

# auDA REGISTRY COMPETITION REVIEW PANEL

## FIRST CONSULTATION REPORT

September 2004

### 1. Background

1.1 In July 2004 the auDA Board established the Registry Competition Review Panel to:

- review auDA's competition model as it applies to the provision of .au 2LD registry services (refer to Appendix 1); and
- provide recommendations to the auDA Board about what changes (if any) should be made to the competition model.

1.2 The Panel's Terms of Reference and a list of Panel members is available on the auDA website at <http://www.auda.org.au/rcrp/rcrp-index/>.

1.3 The Panel is tasked with considering the following matters:

- what are the objectives of competition at the 2LD registry level;
- whether the multiple registries model should be retained, or whether there should be a single registry for all .au 2LDs;
- the process by which auDA should appoint the registry operator(s);
- the revenue model under which registry services should be provided; and
- how to accommodate the introduction of new 2LDs.

1.4 Please note that the following issues do NOT form part of the Panel's Terms of Reference:

- Review of the current registry technical specification. auDA will review the registry technical specification at a later date.
- Consideration of whether auDA itself should provide registry services. The auDA Board has confirmed its commitment to maintaining a clear separation of policy and operations.

### 2. Purpose

2.1 The purpose of this report is to canvass some of the issues and options that have been identified by the Panel and seek public comment on them, to assist the Panel to formulate its recommendations to the auDA Board.

2.2 Following this first phase of consultation, the Panel will publish its draft recommendations to the auDA Board for further public comment.

### 3. Public Submissions

3.1 If you would like to comment on the issues and options presented in this report, please send your submission to:

Jo Lim  
Chief Policy Officer  
auDA  
email: [jo.lim@auda.org.au](mailto:jo.lim@auda.org.au)  
fax: 03 9349 5711

Electronic submissions are preferred.

3.2 All submissions will be posted on the auDA website within 2 working days of receipt, unless clearly marked confidential.

3.3 The closing date for submissions is **Friday 24 September 2004**.

### 4. Glossary

<i>Term</i>	<i>Definition</i>
auDA	.au Domain Administration Ltd
2LD	Second level domain, ie. a name at the second level of the .au domain name hierarchy (eg. com.au)
Closed 2LD	A 2LD that is for the exclusive use of a particular community of interest (eg. gov.au)
Open 2LD	A 2LD that is basically open to all users subject to eligibility criteria (eg. com.au)
ccTLD	Country Code Top Level Domain (eg. .au, .uk)
gTLD	Generic (or Global) Top Level Domain (eg. .com, .biz)
DNS	Domain Name System
Economic Profit	Revenue minus expenses and cost of capital, in a competitive market
EOI	Expression of Interest
IP	Internet Protocol
Registrar	An entity that registers domain names for registrants and is accredited by auDA
Registry Operator	An entity that provides registry services for a 2LD and is licensed by auDA
RFT	Request for Tender
WHOIS	Public interface to the domain name registry database
www	World Wide Web

## 5. Background Issues

### 2001 Registry Tender Process

5.1 In October 2001 auDA released an RFT for provision of registry services in five open 2LDs (asn.au, com.au, id.au, net.au, org.au) and two closed 2LDs (edu.au, gov.au). RFT documents are archived on the auDA website at <http://www.auda.org.au/news-archive/comp-registry/>.

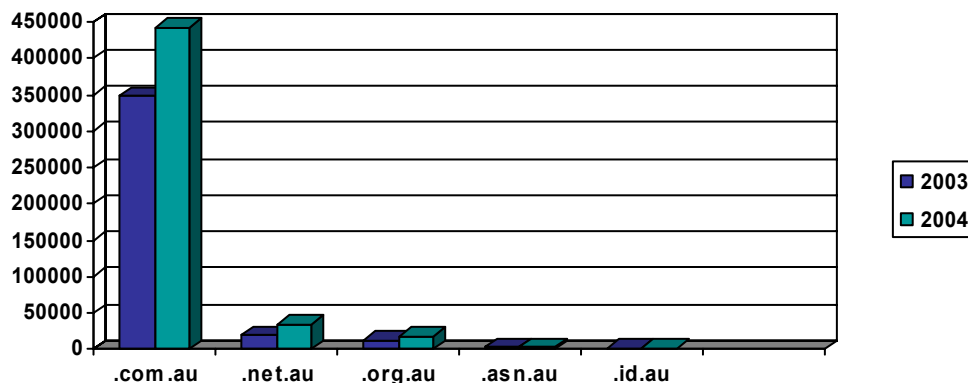
5.2 Respondents were invited to tender for all, some or one of the 2LD registries. Eight tender responses were received, six for all 2LDs and two for com.au. Due to the need to achieve full coverage of all 2LDs, the two tenders for com.au were not considered by the evaluation panel.

5.3 In December 2001 auDA awarded a four year licence to AusRegistry Pty Ltd to operate the five open 2LDs. The licence term commenced on 1 July 2002 and expires on 30 June 2006. The licence was subsequently extended to include the two closed 2LDs, with the same expiry date of 30 June 2006.

5.4 The Panel notes that at the time the RFT was released, com.au was the largest 2LD by an order of magnitude; in October 2001 there were approximately 230,000 com.au domains compared with approximately 28,000 domains in the other open 2LDs combined. It is likely that respondents would have made a judgement that it was not commercially viable to operate a registry under the minimum standards of the tender for the remaining open 2LDs without com.au.

5.5 Latest domain registration figures show that although there has been growth in the other 2LDs, com.au is still the largest 2LD and is continuing to grow at a steady rate; in June 2004 there were approximately 380,000 com.au domains compared with approximately 60,000 domains in the other open 2LDs combined. The Panel concludes that the economics of registry operations in 2001 are still applicable today and are likely to remain so, at least in the medium term.

Table 5A: .au Domain Registration Trends by 2LD



Source: <http://www.auda.org.au/ausregistry/reports>

### *Introduction of New 2LDs*

5.6 In 2002-2003 auDA decided to create eight new community geographic 2LDs (eg. nsw.au, vic.au, etc), and to re-activate the dormant conf.au 2LD.

5.7 Under the current competition model, auDA is required to conduct an open and competitive tender process for provision of registry services for the new/re-activated 2LDs. This raises some practical challenges for auDA:

- Current market structure. As noted above, the experience of the 2001 tender process indicates that running a registry for a 2LD or 2LDs with the potential for only a few thousand existing registrations over the term of the registry licence agreement is unlikely to be a commercially attractive proposition. The potential number of registrations in a 2LD is determined by a combination of factors including market demand, degree of marketing of the 2LD and the policy rules in effect for that 2LD. For example, the policy rules for the community geographic 2LDs will limit the collective number of possible registrations to approximately 20,000.
- Multiple registry licence terms. Awarding a new registry licence for new 2LDs at any time through the incumbent's licence for existing 2LDs would result in multiple registry licence terms running out of phase. This has two disadvantages: 1) there is no opportunity to maximise economic efficiency by bundling new 2LDs with existing 2LDs, and 2) auDA is required to fund and resource registry tender processes on a rolling basis, as opposed to conducting a single tender process periodically.

## **6. Objectives of Competition at the 2LD Registry Level**

6.1 The Panel's view is that the overriding objective of competition at the 2LD registry level is to attain the greatest economic efficiency in the provision of 2LD registry services. This can be measured in a competitive registry market in terms of the price charged by the registry operator for a particular service at a particular service level. For example, as the number of domain names in a particular 2LD increases, it is expected that the registry operator's cost (and therefore price) per domain name will decrease. In the short to medium run therefore, growth in the number of domain names within each 2LD will be an important sub-objective of competition.

6.2 Assuming the high-level objective of competition is met, the Panel believes it can lead to improvements in:

- Customer service. The customers of the registry operator are registrars. Customer service provided to registrars by the registry operator may include assistance for new registrars to connect to the registry, assistance in marketing, assistance in fault resolution and registrar transaction reporting services.
- Performance. This refers to the performance of each of the major registry functions: the provisioning system for the registry database, the WHOIS service and the DNS

nameservice. All three services should support reasonable response/resolution times for registrars and end-users generally.

- Reliability. This refers to the reliability of each of the major registry functions (see above) and is usually measured in terms of the amount of time the service is available to registrars and end-users generally.
- Security. This refers to the protection of private information (eg. registrant contact details) from unauthorised access, as well as the protection of all information contained in the registry database from unauthorised or accidental changes (eg. changing nameserver configurations).
- Innovation. With respect to existing DNS services (mainly email and www services) this refers to new ways of achieving improvements in customer service, performance, reliability, security or efficiency. Innovation may also occur in relation to the provision of DNS services to support other Internet-based services and applications (eg. voice over IP).

## 7. Multiple 2LD Registry Model

7.1 The Panel acknowledges the problems that have arisen with respect to periodic re-tendering, matching tender responses to requirements, and the introduction of new 2LDs within the current market structure, as described in section 5 of the report.

7.2 However, the Panel does not believe that these problems justify constraining the competition model to a single registry for all 2LDs. Whilst the Panel acknowledges that a single registry for all 2LDs may be the most efficient option in the current market environment, it is conceivable that continued growth both in the number of .au domain names and in the number of domain name industry participants, will result in the market being able to support multiple 2LD registries with associated benefits in the future.

