AT&T Partner Exchange®

A channel executive’s guide to the Internet of Things

Unlocking the future for the channel. Powered by AT&T.
AT&T Partner Exchange®

A channel executive’s guide to the Internet of Things

Unlocking the future for the channel. Powered by AT&T.
$11.1 trillion in economic value created in IoT by 2025.¹

85% of businesses are already considering, exploring or implementing an IoT strategy.²

Contents

Preface .................................................................................................................. 4
Executive Letter from Brooks McCorcle ............................................................ 7
IoT Landscape ..................................................................................................... 8
IoT Trends ........................................................................................................... 10
Business Impact of IoT ....................................................................................... 12
Expand Mobile Strategy with IoT ....................................................................... 14
  Building Blocks .............................................................................................. 15
  Layers of IoT Security ................................................................................... 18
  Creating an IoT Offer .................................................................................... 19
  Begin Your IoT Journey ............................................................................... 21
AT&T Partner Exchange Program Advantage .................................................. 22
  Tools & Resources ....................................................................................... 23
Why AT&T .......................................................................................................... 24
Contact Us .......................................................................................................... 26
Sources ................................................................................................................ 27
Preface

At AT&T Partner Exchange®, we collaborate with hundreds of visionary solution providers who are driving the next wave of growth in the channel. The evolution of connected devices, or the Internet of Things (IoT), has created a surge of excitement for businesses lured by the thrill of opportunity. From helping to drive greater efficiencies to enhancing customer experiences to creating new revenue streams, more and more businesses are seeking the competitive advantages IoT can provide.

This guide focuses on the market opportunity for IoT. It discusses current and emerging trends and offers guidance on preparing an IoT strategy using AT&T products and services. These opportunities extend well beyond IT departments to the line-of-business decision makers, opening up entirely new possibilities for today’s solution providers looking to harness the potential of IoT, powered by AT&T.
IoT is no longer a concept of theory and proposition but a revolutionary wave of innovation driving real impact and opportunity.

—Brooks McCorcle, president, AT&T Partner Solutions
Business Leader,

The Internet of Things is dramatically changing the market and opening up vast opportunities for solution providers to grow their businesses and expertise. IoT is no longer a concept of theory and proposition but a revolutionary wave of innovation driving real impact and opportunity.

IoT unlocks growth potential by facilitating integrated solutions that help drive efficiencies and productivity, improve visibility and provide competitive advantages for customers. Solution providers have the unique opportunity to step in, explore and support the rapid expansion of IoT.

To help position your business for success, you should consider the following:

• Exploring new technologies and resources to build and implement comprehensive solutions
• Demonstrating IoT expertise and capabilities
• Communicating business impact and offering compelling solutions

Investing in these key areas is critical for driving success. And, regardless of the path chosen, AT&T Partner Exchange can help solution providers navigate their IoT journey towards creating more value for their customers using AT&T products and services. Our program provides access to the tools and resources needed to help accelerate momentum on the path to becoming more connected.

This guide underscores the business opportunity that exists with IoT and how today’s solution providers can take advantage of it. Please reach out to us to learn more.

Sincerely,

Brooks McCorcle
President – AT&T Partner Solutions
AT&T Services, Inc.
The Internet of Things is becoming increasingly integral to our daily lives. From connected homes to cars to fitness wearables, virtually anything can be connected from almost anywhere. Consumers are leading the charge to hyper-connectedness, where lines are blurring into our work lives as industries, companies, employees and customers expect the same connectedness and value created by IoT to span their full lifestyle.

IoT is having a transformative impact on business and that pace will only continue to accelerate. IoT is improving manufacturing processes, streamlining supply chains, initiating more frequent and in-depth customer interactions and providing insightful new data as business leaders look to make more informed, data-driven decisions.

Organizations around the world are turning to IoT solutions to help accelerate how they operate, innovate and compete. It is predicted that the number of globally connected devices has surpassed the number of human beings on the planet and will continue to grow exponentially in the near future.3

Human Beings vs. Internet Connected Devices3
(millions)

3 The Internet of Things: A Study of Hype, Reality, Disruption and Growth, Raymond James & Associates, January 2014
Today’s rapidly changing market dynamics and growth opportunities present new ways to develop, implement and manage technology to help grow business.

