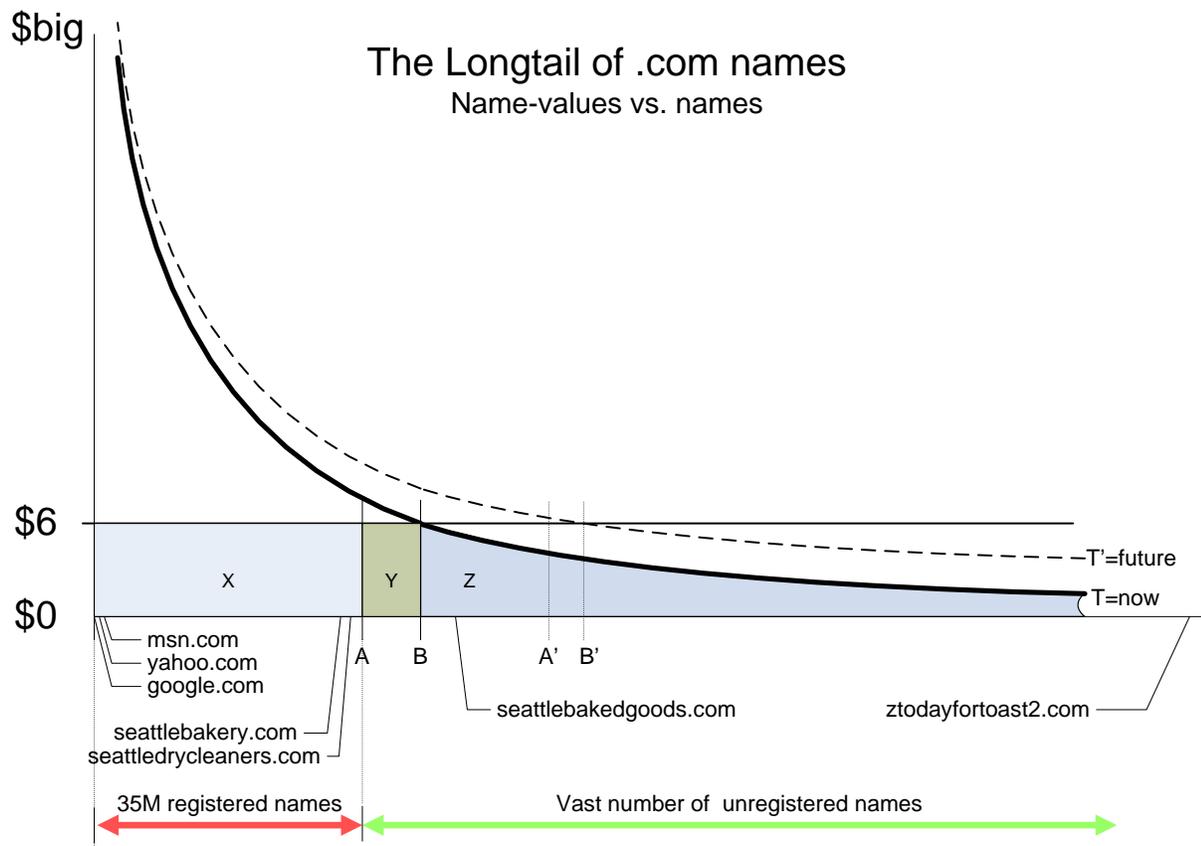


**Available Names
A whitepaper
By
Paul Stahura
CEO
eNom, Inc.
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Background

There is an increase in the use of the add grace period to “taste-test” names, mostly for traffic. The original use of this period was so that mistaken or fraudulent registrations would not incur a cost to the registrar when those transactions were unwound. Now, the same names may be “refreshed” every 5-days which allows them to be registered indefinitely with no fees to ICANN or the registry. Meanwhile these names remain unavailable for registration by other registrars. This whitepaper attempts to describe the financial incentive behind this and other activity and proposes an alternative system that opens a new market to competitive registrars that heretofore has been closed.

