

Bringing coverage and safety to the great outdoors.

As the only winter access between Salt Lake City, UT and the ski resorts in nearby Park City, the roads in Big Cottonwood Canyon serve an important function for residents and visitors alike. During the winter, the canyon is full of skiers and snowboarders heading to the slopes, while cyclists, hikers and campers keep it busy during the summer months. However, with only a single tower on the side of the canyon, wireless service was unreliable—making it difficult for travelers to coordinate planning, receive up-to-date weather and safety reports or access 911 services. It also meant that emergency responders often didn't have access to wireless communications while in the canyon. This was more than an inconvenience; it was a safety hazard. We planned, coordinated and deployed a small cell network that enabled reliable voice and data services to the canyon and improved safety.

The Need

The mountainous topography of the canyon ruled out the use of additional towers as a possible solution. Further, while visitors wanted better wireless service, they also wanted to preserve the natural beauty and splendor of the canyon. This meant we needed to find a way for the additional infrastructure to blend into the surrounding environment. In addition:

- The installation had to meet strict environmental standards for resources and wildlife.
- We needed a 20-foot rock saw to dig the trenches in the solid granite canyon in order to install the fiber optic cable.
- For the safety of both the construction workers and those who use the road, the installation had to be done in the summer.
- To minimize the impact on the local community, all construction zones had to be well marked, sites had to be kept clean and open trenches had to be temporarily covered with asphalt to accommodate scheduled events.



The Solution

A small cell network connected by fiber optic cable allowed us to provide the coverage and capacity while also addressing the environmental, topographical and aesthetic challenges we faced. We installed 21 strategically placed nodes throughout the canyon that provide coverage for the road and several surrounding hiking trails and campgrounds.

To help the installation blend in with the surroundings, we placed the nodes on unobtrusive poles and designed the data hubs to look like log cabins. We also partnered with the Utah Department of Transportation (UDOT)—providing them with fiber strands and space on our poles that they used to install equipment for radar trackers, traffic cameras and remote weather information stations. Additionally, local public safety agencies have plans to install equipment on several of the nodes.

The installation has also benefited the community in and around the canyon. Not only do they have better wireless coverage, the fiber we installed is also being used by local internet service providers to provide high-speed access to the homes in the area—a development that has resulted in more than a few thank-yous from members of the community.



Small cell nodes installed on a slimline pole.



Data hubs designed as log cabins.

Why Crown Castle?

We have more than 20 years of experience implementing small cells in communities of all kinds, from dense urban centers to residential neighborhoods.

Discreet, innovative technology

We provide shared infrastructure that enables the wireless service you have come to depend on—all while blending in with your environment.

Long-term commitment

Our business is all about infrastructure, and you can count on us to be here no matter how technology or carriers change.

Community outreach

Our outreach team develops community-friendly solutions and meets with residents to make sure their concerns are heard.



Crown Castle owns, operates and leases more than 40,000 cell towers and approximately 90,000 route miles of fiber supporting small cells and fiber solutions across every major US market. This nationwide portfolio of communications infrastructure connects cities and communities to essential data, technology and wireless service—bringing information, ideas and innovations to the people and businesses that need them.