

Placentia Roll Out

Case Study



2023

Project Overview

Placentia is a city in northern Orange County, California in the US with a population of over 50,000.

Population: 51,233
Location: California
Supporting: 20,000+ homes and businesses will benefit from this having fiber network connection.



The Challenges

- Ambition to create a fully capable 10G PON Network, passing each and every home and business in Placentia
- Required project management and professional services
- Required end to end solution design
- Needed teams skilled in conducting site surveys and equipment verification
- Needed datacentre, Inline Amplifier (ILA), hut and cabinet equipment configuration development
- Needed datacentre, Inline Amplifier (ILA), hut and cabinet equipment installation & integration.

Challenges

With limited access to broadband services, businesses and residents in Placentia lacked the digital framework necessary for proper growth. A new superfast fibre network is being introduced to help remedy that issue. The aim is to increase opportunities and support the city's economic development through better, faster internet access.

As a multi-disciplined project, there were several complex challenges. Project management, solution design and professional services support were required throughout the project. Experts were needed to conduct site surveys and equipment verification as well as equipment configuration, installation, and integration.



The Solution

In Placentia, SiFi Networks is funding, building and operating city wide, open access, 10 gig enabled fibre networks under its Fibercity® brand. FiberCities® are the backbone for economic development and are enabling Smart City applications and a citywide infrastructure footprint that closes the digital divide that is prevalent in US cities.

Working on behalf of SiFi Networks and following their FiberCity™ blueprint, NetPMD were brought in to oversee the design and integration of the fibre network.

Project Management

NetPMD managed the project from the start through to the final delivery of all elements, including coordinating all project tasks until project closeout. Using Prince2 methodologies in order to plan, schedule, and implement project activities, the project was delivered to the highest industry recognized standards of quality, reporting frequency, and control.

Design Services

NetPMD created a passive design initially in order to produce an active networks solution design (HLD/LLD). This was delivered alongside an equipment bill of materials.

Technical Services

NetPMD used the low-level design (LLD) to deliver the integration services. This included integration of the active network components such as DC, ILA, huts, and cabinet location. This allowed connectivity to end customer premises equipment and (Optimal Network terminal) ONTs.



In close collaboration with SIFI Networks, NetPMD provided end to end services for delivering the active network elements within the City of Placentia, CA.

This included: –

- Optical backhaul connectivity from city to regional DC
- IP Networking for datacentre and customer connectivity
- Delivering high-speed (XGSPON) internet to customer end points

The solution is citywide, meaning we pass every home and business, enabling households and businesses the opportunity to connect, further helping to close the digital divide. Our design and integration services enable SiFi Networks to use micro-trenching technology.



The Benefits

Placentia is set to gain from the various benefits of fibre broadband. By becoming a “smart city” Placentia will be able to adopt IOT applications with the many advantages this technology brings at both city and resident level.

Fibre broadband will almost certainly increase city’s revenues and will be a major boost to economic development meaning the city will able be to attract and retain more businesses to the area. Fibre broadband also ensures that the city is “digitally future proofed” which is a major attraction to both businesses and investors.

The citywide network helps to close the “digital divide” with important social benefits such as increasing access to healthcare, education, and other key services.

The increased connectivity will also increase choice and provide more competitive pricing for the consumer when choosing their broadband services provider.



The Result

The strong partnership between SiFi networks and NetPMD continues to grow, and the solution for the city of Placentia continues to evolve and progress in line with their ambitions and objectives to create a fully capable 10G PON network.