Below is diagram that shows the entire domain name space in aggregate, including registered and unregistered domains. In this diagram, all names are sorted as to their “value” and plotted on the horizontal axis. The diagram below applies to the .com name space, for simplicity, but can equally apply to other TLDs or to all names in all TLDs. The vertical axis is value. The higher value names are closer to the origin (on the left) and the lower value names are distributed toward the right with the lowest value names on the far right. For example, “msn.com” and “google.com” are on the far left and “ztodayfortoast2.com” is somewhere in the “long tail” on the far right. For purposes of this diagram, value means the total value of a name, regardless of how that value is created or generated.



All 35 million registered domains names are on the left-hand side of the A line, all the other, unregistered, names are on the right of the A line. The total revenue for VeriSign due to the .com registry is represented by the rectangular lighter-blue region marked "X". The value of X is \$210 million per year because there are 35 million names multiplied by the yearly fee of \$6 which is \$210 million. The greenish "Y" region represents the value to VeriSign of those unregistered .com names that are worth more than \$6 per year, if they were to be registered. The current \$0.25 per name-year ICANN fee is left out for simplicity.

The darker-blue non-rectangular "Z" region represents the currently unrecognized value of all the names that are worth less than \$6 per year.

For any name to have its value recognized, it must be resolvable. To be resolved, a name must be entered into the zone. And there are only two ways names can be entered into the zone. One is via a registration, and the other is via the wildcard record (the DNS * record). This Z region would be recognized as revenue to VeriSign if sitefinder (a * record) were to be re-launched. Without sitefinder, this Z region is unrecognized by VeriSign by itself because the only other way is for a name to be registered and the only way names are registered is via registrars.

Since by definition, the Z area is the area for which names are worth less than \$6 but more than \$0, and since only a registrar can cause a domain to be inserted in the zone, then the Z region revenue can only be efficiently recognized by a registrar performing registrations at an effective cost of as close to \$0 as possible.

Y region value

Obviously, there may be a few unregistered names that have a value more than the lowest valued registered name, but for simplicity, this fact is left out of the diagram, because in general, an unregistered name has less value than a registered name. There are a number of companies trying to figure out which unregistered names have a value more than \$6. They are trying to realize the value represented by the little triangular region above the Y region.

There are a number of ways to do this. For one example, those performing add-deletes today are attempting to monetize the little triangular area above the “Y” region by sifting through unregistered names and keeping those that are worth more than \$6.00 (plus \$0.25 ICANN fee). If there are many such names, the gap between A and B is large, if there are few, the gap would be small.

For another example, certain companies know the NXD data across a large sample size due to their access to name server information, say from a single large ISP, or a few smaller ones. They may use this information to purchase names through their own registrar or another. Therefore, it may be true that the Y region is a slim rectangle because if it wasn't they'd just purchase more to catch up.

The reason why these players are registering more names over time is not because Y is wide, but because the value of a name due to PPC traffic is increasing across the board with time. In other words, the curve in the diagram is moving from T=now (time is now) solid line to the T'=future dotted line. As this happens the B line moves to the right to B', and since the NXD data is already “out there”, and add/deletes are occurring, the A line follows by moving to A'.

Its hard to tell, but its possible there are purchasers of domains worth less then \$6, in the hopes the PPC will continue to rise and the names will be worth more then \$6 in the near future. If that is happening, the B line would be on the other side of the A line. Regardless, the “Y” regions (and the area above it) will remain a sliver in comparison to the X and Z regions.

Increase in PPC moves A and B lines

The price-per-click or PPC has been increasing. This is due to a number of factors, which won't be elaborated here except to say it has to do with the advertising ROI efficiency of keywords and keyword auction models. But, note as PPC value increases, even a small amount, the A and B lines shoot out ever faster to the right. This is why the zone is increasing in size. It is probably not because there are many valuable unregistered names that are undiscovered at a constant PPC value. If there were, those that had the NXD data and a few others doing add/deletes would have already found and registered them. PPC increases mean that the add/delete activity will not equalize but will remain ongoing until PPC stops increasing. Note that, if this theory is true, the zone file size will not only grow, but accelerate.

