability to run their business better from a combination of new software and cloud flexibility

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*"Our deployment is new and hard ROIs are still being measured. But how about peace of mind, scalability, better business efficiency, and top notch security?"*

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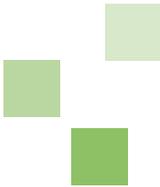


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*"We have nothing but good things to say about VMware technology and (the vCloud Service Provider) team. It just runs without issue."*

*“The cloud is a no brainer for a business like ours. We simply pay for what we need, when we need it.”*

## Retailer: Diary Entry 02



This company provides furniture, electronics, appliances and computers through flexible rental purchase agreements that generally allow their customers to obtain ownership of the merchandise over time. They pride themselves on offering same day delivery and setup. The VP of IT informed me that their merchandise delivery process is inefficient. Once outside the stores, employees no longer have access to the computer system to verify orders, note damaged or incorrect merchandise, or reschedule deliveries. If a delivery has a problem, then both the employees and the customer must return to the store. This adds costs, unnecessary time, and increased customer dissatisfaction.

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### Move to the Cloud

The VP shared that a cloud-based application could provide not only key information to the employees, but could also provide additional services to customers. He further shared that he wants to use tablets as the primary access device to connect employees to these primary applications when they are on deliveries. Deploying applications in the cloud would provide wide geographical access more quickly and economically than an infrastructure their own IT staff must purchase and deploy.

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*“We are new to the cloud but are experienced with virtualization and want our service provider to leverage VMware products. It is one thing our team uses and trusts and it will make the move to the cloud less intimidating.”*

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### Cloud Requirements

As the company pursued a cloud solution, they decided to utilize a Request for Proposal (RFP), evaluation and bid process. The merchandise company ranked RFP responses on these key requirements:

- Dual location for failover and backup
- PCI and Sarbanes-Oxley compliance support
- Secure remote application management
- Service provider maintains OS and security and administers patches
- VMware technology

While not a requirement, the company hoped the winning cloud provider offered international cloud locations or partner affiliations should they want to broaden their business reach beyond North America in the future.

### Solution

The application runs on several physical servers and each server supports eighteen virtual machines. The VMware vCloud Service Provider responds within twenty four hours to increased capacity requests enabling the company to be ready for seasonal business peaks.

*“The VMware vCloud Service Provider is more of a partner than a vendor. They helped us set up the right operating model and tweak the software for running in a cloud environment.”*

### ROI

The VP stated the project is going well on many fronts:

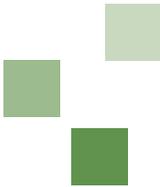
- Simplified distributed IT operations
- Delivery efficiency improvements
- Increasingly satisfied customers
- Improved perception of our company
- Greater focus on business growth

*“The value to our business and our employees will be tremendous. We estimate it will reduce fulfillment costs by 10% and increase customer satisfaction by 20%, generating 5% more business. We secretly expect more though.”*

*“We are new to the cloud but are experienced with virtualization and want our service provider to leverage VMware products. It is one thing our team uses and trusts and it will make the move to the cloud less intimidating.”*

*“The speed and willingness to work with us really set the (vCloud Service Provider) team apart. They are ready to work with you and provide a solution that fits both technically and financially. We consider them extensions of our team.”*

## Software: Diary Entry 01



This company supplies IT management software for small to medium companies, offering everything from patch and configuration management to antivirus and power management. Their solution also provides reporting for compliance and regulatory needs. The VP of Technology stated that historically all their customers purchased their software for on-premises deployments; however, the market is rapidly evolving. The arrival of reliable cloud and SaaS offerings has their customers, especially small banks and insurance companies, questioning if they should be running datacenters at all.

### Move to the Cloud

In order to capture the movement in the market place, the company needed to create a SaaS version of their on-premises software. Internal discussions centered on whether they would build a cloud infrastructure or utilize a third party cloud provider. Two large factors drove the decision-making process: initial costs and executive

team concerns around skill set, reliability and failure mitigation. After much debate, the decision to outsource to the cloud was the decision of the CEO.

*“Once the CEO knew what he wanted, I was brought in to enable the vision of a cloud-based SaaS offering.”*

### Cloud Requirements

The initial cloud infrastructure requirements were sophisticated load balancing and scalability. The company is familiar with VMware vCloud Director and wanted to leverage the virtual datacenters for dynamic resource provisioning. The company stressed it was key to have access control as they were updating their SaaS offering each month. They are pursuing ITIL compliance and were pleased to find that the vCloud Service Provider can support those objectives with specific processes and reporting.

*“Our ongoing cloud strategy involves utilizing VMware technology so that was an absolute requirement.”*

### Solution

The company decided to look at all of the options available: large and small hosting companies as well as cloud providers. They determined that large vendors did not see their business as significant and thus meeting their specific requirements required expensive customization. The smaller companies offered more of a solution-type approach that was more flexible.

*“The large companies like Amazon and Rackspace were like a Chinese menu and we had to select load balancing, security, SAN, multiple images, and the end price was just too high for a very small footprint.”*

The company's cloud infrastructure at a vCloud Service Provider has a load balancing schema, dedicated VLANs, and redundant SQL database for resiliency. The solution was exactly what the IT team wanted without having to buy or provision each device or piece of software.

