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This paper provides an overview of the genesis and development of the Internet. The authors begin by detailing the conception of packet switched networks, which provided the theoretical basis for the creation of ARPANET at DARPA. Lawrence G. Roberts spearheaded the ARPANET initiative at DARPA, publishing the proposal in 1967. The initial proposal specified a line speed of only 2.4 kbps, which was later changed to 50 kbps. The following year, after Roberts had secured funding for ARPANET, DARPA selected Frank Heart and his team at Bolt Beranek and Newman to begin work on Interface Message Processors (IMPs), a packet switching technology. In 1969, UCLA's Network Measurement Center, headed by Leonard Kleinrock, had the first IMP installed in its system, making it the first node in ARPANET. Soon thereafter, Stanford Research Institute was added as the second host in the network, and the first host-to-host message was sent. In December of 1970, Network Control Protocol (NCP) was introduced as the first host-to-host communication protocol for ARPANET. By the early 1970's, a vibrant ARPANET research community in academia and at DARPA had been established.

The authors further explain that in the 1980's, the advent of networks consisting of personal computers and workstations, termed Local Area Networks ((LANs), rapidly increased the number of interconnected hosts. Until the early 1980's, a centralized table containing institution names and the corresponding host address was used as the host directory. To accommodate the new hosts, the Domain Name System (DNS) was implemented. DNS works by mapping domain names to IP addresses. Prior to the DNS, new hosts were manually added to the directory by staff at the Stanford Research Institute Network Information Center.

The success of ARPANET resulted in the formation of many other largescale networks in the 1980's. However, nearly all of these networks exclusively served the computing departments of large academic institutions, and were inaccessible to researchers from other fields. Recognizing this lack of access,

the National Science Foundation (NSF) began NSFNET in 1985. In addition to providing the broader academic community access to a large computer network, NSFNET changed the future of computer networking by employing TCP/IP, a host-to-host protocol standard that succeeded NCP. While accessible to far more deserving users, NSFNET initially suffered from slow transmission rates of 56 kbps; however, within eight years of its inception, NSFNET had links with 45 mbps transmission rates.

The authors did an exemplary job of describing the history of the Internet. They presented the development of particular technologies in an appropriate order, without delving into excessive detail about any one technology. Overall, I found "Brief History of the Internet" to be an enjoyable read. One of the most profound themes is that the Internet was built by the gradual implementation of specific technologies; the choice to implement a specific protocol served as a kind of vote for the efficacy of that technology. The technologies and protocols developed by researchers faced selective pressure from the design choices of the network architects. Thus, the Internet evolved.