Consider these statistics about IoT:

- IoT is expected to have massive economic impact, anticipating $11.1 trillion in global economic value by 2025.¹
- By 2020, 50.1 billion “things” will be connected and/or have some level of intelligence.⁴
- 85% of businesses are already considering, exploring or implementing an IoT strategy.²
- 6 in 10 organizations claim to have some type of IoT initiative underway.⁵

² Internet of Things in Logistics, DHL Trend Research | Cisco Consulting Services, 2015
⁵ IDC FutureScape: Worldwide Internet of Things 2015 Predictions, November 2014
⁶ 75% of IoT adopters will turn to outside firms for help.
IoT Trends

To understand how businesses can use IoT to address current and future needs, solution providers can look to specific use cases from a variety of industries that are experiencing rapid technology adoption and transformation. Taking a vertically-focused approach and evaluating trends across industries can help uncover new opportunities and create more value for business customers.
Common drivers for IoT include the ability for businesses to obtain insights, improve operational efficiency, proactively respond to changing conditions and improve customer service. Market segments tapping into these innovative solutions include:

- **Construction companies** can remotely manage assets like heavy equipment or vehicles at different site locations.

- **Healthcare providers** can observe patients’ conditions after medical procedures to speed up recovery times in the comfort of their own homes.

- **Manufacturing companies** can create operational efficiencies and maximize plant safety using smart sensors and control systems.

- **Retailers** can dynamically shift in-store messaging with digital signage and expand point-of-sale and customer service opportunities.

- **Transportation companies** can track vehicle locations to plan optimal routes and monitor pick-ups and deliveries across an entire fleet.

- **Utility companies** can accurately transmit data from smart meters to back-end systems, eliminating user error and time and cost of on-site readings.
Business Impact of IoT

The countless opportunities that IoT presents can leave many decision makers overwhelmed and uncertain on how to get started. In fact, 75% of IoT adopters will turn to outside firms for help. For this reason, solution providers are uniquely positioned to help customers with strategic recommendations and customized IoT solutions tailored to meet their needs and business objectives. There are many ways IoT can help unlock business value, including:

**Increase revenue**
Businesses can look for innovative ways to offer products and services throughout the entire customer lifecycle, not just at the point of sale. This opens up new markets and revenue streams for solution providers to provide greater value to customers.

**Reduce cost**
IoT solutions can help reduce costs through improved asset utilization, process efficiency and better productivity. Solution providers can work with customers to understand how different IoT solutions can automate existing processes and provide more responsive services.

**Streamline operations**
Organizations can use near real-time data from sensors to monitor and improve process efficiency, reduce energy costs and minimize human intervention and error. Connected sensors can provide data that reduces waste and aligns operations to changing conditions.

**Improve visibility**
Solution providers can provide guidance and services for using IoT analytics, like assessing a customer’s operations or supply chain and making recommendations for ongoing management and monitoring solutions based on data.

**Enhance customer interactions**
Data analyzed from IoT solutions can help businesses better understand their customers. The insights gained can help deliver higher-quality products and experiences through data-driven decisions.

---


---

85% of businesses are already considering, exploring or implementing an IoT strategy. 

---

Business Impact of IoT

Spotlight

1. Sentinel, one of the nation’s largest providers of electronic monitoring services and technologies, needed a scalable IoT solution to manage large deployments of connected wearables and to reduce costs.

To meet Sentinel’s needs, vCom, an AT&T Partner Exchange solution provider, created a custom solution using a platform to auto-activate, place orders and receive alerts based on actual usage. It also offers robust reporting and visibility of each device.

This IoT solution eliminated usage overages by up to 50% during the pilot program, with the potential to increase savings after wide-scale implementation.

2. A bicycle kiosk company needed to track and monitor bicycles in California’s Wine Country, and accept credit card payments from its riders.

Data2Go Wireless, a solution provider focused on IoT and machine-to-machine enablement, positioned connectivity and AT&T Control Center, powered by Cisco Jasper. This IoT solution helped their customer improve visibility of its bicycle fleet, increase revenue and enhance the customer experience.
When developing an IoT strategy, businesses need agile products, services and networks to gain near real-time insights about the things they value most. At the core of any IoT solution are three technical components—network, device and applications.
Expand Mobile Strategy with IoT

Building Blocks

Before developing a go-to-market strategy, it's important to understand the basic components of an IoT solution.

