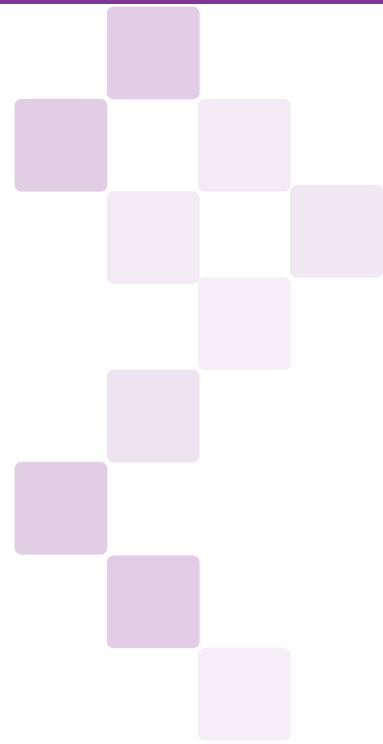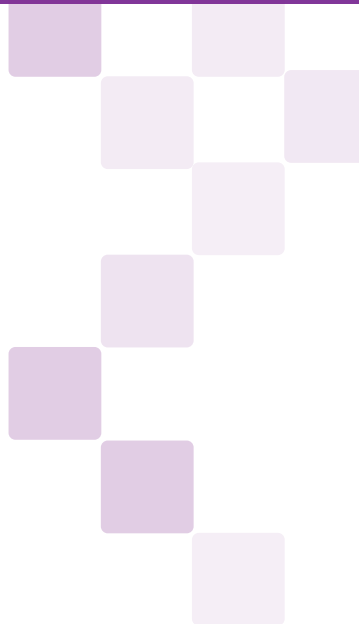# Top Data Center Concerns

Addressing Today's Challenges with DCIM Software

Sunbird®
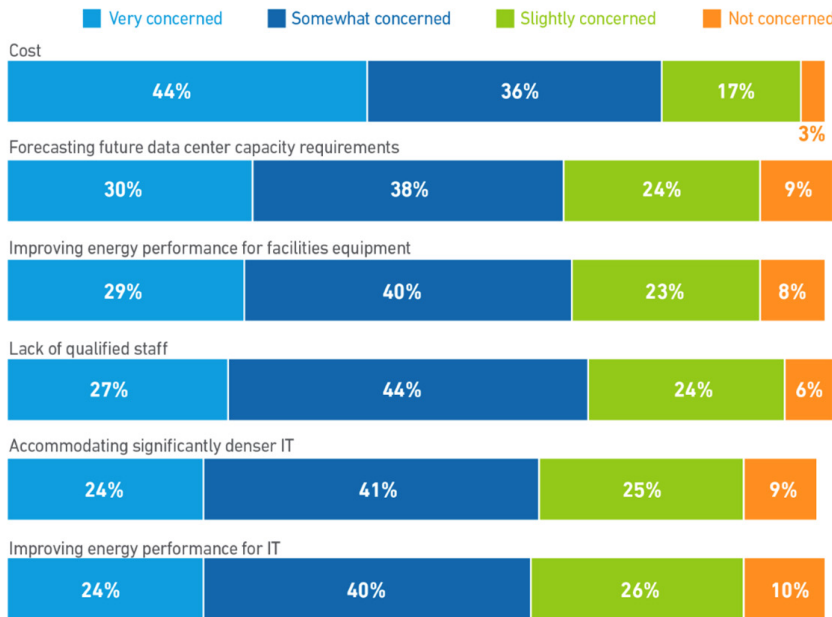
DCIM that's easy, fast, and complete

Introduction

The data center landscape is rapidly evolving, and with it comes a variety of challenges that demand the attention of data center professionals.

