MEMORANDUM OF UNDERSTANDING ON THE
GENERIC TOP-LEVEL DOMAIN NAME SPACE OF
THE INTERNET DOMAIN NAME SYSTEM

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As the Internet expands in size and commercial importance, domain names promise to play a central role in the development of this sprawling network of networks. Whole businesses exist solely on the World Wide Web as virtual storefronts for financial services, books, software, and many other products. Without a memorable domain name, especially one that incorporates a well-known trademark, these businesses would be out of business. Unique and colorful domain names capture the well-known maxim that the three most important factors to the success of any business are location, location, and location.

This comment addresses one recent proposal to enhance and expand the Domain Name System: the Memorandum of Understanding on the Generic Top-Level Domain Name Space of the Internet Domain Name System (gTLD-MoU). The first section briefly summarizes the status of...
the current Domain Name System. The second section identifies the movers behind the gTLD-MoU and their motivations. It also describes the provisions of the gTLD-MoU. The third section analyzes these provisions, paying particular attention to issues of Internet governance, trademark law, and competition. Finally, the fourth section offers some predictions concerning the ultimate fate of the gTLD-MoU.

1. WHAT'S IN A DOMAIN NAME?

Domain names are the addresses of virtual homes on the Internet. Examples include “inta.org” and “ibm.com.” Domain names correspond to more forgettable Internet Protocol (IP) numbers, such as 169.229.97.112. Because IP numbers are difficult to remember, Internet users substitute unique domain names that are invisibly translated by Domain Name System servers; the domain name is “merely a human-friendly pseudonym for the computer’s real ID.”

The “.org” or “.com” portion of the domain name is the top level domain (TLD). In the examples cited, “inta.org” refers to an organizational entity, the International Trademark Association and “ibm.com” refers to a commercial entity, International Business Machines. The identifier, “inta” and “ibm”, is the second level domain (SLD). Both .com and .org are considered generic TLDs (gTLDs); country code TLDs like .fr (France) and related to its implementation, can be found at the gTLD-MoU Web site at <http://www.gtld-mou.org>.

5. A domain name is defined as:
The unique name that identifies an Internet site. Domain Names always have 2 or more parts, separated by dots. The part on the left is the most specific, and the part on the right is the most general. A given machine may have more than one Domain Name but a given Domain Name points to only one machine. ILC Glossary of Internet Terms (last modified July 9, 1997) <http://www.matisse.net/files/glossary.html>.

6. A server is a “computer, or a software package, that provides a specific kind of service to client software running on other computers. The term can refer to a particular piece of software, such as a [Web] server, or to the machine on which the software is running ....” Id.

GENERIC TOP-LEVEL DOMAIN NAMES

.us (United States), are non-generic because they refer to specific geographic areas.

The Internet Network Information Center (InterNIC) currently assigns domain names for the .com (commercial), .edu (educational), .gov (governmental), .net (network), and .org (organizational) TLDs. Network Solutions, Inc. (NSI) administers InterNIC's domain name registration services under an exclusive agreement with the National Science Foundation. This cooperative agreement took effect in January 1993, but was modified in September 1995 in order to allow NSI to charge users for its services.

II. A MODEST PROPOSAL: THE GTLD-MOU

A. The Players

Members of the Internet community, under the auspices of the Internet Society (ISOC) and the Internet Assigned Numbers Authority (IANA),

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8. Historically, the .us TLD has been underused. United States governmental and educational entities use the .gov and .edu TLDs. United States commercial entities typically use the generic .com TLD. This has created enormous demand for .com domain names and has precipitated many recent trademark disputes. See World Intellectual Property Organization, Meeting of Consultants on Trademarks and Internet Domain Names, First Session (last modified Dec. 17, 1996) <http://www.wipo.org/eng/internet/domains/tdmnc1.htm>; see also Network Solutions Registers Record Number of Internet Domain Names in 1997 (last modified Jan. 7, 1998) <http://www.netsol.com/news/pr_19980107.html> (reporting that Network Solutions, Inc. registered 960,000 new Internet domain names in 1997 and that nearly 90% were in the .com name space).