NXD data

Incidentally, concentrating focus on the NXD data will not be fruitful because:

- 1) It does not monetize the longtail, which is where most of the unrealized revenue is today, and where it will be even greater in the future.
- 2) VeriSign receives the revenue generated in region Y regardless. VeriSign selling the NXD data is an attempt for VeriSign to monetize part of the little triangle above region Y (they get the Y value no matter what).
- 3) Others already have the NXD data, and are using it, so they won't pay VeriSign for it.
- 4) The NXD data can be easily corrupted in which case customers will lose trust in VeriSign and its data. For example, sending a few (or many, whatever) DNS queries to recursive resolvers for unregistered domains will cause VeriSign's NXD data to be higher for those names and cause anyone purchasing the data to purchase names in error because they will think those unregistered domains have real traffic.
- 5) For those that purchased the NXD data (at a cost of “datafee”), the total cost would increase to a value much closer to the T=now line for names in the Y region, so people would not buy certain of the names ($\$6 + \text{datafee} > T=\text{now}$), so Verisign would not benefit in the revenue from those names.

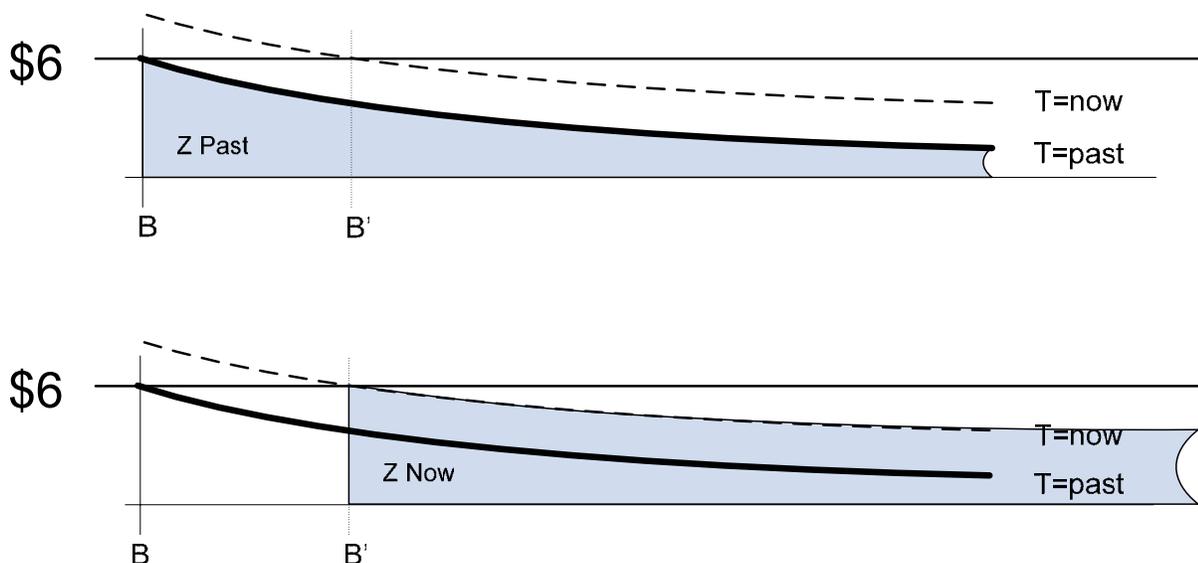
Therefore, Verisign may not monetize the little triangle above region Y, even if it offers the NXD data. The NXD data is no help to monetizing the longtail.

Z region value

It obviously has some value, but what is it?

There are two reasons why the value today is greater than in the past *even though more names are registered now*. More names being registered would seemingly decrease the overall value of Z as those names would be removed from the Z area, but the Z area is increasing faster for another reason which is basically that PPC has increased.

