

# Data Sciences Corporation Solutions Portfolio

April 2024

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# Strategic Solutions

## Challenges

**Increasing storage demands**

**Data Security concerns**

**Backup & Recovery gaps**

**Data Accessibility Issues**

**Inefficient Data Management**

## Potential solutions

- Upgrade infrastructure to scalable storage solutions like All-Flash and Object S3.
- Implement storage optimisation strategies to maximise efficiency.

- Utilise advanced encryption methods and secure access protocols.
- Partner with technology providers known for robust security features.

- Integrate comprehensive backup solutions like Commvault and HYDRAsstor.
- Employ real-time data replication and quick recovery features.

- Deploy cloud solutions and hybrid environments to ensure data is always available.
- Optimise data retrieval processes to improve access speeds.

- Implement data lifecycle management tools to streamline storage.
- Use AI and ML for predictive analysis and data categorisation.

## Impact

- Enhances scalability and responsiveness to growing business needs.

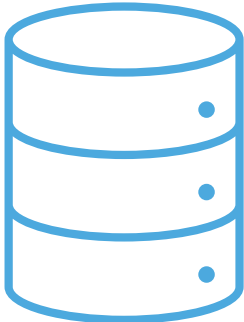
- Ensures data integrity and protection against unauthorised access.

- Minimise downtime and ensure continuous business operations.

- Facilitates efficient data management and boosts productivity.

- Improves data utilisation and operational efficiency.

# Storage Solutions



Scalability Constraints



Data Protection Requirements



Infrastructure Downtime Risks



Cost Management Pressure



Compliance and Security Challenges



Complexity in Management

**Modular Storage Expansion:**  
We offer scalable storage solutions that can be expanded modularly as your data requirements grow.

**Advanced Encryption Standards:**  
Our technology comes with advanced encryption protocols and standards for enhanced data protection.

**High Availability Systems:**  
We provide high-availability storage systems that ensure minimal downtime and quick disaster recovery.

**Cost-Efficient Storage Models:**  
We develop cost-effective storage models that optimise performance without excessive expenditure.

**Regulatory Compliance Integration:**  
Our Storage Systems integrate compliance measures within the storage solutions to adhere to regulatory standards such as GDPR and POPI.

**Intelligent Storage Management:**  
We implement intelligent storage management tools that simplify complexity and automate routine tasks.



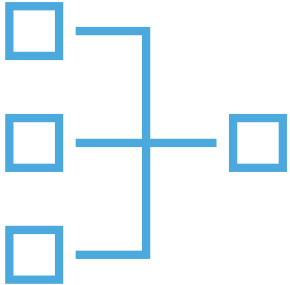
# Partner-Powered Storage Innovation









Data Sciences Corporation offers a comprehensive portfolio of storage solutions from trusted technology partners like Pure Storage, CoCre8, NEC and VAST Data. Our storage solutions are designed to scale with your business needs, providing options to increase storage capacity as demand grows. We offer a range of storage types, including All-Flash, Object, S3, Block, NAS, and Traditional Disk Storage, to ensure we can meet your specific requirements.

Whether you are a small, medium, or large organisation, Data Sciences Corporation has storage solutions to ensure your data is secure, protected, and easily accessible. With our range of options and partnerships with industry leaders, we can provide a solution that meets your specific needs and exceeds your expectations.

# Networking & Switching Solutions



-  Limited Network Scalability
-  Security Vulnerabilities
-  Complex Infrastructure Management
-  Inconsistent Network Performance
-  Data Transfer Inefficiencies
-  Outdated Network Technologies

- **Scalable Network Design:**  
We implement a scalable network architecture to accommodate business growth and data demand.
- **Enhanced Security Protocols:**  
We help you deploy advanced security measures, including firewalls and intrusion detection systems, to protect against threats.
- **Simplified Management Systems:**  
We utilise management platforms for centralised control and simplified administration of network operations.
- **Performance Optimisation:**  
With data sciences expertise and modern technologies, we help optimise your network infrastructure for peak performance.
- **Efficient Data Routing:**  
We help incorporate intelligent routing algorithms to improve data transfer speeds and reduce latency.
- **Technology Upgrade Path**  
Regularly update networking infrastructure with the latest Ethernet, InfiniBand, and Fibre Channel technologies for future readiness.