**Network**
Technology that transmits data from devices and makes it available to be monitored and analyzed for insights

**Device**
Hardware or sensors that connect users or assets and collect data

**Applications**
Software programs that help manage, analyze and protect data
Expand Mobile Strategy with IoT

Building Blocks: Network

Efficient, scalable connectivity is a fundamental component to building a successful IoT solution. When building an IoT solution, it’s important to select a network technology or blend of technologies that can offer the required performance, coverage and value for a customer’s business and applications needs.

IoT networks include:

- Broadband Cellular—Offers expansive reach, scalability, diversity and high-bandwidth capabilities that span several generations of network evolution
- Lower-Power Wide-Area—Delivers enhanced coverage and longer battery life intended for IoT devices that need low power consumption designed for urban, in-building or underground connectivity
- Satellite—Provides connectivity where cellular isn’t available, including remote locations, extreme environments or disaster recovery situations
- Short-Range—Deploys more local connectivity to devices at a closer range from the signal source, including Wi-Fi and Bluetooth technologies

Opportunity

Solution providers can position the appropriate connectivity options with their customers based on their solution needs, device requirements and environment requirements, whether on land, in remote locations or underground.

Factoids

- Over $140 billion invested in the AT&T network from 2012 to 2016, more than any other U.S.-based publically traded company
- From 2007 to 2016, data traffic on the AT&T wireless network has increased about 250,000%

Additional reading:

For a deeper dive into IoT networks, check out the AT&T “What you need to know about IoT wide area networks” report.
Expand Mobile Strategy with IoT

Building Blocks: Device

As more and more “things” and devices are connected, companies are looking for innovative ways to incorporate IoT into their products, services and supply chains. Devices—the endpoints in an IoT solution—make the flow of data and connectivity possible. Businesses should consider and deploy devices that adhere to carrier certification and regulatory standards.

Opportunity

Solution providers can help their customers identify key pain points and recommend the right hardware and technology. Solution providers can also help their customers navigate the required industry certifications that are critical to ensuring a more successful and secure deployment.

Factoids

- AT&T has deployed over 30 million connected devices¹¹
- Over 3,000 certified devices on the AT&T network
- An online device certification process offers a fast, streamlined path to device approval on the AT&T network

Expand Mobile Strategy with IoT

Building Blocks: Applications

Software plays a critical role in building an IoT solution and in business transformation. Applications can provide monitoring, automation and visibility across a wide range of industries. The wealth of data—not only generated but analyzed for insights—can offer businesses a competitive advantage, by helping attract and retain customers and grow revenue streams.

Opportunity

The proliferation of data, ubiquitous connectivity and higher bandwidth availability, creates opportunities for solution providers to understand their customer’s unique needs and desired outcomes. Understanding this will better position solution providers to recommend applications best suited for their specific use case.
As IoT technologies become essential for keeping pace with fast-evolving markets, businesses and technology leaders must be vigilant in security practices to help keep their companies and customers safe. The scale of interconnected IoT devices within and outside of the corporate firewall—along with the massive amounts of data they generate—dramatically increases the complexity of information security.

From protecting individual privacy, to managing supply chains, multi-layered security solutions should be implemented across devices, networks and applications in order to help provide effective threat management. These security layers include:

- **Endpoint Layer**: Helps secure the device that is connected to the internet.
- **Network Layer**: Helps secure the data from a device being transferred over a wired or wireless connection.
- **Data and Applications Layer**: Helps secure the stored data on the device and information accessed by applications.
- **Threat Analysis Layer**: Helps collect and analyze data across all layers to support protection against threats.

**Additional reading:**
For a deeper dive into IoT security, read the AT&T “CEO’s Guide to Securing the Internet of Things” report.  

---
Expand Mobile Strategy with IoT

Creating an IoT Offer

“The rapid explosion of IoT has created a lot of excitement in the channel. AT&T Partner Exchange brings these opportunities within reach of enterprising solution providers.”

