



## Pedestal Options at the Access Network

---

By: Johnny Hill

The Access Network --- the point where the distribution network breaks off for the final drop to the customer home, present a variety of choices and challenges. The biggest debate at this location of the network is what level of environmental protection is needed.

Early on, many felt fiber deployment required a [pedestal](#) that was fully protected against all environmental extremes. The industry responded with a pedestal within a pedestal design, one that had an internal dome to provide a vapor barrier and an outer cover to provide physical protection. While these closed architecture choices are effective, they are also expensive. The economic cost pressures of fiber deployment are pushing service providers to demand lower costs of the passive hardware in a continued push to reduce the per home cost of their FTTH builds.

The question surfaces --- how much protection is really necessary? Is a "closed design" appropriate in all environments? Or would an "open" architecture be an option in some applications?

The design team at Clearfield set off to do field-engineering studies with some of the telecom industry's earliest pioneers in FTTH deployment. Over the past five years, we've found that some environments do indeed require a flood-proof, dust-proof design that guarantees that no condensation will be formed inside of the pedestals. For these environments, the closed architecture is warranted.

However, we've also learned that fiber and the materials used to protect it are far tougher than most give it credit for. We've found that in what could be argued to be some of the harshest environments in North America, an "open architecture" offers a cost-effective, reliable alternative.

Two independent Telcos who have opted to use this field-tested and field-proven design are Paul Bunyan Telephone based in northern Minnesota and Matanuska Telephone of Alaska. Using an industry accepted metallic pedestal that has been retro-fitted to support fiber mid-spans and cable drops to the home, both are realizing significant cost savings both new and old. Paul Bunyan has placed over 7500 of these pedestals supporting one to six drops per pedestals without any degradation of performance or any increases in maintenance or trouble shooting incidents. Matanuska, in reviewing and discussing this performance and deployment method, will be implementing this summer. Due to high construction costs in the region, they expect the Clearfield solution to save the Telco \$300-500 per home.

The solution provides excellent physical fiber protection which is the number one concern of any design. The solution provides for hard splicing of drop cables to distribution cables which are either directly landed at the ped or provides for ring-cut or mid-span of the cable to carry onto other drop points downstream.

Is this enough protection of what some would say is a delicate, critical point in the network? Some would say no and others, like these two independents in the harshest environments in North America, would suggest otherwise.

Contact your Clearfield representative to see how we can potentially save you thousands of dollars.

Visit the Clearfield Website for more [Whitepapers by Clearfield](#).