If in the diagram below, T=past represents the name-values at some time in the past, for example one year ago, and if T=now is the name-values now (a higher level due to PPC increasing), then you can see that Z Past is a smaller area than Z Now. The Z region increases dramatically with an increase in PPC because the name-value line flattens out along the longtail part of the curve. Note that for low-value names, most if not all of the value is from PPC revenue, so a higher PPC tide floats many boats, and not just the domains in the longtail, companies and industries as well.



At some PPC point, the Z area is larger than the X area, because a vast number of names will be just below the \$6 line.

Proposal

It is possible to engineer an arrangement whereby VeriSign (and ICANN) continues to completely realize all of region X and Y, and at the same time, VeriSign, registrars, registrants and ICANN can likewise share in the monetization of the long tail. And at the same time enhance competition leaving stability and security improved and at worse, unchanged.

The idea is to allow registrations of names yet, at the same time, these registrations would remain available for registration. It may seem strange at first, but stay with me...

This would be accomplished by creating additional cred-types (a "cred" is the registrar's access, or credentials, to the registry). Names registered in the new cred types would remain available for registration by the "normal" cred type (the type all registrars have today), but not to the new cred types. The new cred types would have different parameter settings than the normal type cred of today. Registrars can choose which cred type they wish to have. The proposal is not limited to the .com

registry; any registry could make available the same or similar service. Names registered in either of the two new cred types will have a status of, for example, “Active-Available” at the registry, instead of “Active”. No changes are required to RRP, EPP, the DNS operations, whois, or any protocol.

To illustrate, the normal cred has the following parameters and settings.

Parameter	Setting
Add grace period	5-days
Registry fee	\$6.00
ICANN fee	\$0.25
Date fees are incurred	Upon exit of the add grace period
Registration period	One year
Availability during registration	Not available while registered
Nameservers settings for each name	Any
Letter of Credit (LOC) Requirement	None
Whois required	Yes
Others...	Other parameters have other settings

The proposal is to create two additional options for registrars from which to choose. One cred type effectively lowers the \$6.00 line (in the name-value graph) to near \$0.00, but in that type of cred, the registrant has no choice as to the DNS setting for names registered with this cred-type. The registrants will agree that all names will be registered with the same name servers and DNS settings; all names will point to the same website. The registrar will earn a revenue share generated by the website and paid by the registry, which can be shared with the registrant. Since the registration fee is so close to zero, there needs to be a governor on registrations. Registrars will be able to register as many names as they wish for \$6.00 but if the names are deleted or registered by another cred-type during the course of the year, the \$6.00 will be credited to the registrar’s account, resulting in a zero dollar fee for the length of the registration. In other words, the add grace period would be set to one year for this type of cred. The governor is the size of the registrar’s account with the registry (like today, this can be established with a letter of credit). Also just like today, the larger the account the more names the cred can register. This imposes a small cost (the cost of money) on the registrar; otherwise, if the names were exactly free, all registrars would registrar a near-infinite number of names.

In the other cred type, names can have any name servers, just like today, but each name will cost a fee less than \$6.00 (\$2.00 is the proposed fee plus ICANN’s \$0.25 fee) per maximum length of registration of one year. The registrant can use the name in all ways exactly like names registered in the normal cred type but that there is no guarantee that these names will not be registered at any time by a normal cred. The names are registered to the registrant for so long as another registrant does not register them with a normal cred at a later date.

Besides opening and bringing competition to the Z-region of the long tail, it is another goal of this proposal to eliminate the possibility of doing all three of the following simultaneously: 1) register a name for free (including the ICANN fee), for even short periods 2) disallow others from registering it, even for short periods, and 3) control the DNS setting on it, which is what happens with add/delete cycles of today.

The two new creds, as well as the existing cred type, are summarized in the table below.