### ROI

The solution realized a strong ROI, especially during the startup phase. The costs to procure high availability servers, security hardware and software, SAN and load balancers would have been tremendous when there was no initial revenue. For a smaller company with a new offering, the ability to invest in the software and service, and not IT, really helped them focus and minimize cash outlay.

*“Overall by selecting the hosted cloud solution with (the vCloud Service Provider) we saved 42% of what we would have had to initially invest. We have calculated that 25% of that savings was an effect of virtualization.”*

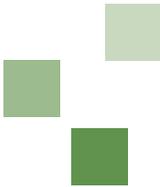
The VP of technology commented that resiliency and proper IT operational maintenance are a key benefit. The fact that all of their servers are now identical - easily provisioned and imaged - reduces time pinpointing bugs between software and hardware.

*“I have peace of mind that we are very fault tolerant. If we ran this application on our datacenter and one server were to fail, it would be a disaster. But at (the vCloud Service Provider) that situation just doesn't happen and we don't have to invest the resources to maintain the servers, or replace memory or hard drives. It comes with the package.”*

*“Our users drive large swings in usage each day, as they use our service at the beginning and end of each day. This requires a lot of infrastructure for a short period of time so scalability is critical.”*

*“If we had built our own cloud solution, the hardware and operational costs would have been greater than \$300,000 in the first year. Our hosted solution is just about \$40,000 a year. Is there a better ROI?”*

## Software: Diary Entry 02



A large corporation spun-off a new company to provide Software as a Service (SaaS) for the construction industry. Although the parent corporation possessed assets and resources that the subsidiary could utilize, the CIO made it clear that the new company was a separate business and its profits and losses would be scrutinized. Thus resources and assets from the corporation came with charge back costs.

### Move to the Cloud

The company's SaaS strategy presented them with a decision to either build an internal cloud or select a cloud vendor. One aspect of the construction industry that the company had to consider is the multitude of project stop-starts. Stop-starts are driven by permits

and approvals, economic changes, various construction phases and contractors' schedules. This stop-start operation drives peak and valley usage and leads to high bandwidth requirements and substantial hardware allocation for short periods of time.

### Cloud Requirements

Requirements focused on cost and value with high reliability, translating into application uptime and a solid disaster recovery solution. The company wanted unmetered bandwidth to keep prices down since the application, at periods of time, could be bandwidth intensive. The company used these requirements to compare an in-house deployment with that of a cloud provider to see which would best fulfill their needs. The company exhaustively evaluated more than 15 cloud vendors. The evaluation process led to reading vendor collateral, witnessing demonstrations and having many technical discussions with the vendors. The company's IT leadership had extensive experience in VMware technology and preferred it to other virtualization technology. Furthermore, deploying on a Linux or UNIX based virtualization technology would have had significant impact on their software, leaving their developers to retool their application.

### Solution

The company selected a vCloud Service Provider who provided their unmetered bandwidth option of up to 10MB. The company has deployed their technology in several locations. This provides disaster recovery and minimal service interruption should one site have a problem.

*"Our solution is technically what we wanted, including VMware. Frankly, the way it is run and operated is almost exactly how we would have done it. It feels like an extension of our team."*

*"The cloud requirements must be well defined. Even though we evaluated over 15 cloud providers, almost all of them were unique in the software they used, the services they offered, the hardware they used and their operational philosophy. Those differences have serious ramifications on how solutions are developed, deployed and operated."*

### ROI

The company's CIO broke down the costs into these categories, had they built their own cloud solution:

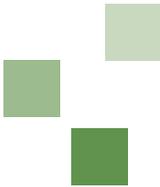
\$200k	Equipment
\$6k/Month	Bandwidth
\$60k/Year	SAS 70 Compliance (covering resource expertise and reporting impact to the team)
\$20k/Year	Collocation
\$20k - \$60k/Year	24 x 7 Support
\$15k - \$25k/Year	Software and Maintenance

The company received tremendous cost benefits by selecting a hosted cloud solution and believes they are getting a better value than if they'd selected an in-house solution. Furthermore, costs are directly related to customer usage and project demands.

*"What I love is if a project gets stalled, I am not paying for all that idle hardware, software and personnel. It scales with the business."*

*“Fear of the unknown has given way to the pure economics of a cloud solution. The cloud removes operational responsibilities, saves money, provides superior application performance to remote users around the world, and disaster recovery is seamless. Many of our clients are now pursuing a cloud solution approach.”*

## Software: Diary Entry 03



This company develops and deploys enterprise custom software. Their offerings include not only hardware selection and deployment but also application integration. Clients are multinational companies with operations in the Americas, Europe and Asia. Like most customers, their clients are focused on the lowest operating cost solution that minimizes their hardware investments, software costs, and personnel. The solution must also achieve high availability, disaster recovery and back up options.

### Move to the Cloud

The company's founder had recommended a cloud solution to 80% of their clients due to a combination of geographically dispersed users and their clients' desire for low costs. However, two forces have held adoption of the cloud at bay until recently. The first was the cost of bandwidth, which for a long time would counter any savings achieved by moving operations to the cloud.

The company's founder stated that has changed significantly in the last 18 months. The second force was that in areas outside of the North America, clients remained tied to the belief that servers in their own buildings were more secure. Today the economic advantages, strong security measures and disaster recovery options are too compelling to be overlooked.

