STL PARTNERS

Executive Briefing

PREVENTING MULTIMILLION DOLLAR DATA CENTRE LOSSES THROUGH REPORTING

This report assesses the impacts of delays in data centre construction on operational financial metrics, budget and internal rate of return, and examines the role of effective reporting in ensuring on-time delivery.

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Foreword

Methodology

This report presents insights from a recent research programme, in which we conducted in-depth interviews with 14 professionals in the data centre industry – from project managers to C-level executives. The objective was to uncover the critical challenges and pain points shaping data centre construction and project management processes.

Interviewee profiles

No.	Company profile	Title	Region
1	NA data centre operator	EVP development and construction	NA
2	EMEA data centre operator	Director, project management office	EMEA
3	Hyperscaler	Construction manager	APAC
4	EMEA data centre operator	Chief operating officer	EMEA
5	EMEA data centre operator	Corporate development director	EMEA
6	Global construction management company	Planning professional	EMEA
7	Hyperscaler	Construction manager	APAC
8	Global data centre operator	Construction manager	APAC
9	Global data centre operator	Construction project manager	EMEA
10	Hyperscaler	Construction project director	NA
11	Hyperscaler	Data centre senior construction manager	NA
12	NA project management contractor	Construction manager	NA
13	Global data centre construction company	Senior construction operations manager	EMEA
14	EMEA data centre operator	Chief investment officer	EMEA

Editorial independence

This report has been prepared by independent consulting and research company STL Partners and was commissioned by **Foresight Works**.

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The true cost of delays in data centre construction

Global data centre demand is surging, with capacity projected to grow at a **17% compound annual growth rate (CAGR)** between 2025 and 2030, reaching **100 GW by 2030**[1]. Delivering this capacity is increasingly challenging due to rising construction complexity, supply chain disruptions and tightening regulatory frameworks. In this environment, preventing delays is critical to safeguarding financial returns on data centre projects, yet the growing scale and complexity of projects make on-time delivery harder than ever to achieve.

According to STL Partners' research, for every month of delay in the completion of a data centre, the developer incurs **USD14.2 million** of lost revenue, cost overruns and contractual penalties. A three-month delay can result in an indicative **internal rate of return (IRR) decrease from 17.1% to 12.6%** across a ten-year timeframe. This is before factoring in indirect costs such as the strained stakeholder relationships and the reputational impacts.

Customers of data centre developers, particularly hyperscalers and other anchor tenants (e.g., large enterprises), operate on tight schedules. This means that any disruption in facility availability can push these customers toward competitors. At the same time, capital, equipment and labour costs accumulate rapidly, increasing the developers' financial burden from even minor overruns and limiting the availability of the construction team to work on new projects in the pipeline.

To address these challenges, data centre developers must:

- **Plan for disruption:** Use proactive scenario planning and strong governance to make the project plan as resilient as the site itself.

- **Implement standardised, real-time reporting:** Equip construction managers with live insights to address risks early. Integrated reporting enables timely escalation, reducing overruns and improving control.

- **Proactively manage risks:** Define and communicate a clear risk matrix, escalation path and retrospective process to enable rapid issue resolution and continuous process improvement.

- **Deploy smarter tools:** Adopt digital solutions, integrating advanced tech such as AI, and prioritise interoperability to enhance delivery efficiency.

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[1] Source: Citi Research

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Counting the price of delay

This report explores the true cost of delays in data centre construction, gathering data from interviews with 14 data centre development professionals, plus secondary sources, and examines both direct financial implications and indirect consequences of delays. More importantly, it outlines practical strategies to mitigate these risks, focusing on structured governance, proactive risk management and advanced reporting frameworks to minimise unforeseen issues, accelerate issue resolution and ensure on-time delivery.