Parameter	Normal Type Cred	Specific-DNS Type Cred	Any-DNS Type Cred
Add grace period	5-days	364-days	0-days
Registry fee	\$6.00	\$6.00	\$2.00

ICANN fee	\$0.25	\$0.25	\$0.25
Date registry and ICANN fees are incurred	Upon exit of the add grace period	Upon exit of the add grace period	Upon exit of the add grace period
Registration period	One year	Up to one year	Up to one year
Availability during registration	Not available while registered	Available to Normal Creds	Available to Normal Creds
Nameservers settings for each name	Any	Specific	Any
Minimum letter of credit (LOC) requirement	None	\$6 million	\$1 million
Add grace threshold	At least 90% of adds must kept	None	None
Whois required	Yes	Yes	Yes
The other parameters...	Same as now	Same as normal cred	Same as normal cred
Registry rev-share	None	55%	None
ICANN rev-share	None	5%	None
Registrar rev-share	None	40%	None

FAQ

- 1) For the specific-DNS type cred, it is a revenue share of what revenue? It is the revenue generated by the traffic monetization site to which the names point. The source of the revenue will be from advertisers within a well respected ad network (such as Google and/or Yahoo/Overture).
- 2) Will a third-party keep track of the revenue to ensure there are no shenanigans? Yes, the ad network partner (again Google and/or Yahoo/Overture) will do this on a per-cred basis. Various reports can be made available to cred holders on a per-name basis.
- 3) Why are those particular rev-shares proposed? If the registry's costs are say 15% of the total, then the registry and the registrar split the revenue after ICANN's cut (they each get 40%), which seems reasonable. The registrars have near-zero costs (just the cost of a LOC). ICANN's cut is 5% because if the average value of these names is \$5.00, then 5% of \$5.00 is \$0.25, which is the same as the current ICANN fee for .com names, also note that 5 to 40 (ICANN to VeriSign rev-share ratio) is about the same as \$1 to \$6.25 (ICANN to VeriSign share ratio for .net names).
- 4) For the any-DNS type cred, why is the per-name registry cost of \$2.00 proposed? If \$5.00 is the average value for these names (remember the average value will be less than \$6.00 otherwise, the name will be taken by a normal cred, and it will also be more than \$2.00 otherwise it would not be registered in this type of cred), then \$2.00 is 40% of the total.
- 5) Why is the ICANN fee \$0.25 in the any-DNS cred type? It seems reasonable as that is what it is for a .com domain registered with a normal cred.
- 6) Will registrants see any of these revenues/benefits? Yes, regardless of cred type, due to competition among registrars, registrants will see most of it, just as with the normal cred type of today. A difference from today is that registrants will have a wider choice in the types of names they can register. They can taste names without blocking their registration, for example.
- 7) How does this effect competition? Currently there is competition to monetize the region above the "Y" area. There is no competition at all in monetizing the Z region. This proposal opens the Z to competition while enhancing the competition for monetizing the area above Y.
- 8) How will this effect security and stability? It provides a more orderly and thought-out process for name tasting which does not take names out of the pool of available names, or cause excessive load on the registry by repetitively adding and deleting a vast number of names daily. The security and stability is enhanced because even though each name is registered and

functions the same as any normal name, (unlike names in an add/delete cycle) these names, if an issue arises, could be placed in the control of any other registrant by simply registering them at your local normal registrar. DNS is unchanged. Where the domain points is in the control of the registrant, just like today.