7.3 Therefore, the Panel's view is that the competition model should continue to allow for (but not require) multiple 2LD registry operators, and that auDA should allow the market to determine the number of 2LD registries in the .au domain by ensuring that the process for selecting a registry operator does not exclude any type of viable proposal.

7.4 The Panel believes that multiple 2LD registries will result in the following benefits:

- Continuous registry service provision. For example, when one registry operator is performing maintenance on systems for a particular 2LD or 2LDs, registrars and end-users are able to access other 2LD services provided by another registry operator. This is especially useful in the case where one registry operator fails completely (eg. become insolvent), and also offers an additional level of disaster recovery.
- A wider pool of operational knowledge and experience. Registry operators are able to assist each other, auDA and registrars with solutions to common technical problems that are not associated with competitive advantage (eg. working on common WHOIS data formats).
- An environment of constant competition, as distinct from periodic competition at the end of a registry licence term. Constant competition should spur innovation, and is likely to result in system improvement benefits during the registry tender cycle.

- More choice for registrars in terms of service provision. Registrars may elect to provide the 2LD services of a particular registry operator on the basis of better service and support; this may give registrars more leverage to seek service improvements in the middle of a registry tender cycle.

7.5 The Panel makes the further observation that multiple 2LD registry operators should have little or no impact on registrar and end-user experience in a technical sense, provided the operating protocols and standards are the same. auDA can ensure that this is the case by requiring each registry operator to meet the same minimum technical specification.

7.6 The Panel concedes that multiple 2LD registries would require auDA and registrars to enter into multiple contractual and billing relationships, and auDA would be required to maintain regulatory oversight of additional industry participants. However, the Panel believes that, in the long-run, the overall market benefits of multiple 2LD registries may outweigh any administrative disadvantages.

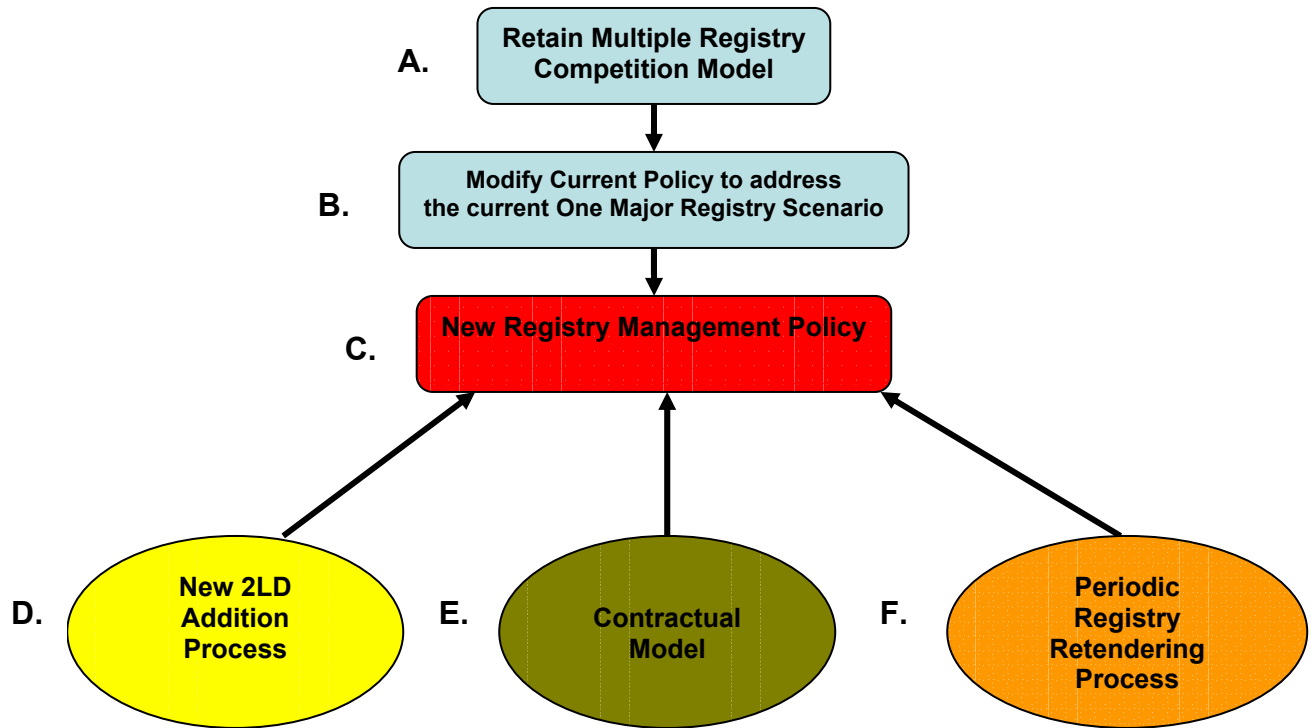
## **8. Scope of Policy Modification**

8.1 It is the preliminary view of the Panel that the scope of competition at the registry level should be such that multiple registries might exist as the market matures. Accordingly, any policy changes to the registry competition model should focus on process options that could be implemented to overcome the problems that have arisen since 2001.

## **9. Conceptual Schema and Policy Issues and Options**

9.1 In an attempt to synthesise a conceptual schema and associated policy options, the Panel has developed the following framework for public consultation purposes.

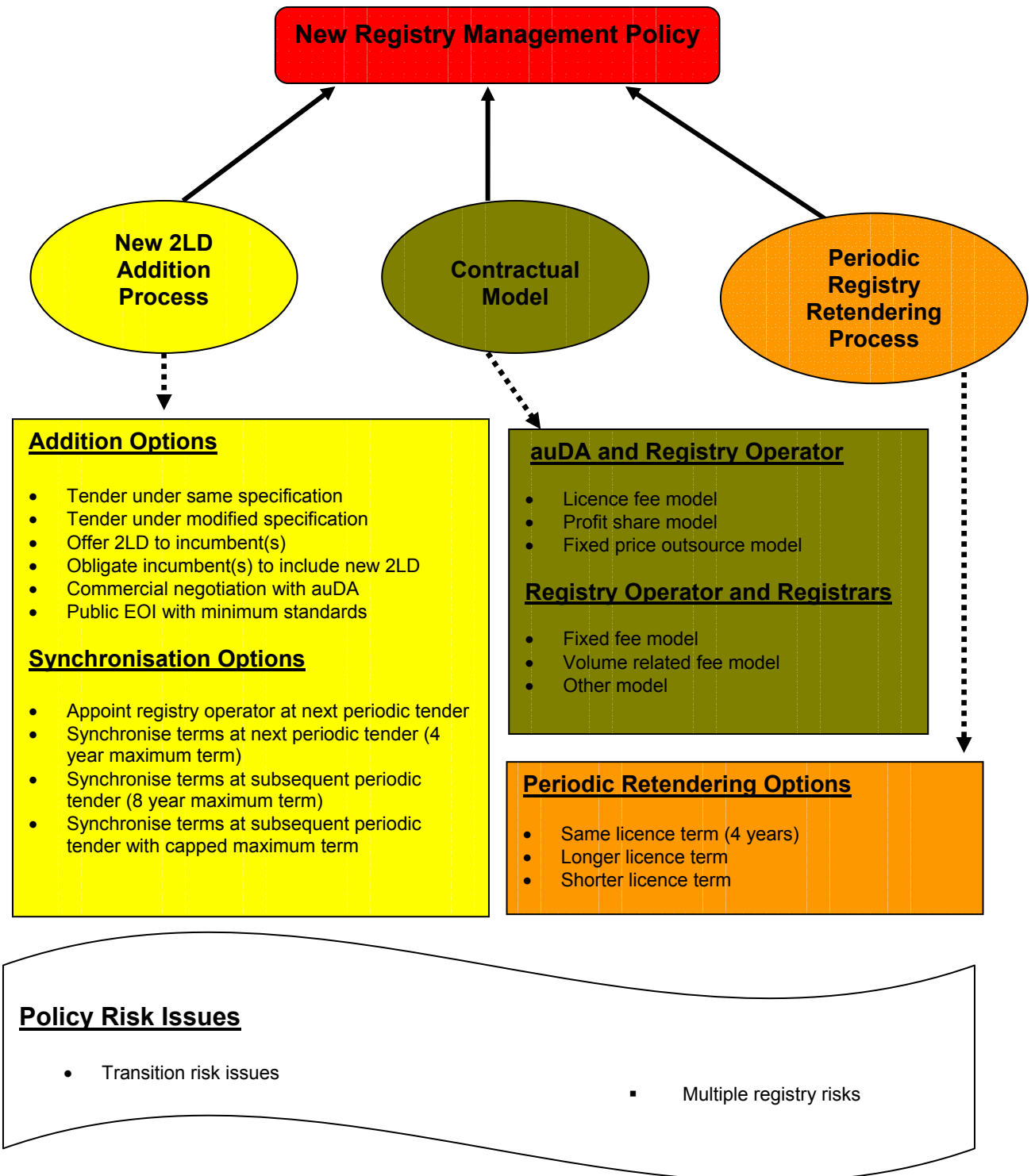
Diagram 9A: Registry Competition Conceptual Schema



9.2 In line with the Panel's view on registry competition:

- boxes A and B summarise the Panel's preliminary policy resolutions
- box C represents the Panel's key deliverable under its Terms of Reference
- circles D, E and F are the major policy issues and options identified to date, and are described in sections 10-13 of the report.

