Welcome to Building X

Accelerate the digital transformation of your buildings and realize higher productivity, enhanced occupant well-being, and greater sustainability.

SIEMENS

Advance from smart building to smarter building

Did you know that 40% of energy worldwide is consumed by buildings?[1] Or that 80% of the total lifecycle cost of a building occurs in the operation phase?[2] These are some of the challenges driving digitalization in buildings. Building X is here to accelerate that transformation.

Building X is a cloud-based, artificial intelligence-enabled connectivity platform for smart buildings. It unlocks the potential of linking disparate building data silos and combines them into one data lake, allowing users to control systems through a single source of truth and gain actionable insight previously unavailable.

This e-book is your introduction to Building X. We'll explain how it works and who in your organization will benefit. And we'll show you some of the Building X apps and the market-leading connectivity that will transform your building operations from reactive or proactive to predictive and prescriptive.

The building blocks of Building X

With Building X, your smart building struggles are over. It's a complete suite of applications and ecosystem integrations that accelerates the digital journey with easy integration and easy access to building data on a truly open and secure platform.

AI-Enabled Applications

With Building X, you can select from a growing suite of applications to customize your smart building experience. Leverage Siemens apps, third-party apps, or even create your own apps with our API-powered developer portal.

Connectivity Solutions

Flexible and scalable connectivity solutions take your assets securely into the cloud. Vendor-agnostic, flexible, and cybersecure, our connectivity future-proofs your efforts.

Open Platform

A powerful platform is the backbone for Building X and your single source for accessing building data. It's open, scalable, and modular, allowing you to break down silos and integrate data from devices and third-party sources throughout one building or across an entire portfolio.

Digitalization matters

Digitalization of buildings will help address some of industry's major challenges.

45%

of facilities staff time each day is spent troubleshooting[1]

50%

of experienced facilities staff will retire over the next decade[2]

75%

of commercial buildings are energy inefficient[3]

Sources:
1) Plant Services, 2003;
2) HVACR Workforce Development Foundation, 2015
3) Alliance to Save Energy (ASE), EU; UNEP; EPA, 2020

Connect. Digitize. Optimize.

Say goodbye to complexity. Realizing your smart building goals is now as easy as 1-2-3. Instead of needing different field and management systems that must be evaluated, purchased, and operated independently, Building X consolidates these efforts. Managing your smart building has become a lot like managing your smart phone: simple, scalable, and convenient. By using our SaaS applications as the cornerstone of your smart building, Building X minimizes hardware, simplifies installation, and gets you up and running in no time.
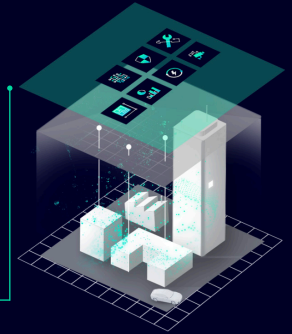
Step 1
Connect

Step 2
Digitize

Step 3
Optimize

Connect

Building X includes connectivity gateways for both software and edge devices. These are the tools that take your assets securely into the cloud. Extendable and flexible, they're built to evolve with your IoT needs and the latest technology innovations. Consider your building future-proofed.

Digitize

One digital platform consolidates all your data. Building X creates a seamless user experience and enables third-party integrations through open APIs. This means more opportunities to make your smart building function the way you want it. Use edge services, analytic services, and a full API portfolio to level up your performance.

Optimize

Building X makes your daily routine smarter – with high-quality data, AI-based analytics, and applications designed to do the tasks you want. Drive outcomes using Siemens applications, third-party apps, or even those you've built yourself. You know what you want your building to do. With Building X, you can make it happen.

Benefit from AI-based analytics today

A smart building is a connected building, but a smarter building is AI-enabled and autonomous. Building X puts the power of AI-based intelligence at your fingertips. Start benefiting immediately with effective energy consumption forecasting. New AI-based apps will help you forecast CO_2 emissions, energy costs, and identify and address performance anomalies right away.