**BROCADE**

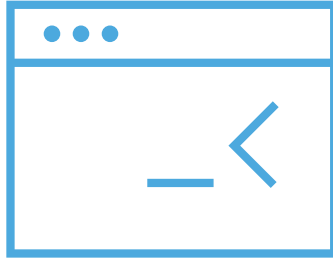
# Strategic Partnerships for Network Excellence




Our Solutions Portfolio includes cutting-edge NVIDIA, Inuvika, and Brocade technologies to provide the best services. These technologies give your firm the finest performance, scalability, durability, and value.

Our networking solutions deliver market-leading performance, scalability, durability, and value for cloud, enterprise, finance, storage, Big Data, and machine learning applications. The newest Ethernet, InfiniBand, and Fibre Channel technologies power these solutions.

# Compute Solutions



-  Inadequate Server Speed
-  Inconsistent Business Continuity
-  High-Performance Computing Needs
-  Server Capacity Limitations
-  Data Processing Inefficiencies
-  Costly Infrastructure Expansion

- Speed Optimised Servers:**  
We implement x86 servers that provide enhanced speed and efficiency for handling large data and intensive workloads.
- Robust Disaster Recovery:**  
We help integrate solutions that offer robust disaster recovery and ensure business continuity.
- HPC and AI Integration:**  
We help provide high-performance computing servers for AI and deep learning applications, addressing the growing reliance on these technologies.
- Scalable Server Architecture:**  
We can design modular server infrastructures for easy and economical scaling as your organisational needs evolve.
- Advanced-Data Processing:**  
We utilise servers with advanced processing capabilities to efficiently handle big data and analytics.
- Cost-Efficient Expansion Solutions:**  
We offer cost-effective server expansion options, including cloud services and virtualisation, to manage infrastructure growth without prohibitive expenses.

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# Collaborative Compute Power



In pursuit of your IT goals, enhancing productivity, efficiency, and adaptability is essential while employing simple solutions to apply anywhere. Our x86 server architecture serves small, medium, and large organisations with rack-mounted servers that can easily handle basic and intensive operations. Featuring modular, dense, high-performance, cloud, massive data, and deep learning servers, our solutions scale rapidly and economically.

As deep learning drives the demand for powerful HPC servers, we've partnered with industry leaders such as NVIDIA, Supermicro, CoCre8, and NEC to deliver innovative technological solutions. Our comprehensive range of servers is designed for business and mission-critical settings, where data access is vital for business continuity and high availability. We strive to provide the best IT solutions to empower your organisation and help you stay ahead in today's competitive landscape.




# Cloud Native Solutions



	Legacy System Limitation
	Inefficient DevOps Processes
	Scalability Roadblocks
	Slow Application Deployment
	Rigid Infrastructure
	Complexity in Operations

OCS  
oxide cloud services

	<b>Adopt Hybrid Cloud Platforms:</b> We can help you transition to hybrid cloud platforms for greater flexibility and scalability.
	<b>Streamline DevOps Workflow:</b> We can help you implement automated DevOps tools and practices to improve efficiency and reduce complexity.
	<b>Enhance Scalability:</b> Our technology will help you utilise scalable cloud infrastructure services that can grow with your business needs.
	<b>Accelerate Deployment Cycles:</b> Leverage continuous integration/continuous deployment (CI/CD) pipelines for faster and more reliable application deployments.
	<b>Introduce Flexible Architectures:</b> We can provide you with flexible infrastructure solutions that can be quickly reconfigured to meet changing demands.
	<b>Reduce Operational Complexity:</b> We can help you employ cloud management platforms that simplify operations through unified control over diverse environments.

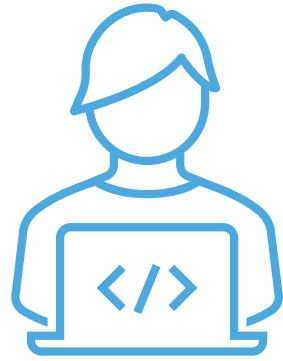
# Empowering Agility with Cloud-Native Services



Cloud-native solutions provide a modern approach to infrastructure management that emphasises flexibility, scalability, and dependability. OXIDE cloud services offer a cloud-native infrastructure that enables organisations to use modern architectures and automation. With OXIDE cloud services, organisations can deploy applications quickly and reliably, using a hybrid cloud platform that delivers infrastructure-as-code and open-source technologies. This multi-cloud hybrid platform is suitable for DevOps and Infrastructure-as-a-Code automation, allowing organisations to maximise business efficiency, enable expansion and scalability, and reduce unnecessary wait times.

OXIDE cloud services provide a solution for organisations needing help with traditional infrastructure management techniques that slow their ability to deliver applications quickly and reliably.

