



# ACCELERATING INFRASTRUCTURE TRANSFORMATION IN REGULATED INDUSTRIES

WHITE PAPER - 2020

## TABLE OF CONTENTS

Introduction.....	3
Case Study – Oil & Gas Company.....	4
Case Study – Real Estate Investment.....	7
Case Study – Financial Services Provider.....	9
Case Study – Life Insurance Firm.....	12
Conclusion.....	14



## INTRODUCTION

An infrastructure transformation can be fraught with challenges, but highly regulated industries, such as financial services, healthcare, and energy, must take extra care to ensure their data access and storage is compliant and all changes maintain strict standards. As a result of these challenges, many organizations view infrastructure transformation with trepidation. Virtualization and modernization is necessary, but how long will the effort take? What will it cost? How can we ensure our data is compliant throughout? Will it even be successful? When 70% of IT change efforts fail, these concerns are understandable.

In this white paper, you will get real-life examples of how Data Canopy clients in industries, such as financial services and oil and gas, have transformed their IT environment by leveraging hybrid infrastructure, disaster recovery as a service (DRaaS), colocation data center hosting, and custom cloud deployments. Highlighted within each is the time and expense saved by leveraging these custom solutions to ensure that the modernization and virtualization efforts are efficiently executed, cost-effective, and – most importantly – successful.

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"Why do most transformations fail? A conversation with Harry Robinson," McKinsey & Company  
(<https://www.mckinsey.com/business-functions/transformation/our-insights/why-do-most-transformations-fail-a-conversation-with-harry-robinson>)

## CASE STUDY – OIL & GAS COMPANY

### CHALLENGE

An Oil and Gas production and process equipment company was introduced to Data Canopy to address their IT and storage issues as along with external hosting requirements for their environment.

The challenges presented to Data Canopy included requirements for:

- A solution to centrally store data that was previously hosted across several locations within different offices and managed by different vendors.
- A static cost rather than a bill that changed monthly
- A clear SOW on the migration of their ERP system and associated data with strict timelines.
- A robust disaster recovery and business continuity solution.
- A strict budget of under \$10,000/month.



## CASE STUDY – OIL & GAS COMPANY

### SOLUTION

Data Canopy was introduced to review the Oil and Gas company's IT infrastructure and develop a strategic, cost-conscious solution.

Several other vendors had already developed a solution and landed in the range of \$14.5K and \$17K per month with a significant capital expense for hardware required. Data Canopy was introduced to review the Oil and Gas company's IT infrastructure and develop a strategic, cost-conscious solution.

Data Canopy consulted with the company and performed a deep-dive analysis of the disparate locations and IT infrastructure, including the virtual machines and ERP environment.

Data Canopy presented a solution that would leverage a data-freeze period over a weekend to migrate the data for each location and begin live-backups and disaster recovery for each environment.

To reduce backup times, sites with lower bandwidth availability were able to upload local data to a NAS device and ship that device to the data center housing the cloud infrastructure for quick upload of the required data.

As each environment came online, all infrastructure was hosted within the same VMware environment with a live, geographically redundant DR solution that utilized Veeam replication.

In keeping with the client's requirement to pay per resource (CPU and RAM) as it increased in capacity for specific VMs, Data Canopy was able to provide a solution that allowed for 25% growth on private hosts before any additional cost was incurred for resources. This satisfied the need for a static cost and growth capacity within initial quotations.



