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Innovative ways to build underground power cables and communication networks in strategic partnerships with utility pipe owners

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Many countries have long had the desire to more their overhead power lines to the underground. Cost and the underground already being crowded with water pipes, sewers, storm drains, gas mains, and other have prevented the power companies from realizing this goal. While the power industry has felt this way, the communications industry is fighting for its survival. It appears these two industries could work together for both of them to gain. Making money in the new market conditions require a whole new paradigm for communications companies, and their optical cable manufacturers. None of the old and established rules would work. The situation of fiber glut in the long haul and backbone fiber is like freeways being almost empty because the automobile owners have no on and off ramps to these freeways from most locations to get on or to get off. These companies need to recognize that unless they are involved in the build-out of the last mile fiber that connects from the current POPs to the end users, they will end up waiting forever for the voice/video/data traffic to increase. And these companies would continue to suffer from being unable to light most of their fiber. Deployment of last mile optical fiber networks underground in dedicated conduits owned by the fiber installer requires extensive construction, usually involving excavation of city streets. These excavations cause pollution, traffic hold-ups, economic loss, and unsafe conditions to the inhabitants in every city. These forced most cities to discourage new open cut excavations involved in the last mile work and acquisition of rights of way have become an elusive task for most optical fiber network companies. The very governmental, commercial, and residential end users who are craving for infinite bandwidth through optical fiber networks coming into their premises already have sanitary sewers, storm drains, waterlines, and natural gaslines reaching their premises for providing essential services to meet their needs. These underground pipes start in the vicinity of the current POPs of optical fiber in the metro loops and finish inside of the very buildings where the last mile fiber needs to end to provide the on and off ramps for these information highways made of optical fiber. It makes all the sense in the world to locate the LAST MILE fiber in these existing rights of way on sewers, water mains, and gas pipes to deploy last mile fiber quicker and at a cheaper cost. Dr. Jeyapalan will present the current challenges using traditional methods and how to set up new financial incentives to solve these hurdles encountered by both power cable companies and communication cable companies. Dr. Jeyapalan will present the business and financial details of at least 5 different forms of business partnerships and financial incentives, that need to be considered to solve these problems. Dr. Jeyapalan will also provide an account of how to go about deploying last mile fiber and power cables either inside or outside of existing utility pipes using 20 different trenchless technologies. Tokyo, Taipei, Berlin, Hamburg, Paris, Toronto, Vienna, Boston, New York, Albuquerque, Indianapolis, are among the growing list of progressive cities where such creative business partnerships have produced unprecedented financial results to all parties concerned. An overview of details of such creative business partnerships where the same existing conduits were used toward win-win situations for all parties involved around the world will be presented.