Cost Considerations of the New gTLD Program

Date of Publication: 24 October 2008

Background - New gTLD Program

Since ICANN was founded ten years ago as a not-for-profit, multi-stakeholder organization dedicated to coordinating the Internet's addressing system, one of its foundational principles, recognized by the United States and other governments, has been to promote competition in the domain-name marketplace while ensuring Internet security and stability. The expansion will allow for more innovation, choice and change to the Internet's addressing system, now constrained by only 21 generic top-level domain names. In a world with 1.5 billion Internet users—and growing—diversity, choice and competition are key to the continued success and reach of the global network.

The decision to launch these coming new gTLD application rounds followed a detailed and lengthy consultation process with all constituencies of the global Internet community. Representatives from a wide variety of stakeholders—governments, individuals, civil society, business and intellectual property constituencies, and the technology community—were engaged in discussions for more than 18 months. In October 2007, the Generic Names Supporting Organization (GNSO)—one of the groups that coordinate global Internet policy at ICANN—completed its policy development work on new gTLDs and approved a set of recommendations. The culmination of this policy development process was a decision by the ICANN Board of Directors to adopt the community-developed policy in June 2008 at the ICANN meeting in Paris. A thorough brief to the policy process and outcomes can be found at http://gnso.icann.org/issues/new-gtlds/.

This paper is part of a series of papers that will serve as explanatory memoranda published by ICANN to assist the Internet community to better understand the Request for Proposal (RFP), also known as *applicant guidebook.* A public comment period for the RFP will allow for detailed review and input to be made by the Internet community. Those comments will then be used to revise the documents in preparation of a final RFP. ICANN will release the final RFP in the first half of 2009. For current information, timelines and activities related to the New gTLD Program, please go to http://www.icann.org/en/topics/new-gtld-program.htm.

Please note that this is a discussion draft only. Potential applicants should not rely on any of the proposed details of the new gTLD program as the program remains subject to further consultation and revision.

Summary of Key Points in this Paper

- The new gTLD implementation should be fully self-funding (costs should not exceed fees; existing ICANN activities regarding technical coordination of names, numbers and other identifiers should not cross-subsidize this new program).

- The new gTLD policy requires a detailed and thorough implementation process to achieve its goals; this process is inherently costly.

- Since this is a new program, it is difficult to predict costs or volumes with certainty. A detailed costing process has been employed, and costs are in line with historical precedent.

- If all cost-related estimates are accurate, there will be no net increase to ICANN's funds as a result of evaluating new gTLD applications; fees will just equal costs. If there is an excess or shortfall (which will take some time to assess), the community will determine how funds should be handled.

- The primary ICANN fee will be the evaluation fee. It is currently estimated that this fee will be $185,000. Applicants may face other fees (paid directly to providers) in case of technical issues or disputes. As with existing registries, newly delegated registries will also pay ICANN fees.

1. Overview and Summary

While the primary implications of this new policy relate to possible improvements in choice and competition as a result of new domain names, there are also important cost implications, both to the ICANN corporate entity and to gTLD applicants with regard to the implementation of the policy through the acceptance and processing of applications as set out in the policy adopted by the community and accepted by the Board.

An important implementation guideline of the new gTLD policy is that it should be fully self-funding (costs should not exceed fees). See http://gnso.icann.org/issues/new-gtlds/pdp-dec05-fr-parta-08aug07.htm -_Toc43798015. There is a certain common sense aspect to this: a new program should pay for itself. With more than 170,000,000 registrations worldwide, the current fee and expense model through which ICANN provides technical coordination of unique identifiers must remain intact for the foreseeable future, and not be impacted by the new gTLD implementation. The new gTLD implementation program must stand on its own—it should not be cross-subsidized by existing gTLD registrants.

Cost considerations are made more complex by the fact that this new gTLD application round represents a new activity for ICANN and the community. However, there are historical data points of interest. In ICANN's round of considering new sponsored TLDs (beginning in 2003), ten applications were processed. Relying on some historical estimates, ICANN staff estimates that the total costs (staff costs, consulting costs, and

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08

2

outside services including legal expenses) were at least $1.8MM for the ten applications processed, or at least $180K per application. Fees charged to applicants for that round were $50K per application.

