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# The Secondary Market for Domain Names

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#### DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY COMMITTEE FOR INFORMATION, COMPUTER AND COMMUNICATIONS POLICY

Working Party on Telecommunication and Information Services Policies

# THE SECONDARY MARKET FOR DOMAIN NAMES

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#### FOREWORD

This report was presented to the Working Party on Telecommunications and Information Services Policies (TISP) in December 2005 and was declassified by the Committee for Information, Computer and Communications Policies (ICCP) in March 2006. This report was prepared by Ms. Karine Perset, with the participation of Mr. Dimitri Ypsilanti, both of the OECD's Directorate for Science, Technology and Industry. This report is published on the responsibility of the Secretary-General of the OECD.

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#### MAIN POINTS

This paper provides a review of recent developments in the inter-related markets of secondary domain names and Internet search services, both of which are fundamental to identify, locate and access information and services on the Internet and therefore, are elements of considerable importance to the continued successful growth of the Internet. The paper provides an overview of recent developments in Internet domain name markets, and more specifically, in the market for secondary domain names that is largely driven by Internet advertising on search engines.

Although developed in very different ways, the relationship between the Domain Name System (DNS) and Internet search engines and services is fundamental and multi-dimensional. On the one hand, a stable resolvable DNS is the critical foundation for the progressive development of innovative search engines and services. Users are increasingly comfortable with these search engines, as their primary means to navigate the Internet<sup>1</sup>, which some believe is likely to relieve some of the commercial pressures on the DNS by enabling users to navigate to sites that that do not know and by finding sites in search-engines<sup>2</sup> even if their domain name is do not necessarily need a short and memorable name.

On the other hand, both the commercial operators of the DNS and the providers of search systems depend on Internet traffic and Internet advertising to increase their revenue. Secondary domain name registrations and the growing markets for targeted Internet search advertising have given rise to a range of new practices and business models on the Internet. Initial domain name speculation has been replaced by more sophisticated and complex models for determining the value of, leasing, and using existing domain names in the secondary market, largely according to their search engine visibility: domain names are used to help attract traffic from search engines and generate cost-per-click advertising revenue.

Growth in scale and scope of the Internet creates ongoing opportunities and challenges for the mainly commercial operators of the DNS who manage global Internet name resources.

The primary domain name market appears relatively mature. It has received considerable attention and benefited from progressively established rules, largely those introduced by the Internet Corporation for Assigned Names and Numbers (ICANN). ICANN<sup>3</sup> enabled competition in the Domain Name System by separating registry from registrar functions. Registries maintain a centralised registry database for each Top-Level Domain (TLD), perform back-office functions and provide services. Registrars, in turn, provide services to users – or registrants – with whom they have contractual agreements. The separation of these two functions by ICANN resulted in reduced costs, better management and vibrant competition in the registrar market. ICANN also introduced some competition in registry markets, for example by creating new generic Top-Level Domains (TLDs).

The secondary domain name market is still undeveloped and its complexities may not be easy to understand by registrants. For example, registrants may not fully appreciate the value of a domain name they either let expire or are not using. At the same time, the needs of registrars serving the secondary market may create different technical demands for some registries, or for other registrars providing a broader range of services.

A combination of consensus policies and market forces could progressively assuage the abovementioned issues in the secondary market for domain names, as the market matures. Several recent developments point in this direction. First of all, the ICANN community has started to identify and examine issues and solutions. Secondly, a recently created market-based open exchange<sup>4</sup> that provides access to aggregated information by registrants could help them benefit from typical supply and demand forces, though it will need to gather a critical mass of secondary domain name service providers and registrars.

#### **INTRODUCTION**

The World Wide Web, as measured by the number of domain names, is growing faster than at any time in its history, reaching 83 million registered domain names and 75 million Web sites<sup>5</sup>. Growth in 2005 is the strongest ever for Internet growth, with the Web adding 17.5 million sites in the first three quarters, surpassing the previous annual mark of 16 million during the dot-com boom in 2000.

Registries on the Internet play a central role in enabling users to interact with information on things and people, as the world becomes more connected and more complex. Registries define, identify, keep track of information and things, and cross-reference them with their owners. They help individuals, companies and organisations to keep track of more things and people, not just from within an organisation but, increasingly, among organisations on the Internet.

The Domain Name System (DNS) is the best-known registry system on the Internet<sup>6</sup>. The DNS was conceived as a scalable distributed mechanism to resolve user-friendly host names (*e.g.* www.organisation.com) into a numeric Internet Protocol (IP) address. Hierarchical DNS names are supported by the "dot" in the name, and structured from right to left. The data in the DNS is stored in hierarchical and widely distributed sets of machines known as "name servers", which are queried by "resolvers". Invisible to users, the top of the hierarchy is the "root", and the root servers that mirror this root. Root servers replicate the root, and provide information enabling resolvers to find details of the level below, known as the Top Level Domains (TLDs) which are the last label on the right-hand side of the domain name (.org, .com, .jp or .fr)<sup>7</sup>.