## CASE STUDY – OIL & GAS COMPANY

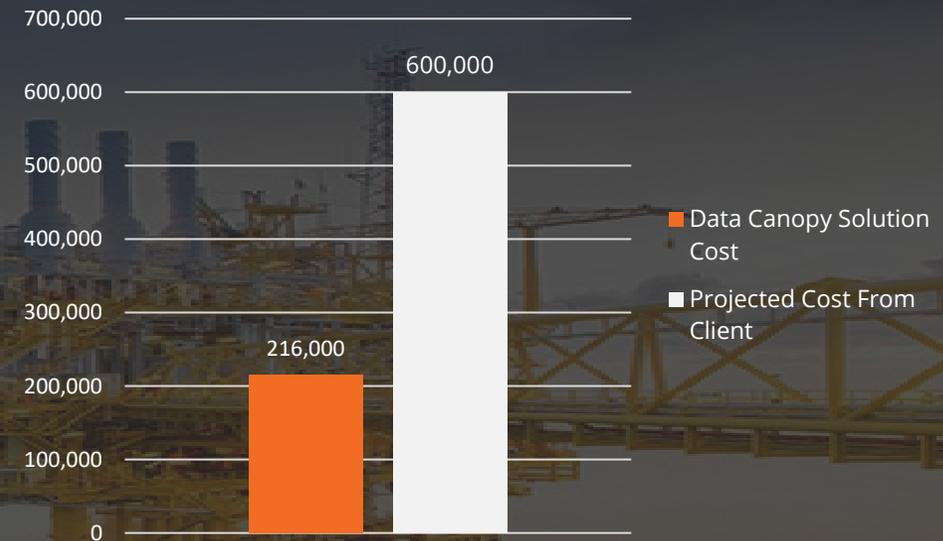
### RESULTS

Data Canopy resolved the Oil and Gas company's issues by providing it with a customized data hosting solution that made day to day application and IT management simple, and at a cost that was within their stated budget. The Oil and Gas company gained:

- The ability to scale virtual resources up by as much as 25% before incurring additional charges
- A disaster recovery strategy that secured the organization's data offsite to better protect the company from outages with a recovery time guarantee of under one hour – DR was not a component of the client's former environment, but was included in the Data Canopy solution at a lower price point than what the company had previously paid.
- The role of application management was eased by placing all applications under one roof.



### COST ANALYSIS



Overall Data Canopy came in under-budget with capacity for growth, at \$9K/month. This saved the customer nearly \$600K in Cap Ex cost, and \$5K in monthly recurring spend. The transformation met aggressive timelines and restrictive budget to enable the highly regulated company to ensure its data is secure, highly accessible, and protected from disaster.

## CASE STUDY – REAL ESTATE INVESTMENT FIRM

### CHALLENGE

A prominent real estate investment firm was introduced to Data Canopy to resolve issues with their unresponsive data center provider. Upon initial inspection, Data Canopy discovered that the firm's legacy IT infrastructure had not been upgraded in some time. It was also discovered that the firm had their critical infrastructure hosted in a competitor's data center with legacy infrastructure, which was not updated properly, resulting in a data breach that compromised their servers and caused the customer to be down for three days. To make matters worse, the firm had not implemented their disaster recovery properly, which resulted in additional downtime for the firm.

### SOLUTION

Data Canopy conducted a full audit of the critical server infrastructure and made the following recommendations:

- Remove legacy VMs no longer in use.
- Implement an immediate backup solution to mitigate risk.
- Transfer the entire critical infrastructure to the Data Canopy Cloud.
- Leverage a robust Disaster Recovery environment to decrease the recovery point objective (RPO) and recovery time objective (RTO) for critical data significantly.
- Extend backup retention policies to ensure industry standard attainment.
- Implement an on-premise backup solution, in addition to Data Canopy's off-premise solution in order to provide safety and security on multiple layers.

By following these recommendations, the firm would be able to shore up their ability to resume business operations in the event of a disaster or other outage, meet regulatory guidelines, and improve performance in their virtual environment.

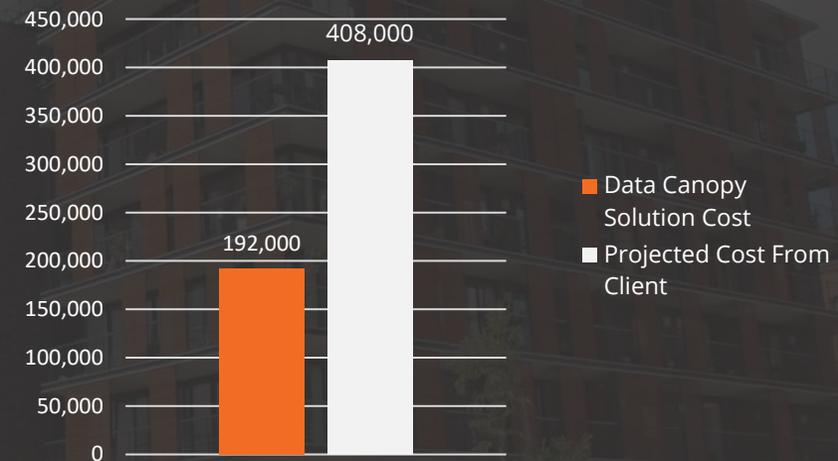
## CASE STUDY – REAL ESTATE INVESTMENT FIRM