Implementing the breadth of the GNSO policy requirements is not straightforward; to achieve policy objectives, there can be many evaluation steps, which has a direct impact on the expected cost of an application. This thorough process, and concomitant cost is appropriate. While the ICANN Organization's primary role in the new gTLD program is to ensure a smooth and efficient process, the entire ICANN community has an essential stake in the outcome as well, which requires a thorough implementation of a through process. Global community concerns must be considered, there should be appropriate protection of rights holders, and consideration given to the likelihood that a new gTLD operator will stably and appropriately operate this new, valuable addition to the DNS.

According to a detailed costing methodology that includes the new gTLD program development costs and both the more-easily and less-easily predictable costs associated with evaluating new gTLD applications through to delegation in the root zone, ICANN is currently estimating that the application evaluation cost for a new TLD will be approximately $185,000 per application in the first application round. The fee approach described here will be reviewed by the community as part of the overall new gTLD process review, and further refinements of the various estimates may take place up until the final application guidebook is issued. All applicants will pay for this evaluation cost with an equal fee, approximately $185,000 per application. Applicants will have additional fee considerations (discussed later).

The total expected fees to ICANN for evaluating and processing new gTLD applications will represent a large sum. If ICANN receives 500 applications in the first round (as forecast), the total fees to ICANN would be approximately $92,500,000 for the first application round. What does ICANN intend to do with this amount of money? The fee income will be used to pay for the approximately $92,500,000 in expenses associated with processing the 500 applications. If all costs were perfectly estimated, after processing all new gTLD applications in the first round (both the simple and the complex), when the last application was fully processed, ICANN fees received less expenses associated with the new gTLD applications would be zero.

Of course, with the uncertainties involved, it is possible that ICANN will over-collect or under-collect for this first round; fees received may be greater or less than actual expenses. And, while it is anticipated that non-contentious applications can be handled in a few months, contentious applications will take longer, so the final determination in fee and cost accounting can't be determined for likely two to three years after the application process begins. On an ongoing basis, ICANN will account for and report on new gTLD fees and expenses, and after an appropriate period of time will determine if there has been a significant difference between fee collection and expenses. If an excess, ICANN will engage the community in how that excess is to be used. If a deficit, ICANN would recover an equal amount of funds in future TLD rounds.

Delivering a process to allocate new gTLDs was part of ICANN's initial mandate, it has been broadly considered by the Internet community and approved by ICANN's Board of Directors. ICANN staff has used best practices and outside experts to vet processes and assist in cost estimation. And, while the cost elements of this process are significant and with some uncertainty, the approach to cost and fees is planned to yield a result

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08

3

consistent with the policy mandate that the new gTLD program be fully self-funding and deliver a predictable process that produces the right result for the Internet community.

2. Important financial principles

The implementation of the new gTLD process is intended to be fully self-funding, so the financial impact of new gTLDs on the ICANN organization is largely driven by cost: how much will it cost to process the new TLD applications? Cost, should then be recaptured in processing fees. As this is a new program, it is essential to have a set of principles that the cost estimating team can use to provide a common guide to decision-making, and to allow for all assumptions to be made explicit. Some of these important principles for the implementation of the new gTLD program are outlined below.

Care/Conservatism: ICANN coordinates unique identifiers for the Internet, and particularly important for this context, directly contracts with generic top level domain registries, and cooperates with country code registries around the world in the interest of security, resiliency and stability of the DNS. There are more than 170,000,000 second-level domain registrations that provide for a richness of communication, education and commerce, and this web is reaching ever more people around the world. ICANN's system of contracts, enforcement and fees that supports this system, particularly for the 105,000,000 registrants in gTLDs, must not be put at risk. The new gTLD program must be fully self-funding.

Further, this principle of care and conservatism means that each element of the application process stand-up to scrutiny that it will yield a result consistent with the community-developed policy. While thoughtful consideration of process and cost has been considered throughout the process design, cost-minimization is not the overriding objective. Rather, process fidelity is given priority.

Up-front payment/incremental consideration: ICANN will collect the entire application evaluation fee at the time an application is submitted. This avoids a situation where the applicant gets part way through the application process, then may not have the resources to continue (and assures that all costs are covered). Still, if the applicant drops their application during the process for some reason, ICANN should refund a prorated amount of the fee to the applicant. This refund schedule will be published and discussed later.

Having a uniform evaluation fee for all applicants provides cost certainty with respect to ICANN fees for all applicants. Further, it ensures there is no direct cost penalty to the applicant for going through a more complex application (except, when necessary, fees paid directly to a provider). A single fee, with graduated refunds, and with provider payments (e.g. dispute resolution providers) made directly to the provider seems to offer the right balance of certainty and fairness to all applicants.

