On an island 30 miles long, the FCC surveyed 11,000 residents and found that only 4,000 (34.2%) had access to a fixed broadband connection at minimum speeds.

In rural Guam, the FCC evaluated 11,166 residents and found that only 142 (1.3%) have fixed broadband access. Equally problematic, in urban areas, the FCC evaluated 156,192 people and found that 2,468 (1.6%) had access to a fixed broadband connection. Consequently, approximately 99% of residents rely on mobile connections at minimum advertised speeds of 5/1 Mbps for Internet access.

In 2010, 1.5 million dollars was awarded by the National Telecommunications and Information Administration through a grant for broadband mapping in Guam, but the data reporting ended in 2011. The data, provided by five Internet service providers, is available in shapefiles, reported at the census block level for census blocks less than two square miles and at the street and address level for census blocks more than two square miles. One Economy Corporation, the grantee, also called residents and conducted town hall meetings to gather information about where broadband is available. The information was then provided to NTIA for the National Broadband Map.

BroadbandNow shows that Guam is not covered by any fiber optic service and is 98.8% covered with wireline services through either cable or DSL. Overall, it finds that broadband coverage extends to only 16.5% of Guam.

Additional Resource:
From Tuna to Telecommunications in American Samoa