Figure 1: The true cost of a one-month delay of an indicative data centre project
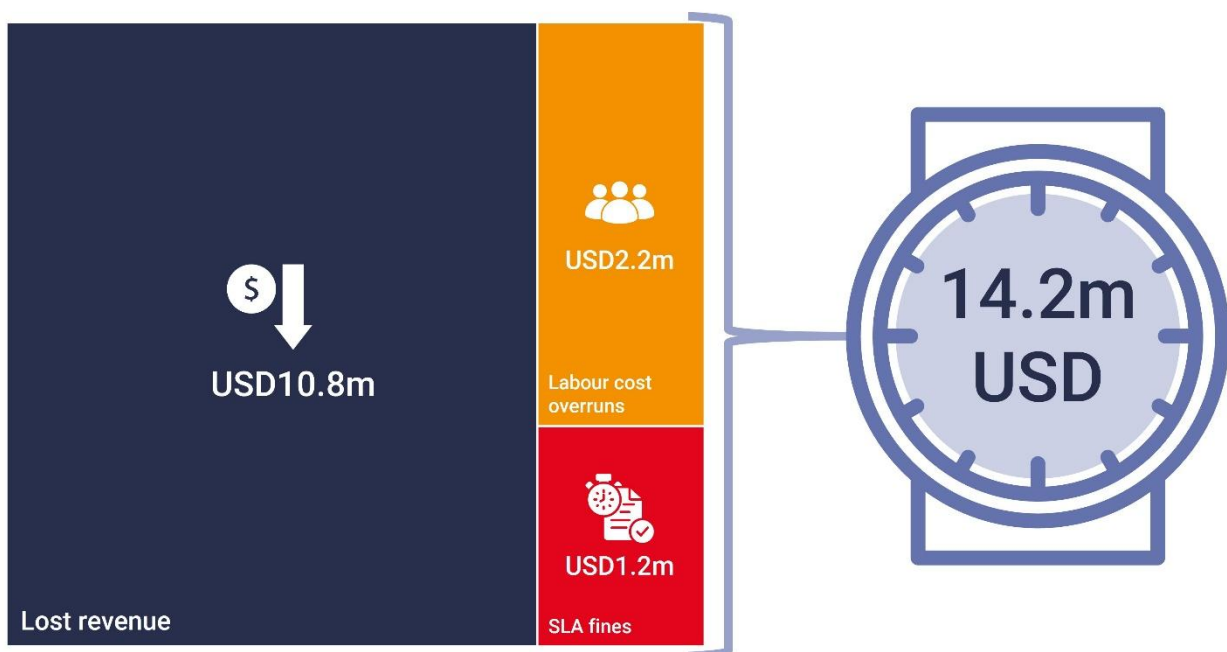
Source: STL Partners, estimation calculated from industry interviews completed in January 2025

Our research shows that every month of delay in the completion date of a data centre construction project costs the developer an estimated USD14.2 million, assuming they go on to operate the facility post-completion.

As shown in Figure 1, this estimation covers lost revenue, labour cost overruns and service-level agreement (SLA) fines – it is likely a conservative estimate as no consideration is given to additional costs, such as construction equipment, equipment storage and cost of capital. This calculation assumes a single-tenant **60 MW data centre facility** in the US.

Breakdown of each component of this estimation is as follows:

Revenue loss

The most immediate and quantifiable impact comes from delayed revenue realisation. Revenue loss in data centre construction occurs when delays prevent the facility from becoming operational and generating income as planned. Customer contracts can start from key milestone dates, ranging from prebuild for hyperscalers through to shell and core handover for large colocation customers, meaning delays represent permanent lost revenue that can never be recovered, impacting the project's return on investment (ROI) and long-term financial viability. In the US, where typical lease rates for data centre space hover around USD180/kW per month in key areas, a 60MW facility faces revenue losses of **USD10.8 million from every month that the completion is delayed** (assuming single-tenant architecture with immediate site utilisation of 100%).[2]

Labour cost overruns

Construction delays lead to significant labour cost overruns, as contractors, project managers and engineers must remain engaged beyond schedule – though if the delay is contractor-driven, they may bear these costs. Many contracts require minimum labour commitments, forcing payment even if work stalls. Separately, data centre technicians and sales teams hired to run the site and manage customers must still be paid from the planned start date. For a 60 MW facility, with an assumption of 300 working contractors on site alongside project management overhead, working at a 50% margin above wages, this comes to a monthly run rate of USD1,947,000. In addition, 60 data centre technicians will be on standby for going live, conforming to industry standards of roughly one on-site technician per MW of facility capacity, at a total of USD255,000 per month. These combined costs can reach **USD2.2 million per month**.[3]

A further challenge arises with **seasonal labour availability**, as delays can also disrupt workforce availability, potentially further extending project timelines. Many skilled workers involved in data centre construction operate on short-term contracts, moving between projects. If a delay pushes past their availability window, they may leave for other jobs, depleting the labour pool at a critical phase. This forces project managers to scramble for replacements, often leading to labour shortages, slower execution and loss of specialised expertise. The resulting delays can further misalign schedules, causing additional attrition and escalating the risk of prolonged overruns.