Fee levels and accessibility: Members of the GNSO community recognized that new gTLD registry applicants would likely come forward with a variety of business plans and models appropriate to their own specific communities, and there was a commitment that the evaluation and selection procedure for new gTLD registries should respect the principles of fairness, transparency and non-discrimination.

In this context, some community members expressed concern that financial requirements and fees might discourage applications from developing nations, or indigenous and minority peoples, who may have different sets of financial opportunities

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08

4

or capabilities relative to more highly developed regions of the world. The ICANN Organization takes these concerns seriously, and can in the future explore possibilities for future means of financial assistance for or fee reductions to qualified applicants for new gTLDs in a consistent, fair, verifiable, and transparent manner. However, this goal must be balanced with the principle of conservatism that first-round fees must fully fund the first-round application costs.

Further, during the policy development process some members of the community expressed concern that even well-intentioned fee reductions or aid programs offered directly by ICANN could well be the subject of gaming by commercial interests. A commercial entity could put a token presence in a locale where fees were reduced, or portray a new registry as an expression of some community interest where none in fact existed.

No practical method of ICANN financial assistance or fee reductions was identified for the first round of new gTLD applications, though an appropriate mechanism might be defined for subsequent rounds. If staff is able to identify sources for potential grants, financial assistance or match-making opportunities for applicants from qualified developing nations, and indigenous and minority peoples in need, the results will be made publicly available.

Estimating methodology: Individuals take different approaches to estimating a cost. Some might think of a worst-case scenario, some a best-case scenario, and others somewhere in-between. Estimators for the various costs associated with application evaluation strove to use a maximum-likelihood basis to estimate the costs. Further, to get the best possible estimates, a detailed approach was taken. The evaluation process was divided into 6 phases, 24 major steps, and 75 separate tasks. Twenty-seven separate possible outcomes were identified in the application process, probabilities identified for reaching each of these states, and cost estimates applied for each state. Estimating at this detailed level is likely to yield more accurate estimates than summary overview estimates.

Further, whenever possible, sensitivity analysis was applied to cost estimates. This means asking questions such as "How much would the total processing cost be if all applications went through the most complex path?" or "How much would the total processing cost be if all applications went through the simplest path?" Sensitivity analysis also helps to explore and understand the range of outcomes, and key decision points in the cost estimation model.

Expected quantity of applications: While ICANN has asked constituents and experts, there is no sure way to estimate with certainty the number of new TLD applications that will be received. ICANN has assumed that there will be 500 applications in the first round. This volume assumption is based on several sources, including a report from a consulting economist, public estimates on the web, oral comments at public meetings, and off-the-record comments by industry participants. While the volume assumption of 500 applications is consistent with many data points, there is no feasible way to make a certain prediction.

If there are substantially fewer than 500 applications, the financial risk is that ICANN would not recoup historical program development costs or fixed costs in the first round, and that higher fixed costs would drive the per unit application costs to be higher than forecast. Still, the total risk of a much smaller-than-anticipated round would be relatively

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08

5

low, since the number of applications would be low.

If there are substantially more than 500 applications, the risk is that application processing costs would again be higher than anticipated, as ICANN would need to bring in more outside resources to process applications in a timely fashion, driving the variable processing costs higher. In this case, ICANN would be able to pay for these higher expected costs with greater-than-expected recovery of fixed cost components (historical program development and other fixed costs), thus at least ameliorating this element of risk.

The new gTLD program will be ongoing: ICANN will announce the timing for a second new gTLD round at the closure of applications in the first round. It is anticipated that this will be within one year of the first round closure date. It is reasonable to expect that various fees may be lower in subsequent application rounds, as ICANN processes are honed, and uncertainty is reduced.

3. Cost elements

The primary ICANN fee associated with a new gTLD application is the application evaluation fee. As noted above, this fee of $185,000 per new gTLD application is based on a detailed cost estimation process. There are three elements in this cost estimate: cost for developing the new gTLD process (in effect, historical costs), readily identifiable costs of evaluating and processing an application, and the more uncertain/difficult to estimate elements of the application and delegation process. These three elements are described in detail below.

3.1 New gTLD program development costs

An element of the total cost of evaluating new gTLD applications is the cost associated with development of the implementation program itself. There has been some discussion as to what point in time would be the correct starting point from which to consider that the program development began in earnest. ICANN staff has recommended that implementation costs be counted since the end of 2007 when the GNSO recommended the new gTLD policy. This means that approximately $2 million of costs involved in supporting the new gTLD policy development through the Generic Names Supporting Organization and other organs of ICANN's policy making processes have not been included in the development costs.