9. Established in 1993 as a collaborative project among AT&T, General Atomics, and Network Solutions, Inc., InterNIC provides directory and registration services for the Internet. It is supported by cooperative agreements with the National Science Foundation, a US governmental agency, and can be found at <http://www.internic.net>. See About the InterNIC (visited Jan. 27, 1998) <http://www.internic.net/ds/about.html>.


11. "The Internet Society is a non-governmental International organization for global cooperation and coordination for the Internet and its internetworking technologies and applications." All About the Internet Society (visited Jan. 27, 1998) <http://www.isoc.org/isoc/>. This organization came into existence in January 1992 and is made up of a diverse membership, including interested individuals, corporations, non-
created an International Ad-Hoc Committee\textsuperscript{13} (IAHC) to investigate proposals for an enhanced Domain Name System. In turn, the IAHC consulted with the Internet community through conferences and electronic mailing lists.\textsuperscript{14} The IAHC’s efforts cumulated in the gTLD-MoU, signed by ISOC and IANA in May 1997.

B. Their Motivations

\hspace{1em} 1. Internationalizing the Internet

Though the Internet was initially developed by the United States government,\textsuperscript{15} it has since become the backbone for an international communication network that gives little significance to national boundaries. The IAHC charter identifies the Domain Name System as an “international resource” and mandates that the IAHC “will at all times operate with that perspective.”\textsuperscript{16} The gTLD-MoU reflects this thinking; it declares the Internet TLD name space a “public resource … subject to the public trust” and provides for “global distribution of [domain name] registrars.”\textsuperscript{17}
2. Quieting the domain name wars

As the Internet, and more particularly, the World Wide Web, has grown both in size and commercial importance, domain name disputes have risen to the forefront, usually in the guise of suits for trademark infringement and dilution. The borderless character of the Internet has also created numerous jurisdictional concerns. The IAHC’s charter recognizes that the “recent explosive commercialization of the Internet has produced a requirement for enhanced assignment procedures.” It also notes that a “complicating factor is that the human-friendly quality of Domain Name strings has also made them commercially valuable.” By increasing the number of domain names available, the gTLD-MoU seeks to limit the number of disputes.

3. Breaking the NSI monopoly

NSI’s monopoly on the assignment of the .com, .net and .org TLDs and its institution of registration fees in 1995 inspired numerous proposals for the expansion of TLDs, including the gTLD-MoU.

C. An Overview of the gTLD-MoU

The gTLD-MoU declares that “current and future Internet name space stakeholders can benefit most from a self-regulatory and market-oriented approach to Internet domain name registration services.” This self-regulatory framework consists of a gTLD depository, a Policy Advisory Board (PAB), a Policy Oversight Committee (POC), a Council of Registrars (CORE), and Administrative Domain Name Challenge Panels (ACPs).

18. See supra note 2.
21. IAHC, Charter, supra note 16.
22. Id.
23. See supra note 9.
25. gTLD-MoU, supra note 4, at § 2(d).
Depository. The depository for the gTLD-MoU is the Secretary-General of the International Telecommunications Union (ITU), a specialized agency of the United Nations. The ITU is committed to circulating the gTLD-MoU for signature, to maintaining a list of Signatories, and to cooperating in the gTLD-MoU’s implementation.

Policy Advisory Board. Signatories of the gTLD-MoU may choose to participate as members of the PAB. Decision-making is by “rough consensus.” However, the PAB’s role is solely advisory.