In the DNS context, there are three main actors. Internet "registries" are commonly understood as wholesalers of domain names that maintain a centralised database for each Top-Level Domain (TLD). ICANN-accredited "registrars", or domain name retailers, purchase domain name from Internet registries, and provide services to registrants. Finally, "registrants" are individual or reseller customers of registrars.

#### THE DOMAIN NAME MARKET STATE OF PLAY

The Domain Name System (DNS) and domain names are key to identifying the Internet Protocol (IP) addresses associated with Web resources found by Internet navigation systems and services. The market for domain names experienced a 28% increase from mid 2004 to mid 2005<sup>8</sup>. The number of domain names registered worldwide reached 82.9 million at the end of the second quarter 2005<sup>9</sup>. Out of these, 65% are generic Top Level Domain (gTLDs) –led by .com at 46% of all domain names and .net at 7%– and 35% are country code Top Level Domain (ccTLDs) – led by .de at 7% and .uk at 5%. In the second quarter of 2005, 8.1 million new domain names were registered. Growth of queries on search engines and growth of total users across the Internet have accelerated the continued registration of domain names, in part to generate Pay-Per-Click advertising revenues. Drivers also included strong demand in Asia, small businesses, bloggers, and spammers,<sup>10</sup> combined with price promotions and discounts by registrars.

Domain name usage, or the number of domain names that are associated with a Web site, has also been a driver to high renewal rates, *i.e.* for the renewal of existing names, with registry renewal rates for .com and .net reaching 75% in the second quarter of  $2005^{11}$ . A recent study of all .com and .net domain names<sup>12</sup> estimated that 75% of domain names are associated with a Web site. Out of these, 62% are live sites, which include sites that are classified as live *i.e.* being used by an organisation or an individual<sup>13</sup>, redirected, under construction, or for sale. Just 12% are "parked" sites, *i.e.* sites that are not actively being used, but on which the domain name may be associated with traffic aggregation to generate pay-per-click advertising revenue.

Parke	d Web sit	TES	LIVE WEB SITES				No Web sites			
	12%		62%				25%			
0	10	20	30	40	50	60	70	80	90	100

Figure 1. Status of .com and .net domain names

*Note*: Total domain names spidered: 45 285 276 – % of all domain names resolving to a Web site: 75%.

Source: Cyveillance, August 2005.

An OECD paper in 2004 "Generic Top Level Domain Names: Market Development and Allocation Issues"<sup>14</sup> discussed the market structure for domain names in the primary market for domain names, *i.e.* the creation and registration of new top-level domain names. It discussed experiences with market reform and allocation mechanisms in the primary market.

The aforementioned document concluded that ICANN's reform of the market structure for the registration of generic Top Level Domain names has been largely successful. The division between registry and registrar functions has created a very competitive registrar market that has lowered prices and encouraged innovation (Figure 2 below provides an overview of some of the main registrars). The paper also concluded that initial experience with competition at the registry level, in association with a successful process to introduce new gTLDs, had shown positive results.

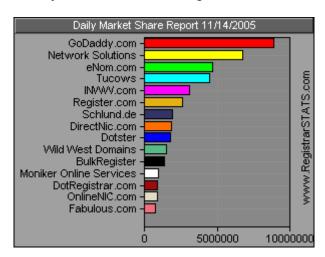


Figure 2. Daily market share of main registrars, 14 November 2005

Source: registrarstats.com.

# SOURCES OF DEMAND FOR DOMAIN NAMES

In the context of a rapidly growing World Wide Web, domain names play an important role. The major reasons for registering domain names are often inter-linked and include promoting a brand name, "squatting" a third party's trademark, generating traffic and/or advertising revenue, and brokering names on the secondary market. Much of the growth in demand for domain names in secondary markets for domain names is being driven by the growth in Internet advertising; in particular "pay-per-click" advertising.

Trademark terms	BRAND NAME	CYBER-SQUATTING (WIPO UDRP)			
Generic terms	<b>TRAFFIC</b> (targeted traffic, commissions for leasing or parking)	BROKERAGE (Secondary markets only)			
	Exploit domain name	Resell			

#### Figure 3. Reasons for owning domain names

Source: OECD, 2005.

#### **Brand name**

As with brand names, a company's domain names are part of its brand identity. Names as well as trademarks are often registered to strengthen brand awareness and avoid customer confusion. Companies not only register their brand names, service marks, and trademarks through generic top-level domain (gTLD) extensions (such as .com), but also register them under country-code extensions for all countries in which they operate, such as .uk for the United Kingdom and .jp for Japan. They might also take advantage of the "sunrise period" for brands and trademark holders when new top level domains are introduced, which has been a key element in gaining support for the introduction of new generic top level domains, such as .info or .biz. In contrast to generic TLDs, specific registration requirements are in place for sponsored TLDs — the latest introductions of new top level domains being the sponsored TLDs .cat, .mobi, .travel and .jobs — that restrict registrations of new domains to entities that fulfil specific eligibility requirements.