SLA fines

Data centre developers frequently sign SLAs with customers, committing to strict project delivery timelines that ensure infrastructure is available when promised. These agreements are especially rigid for hyperscale tenants which operate on precise expansion schedules and rely on new facilities to support their growing customer bases. SLA fines directly erode project margins and some agreements have escalating penalties, making extended delays exponentially costlier. Fines commonly start at around USD100,000 per week for enterprise tenants and **often exceed USD300,000 per week for hyperscale tenants (USD1.2 million per month)**.[4]

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[2] Source: Statista
[3] Source: US Bureau of Labor Statistics – Occupational Employment and Wage Statistics
[4] Source: STL Partners independent research

The financial impact of delays extends far beyond these three immediately quantifiable costs, with a long tail of direct costs which can spiral in the event of prolonged delays. These include:

Cost of capital

Large-scale data centre projects are typically financed with **30−40% equity** and **60−70% debt**,[5] balancing risk and capital efficiency. Debt financing commonly uses repayment schedules aligned to revenue generation dates. When delays occur, organisations incur unexpected interest payments servicing this loan, adding unplanned expenses in a strain on cash flow. This can necessitate refinancing or altering terms which incurs both an overhead in the renegotiation as well as tighter contractual terms, such as higher interest rates or additional fees. For a 60 MW facility, the debt burden can be upwards of **USD360 million**, meaning that even servicing the interest for an additional month before principal repayment starts costs the project **around USD1.8 million**, depending on financing terms (our calculation assumes a 6% interest rate). Additionally, the procurement of key equipment may need to be timed to capitalise on favourable exchange rates, especially in markets subject to currency volatility. Therefore, for CFOs and finance directors, delays result in a complex balancing act of managing cash flow, renegotiating terms and mitigating financial risk, all while ensuring that strategic objectives are met.

Equipment storage

Equipment storage costs can become a significant concern across a project's lifecycle, in particular in the lead-up to key project milestones such as the building becoming weathertight. Sensitive components, such as switches and servers, require controlled environments for temperature, humidity and air quality, to minimise degradation and optimise component performance and lifespan. This means their installation is highly dependent on heating, ventilation and air conditioning (HVAC) and adjacent installations. Given the current extended delivery lead times for this type of hardware, construction delays can create a need to temporarily store these items in specific conditions, at short notice. Beyond the immediate costs, prolonged storage will likely impact the value derived versus the depreciation profile of the asset. In extreme cases, such delays can lead to new component models being released between procurement and installation which can impact customer specifications and lead to duplication and redundancy.

Construction equipment

Another often-overlooked consequence is the extended cost of leased or rented construction equipment, such as cranes, scaffolding and heavy machinery. Many of these assets are contracted on fixed rental terms, meaning delays push these expenses beyond the originally budgeted period. Unlike labour costs, which may be scaled in slow periods, rental fees accumulate regardless of usage and can even escalate in certain delay scenarios.

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[5] Source: Norton Rose Fulbright

Overall impact on IRR

For data centre builds sponsored by private equity (PE) and other institutional investors, maintaining a healthy IRR is the key to a successful project. However, just **three months of delay** can reduce this figure for our indicative 60 MW site **from 17.1% to 12.6%**, with a **six-month delay** cutting this figure drastically to just **8.8%**, thanks to a combination of lost revenue, cost overruns and financing adjustments.

> "Private equity-backed projects are incredibly sensitive to time. They need to be completed within their investment window, and any delays cause a ripple effect on expected returns."
>
> *Corporate development director – UK data centre operator*

Figure 2: Data centre delivery delays can decimate IRR

Delay length (months)	0	1	2	3	4	5	6
IRR	17.1%	15.5%	14.0%	12.6%	11.3%	10.0%	8.8%
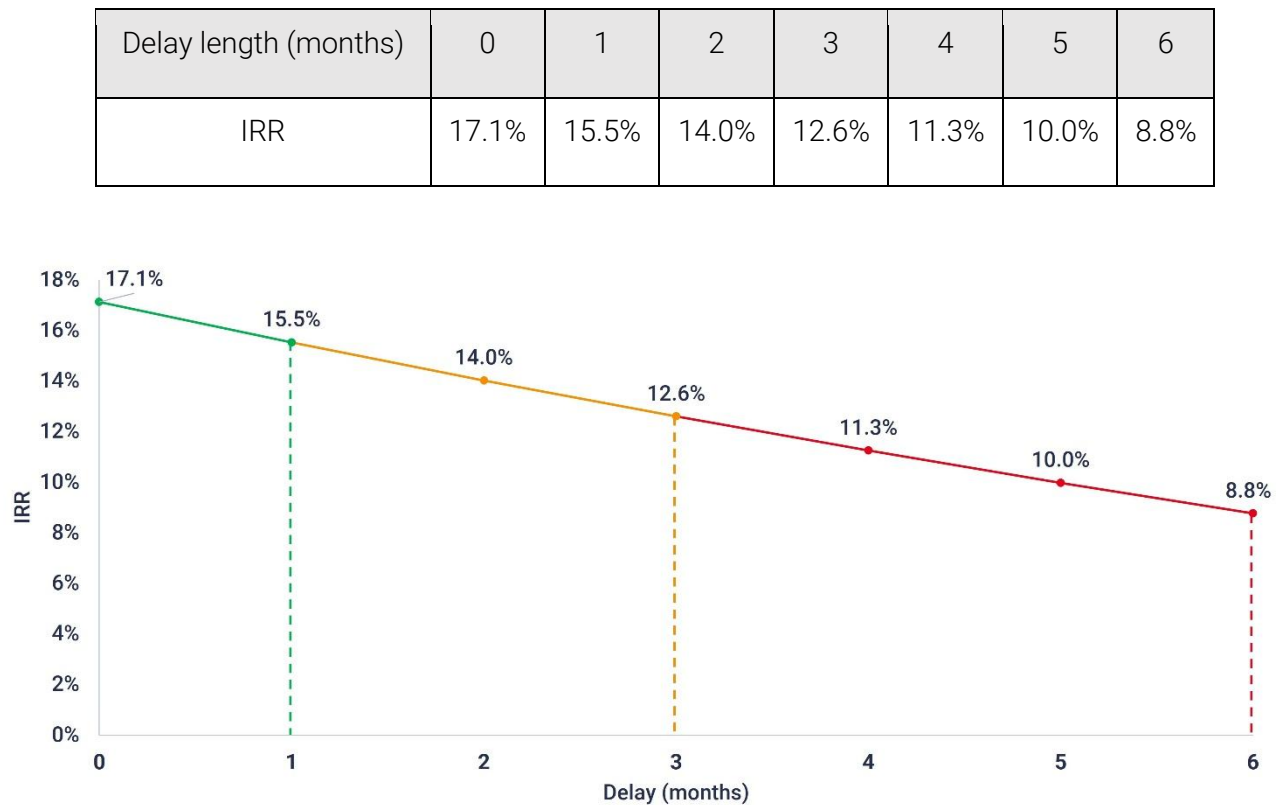
Source: STL Partners