Diagram 9B: Policy Issues and Options (Expanded View)





## 10. New 2LD Addition Process

10.1 The Panel notes the difficulties that have occurred under the current competition model in relation to adding new 2LDs to the .au domain, as explained in section 5 of the report. The Panel has considered ways of overcoming these difficulties, by adopting a more efficient process for determining the provision of new 2LD registry services and synchronising the new 2LD registry licence term with the licence term for existing 2LDs.

10.2 The Panel has identified the following options for determining the provision of registry services for a new 2LD, some of which could be combined:

10.2.1 Tender process with same specification. auDA could conduct a registry tender process using the same technical specification and other selection criteria as that used in the 2001 registry tender process (for more information refer to the 2001 RFT documents archived on the auDA website at <http://www.auda.org.au/news-archive/comp-registry/>).

10.2.2 Tender process with modified specification. auDA could conduct a registry tender process using a modified version of the technical specification and other selection criteria used in the 2001 registry tender process. For example, auDA might determine that the technical standard required to operate the new 2LD is not as high as the technical standard applying to existing 2LDs.

10.2.3 Offer new 2LD to incumbent(s). auDA could offer the new 2LD to the incumbent registry operator(s). The incumbent(s) would have the choice whether or not to operate the new 2LD.

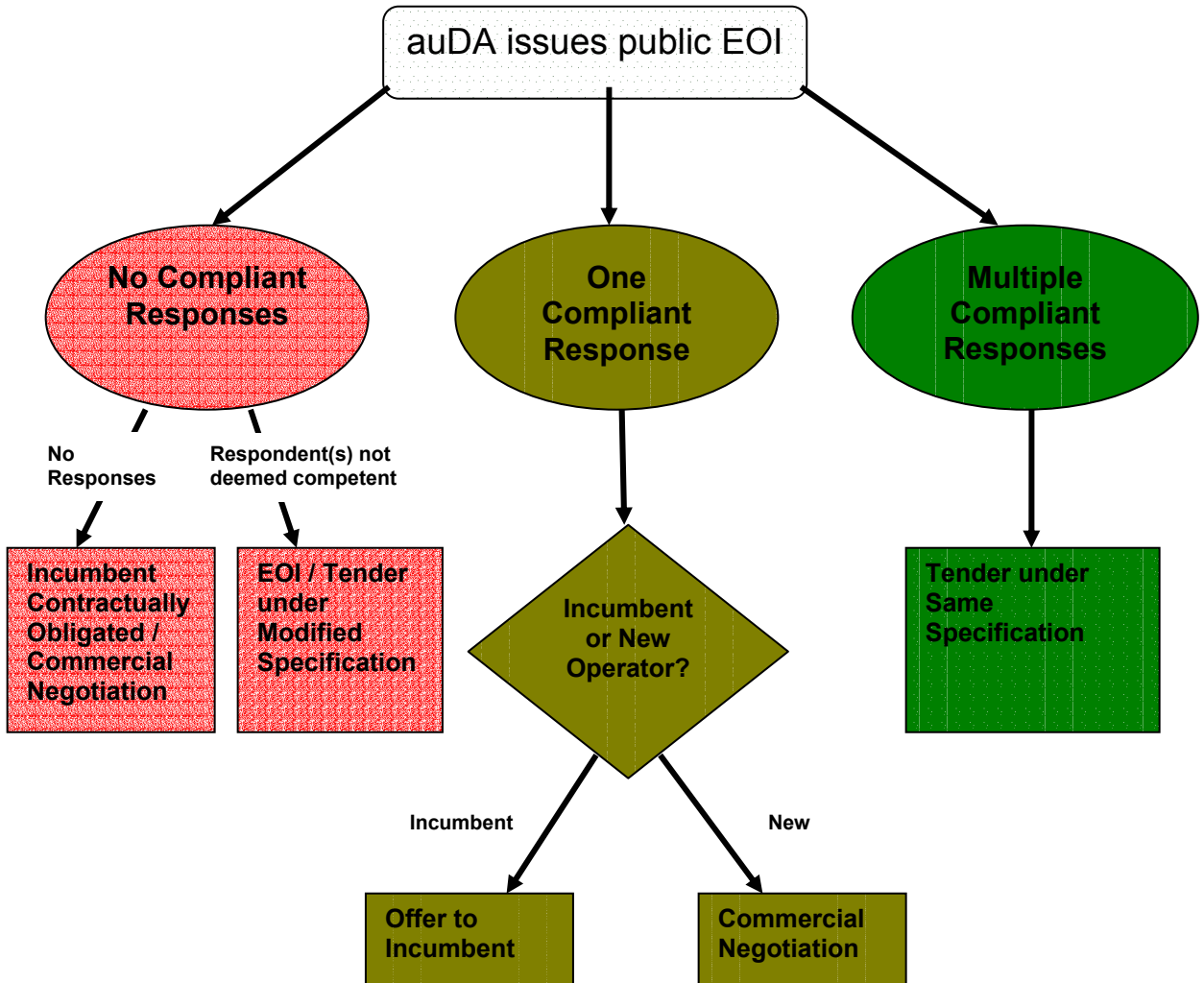
10.2.4 Obligate incumbent(s) to operate new 2LD. The incumbent registry operator(s) could be obligated to operate the new 2LD under the terms of its licence agreement with auDA. (The current licence agreement between auDA and AusRegistry does not include such a provision.) This would be straightforward where there is a single incumbent; there may need to be an additional step in the process in the case of multiple incumbents.

10.2.5 Commercial negotiation. auDA could conduct private commercial negotiations with a selected registry operator, new or incumbent.

10.2.6 Public EOI process. auDA could conduct a public EOI process with a minimum technical specification and other selection criteria. The EOI process could be a pre-cursor to one of the other options listed above (eg. EOI followed by full RFT, or EOI followed by private commercial negotiation).

10.3 The Panel's preference is for auDA to conduct a public EOI process as described in 10.2.6 above. The Panel suggests that the EOI could be a relatively light-weight process, with a short deadline for response and limited advertising. The purpose of the EOI would be to test market interest and refine requirements before proceeding with one of the other options as illustrated in the diagram below.

Diagram 10A: New 2LD Addition Flow-Chart (preliminary)



10.4 The timing of a new 2LD addition is also an important consideration. auDA could appoint a registry operator as soon as a new 2LD is approved, without reference or regard to the registry licence term already running for existing 2LDs. The disadvantages of this option have been noted in paragraph 5.7 above.

10.5 Given the current market environment and the administrative overhead and costs of running frequent tender processes, the Panel supports synchronisation of registry licence terms for all 2LDs at this time. The Panel has identified the following options for synchronising new 2LDs registry licence terms with the periodic tender for existing 2LDs:

10.5.1 Appoint new 2LD registry operator at next periodic tender. auDA could wait to include the new 2LD in the next periodic tender for all 2LDs. Under this option there would be a maximum delay of four years between approving a new 2LD and making it available to the public (assuming a fixed registry licence term of four years).

10.5.2 Synchronise registry licence terms at next periodic tender. auDA could appoint a registry operator (refer to Diagram 10A) as soon as a new 2LD is approved, but the new 2LD registry licence term could be set to expire at the next periodic tender for existing 2LDs. For example, if auDA awarded a new 2LD registry licence on 1 January 2005, the term would run until the end of the current incumbent's licence on 30 June 2006. Under this option the maximum licence term for a new 2LD would be four years (assuming a fixed registry licence term of four years). The Panel notes that a licence period of less than four years may be too short to attract tender respondents.

10.5.3 Synchronise registry licence terms at subsequent periodic tender. auDA could appoint a registry operator (refer to Diagram 10A) as soon as a new 2LD is approved, but the new 2LD registry licence term could be set to expire at the subsequent periodic tender for existing 2LDs. For example, if auDA awarded a new 2LD registry licence on 1 January 2005, the term would run until the end of the next licence term for existing 2LDs (eg. 30 June 2010). Under this option the maximum licence term for a new 2LD would be eight years (assuming a fixed registry licence term of four years). The Panel notes that a longer licence period may attract a higher number of tender respondents than a shorter licence period.

10.5.4 Synchronise registry licence terms at subsequent periodic tender with capped licence term. The new 2LD registry licence term could run until the subsequent periodic tender for existing 2LDs, but with a maximum term (eg. six years). The rationale for setting a shorter maximum term is that a licence period of up to eight years may unduly restrict auDA's ability to test the competitive market in order to gain the most efficient outcome for a new 2LD.