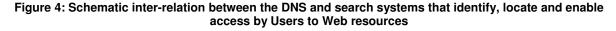
#### **Cyber-squatting**

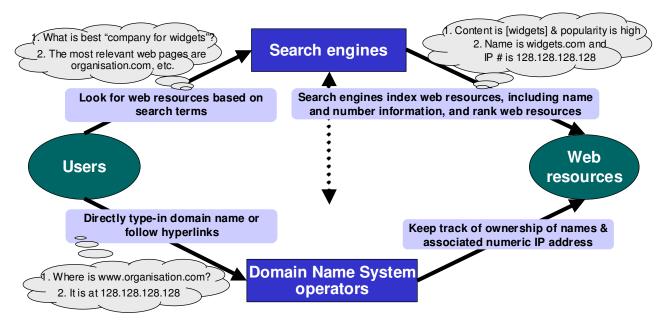
Some speculators register domain names using the trademark of a third party, known as "cyber-squatting". In addition to registering domain names of established companies, cyber-squatters have registered confusingly similar versions of other companies' trademarks, for instance with typos (*e.g.* wellzfargo.com for wellsfargo.com) or with a www prefix (*e.g.* wwwyahoo.com) to capture traffic when Internet users do not enter "." after www in their browser. This class of registrations has extended from large companies to well-known individuals such as actors, actresses, prominent politicians, and writers.

The implementation of Internationalized Domain Names (IDN) provides increased opportunities for cybersquatting by dramatically increasing the number of characters available in a domain name. The technical standard for IDN<sup>15</sup> creates a norm to translate non-ASCII symbols and languages in the second level domain, so that they can be resolved by the existing domain name system. IDN resolution is based on the distribution of client software and does not modify the server side operation. The current IDN standard has been implemented by several registries so far, including ccTLD registries in China, Japan, Korea, Chinese Taipei, Poland, Switzerland, Germany, or Austria, and by the gTLDs registries for .net, .org, and .info.<sup>16</sup>

#### Generating traffic and advertising revenue

While the DNS has been able to scale to register names millions of domain names, direct utilisation of the DNS to navigate the World Wide Web, whereby users guessed domain names, is partly being replaced by search systems and services, that help users to search the greatly wider Internet, based on keyword queries. In addition, owners have increasingly wanted to advertise these names to search-engine users. Consequently, many search engines now also provide placement in query results to advertiser links, which has largely financed free and innovative search services.





#### Generate targeted traffic

"Keyword" domain names are very often used to generate targeted traffic. They are frequently used as a doorway to specific pages of a company's Web site, so as to increase traffic and to direct visitors to pages relevant to their online "keyword" searches. Search engines use the "keywords" in domain names as one amongst multiple factors in algorithms that determine the relevancy of a Web page for a keyword query. Hence, a Web site with domain name www.FurnitureWholesaler.com might rank as relevant for a Web search on "furniture wholesaler". In addition, descriptive domain names provide information about Web resources, which can make them more likely to be visited than other results of search engine queries. Since the words used to phrase a domain name influence search engine placements, there is an important market for multi-word URLs networked together to heighten positioning in algorithms.

#### Generate Internet advertising revenue

#### A growing Internet advertising market

Internet advertising worldwide is proving to be profitable in a sustainable way. From USD 18 billion in 2005, it is predicted to reach over USD 22 billion in 2006.<sup>17</sup> Online advertising in France, Germany, Italy, Spain, and the U.K. reached about USD 2.2 billion in 2005, an increase of 38.2% from the previous year.<sup>18</sup> The Interactive Advertising Bureau<sup>19</sup>, which compiles data directly from information supplied by companies selling advertising online, estimates that Internet advertising revenues in the United States alone totalled nearly USD 5.8 billion for the first six months of 2005 (Figure 5 illustrates the sharp increases).

Revenue from search advertising – search advertising delivers, along with the search engines' own search results, sponsored links to advertisers' Web sites– accounted for 40% of the 2005 total in the United States: on a global scale, this would translate into an USD 8 billion search market worldwide.<sup>20</sup> Standard display advertising, based on a cost-per-thousand page impression (Cost Per Mille or CPM) and Rich Media are also important, respectively accounting for approximately 20% and 8% of revenues.

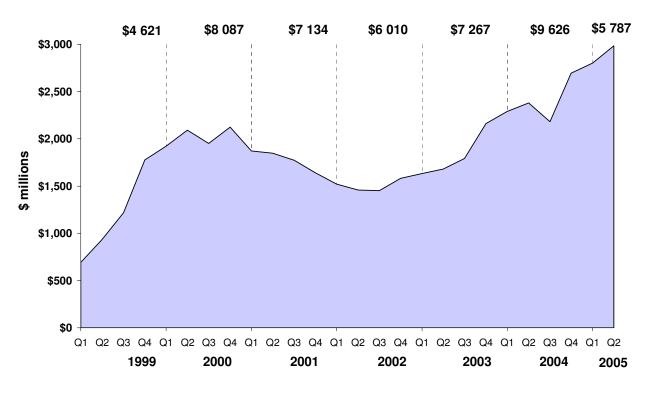


Figure 5. Internet advertising - US Quarterly USD Revenue Growth Comparisons – 1999-2005 YTD

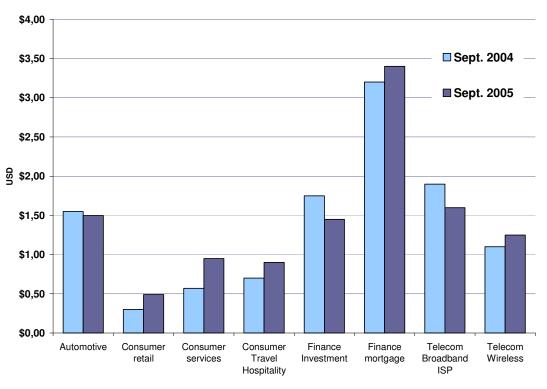
Source: IAB, 2005.