Policy Oversight Committee. The POC is the central policy-making body for this regulatory framework. Its membership is restricted and its decisions require a supermajority. The role of the POC is to provide oversight for the CORE and its Registrars, principally through the CORE-MoU. It is required to consult with the PAB and CORE. The principal powers of the POC include: (1) the power to change the number of gTLDs, and to approve names of new gTLDs; (2) the power to change the number of Registrars, to establish new terms and conditions for applications by entities desiring to become Registrars and to remove Registrars who do not operate consistently with the gTLD-MoU and CORE-MoU; and (3) the power to recommend amendments to the gTLD-MoU.

Council of Registrars. CORE is composed of recognized Registrars and has been established in Switzerland. The principal power of CORE-gTLD Registrars is to assign SLDs in any gTLD created under the provisions of the gTLD-MoU or the CORE-MoU “on a fair-use, first-

26. See id. § 4.
28. See gTLD-MoU, supra note 4, at § 5.
29. Id. § 5(c).
30. See id. § 6.
31. Appointments are reserved to various organizations: IANA (2), ISOC (2), Depository (1), Internet Architecture Board (2), CORE (2), ITU (1), WIPO (1), and ITNA (1). See gTLD-MoU, supra note 4, at § 6(g).
32. See gTLD-MoU, supra note 4, at § 6(a); see also CORE-MoU (visited Jan. 27, 1998) <http://www.gtld-mou.org/docs/core-mou.htm>.
33. See gTLD-MoU, supra note 4, at § 6(j).
34. See id. § 7.
35. For a list of current Registrars, see gTLD Registrar Selection Results (visited Jan. 27, 1998) <http://www.gtld-mou.org/docs/reg-results.html> (listing 88 Registrars from around the world). A Registrar is “authorized to enter and modify the Second Level Domain (SLD) data maintained by a Registry, in response to requests by entities seeking to be assigned a SLD.” gTLD-MoU, supra note 4, at § 1(f).
come, first-served basis.” Registrars are required to sign the CORE-MoU.

Administrative Domain Name Challenge Panels. ACPs will be established to administer a policy such that:

a second-level domain name in any of the CORE-gTLDs which is identical or closely similar to an alphanumeric string that, for the purposes of this policy, is deemed to be internationally known, and for which demonstrable intellectual property rights exist, may be held or used only by, or with the authorization of, the owner of such demonstrable intellectual property rights.

Registrars will be bound by the decisions of the ACPs. The procedures for creating and bringing challenges before the panels shall be administered by WIPO’s Arbitration and Mediation Center. However, it is specifically noted that ACP decision will not “inhibit, affect or prevent” the exercise of national or regional courts.

The gTLD-MoU calls for the POC to create an additional set of gTLDs once the gTLD-MoU enters into force. In a review of new gTLD’s, the POC selected seven new gTLDs:

- .firm for businesses or firms
- .shop for businesses offering goods to purchase
- .web for entities emphasizing activities related to the Web
- .arts for entities emphasizing cultural and entertainment activities
- .rec for entities emphasizing recreation/entertainment activities
- .info for entities providing information services

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36. gTLD-MoU, supra note 4 at § 7(e).
37. See id. § 7(c).
38. See id. § 8.
39. Id. § 2(f); see also id. § 8(a).
40. Id. § 8(c).
42. The .web gTLD has already been the subject of suit. Image Online Design, Inc. sued the IANA and IAHC for breach of contract, unfair competition, and antitrust violations. It claimed an interest in the .web TLD, since it had already begun registration of .web SLDs allegedly with the consent of the IANA. See Image Online Design, Inc. v. Internet Assigned Number Authority, No. CV 080380 (CA Super. Ct., San Luis Obispo Cty.) (TRO denied, May 1, 1997); CA Judge Refuses to Block Implementation of Domain Name Overhaul, 1997 Andrews Computer & Online Indus. Litig. Rep. 24101 (May 6, 1997).
The gTLD-MoU took effect when ISOC and IANA signed the MoU on May 1, 1997. All amendments to the gTLD-MoU must be initiated by the POC and are subject to signature by ISOC and IANA.

