**History of The Internet**

**Introduction**

The Internet, a global network of networks, is a remarkably complex technical system built on the creative contributions of scientists around the world from the 1950s to the present. Throughout its evolution, the Internet and other networks have been promoted by governments, researchers, educators, and individuals as tools for meeting a range of human needs. A combination of high-level policy and improvisation has produced social benefits including easier and more widespread access to computers and information; increased scientific collaboration; economic growth; the formation of virtual communities and an increased ability to maintain social ties over long distances; the democratization of content creation; and online political and social activism. The Internet’s rapid growth has also produced technical crises and social dilemmas, including malicious and illegal activities.

**Pre-history**

Internet owes its origin largely to the cold war. The first strand of this concerns the doctrine of ‘mutual assured destruction’ (MAD) which governed the nuclear stand-off between the United States and the Soviet Union. MAD supposedly ensured national security by guaranteeing that if one side launched a nuclear attack, the other would retaliate in (devastating) kind. There was, however, one apparent flaw in the logic, in that the doctrine could give an advantage to the aggressor if his pre-emptive strike was so devastating that it rendered the enemy's command-and-control system inoperative, thereby making it impossible to retaliate.

There was therefore an urgent need to design a communications system capable of surviving a devastating thermonuclear attack. This challenge was taken up by a researcher in the RAND Corporation, Paul Baran, who came up with a design for a mesh network based on high levels of link redundancy and a digital communications technology called packet switching.

The second strand of the story opens with the Soviet Union's successful launch of the Sputnik satellite in October 1957, an event that profoundly shocked the US defense establishment and led to the setting up of the Advanced Research Projects Agency (ARPA) within the Department of Defense. Early in its organizational life, ARPA morphed into the agency within the Pentagon that funded advanced, ‘blue-skies’ research which could have military applications. In due course, ARPA found itself funding the purchase, operation, and maintenance of at least a dozen expensive mainframe computers for the various university departments and institutes which held research contracts from the agency. The problem was that these machines were incompatible with one another, and therefore could not function as shared resources for the community of ARPA-funded researchers across the US.

**Origin**

The origin of internet began in the United States as a research sponsored by ARPA (Advanced Research Projects Agency) later changed to DARPA (Defense Advanced Research Projects Agency) in 1973 which was funded by the US military. The first version of the internet was called **ARPANET** which was implemented in October29, 1969 when the first successful message was sent from a computer in UCLA to another computer (also called node) at the Stanford Research Institute (SRI).

It was made into web like network making it a decentralized network to make it withstand unforeseen events and to make all the other computers not lose connection in case one computer was destroyed. ARPANET consisted of 4 nodes: UCLA, UC Santa Barbra, Stanford Research Lab, and the University of Utah. These computers (nodes) were called Interface Message Processors (IMP).

In the beginning ARPANET benefited not just military but also research institutes, so it had its origins in the academic community though it was a military project. The system slowly evolved so it was not immediately adopted for commercial use. In the early 1980’s it was adopted by universities and research institutes through an initiative by the NSF (National Science Foundation). It was called the NSFNET Project and its aim was to promote research and education. The best way to do this was to use an interconnected network of computers that can provide a way to collaborate and share information. This provided a backbone that included the Computer Science Network (CSNET) that linked computer science research among academics.

The centralization of the Internet began with its commercialization. Companies like AOL began this push as an ISP. Microsoft then bundled IE with the Windows OS starting with Windows 95. By embracing and extending the Internet to Windows users, Microsoft effectively killed off the competition. Netscape closed shop while other browsers like Mozilla were marginalized. Offering IE for free was the starting point for most users since the majority of them had a PC running Windows. Now that they had the software to access the Internet, it would be much easier. All they needed to do next was subscribe to an Internet service.