### Cloud Requirements

This company has Service Level Agreements (SLAs) for uptime and availability as well as for managing the software. Selecting a cloud solution provider was critical for the company's success, reputation and profitability. The company needed the cloud provider to manage day to day operations but required access to the system for software and configuration updates. Their search for a cloud provider included the following key attributes:

- Use of VMware technology for easy deployment of new software and updates
- More than one geographic location for performance, reliability, and disaster recovery
- Excellent reputation of uptime and availability
- Remote access to the cloud infrastructure and applications
- Strong security implementation and certification

### Solution

After looking at several cloud vendors, the company selected a vCloud Service Provider based on their experience, reputation, multi-location operation and strong VMware technology utilization. With the vCloud Service Provider, the company has the option of deploying clients' software on a dedicated infrastructure as well as in a multi-tenant scenario. The company was able to allay their clients' fears about their software and data, while still managing costs.

*"We have every option we want at (vCloud Service Provider). We can manage the hardware, software and every nuance, so we can deliver a customized solution to each of our clients."*

### ROI

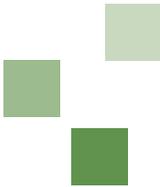
The company's founder explained that their clients are primarily looking at operational savings. The cost to develop and integrate software is essentially the same if it is done for on-premises or cloud deployment. However, his company is able to deploy and manage software in the cloud at a substantial cost reduction. Deploying to the cloud also removes the responsibility for hardware acquisition and maintenance, which their customers now recognize as a strong benefit.

*"A lot of our international clients are still warming up to the cloud, but a 50% cost reduction in running and deploying in the cloud versus doing the same project on site is too shocking to ignore anymore."*

*"Our services to our customers sit on top of the cloud provider's infrastructure. The cloud provider must have impressive infrastructure, technology and an outstanding operational track record."*

*“While the previous cloud vendor’s infrastructure costs were half what they are today with our new vendor, the previous vendor required us to commit all the resources, software, and tools and provide services just to make it work. Our new vendor’s value, with infrastructure and services, is a better ROI both for the dollars and the resources.”*

## Software: Diary Entry 04



In this diary entry we spoke with a Product Manager at a well-known consumer and enterprise software company. The company recognized that their customers often prefer to have both the applications and tools hosted for them, rather than spend time and resources managing them on-premises. This saves hardware and maintenance costs and simplifies the experience while improving the ROI for their customers. They deployed on a commodity cloud, but soon realized that they were shouldering the entire burden for all cloud operations, which was expensive as well as diverting their focus away from delivering the best product for their customers. The result? Not only do they spend 50% less thanks to lower operational costs, they also regained their focus on customer experience.

### Move to the Cloud

Part of this company’s corporate strategy is dependent on the cloud offering of their software. Their customers could utilize technologies, tools and applications from the SaaS offering and then use a PaaS approach to integrate and deploy their own applications. This innovative offering is taking cloud based SaaS to the next level but also pushes the demand and expectations of the cloud infrastructure up several notches.

Initially they had deployed their solution on Amazon Web Services. However after two years, they realized that they still needed to provide everything for the  
*(continue next page)*

*“Our customers can utilize the product and services directly, or they can build their own applications on the platform and make web service calls to the SaaS.”*

### Move to the Cloud (cont.)

management and operation of that cloud. They had to buy, customize, and manage tools as well as hire full operational teams in a network operations center (NOC) to maintain high quality cloud operations. Through their ongoing commitment to their customers, they recognized that significant operational resources were being consumed for a cloud solution. The company wanted to focus on the software development and features, not running someone else's cloud infrastructure.

*"We realized that operating the cloud was just too costly from a resource standpoint. It was a strategic decision to look for a cloud provider that could offer more services and own the operation of the cloud infrastructure so we could focus on our software."*

### Cloud Requirements

The Product Manager bid out their requirements to several cloud providers. They looked for services to complete an end-to-end operation of the cloud, not only for their software to run on but to offer their clients a PaaS. These requirements formed the bid package:

1. VMware vCloud technology
2. Flexibility of server configuration such as CPU and Memory specifications
3. Easily manage and scale to 1,000s of virtual machines with Terabytes of storage
4. Upload the company's own virtual machine (VM) templates
5. Virtualized Load Balancer that the company can configure
6. Multi-tier cluster with the ability to mix and manage hybrid public/private clouds in a single cluster
7. Back up and restore services and technology
8. Security including intrusion detection, denial of service, encrypted back up, firewalls, and a secure tunnel for their access and control
9. Monitoring for both the SaaS and the PaaS
10. Compliance with ISO 2701, SAS 70 type 2
11. Multiple locations in the US and the ability to have a federated solution for Europe and Asia
12. Disaster recovery with a direct back up repository
13. 99.99% uptime SLA
14. A combination of reserved and pay-as-you-go price structure
15. Secure and stable APIs
16. Single tenant/multi-tenant choices for SaaS, PaaS and back up

### Solution

The company chose a vCloud Service Provider using VMware's vCloud technology through a rigorous selection process, and was impressed with their service, customer service and technical ability. The company has the capacity to run thousands of VMs in various configurations of public or private clouds as well as single and multi-tenancy. They also have full control of their public cloud from their facility. Their utilization of VMware allows them to create templates and then deploy them quickly and consistently worldwide.