10.6 To allow a new 2LD to be introduced as soon as it is approved, the Panel supports the ability of auDA to synchronise the new 2LD registry licence term with either the next or subsequent periodic registry tender. In line with its general preference for allowing the market to determine outcomes, the Panel suggests that the EOI process for new 2LD registry operations could invite respondents to submit pricing models for both

the shorter and the longer licence term. For example, if auDA issued an EOI in Year 2 of the registry licence term for existing 2LDs, respondents would be invited to submit pricing models for a two year term and a six year term. In order to give auDA greater choice and flexibility, the EOI may also invite respondents to suggest an alternative licence term.

10.7 Having stated a preference for synchronisation of registry licence terms for all 2LDs within the current market environment, the Panel notes that this position may need to be reviewed in light of future market developments.

## **11. Registry Contractual Model**

11.1 The Panel is aware there may be a perception among some stakeholders within the Australian domain name industry that the current registry licence agreement does not necessarily support the greatest level of economic efficiency. Given that economic efficiency is the overriding objective of competition, it is pertinent for the Panel to reconsider the contractual model.

11.2. There are two distinct financial components to the contractual model. One is the financial relationship between auDA and the registry operator, the other is the financial relationship between the registry operator and registrars.

### *Relationship between auDA and the registry operator*

11.3 Under the current licence agreement between auDA and AusRegistry, AusRegistry pays an annual registry licence fee to auDA calculated according to the number of domain names registered in each 2LD. This is consistent with the current competition model, with respect to the funding model for auDA, that registry licence fees should cover the cost of managing the registry's compliance with technical requirements and consumer safeguards.

11.4 The Panel believes that the licence fee model provides transparency and certainty for both auDA and the registry operator. The Panel notes that there are other possible models for determining the financial relationship between auDA and the registry operator, such as profit share (ie. a split of profit/loss between the registry operator and auDA under a set formula) and fixed price outsource (ie. registry services would be provided under a fixed price contract in an outsourcing arrangement with auDA). The Panel's view is that neither of these models is appropriate for the .au domain space. In particular, the Panel notes that the fixed price outsource model would effectively result in auDA itself being the registry operator, which is contrary to the statement in the Panel's Terms of Reference that auDA is committed to maintaining a clear separation of policy and operations.

### *Relationship between the registry operator and registrars*

11.5 Under the current registry licence agreement between auDA and AusRegistry, AusRegistry charges a per domain name fee to registrars which varies according to 2LD (eg. \$45 for com.au, \$25 for id.au). Fees for com.au and net.au are set on a reducing sliding scale based on cumulative number of domain names within selected 2LDs. This arrangement was put in place pursuant to the 2001 registry tender, which invited

respondents to propose a model for charging registrars which could include a fixed and/or volume-related component.

11.6 Having regard to the experience of running registry tenders internationally, the Panel currently favours using the tender process to identify the best charging model between the registry operator and registrars. The tender process takes advantage of market competition and gives the registry operator an incentive to work with registrars to grow the market. Internationally, the most common charging model involves a combination of fixed and volume-related fees. Given that global accounting standards are an ongoing work in progress, the Panel believes it would be short-sighted to limit any other potentially innovative models that market participants may put forward in the future.

## **12. Periodic Registry Retendering Options**

12.1 The length of the registry licence term can have a significant impact on the economic efficiency of the tender model. The Panel has identified the following options:

12.1.1 Current licence term (four years).

12.1.2 Longer licence term. A longer licence term may increase the economic efficiency of the registry, but may also lock in either a poorly performing registry operator or a registry operator posting greater than economic profits or windfall profits.

12.1.3 Shorter licence term. A shorter licence term provides an opportunity for the registry operator market to adjust for unanticipated market growth, thus decreasing the risk of a registry operator making a windfall profit, and possibly resulting in a better pricing model for the subsequent licence term. On the other hand, a shorter term may advantage the incumbent because the start-up costs for a new registry operator are significant. A shorter term would result in more cost and administrative overhead for auDA in running more frequent tender processes.

12.2 The Panel notes that as the current licence term is only mid-way through the first cycle, it is difficult to make an assessment of its market impact at this time. Accordingly, the Panel has no empirical basis on which to recommend changing the registry licence term.

12.3 As established throughout the report, the Panel's general preference is to allow the market to determine the best outcome through the competitive tender process. Whilst the most flexible option would be to allow tender respondents to submit bids for various licence periods, the Panel acknowledges that there needs to be a common reference point to enable tender evaluation. The Panel's view is that the tender should require respondents to submit a charging model based on the current licence term of four years, but that respondents should also be allowed to put forward alternative charging models based on a shorter or longer licence term.

### 13. Policy Risk Issues

13.1 The Panel has identified some of the policy risk issues associated with transition between incumbent and new registry operators, and moving from single to multiple registries. Consideration of these issues falls outside the scope of the Panel's Terms of Reference and are presented below for information only.

- Transition risk issues. In managing the transition between an incumbent and a new registry operator, consideration needs to be given to risks associated with data integrity, software protocol errors and systems instability. The Panel notes that at least some of these risks can be managed through a suitable testing process prior to cutting over to the new registry, and therefore the timing of the tender process would need to accommodate an appropriate testing period. Similar issues arise in respect to the addition of a new 2LD to an incumbent registry operation.
- Multiple registry risk issues. Operational risks associated with multiple registry operators are mostly associated with a lack of standardisation in protocols and data formats. As noted in paragraph 7.5 of the report, such risks could be minimised by ensuring that registry operators are required to meet the same minimum technical specification.

**REGISTRY COMPETITION MODEL - EXTRACT FROM  
"COMPETITION MODEL FOR THE .AU DOMAIN SPACE, JUNE 2001"**  
(full report available at <http://www.auda.org.au/pdf/cmap-model-final.pdf>)

### 2.3 Registry

**Recommendation 2.3:**

- ❑ *auDA will adopt a competition model that allows for multiple registries.*
- ❑ *Provision of registry services under a licence agreement from auDA will be contestable, through a periodic open tender process to be administered by auDA.*
- ❑ *Closed 2LDs may elect to be included in the tender process; if they choose to opt-out, then they must provide a minimum set of registry services to ensure they can function as part of the unitary DNS and meet public interest requirements.*
- ❑ *The registry operator(s) will provide the authoritative nameserver, generate zone files and maintain public (WHOIS) information for their own 2LD(s).*
- ❑ *Registry information will be published in a central data register to be maintained by auDA for the purposes of providing a centralised WHOIS service, by replicating the registry data in a central repository.*
- ❑ *The registry operator(s) must provide customer service to all registrars.*
- ❑ *The registry operator(s) will provide registrars with an electronic interface to enter and update records in the registry.*
- ❑ *The registry operator(s) will perform final checks on domain name registrations to maintain the integrity and stability of the registry database.*
- ❑ *The registry operator(s) shall be subject to appropriate accountability mechanisms, including the submission of reports to auDA.*
- ❑ *auDA will set minimum technical standards, data protocols, security and service level requirements for the registry operator(s), including escrow requirements for data and registry software.*
- ❑ *auDA will develop a disaster recovery plan, including back up plans in the event of breach by the registry, so that it is in a position to protect the .au domain and related infrastructure.*
- ❑ *auDA will be the technical and administrative contact for making changes to DNS records for .au and the 2LDs within .au (eg. com.au).*
- ❑ *A registry operator may not also operate as a registrar unless there is a clear and effective separation of the two business operations.*

2.3.1 A registry provides two key services to the Internet community: it provides a public information service (known as WHOIS) so that users can find the domain name licence holder corresponding to a particular domain name; and it provides the authoritative nameserver for a particular level of hierarchy in the DNS so that an Internet end user's computer can translate a domain name to a physical Internet address for online access. It also provides data in the form of a 'zone file' for other secondary nameservers.

2.3.2 In its first report, the Panel put forward two options at the registry level – a single registry on the one hand, or multiple registries on the other. The multiple registries model is premised on the notion that there will be better incentive for innovation and more choice for registrants or organisations sponsoring a new 2LD, while the single registry model asserts that economies and efficiencies from a single operator outweigh the benefits of innovation and competition at this level. Public submissions to the report did not demonstrate unequivocal support for either model.

2.3.3 In its second report, the Panel put forward a compromise option: that auDA adopt a competition model that allows for multiple registries however, as a first iteration of the model, auDA should tender all the existing open 2LDs (asn.au, com.au, conf.au, id.au, info.au, net.au and org.au) to a single registry operator.

2.3.4 The Panel considered that this compromise option would:

- provide an acceptable balance between innovation and efficiency;
- test the registry operator market through the initial single tender, before going to multiple tenders;
- enable initial uniform service level agreements (SLAs) to be imposed across all (open) 2LDs via a single registry operator, that would serve as a benchmark for future multiple registry operators;
- allow time for the industry and consumers to adjust to a multiple registrar environment, before introducing multiple registry operators; and
- address public interest concerns regarding efficiency of resources and duplication of infrastructure.

2.3.5 Public comments on the Panel's second report suggested that the proposal to tender all open 2LDs together in a single registry would be too restrictive and may not result in efficiency gains. Moreover, the Panel notes concerns that the initial establishment of a single registry for all open 2LDs could entrench monopoly power and limit the potential for future entry of new registry operators. Such factors could also have a detrimental impact on competition at registrar level and lead to a reduction in national benefit.

