

Choice Case Study

DC Infrastructure Solution Integration – Phase 1 & Phase 2 For IVY Comptech

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Project Background

IVY Comptech, a Hyderabad based BPO has successfully established itself as one of the world's most popular gaming companies. Its the subsidiary of Party Gaming that started its operation in Gibraltar and soon expanded to US, Europe and Asia Pacific with revenues up to 7 billion in a span of three years.

To complement their services the company outsourced its activities to IVY Comptech for software development, BPO, tech support and R&D. Due to the intensity of these products, IVY always deployed best of breed machines for server, power, network, etc. As the business grew IVY was compelled to build a state-of-the-art datacenter to host all the applications and due to this reason they moved out from a small office of 20000 Sqft to one with 11 lakh Sqft.

Project Challenge

IVY required a DC with around 1100 Sqft to host 22 racks. The need for computing power was far more than estimated, as the core development was rich graphic oriented. Further they required very robust network architecture to support high availability and fault tolerant system. But the actual challenge was to come up with an optimized solution to build a datacenter in such a limited space and also to accommodate all the requirements.

IVY was looking for some suitable vendors and Choice Solutions Ltd. was already a preferred vendor for power and software products and solutions. Moreover, the expertise of Choice Solutions Ltd. to handle complex DC projects came in handy for presenting the methodology of the CSL which is Assess→ Design→ Deploy→ Manage. IVY was impressed with the CSL profile, consultants profile and the way the company could understand the business objectives and can put them in to practice through technology implementation.

As the site was already decided our Assessment team jumped on the site to study the physical location of DC area, premises, the floor above and below, the DC floor, the power availability for total premises, the availability of alternative backup, etc. The team made few changes which resulted in partly modifying the construction done (partly) in the datacenter.

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Based on the Assessment team's feedback the IT and FM designing consultants started engaging with the customers, IT and facilities teams of IVY. IT consultants derived the required inputs from the client in terms of the number of internal and external users, total number of offices to connect, application to host, and data bases to manage, etc. The challenge was to arrive at a very high computing power to support intense graphic product development. We subsequently zeroed on the blade computing with Cisco layer 4 switching and a scalable storage solution using SAN.

As the above inputs were being fed to the FM design consultants, simultaneously they also started discussing with the facilities teams in IVY to arrive at the total power required, the required KW from the state electricity board, placement of transformers, alternative backup power required and the HVACs requirement for the total facility.

Choice Role and Solution

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The design created by CSL was to deploy the entire h/w required in 19 racks (against 22 racks the client wanted to host) with most highly available modular power solution that can upgrade when the demand grows. The PAC design was based on the hot aisle and cold aisle concept which could successfully eliminate the hot spots issue and also take care of high density deployment.

The design was pointed to the customer who then signed off the design. Then it came with an army of implementation specialists.

Implementations

The team of project manager includes implementation engineers; system engineers; liaisoning managers and domain experts in server, storage, networking, power and cooling. The project plan was derived but the client had apprehension about the speed with which we could deploy the entire DC in the stipulated time. To the best of all, CSL kicked the DC live with 3 days to spare. The total lifecycle for the above project was 97 days.

Assessment study resulted in small changes to the construction which improved the security aspect and the aesthetics for the DC multifold. The check list provided was just near to 94% perfect for the overall planning.

Design and Deployment

To design such a high density environment in a limited space was the biggest success of the entire project. The understanding and deployment of blade computing on the IT side, and introducing of innovative power and power distribution inside the DC eliminated the single point of failure which led to highly available power structure. The uptime here was 2 (N+1) which guarantees 99.999% of availability.

PHASE – II: Consolidation and Optimization of DC

In spite of all the planning, within a year IVY Comptech ran out of the space for more racks and reached a threshold on power and cooling requirements. In fact they required more space of around 3500 sqft with more than 100 racks and equivalent power and cooling consumption to support. Here we are talking of more than a 1000 server to start with.

This was the time when CSL introduced VMWare software to IVY. After initial discussions IVY deployed VMWare evaluation software on their servers and tested for a month. The results were amazing. IVY did not have to compromise on any of the parameters like computing power, performance of server, CPU utilization and memory utilization. In fact they saved tremendously on the number of physical servers that were required. Hence IVY standardized VMWare as their virtualization software and today uses more than 2000 virtual servers on 200 physical servers.

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Key Solution Components

- i. Adaptable and Modular Infrastructure Datacenter solution including modular power availability, modular power distribution, rack based manageable power distribution (APC ISX solutions)
- ii. VMware Enterprise license software agreement for 2 years with following components: VMware Virtual Infrastructure 3 Enterprise Edition Software (comprises of VMware ESX Server, Virtual SMP, Virtual Center Agent, VMotion, VMware DRS, VMware HA, and VMware Consolidated Backup.)
- iii. EMC storage solution CX 300 clarion series

Client Benefits

The benefits include real estate space savings, at a premium location like Jubilee Hills. IVY saved more than Rs.1 lakh/month just on space. Capital expenditure for acquiring additional infrastructure was completely saved. Apart from this, there was also considerable amount of OPEX saving on maintenance, power consumption, and allied DC components. In short, IVY would have saved around 1 Million USD on capex and opex costs as a result of VMware solutions recommended by CSL. This is also a great place to write about employee activities, such as the employee picnic or holiday party. You can also promote employee social groups, such as a book club.

About Choice Solutions

Established in 1991 Choice Solutions Ltd. is a leading IT and Facilities solutions provider. Choice Solutions Ltd. business comprises of Six different practices, namely

IMS

- Desktop, Server, Network, Storage, Support, OS, Assets, Apps, Non IT
- Hardware - A-Add, M-Modify, I-Install, C-Change, R-Repair
- Assets, Security, Software Distribution, Upgrades

Networking

- Packaged Services Monitoring & Management
- Products, Security, Design, Deploy, Maintain
- Auditing & Compliance, SOC

Datacenter

- DC Audit, Monitor & Manage, Training
- Assess, Design, Built, Deploy, Disaster Recovery

Consulting

- Business Consulting, CIO & Technology Services, Physical Security, Power Devices, IT Consulting
- DC Consulting, ERP, CRM & Custom Apps

Cloud Computing

- Cold Site – Backup, Disaster Recovery
- Hot Site – HaaS, Software, Manage
- Public Cloud, Private Cloud, Hybrid Cloud
- CaaS, License Software, IaaS
- Disaster Recovery

Power

- Power Audit, Equipment Management
- Physical Security, Power Devices
- Power Saving Devices
- Design & Audit
- Renewable Energy Products