- 9) Why have a minimum LOC requirement? Setting a higher LOC at the start, and lowering it later, would necessitate that only financially stable registrars participate and make for a more gradual start-up, much like the original registrar test-bed accomplished. Assuming that the LOC can be called in cases of unforeseen security/stability/abuse issues, the higher LOC minimum provides an incentive for good behavior among registrar participants.
- 10) What changes would there be to the RRP or EPP protocol? None
- 11) Is a DNS wildcard record utilized? No
- 12) Where, for example, would the MX record point? Wherever the registrant wants, just like today. If the name is registered in a specific-DNS type cred, the registrant, by making the registration, is pre-authorizing the MX setting to none.
- 13) Can a spammer get a name and spam with it? Not anymore than today, for example, by doing add/deletes, or by registering a .info for \$1.00, and probably less because the costs are higher for the any-DNS cred type. The answer is “no” for the specific-DNS type cred because the registrant does not control, for example, the MX or SPF DNS settings. There is a financial incentive to keep all parked names off of all blacklists.
- 14) Would each and every registered name have a registrar-of-record? Yes
- 15) Would each and every registered name have whois information? Yes, exactly the same whois data elements as today. The whois information collected and displayed at the registry level and at the registrar level for each name, regardless of cred-type, would remain as it is today. The registry whois output for names registered with the two new cred types for the name’s “status” data element could be listed as “Active-available” instead of “Active”.
- 16) Are there any changes to the DNS infrastructure or the zone? None at all. The names in all cred types would appear in the zone exactly as those names in the “normal” cred type are today.
- 17) Will names that are not currently in the zone but registered, for example, names that are on hold, resolve? No, just like today.
- 18) For the registrars of the “specific-DNS” type cred, who would be responsible for the monetization site; perform the DNS, etc for the specific-DNS type of cred? The registry that chooses to offer these types of names, so presumably VeriSign for .com and .net names. Anyone could choose not to use VeriSign and run their own monetization system by registering names using an “any-DNS” type cred (or “normal” type for that matter).
- 19) Could names registered in one of the two new creds be add/deleted by a normal cred? Yes, but non-abuse would be defined so that the normal cred holder must keep more than 90% of the names it registers.
- 20) What happens if the normal cred does not keep 90%? TBD, but one possibility is that at that point the 5-day grace period is set to 0-days for that cred. Regardless, with these new cred types, at least the financial incentives for performing add/delete activity in a normal cred is severely diminished. Those companies would obviously choose the specific-DNS type cred whereby they have a much longer time period (365 days not 5) for which to taste the names, and there is much diminished risk of not deleting them on time (as it stands today, if they do not delete them during the 5-day period in a normal cred, lets say there was a bug in their system, they are stuck with a huge bill from VeriSign) and the registrar’s implementation (just do one add, not an add/delete cycle for each name) costs are reduced.
- 21) What happens if a trademark is registered in one of these new cred types? They are all registered names with normal whois. The trademark holder can issue a DRP at anytime just like today. Alternatively, the trademark holder could merely visit any “normal” cred-type registrar and immediately register the name and assume control of it. Trademark holders do not have this option with add/delete/add names.
- 22) Will there be registration agreement for each name registered in the two new cred types? Yes. This agreement will make sure the registrant is agreeing to that specific type of name registration, for example, that the registrant is or is not allowed to set the name servers, and

that the registrant is aware that the name could be registered by another registrant at any time without notice.

- 23) What is the value of Z? It is unknown, but it could be equal to a significant percentage of X, if not as much as X. If it is \$100 million per year, then approximately \$55M will go to Verisign, \$40M to the registrars (with part of that to registrants), and \$5 million to ICANN.
- 24) Won't these new types of creds negatively impact the number of names registered in normal creds? No because as soon as a name is seen to be worth more than \$6.00, the registrant will eliminate the risk of it being taken away by registering it in a normal-type cred. There will be more names registered in normal creds than there otherwise would have been.
- 25) Will names in the new cred types have other status types, for example, registry-hold? TBD, these other status types are not necessary, though it may be an easier implementation to retain them. For example, there is no need for transfer, either just add it with a normal cred, or delete it and re-add it with either of the new cred types.
- 26) Will the traffic information from the specific-DNS monetization website be made available to VeriSign, ICANN, and all registrars? TBD, but why not?
- 27) Will the zone-file (note not the zone published via DNS) published via the ftp site be updated with these names? TBD, but why not, they are the same as all other names.
- 28) eNom is making this proposal. Why? eNom wants the longtail to be opened to registrars, so it can participate in that part of the market. Now, it is closed to everyone.
- 29) Do you envision these names to be registered to consumers' one-at-a-time, like the names in normal creds? No, due to their low cost (albeit low value), many will be registered.
- 30) What other applications are there for these new types of domains? Who knows, we are still at the beginning. Maybe a free-trial VoIP identity? Temporary identities for internet connected devices?