—Sue Galvanek, vice president of marketing, pricing and product solutions, AT&T Partner Exchange

When considering ways to create an IoT offer, there are two primary options:

1. **Plug-In Connectivity**
   - Connect devices using a robust platform to deploy, manage and scale IoT solutions

2. **Custom-Built Solution**
   - Develop custom IoT solutions utilizing certified hardware and software components

Expand Mobile Strategy with IoT

Creating an IoT Offer: Integrated Solutions

Whether taking a turnkey or custom-built approach, AT&T Partner Exchange offers integrated solutions to support IoT success.*

**AT&T Control Center**

AT&T Control Center is a sophisticated, cloud-based IoT platform that enables solution providers to launch, manage and rapidly scale their customers’ connected devices. It gives solution providers visibility into the activity and status of their customers’ devices on the wireless network, allowing them to analyze and strategically manage customers’ Control Center connected device deployments.

“The platform, AT&T Control Center, is the nucleus of IoT. It’s what makes everything else work.”

—Robert Senatore, president and chief operating officer, Data2Go Wireless

* Services are subject to applicable service terms. Description of services is not a guarantee of service availability.
Wireless Wide Area Networks

Wireless Wide Area Networks (Wireless WAN) provides businesses with seamless, reliable and highly secure connectivity. Wireless WAN offers businesses true network diversity with wireless back up and redundancy capabilities, providing customers flexibility in their network design and security needs.

Field Solutions

Achieve greater efficiencies with a variety of field solutions aimed to help augment the productivity and agility of a mobile workforce. Field solutions can provide near-instant communications and management tools that can help streamline operations, keep track of resources and quickly respond to customer needs.

- **AT&T Fleet Complete®** is a GPS-based fleet and asset tracking device and management solution. This field solution helps enable businesses to manage and monitor driver behavior, collect data to reduce fuel costs, provide tools to help optimize routing, improve fleet utilization and increase driver productivity.

- **AT&T Enhanced Push-to-Talk** connects workforces with voice collaboration utilizing push-to-talk functionality. This field solution equips teams and supervisors with the tools to communicate and stay connected from virtually everywhere, on almost any mobile device.

* Subject to applicable service terms, including third-party terms.
Expand Mobile Strategy with IoT

Begin Your IoT Journey

To assist in accelerating time-to-market, IoT-specific tools and resources can help solution providers get started and further develop their IoT go-to-market strategy.

**IoT Readiness Assessment**
The IoT Readiness Assessment, created in collaboration with AT&T Partner Exchange and Infusion Partners, LLC, serves as a tool to assist solution providers in understanding their ability to enter into the IoT market and help accelerate their IoT revenue.

**AT&T IoT Starter Kit**
Solution providers can get hands-on experience on IoT projects with a starter kit. Whether exploring IoT for the first time or a seasoned developer, this kit comes with hardware, services and data for solution providers to begin their IoT journey.

- Prepaid SIM
- LTE Connection
- I2C Port
- Cellular Shield
- Humidity Sensor
- Temperature Sensor
- Arduino-Compatible Pinout
- Host Board

**AT&T Partner Exchange Solutions Center**
IoT solutions require hardware, connectivity, software applications, platforms and expertise. To help support solution providers with their IoT initiatives, AT&T Partner Exchange created a Solution Center to help educate about industry use cases, profile different IoT solutions and provide recommendations for AT&T-certified devices.
AT&T Partner Exchange
Program Advantage

AT&T Partner Exchange is an industry-leading reseller program offering solution providers the ability to deliver the power of AT&T through co-branded, integrated solutions to their business customers. With over 80 awards won since throwing open its doors to innovation in 2013, AT&T Partner Exchange is collaborative and innovative, providing technology, tools and resources to help solution providers succeed in the market. In 2016, AT&T Partner Exchange launched an IoT platform to help solution providers seize IoT opportunities, and since then has continued to unveil new offerings and enablement resources to help accelerate solution provider success in the IoT space.

“Whether it’s smartphones, tablets or IoT applications, our business customers look to us to manage their mobility environment and deliver solutions that impact. Through our collaboration with experts like AT&T Partner Exchange, we bring custom solutions that drive visibility, control and cost savings for our clients.”

—Gary Storm, chief executive officer, vCom Solutions
AT&T Partner Exchange Program Advantage

Tools & Resources

AT&T Partner Exchange offers creative and innovative ways to help accelerate solution provider growth through enablement tools and resources.