Better building services

The Building X platform powers a new level of building services that enable you to expand both your workforce and your impact on business goals. Services include:

- Energy Optimization

- Digital Maintenance

- Monitoring, Reporting and Event Resolution

- Managed Services

One interface. Endless possibilities.

Building X is the single point of entry for all your building data. You plug in the applications you need, and Building X provides the data. It's a simple system with limitless potential.

A growing ecosystem for building apps

"There's an app for that" is a phrase whose time has come for building operations. Our app library is powered by developers across the smart building landscape.
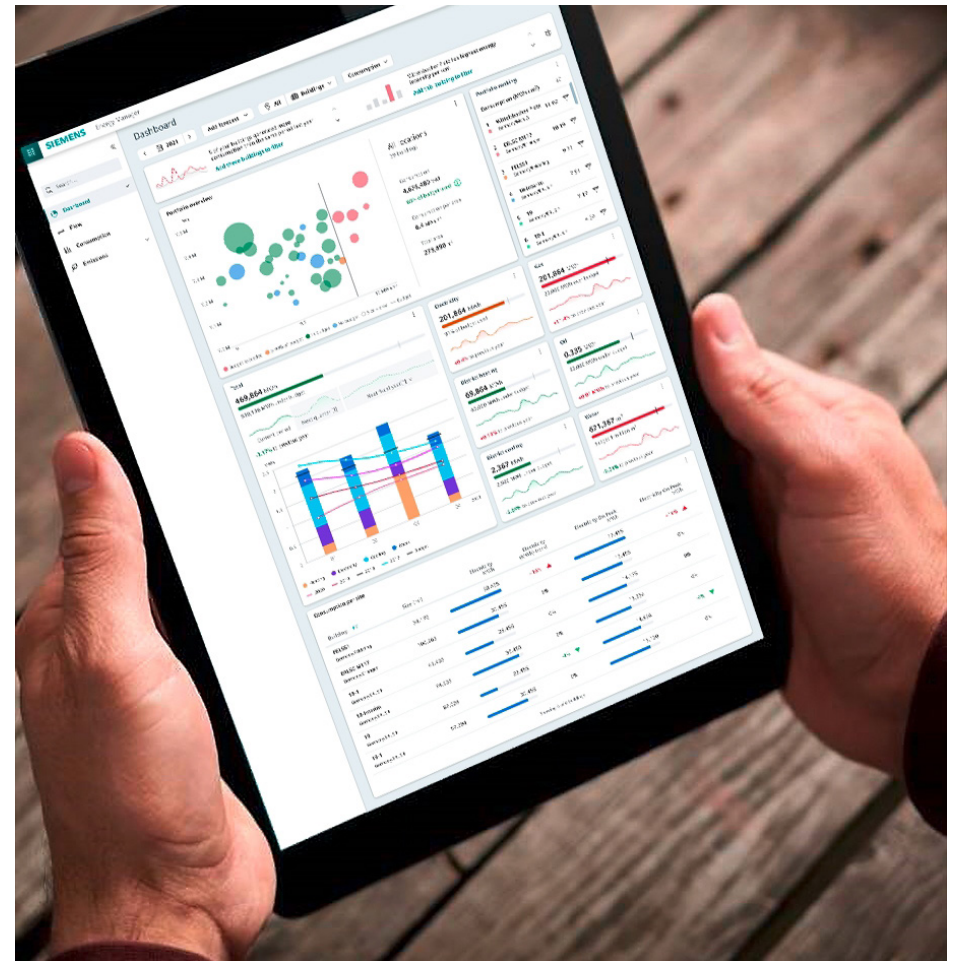
Siemens apps

Experience apps that address the most critical building functions, including operations, energy, and security.

Third-party apps

Building X gives third-party developers a complete smart building ecosystem where they can create and market new applications. It gives you a bigger library to find the apps you need to customize your smart building experience.

User apps

Your application engineers can also use our Building X Developer Tool and API portal to create apps specifically for you. With the tool, they can work faster and at a lower cost, deliver exactly the app you need, and make sure it works the way you want.

