Communications
Helping our customers deliver –

**Transformational communications projects**

By aligning our capabilities to our customers’ objectives, we help them achieve operational and performance excellence.

<table>
<thead>
<tr>
<th>Optimizing project delivery</th>
<th>Managing complexity</th>
<th>Applying technical expertise</th>
<th>Ensuring a lasting positive legacy</th>
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<tbody>
<tr>
<td>Lifecycle experience enables us to approach our projects from a holistic perspective.</td>
<td>Our experience as a planner, designer, builder, installer, and tester allows us to deliver the full spectrum of communications projects under differing contracting models.</td>
<td>To solve our customers’ toughest challenges, we turn to the best. Our people have been trusted partners of industry and governments since 1898, providing much-needed advice and solutions.</td>
<td>We partner with clients, empower the supply chain, and work closely with communities to drive the best local outcomes on our projects.</td>
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<table>
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<tr>
<th>Constantly innovating</th>
<th>Core capabilities</th>
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<tbody>
<tr>
<td>Our expertise in engineering, procurement, and construction, combined with a global reach, help us anticipate, create, pilot, and quickly implement new, better ways of working.</td>
<td>Wireless, Broadband Fiber, Data Centers, Smart Infrastructure</td>
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**Looking to the future**

The global influence of rapid urbanization, population growth, and extreme weather all drive up worldwide demand for high-performance infrastructure. This means that cities, local and regional bodies, and national governments are pursuing diverse initiatives that range from replacing legacy systems to building new urban areas from the ground up.

Whether it involves the unique challenges of an airport and the innovation to drive the renewables revolution, or the infrastructure behind a new or modernized railway, communications network, or civil undertaking, Bechtel can tackle the entire project lifecycle.

**Innovation**

We believe the key to innovation is to learn safe, learn fast, and learn forward. We follow a six-step process to test assumptions, integrate solutions, and ensure a steady stream of ideas. We created the Future Fund—an incubator for ideas within Bechtel—and finance those ideas that most improve engineering, construction, quality, and safety.

**Diversity & Inclusion**

At Bechtel, diversity refers to the presence of many distinctive individuals in the workplace, marketplace, and community. We embrace the diversity in gender, race, nationality, culture, ethnicity, thinking, life experiences, and all other attributes that make each of us unique. Today, we have people from 73 countries working on projects worldwide.

**Sustainability**

Bechtel sets long-term goals to increase the company’s contributions to global sustainability. Through our 2030 target to use sustainable alternatives and reduce our environmental footprint on 100% of key projects, we are challenging ourselves to drive innovation and cost efficiencies to bring greater value to customers.

**STEM**

The next generation of science, technology, engineering, and math (STEM) professionals are vital to progress; they will be delivering the next 100 years of engineering, technological innovation, and invention. We are working to equip students with the tools, education, and mentorship to succeed in STEM.
Our relationship with AT&T and its affiliates goes back almost 20 years. During this time, we have delivered projects ranging in scope from new site builds to overlays of the latest technology on 140,000+ wireless cell sites, including around 3,800 small cells, allowing for a phased deployment of the latest technologies on AT&T’s national wireless network. Our work supports the deployment of almost 150km of submarine cable, 38 points of presence (POPs), and two network operating centers (NOCs), which connect network switches in the United Kingdom with undersea crossings of the English Channel consisting of 5,000km of fiber on one of the first cross-border fiber-optic networks in Europe. The project included two route deployments, one in Belgium, France, Germany, and the Netherlands. We successfully completed the project on schedule while managing 40,000+ required rights-of-way permits. We successfully completed the project on schedule while managing 40,000+ required rights-of-way permits.

In response to commuters’ growing demand for cellular coverage and quality of service along the main UK rail routes, Bechtel developed model site designs and other innovative solutions to resolve issues of propagation and signal handover between sites. Bechtel performed construction on new cell sites and upgrades to existing sites along 3,000km of rail lines. Our role included end-to-end turnkey service, including RF planning, site acquisition, procurement, site design, installation, commissioning, and pre-launch optimization.

Key projects

- **AT&T, USA**
  - **Role:** Program management, site development, design, procurement, construction management, commissioning, and integration
  - **Description:** Bechtel designed, permitted, and installed more than 5,000km of fiber on one of the first cross-border fiber-optic networks in Europe. The project included two underwater crossings of the English Channel consisting of almost 150km of submarine cable, 38 points of presence (POPs), and two network operating centers (NOCs), which connect network switches in the United Kingdom with those in Belgium, France, Germany, and the Netherlands. We successfully completed the project on schedule while managing 40,000+ rights-of-way permits.

- **Viatel Circe, Europe**
  - **Role:** Project management, site development, acquisition, design, procurement, construction management, commissioning, and integration
  - **Description:** In response to commuters’ growing demand for cellular coverage and quality of service along the main UK rail routes, Bechtel developed model site designs and other innovative solutions to resolve issues of propagation and signal handover between sites. Bechtel performed construction on new cell sites and upgrades to existing sites along 3,000km of rail lines. Our role included end-to-end turnkey service, including RF planning, site acquisition, procurement, site design, installation, commissioning, and pre-launch optimization.

- **Vodafone Rail Service, UK**
  - **Role:** Program management, site development/acquisition, RF network planning, engineering, construction, commissioning, and integration
  - **Description:** In response to commuters’ growing demand for cellular coverage and quality of service along the main UK rail routes, Bechtel developed model site designs and other innovative solutions to resolve issues of propagation and signal handover between sites. Bechtel performed construction on new cell sites and upgrades to existing sites along 3,000km of rail lines. Our role included end-to-end turnkey service, including RF planning, site acquisition, procurement, site design, installation, commissioning, and pre-launch optimization.

- **Metromedia Fiber Network, North America and Europe**
  - **Role:** Program management, project and site development, design, procurement, and construction management
  - **Description:** Bechtel provided professional services including feasibility studies, engineering and design, network planning, site development, permitting, and construction management for the project, which resulted in the installation of 1,600km of fiber-optic cable and 232 nodes, 170 POPs, and data centers (39 MWs) for metropolitan area networks in 30 North American and 10 European cities. Our work was completed on schedule and within budget, despite facing such challenges as multi-country permitting with detailed planning and swift mobilization of market teams.
While our expertise ensures delivery, ongoing collaboration is critical to long-term success. Since 1898, we have been the trusted partner of industry and governments worldwide. Differentiated by our people and our relentless drive to deliver successful outcomes, we have helped our customers complete more than 25,000 projects in 160 countries on all 7 continents.

We serve the Infrastructure; Nuclear, Security & Environmental; Oil, Gas & Chemicals; and Mining & Metals markets. Our services span from initial planning and investment, through start-up and operations.

Core to Bechtel are our values – ethics, safety, quality, people, culture, relationships, innovation and sustainability, and our covenants – integrity, respect, collaboration, trust, and delivery. They are what we believe, what customers can expect, and how we deliver.

Above: ATOO EATL, Canada

Who is Bechtel

Our customers’ projects are an investment in the future. They create jobs and economies; improve the resiliency of the world’s infrastructure; increase access to energy, resources, and vital services; and make the world a safer, cleaner place.