*"We found a vendor, (a vCloud Service Provider), that is a cut above them all. They provide all the requirements we need and are working on a few more we want. They continue to impress us on all levels."*

### ROI

The bottom-line costs are impressive and they noted several other areas that were strategic as well as delivering valuable ROI:

- Faster time to market
- Ability to deploy in a new location in hours not months
- Business options in the future because of the portability of the VMs

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*"Our costs today are 50% of what they were with our previous cloud commodity vendor."*

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*"We can be up and running in a few hours on a new cloud in a different country with VMware's virtualization technology. That used to take six months."*

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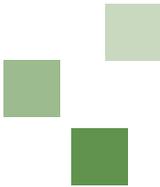


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*"We had operated a cloud for years and knew what we wanted. We needed a reliable and secure infrastructure based on vCloud and services to fill in the operational gaps. We are focused on our software and even more so on our clients who choose the PaaS in addition to the SaaS."*

*“Cost reduction is a key benefit of our operation in the cloud. We are at ½ to ⅓ of what our costs would be like if we had a more traditional deployment.”*

## Software: Diary Entry 05



We interviewed the CIO of a young gaming company that provides social and gambling games. They needed scalable infrastructure that can cope with large changes in demand, driven by a substantial increase in users over the weekends. Additionally, related news events and tournaments can dynamically raise the demand for short periods of time for particular games. The CIO went on to say that gambling regulations also require a prescriptive approach for activity tracking and security controls.

### Move to the Cloud

Given the dynamic nature of the company's operation, the cloud provides a natural choice. With a cloud solution they can instantly bring up new virtual machine instances to handle increased load. From the beginning, the CIO has driven the company to a 100% cloud approach, such that they

don't have a single server or development box in their building. In order to meet gaming regulations requirements, they currently use two cloud providers. One is for the games and the second is for the rest of their IT system.

### Cloud Requirements

The need for security dominated their cloud requirements. The gambling regulations board is fairly stringent and compliance mandated a number of technical requirements, and also impacted where the servers were physically located. The company sought VMware vCloud technology stating it was the most secure of all the virtualization software. In addition, the company had a need for control that allowed them to change software and algorithms for initiating new capacity.

*“One aspect of the VMware vCloud technology I really liked is the ability to control my exposure, and how much it operates like a public cloud and how I can protect the rest as a private cloud behind it.”*

### Solution

They are currently deployed at a vCloud Service Provider powered with VMware’s vCloud technology. Their cloud solution can instantly scale up for surges in gaming. They are running a SQL server in the back end, and a combination of virtual and physical security devices and software to protect the system.

*“The (vCloud Service Provider) solution works so well, I don’t know how many physical boxes we are using and I really don’t care. If I had to know that information, there would be a problem with the whole cloud approach.”*

### ROI

The CIO often cited costs as the chief benefit of the cloud choice. That was quickly followed by the following benefits:

- High level security controls to meet requirements
- Freedom from hardware purchases, updates, replacements and provisioning
- Reliability and availability of the gaming platforms
- Control of the infrastructure and operation

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*“(The vCloud Service Provider) has been a great and good partner, and provides a seamless operation.”*

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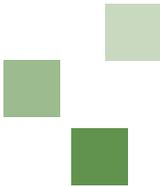


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*“It is our strategy to have a 100% cloud operation. It saves our company from having all the hardware headaches.”*

*“I was pleased our business was growing but investing more personnel and direct management of the infrastructure seemed misplaced. I wanted to see whether the benefits of the cloud were real and if they were applicable to our business model.”*

## Software: Diary Entry 06



This company focuses on providing ‘green’ information to environmentally aware corporations. The company tracks carbon footprint, water consumption, energy utilization and other metrics, both on a square foot and per employee basis. Their software computes, tracks and compares key metrics against industry targets. They offer this software as an onsite installation and as a Software as a Service (SaaS) model.

### Move to the Cloud

The founder and CIO shared that initially most customers wanted the data local; hosted software was less common. However, a majority of customers are actively looking for cost savings. More importantly they want their IT teams to focus on their core business and the operations that support them. As important as environmental stewardship is to some customers, they realized it was not their core business and their IT teams could be better utilized elsewhere. This began driving customers to select a hosted model.

The change in customers’ preference meant the company needed to grow their datacenter to meet the escalating business demands. Historically the datacenter was hosted at a third-party site, but their team operated it. The company, like their customers, sought the best growth strategy, which resulted in lower costs and minimal impact to the company’s IT team. They looked to hosted public cloud providers to determine whether their needs might be satisfied technically and economically.

### Cloud Requirements

The founder explained that their requirements were fairly predictable because their company had hosting experience. They sought a provider with a full service offering, including hardware management, operations, upgrades, monitoring, and SLA tracking. Most of all, the offering had to be less costly than their current solution.

He further explained that they required some customization ability if the situation warranted it, such as expanding memory on the servers. They also required various storage solutions, including backing up of data stored on the cloud to their own servers. The company evaluated what service level agreements cloud providers would commit to and reviewed twelve months of operational records to ensure the provider could meet the SLAs. They also wanted the cloud provider to use VMware technology because they had used it for years. They knew it was stable and would allow them to update and patch their own SaaS software without issue.