Enabling speed and growth

Resources designed to help solution providers take their business to the next level

- **Application Programming Interface**
  - Utilize APIs* to connect business applications to AT&T systems to access information for select wireline and mobility products as well as to the IoT platform, AT&T Control Center

- **Training and Certification**
  - Progressive learning experiences designed to help solution providers deepen product knowledge and more effectively position AT&T services to their customers

- **Marketing Consultants**
  - Marketing support that can assist solution providers in building meaningful campaigns to help grow their business

- **Marketing as a Service**
  - Access to third-party vendors** that can help create custom, integrated campaigns for solution providers such as email marketing, social strategy, lead list sourcing and appointment setting

Delivering programs that impact

Impactful programs designed to help solution providers transform their business and deliver value to their customers

- **Market Development Funds**
  - Targeted marketing funds to help generate demand for co-branded solutions and aid in funnel growth

- **Investment Development Funds**
  - A variety of co-funded resources to help enhance operational readiness—from staff augmentation, operations and sales consulting, to systems investments and API development**

- **Employee Sponsorship Program**
  - Deliver extra value for business customers by extending discounts on AT&T wireless services to eligible customers’ employees and families

* Not available to all solution providers. Separate agreement required.

** Products and services are offered strictly by third-party providers, and any purchase of products or services is between the relevant Solution Provider and such providers. AT&T assumes no liability for services or products offered or sold by, or purchased from, such providers.
AT&T is leading the way to the future—for customers, businesses and industries. For over 140 years, AT&T has been committed to innovation and delivering leading-edge technologies that can change lives and transform businesses. These deep roots in technology advancements continue today with the AT&T Foundry™, six innovation centers focused on redefining technology and helping bring new ideas to market, including IoT.

With over 10 years of experience in IoT, AT&T has deployed over 30 million connected devices and continues to help customers around the globe with IoT deployments. Through AT&T Partner Exchange, solution providers can gain access to a fast, reliable and highly secure network, smart platforms for seamless development and robust, layered security to help bring transformative solutions to their customers.
Contact Us

For more information on AT&T Partner Exchange, visit partnerexchange.att.com

Additional reading:
“A Channel Executive’s Guide to Mobility”
A guide to help solution providers incorporate mobility into their go-to-market strategies, powered by AT&T."14
Sources

2. State of IoT Security, AT&T, October 2015
3. The Internet of Things: A Study of Hype, Reality, Disruption and Growth, Raymond James & Associates, January 2014
4. Internet of Things in Logistics, DHL Trend Research | Cisco Consulting Services, 2015
   [www.dhl.com/content/dam/Local_Images/g0/New_aboutus/innovation/DHLTrendReport_Internet_of_things.pdf](www.dhl.com/content/dam/Local_Images/g0/New_aboutus/innovation/DHLTrendReport_Internet_of_things.pdf)
5. The Internet of Things: Insights and Opportunities, CompTIA, July 2016
7. AT&T Launches North America's First LTE-M Site to Grow IoT, AT&T, 26 October 2016
   [about.att.com/story/north_americas_first_item_site_to_grow_iot.html](about.att.com/story/north_americas_first_item_site_to_grow_iot.html)
8. Network, Connections and Community – AT&T by the Numbers, AT&T, 8 March 2017
   [about.att.com/newsroom/att_by_the_numbers_2016.html](about.att.com/newsroom/att_by_the_numbers_2016.html)
9. AT&T Details 5G Evolution, AT&T, 4 January 2017
   [about.att.com/story/att_details_5g_evolution.html](about.att.com/story/att_details_5g_evolution.html)
10. What you need to know about IoT wide area networks: How to choose the right WAN technology for the Internet of Things, AT&T, October 2016
11. AT&T Introduces New IoT Analytics Solution Powered by IBM Watson on the Cloud, AT&T, 21 March 2017
    [about.att.com/story/att_introduces_new_iot_analytics_solution.html](about.att.com/story/att_introduces_new_iot_analytics_solution.html)
13. AT&T Control Center for the Internet of Things, AT&T, March 2017
IoT is changing the game and the channel needs to capitalize on the exponential growth potential. AT&T is working with solution providers to provide them with the platform and resources they need to help their customers jumpstart IoT growth.

—Brooks McCorcle, president, AT&T Partner Solutions