INTERNET 2

Internet 2: Rough Draft

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Today’s nuances in technology are simply to make the most of a minuscule amount of space, and turn it into an impressionably huge release. So anytime there is a new release of some technological gadget, regardless of the strain that it could place in someone’s budget, or the learning curb to become familiar with this equipment, some type of setback will exists. It appears that since the introduction of the World Wide Web (Internet) to the public in 1991, there has been a constant race to stay abreast of the latest and greatest technical equipment. Tim Berners-Lee may have never been able to see the setbacks that could have happened with his invention, but the internet has had its growing pains.

With the quick success and rapid growth of the internet, who would have thought it would too begin to have survivability issues? Since the early 1990s an estimate that the internet as the world knows it today, will meet its demise by the end of 2010. The estimation was realized because of a perceived limited amount of internet protocol (IP) addresses, forcing alternative ideas to using the internet. In 1994 the United States government proposed an idea of creating a second internet that essentially would surpass today’s internet. That second internet proposal yielded the idea of the Next Generation Internet known as the Internet 2.

Internet 2 was thought to become a research network with a backbone of not only fiber optics, but also with the backing of scientists and universities to launch its superiority. The physical backbone of the Internet 2 project can deliver data approximately 9 gigabits per second per second covering over 300 universities, government bodies and businesses worldwide. Initially approximately 35 universities nationwide met in a Chicago hotel to collaborate and form the Internet 2 project, which would become an advanced consortium of research and education enthusiast. The outcome of this consortium became a board of members who strategize how to maintain a dynamic and high performing network by hosting their next meeting in 1997. In 1997 the membered consortium met in California for what was considered to be their first University Corporation for Advanced Internet Development (UCAID) meeting where the Internet 2 Project membership had grown considerably (approximately 100 members) and their members presented engineered ideas to further the build of project. The following year later the popularity of UCAID’s work had gained recognition from the highest office in the United States, holding approximately 125 membered universities and another approximate 55 corporate and other associated businesses to their rank and file. Businesses like Cisco, Nortel and Qwest Communications offered their brightest minds, equipment and expertise to further the project. In 1998 UCAID introduced the Abilene Project which was projected to operate data transfers of up to 2.4 gigabits per second with an estimated connectivity of nearly 70 different universities and businesses by the end of that year.

UCAID met their commitment by years end thanks mostly in part to the thrust forward with the announcement by President Clinton’s administration that would further publicize the alternative internet project for this publically unknown initiative. It all seemed like a Clinton administrative idea, which is the start of the rumor that Vice President Al Gore invented the internet. In 1999 the Internet 2 Project was well on its way in terms of research and education as well as membership growth. By this time UCAID had approximately 168 university members and an additional approximate 54 business and nearly 30 allied members. Clearly the Internet 2 Project began as a colossal example to a modeled Wide Area Network (WAN) that with an intelligent concept and smart marketing has exceled beyond expectations. In the year 2000, Internet 2 engaged still into another avenue to help members who had interests in the biological, medical and clinical research fields by launching the Health Science initiative.

The Health Science initiative’s collaborative effort would help support health applications from a newer internet level of technology; levels never achieved with the internet as most people know the internet. Now the Internet 2 Project has 14 new university members but with the same previous year’s business/affiliated members with still some new ideas still to conquer. By 2004 the membership growth for UCAID had added another 23 universities as affiliated members had reached 45 members and another 23 corporate businesses were added to their membership. The most notable change to the Internet 2 Project in 2004 was the increase of their data transfer speed from 2.5 gigabits to 10 gigabits per second data transfer rate. The Hybrid Optical Packet Infrastructure (HOPI) was launched in 2005 which was a testbed for network architecture experimentation.

In the midst of HOPI being launched, five corporate business members abandoned the project but it didn’t interrupt their ability to continuing to impress their member affiliations with this new project. The HOPI testbed was erected to serve as the continental U.S. advanced testing architecture for the Internet 2 Project testing backbone. 2006 was the decade celebration of an initiative that had grown wings, having more than 200 universities worldwide and nearly another 100 corporate business and many other government agencies that have helped this member led company to flourish. What was found to be disappointing is that the information for some of the most intricate parts of Internet2’s record speed data transfer rates seems to be exclusive information for their member entities. Minimal information is made available to Internet2’s claim to fame, but fiber optics is part of their backbone. What sets UCAID apart from the rest is the exclusivity of their business practices which has helped them to surpass the current internet as we know it today.

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