#### Auctioning keyword search-terms under a "pay-per-click" model

In the pay-per-click (PPC) advertising model, advertisers often bid with online advertising server operators in an online  $auction^{21}$  for the keywords to which their advertising links will be associated – "digital cameras" for example – and agree to pay a certain amount each time someone actually clicks on an advertising link (hence "pay-per-click"). Since the consumer has already expressed intent, first by typing in the search terms, then by choosing the advertiser's link, he/she is more likely to make a purchase. Focussed

online ads are proving very attractive to advertisers because the pay-per-click model reduces the risk for advertisers, and because their results are readily quantifiable through tracking mechanisms.

The average amount paid per click was USD 1.44 in October 2005, representing a weighted average increase of 19 % in one year<sup>22</sup>. Some keywords are more valuable than others as exemplified by the term "home equity loan" having a maximum bid price of more than USD 13 per click while the term "laptop" is at 4 USD (see Figure 6 for cost comparisons of keywords in different categories).<sup>23</sup> In addition, the value of keywords fluctuates. Two-word and three-word search phrases have also grown in popularity, as most Internet users worldwide conduct online searches with two-word phrases.<sup>24</sup>



#### Figure 6. 2004 – 2005 Cost Comparison of Keywords in Various Categories

Source: Fathom Online, www.fathomonline.com.

#### Third-party Web sites

Through programs like the Vendare Media Network, Google's AdSense, Yahoo Search Marketing's Content Match, or FastClick, third-party content Web sites can apply to place contextual advertising links on their site and generate revenue from advertisers. Software analyses the content of the sites to determine which relevant ads to place on them or advertisers can select the specific sites on which they want their ads to appear. The advertising links appear on content sites that are contextually associated with the keywords. Advertising revenue is then shared with Web site owners, who can range from large publishers to individuals bloggers.

Traffic aggregators may either register or lease large amounts of keyword-rich domain names which they associate with Web sites to create advertising "clicks" on contextual links that are aggregated and sold to advertising display or Pay Per Click (PPC) marketplaces.<sup>25</sup> Traffic aggregators use various tracking mechanisms to determine the domain names that generate the most traffic, either through inbound links,

search engine placements, or errant navigation (misspellings or semantics, *e.g.* "amazone.com"). Traffic builders develop content with the aim of ranking even higher in search engines for the specific "keywords" in the domain name, such as for "home mortgage financing" (known as search engine optimisation), and advertising revenue is shared according to a negotiated split between the advertising marketplaces and traffic aggregators.

# Brokerage

Brokerage refers to the market in which the ownership of existing domain names is exchanged between buyers and sellers. The following sections provide more details of this market.

#### ESTIMATES OF MARKET SIZE AND PRICING IN THE SECONDARY MARKET

The secondary domain name marketplace includes domain names that have expired, as well as those that current owners want to sell. Actors in this market include domain name registrars, brokers, buyers, sellers, speculators and aggregators. It is very difficult to reliably measure the size of this market.

To provide very rough volume ranges, in one day in the .com/.net registry, 170 000 domains names are transferred or deleted. Out of the 100 000 names<sup>26</sup> that are deleted every day and therefore became available, there might be demand for at least 1 000 every day. As the .com and .net registry's record show in Figure 7 and Figure 8 there is significant activity in domain names that have been previously registered and that are modified or transferred, with transfer transactions in particular generating irregular peaks of activity within the registry. Records show significant growth in the monthly numbers of deleted domain names since early 2005 as shown in Figure 7. In addition, growth in monthly "adds"<sup>27</sup> of new domain names went from 1 billion in April 2005 to 1.7 billion just two months later.

These trends partly reflect the enormous numbers of add-grace deletes that several registries are seeing, which are important in considering the domain name market, and which may explain part of the differential between actual domain names creations, and write transactions in registry databases as shown in figures 7 and 8. The Add Grace Period is a specified number of calendar days following the initial registration of a domain (currently five days for all registrars) during which a registrar can "Add" a domain name to the shared registry system (SRS), test names in terms of potential revenue within 5 days, and the registrar is refunded for the registration fee if the registrant decides to delete it: the Add-Grace delete issues are often referred to as "domain-tasting" whereby names are tested for value before purchase.