Beyond the balance sheet: The indirect costs of data centre delays

While the direct financial impact of delays, such as revenue loss, cost overruns and SLA fines alone are substantial, the indirect costs are often significantly damaging as well. These hidden costs extend

beyond financial statements, affecting customer relationships, market reputation and long-term competitive advantage. Unlike direct costs which can be quantified, understood and mitigated, indirect costs can be swept under the carpet as known unknowns not impacting the short-term goals of a specific individual. However, they can have broader strategic implications that may take years to fully materialise.

Reputational damage: The long-term trust deficit

In the high-stakes world of data centre construction, reliability and credibility are essential. Delays not only cause financial strain but also erode trust among customers, partners and investors. Just one delayed project and site handover can act as a signal for prospective customers, impacting their data centre developer scoring across metrics such as schedule adherence and cost efficiency, thus

> "Your reputation survives on the last data centre you build, so there must be great care taken in making sure that you are trying to risk mitigate all the way through."
>
> *Chief investment officer – UK data centre operator*

impacting their likelihood of success with future bids. Reputation is built gradually but broken instantly, especially within the small – but growing – circles of the data centre industry where vendor scoring systems play a crucial role in determining future contract awards. In competitive markets, this loss of credibility can be just as damaging as financial penalties, as it influences whether an operator is considered for future projects and expansions, with a hypothetical 10% reduction in win probability of the next contract worth up to **USD1 million per MW**[6] in weighted pipeline reduction.

Competitive positioning: Losing market share to faster competitors

Supply constraints and long lead times mean that companies that can deliver projects on time gain a significant **competitive advantage**. This is exacerbated for operators seeking to expand into new regions, where delays in **market entry** due to construction holdups can eliminate first-mover advantage

> "Delays in our build affect customer space allocation globally, causing disruptions across regions."
>
> *Senior construction manager – Hyperscaler (APAC)*

and materially impact competitive advantage over a multi-year time horizon. This is especially relevant in markets with limited power availability, where being first to secure grid access and permitting approvals can lock out competitors – with delays extending up to **five years for grid connections**.[7]

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[6] Assuming total construction costs of USD10 million per MW. Source: Dgtlinfra.com
[7] Source: DatacenterDynamics

Success through control: How effective project management and reporting eliminate delays

Data centre construction is inherently complex, requiring the coordination of multiple contractors, regulatory bodies, equipment suppliers and investors — all under unforgiving deadlines and high financial stakes. While delays are often inevitable due to unforeseen issues such as supply chain disruptions, regulatory bottlenecks and labour shortages, their ultimate impact can be significantly reduced through proactive project management and robust reporting practices.

> "Delays are inevitable, but better planning and reporting can mitigate most of them. We can't prevent every issue, but if you anticipate risks early, you have a chance to adjust before they cause real damage."
>
> *Construction manager –*
> *Hyperscaler (APAC)*

The key principle at play here is **Murphy's law**: "Anything that can go wrong, will go wrong". While unexpected issues will always arise in large-scale projects, the difference between a manageable delay and a catastrophic overrun is how quickly and effectively teams can detect, assess and respond to emerging risks, issues and dependencies.

