



# Opportunities and challenges

## Our business is facing a time of exceptional change.

In just the last seven years, from 2007 to 2014, mobile data traffic on our network increased 100,000 percent. People are consuming huge amounts of bandwidth with streaming video. Mobile devices are replacing wired connections in greater and greater numbers. And businesses are connecting everything to our network from cars and tractors to refrigerators and trash cans. This change in our business and our industry is revolutionizing our economy.

The opportunities are clear: smarter resource management, advanced possibilities for connecting

people around the globe and inventive products we haven't even imagined. But these opportunities come with challenges.

We are particularly focused on empowering our customers, managing our own operations and improving education.





## Empowering our customers

Simply put, Internet of Things describes the connectivity that allows devices and machines to talk to one another. This connectivity allows real-time monitoring, as well as the collection of vast amounts of data. When analyzed, this data can help save time, energy and other resources. AT&T is a leader in this fast-growing technology, and today we've certified more than 2,200 types of devices to connect on our network. That number is only growing.



Our *Digital Life* service enables customers to remotely monitor and control lighting, thermostats, smoke detectors, home alarm systems and water sensors.



We're also leading in the connected car arena, offering wireless connections to vehicles around the world. In 2015, AT&T expects to connect nearly half of new U.S. passenger vehicles, and we expect to have more than 10 million vehicles on the network by the end of 2017.



Our technology powers HydroPoint, a solution that gives users the ability to track weather patterns and ultimately reduce water use. In a single year, HydroPoint's customers cut 15 billion gallons of water and 62 million kilowatt hours of electricity.

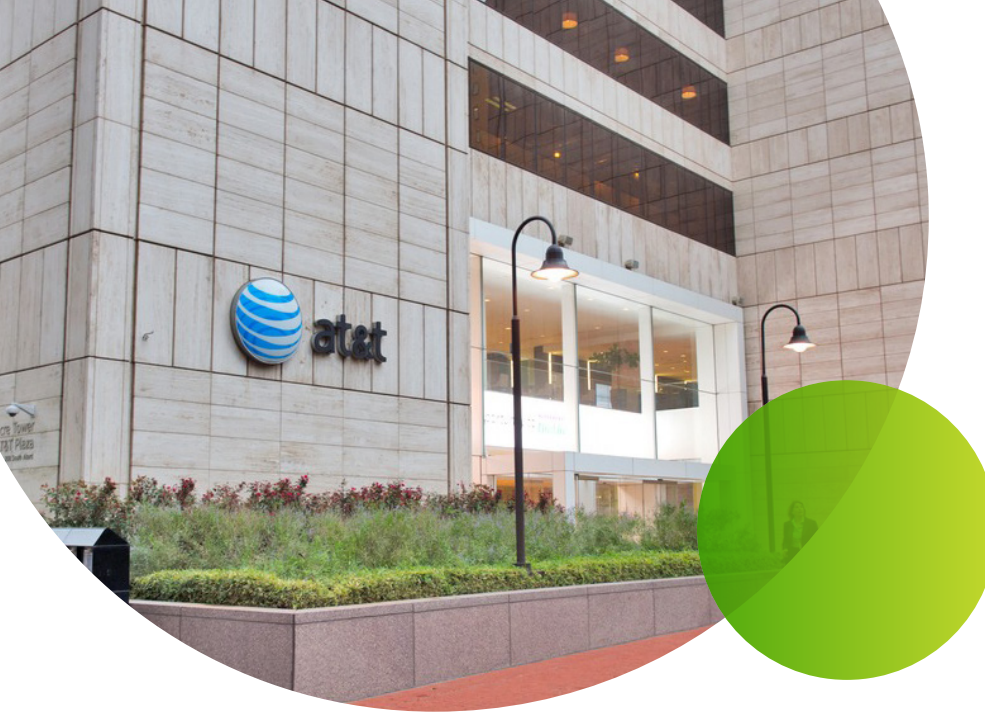


Together with GE, we're tackling smart energy solutions by combining strengths in IoT, networks, utility expertise and a shared vision for a more connected energy network.