According to Uptime Institute's Global Data Center Survey 2024, six key concerns stand out as top priorities:

Figure 1 Cost issues are the top concern for management in 2024
Looking at the next 12 months, how concerned is your digital infrastructure management regarding each of the following issues? (n=638)

Legend: ■ Very concerned ■ Somewhat concerned ■ Slightly concerned ■ Not concerned

Cost
Very concerned	Somewhat concerned	Slightly concerned	Not concerned
44%	36%	17%	3%

Forecasting future data center capacity requirements
| 30% | 38% | 24% | 9% |

Improving energy performance for facilities equipment
| 29% | 40% | 23% | 8% |

Lack of qualified staff
| 27% | 44% | 24% | 6% |

Accommodating significantly denser IT
| 24% | 41% | 25% | 9% |

Improving energy performance for IT
| 24% | 40% | 26% | 10% |

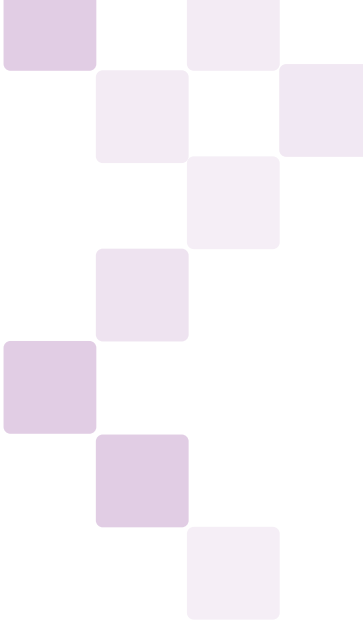UPTIME INSTITUTE GLOBAL SURVEY OF IT AND DATA CENTER MANAGERS 2024

uptime INTELLIGENCE

Source: Uptime Institute

From managing rising costs and forecasting future capacity to improving energy efficiency and accommodating denser IT environments, these issues not only impact day-to-day operations but also influence long-term strategic planning. Addressing these challenges is critical for ensuring the efficiency, resiliency, and sustainability of data center operations.

As a leader in second-generation Data Center Infrastructure Management (DCIM) software, we engage with data center professionals daily, listening to their pain points and collaborating on solutions.

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Cost

Data center professionals are grappling with rising costs driven by near all-time high colocation expenses, climbing energy prices, and persistent inflation. The need for substantial investments to meet the growing demand for digital services, including AI, further exacerbates these financial pressures. Operators must balance the urgency to expand and upgrade against soaring labor, hardware, and infrastructure costs. Plus, with Uptime Institute reporting that over half of outages cost more than $100,000 and one in five cost more than $1 million, maintaining uptime remains a critical concern.

Figure 3: Average Asking Rental Rate with Y-o-Y % Change for Primary Markets 250-500 kW Requirement


Source: CBRE

(continued)

Cost (continued)

How DCIM Software Can Help

- **Increase resource utilization.** DCIM software provides real-time visibility into physical data center resources (e.g., space, power, cooling, and data/power ports) and their usage. This helps to identify and reclaim stranded capacity, allowing you to get more out of your existing facilities and defer capital expenditures or even building your next data center.

- **Improve energy efficiency.** DCIM solutions enable more informed data center energy management decisions. Leveraging real-time power and environmental data, you can potentially reduce energy costs by adjusting temperature and humidity setpoints, shutting down ghost servers, and charging customers based on their actual energy use to drive more efficient behavior.

- **Maintain uptime.** Proactively monitoring and alerting for power and environmental anomalies potentially helps to identify and resolve issues before they lead to costly downtime that may incur SLA penalties.

- **Streamline operations.** DCIM software automates many routine tasks and streamlines workflow, improving productivity and reducing manual effort. This enables highly efficient teams that spend less time on repetitive tasks and can focus on more strategic activities that add value.