Reporting is not the only way to mitigate against delay, but it is the most **cost-effective**, **holistic** and **scalable** solution. While other methods such as dynamic workforce mobilisation, early procurement of long-lead items and prefabrication/modular construction help prevent delays, each has limitations. Dynamic workforce mobilisation secures labour but only with pre-approved contractors, early procurement reduces supply risks but demands upfront capital, while prefabrication/modular construction accelerates timelines but depends on design standardisation and supply chain stability. Thus, though these strategies improve resilience, only structured reporting ensures real-time visibility and rapid response — allowing teams to act before minor issues become major delays.

The biggest challenge in data centre construction is the lag between issues arising and management identifying them. Delays worsen when poor reporting, inconsistent data and siloed communication keep problems hidden for weeks. Effective reporting and project management close this gap, ensuring early risk detection, data-driven decisions and faster action. Beyond its operational benefits, reporting gives project managers a seat at the C-level table, enabling them to drive high-stakes decisions and proactive risk mitigation – in a sector where delays cost millions, those who control the information flow control project success.

Effective reporting is the foundation of successful data centre construction as it is the only way to enable timely mitigation of risks as they arise and facilitate delivery on time and on budget.

Core reporting challenges in data centre construction

While the importance of effective reporting in data centre construction is clear, achieving it is far from straightforward. Complex stakeholder dynamics, inconsistent data integrity, resource constraints and regional compliance requirements create significant obstacles to timely and accurate reporting. These challenges not only hinder real-time visibility but also increase the risk of delays, misalignment and reactive decision-making. Success in data centre construction ultimately hinges on a deep understanding of these core challenges and the strategic measures needed to overcome them.

Complex stakeholder management: The coordination bottleneck

Data centre construction projects involve a complex reporting hierarchy, including C-level executives, project owners, contractors, suppliers, regulators and end customers, each requiring a different level of detail and reporting frequency. Each of these groups needs various levels of detail and data presentation, making effective information flow a significant challenge. Without standardised and rigorous reporting processes, project teams struggle to gain visibility of critical path updates, align dependencies and identify risks in real time, leading to inefficient delivery constrained by delays in issue detection, escalation and response.

One of the most persistent issues is **reporting cadence misalignment**, in which daily site updates, weekly flash reports and monthly executive briefings are produced in different formats for different audiences. This fragmented approach often results in project managers spending excessive time reconciling inconsistencies across reports, manually compiling data from multiple sources, and ensuring that updates are coherent and actionable. Misalignment in reporting structures often leads to conflicting interpretations of project progress, causing delays in decision-making and, in some cases, eroding trust between teams.

Given the increasingly global nature of the data centre boom, **cross-border coordination** introduces an additional layer of complexity, requiring teams to coordinate across multiple time zones, languages and regulatory frameworks. For example, a recent data centre project in the Democratic Republic of the Congo faced challenges when local contractors only spoke French, while reporting was required to be in English – adding an additional level of complexity in coordination and ensuring the accuracy of messaging. Furthermore, inconsistent terminology and regional discrepancies in compliance requirements can lead to significant delays if reporting structures are not designed to seamlessly integrate global standards alongside local requirements. Differences in certifications and regulations

across regions can complicate the use of fully standardised tooling, requiring additional manual adjustments before executive reports can be sent.

This coordination is a major time drain for project managers who spend up to **50% of their time managing contractors and aligning reports**. This high administrative burden leaves little bandwidth for strategic problem-solving, risk mitigation and forward-looking planning — shifting project oversight from a preventive to a reactive model.

> "It's possible to end up in a situation where multiple independent contractors create a 'blame culture' requiring constant mediation. Project oversight becomes more about dispute resolution than about actually keeping the project on track".
>
> *Planning professional – Data centre construction company*

The data integrity challenge: Inconsistent reporting and the burden of manual validation

Accurate and timely data is essential for effective decision-making and risk mitigation in data centre construction. However, disparities in data quality, lack of standardisation and fragmented digital tools create significant challenges in maintaining data integrity and project visibility.

A persistent issue is the **manual reconciliation of metrics** from external contractors. For example, progress tracking may be reported as percentage completion, milestone-based phases or raw labour hours, while financial data can vary between lump sum costs and itemised invoices, making direct comparisons difficult. This lack of standardisation requires significant administrative effort to reconcile discrepancies, slowing down the process of compiling accurate progress updates and shifting reporting further away from being real-time and actionable. Without a unified reporting structure and glossary, inconsistencies can create confusion and leave decision-makers with imperfect information from which to make crucial project decisions.