2.3.6 In light of these comments, the Panel considers that auDA should allow the market to determine the number of 2LD registries in the .au domain by ensuring that the tender process does not exclude any type of proposal. Proposals may be for all, some or one of the open 2LD registries. Proposals may be submitted by for-profit or not-for-profit entities, single firms or consortia, commercial operators or community-interest groups. auDA must ensure full and adequate coverage of all open 2LDs. Moreover, auDA must ensure that public benefit outcomes are preserved by evaluating all tenders against the same minimum technical and consumer safeguard criteria, and choosing the tender that offers the 'best value for money'. The Panel recommends that concerns noted in paragraph 2.3.5 about monopoly power are given due consideration by auDA in evaluating registry tenders.

2.3.7 The Panel notes that auDA's Name Policy Advisory Panel will report on the possible creation of a number of new 2LDs in the .au domain. Under the recommended competition model, selection of the provider of registry services for new 2LDs would be by an open and competitive public tender process conducted by auDA.



### *Tender process*

2.3.8 The Panel recommends that an open and competitive tender be called for the provision of specified registry services under a licence agreement from auDA that specifies the maximum prices the registry operator will charge registrars and also the service levels which will be provided to registrars. Open tendering will allow access to world-class expertise and methodologies in the delivery of registry services, to achieve the best possible value for each registrant dollar spent in delivering those services.

2.3.9 The licence period should be long enough to enable the winning tenderer to implement its business strategy and achieve a reasonable return on investment. The Panel suggests a period of 3-5 years. However, the appropriate licence period should become apparent in the light of business plans submitted by tenderers.

2.3.10 The Panel notes that the process for selection of the registry operator(s) could be single or multi-staged. It may be appropriate to hold a two-stage process comprising a request for expressions of interest (REOI) followed by a request for tender (RFT). A REOI may be invited internationally at an early stage to establish the extent of interest in the provision of registry services. The REOI stage would establish a register of respondents, from which a short list could be invited to submit tenders at the RFT stage. Responses to the REOI may also provide a basis for refining tender requirements for the RFT stage.

2.3.11 In evaluating responses to these stages, auDA should have regard to the following criteria, as appropriate:

- ❑ compliance with technical requirements, consumer safeguards and any other requirements;
- ❑ conflict of interest considerations;
- ❑ price;
- ❑ business plans and financial viability;
- ❑ organisation and management capability and capacity;
- ❑ past performance;
- ❑ strategy for transition-in of registry services;
- ❑ strategy for transition-out of registry services to another registry operator at the expiration or termination of the licence agreement; and
- ❑ extent to which competition in the provision of DNS services is enhanced.

2.3.12 Probity of the tender process is important to:

- ❑ ensure objective, fair and consistent treatment and assessment of tenderers and their tenders during the competitive tendering process;
- ❑ promote industry and consumer confidence in the process; and
- ❑ effectively manage auDA's risk.

Accordingly, those involved in the tender selection, evaluation and negotiation processes should observe the highest ethical standards necessary to ensure confidence in the integrity and good reputation of the regulator and the industry. To this end, probity protocols relating to the tender process should be developed, having regard to best practice. Protocols would normally relate to confidentiality and privacy obligations, real or apparent conflicts of interest, avoidance of conflicts of interest, disclosure of interests, and responsibilities for and conduct of tender process. Those involved in selection,

evaluation and negotiation processes should observe such protocols and may sign deeds of undertaking.

2.3.13 The Panel suggests that auDA establish a committee to manage tender processes, to ensure that no one person controls outcomes and that all significant decisions and recommendations are subject to review. auDA may wish to consider including representatives from industry and consumer groups on the committee. The Panel encourages auDA to consult with key stakeholders regarding the proposed tender objectives and strategy, selection criteria, technical and performance specifications, consumer safeguards and tender process timetable including key milestones.

2.3.14 More detail is provided in the Tender Process paper at [Attachment B](#).

#### *Registry ownership/control considerations*

2.3.15 The Panel does not consider it appropriate for auDA to restrict the tender to Australian-owned entities, nor is it appropriate for auDA to include any foreign ownership and control criteria in the tender. The Panel notes that registry investment proposals by foreign interests may be subject to the Federal Government's foreign investment policy.

2.3.16 The Panel advises that the following restrictions be placed on entities that will provide registry services:

- ❑ a successful tenderer be required to operate the registry through an Australian registered company, and must possess and maintain a physical address in Australia;
- ❑ the tender documents should explicitly state that the successful tenderer must be bound by Australian laws (Commonwealth, State and Territory);
- ❑ auDA will have the right, and may assign the right, to use all registry software applications (eg. in the event of breach of contract by the registry operator); and
- ❑ registry servers and backups must be located in Australia.

#### *Funding considerations*

2.3.17 As discussed in section 2.7 of this report, the Panel recommends a funding model for auDA based primarily, but not exclusively, on a levy on domain name registrations and renewals. The registry operator(s) will be required to pay an annual licence fee, and collect a per domain name levy for auDA. The Panel recommends that the RFT invite tenderers to submit bids which specify a model for charging registrars, which may include both a fixed and a volume related component.

2.3.18 The Panel recommends that auDA ensure that the registry licence agreement allows auDA to adjust the fees charged by the registry operator to registrars taking into account such factors as inflation (eg. consumer price index (CPI)), expected productivity gains ( $CPI - x$ , where  $x > 0$ ), risk adjustment, rate of return on registrar investment, and/or the number of domain names under management. The Panel also recommends that the terms of the registry licence agreement enable auDA to vary the licence fees and per domain name levy, in accordance with the auDA budget as agreed in an open, publicly accountable process.

2.3.19 The Panel considered the proposal put forward in some public submissions, that instead of receiving fees from the registry operator, auDA should be funded by the

registrars and outsource the registry in the same way that AUNIC is currently outsourced. A majority of the Panel agreed that this arrangement would be entirely contrary to the principle of separation of policy and operations asserted in section 2.2, as auDA would in effect be the registry operator as well as the regulator. However, the tender process, subject to compliance with the Trade Practices Act, would allow an industry group to submit a proposal to operate the registry under a similar model that did not involve auDA acting in an operational role.

#### *Regulatory power*

2.3.20 The Panel notes that the issue of regulatory power is important, and therefore the licence agreement needs to provide auDA with sufficient control over registry functions and wholesale price of registry functions to provide effective regulation, as well as control over licence fees and per domain name levies. In negotiating the licence agreement, auDA should seek to maximise its leverage and flexibility to enforce performance covenants entered into by a registry operator under the agreement – by using a combination of regulatory/commercial penalties (including performance guarantee bonds held by auDA) or incentives. The agreement should ensure that any provisions for excusable events (if appropriate) are clearly defined so that the rights and obligations of both auDA and the registry operator are understood. For reasons of accountability and transparency, the licence agreement should be published.

2.3.21 Importantly, auDA must have the ability to resume registry service if necessary. Continuous .au domain name service is essential in at least the following events:

- a registry business collapses;
- a registry operator fails to maintain correct DNS operation;
- during handover from incumbent to designate registry operator.

The Panel recommends that auDA be the technical and administrative contact for making changes to DNS records for .au and the 2LDs within .au (eg. com.au). auDA should choose a set of standard names for the nameservers for .au (eg. auroota, aurootb, aurootc, etc) and the 2LDs (eg. comauroota, comaurootb, comaurootc, etc). In this way, if auDA needs to regain control of a nameserver it can directly control changes to the relevant zonefiles and ensure that organisations do not have to update their records with different names of nameservers.

2.3.22 The Panel also recommends that auDA impose electronic data escrow requirements on registry operator(s), both for consumer protection and DNS integrity reasons. In addition, the registry operator should be required to store a copy of the registry software in escrow (including arrangements for auDA to license third party software used by the registry), so that auDA is able to resume service if necessary. Data and software held in escrow must remain current and be subject to independent audit.

2.3.23 The Panel recommends that auDA require the registry operator(s) to develop and implement an auDA-approved, full business continuity plan covering disaster recovery sites with regular disaster recovery testing. The Panel also recommends that auDA develop and test its own disaster recovery plan so that it is in a position to protect the .au domain and related infrastructure, including against any failure of a registry. The Panel suggests that auDA consult the Commonwealth's E-Security Information Group regarding these plans.

2.3.24 To ensure a basic level of interoperability and adequate consumer safeguards, the Panel recommends that auDA set minimum technical standards, data protocols and service levels for the registry that comply with international industry standards; see the Technical Requirements paper at [Attachment C](#) for more detail. These would be foreshadowed in the tender documents, and then finalised in negotiation with the winning tenderer.

*Registry function and services*

2.3.25 The Panel recommends that the registry operator(s) replicate the registry data in a central register to be maintained by auDA for the purposes of providing a centralised WHOIS service. The Panel suggests that, at least during transition to competition, it would be sensible to use AUNIC as the central WHOIS service. The Panel notes that WHOIS data is not proprietary information and should be held by auDA in trust for the Australian public. auDA's agreements with registry operator(s) and registrars should affirm this principle. The Panel suggests that the data provided in the WHOIS service should be verified by registrars at time of registration for consumer protection, and the data should be checked on a six monthly basis.