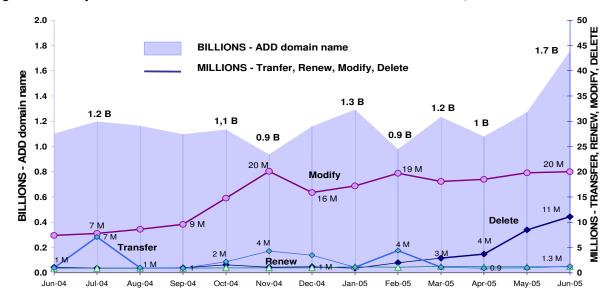
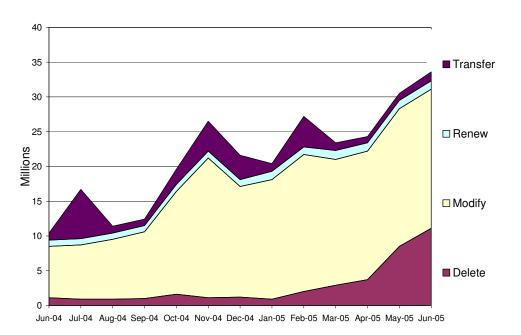
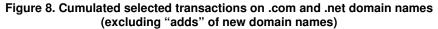


Figure 7. Monthly domain name write transactions on .com and .net domain names, June 2004 to June 2005

Note: Modify transactions signify modifications of registrant-related information such as registrant address or administrative contacts.

Source: Based on VeriSign Registry report, June 2005.28





Source: Based on VeriSign Registry report, June 2005.

In terms of the value of the secondary market for domain names, estimations by industry players are given to provide a general idea of trends. One industry player has estimated the secondary domain name marketplace at over USD 400 million annually, with one of the largest players, Pool.com, generating about 60 million USD in 2004 in revenue<sup>29</sup>. Estimates by another industry player indicate that 2-5% of expiring names have a value reasonably in excess of renewal cost. Anecdotal evidence shows that at least one name per month, often more, sells for over 10 000 USD. In the highest value domain sale reported in 2005, fish.com was purchased for USD 1 020 000 in an auction brokered by AfterNic.

Due to the complexity of the market, profit-making from the secondary domain name market seems to be heavily concentrated within a relatively small group of domain name professionals. Some investors have over 600 000 domain names for resale<sup>30</sup> and about 2 000 people own more than 100 domains.<sup>31</sup>

## SUPPLY DYNAMICS OF SECONDARY DOMAIN NAME MARKETS

Domain names progress through several phases from registration to deletion, based on policy governing transfers and deletions developed by ICANN's Generic Names Supporting Organization (GNSO) and approved by the ICANN Board of Directors. The secondary market in names consists of several business models which are linked to the various phases in which the domain name resides. Figure 9 further describes these various phases through the example of the domain name expiration process for .com and .net.

#### Figure 9. The typical registration and deletion process for domain names

For .com, .net, .org and .info only

# Phase 1. Active Domain – 1-10 years A domain is registered for a time period of 1-10 years. During this time the domain owner has use of the domain under acceptable use policies. Within the Add Grace Period *i.e.* the first five days following the initial registration of a domain name, if a domain is deleted, the sponsoring Registrar at the time of the deletion is credited for the amount of the registration.

#### Phase 2. Grace Period – 1-45 days

If the registrant does not renew a domain name, the domain name's expiration process starts. During a 1-45 day period (each registrar determines how long this period lasts), the registrant (domain name owner) can pay a renewal fee and resume the operation of a domain name.

#### Phase 3. Redemption Grace Period – 30 days

If the domain is deleted, it then enters a 30-day redemption period\* in which the domain's status is "REDEMPTIONPERIOD" and the name is removed from the registry's zone file. During this time the registrant of the domain name can pay a redemption penalty fee (in the 100-200 USD ranges, depending on the registrar) and renew the domain.

## Phase 4. Pending Delete – 5 days

The domain then enters a 5-day pending delete period. The registrant no longer has the ability to renew the domain name.

#### Phase 5. Available

The domain is released to the general public and available for registration on the sixth day. As soon as the domain name is available for registration again, it is dropped into a batch pool, and competing back-order service providers can try to "Add" the domain name again if interested.

*Note*: During the Redemption Grace Period, Phase 3, a domain name can only be renewed through the initial registrars who cannot transfer the domains to another registrar.

\*: The Redemption Period was an ICANN-proposed initiative early 2003, to reduce the number of mistaken or fraudulent deletions. Many registries have implemented it, including VeriSign. Previously, when a domain was not renewed and the grace period over, the domain was immediately flagged for deletion.

Source: OECD, 2005, based on Domain Mart, 2005, "Domain Name Markets" and selected registry-registrar agreements.

It is unclear whether a single dominant model will emerge, or if continued innovation and competition will continue. In the event a dominant model does emerge, it will hinge on widespread co-ordination between registrars, fee structures and customer awareness. To attempt to "catch" domain names as they expire, approximately four larger suppliers and a number of smaller ones service a "back-order market". A back-order is a request to acquire a currently registered domain when that domain becomes available again. Several back-order models targeting different stages of the domain name expiration cycle are currently in play. The dominant model that eventually emerges will depend upon the necessarily widespread co-ordination efforts between registrars, fee structure, and customer awareness. Currently, to increase the chances of acquiring an expired domain name, registrants subscribe simultaneously to multiple complementary services.