# Backup and Recovery Solutions



- Outdated Infrastructure
- Data Breaches
- Insufficient Data Protection
- Slow Recovery
- Data Accessibility
- Security Threat Identification

- Modernised Backup System:** Implement NEC's Hydrastor technology alongside Commvault, Luminex, and Nakivo to modernise the backup and recovery system.
- Enhanced Data Security:** Utilise machine learning and data analytics tools within the recovery solution to proactively identify and address security vulnerabilities, thereby averting potential data breaches.
- Comprehensive Data Management:** Create a complete backup and recovery portfolio with application-level replication to ensure data integrity and availability across all storage locations.
- Rapid Recovery Process:** Incorporate fast recovery options within the backup solution to minimise downtime and expedite business continuity processes.
- Reliable Data Access:** Establish a system with high availability features to maintain constant data access, thereby ensuring uninterrupted business operations in any scenario.
- Predictive Analytics for Threat Management:** Leverage predictive analytics and machine learning algorithms to detect potential threats before they materialise, ensuring the company's data remains secure.

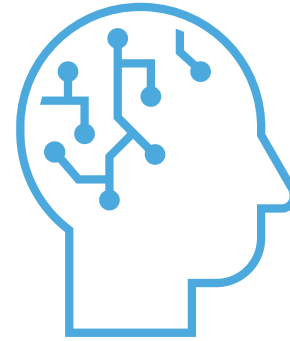
# Enhancing Resilience: Proactive Backup and Recovery Solutions



As data is a company's most valuable asset, it is essential to have a reliable backup and recovery system to protect it from potential failures and disasters.

Data Sciences solves this through IT technologies like NEC's HydraStor, Commvault, Luminex, and Nakivo. These technologies provide a complete backup and recovery portfolio to protect, manage, and access data across primary, secondary, and cloud storage locations with application-level replication, fast recovery, and better backup performance and reliability. With a data backup and recovery system, companies can ensure their data is always available and protected.

# Artificial Intelligence & Machine Learning Solutions



Data Analysis Speed



Demand Forecasting Accuracy



AI Infrastructure Scalability



Deep Learning Optimisation



Data Governance for AI

Integration of AI with Existing Systems

**AI-Powered Analytics Tools:** Leverage AI and machine learning algorithms provided by partners like Pure Storage to accelerate the analysis of customer data, enabling real-time insights and decision-making.

**GPU-Accelerated Computing Platforms:** Utilise NVIDIA's GPU-accelerated computing platforms, such as the DGX SuperPOD and DGX systems, which offer AI-optimised infrastructure for analysing data faster and predicting demand with greater accuracy.

**Scalable Storage Solutions:** Deploy scalable storage solutions from VAST Data that can accommodate the data requirements of AI and machine learning, ensuring scalability and performance.

**High-Performance AI Servers:** Offer a range of high-performance computing servers designed for deep learning, which can process and analyse data quickly and efficiently, thanks to partnerships with industry leaders like NVIDIA and Supermicro.

**Comprehensive Data Governance Tools:** Implement machine-learning-enhanced data governance tools, like Solix's Data Security and Compliance product, to maintain high data quality and regulatory compliance within AI applications.

**Tailored Integration Services:** Provide consultative services to integrate AI technologies into the business's existing infrastructure, ensuring a seamless transition and enabling existing systems to leverage AI capabilities effectively.



# Accelerating Insights: Advanced AI & Machine Learning Solutions



AI and Machine Learning are essential tools for businesses seeking a competitive edge in today's data-driven economy. However, businesses need an end-to-end strategy that includes AI-optimised infrastructure and powerful AI tools to succeed with AI. NVIDIA's DGX infrastructure and groundbreaking performance are essential for AI and Machine Learning improvements across industries.

By leveraging AI-powered analytics tools, such as those provided by Pure Storage, businesses can gain insights in real-time to make informed decisions. Ultimately, having the proper AI infrastructure and tools can help businesses unlock the full potential of AI and Machine Learning and drive business growth.







