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AHANA'S DATA CENTER REVAMP CUTS COSTS BY 20% IN WASTE MANAGEMENT FOR A NOTABLE ADMINISTRATIVE BODY

With the world generating over two billion tons of waste each year, effective waste management has become a global priority. Cities and industries are exploring sustainable disposal methods, advanced recycling, and efficient treatment technologies to address the immense challenges associated with waste. Yet, these efforts are only part of the solution. As waste generation rates climb, so does the need for innovative data management to streamline operations, ensure compliance, and improve efficiency.

Effective data management and security are fundamental in today's waste management landscape. Modern infrastructure not only supports the increasing volumes of data but also helps safeguard sensitive information and optimize resources. With accurate data at their fingertips, organizations can make informed decisions that improve waste handling, tracking, and regulatory reporting. The push toward more data-centric waste management solutions is driving advancements in operational efficiency and enabling providers to deliver more reliable, responsive services across regions.

Client Profile

Our client is an administrative body overseeing civic amenities and infrastructure and is a part of the fourth-largest municipal corporation in India.

The Challenge

The client's existing data center was affected by inefficiencies, lacking the necessary connectivity, security, and storage capabilities required to handle increasing demands and data growth. The outdated infrastructure not only resulted in slow data processing speeds but also posed significant security risks. The client required a comprehensive overhaul to establish a reliable, secure, and scalable data center that could support their evolving operational needs.

The Approach

Our team initiated the project with a thorough needs assessment, which involved analyzing the client's pain points and collaborating with various stakeholders. This process ensured that the new infrastructure would align with their unique operational requirements. The approach involved detailed planning for:

- **LAN Cabling**: To ensure optimal connectivity and performance.
- **Biometric Security Systems**: To enhance data center security.
- **Network Configuration**: To facilitate efficient data traffic management.

We adopted a phased approach for implementation, where each infrastructure component—including CCTV, firewall, switches, servers, and storage—was configured and tested sequentially to guarantee compatibility and performance.

Additionally, the solution included capacity planning to ensure scalability and efficient resource allocation. After evaluating various technology options, we selected HPE SimpliVity for hyper-converged infrastructure and Vertiv Smart Rack solutions for effective power and cooling management. Coordination with multiple original equipment manufacturers (OEMs) ensured that all equipment adhered to best practices and integration standards, focusing on high availability (HA), backup, and security.

Ahana's Solution

We deployed a fully integrated, end-to-end data center solution that included:

- **Structured LAN Cabling**: Ensuring optimal connectivity and performance.
- **Biometric Access Systems**: Enhancing security measures.
- **High-Availability Firewall**: Providing robust network protection.
- **Core and Access Switches**: Managing reliable network traffic.
- **WAN Switch**: Facilitating external communication.
- **HPE SimpliVity Hyper-Converged Server**: Supporting virtualization with high data resiliency.
- **Vertiv Smart Rack Solutions**: Optimizing power distribution, monitoring, and cooling management.
- **Advanced Backup Solutions**: Ensuring data availability and security with built-in disaster recovery capabilities.

The setup has been operational for approximately six months, including hardware procurement. We also provided on-site training for the client's IT staff, ensuring a seamless transition to the new system. An ongoing support and maintenance plan was also established to proactively address any technical challenges.

The Impact

The new data center infrastructure led to remarkable outcomes:

- **Operational Efficiency:** The new infrastructure enabled the client to manage and access data more quickly and reliably, which supported faster decision-making and better data accessibility.

- **Time Efficiency:** Optimized network speeds and server response times reduced data processing times.

- **Cost Optimization:** Streamlined management and minimized maintenance resulted in an estimated **20%** reduction in operational costs.

- **Security:** Biometric and firewall solutions prevented unauthorized access, strengthening data security.

Conclusion

Our strategic approach to revamping the client's data center has resulted in substantial improvements in data accessibility, security, and operational efficiency. By implementing a modern, integrated solution tailored to the client's unique requirements, Ahana has positioned the organization to better manage its growing data and operational needs. The successful deployment not only enhanced their service delivery but also strengthened the capacity to respond effectively to the community's demands.

About Ahana Systems and Solutions

Ahana Systems & Solutions is a leading IT Infrastructure Management Services and Digital Transformation company based in Bengaluru, India. Our expertise extends to a wide range of solutions, including Cloud, RPA, DB & EDW, BI & Analytics, and Application Development. Our 100+ roster of clients relies on us for our deep domain expertise, skilled resource base, and proven partnership with the best technology providers.

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