The **fragmented nature of reporting tools** enhances these issues of reconciliation. Many teams juggle three to four different platforms (such as Procore, Microsoft Project and Autodesk BIM 360) without seamless integration between design, scheduling, budgeting and on-site delivery updates. This lack of interoperability means that data must be manually transferred or re-entered across systems, increasing the risk of errors and inconsistencies, and adding to reporting lead times. Lack of functionality to automatically synchronise updates between scheduling tools and financial tracking systems is often highlighted as causing budgeting discrepancies, delaying approvals for critical procurement decisions and ensuing delivery. Additionally, **inconsistent calculation methodologies and assumptions** can significantly distort key performance indicators (KPIs), leading to misaligned forecasts and financial reporting discrepancies.

This challenge of consistency is compounded by the overhead required to **validate the accuracy of these disparate progress reports**. Construction managers report that up to **30% of their time** is spent verifying the accuracy of progress updates, which often requires physical site walks, cross-referencing photographic evidence and manually reconciling discrepancies between activities reported and actual work completed. Discrepancies in contractor-reported progress can result in disputes, forcing project managers to validate data before passing it up the reporting chain, with novel techniques for this including live video feeds of the site and the use of augmented reality (AR) to validate progress versus point-in-time building information modelling (BIM). This time-consuming process delays risk detection and slows response times for addressing emerging issues.

> "Consolidating and validating reports every two weeks consumes 2–3 days per cycle due to errors, manual data entry, and a lack of version control."
>
> *Senior construction operations manager – Global data centre construction company*

The result of these inefficiencies is that project leaders often lack a reliable and easily accessible single source of truth, making it difficult to assess project health, forecast potential risks and implement timely corrective measures. Without streamlined data validation and automated reporting, decision-making remains reactive rather than proactive, increasing the risk of cascading delays and cost overruns.

The resource constraints challenge: Labour shortages and supply chain uncertainty

Data centre construction projects are heavily reliant on timely resource availability. Labour shortages, equipment delays and supply chain disruptions create a scheduling headache for planners, making it difficult to maintain project momentum.

> "Specialised equipment, such as transformers, UPS units and air handling systems, now takes 6–12 months to procure, compared to 4–5 months previously. Global demand and supplier backlogs are pushing these timelines further out."
>
> *Senior construction manager – Hyperscaler (NA)*

One of the biggest challenges is uncertain **equipment lead times**, as project managers must coordinate long lead times for critical items such as HVAC systems, electrical switchgear and backup generators which can be subject to manufacturing delays, shipping constraints and customs clearance issues. These dependencies are outside of the project manager's control, yet they must be proactively built into project schedules to avoid delaying dependent work packages downstream. Delayed equipment deliveries can force last-minute resequencing of tasks.

A **shortage of skilled labour** further exacerbates project delays. This issue extends beyond data centres, with the US construction industry facing a shortage of **500,000 workers** to meet current demand[8], but it is especially acute in data centre projects due to the specialised technical expertise required. Experienced professionals in this field are in limited supply, making it difficult to staff projects with qualified engineers, electricians and commissioning experts – a particularly acute challenge in nascent data centre markets. This not only slows execution but also impacts reporting quality, as less experienced personnel may struggle to provide accurate progress updates and proactively notice risks specific to data centre construction. The lack of a deep talent pool increases the likelihood of rework, missed deadlines and failures in quality assurance (QA). Poor reporting from inexperienced contractors or employees leads to false progress assumptions, resulting in project managers operating on incomplete or inaccurate information. Addressing this challenge requires clear reporting standards, structured QA processes and continuous skill development to accelerate workforce competency.

> "The biggest challenge is finding general contractors with the experience to meet our standards. You can't just bring in a new general contractor and expect them to deliver – they need to go through 10 to 15 projects before they fully understand what we expect."
>
> *Construction project director – Hyperscaler (NA)*

One way to mitigate against these resource constraints is to leverage **predictive tooling** to develop both capability and capacity to forecast project risks and preempt potential delays. Many teams still rely on historical experience and manual estimation rather than leveraging AI-powered analytics to identify patterns from past projects. This lack of data-driven forecasting contributes to optimism bias where teams underestimate the likelihood of delays and fail to implement proactive solutions.

The regulatory and regional complexity challenge: Navigating compliance, certification and cultural barriers

A key reporting challenge is navigating differences in language, legal structures and reporting culture. Many regions have unique expectations for documentation, language and communication styles, and data presentation, requiring localised reporting frameworks that align with regulatory norms and industry practices. Failure to account for these nuances can result in misinterpretation of progress reports, confusion between local teams and corporate leadership, and delays in regulatory approvals.

To effectively navigate these challenges, organisations must implement adaptive reporting structures that balance corporate standardisation with local flexibility, ensuring that reporting meets both internal oversight requirements and regional compliance demands.

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[8] Source: The Access Group

Optimising reporting and risk management: Best practices to prevent delays

Through our market research with stakeholders across the data centre construction project lifecycle, we have identified four key recommendations for data centre developers:

1. **Plan for disruption:** Leverage proactive scenario planning and robust governance frameworks to ensure that the project plan is as watertight as the site.