These individual examples are powerful, especially when combined with industry studies showing the *potential environmental enablement of our sector*. We're working within our company and with our peers to build case studies on a product and industry level. Ultimately, we hope to quantify our company and industry's environmental benefit at a larger scale.

Keeping up with the *pace of this innovation* is a challenge itself. At our AT&T Foundry innovation centers, we're fast-tracking collaborations with developers, startups and other companies to move ideas to market up to three times faster than normal. Since its launch, the AT&T Foundry has started more than 200 projects and deployed dozens of new products and services.

And it's important that we make our work tangible for people in their daily lives. Currently, it's easy for consumers to compare costs and features of our products; it's harder for them to gauge a product's environmental and social attributes. We're *engaging and educating consumers* with our AT&T Eco-Rating system, which provides information on a product's sustainability.



## Managing our operations

We're making progress toward reducing environmental impact in our own operations—even more important as our customers increasingly rely on our network to help them manage their own footprints.

We work closely *with our suppliers* to monitor environmental and social issues. At the end of 2014, suppliers representing more than 50 percent of spend reported that they were tracking greenhouse gas emissions and had greenhouse gas reduction goals. We also survey our suppliers annually using a Supplier Sustainability Scorecard to measure performance; at the end of 2014, the average score for top suppliers was more than 70 percent, up from 63 percent in 2013.

In 2014, we continued our three-pronged approach to *guide our energy efforts*: company-wide energy efficiency initiatives, collaboration and alternative energy. We also actively *manage and reduce our water use*, as we know water is deeply important to the communities where we operate and critical to

our own operations. The network that forms the core of our business requires a controlled and cooled environment, and water is oftentimes a critical input to the cooling equipment we use to create those conditions.

These efforts come at a time when AT&T is expanding its focus globally. Earlier this year, we acquired Mexican wireless providers Iusacell and Nextel. Mexico has the second largest economy and one of the highest per capita GDPs in Latin America, but is still in the early stages of mobile Internet capabilities and adoption—though customer demand for it is growing rapidly. We look forward to the possibilities and seeing how our customers can use our technology to improve their lives, environments and communities.

As we move into new markets, we'll invest not just in our network, but in our people and communities—continuing our more than 140-year legacy of using technology to create a better world.



## *Improving Education*

Too many of our students fail to graduate with their high school class, leaving them unprepared for the workforce. This costs taxpayers nearly \$100 billion annually, but it also hampers our industry's ability to find a capable and diverse pipeline of employees to fuel 21<sup>st</sup> century jobs. *AT&T Aspire* is our company's signature education initiative, focused on high school success and career readiness. To help students everywhere succeed, we invest in innovative and effective education organizations, tools and solutions, and technology.

Technology is fundamentally altering education by removing barriers so that all – regardless of age, gender, income or zip code – can have the opportunity to make their dreams a reality. We're collaborating with schools like Momentous Institute

to bring technology into the classroom, including new educational and social-emotional applications and curriculum. We're also investing in initiatives such as ConnectED to bring Internet connectivity and educational resources to more students across America.

Scaling these solutions can be a challenge. That's why we're teaming up with education technology leader Udacity to launch online Nanodegree programs that provide instruction in industry-relevant skills. The Nanodegree programs will be fully recognized for entry-level software jobs at AT&T. More than 4,000 students have enrolled, 400 of whom are AT&T employees.





As we navigate these trends, we're guided by our *policies* and *key performance indicators* to gauge *our progress toward goals*. We're also *listening to stakeholders* and *mapping their needs* with our work.

**We are developing the ecosystem to create a more interconnected, seamless and sustainable world.**

We invite you to join us at

**[www.att.com/csr](http://www.att.com/csr)**