2.3.26 The Panel considers that the WHOIS service is an essential feature of the DNS, as it allows users to find out information about the holder of a domain name. This is especially important in the commercial domains, for consumer protection reasons (eg. to trace the owner of a website that contains false and misleading information). The Panel notes that the requirement to provide WHOIS information in commercial domains is commensurate with disclosure requirements on businesses in the offline world. At the same time, the Panel is aware that domain name registrants may have concerns about the privacy of their personal information. The Panel considers it may be desirable to differentiate between 2LDs, so that the WHOIS data set for commercial 2LDs contains more information than the WHOIS data set in personal 2LDs. For example, it may not be appropriate to require domain name registrants in an individual domain such as id.au to provide administrative and technical contact information. The Panel considers that an opt-in approach to the provision of WHOIS information in personal domains may be appropriate.

2.3.27 To address privacy concerns, the Panel suggests that bulk access to WHOIS information should be restricted to a more limited set of data (eg. no personal contact details), and must be authorised by auDA with appropriate conditions of use (eg. not to be used for sending unsolicited postal mail, faxes or email).

2.3.28 The Panel recommends that the registry operator(s) provide registrars with an electronic interface to the registry using an international industry standard protocol to add new domain records, update domain name registrant contact details, update nameserver information (delegation and re-delegation), transfer domain name licences between registrants, transfer domain names between responsible registrars, renew or de-register domain names. The WHOIS data in the registry will provide the name of the registrar responsible for maintaining the record.

2.3.29 The Panel also recommends that the registry operator(s) be responsible for performing final checks on domain name registrations to maintain the integrity and stability of the registry database. These checks would include checking that the domain

name does not already exist, checking the domain name against a defined list of reserved words (eg. objectionable words) and checking the character set of the domain name. The Panel's view is that these checks would be automatable and have a negligible per domain name cost. In the case of non-objective policy rules (see section 2.4), the registry should confirm that the independent body has given approval (eg. via an automated check of a digital signature). The registry should report to auDA on the numbers of domain names that fail integrity checks submitted by each registrar to assist auDA in regulating the performance of registrars.

2.3.30 The Panel recommends that a registry operator may not also operate as a registrar unless there is a clear and effective separation of the two business operations, to ensure that competing registrars have fair and equal access to the registry. As noted in paragraph 2.3.11, known and potential conflicts of interest should be taken into account in evaluating responses to REOs and RFTs. Accounting separation is necessary, but not sufficient. The usual ring-fencing arrangements could be imposed (eg. no common staff, regular audits, etc), however other measures may be necessary to ensure competing registrars have access to registry services on an equivalent basis to the registry's own operations. For example, it may be necessary for the registry and registrar businesses to be separate legal entities, with appropriate monopoly accountability mechanisms in registry constituent documents. These mechanisms should be based on existing access models (such as telecommunications) or on incentive based models which allow vertical integration once certain guarantees are in place. Alternatively, the 'misuse of market power' provisions in the Trade Practices Act may be sufficient. Such arrangements may create additional costs by increasing the complexity of regulation and requirements of auditing.

2.3.31 The Panel considers that a registry operator may be permitted to act as a registrar of last resort in the event that no registrar is offering service for a particular 2LD (subject to conditions outlined in 2.3.30). In the event that a registrar suddenly ceases to operate, other registrars should be required to offer service to existing registrants. The Panel considers it would be inappropriate for auDA to act as registrar of last resort, as this would be contrary to the principle of separation of policy and operations and may compromise auDA's role as independent regulator of the industry.

2.3.32 More detail on registry functions and services is provided in the Technical Requirements paper at [Attachment C](#).



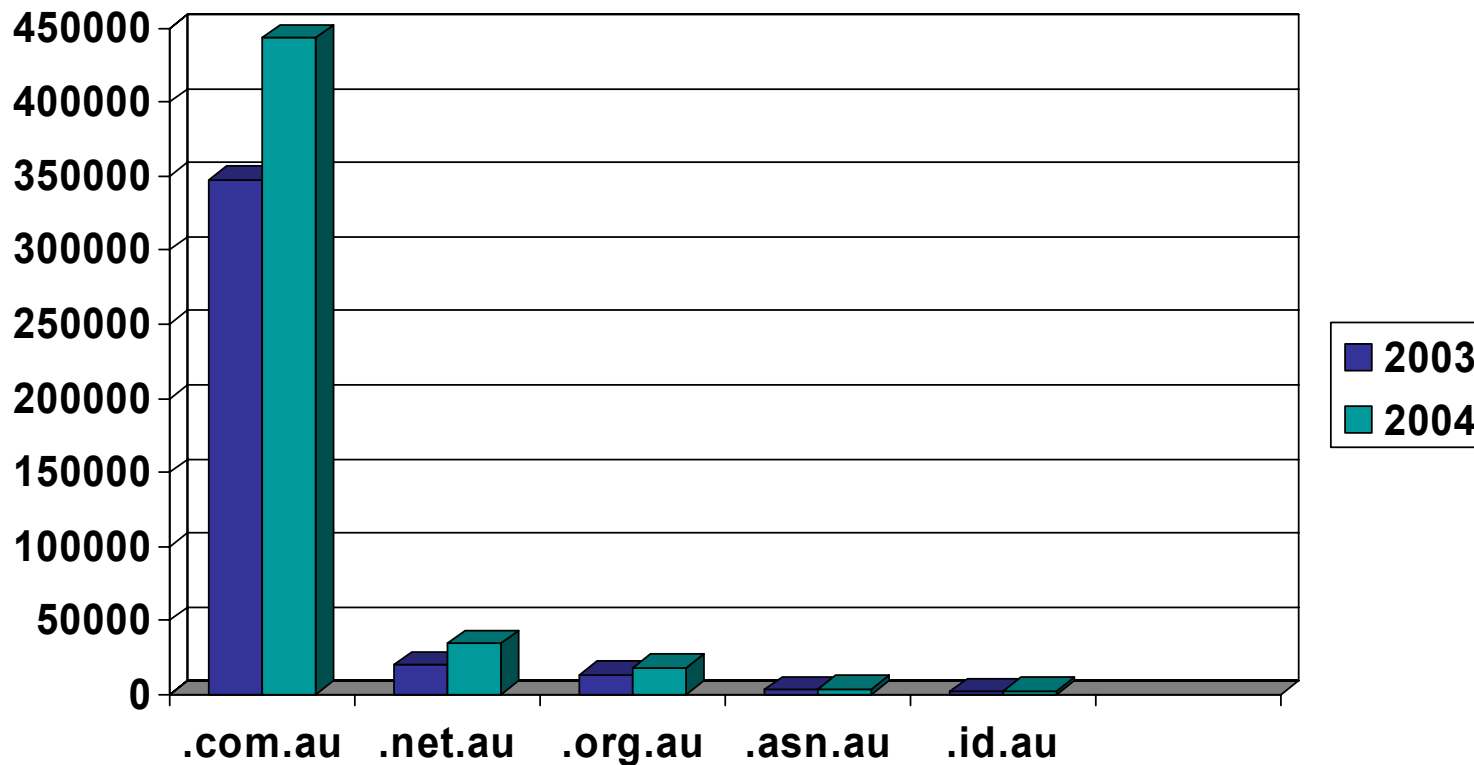
**The Economics of the Australian DNS  
at the Registry Level – A Short  
Primer**