2. **Standardise customisable governance:** Balance governance standards with allowing specific projects and stakeholders to adapt this to fit the nuances of their build.

3. **Proactively manage risks:** Seek to manage risks in real time as they appear, supported by a clear risk matrix, escalation pathway and retrospectives.

4. **Deploy smarter tools:** Leverage tooling to enable delivery, incorporating emerging advanced technologies such as AI, while encouraging tooling integration where possible.

Plan for disruption: Expect the unexpected

As has been established, within complex data centre construction projects, risks and unexpected challenges are not just possibilities — they are certainties. From supply chain disruptions and fluctuating equipment lead times to unforeseen permitting roadblocks, these issues can significantly impact project schedules, budgets and outcomes. The difference between a minor setback and a major delay often lies in how well teams anticipate and prepare for disruptions before they escalate – or, in other words, how well they are able to **'expect the unexpected'**.

A key strategy for mitigating these risks is **proactive scenario planning**, where organisations leverage historical project data to identify recurring patterns of disruption. By analysing previous delays – whether due to supplier reliability, customs holdups or unexpected engineering complexities – teams can identify risks before they turn into issues and proactively plan mitigating actions. Some organisations have implemented predictive wargaming workshops where they run simulated crisis scenarios to test decision-making speed and response effectiveness.

Engaging consultants helps to widen the pool of experiences which in turn works to derisk construction planning and delivery. In fact, this breadth of experience can also be used by incorporating tools such as Foresight Works' construction management software into project workflows. Ultimately, teams that regularly engage in predictive exercises, built on a wide breadth of past experiences, are significantly better prepared to handle real-time project uncertainties with confidence and agility.

Beyond scenario planning, **robust governance frameworks** ensure that emerging risks are escalated and addressed swiftly. Establishing predefined streamlined escalation pathways enables teams to move from issue identification to resolution without bureaucratic slowdowns, ensuring that problems

are tackled at the right level of authority with minimal friction. A critical enabler of moving towards real-time risk and issue response is integrated project management solutions with near real-time data, and automated dashboards and alerts. In addition, cross-functional risk response teams (featuring the right combination of individuals from teams such as procurement, engineering, legal and site management where necessary) help ensure that no critical dependencies are overlooked when responding to disruptions.

Ultimately, expecting the unexpected is not just a mindset but a structured approach to project resilience. By combining data-driven risk anticipation, structured crisis simulations and embedding near real-time reporting where possible, organisations can minimise the impact of disruptions, maintain control over project timelines and avoid costly last-minute 'firefighting'.

Standardise customisable governance: Create clear reporting and communication structures

> "We need to ensure there is more honesty and accountability in reporting. Nine out of ten times, reporting is inaccurate. If a client is planning their data centre launch based on unreliable progress reports, the entire project is at risk."
>
> *Construction manager – Data centre construction contractor*

Inconsistent reporting remains one of the most significant challenges in data centre construction, with contractors, suppliers and internal teams often operating on disparate reporting formats and update cadences. This misalignment leads to duplication of efforts, inefficiencies in data consolidation and confusion over project status, ultimately slowing decision-making and increasing the risk of delays. However, overly standardised governance does not allow individuals the flexibility to customise fields and workflows to optimise their day-to-day efficiency. Combining these two, on the face of it, competing forces is crucial to enabling on-the-ground efficiency and corporate level visibility.

One of the most effective ways to reduce fragmentation is to **standardise reporting templates** across projects and teams. Ensuring that contractors are trained on reporting expectations from the outset helps enforce compliance and improves data consistency, allowing project managers to focus on problem solving rather than administrative reconciliation. However, contractors are unlikely to adopt uniform reporting voluntarily, particularly when reporting processes are unclear or open to interpretation. To ensure consistency, standardised reporting requirements should be specified within **contracts**, making structured data submission a non-negotiable deliverable. Additionally, providing contractors with access to standardised reporting tools — rather than expecting them to integrate their own systems – eliminates fragmentation, reduces errors and streamlines project oversight.

Beyond standardised templates, **clear escalation protocols** for delays, risks and dependencies are critical to ensuring timely interventions. When issues arise, teams must have a predefined pathway for escalating them to the right decision-makers, reducing response time and preventing minor setbacks from escalating into major disruptions. Escalation pathways should be tiered based on severity, ensuring that routine issues are handled at the site level while high-impact risks trigger

immediate executive oversight. Additionally, defining response time expectations for each escalation level helps avoid unnecessary delays in decision-making, ensuring that risks are addressed before they become critical obstacles to project delivery.

By embedding structured governance, proactive reporting frameworks and clear communication protocols, organisations can enhance coordination, minimise miscommunication and drive faster resolution of project challenges.