### RESULTS

The migration plan developed by Data Canopy resulted in a quick and painless transition from the unstable, previous environment to the new infrastructure solution. During the migration, the unstable environment they were transitioning off of crashed again, but because Data Canopy had developed a solid migration plan and started the backups at the beginning of the process, the firm was back up quickly and did not experience anywhere near the days of downtime the firm had previously experienced. As a result of these efforts, the firm realized:

- Geographic redundancy of the primary and DR environments.
- Decreased RPO and RTO.
- A solid infrastructure on which to develop strategic IT installations and modernization initiatives.

### COST ANALYSIS



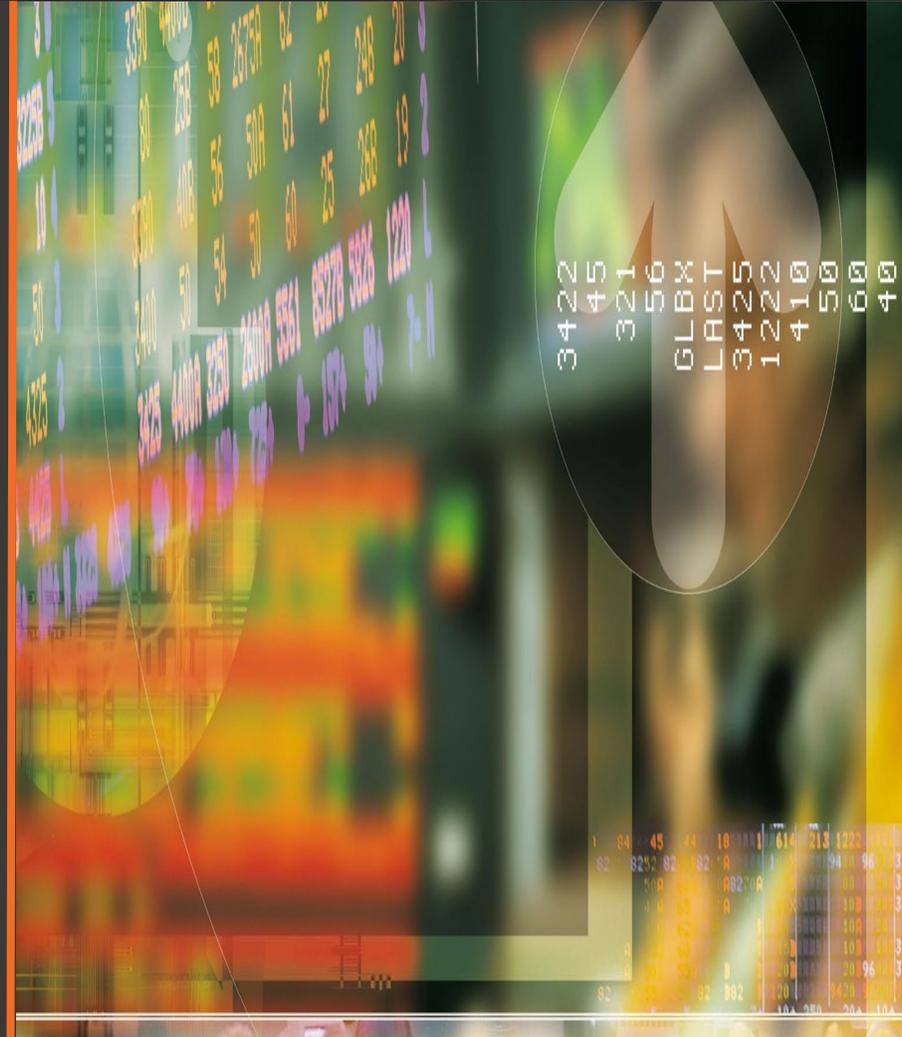
## CASE STUDY – FINANCIAL SERVICES PROVIDER