**REGISTRY COMPETITION REVIEW PANEL**

**Thursday 12 August 2004  
2pm – 5pm AEST**

**Maddocks  
Level 7, 140 Williams Street  
MELBOURNE**

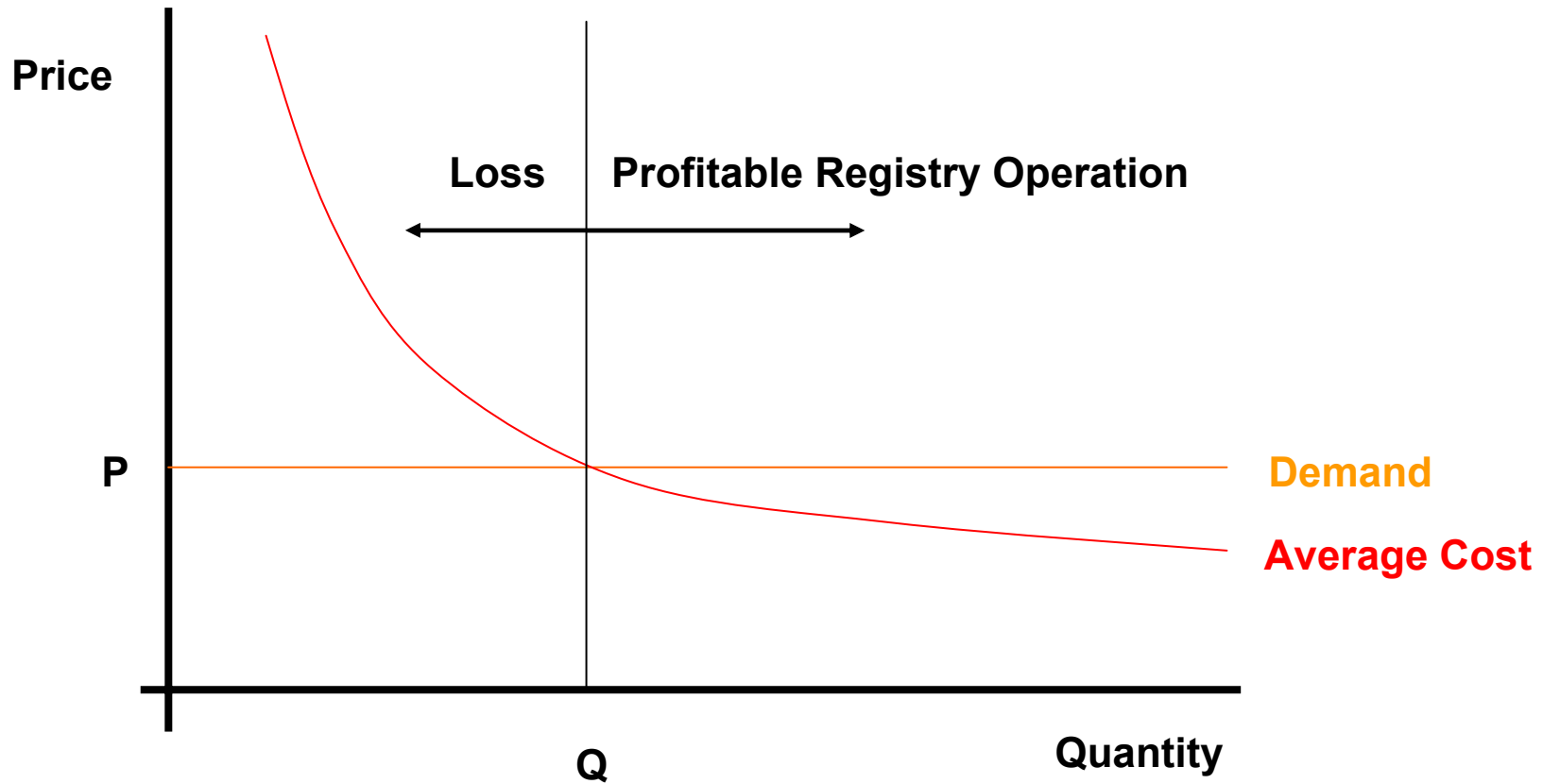
# .au Domain Registration Trends by 2LD



**.com.au remains by far the largest market share holder**

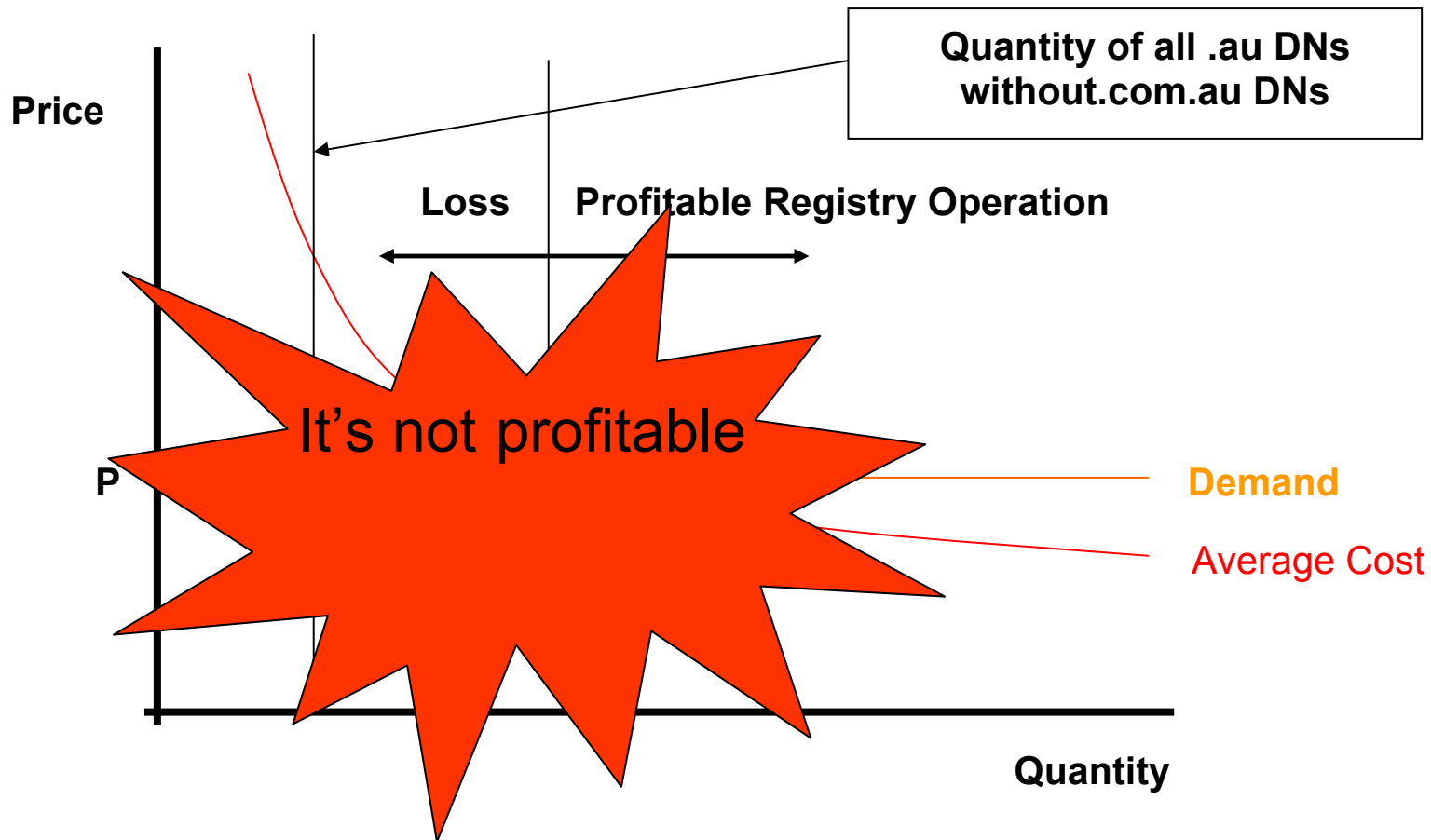
*Reference – <http://www.auda.org.au/ausregistry/reports/>*