Building X offers something for everyone

With the greater functionality our open system makes possible, more people benefit from Building X.

Energy/Sustainability Manager
Make data-driven decisions and provide real-time progress reports using consolidated, high-quality data.

Facility Manager
Spot inefficiencies faster and ensures smooth operations, on-site or remotely, from one building to many.

Security Manager
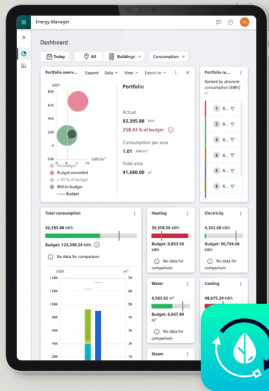Build on existing assets to create a smart, integrated security management system for the digital age.

Real Estate Manager
Integrate data from multiple buildings using one cloud platform and find new efficiencies for the properties in your portfolio.
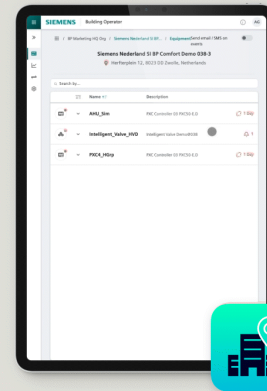
Meet the apps

Accelerate your building's sustainability, experience, and performance and drive tangible business outcomes – today. We've developed a suite of Building X apps ready to address critical activities and daily operations.

Energy Manager

Energy-efficiency savings have emerged as an ideal starting point for streamlining the operational costs of smart buildings. Building X Energy Manager monitors, analyzes, and predicts energy-efficiency KPIs, associated CO_2 emissions, and related expenses in near real-time across your portfolio. Energy Manager helps you:

• Take corrective action to prevent budget overruns and keep sustainability plans on track.

• Prioritize investments by unleashing advanced data analytics across your entire portfolio.

• Speed up sustainability and cost reporting with automated data capture and flexible tools.
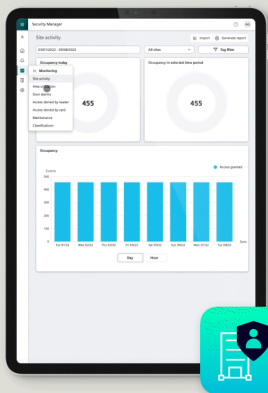
Operations Manager

To boost productivity while reducing costs, Building X Operations Manager lets you monitor and control HVAC equipment across all sites down to the data-point level, from anywhere at anytime. Operations Manager helps you:

• Monitor a fleet of sites 24/7 from one dashboard.

• Plan preventive maintenance based on data insights.

• Power up business continuity with faster response times and less equipment downtime.

• Avoid unnecessary travel time and reduce expenses.

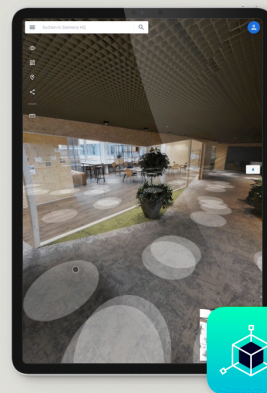• Leverage actionable insights and full transparency to achieve your KPIs.

Security Manager

Protecting people and assets while ensuring business continuity is mission critical. Integrating seamlessly with existing security systems, Building X Security Manager monitors and manages physical access to buildings, tracking utilization, security alarms, incidents, and expenses all in one place. Security Manager helps you:

- Operate and maintain your security systems more efficiently, with unified and automated workflows.
- Manage daily security operations and incidents across all systems from a single dashboard.
- Leverage actionable insights and full transparency to achieve your KPIs.