### CHALLENGE

Data Canopy was introduced through a partner to a large, Washington, DC-based financial services provider who requested a quote for two cabinets of collocated data center hosting. Their on-premise data center had leaking air conditioning units and the IT team was under tremendous pressure to find a suitable environment for critical infrastructure. As part of Data Canopy's initial discussions and discovery process, the following was uncovered in addition to the pressing data center hosting challenges:

- Aging hardware
- Ad-hoc network architecture
- Out-of-date applications and operating systems
- Growing security concerns

The internal IT team recognized the need to modernize and evolve the management and maintenance of core infrastructure and had an eye toward a longer-term virtualization strategy projected to span the next five years. The Data Canopy team of experts suggested that the timeline could be moved up significantly and consulted with the financial services company to see how to make that a reality while staying within their solution requirements and budget constraints.



## CASE STUDY – FINANCIAL SERVICES PROVIDER

### SOLUTION

Data Canopy brought in experts in network architecture, data center infrastructure, cloud computing, storage, and cyber security to consult on the company's current environment. The financial service provider was sensitive to excessive capital expenditures, so Data Canopy explored solutions where the financial service provider would leverage Data Canopy's virtual environment on a monthly basis.

The company had strict uptime and security requirements to ensure member data is secured and regulatory requirements are maintained. In order to guarantee the security and uptime needs were met, Data Canopy developed a strategy to migrate infrastructure to a virtualized environment hosted in a Tier III facility with a geographically redundant disaster recovery solution, with a guaranteed sub-one-hour RTO. The daily incremental backups ensure all development and member data updates are replicated and secure in a virtual disaster recovery environment located more than 1200 miles away.

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To support the remaining physical infrastructure, Data Canopy migrated the servers to its Tier III data center facility on net with the virtual environment. The migration strategy and plan was carefully orchestrated with the internal IT team to keep downtime to an absolute minimum and ensure no data was lost in the process. Following the successful migration and modernization, a three-day training was held to educate the employee base on all changes to the systems they depended on.

In order to address the company's cyber security concerns, Data Canopy leveraged the Phalanx Trident solution. This solution monitors the network for rogue devices, unauthorized access, firewall compliance, and ransomware or malware attacks. Shortly after installation, the company had an incident where a rogue device was detected on the network, isolated, and impact was limited and remediated. The proposed solution would not only resolve immediate needs to ensure the security and availability of their physical infrastructure, but also provide a robust and redundant virtualized environment for 85% of the client environment. As a result of Data Canopy solution, the company was able to leapfrog its timeline for modernization, streamlining management, guaranteeing uptime and backup, and stabilizing the entire infrastructure to better serve its members.

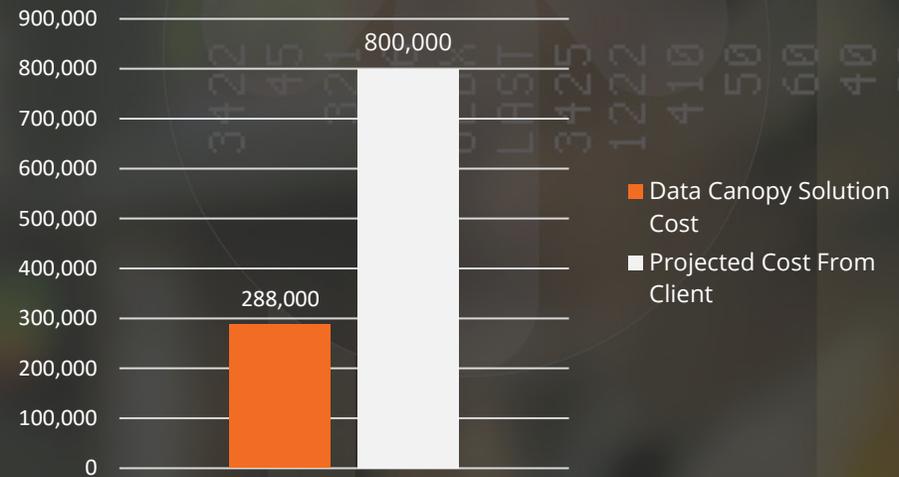
## CASE STUDY – FINANCIAL SERVICES PROVIDER

### RESULTS

The client projected their IT infrastructure costs to be projected to \$800,000 per year. Data Canopy's solution resulted in coming in under their projected cost at \$288,000 at \$12,000/per month. A significant cost savings to the client.

