Rapid Growth in Top Level Domains in the Domain Name System

SEM5720 - Assignment 1

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1 Introduction

In recent years, the number of Top-Level Domain (TLD) in the Domain Name System (DNS) has been increasing. This is, in part, due to the introduction of Internet Corporation for Assigned Names and Numbers (ICANN), the aim of which was to promote competition in the registration of domain names.

Before the creation of ICANN in 1998 there were a total of eight generic Top-Level Domain (gTLD); TLDs which are not specific to a country or the infrastructure of DNS. These eight were intended to have specific uses (`com` for commercial entities, `gov` for government organisations, etc.) but since then a proportion of these have become truly generic.

In 2000 and 2004 ICANN successfully applied for and instated fifteen new gTLDs and have since gone on to create a program which reviews all applications for new gTLDs[1].

2 Expansion of TLDs

At time of writing there are a total of 363 TLDs, of which 295 are country-code Top-Level Domains (ccTLDs), 42 gTLDs (three of which are restricted use), 15 sponsored TLDs and 11 which are used for testing purposes[2].

There are a few factors which have spurred the growth of TLDs:

1. Introduction of new gTLDs by ICANN
2. Support for non-Latin characters in the DNS, allowing for Internationalized Top-Level Domains (ITLDs)

3 Non-technical Support of the Expansion of TLDs

4 Technical Issues in the Expansion of TLDs

References

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