Pool.com has recently rolled out a service called Open Listing Service (OLS) with the idea of consolidating expiring domains from multiple registrars for the resale, expiry and deletion (phases 1, 2 and 5) of domain names within a single system. In addition, OLS is planned to accommodate any names available on the secondary market, not just those that are dropped in a given day. Pool has indicated that their current marketplace service (domains listed for sale by individual owners) might be merged into the OLS.

#### Phase 1: Active domains

The first phase in a domain name's life cycle is the period for which a domain name is registered. During this phase, domain name owners can resell and transfer their domains names after the first 60 days of registration. The transaction can be brokered through catalogue listings and auctions, private placement services or negotiated directly between buyers and sellers. Most are brokered through listings providers, such as GreatDomains.com, which aggregate offers and perform agent services for owners, *e.g.* with auction mechanisms.

#### Phase 2: Grace period

Once a domain name has expired, the dominant authority over a name is often the registrar, who can send a delete command to the registry at its discretion during a period of 1 to 45 days. Large secondary domain name service providers increasingly negotiate exclusive partnerships with a large registrar.<sup>32</sup> Table 1 below shows some of the partnerships that were established, for example between Snapnames and registrar Network Solutions, or between ClubDrop and registrar eNom. In each case, these registrars have changed their customer registration agreement to allow them to sell expiring domains rather than let them enter the customary drop process at Phase 3, 4, and 5 that gave original owners some extra time to rescue their domains. These registrars are thus instituting their own grace period at their discretion. These partnerships mean that fewer and fewer domains will actually make it to the daily drop batch, which removes the incentives to create new registrars, as well the technical issues associated with multiple registrars connecting to the registry at the same time.

To-be-deleted domains are transferred to new registrants by registrars before they go through the registries' delete processes (Phases 3 to 5). Hence registrars keep the majority of the revenue generated by the domain as well as the domain registration. Different registrars have different ideas of what the revenue shares should be during the second phase of the name expiration process. But increasingly, registrars such as Tucows and Network Solutions are obtaining the agreement of original registrants of expired names to make the domain name available in a secondary market as well as sharing the proceeds with them.

#### **Phase 3: Redemption period**

Once a registrar has sent a delete command to the registry, the registry holds the domain name in a 30-day Redemption Grace Period (RGP). The RGP is initiated at any time that the domain is deleted (except for the first 5 days of registration). The name is removed from the registry's zone file, meaning that the web site and other services associated with the domain name no longer resolve.

During this time the registrant of the domain name can restore the domain name via the registrar, but incurs a redemption penalty fee in the USD 100-200 ranges, depending on the registrar. These fees include a fee that registrars must pay the registry in order to recover the name.

#### Phase 4: Pending delete

In the 5-day pending delete phase, the registry is the dominant authority. Currently, names are not allowed to be auctioned during this period, and the only transaction that the registry is allowed to perform is to delete the name at the end of the period. If a transfer transaction on the name in this fourth phase were possible, markets, either between registrants or registrars on behalf of registrants, could potentially build new business models for registering domain names during this phase of the deletion process. The registry for .com/.net, Verisign, had proposed a secondary market domain auctioning service known as Central Listing Service (CLS) which would enable ICANN-accredited registrars to acquire deleting domain name registrations in the .com/.net during the pending delete phase registry at a fee of 10% of the winning bid.

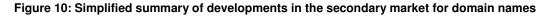
#### Phase 5: Name available for re-registration and drop-catching models

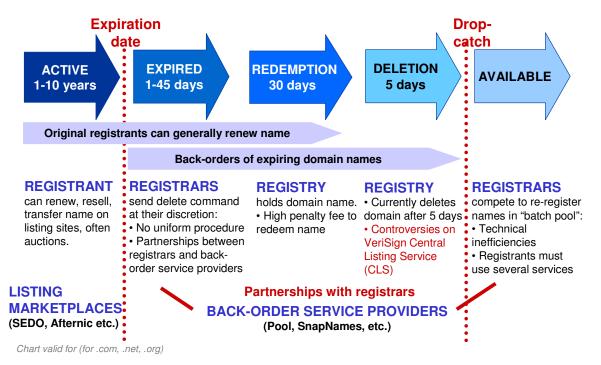
The domain name is then deleted from the registries and available for re-registration by any registrant, through any registrar, on a first-come/first-served basis. Drop-catching services are operated by secondary agents that use selected, rented, or purpose-created registrars to increase their access to the registries during the time that names are released by registries. ICANN's equivalent access to registry resources implies that each registrar is granted the same level of access to registry resources, with no differentiation currently made on the basis of transaction volume, sales revenue, resource usage or other factors. Drop-catching service providers can work around equivalent access limitations by aggregating the resources of multiple accreditations (which are borrowed or otherwise accumulated through a multitude of different schemes). The more registrar accreditations a "drop-catcher" has access to, the more resources it can bring to bear on a registry. Different registries have reacted differently to mitigate normal business being affected by numerous "Add" requests for just-deleted names. Afilias for example uses a software-driven rate limiting technology. VeriSign for example has a separate dedicated "batch pool" of just-deleted names available for registration.