### Solution

The company discovered that their current hosting provider, a vCloud Service Provider powered with VMware's vCloud, also offered cloud solutions. The company researched and invited several providers to bid on their project. A thorough analysis indicated that their vCloud Service Provider remained their top choice. The vCloud Service Provider provides a mix of dedicated and multi-tenant servers to provide the reliability and backup options the company wanted with a solid cost savings.

*"Blindly staying at the vCloud Service Provider powered with VMware's vCloud might have been easy but it would not have been the right business decision. However, our evaluation process found our vCloud Service Provider to be the clear winner. So we get to maintain the relationship we have been so happy with and we know we have the best solution for our needs."*

### ROI

The founder explained that they make their margins on the software and services and pass through the infrastructure costs. This allows them to be extremely competitive from a cost perspective. Another benefit of the cloud solution is he can keep all the software up to date, which results in much happier customers. He cited these additional business benefits:

- Cheaper option than using his team to operate a hosted datacenter
- Increased focus on feature creation and client services
- Reduced headache about hardware purchases, maintenance and accounting

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*"One of the truly annoying things about software is your customers don't have the time or resources to upgrade to the latest versions that include new features they asked for. Getting customers on the SaaS option fixes that and saves them time and resources. It is really that win-win we hear about."*

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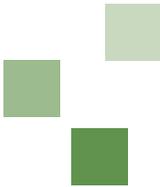


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*"I asked for operational records to see if they could meet the SLAs. If they didn't blink when I asked, I knew they were a capable provider. Only teams who are in control, track and manage that information constantly and can produce a report in minutes. That was the type of company we were looking for."*

*“We needed a bigger test bed and we could have either added to our current infrastructure or created a flexible augmentation to our lab. We really wanted a cheaper solution without the hardware purchases, but we didn’t want the setup and operational considerations.”*

## Software: Diary Entry 07



This software company produces digital video transcoding and workflow solutions from desktop video production to network broadcasting. The development and production of the software requires the use of large and complex files as well as running the software on numerous types of computers. The director of quality assurance shared that testing and quality is a huge part of ensuring their software delivers the video streams expected by their customers.

### Move to the Cloud

The nature and volume of the tests vary significantly based on the product they are testing. They have an in-house test lab that leverages VMware for configuring various tests. However with HD video popularity on the rise and test overlap of several products, the in-house infrastructure was not enough to meet the demands.

They originally considered building a larger internal test bed, but knew its use would be sporadic. They also recently acquired another company with testers that are geographically disbursed. It made sense to look at a hosted test bed for remote access and determine if a cloud solution would provide additional benefits.

### Cloud Requirements

The director stated that the ability to configure the test bed was critical to replicate the types of systems their customers would install their software on. System configurations ranged from a simple desktop computer to enterprise bladed, multi-core servers. They needed fine-grained control over the processors, the amount of memory, and storage available for each configuration. In addition to this flexibility, they needed it to be cheaper than buying it themselves. Internal maintenance and operation costs were low since the test lab was not a customer-facing application and testers only use and maintain it when necessary. This low operational cost made it hard for a cloud solution to provide a lower price tag.

*“We had atypical requirements and were not sure if a cloud provider could meet them. If they did, we started to doubt it would be cost effective.”*

### Solution

The company looked at a few vendors. Most vendors classified or priced virtual machines in tiers, with each subsequent tier adding more CPUs, increased memory and greater storage. As a result, the price increased for each tier. The company required the ability to mix and match CPUs, memory and storage to meet individual test conditions. By contrast, the vCloud Service Provider powered with VMware’s vCloud offered the solution they were looking for. The vCloud Service Provider charged the company for what they used and the company could mix and match attributes. The company also found that in using VMware’s vCloud, they have more control than what they had expected, right down to the ability to configure the hardware resources for each virtual machine.

### ROI

With remote testing teams, multiple products, and stringent testing requirements, the director said the public cloud solution with the vCloud Service Provider was absolutely a success. He said having the cloud solution gives him significant flexibility for the future and delivers these benefits:

- No need to buy, and therefore justify, additional hardware
- His team is not maintaining or patching hardware
- Opportunity for collaborative testing

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*“We are definitely saving money over buying our own hardware. But the flexibility is a bigger business advantage than the money.”*

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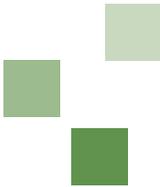


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*“The UI for vCloud is awesome. We can do everything we want and configure the right test bed remotely. Then the vCloud Service Provider just bills us for what we used.”*

*“We want to make it easy on the mid-market financial firms to use our software and a SaaS solution fits that objective. In fact, a few recent tenders are explicitly asking for SaaS offering.”*

## Software: Diary Entry 08



This European company provides software to financial institutions for the calculation, automation, and distribution of transfers, fees, and sales commissions. They have primarily focused on very large companies with a European customer base and operations. However working with clients in different countries as well as customers whose business spans several countries creates tremendous pressure and complexity to meet and maintain numerous regulatory and compliance requirements.

### Move to the Cloud

We spoke with the manager of IT who is responsible for all aspects of the IT system, both internal and external. He shared that their software is currently deployed on-premise as their current clientele utilize internal data centers. However they now want to offer products and services to the mid-sized financial

institutions that do not always have the internal infrastructure or operational skill sets that large institutions possess. This has motivated the software company to develop and pilot a Software as a Service (SaaS) version of their software running on a private cloud in order to capture this market opportunity.