# Data Migration Solutions

## Challenges



## Solution

-  Inefficient Data Transfer
-  Cloud Migration Risks
-  Ensuring Data Integrity
-  Minimising Operational Impact
-  Optimising Network Utilisation
-  Customised Migration Strategy

-  **Intelligent QoS Optimisation:** We utilise intelligent Quality of Service (QoS) to enhance the data transfer procedure for maximum throughput based on real-time network activity, improving transfer rates.
-  **Cloud Migration Expertise:** Deploy Data Sciences Corporation's expertise to navigate cloud data migration's complexities safely, leveraging state-of-the-art technology to mitigate risks.
-  **Data Integrity Assurance:** We implement a strategy prioritising data integrity, using tools and processes that ensure data remains accurate and consistent throughout the migration.
-  **Seamless Migration Execution:** We offer solutions that enable block-level data transfer over fibre channel and iSCSI networks effortlessly, with minimal operational effect and minimal risk.
-  **Network Activity-Based Migration:** Employ an optimised data migration approach that dynamically adjusts to the storage and network's activity level, ensuring efficient utilisation of network resources.
-  **Custom Migration Planning:** Craft a comprehensive migration plan that includes preparation, execution, and verification stages tailored to the company's specific infrastructure and business context.

# Seamless Transition: Strategic Data Migration Solutions



At Data Sciences, we leverage Komprise's power to provide adequate data migration solutions to our customers. Komprise is cutting-edge IT technology that enables seamless data migration with minimal configuration and preparation. By integrating Komprise into our migration strategies, we can optimise the data transfer process, ensuring maximum throughput based on storage and network activity levels.

Komprise simplifies cloud data migration, allowing for effortless data transfer to the cloud while minimising operation impact and risk. With our skilled team and Komprise's advanced capabilities, we can create and implement a flawless data migration strategy tailored to your specific needs. Trust Data Sciences and Komprise to simplify your data migration journey and unlock the benefits of improved performance and competitive advantage.



# Advanced Services Solutions

## Challenges



## Solution



Inadequate Backup and Recovery



Complex IT Environment Management



System Performance Bottlenecks



Data Security Compliance



Optimising of IT Resources

Strategic IT Infrastructure Improvements

**Managed Backup and Recovery Services:** We help provide a managed service to overhaul the backup and recovery process, implementing more robust and faster technologies to minimise downtime.



**IT Environment Optimisation:** Our team uses advanced monitoring tools and expertise to streamline operations across servers, storage, and network infrastructure for enhanced performance.



**Performance Monitoring and Analysis:** We implement a comprehensive monitoring system to identify performance bottlenecks and suggest improvements to stabilise the IT environment.



**Data Security and Compliance Tools:** We integrate advanced machine-learning tools for data security and compliance to manage large amounts of data and ensure adherence to legal regulations.



**Resource Utilisation Strategies:** We deploy analytics and infrastructure management tools to optimise IT resource allocation and utilisation, reducing costs and improving performance.



**Infrastructure Strategy and Consulting:** We offer consultative services to develop a long-term strategic plan for IT infrastructure upgrades and optimisation aligned with the business' goals.

# Data Security & Compliance Solutions

## Challenges



## Solution

-  Cyber Threat Evolution
-  Scaling Security Measures
-  Business Process Integration
-  Digital Platform Vulnerability
-  Changing Compliance Requirements
-  Outdated Protection Infrastructure

-  **AI Security Compliance:** Integrate an artificial intelligence system to predict cyber threats and ensure regulatory adherence.
-  **Scalable Security Solutions:** Deploy scalable cybersecurity infrastructure for automated threat management and robust data protection.
-  **Seamless Cloud Monitoring:** Adopt cloud services for efficient security monitoring and compliance within existing business workflows.
-  **Proactive Incident Strategy:** Utilise machine learning for immediate incident detection and swift risk mitigation.
-  **Dynamic Compliance Tools:** Implement tools that auto-update with regulations and streamline compliance reporting.
-  **Cybersecurity Upgrades:** Upgrade to advanced systems with encryption and anomaly detection to secure digital assets.

# Fortifying Data Integrity: Adaptive Security and Compliance Solutions



In conclusion, using Data Sciences' technology, specifically Solix's data security and compliance product, offers a comprehensive solution to address the challenges that data security and compliance organisations face. By leveraging innovative machine-learning tools, companies can manage and safeguard their vast data while ensuring compliance with stringent regulations such as GDPR and POPI.

With Solix's technology, businesses can gain a holistic view of their data, identify sensitive information, and assign appropriate security levels. The centralised monitoring and auditing capabilities enable real-time data storage and transmission tracking, minimising the risk of unauthorised access and breaches. Continuous monitoring and anomaly detection can promptly identify and address potential compliance violations.

## Storage

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## Networking & Switching

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# High-Performance Compute

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# Cloud Native Solutions

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# Backup & Recovery

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# AI & ML

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# Data Migration

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**Data Security & Compliance  
Data Management & Integration**

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# Thank You



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