III. DISCUSSION

A. By Whose Authority?

As the Internet grows in commercial importance, the question of who will govern and maintain this rapidly developing network of networks has become increasingly vital. The drafters of the gTLD-MoU adopted a method of decision-making long-used by ISOC and the Internet Engineering Task Force to develop Internet technical standards. However, where vital commercial and policy interests are implicated, as here, there are serious concerns that this ad-hoc, "rough" consensus approach is inadequate. One detractor commented, "[gTLD-MoU supporters] clearly indicated that governance is theirs to simply claim and acquire on their own initiative—exclusively and in perpetuity." Yet ISOC, IAHC, and the current POC are largely unaccountable. With limited membership and no "official" mandate, their seizure of this supposedly "public resource" called the Domain Name System is suspect.

The diverse membership of the IAHC was no doubt intended to address this criticism and incorporate countervailing interests so as to arrive at a legitimate and workable solution. However, the failure to include national governments in the decision-making process, and the participation of United Nations specialized agencies seems rather to reinforce the concern that this is a self-appointed, unaccountable, and illegitimate decision-making body. The IAHC does take into account the growing international culture of the Internet, but it does not take into account the heightened interest of national governments. This can be seen by the European Union's and the United States' reaction to the proposal—both expressed serious

43. See Domain Name Plan Inked, But Questions Remain, 3 No. 7 Multimedia Strategist 1 (May 1997) (57 organizations sign gTLD-MoU).
44. gTLD-MoU, supra note 4, at § 11.
reservations, particularly to the signature of the gTLD-MoU by WIPO and the ITU.\footnote{47} Without endorsement by the United States, the proposal could be significantly undercut, especially if the United States blocks the addition of the new gTLDs to the authoritative root servers which translate domain names into IP numbers. This would mean that the majority of Internet users would not be able to access those sites.

The release of the United States government Green Paper on Internet Names and Addresses\footnote{48} casts further doubt on the eventual success of the gTLD-MoU. This report specifically notes that “the decision to add new top-level domains cannot continue to be made on an ad hoc basis by entities or individuals that are not formally accountable to the Internet Community.”\footnote{49} Furthermore, the Green Paper restricts the expansion of new registries, such as CORE, to a single top-level domain; it also limits the number of new registries to five.\footnote{50} The gTLD-MoU’s place in this schema is far from clear.

However, despite deficiencies in process, the gTLD-MoU may yet garner the approval of Internet users. The proposal can only succeed if these users find value in the new gTLD name space. It is this consensus that will lend legitimacy to the proposal, and encourage others to participate in the system. This participation, in turn, will lead to network externalities—the utility of the gTLD name space will increase as more users

\footnote{47}{See Rebecca Vesely, US Seeks Alternative Domain-Name Plan, WIRED NEWS (May 2, 1997) <http://www.wired.com/news/topfram/3603.html> (“As a result of objections voiced by the United States and the European Union, both international agencies on Thursday refrained from their planned signing of the agreement.”).} \footnote{48}{A Proposal to Improve Technical Management of Internet Names and Addresses: Discussion Draft (last modified Jan. 30, 1998) <http://www.ntia.doc.gov/ntiahome/ domainname/dnsdraft.htm>.} \footnote{49}{Id. In addition, the Green Paper proposes the creation of a not-for-profit corporation to manage so-called “coordinated functions.” These functions would include “oversee[ing] policy for determining, based on objective criteria clearly established in the new organization’s charter, the circumstances under which new top-level domains are added to the root system.” Id. See also Comments on the Registration and Administration of Internet Domain Names (visited Feb. 16, 1998) <http://www.ntia.doc.gov/ntiahome/ domainname/domainname.htm> (archiving public comments on domain name system policy options).} \footnote{50}{See supra note 48.}
register gTLD domain names.\(^5\)

In essence, the market will decide whether the gTLD-MoU is a good proposal.