As with all other aspects of cost estimation, ICANN staff performed a through review of program development costs. This included a person-by-person review of staff hours on the implementation program, review of invoices and estimates of outside services and consultants on the program, travel expenses, and relevant IT costs and overhead. The table below shows a summary of these costs, which total approximately $12.8MM.

	Amount
Personnel	7,519,857
Travel & Meeting	1,273,810
Professional Services	1,348,404
Administration/overhead	2,647,950
Total	$ 12,790,021

To avoid complexities in the mechanism/rate for recapturing these costs, they will be recaptured at a fixed $26,000 per application in the first round. Since these historical new gTLD program development costs have already been expensed, this element of the evaluation fee will be used to increase ICANN's reserve fund, which will help ICANN attain strategic goals for reserve fund size, and in effect repay funds that came from ICANN's general budget for new gTLD program development.

3.2   Fixed and variable application evaluation costs – predictable

The second element of cost in evaluating and processing new gTLD applications is the fixed and variable costs associated with each evaluation/processing step.

The new gTLD policy identifies a set of policy outcomes and implementation guidelines that require detailed information from applicants, and a detailed evaluation of the information that is provided. For example, the process for handling new gTLD applications must assess possible string confusion and contention, technical and business capacity to run a registry, and more. Each of these policy outcomes is achieved through a set of processing and evaluation steps, sequenced to make the least contentious applications go through the process quickly, and to handle more complex applications in a uniform and appropriate way.

Over a period of many months, the proposed procedure for processing and evaluating a new gTLD application was broken down into phases, then each phase broken down into steps, then each step broken down into tasks. Six phases, twenty four steps, and seventy-five individual tasks were identified. For example, the first phase of the application process includes three steps, and a total of eleven tasks:

Step Description		Task Description	
S1	Application Period	1	Provide input to the tracking, monitoring, and reporting proces; execute algorithm
S1	Application Period	2	Monitor all applications received. Respond to inquiries.
S1	Application Period	3	Complete status report and prepare the appropriate exec/board/public communications for completion of the step.
S2	Administrative Completeness Check	1	Complete and evaluat checklist for each application. Determine if application is ready for Initial Evaluation phase.
S2	Administrative Completeness Check	2	Communicate with applicants regarding incomplete applications.
S2	Administrative Completeness Check	3	Confirm application fees are received.
S2	Administrative Completeness Check	4	Complete status report and prepare the appropriate exec/board/public communications for completion of the step.
S3	Public Comment	1	Manage the closing of the application period including public notice
S3	Public Comment	2	Report on public comments. Report on responses to public comments.
S3	Public Comment	3	Translate comments where necessary
S3	Public Comment	4	Complete status report and prepare the appropriate exec/board/public communications for completion of the step.

For each task, a cost estimate was performed by estimating the number of person-hours required in each relevant ICANN department, and/or the consulting hours/dollars

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

necessary from an outside provider. The example below shows ICANN departments, as column headings, and a number of hours estimated for each to complete a specific task. To generate cost estimates, an entire matrix for all 75 tasks, for all departments and all outside service costs was created and extensively reviewed.

Administration	Executive	IANA	Corporate Affairs	Policy	Global Partnership	Information Technology	Legal	ICANN Meetings	Registrar Liaison	At-Large	Ombudsman	Board Expenses	Human Resource	Finance	Nominating Committee	Internal Operations	Services	Registry Liaison	Contractual Compliance	Project Management	Organization Security	L-Root Management	Internal Labor Hours
	1		5			5	1										1		1				14

Finally, fixed costs, such as IT systems development, hardware, or costs not easily attributable to a single processing step were added to the cost estimate.

As noted above, ICANN is setting a uniform evaluation fee to provide certainty to applicants. However, this uniform fee should not simply be an estimate of executing all application steps. This would overstate the cost to all. Many applications will be simpler, some more complex. So, ICANN staff applied standard "expected value" techniques to establish an overall expected cost of executing the predictable aspects of the process.

Expected value is determined by estimating the likelihood that each of the 75 steps will actually be executed for the pool of applications, then multiplying that likelihood times the cost. The first step was to develop a table of likelihood estimates for each step. A small piece of that table is shown below.