	Pool	Snapnames	ClubDrop	NameWinner	Sedo	Domain Name Aftermarket	AfterNIC
Auction (if back-order successful)	Private (between back- order registrants when several have back-	Private	Public for one registrant at USD 10, private if several	Private	No	Public auctions	Public auctions
Fee Structure	Performance- based USD 60 minimum. Private auctions when over 1 back- order.	Performance- based Back- orders start at USD 60	Performance- based USD 10 or USD 30	Performance- based, start at USD 30	10%, minimum price set	5-7%, Performance- based, USD 4.95 membership fee <sup>33</sup>	10%, USD 60 minimum membership fee
Partner registrar	Namescout, Domainsatcost, Internic.ca	Network Solutions, BulkRegister Register.com	Enom	Dotster		Affiliates (exchange created and owned by GoDaddy)	Register.com and others

Table 1. A sample of Secondary Domain Name Service Providers

In back-order auctions, some sites make the listings public, but restrict bidding to customers that have submitted back-order requests before the expiration date. The start dates of auction-listed names are generally not fixed. In the case of AfterNIC for example, an auction would begin when a buyer submits a bid equal to the ask price.





OECD, 2005, based on SnapNames.<sup>34</sup>

#### INSTITUTIONAL CONTEXT

ICANN has been instrumental in establishing a dynamic registrar market, introduced some level of competition among registries, and adopted several dispute resolutions processes that apply across all gTLDs. The management of the domain names system and Internet addressing, synchronised since 1998 largely by ICANN, has succeeded in maintaining security, innovation and stability of the Internet, while enabling its scalability to support high growth rates and meet expanding security threats.

ICANN adopted a Uniform domain name Dispute Resolution Policy (UDRP),<sup>35</sup> developed in part by the World Intellectual Property Organisation (WIPO), to resolve domain names disputes, in particular issues relating to cyber-squatting, before a registrar cancels, suspends, or transfers a domain name. The reason behind this was that the speed of judicial review was inconsistent with the rate of growth of the Internet: UDRP provides a "fast-track" resolution process whereby parties can also if they wish invoke a standard judicial review process. The UDRP is applied by ICANN to accredited registrars in the .aero, .biz, .com, .coop, .info, .museum, .name, .net, .org, .pro top-level domains, in the newly implemented sponsored TLDs such as .jobs, .mobi, .cat, and .travel., and by some managers of country-code top-level domains.

The secondary market is governed essentially through contracts between transacting parties, and ICANN has undertaken some *ad hoc* initiatives to understand more deeply the secondary market. The predecessor of ICANN's Generic Names Supporting Organization (GNSO)<sup>36</sup> formed a "Deletes Task Force"<sup>37</sup> in November 2003, and concluded that there is significant interest in further study of uniform reallocation of deleted names. The ICANN community has contemplated various measures to address various policy and compliance issues.

ICANN has not yet adopted an accreditation of "special purpose" registrars (that is, accreditations granted for the purpose of increasing batch pool transaction capacity to register names immediately after deletion). The creation of "special purpose" registrars, estimated to number 100 in December 2004, whose function is to grab domains out of the daily drop, alters the notion of a registrar and creates registrars which may not manage regular registrar operations for clients, even though all registrars are bound by the terms in the registrar accreditation agreement which specifies the basic services that accredited registrars must provide to registrants.<sup>38</sup> In December 2004, ICANN met in Cape Town, South Africa and the Registrars Constituency held a public Workshop on Re-registration of Deleted Domain Names.<sup>39</sup> Ideas were put forth to manage this problem. Solutions discussed include a Wait List Service (that would reduce the number of high value names that are made available), a Ratio Model (whereby number of add – or "create"– commands allowed would be proportional to successful adds), a Pay-per-command model (which allows a registry to scale resources to number of adds), an Auction model (which allows a name to be obtained at the registry during Phase 5 at market price), or a combination of these. In a straw poll in the Registrars Constituency, large registrars voted overwhelmingly for a Ratio model.

ICANN's Generic Names Supporting Organisation (GNSO) requested that the ICANN staff produce an issues report on the topic of secondary markets for domain names on 13 January 2005<sup>40</sup> but as of November 2005 it had yet to be resourced due to other priorities.<sup>41</sup> In talks preceding its 2005 meeting in Luxembourg, ICANN's Registrars Constituency considered various options, including Regulating the Add Grace period.<sup>42</sup> In April 2005, VeriSign proposed to operate a Central Listing Service (CLS) for "pending delete" names.<sup>43</sup>