**B. Trademark Wars II?**

The rapid expansion of the Web and the popularity of the .com name space have fueled many domain name disputes as the number of viable or memorable domain names has become depleted.\(^5\) The gTLD-MoU attempts to solve this scarcity problem by expanding the available domain name space. Businesses unable to register their own name or trademark as a .com address can now register it as a .firm or .shop address. A key problem in these domain name disputes is that a single name can be registered by many businesses as a trademark as long as the mark passes the likelihood of confusion standard.\(^5\) However, only one trademark holder, usually the first-comer or the stronger mark, can register the domain name in the .com name space because domain names must be unique. The gTLD-MoU makes it possible for more than one trademark holder to register the same SLD by creating alternatives to .com.

It is unclear, however, that the gTLD-MoU will solve the problems posed by recent litigation. Those cases which deal with intentional pirating of domain names\(^5\) typically involve so-called “famous” trademarks, protected under the Federal Trademark Dilution Act.\(^5\) Suddenly, these

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\(^5\) Network externalities arise where “the utility that a given user derives from the good depends upon the number of other users who are in the same ‘network’ as is he or she.” Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 Am. Econ. Rev. 424, 424 (June 1985). Classic examples include the telephone and other communications systems. See *id*. In this case, the good is a gTLD-MoU domain name. If only a few such domain names exist, it would be unlikely that many DNS servers would list these names and most Internet users would be unable to access them. In contrast, if many gTLD-MoU domain names exist, DNS servers would be more likely to list these names, thereby increasing accessibility. In addition, Internet users and consumers would be more likely to recognize these gTLDS and use them as indexing tools in browsing the Internet, i.e. employing the formulae “anyfirm.firm” and “anyshop.shop;” this would increase the value of the gTLD-MoU domain names by attracting more traffic to the gTLD-MoU name space.


trademark owners will again face the problem of pirating, this time in seven new gTLDs. The gTLD-MoU attempts to address this problem in its dispute policy, protecting "internationally known" trademarks. But whether "internationally known" and "famous" are co-extensive remains to be seen. In any case, CORE Registrars will not police their registrations for conformance with this policy.\textsuperscript{56} This puts the burden on "famous" trademark owners to register their marks in the new gTLDs or to shoulder the transaction costs arising from dispute resolution and litigation in the case of domain name pirates. Dispute resolution may be less costly in this framework because the ACPs are designed to resolve these disputes without litigation. Nonetheless, uncertainty will remain.

The addition of seven new TLDs is also unlikely to solve more traditional likelihood of confusion cases. While the additional categorization may prove effective in some instances, the similarity of the gTLDs may further confuse consumers. First, the .com and .firm gTLDs are indistinguishable. If two businesses with the same name and similar products register as acme.com and acme.firm, there is little hope that the consumer will be able to find the right one and every expectation that the consumer will be confused. Second, many of the gTLDs overlap. For example, NBC falls into almost every single one of the proposed gTLDs. It is a business (.firm); it sells many products related to its television offerings (.shop); it offers cultural programming (.arts); its primary business is entertainment (.rec); it distributes news (.info); and it provides on-line content and activities related to its business (.web). Where will consumers go to find such an entity?

Finally, there is some concern as to the role of the ACPs in resolving domain name disputes. While the gTLD-MoU provides that decisions of the ACPs shall not "inhibit, affect or prevent the power of the appropriate national or regional courts to hear cases interpreting and enforcing intellectual property rights that fall within their jurisdiction,"\textsuperscript{57} CORE Registrars are nonetheless obligated to respect the decisions of the ACPs.\textsuperscript{58} Additional jurisdictional problems arise out of the incorporation of CORE in Switzerland.

\textsuperscript{56} See CORE-MoU, supra note 32, at § 6(g) ("CORE Registrars will not examine applications for second-level domain names for conformance with the policy stated in Article 2(f) above.").

\textsuperscript{57} gTLD-MoU, supra note 4, at § 8(c).