### Cloud Requirements

The company performed technical reviews of several public cloud providers utilizing VMware vCloud technology. The vCloud Service Provider powered with VMware's vCloud has emerged as the leading company not only for meeting the requirements but also for providing a service to several mutual customers which further validates their reputation in the financial industry.

When asked what specific technical public cloud requirements they had, they shared the following:

- Remote replication for disaster recovery with automated daily backup to a second location more than 20km away
- Long list of security requirements including country specific compliance and certification adherences
- VMware technology as the internal system since their private cloud already used VMware
- Site-to-site network resiliency and backup with encryption

### Solution

The software company is using the public cloud in two locations. One is the primary production SaaS deployment. The second location provides the remote replication for backup as well as the development, testing and staging environment. The primary location has about 10 virtual machines serving the SaaS while the second location has about twice that.

*"Thus far every requirement has been met by the vCloud Service Provider. We are going live next year with a couple of pilot customers and we are very confident."*

### ROI

The IT manager has been using cloud technology for years and now runs a majority of their internal systems on a private cloud. His private cloud experience has been a tremendous success in delivering substantial business value to the company. He shared the benefits of cloud deployments as the following:

- Flexibility to change hardware and software at any time to meet business and customer needs
- Reduced upfront costs
- Increased scalability with only hours to acquire more capacity
- Reduced costs for both hardware as well as operational staff

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*"The remote replication was the biggest requirement for us. It is absolutely imperative that we meet the regulatory requirements here in the European Union."*

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*"We moved to private cloud a couple of years ago and saved money and increased flexibility. We expect more of the same benefits by deploying our new SaaS offering on a public cloud."*

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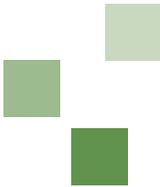


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*"It is impossible at the early stages of a customer engagement to know what hardware we will ultimately need. A cloud solution allows us to change and scale with the customer over a couple of years while being more profitable and offering a lower cost solution to our customers."*

*“The technical team at the vCloud Service Provider is excellent. Their operational habits and focus are directly in line with what we need. Their team and technology will help us make our offering quite strong. This makes for a strong trusting relationship.”*

## Software: Diary Entry 09



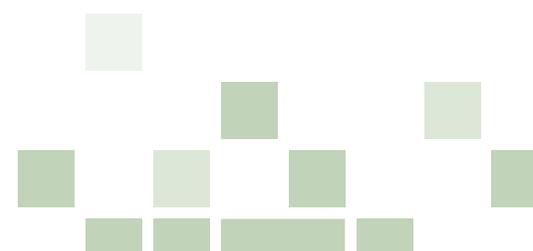
This new cloud services startup is creating global public cloud offerings and manages it through their own software. The CTO explained that their offering will allow their clients to deploy internal employee applications or customer facing applications globally from a central console. For this powerful solution to reach its full potential, they rely on key infrastructure providers that meet their strict criteria on operational practices and key technology requirements. Through their technology they provide a unified secure global cloud offering while the background is comprised of several Infrastructure as a Service (IaaS) providers.

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### Move to the Cloud

The CTO explained that their entire business model is offering cloud services to their clients which dictate that they use the cloud for their own business applications. He further explained that both the cloud and virtualization technology as well as service providers have matured rapidly over the last two years thereby accelerating the move to the

cloud. He asserted there are real business value gains with exceptionally low risk. He said that while many companies have started a cloud strategy, the ability to deploy or update applications on a global scale with a few mouse clicks will mature the full vision of the cloud's power.



### Cloud Requirements

The global services company must meet all the requirements of their clientele while operating on top of other service providers' infrastructure. The CTO shared the following list cloud requirements they had for selecting their IaaS partners:

- VMware utilization for cloud control and virtualization
- Physical and virtual security at the highest level
- Local and geographically disbursed backup and disaster recovery
- Remote provisioning and management of the cloud
- The ability to use their proprietary software for dynamic scaling and elasticity
- Data residency control for regulatory compliance

*"Our solutions must be tailored for each kind of client to meet not only their direct operational requirements but regulatory compliance issues. One large requirement is to know exactly where their data is at all times."*

### Vendor Selection

The company selected the vCloud Service Provider powered with VMware's vCloud for their European infrastructure provider. The CTO stated that the vCloud Service Provider has a strong European infrastructure which enables offering of multiple physical locations in most European countries. This gives them and their clients many options for performance, resiliency and recovery. The vCloud Service Provider utilizes VMware's vCloud solution as well as other VMware products which was a key requirement for their global management software. He went on to say the technical staff at the vCloud Service Provider was bright, responsive, dedicated and had a lot of cloud and virtualization experience.

### Solution

The solution is highly dynamic. The company's relationships and direct access to the infrastructure to deploy and provision at any time allow them to meet their clients' needs, which in turn drive the company's needs. They are managing a global cloud solution for each of their clients with a proprietary solution that employs VMware technology for the deployment, operation and dynamic provisioning of applications and infrastructure in the cloud.