Paths	S1	S4-S5	
	Application check	initial evaluation	proceed to EE?
Pass/ Y	100%	80%	0%
Fail/ N	0%	20%	100%
1	100%	80%	
2	100%	80%	
3	100%	80%	
4	100%	80%	
5	100%	80%	

This table shows that 100% of applications will go through the application check step. It also shows that 80% of applicants are expected to pass the initial evaluation phase, and 20% to proceed on to extended evaluation. As noted above, these estimates were made for each path through the six phases in the application process.

Now, with an estimate of the cost of each task, and the likelihood that an application will actually be executed against each task, it is possible to calculate the expected cost of the application (multiplying the cost of each step times the probability that step will be executed).

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08

8

Another way to visualize this expected cost methodology is in the form of a decision tree. As each application proceeds through each processing step, it can proceed to further steps with a certain probability, and at a certain cost. Again, the expected cost is the sum of all costs and their associated probability. A portion of the decision tree chart is shown below:
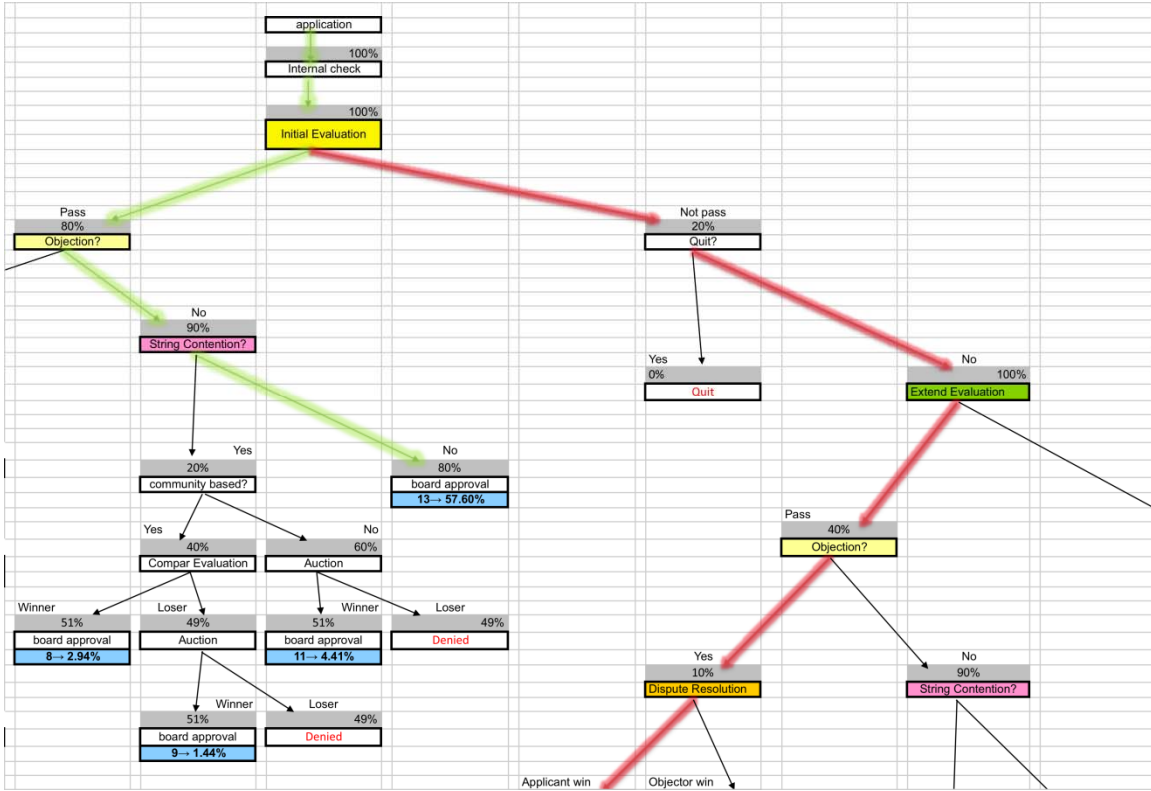
Using the methodology just outlined, these components of fixed and variable costs amount to about $100,000 per application.

3.3   Variable processing costs - uncertain/harder to predict elements

To best estimate the more predictable costs of processing an application, each application step was estimated at its most likely or median value. This is the process described in section 3.2 above. However, clearly costs will appear that aren't standard costs elements in ordinary application processing; it is just difficult to know exactly what costs these will be and at what amount.