Proactive risk management: Identify, track and mitigate early

While proactive planning and expecting the unexpected are crucial to optimising project planning, some unforeseen risks and delays are inevitable. However, these can be critical if not coupled with a structured risk tracking framework, leading to delayed identification and mitigation of perils. Organisations should implement a real-time danger tracking system, ensuring that all identified risks are logged, categorised and reviewed in dedicated forums at regular intervals.

A **structured risk matrix** is essential for prioritising risks and mitigating them based on their severity, likelihood and potential impact on critical project milestones. By classifying risks across different workstreams and assigning clear ownership, project teams can proactively allocate resources to high-priority threats and ensure that mitigation plans are in place before delays materialise. Projects with rigorous risk review processes are significantly more effective at preventing bottlenecks and maintaining schedule integrity.

> "Risk management underpins successful delivery. We maintain a detailed risk register, ranking risks by priority, ensuring that even less critical risks are monitored regularly to prevent escalation."
>
> *Construction manager – Hyperscaler (APAC)*

Additionally, **retrospective reviews** have proven invaluable for embedding continuous improvement into risk management practices. By systematically analysing previous project risks, response effectiveness and lessons learned, organisations can refine their future risk strategies and improve decision-making over time.

Integrating real-time risk tracking with structured reviews and a data-driven risk matrix transforms risk management from a reactive exercise into a proactive framework, ensuring greater predictability, improved efficiency and reduced project delays.

Smarter tools: Use technology to enhance visibility and decision-making

Leading organisations are increasingly leveraging automation and predictive analytics to enhance reporting accuracy, improve efficiency and accelerate decision-making. However, manual reporting and lack of automated tooling integration remain some of the biggest inefficiencies in data centre construction.

> "We have several dashboards – quality management, financial and planning dashboards – giving us good insights and tooling to track project progress effectively."
>
> *Chief operating officer –*
> *European data centre operator*

Automated dashboards that pull live data from scheduling, procurement and financial systems eliminate manual data entry errors and ensure real-time reporting accuracy. By integrating AI-driven issue detection, teams can identify supply chain bottlenecks weeks in advance, allowing for proactive mitigation strategies rather than last-minute 'firefighting'.

Independent autonomous tools are also key in overcoming **optimism bias** — the assumption that early-stage delays can be recovered later in the project which often proves unrealistic. Incorporating predictive analytics into reporting workflows enables project managers to track **real-time deviations** from planned timelines, adjust forecasts based on actual project performance rather than optimistic assumptions and implement data-driven corrective actions before delays escalate.

By automating data flows, integrating predictive insights and reducing reliance on manual processes, organisations can improve decision-making speed, enhance project visibility and ensure greater delivery reliability.

> "We realised we weren't doing a good enough job diving into the complexity of schedules. We needed greater insight into what was going on instead of just looking at a static document."
>
> *EVP of construction and development –*
> *US data centre operator*

Conclusion

The data centre industry is moving fast, but three key challenges are holding projects back and impacting operators as they embark on expansion.

- **Every month, a delayed completion of a 60 MW site costs the facility owner an estimated USD14.2 million**, with lost revenue, mounting labour costs and SLA penalties stacking up before even considering additional direct costs such as equipment storage, as well as the significant reputational damage. This financial burden compounds, turning short-term overruns into long-term profitability risks.

- **A delay of just one month drops IRR from 17.1% to 15.5%, falling to 12.6% in the case of a three-month delay.** Institutional infrastructure investors expect predictable returns, and delays rip up financial forecasts. A late project can increase risk premiums, limit future funding and damage an operator's ability to grow organically in the future.

- **Risks and issues will arise during construction – and effective reporting is the only way to quickly and effectively resolve them**, ensuring they do not impact project timelines. Additionally, inconsistent data, siloed reporting structures and manual reconciliation create blind spots, so this lack of real-time visibility leads to compounding issues and subsequent delays. Without structured and automated reporting, project managers are left in a 'firefighting' mode rather than making proactive decisions that prevent disruptions.

To address these challenges, data centre developers must:

- **Plan for disruption**: Leverage proactive scenario planning and robust governance frameworks to ensure that the project plan and governance are as watertight as the site.

- **Implement standardised, real-time reporting** to enable construction managers to identify and mitigate risks, and resolve issues as they arise. Structured, integrated reporting frameworks allow project leaders to escalate issues before they become costly bottlenecks, reducing overruns and improving governance.

- **Proactively manage risks**: Determine and socialise a clear risk matrix, escalation pathway and retrospective process to enable real-time risk mitigation and issue resolution, as well as encourage continuous improvement of this process.

- **Deploy smarter tools**: Leverage digital tools to enable delivery, incorporating emerging advanced technologies such as AI while encouraging tooling integration where possible.

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