\textsuperscript{58} See id. § 8(b); CORE-MoU, supra note 32, at § 7(c).
C. A New Monopoly?

NSI's institution of domain name registration fees was a primary motivating force behind the creation of the gTLD-MoU. This practice ran counter to a culture and tradition that valued an unregulated and free Internet. While the gTLD-MoU does not break NSI's monopoly on the registration of .com, .net, and .org gTLDs, it does provide some competition. The effectiveness of the gTLD-MoU's attack on NSI's monopoly will very much depend on its popularity with Internet users. For many years, .com has been the only game in town for commercial entities. Not only does the .com name space provide an effective directory of businesses on the Internet, it also has acquired premium status as well as commercial value, mostly due to network externalities. It may therefore prove difficult to challenge NSI's position, at least until actual competition in the .com, .net, and .org gTLDs arises.

There is also some concern that the gTLD-MoU will prove to be yet another NSI. In a recent suit instigated by Image Online Design, the IANA and the IAHC faced claims of unfair competition and antitrust violations for the "appropriation" of the .web gTLD. Image Online Design claimed that it had previously been granted the right to become a registry for addresses in the .web TLD. The judge denied Image Online Design's request for a Temporary Restraining Order, but the implication that the gTLD-MoU may be claiming an exclusive right to create and administer new gTLDs, regardless of previous claimants, is troublesome. Nonetheless, the institution of multiple Registrars for the new gTLDs is pro-competitive and will hopefully produce consumer benefits.

59. There is also some indication that the gTLD-MoU may enter into registration of these gTLDs following the expiration of NSI's contract in 1998. See gTLD-MoU, supra note 4, at § 10(a) ("Pending the expiration or appropriate amendment of the Cooperative Agreement under which the .com, .org and .net gTLDs are presently administered, the .com, .org and .net gTLDs shall not be subject to the provisions of this MoU.").

60. Often, rather than resorting to a search engine, users simply try the formula "www.companyname.com" when searching for a business on the Web. With the introduction of multiple gTLDs, this de facto directory may encourage companies to continue to register in the .com name space where possible.

61. See supra note 42.

62. See id.

63. See id.

64. The US Green Paper on Internet Names and Addresses also addresses the problem of competition, recognizing that "[w]here possible, market mechanisms that support competition and consumer choice should drive the technical management of the Internet ...." A Proposal to Improve Technical Management of Internet Names and Addresses: Discussion Draft (last modified Jan. 30, 1998) <http://www.ntia.doc.gov/ntiahome/ do-
IV. CONCLUSION

The gTLD-MoU is flawed, but not beyond redemption. Problems of accountability and legitimacy may be overcome if the proposal proves amenable to Internet users. Representation on the POC should be expanded and diversified, however, to incorporate the many constituencies which have a stake in the Domain Name System. While this may prove difficult administratively, it can only add to the likelihood of the gTLD-MoUs success. Furthermore, placement of the new gTLDs in the Domain Name System root servers is absolutely critical to the success of this proposal. This means that the gTLD-MoU must also attract governmental support as the US government may have the ability, if not the authority, to block such an action.

Trademark disputes will most likely continue to plague domain name registrations. The effectiveness of the ACPs will play a central role in limiting such disputes in the new gTLDs. Stakeholders may be wary of such panels, however, and continue to bring these cases to the courts where ultimately the rules of law will have to be settled.

Effective competition in the registration of domain names will largely depend on the popularity of the new gTLDs and the willingness of registrants and Internet users to defect from the .com name space. Ideally, the pro-competitive motivations of the gTLD-MoU will prevent any monopolistic and anti-competitive practices by the POC, though its move to shut down alternative proposals to expand the Domain Name System is cause for concern. Ultimately, however, Internet users will determine the fate of the gTLD-MoU.

mainname/dnsdrft.htm>. This report endorses competition among registrars wholeheartedly, but balks at a market-driven registry system, tentatively recommending limited experimentation. Id.