- **Manage colo power utilization.** Colocation tenants can monitor energy usage to avoid peak demand charges, validate energy bills against actual consumption to confirm their accuracy, and know where you have stranded power capacity to increase the utilization of existing circuits to defer the need to purchase more.
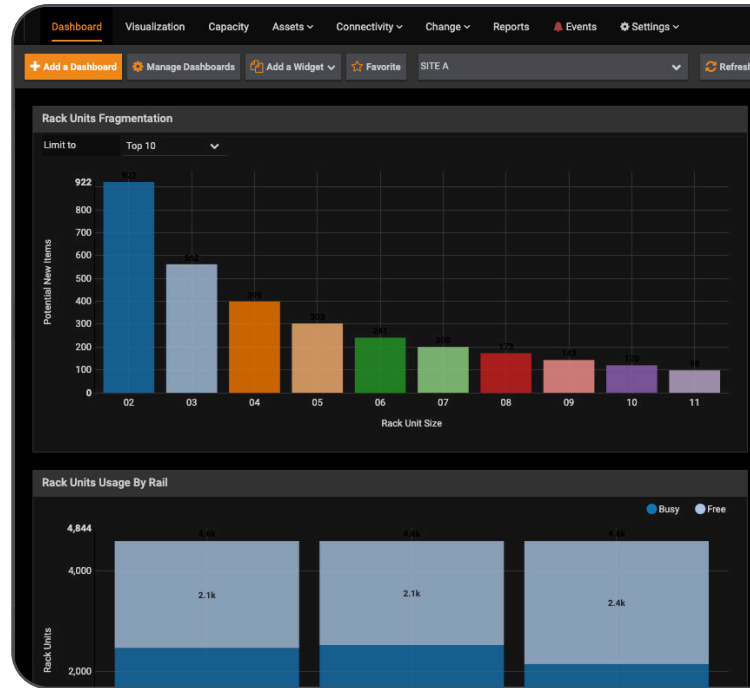
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Forecasting Future Capacity Requirements

The demand for data center capacity is reaching unprecedented levels, with new construction activity at an all-time high. Despite the surge in new data centers, colocation space remains scarce in many key markets, and equipment lead times are still frustratingly lengthy. These challenges make accurate forecasting of future capacity requirements more important than ever.

U.S. colocation absorption (MW)
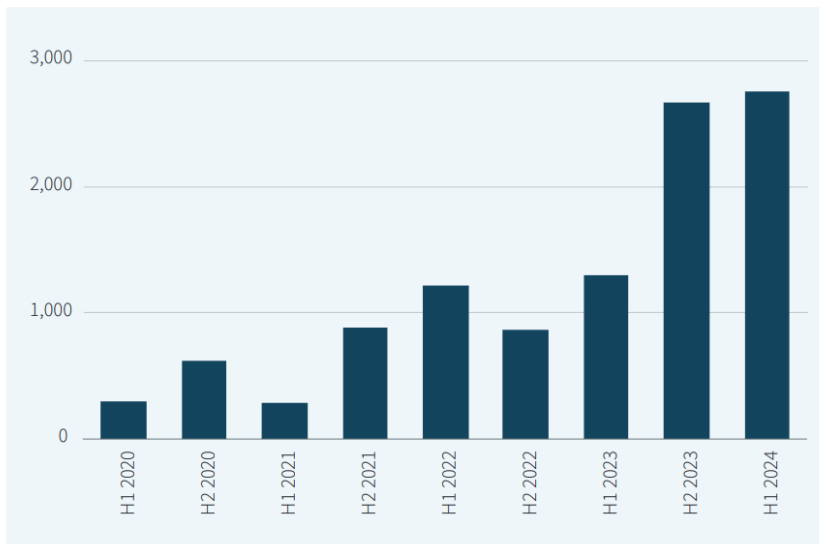
Source: JLL

How DCIM Software Can Help

- **More efficient facilities.** Modern DCIM software provides advanced capacity planning features to help maximize the utilization of your existing resources and defer the need to purchase more. With machine learning algorithms like Auto Power Budget and outlet-metered intelligent rack PDUs, it can automatically set a highly accurate power budget for each server instance you deploy based on its actual load in your environment so you can know if you can deploy more servers in your existing rack space. Using this feature, Comcast was able to get 40% more utilization out of their existing resources. Additionally, what-if analysis simulates the impact that adding new equipment will have on your rack space and power capacity to provide insight if existing resources can be used for your planned projects.

(continued)

Get the full eBook by clicking the link below.

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