#### NOTES

- <sup>1</sup> PEW Internet & American Life Project, 2005, Search Engine Users Search engine users are confident, satisfied and trusting but they also are unaware and naïve, January 23.
- <sup>2</sup> National Academies of Science, 2005, "Signposts in Cyberspace: The Domain Name System and Internet Navigation", March.
- <sup>3</sup> As a result of the joint partnership agreement between DoC and ICANN, the registry and registrar functions for generic Top-Level Domain names were separated in 1999.
- <sup>4</sup> Such as the Global Domain Name exchange (GDNX, <u>www.gdnx.org</u>) created by Pool.com, one of the largest secondary domain name service providers.
- <sup>5</sup> Netcraft "October 2005 Survey".
- <sup>6</sup> Other registries on the Internet beyond the DNS, which are beyond the scope of the present paper, include Digital Object Identifiers (DOIs) to locate digital objects, such as publications, and the Object Name System (ONS) to identify networked physical objects using the Electronic Product Code.
- <sup>7</sup> OECD, 2005, Input to the United Nations Working Group on Internet Governance (WGIG) at: www.oecd.org/document/40/0,2340,en\_21571361\_34590630\_34888424\_1\_1\_1\_1\_0.html.
- <sup>8</sup> VeriSign, 2005, The Domain Name Industry Brief, Volume 2 Issue 3 August 2005, at: http://www.verisign.com/stellent/groups/public/documents/newsletter/031399.pdf.
- <sup>9</sup> Ibid.
- <sup>10</sup> Many spammers are setting up many domains that try to push their products to the top of search rankings. See: http://news.bbc.co.uk/1/hi/technology/4325918.stm.
- <sup>11</sup> VeriSign, 2005, op. cit.
- <sup>12</sup> Cyveillance, August 2005.
- <sup>13</sup> "Live" Web sites include sites that are classified as live, redirected, under construction, or for sale.
- <sup>14</sup> Sam Paltridge and Masayuki Matsui, www.oecd.org/dataoecd/56/34/32996948.pdf.
- <sup>15</sup> http://www.rfc-editor.org/rfc/rfc3490.txt.
- <sup>16</sup> OECD, 2005, Input to the United Nations Working Group on Internet Governance (WGIG), op. cit.
- <sup>17</sup> ZenithOptimedia, December 2005.
- <sup>18</sup> EMarketer, 2006.

- <sup>19</sup> IAB Internet Advertising Revenue Report, 2005 Second-Quarter and First Six-Month Results, www.iab.net/resources/adrevenue/pdf/IAB\_PwC%202005Q2.pdf.
- <sup>20</sup> It should be noted that some leading search engines believe that market research firms considerably underestimate the size of the whole search market advertising.
- <sup>21</sup> Google, for instance, employs an automated bidding process using a version of a Vickery second-price auction, in which winning bidders pay only one cent more than the bidder below them.
- <sup>22</sup> Fathom Online Keyword Price Index<sup>™</sup> (KPI<sup>™</sup>), at: www.fathomonline.com/about\_us/news/100505KPIYearInReview.html.
- <sup>23</sup> Yahoo Search Marketing Bid Tool, 4 November 2005.
- A report from OneStat.com finds that during the period between December 2003 and January 2004, 32.58% of all online searches were conducted with two words.
- <sup>25</sup> Such as Overture or Google.
- <sup>26</sup> On average 2.8 million names per month were deleted and therefore became available over the June 2004-June 2005 period.
- <sup>27</sup> Creating a new domain name is generally known as an "ADD" transaction.
- <sup>28</sup> http://www.icann.org/tlds/monthly-reports/com-net/verisign-200506.pdf.
- <sup>29</sup> www.pool.com/Press/10072004.aspx.
- <sup>30</sup> For a list of the largest domain name holders see http://www.zooknic.com/Domains/top\_holders.html.
- <sup>31</sup> www.dnjournal.com/columns/cover102604.htm.
- <sup>32</sup> This is partly as a protection from VeriSign's proposed Wait List Service (c.f. "Phase 4").
- <sup>33</sup> <u>https://www.tdnam.com/trpPricing.aspx?ci=2177</u>, on 13 February 2006.
- <sup>34</sup> <u>http://www.snapnames.com/deleteprocess.html</u>.
- <sup>35</sup> ICANN-UDRP, www.icann.org/udrp/udrp.htm.
- <sup>36</sup> At the time, Domain Names Supporting Organisation (DNSO).
- <sup>37</sup> Fifth Status Report to the United States Department of Commerce Re: Progress Toward Objectives of Memorandum of Understanding Q4 2002 http://www.icann.org/general/status-report-08jan03.htm.
- <sup>38</sup> Options for enforcement of the terms in the registrar accreditation agreements are for ICANN to inform a specific registrar that they must comply with the agreement terms and ultimately, their accreditation can be removed.
- <sup>39</sup> www.icann.org/meetings/capetown/icann-domainnames-workshop-01dec04.htm.
- <sup>40</sup> http://gnso.icann.org/meetings/minutes-gnso-13jan05.htm.
- <sup>41</sup> Email exchange with Bruce Tonkin.

- <sup>42</sup> www.gnso.icann.org/mailing-lists/archives/registrars/msg02937.html.
- <sup>43</sup> http://icann.org/presentations/gnso-proposal-deleting-names-MdP-06apr05.pdf.