Alan Barrett's involvement with the Internet began in 1989, when he was a lecturer in the Electronic Engineering department at the University of Natal, Durban, South Africa. During 1990 and 1991, he played a key part in the transformation of the South African universities network to the TCP/IP protocols and in its connection to the global Internet. He operated the primary name server for .ZA at that time. He was a co-founder of South Africa's first commercial Internet service provider, in 1993. In 1997, he was the primary author of the proposal to form Afrinic, and he served on the Afrinic Board from its inception until 2009. He has been a member of the ASO Address Council since 2005. He is currently a member of the CRISP Team, which drafted the number resource community's response to the ICG's request for proposals.

He was also one of the founding members of the South African chapter of the Internet Society, and one of the founding members of Namespace ZA, an organisation that was intended to oversee the .ZA ccTLD before that role was taken over by legislation.