As a result of Data Canopy solution, the company was able to leapfrog its timeline for modernization, streamlining management, guaranteeing uptime and backup, and stabilizing the entire infrastructure to better serve its members.

### COST ANALYSIS



## CASE STUDY – LIFE INSURANCE FIRM

### CHALLENGE

Fidelity & Guaranty Life is a leading provider of annuities and life insurance headquartered in Des Moines, Iowa. FGL has been in business for over 50 years with more than 700,000 policy holders and \$19.8 billion in assets under management. FGL's strength is in their size. They operate a lean organization and compete in the market with companies that have many more employees as well as additional overhead. The AVP of IT Infrastructure, Kurt Labenz, and Director of Infrastructure Services, Jeff Sabin, at FGL are responsible for 'everything infrastructure' at Fidelity & Guaranty Life. The servers, network storage, data networking, cyber security, infrastructure architecture, desktop support, corporate disaster recovery, and facilities management are all within their scope as part of an 18-person infrastructure team. In order to relieve their overburdened staff from the tedious and costly efforts required to build and maintain their primary and redundant data center facilities, FGL turned to Data Canopy.

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### SOLUTION

Disaster recovery and business continuity concerns have been a driving factor for FGL to move into colocated data centers. To maintain levels of service and their edge in a highly competitive industry, they needed to be certain that their applications and data were consistently available and protected from outage or loss for their employees, agents, and clients. The FGL infrastructure team developed their DR program incorporating Data Canopy's Tier III+ data center infrastructure. FGL worked with Data Canopy to develop a strategy to move their servers from a local environment to a recovery environment off-site with additional active colocation data centers.

"Having multiple colocated data centers to house our technology needs has helped us to fulfill our DR and production requirements. We continue to develop our DR program and this expansion has been easy to achieve because the pieces all fit together when you have consistent, reliable data center capabilities" commented Jeff.

## CASE STUDY – LIFE INSURANCE FIRM

### RESULTS

The FGL infrastructure team's decision to outsource their data center through colocation has helped them to focus their time and resources on strategic initiatives in support of broader business goals. "Building and owning your own data center is a significant cash outlay and colocation gives us the flexibility to control our own systems. With Data Canopy, we have enough room to grow without having to worry about everything else. We can focus on projects and the business, versus being tied up in data center management. Data center management can be a time vampire," commented Kurt.

As for future initiatives, FGL is investigating software-defined networking and cloud-based technologies (IaaS and SaaS), among other projects. "It's easy to consider these future-looking technologies and initiatives when you're already in a Tier III facility. When you're located in a data center that can provide all of your required power, cooling, and rack space, you can focus on what is right for the business need and not worry about the backend infrastructure supporting it," said Jeff.

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Colocation with Data Canopy has changed our ability to scale and provide highly available services to end users and business units. It has dramatically reduced our risk and increased our redundancy several times over.

Jeff Sabin

## CONCLUSION

Each client story discussed within this paper illustrates how by leveraging a comprehensive discovery process, smart planning, and a flexible, hybrid infrastructure solution, even highly regulated industries can overcome the dreaded 70% failure statistic to complete a successful transformation initiative in a timely, cost-effective manner.

In choosing its path, each business started with a clear understanding of its current and future needs and worked with Data Canopy as trusted advisers to arrive at the best solution. That's the most effective way to approach any sizable IT upgrade — especially an infrastructure transformation effort, which is often the foundation upon which all future digital transformation is built.

For many organizations, a digital transformation brings new challenges. Industries such as government, healthcare, and financial services must assess their data needs and find the right data solution that will optimize their overall business performance without sacrificing security. If you need help with private cloud, public cloud, or hybrid connectivity to ensure your infrastructure is well connected, more easily managed, and maintains regulatory compliance, **contact Data Canopy at [contact@datacanopy.com](mailto:contact@datacanopy.com) today.**