360° Viewer

Using laser scans, live data, and metadata covering points of interest, Building X 360° Viewer lets you virtually explore photo-realistic representations of connected buildings in your portfolio. You'll be able to easily answer questions, plan visits more effectively, and save on travel expenses. Building X 360° Viewer helps you:

- Explore a location in 3D to plan maintenance and determine which tools to bring to avoid delays.
- Take highly accurate virtual measurements.
- Conduct virtual tours and building health checks.
- Understand equipment topology and installation ahead of maintenance visits.

Connect to the Building X ecosystem

The power of Building X is in its ability to pull all of the data from your different systems, place it in a single data pool, and then let you connect to it easily. This new level of connectivity opens up a world of possibilities for making buildings smarter.

Welcome to the Building X ecosystem

When you connect to the cloud, you're connecting to the future of smart buildings. Building X makes it easy and powerful, and cost-effective.

Open API Portfolio

Unleash the business value of data with a comprehensive API Portfolio and cloud data exchange. Access building data in the cloud through familiar technologies, such as restful APIs and applied API standards, to create your own building apps as needed. You can even connect to building systems that might not be open systems; with Building X you can listen, collect, and use their data.
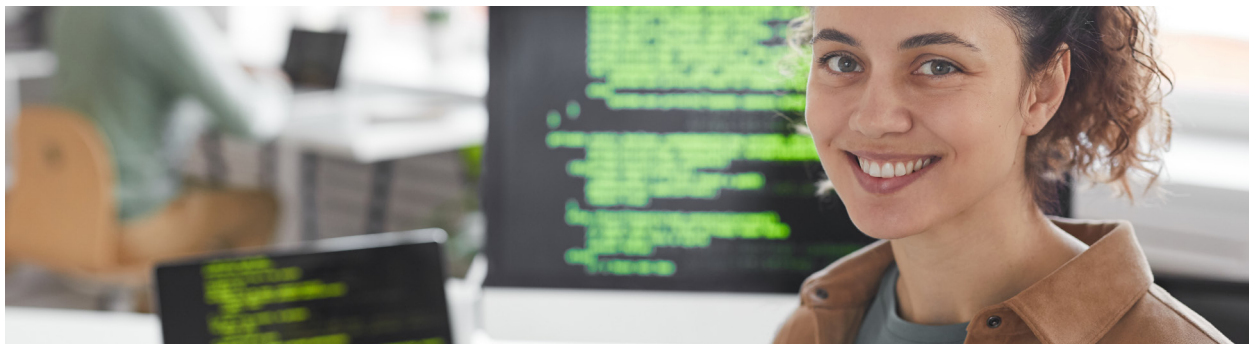
Third-party apps

Choose the applications that help you perform your daily tasks and create tangible business outcomes. Add different apps at different times as your smart-building systems grow or change. For application developers, integrating to Building X is easy and affordable, making it a go-to destination for new smart building applications.

A platform for innovation and collaboration

With its openness and ability to connect users to unified building data, Building X unleashes the power of collaboration to create a dynamic, market-leading smart building ecosystem.

- Integrating with Building X is easy and affordable, enabling applications to be created and made available more cost-effectively.

- Building owners benefit from a wider selection of available applications at a lower overall cost.

- Service providers can leverage data and applications to create newer, smarter offerings for their customers powered by Building X.

- Through its reach and accessibility, the Building X ecosystem continues to drive innovation and collaboration that accelerates the future of smart buildings.

Where will Building X take you?

Whether you are starting your smart building journey or looking to accelerate your efforts, Building X is designed to help you achieve results fast.

Explore new opportunities on a truly open and secure platform

- Drive tangible business outcomes

- Implement business solutions faster

- Enable data-driven decisions by leveraging built-in analytic services

- Increase transparency across all your building systems

- Break data silos to ensure interoperability

- Integrate data analytics into your own cloud apps using open APIs

Be ready for the smart building of the future

- Predict the future and make data-driven decisions with AI-based data

- Plan better budgets by simulating energy consumption, cost, and emissions based on historical values

- Identify the root cause of anomalies to fix issues as early as possible

- Ensure predictive maintenance across all systems and prevent problems before they happen

Leap into the future with Building X
usa.siemens.com/buildingx

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