NEW YORK - A government contractor that played a key role in the Internet's birth will oversee efforts to redesign the network from scratch.

Many researchers want to rethink the Internet's underlying architecture, saying a "clean-slate" approach is the only way to truly address security, mobility and other challenges that have cropped up since the Internet's birth in 1969.

The National Science Foundation announced Monday that BBN Technologies Inc. will get up to $10 million over four years to oversee the planning and design of the Global Environment for Network Innovations, or GENI.

Much of the work on GENI so far has been conducted by professors and other researchers. Naming BBN brings a full-time staff to the project, said Larry Peterson, chairman of computer science at Princeton University and head of the GENI planning group.

"They have a track record in large government projects of this sort, and they are very much committed to working with the research community to build the experimental facility we want and need," Peterson said of BBN.

In the late 1960s, BBN won the contract to build a network linking machines at four universities. That network, then known as ARPAnet, grew to include the millions that form the Internet today.

BBN also played an important role in early e-mail technology, and one of its scientists, Ray Tomlinson, was the designer of the "at" symbol now part of e-mail addresses.
Internet pioneer to oversee its redesign - Yahoo! News

Ray Tomlinson, was the designator of the ‘at’ symbol now part of e-mail addresses.

Construction on GENI could start about 2010 and cost $350 million.

A new Internet could ultimately mean replacing networking equipment and rewriting software on computers, at a cost of billions of dollars. But any new network is likely to run parallel with the existing one for some time, with individuals and businesses gradually migrating over as they need more advanced applications.

Clean-slate advocates say the current piecemeal effort to address security and other problems only creates inefficiencies and opens the network to more risk.

On the Net: http://www.gpogeni.net