



## Introduction

Technology that enables data capture and analysis, networking, monitoring, and control is becoming the new standard for tomorrow's smart buildings. It's vital to understand what it is, where it's going and how it impacts sustainable opportunities.

Digital technology, it is safe to say, has been revolutionizing buildings for some time, just as it has been upending so many aspects of the human experience over the last several decades. More controllable, better monitored and increasingly responsive, technology-aided and enhanced buildings are delivering a better user experience and operating more efficiently.

The future of buildings, on the other hand, is still being written. The smart building is now available, but it is still in the early stages of development. It is distinguished by the presence of a digital infrastructure robust enough to collect and amass building operational data; provide connectivity required to analyze, learn from, and share it; and ultimately leverage it for the benebt of a diverse set of stakeholders.

All of those capabilities are being exploited in many new buildings designated as smart. But just as there is no ceiling on human intelligence, there is yet no evidence that smart buildings are nearing their full capacity in terms of

functionality.

Throughout this evolution of the digital technology, the globe is urbanizing faster than ever before, and cities in underdeveloped nations are rising even faster. Cities, although contributing to global economic growth, are also major contributors to environmental deterioration. Cities absorb 80% of global energy, produce 70% of greenhouse gas emissions, generate massive quantities of waste and pollution, and are fast encroaching on natural areas. Urban sprawl is leading to poor living conditions, rendering cities very sensitive to climate change, and endangering the wildlife that surrounds them. Cities are expected to house up to 70% of the world population by 2050, making it even more critical to transition toward compact, low-carbon, resilient, and inclusive cities.

Today, the qualities of a buildng digital infrastructure, the information and operational technology network embedded in everything that enables its routine functioning, easily rivals the physical infrastructure in importance. Thus to ensure that a seamless integration and transition is achieved for the infrastructures of the past, present and future NETIX.AI leverages its expertise to ensure that the technology installed today is future-proofed and can interact easily with other devices/control systems.





# NETIX.AI Smart Buildings have role to play

In the quest for sustainability, buildings are a major lever. They are responsible for some 40 percent of global energy consumption. It is also where most people spend up to 90 percent of their time: living and working. Smart building technology from NETIX.AI can be used to measure & monitor sustainability metrics at facilities. The NETIX.AI loT platform, in fact, is designed to do just that, with modules covering key elements of smart cities such as environmental monitoring to optimize energy and water usage. NETIX.AI, a hybrid cloud-based or on premise energy management platform powered by AI and ML algorithms, connects, collects and analyzes data from thousands of sensors across multiple portfolios. These systems allows facilities to prove the concept and demonstrate the feasibility of green and smart technologies related to integrated building and district management systems and practices at scale.

In the future context of a smart city, the potential energy savings are enormous. Imagine instead of a single building reducing its energy consumption by implementing smart lighting, an entire city can do the same, with smart streetlights programmed to dim at times of low trafpc, signipcantly reducing their overall energy consumption and cost.

# NETIX.AI - Partnering for a safer, smarter and sustainable future

Experts are emerging to help building stakeholders move ahead more confidently toward a smart building future.NETIX.AI is leading the digital transformation of energy management and automation in homes, buildings, data centers, infrastructure development and various industries. We create seamlessly connected technologies that reshape industries, transform cities and enrich lives. The NETIX.AI Partner Program ð is an innovative and futuristic solution, meant to drive the Brownbeld Revolution with unique, open protocol solutions which can integrate multi-vendor subsystems, enable real-time monitoring, conduct preventive maintenance, and create an open protocol ecosystem in buildings, in order to ensure utmost adherence to sustainability targets. The NETIX.AI partner program develops a connected world, free of legacy closed systems, enables system integrators to maintain and manage all brands, decreases operations cost for clients while enhancing quality and reliability, enables facility managers to increase operational efpciency. With NETIX.AI you are equipped to Breathe new life into legacy systems and transition them up to current standards, enabling modern energy management and analytics features, generating further savings for clients and reduced greenhouse emissions





# True sustainability – bridging the past, present and future

Today® digital transformation journey has disrupted the complete technological infrastructure in place. Cities standing strong since decades, new structures redesigning the landscape and blue prints determining the fate of these concrete jungles are all at the horizon of another transformation. Throughout this timeline, building automation systems have been re-engineered to cater to the current trends of that era, which has led to the formation of widening gaps as technology continues to evolve. Netix caters to these challenges with its adaptive solutions, empowering the end-user to integrate their legacy systems with today® advance infrastructure, all without up-rooting the existing technology. At the core-level, each product, system and solution is carefully researched and developed to not only cater to the current era® requirement but to keep pace with tomorrow® digital transformation. To simply put it, the end user is enabled with a technology that is future proof and that is the essence of true sustainability.

A Netix Smart City represents the digitalization of establishments, connectivity, infrastructure, facilities, and other elements that make up a habitat. It is also the groundwork for an upgraded, sustainable solution to achieving a prosperous, inclusive, cost-effective, efficient, and healthier city. Netix is equipped to curate and support this process, at every step: from conceptualization and design to execution and detailed actionable insights - we do it all!

# Netix Konnect - A new pathway to sustainability

The intelligent Integrated Command & Control Centre, Netix Konnect is an AI powered platform. Netix Konnect (iICCC) enables infrastructure/assets/buildings and cities to function optimally by graduating to real-time data-driven decision making. It is the nerve center for operations and energy management and can act as a decision support system for building/city administration by responding to real-time events using data feeds from various sources. Netix Konnect caters to various facets of a smart city/building. It provides both macro and micro level solutions leading to sustainable operations, savings on energy and improved ROI.

ilCCC solutions form the basis of building sustainability. The efficiency of building operations is enhanced by up to 40% through a simple and intuitive graphics user interface, critical breakdowns are reduced by 80 % through Al and machine learning technology and 30-40% of manpower utilization is enhanced through fault detection diagnostics. It allows the end user to run building facilities using data analytics and operational responses that can be witnessed in real-time.





### Conclusion

Mass digitalization is clearly a game changer for buildings  $\delta$  from how they $\delta$ e initially conceived and designed, to how they $\delta$ e built and ultimately utilized. The possibilities for using digital technology to create a broadly depned, across-the-board better building stakeholder experience are only beginning to be understood and appreciated, more so with the help of those with proven expertise in conþguring smart buildings that perform. With Netix, the journey of digitalization is evolving, where once technological innovation was correlated with disruption, today it has been redepned with an adaptive approach. Be it a legacy system, a proprietary system, a non-operational system, Netix empowers its end users and brings on board an open IoT and AI powered platform with scalable, brand agnostic integration capabilities which transforms infrastructures to keep pace with today $\delta$ s digital conversion and equips them to be future proof.

Reduced energy consumption in smart buildings is a savings opportunity not only with respect to money, but the environment. Reduction of a building energy footprint translates to reduced energy production, much of which is still dependent on burning of carbon dioxide emitting fossil fuels. The smart building, equipped with technology that closely monitors and controls energy consumption based on needs and resources, is well-situated to become another type of structure increasingly sought after: the green building. The sustainable building model has long revolved around a building materials and equipment approach that ties energy reduction to better physical infrastructure design. That remains important, but the other

emerging dimension relates to better building systems management. A more proactive and ongoing effort to discover areas of energy waste in operations, using smart technology, may prove equally consequential. Improvements acquired through digitalization could translate into a new target for building energy savings and reduction of the environmental footprint.





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