*"We need speed and flexibility from our IaaS partners and it needs to work seamlessly. Neither we nor our client should ever notice which data center we are on."*

### ROI

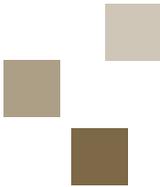
The CTO shared that he expects the benefits and ROI to vary from one company to the next and that the industry they serve can play a key role. He noted young and small clients realize savings in initial capital expenditure and acquire immediate access to experienced resources. Financial institutions can have better reach to their clients with fast access and provide superior data security and backup. He commented that a lot of industries will benefit from just focusing on their core business and not investing valuable cycles on IT decisions and operations.

*"The cloud hype is dying away and the definition of what the cloud is and its benefits is becoming clearer in the market. Our clients desire a variety of business advantages offered by the cloud, but the ability to roll out an application globally from a central console in a couple minutes is very powerful."*

*"We, as do our clients, pursue the cloud for all the common benefits: Savings, flexibility, security and disaster recovery."*

*“We were looking for an experienced VMware solution provider, who would work with us and our datacenter vendor to build a hybrid cloud over time.”*

## Transportation: Diary Entry 01

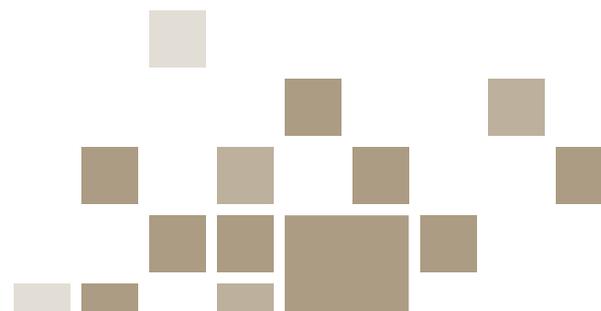


This 200+ year old railroad company transports freight, raw material and passengers throughout North America. Because the transportation industry has become commodities-based, this company manages its cargo on thin profit margins. Their business profit is made by focusing on efficient cargo management and rail network operations.

### Move to the Cloud

The strategic director of IT informed us that years ago the rail company had decided to outsource IT, which included datacenter operations, software development and testing, and desktop deployment and support. Their on-premise datacenters are run by a lethargic third party which takes anywhere from weeks to months for the simplest of changes. With the growing

acceptance of cloud solutions, the strategic director noted that moving to the cloud could provide several business opportunities: Increased agility, lower costs, improved customer experience and increased operational efficiencies. The company would begin its cloud vision with a custom application that tracks every item of cargo.



### Cloud Requirements

While cloud solutions offer tremendous benefits, the railroad company must continue to utilize their internally managed datacenter. The company's cloud vision starts with short term cloud projects that can initially deliver value but must eventually operate as a hybrid cloud. Even though their datacenter is slow to adapt to business change, it already uses virtualization which has influenced their key cloud requirements:

- VMware software to simplify hybrid cloud operations
- Lower operational costs
- SAS 70 and PCI compliant environments
- Disaster recovery back to the company's datacenter
- Platform for new customer facing applications

### Solution

The strategic director initially evaluated Amazon's EC2, but found that those commodity services did not meet their requirements and resulted in prices higher than expected. He indicated that Amazon used a second rate virtualization technology. The company then looked at full-service public cloud providers, and selected a vCloud Service Provider based in Indianapolis for an initial pilot project. Thus far, the pilot is a success, producing cost savings, backup capabilities, new customer applications, and outstanding business flexibility.

### ROI

The cost savings are significant when comparing an outsourced model costing \$2.38/VM-Hr to Amazon EC2, which yielded a \$0.58/VM-Hr metric. However using the vCloud Service Provider's public cloud solution, the rail company improved that even more by operating at \$0.07 - \$0.08/VM-Hr. That metric translates to a 97% cost savings by moving to a cloud solution that requires little resource investment. It allows end customers to access modern technology for their shipping needs while increasing operational efficiencies with reduced costs.

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*"FedEx and UPS have changed the perception of shipping. Customers want an application that they can use to schedule shipping and track their cargo in real time, even if it is 50 metric tons of coking coal. The need to deliver new solutions and lower our shipping costs encouraged us to consider potential cloud solutions."*

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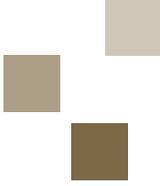


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*"I would say a going from \$2.38/Virtual Machine (VM)-Hr. to 0.08/VM-Hr., having happier customers and more efficient rail operations are runaway successes. Pun intended."*

*“VMware was a key part of the technology mix. We see them as a leader and innovator in the cloud space.”*

## Transportation: Diary Entry 02



This global company manufactures high tech devices and equipment for both consumers and enterprises. I spoke with the director of technology who shared that their growing worldwide operations were putting a strain on the traditional design and operation of their datacenters. Employees are increasingly more mobile with greater geographical distribution which makes secure access challenging. The datacenters facilitate business transactions for enterprise customers and resellers as well as for employee applications and services. In addition, their datacenters store product design and production information making data security a top concern.

---

### Move to the Cloud

The director of technology shared that his strategy started with moving much of the employee applications and services to a cloud solution. This increased accessibility and performance for their users without sacrificing security. His plan called for two

datacenters in each region, one run by the company and one run by a cloud provider. This implementation created more cost effective disaster recovery solutions for the applications that hosted employees located in North America, Europe and Asia.

