Case Study: Cellular Backhaul over IP
Choice Phone, Guam

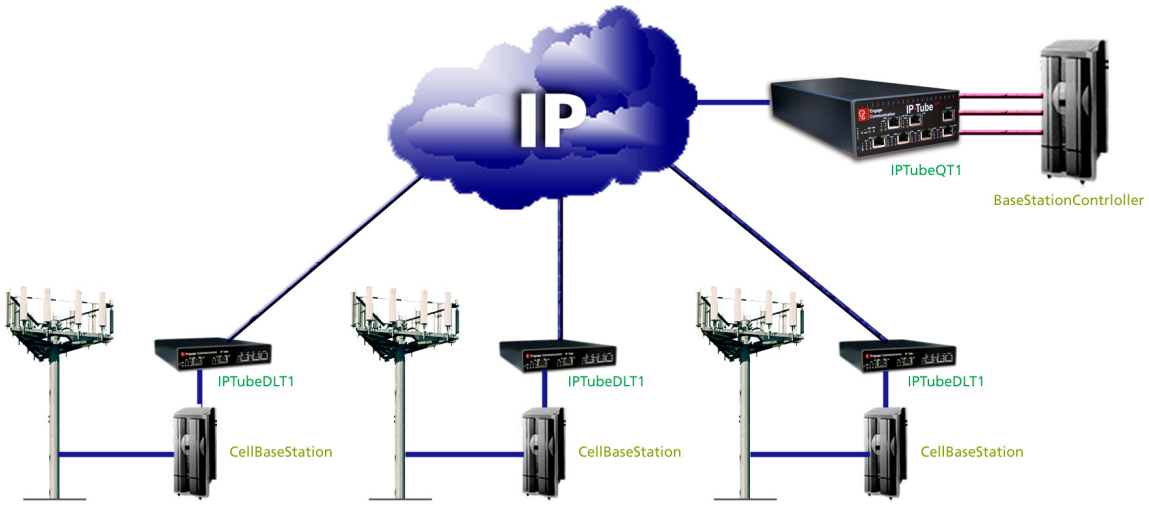
Choice Phone LLC, doing business as iConnect, is a mobile telecommunications provider based on the island of Guam in the South Pacific. Choice Phone provides local and long-distance cellular, including push-to-talk services, to the islands of Guam, Saipan, Tinian and Rota.

Choice Phone cellular services are based on Motorola iDEN technology, with backhaul from base stations utilizing T1 and fractional T1 circuits. When the company launched an effort to reduce recurring T1 charges, some as high as US $8,000/month, Choice Phone approached Engage Communication for their innovative T1/TDM over IP products. Noting that Motorola and Engage had performed extensive testing on the transport of iDEN traffic over IP utilizing IP-Tube systems, Choice Phone selected the Engage IP-Tube T1 and IP-Tube QT1 systems.

A typical installation provides base station backhaul using single port IP-Tube T1 units connected over ADSL, priced around US $140/month. Most sites utilize fractional T1 and broadband ADSL services at 768 Kbps up/1544 Kbps downstream provide the required bandwidth. At base station controller sites multi-port IP-Tube QT1 units receive encapsulated iDEN traffic, strip off IP encapsulation and deliver the T1 circuit.

New sites can turned-up by provisioning a new ADSL circuit to the site and enabling an additional T1 port at the BSC site. This makes possible delivery of cellular services to more remote areas than was once economically feasible – a concentration of 5,000 people can be served via two towers and two DSL connections.

Choice Phone is also expanding its coverage with recent intra-island connections utilizing Orthogon Systems 5.8 GHz NLoS wireless bridges.



About Engage Communication
Engage Communication, incorporated in 1989, enables multi-site enterprises, small-medium businesses, government, education and telecommunications service providers to take advantage of the lower costs and flexibility associated with IP/Ethernet transport while preserving the enormous investments made in legacy premises equipment such as PBXs, switches, multiplexors, routers, video codecs and encryptors.

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