



Power Over Ethernet: Key factors that can make or break your PoE-enabled workplace

Part 3 of a 3-Part Series, "Power over Ethernet: The Future of Connectivity"



Deloitte is exploring Power Over Ethernet (PoE) technology in the workplace and its potential to unlock new ways to reduce costs and optimize the portfolio. In Part 1, we examined what PoE is and the critical role it can play in meeting corporate sustainability objectives. In Part 2, we explored additional use cases in creating the next generation of smart buildings. Part 3 discusses key considerations that corporate real estate (CRE) professionals should remember when planning for a PoE-enabled workplace.

PoE is moving beyond niche applications and is becoming a central strategy for real estate and facilities leaders as they craft the workplace of tomorrow. Continued innovations in PoE network infrastructure have resulted in an expanding set of PoE-enabled technology assets and a growing list of PoE-enabled use cases. Applications spanning smart lighting, security, conference rooms, and building controls make PoE a versatile and indispensable technology for the next wave of smart workspaces.

How PoE matters for CRE executives

PoE allows businesses to quickly scale connected workplaces, integrating more devices and services with greater flexibility as executives increasingly focus on efficiencies across their real estate portfolios. According to a recent Deloitte commercial real estate outlook report, many firms are investing in connected IoT devices and smart technologies to control building systems, increase energy efficiency, and optimize resource performance.¹ Executives are focusing on how they can enhance both operational efficiency and interconnectivity through real estate technology. By consolidating power and data transmission into a single Ethernet cable, PoE can reduce costs, heighten office layout customization, and improve the functionality of commercial properties.

Key considerations for successful implementation

1. Executive education, interest, and support

Achieving alignment across the leadership team is crucial for successfully adopting and implementing PoE-enabled systems. A Deloitte 2023 investment management outlook report suggests that the success of major cross-department technology initiatives is linked to strong support from leadership and organizational

culture. Among those who indicated that their company has made significant strides in their digital transformation journeys, 80% also observed a considerable positive evolution of their company's culture since the start of 2022.² Conversely, in a separate survey on technology implementation, insufficient executive commitment was found as the most significant impediment to success.³ The decision to leverage PoE as a backbone to powering facilities infrastructure should align with the company's broader business vision, technology roadmap, and general philosophy on data, insights, cyber security, and automation. Leadership support plays a crucial role in reducing barriers to interdepartmental collaboration that may be needed to realize the potential of PoE infrastructure fully. Part of this process includes educating stakeholders on the fundamentals of PoE technologies and the benefits they bring to the enterprise.

2. Cost to implement

When considering PoE as a foundation of workplace technology infrastructure, executives must first and foremost analyze the cost implications and the underlying business case. This analysis includes the initial investment in establishing the PoE infrastructure, such as cabling, switches, and PoE-compatible devices, and long-term financial impacts, such as service delivery and vendor engagement. Weighing these upfront costs against the potential long-term savings, increased employee satisfaction, and enhanced productivity that PoE can offer is crucial.

Unlike traditional infrastructure projects, which often rely on IT budgets, a more holistic approach will be necessary given the expanded scope of stakeholders in real estate, facilities management, and workplace experience. PoE will require

integrating both IT and OT budgetary considerations due to the increasingly intertwined nature of these systems. Executives should ensure that this investment aligns with the company's strategic and financial goals and does not negatively affect the operational budget. Organizations should also consider the availability and cost of external support services for PoE systems, especially if the in-house team lacks expertise in this area.

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3. Employee support for data collection

Gauging employee sentiment regarding sensors in the workplace is also essential. Consumers are increasingly sensitive to privacy concerns, especially when technology is leveraged to track their preferences and behaviors. According to a recent Deloitte survey, almost 90% of respondents agree that they should be able to view and delete data companies collect about them.⁴ The same perspectives relative to individual privacy may also apply to employers. Just as executive leadership must understand the benefits PoE can provide, the broader workforce must also be educated on how PoE infrastructure provides a differentiated workplace experience, such as heightened productivity, greater work point individualization, and a reduced carbon footprint.

4. Skill sets to maintain the PoE infrastructure

A key consideration is the capabilities of facilities management teams to effectively manage and maintain PoE technology within the broader IT and OT portfolio. Executives need to assess whether their current resources have the necessary skills to support these technologies, being mindful that providing targeted training opportunities or evening hiring internal or third-party resources may be required. The integration of PoE with existing network infrastructure and the management of potential cyber security risks are also critical factors to consider when evaluating the current capabilities of the technology support organization.

5. Long-term consumption of enriched data and insights

Introducing PoE technology, particularly in combination with data from upstream sensors and IoT or OT devices, requires careful planning. Executives should consider the training and support necessary for legacy stakeholders to leverage the enriched data sets and insights that PoE can provide. In addition to formalized employee change management initiatives, executives should invest in tools that exploit efficiencies that may be realized by integrating with existing applications within the broader facilities ecosystem. These initiatives will help to reinforce the long-term adoption and value capture of these technologies and even create new PoE evangelists within your organization.

Redefining our concept of the workplace

As executives begin to pilot PoE infrastructure, the business case demonstrated through a pilot program will easily reinforce the benefits of enterprise adoption. As the workplace continues to evolve and better serve the end users through digitally enabled spaces, PoE emerges as both a technological advancement and an opportunity to reposition organizations to embrace a more interconnected world.

References

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