### Cloud Requirements

The company requirements were bounded by the need for a global operations and ability to operate in a hybrid model. The following were the key requirements used for cloud service provider selection:

- VMware technology for hybrid cloud operations
- Data security with encryption at rest and in flight
- Ability to support HIPAA, FISMA, PCI and SOX compliance requirements
- SAS 70 / SSAE Type II / SSAE Type 16 certified operations
- Dedicated private trunk lines
- Ability to resell and repackage services as a PaaS
- Automated backup and disaster recovery

The company selected a global vCloud Service Provider with existing infrastructure and operations in North America, Europe and Asia. In addition the service provider offers operational choices for both single-tenant and multi-tenant that will enable them to cost effectively grow the number of applications and offerings in the cloud.

### Solution

The solution consists of nearly a hundred physical servers in each location, each running ten to fifteen virtual machines. This results in 2000-3000 VMs running at any one time. Most physical machines are dedicated but they have up 20% that can spin down or up based on load which provides financial savings. Some of the key employee applications like email and backup is in a single-tenant deployment. But there are other tools and information that are on a multi-tenant infrastructure to save costs.

*"I have no concern about the security of the application on the cloud. They are operating at a higher level than when we ran them internally."*

### ROI

The company believes this was a true win-win scenario. They have reduced operation costs, reduced risk with better backup and recovery, and provided better services to their end users. In addition, they now have an opportunity to create and offer new services to their key enterprise customers.

*"I expect a 35% reduction in costs over the next five years. It is a substantial amount of money."*

---

*"The natural progression and evolution of business is making the concept of single physical regional datacenter obsolete."*

*"We spent a lot of time processing backup and disaster recovery to datacenters around the globe. That also required us to buy, maintain, and patch servers. In the event of an emergency and with pay-for-use models, that seemed like a waste of money."*

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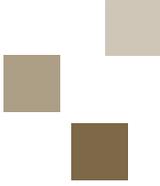


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*"The solution is robust, providing better backup and end user speed than we had previously."*

*“We can now get a service to market 55% faster and 20% cheaper.”*

## Transportation: Diary Entry 03



This North American company delivers packages and letters globally to both residential and commercial customers. The senior vice president (SVP) of IT shared that while trucks and offices represent the most visible operating infrastructure, the company’s profitability is increasingly being determined by the efficiency of IT operations. The IT system manages the distribution logistics and the customer interface of their business.

---

### Move to the Cloud

A number of internal drivers, such as improving efficiency, reducing waste and growing market share, motivated the company to improve their IT business. The executives relentlessly prioritized reducing the time to market for new services and improving the company image in all customer

facing channels. After researching public cloud advantages, the company believed that they could gain economies of scale generating cost savings and accelerate the time to market for new services. The public cloud solution is operated in conjunction with their existing datacenters.

### Cloud Requirements

The company requirements were driven not only by internal objectives but by a number of regulatory requirements and international laws. The following were the key requirements used for the selection of cloud service provider:

- VMware technology for consistency with internal datacenters
- Security with daily reporting
- Reporting to support PCI and SOX compliance requirements
- Hourly data backup to internal data centers
- Remote application management via secure private connections
- Two hour response to scale business needs
- Specified geographical data storage locations with reporting

The operation of the cloud-based applications will be independent of the internal datacenter but information must flow back to the company-run datacenters for operation execution and backup.

*“Security, performance, VMware and price drove the public cloud service provider selection process.”*

### Solution

The company now has a complement of five datacenters, three operated internally and two run by their VMware Service Provider partner. Cloud-based datacenters run forty physical machines during peak use but can throttle down to just fifteen machines during off peak hours. Each physical machine runs about ten virtual machines driven by usage demands and end user use models. A majority of the customer facing applications now run on the cloud infrastructure, increasing application performance and dynamic scalability. In addition, mobile employee and customer service also use the cloud for package tracking and customer assistance.

### ROI

The public cloud is helping the shipping company scale, reduce costs, and get to market faster. Historically they had to go through a lengthy process to forecast new business in order to receive internal approval to purchase new hardware. With the cloud, after deciding to offer a new service, the hardware approval process is no longer needed. The SVP further revealed that customer satisfaction is on the rise, indicating that the migration to the public cloud is meeting another key business objective.

*“Once the decision to offer the service is made, we can grow and scale with business demand. There are fewer internal headaches and we can focus on efficient operations and happy customers.”*

---

*“While our business is old, nothing in how we run it is.”*

*“Our model is complicated. Customer facing applications run independently but export data to our internal datacenter for operations. This made it initially challenging to operate both a private and a public cloud. We use VMware to test and validate the entire business process. We also use VMware to manage the deployment of our updated software onto the public cloud. I think our use model proves a public cloud can deliver real benefits in the most demanding operational scenario.”*

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*“IT is critical to our business but we don’t need to buy and operate every box to hit our objectives.”*

To find more information on vCloud Service Providers, visit:  
[vcloud.vmware.com](http://vcloud.vmware.com)

To read more Public Cloud Diary Entries, visit:  
[vmware.com/go/PublicHybridCloud](http://vmware.com/go/PublicHybridCloud)

Cloud Customer Testimonials:  
[vmware.com/cloud-computing/another-vmware-cloud](http://vmware.com/cloud-computing/another-vmware-cloud)

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