



Advanticom Case Study Data Center and Converged Network

One of the largest bank rollouts in US history is about to take place. They know their mission, have raised \$85 million, have their executive team, an engaging new office and a business plan that is going to shake the foundations of the industry. Now they need the infrastructure to rollout an almost completely virtual bank with multiple remote offices, a fully converged network for voice, video, internet and data, and a complete data center.

Project Overview

TriState Capital Bank is as revolutionary to their industry as Cisco was to networking. The bank will be branchless. It will focus on a very specific target market. It will deliver a mix of products and services that no other bank can. It will operate with enormous technological capacity and complexity as a means of creating as simple and as customized a relationship as one can imagine for their clients.

The bank will be led by some of the most respected names in US banking. They have raised \$85 million so far, and by the time they are done, they may be the largest bank rollout in US history.

Their goal is to utilize better people, better practices, and better technology to make banking relationships critical strategic solutions to their client needs.

Advanticom has previously worked with executives of the bank on prior projects. Due to the success of those projects, Advanticom is invited in as a strategic partner to assist in the design of much of the technology that will be implemented. Advanticom is tasked with full responsibility of the data center, network architecture, and the telephone system and is asked to provide consulting on the cabling, circuits and other components of the network.

The project begins with an analysis of needs to determine all necessary applications that will reside on the network and the amount of resources necessary to serve employees, vendors, clients and other stakeholders. An initial solution is developed that will provide a Cisco secured infrastructure, HP hardware, Microsoft based LAN, and support for the industry specific FiServe applications.

First Phase - Design of Environment

Because TriState is a startup, very basic decisions about room size and power still need addressed. We begin by determining the total amount of servers that will be needed. We review the 3 year business plan of the bank to determine the number of employees that will be in the facility, and the scale of the organization at 36 months. Best practices within the industry are used to calculate the processing capacity necessary at the outset and through the 36 month horizon.

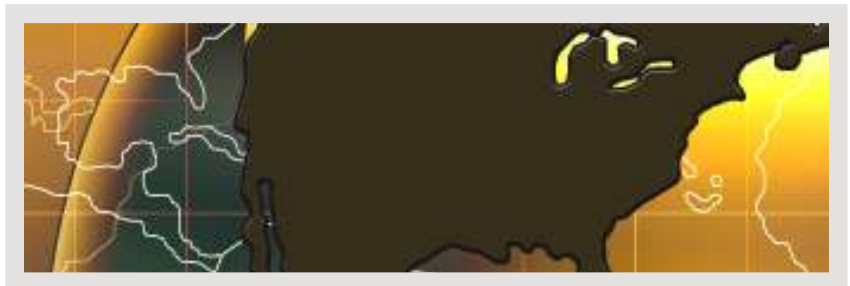
The organization could follow a myriad of growth trajectories. We determine that it will be imprudent to design the data center for the full ten years of the office lease at the corporate facility. The center would require too much space, and therefore provisioning relative to the other needs of the organization is not justified. The best solution will be to ensure that the data center is adequate for the first 36 months, and if the business success at that time requires a larger facility; relocation (co-location) would be options.

We consider all other applications that will attach to the network including the telephone system, security and access control, video and security cameras, mobile utilities, and remote support of the other offices. This determines the capacity and requirements of the switching architecture, and a rough number of servers which delivers an estimate of the racking, power and grounding, and HVAC needs of the center. The HVAC and racking needs determine the physical foot print and floor loading needs of the data center.

This ground up approach provides answers to the architectural and building engineering decisions that need to be made. We deliver to the client and the architect a complete data center solution with fully defined needs (size, power, grounding, backup, HVAC, floor load, access, location, cabling, internal design). It is determined that the building cannot support the floor load and power without significant augmentation. It becomes critical for us to work with the architect and building engineers to find solutions to these issues.

Second Phase – Cost vs Benefit

Our initial solution is for a set of clusters for critical applications and load balanced servers for high demand but second priority applications. They will all be managed by Microsoft Operations Manager (MOM). An HP SAN will backup the entirety of the network. We develop a draft proposal with all costs including installation and on-going support. It is determined that the cost is beyond budget.



Real World Considerations

While it would have been great for everyone to not be constrained with human and capital resource constraints, it is not realistic. The first pass came in 70% over budget. Cooperatively, the client and the engineers had to find a solution.

The group analyzes the cost drivers of the project and segment by costs by priority. We identify lower cost

alternatives by category. We need to answer the questions of how pervasive clustering needs to be and might a smaller SAN or tape library be a cost effective alternative. Can the number of servers be consolidated? Do we need every capability offered by the unified communication system? Do we need a full-blown Cisco Meeting Place solution, or can Advanticom enable the bank to start by using Advanticom's MP Server on a pay as you go approach? What components can be added as the business ramped up?

By looking at the incremental cost/benefit analysis of each network component, we are able to develop a solution that minimizes sunk costs during expansion, and ties investment in infrastructure to the scale of the organization.

As a result, we lower costs across the board including operational and support costs. This simplifies both the technology rollout and the training of new staff.

The plan is approved and project management begins. Advanticom PM's and engineers work with the architect and construction managers to meet deadlines. TSCB personnel are included in the project management and installation of the phone system, active directory, individual servers, and the security design.

The project finishes on time and on budget.

Results

- The move was seamlessly project managed.
- All systems were functional ahead of schedule.
- The project cost came in on budget for the technology components.
- TriState Capital Bank hit the ground running. The dinosaurs better watch out.