

# Powering the Internet of Things

ThingWorx™ is the first software development platform designed for the needs of the Internet of Things and the connected world—a world characterized by an explosion of connected sensors, devices, and equipment (“Things”). The ThingWorx platform provides a complete application design, runtime, and intelligence environment, allowing organizations to rapidly create innovative applications that unleash the value found at the intersection of people, systems, and intelligent connected Things.

## The Connected World

We are now in the connected revolution—a time where the number of connected Things has surpassed the number of connected people. Growing to 50 billion by 2020 and accelerating to 1 trillion by 2045, the connected revolution will impact every aspect of business and society.

This explosion of connected Things with their associated data, events, and services is transformational, offering a step change in innovation and opportunity. The connected revolution will transform existing business processes and spawn new processes and services in every market segment and industry. Furthermore, these billions of connected Things open the door to a new era of connected applications and Big Data, where the analytical processing of the data exhaust of Things will also drive boundless insight and innovation.

The needs of this increasingly connected world are as different as the assembly line was to the silicon chip, therefore prior technologies can only offer partial solutions at best. These unique needs are:

- Scalable communications infrastructure that supports millions of varied Things, on a mix of network topologies
- Comprehensive application design and development tools that allow businesses to rapidly build applications that take advantage of data and interactions from connected Things
- 3-Dimensional storage engine that can store, relate, and expose the data exhaust of people, systems, and Things
- High performance, event-driven execution platform that provides connectivity, storage, analysis, execution, and collaboration capabilities required for connected applications
- Search-based intelligence to expose the data, events, services, and relationships of the connected world to anyone with suitable permissions

ThingWorx was designed specifically to meet these unique needs. Learn how its innovative environment can reduce application development efforts 10X and deliver social and searchable connected applications.



# Welcome to ThingWorx

The ThingWorx platform combines the key functionality of Web 2.0, search, and social collaboration and applies it to today's connected world. This enables leading companies to build innovative applications that connect, store, and relate the activities and data from people, systems, and Things, including connected machines, devices, sensors, and equipment.



## Where Does ThingWorx Add Value?

- Extend your existing business processes to include the world of smart Things. ThingWorx allows your business to leverage data and events from connected Things to enhance existing business processes, making them more innovative and responsive.
- Rapidly create innovative business processes around connected Things to capture the new opportunities available in the connected world.
- Accelerate the pace at which your business can deliver value-add solutions allowing you to claim greater market share against new and existing competitors.
- Leverage the value in distributed data through search-based intelligence. Unleash the collective intelligence of your organization by exposing data from people, systems, and Things through intelligence and analytics tools that help you solve problems and discover opportunities faster.

## Key Platform Characteristics

ThingWorx is an innovative platform for building connected applications. The platform brings together a forward-looking set of technologies specifically designed to address the challenges of today's increasingly connected world.



### Flexible Connectivity Options Secure, Scalable, and Modern

ThingWorx "inclusive" connectivity strategy maximizes market opportunity and minimizes integration efforts.

ThingWorx supports connectivity to devices via several methods, including third party device clouds, direct network connections, Open APIs, and ThingWorx AlwaysOn connectivity using the ThingWorx Edge MicroServer – a scalable, secure, and easily deployable communication technology designed for providing continuous bi-directional connectivity between sensors, devices and equipment, and the ThingWorx server, regardless of the network architecture. ThingWorx AlwaysOn can be embedded on a device, run in a gateway, or on an appliance.



### Model-Based Development Reduces Development Time by 10X

ThingWorx Composer is an end-to-end application modeling environment designed to help you easily build the unique applications of today's connected world. ThingWorx Composer makes it easy to model the Things, business logic, visualization, data storage, collaboration, and security required for a connected application.



### Codeless Mashup Builder Rapid Creation of IoT Applications

ThingWorx "drag and drop" Mashup Builder™ empowers developers and business users to rapidly create rich, interactive applications, collaborative workspaces, and mobile interfaces without the need for coding.

The ThingWorx Mashup Builder includes a complete set of UI widgets, featuring extensive collaboration components (including blogs, wikis, discussion forums, etc.), as well as standard data visualization charts, grids, and forms.



### ThingWorx SQUEAL™ (Search, Query, & Analysis) Search-Based Intelligence Unlocks Collective Wisdom

ThingWorx SQUEAL brings search to the world of connected devices and distributed data. With the interactive search capabilities of ThingWorx SQUEAL, users can now correlate data that delivers answers to key business questions. Pertinent and related collaboration data, line-of-business system records, and equipment data get returned in a single search, speeding problem resolution and enabling innovation.

For more information contact us at: [www.thingworx.com](http://www.thingworx.com) or call (610) 594-6200

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