Examples of these risks/difficult to estimate costs are: What would happen in the event that many more or many fewer applications were received than anticipated? How simple or complex will the average application be (dictating how many process steps must be executed for each application)? Are the staffing and outside consultant fees estimated correctly? Have expenses for difficult-to-predict support services such as information technology systems, legal support, contract support, etc. been fully identified?

These costs must be accounted for (to ensure full funding of the new gTLD program), without inflating the total cost estimate for evaluating an application by making all line item estimates "worst case".

To ensure a sound methodology in costing these risk/hard-to-estimate cost elements, ICANN engaged Willis Inc., the world's third largest insurance broker and risk consultant with over US $3.4B in annual revenues, 20,000 employees and operating in over 100 countries, and in particular the Willis Enterprise & Risk Finance (WERF) practice, which is the center of excellence within Willis for risk quantification and risk modeling.

Using a scenario modeling technique that incorporates Monte Carlo simulation and regression analysis, and that looks at both risk elements and the probability they will occur, this analysis generated a risk profile for the overall new gTLD program, that identified approximately $60,000 in risk/difficult-to-estimate costs per application in the first round. This accounts for uncertainty at approximately the 80% level of confidence.

3.4 Other fees

There are other fees relevant to the new gTLD applicant. ICANN will charge a modest system access fee to become a registered user of the application submittal system (projected to be $100). The purpose of this fee is to ensure ICANN has the correct contact and billing information for each applicant, and to diminish frivolous access to the application system.

Additionally, if the application goes to technical services evaluation (similar to the current RSTEP evaluation of registry services), objection and dispute resolution processing, or string contention, the applicant may need to pay additional fees to various service providers. As noted earlier, if the applicant chooses to withdraw their application instead of pursuing further evaluation, there will be a refund process.

3.5 Annual registry fees

All existing generic registries pay ICANN fees based on contractual agreement. In general, fees are based on a percentage of transaction revenue. In some cases, registries pay a fixed fee each year in accordance with the contract. Once a new gTLD is delegated and in operation, it will also be subject to registry fees.

As noted earlier, it is expected that there will be a variety of different models for new gTLDs. The fee structure should support this diversity, yet be consistent across all of the new gTLDs. Building on existing registry fee models, new gTLD registry fees are projected to be the greater of $75,000 or approximately 5% of registry transaction revenue. Using this approach, a new TLD oriented towards high volumes of registration would have a fee based on transactions. A new TLD that might be for community or other limited registration uses would pay the fixed fee. (This is similar to the fixed and variable fee structure between ICANN and registrars in place today, which accommodates different registrar business models.)

These ongoing registry fees would pay for additional support required for new TLDs, including compliance, registry liaison, possible increased registrar activity, and possibly other registry support activities. These fees, their relationship with other ICANN fees, and the uses for these fees will be handled in the same way registry fees are handled today, through the ICANN annual plan and budgetary process.

Draft—for discussion only—please refer to the disclaimer on the title page of this document.

D1_Cost Considerations_23Oct08   **10**

3.6 Cost summary

The primary financial impacts of the new gTLD program are driven by costs. Accurate cost estimating is a challenge, because this is a new program. ICANN has taken a detailed and thorough approach to estimating historical program development costs, process and uncertainty costs associated with this new program, and consistently used a set of principles in applying the estimation methodology. The results have been tested with sensitivity and other analysis, and appropriate expertise has been applied.

4. Process and Summary

The new generic top level domain process, including the draft RFP, foundational documents, expense explanations, and more are being published in draft form to provide the Internet community ample opportunity to comment on the in-development process. Based on community feedback, it is anticipated that at least one more draft of all documents will be produced for further feedback.

Regarding financial impacts, ICANN will also produce a pro forma rolling three-year budget based on the cost estimates for new gTLD processing described here. In addition to the incremental impact of new gTLD cost, the budget will address issues of timing of fee inflows and costs for the total ICANN budget.

The magnitude of cost of the new gTLD program is significant. Implementing a program for processing new gTLD applications according to the policy, as proposed by the GNSO after extensive deliberation, is complex. But, this complexity exists because the community wanted to allow for a process that would enable important new and flexible uses for the domain name system while providing a variety of essential safeguards.

An overarching financial directive for implementing the new gTLD policy is that the implementation program fully funds itself. Great care has been taken to estimate costs with an eye towards ICANN's previous experience in TLD rounds, the best professional advice, detailed and thorough review, and at a fine degree of detail. ICANN will provide community reporting regarding fees and expenses as the implementation round progresses, and handle any surplus or deficit with community consultation.