# Demand and Average Cost Behaviour in Competitive Information Markets

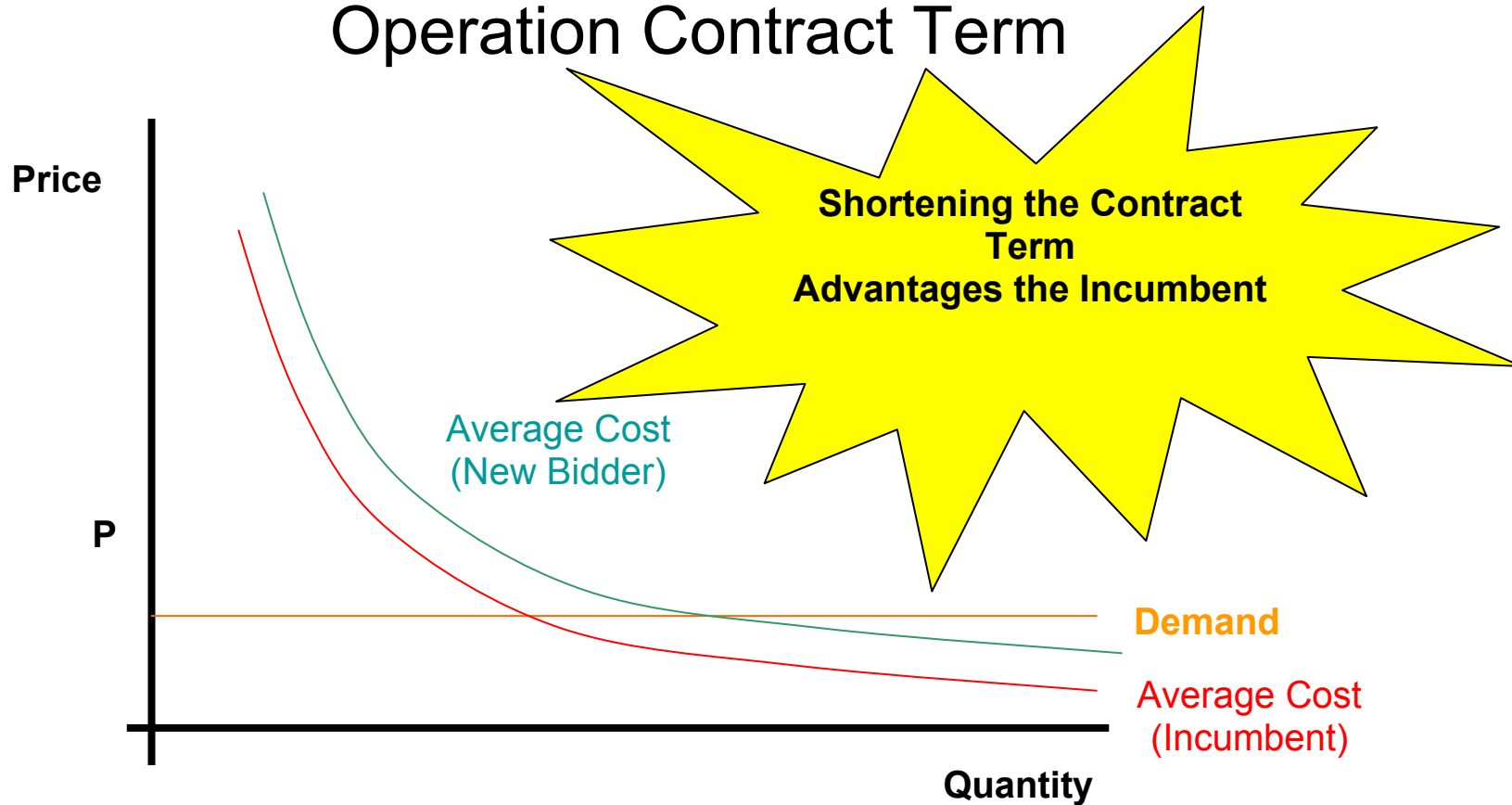




# Why Market Participants did not bid to operate AU 2LDs Registry(ies) Excluding “com.au”



# The Effect of Reducing the Registry Operation Contract Term



**Establishment Costs need to be depreciated and amortised over a shorter period of time**



**Review of the  
Australian DNS at the  
Registry Level – 2002-2004**

**REGISTRY COMPETITION REVIEW PANEL**

**3 September 2004**

**Prepared by Panel Chair, David G Thompson**

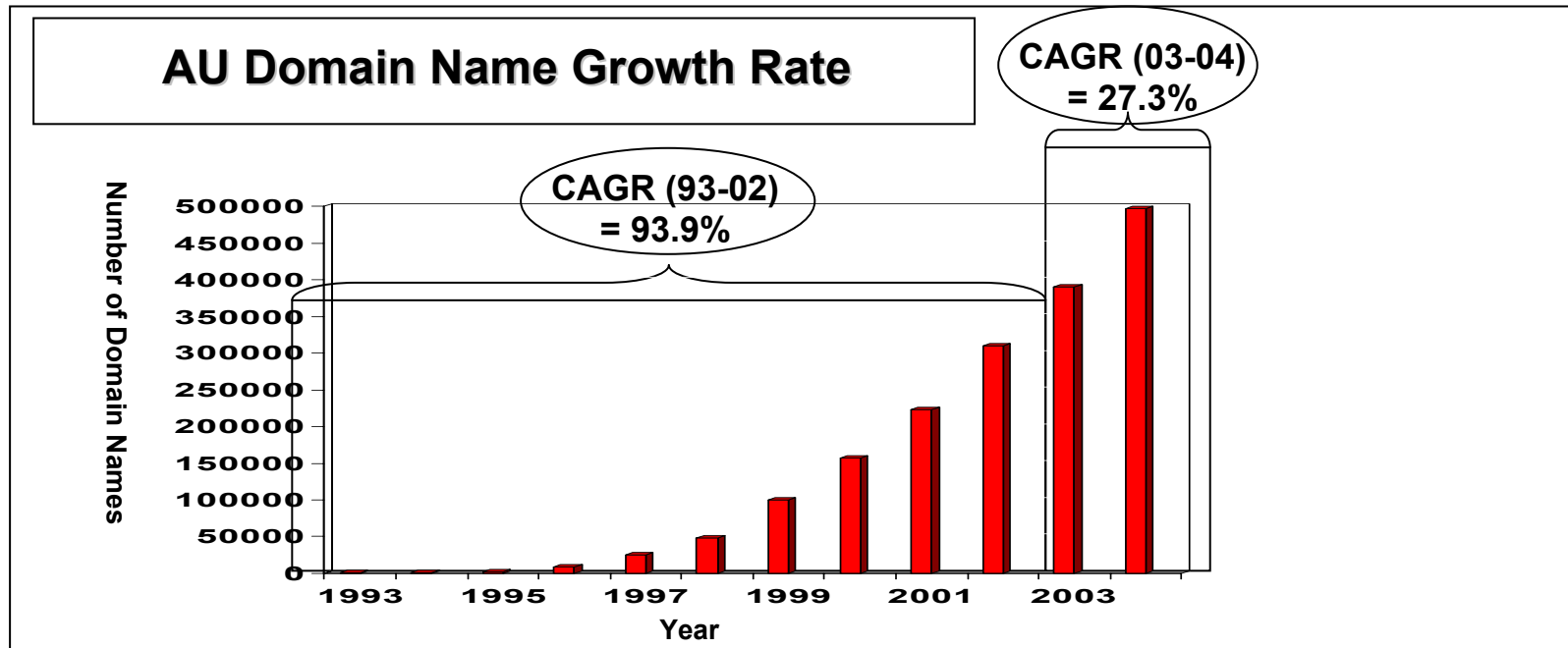
# Introduction

This presentation has been developed based on data derived from the following Sources:

- Publicly available information from the WWW;
- The auDA / AusRegistry Registry Licence Agreement;
- Information kindly provided by AusRegistry to the author.

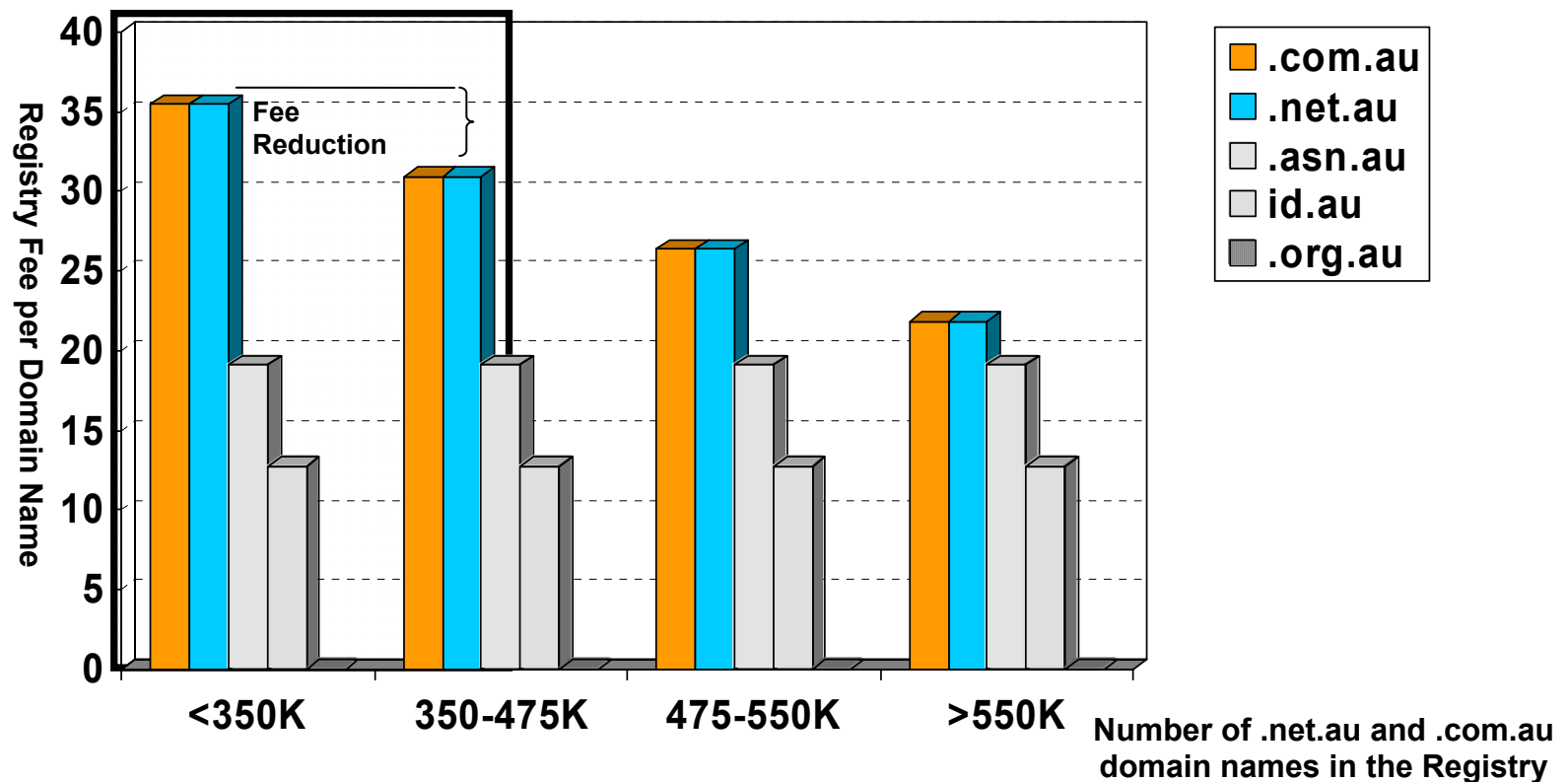
Although every reasonable effort has been made to determine the accuracy and veracity of the data, no warranty is made by the author or auDA with respect to the same.

## The .au Domain Name Growth Rate has slowed over the past 2 years but remains healthy



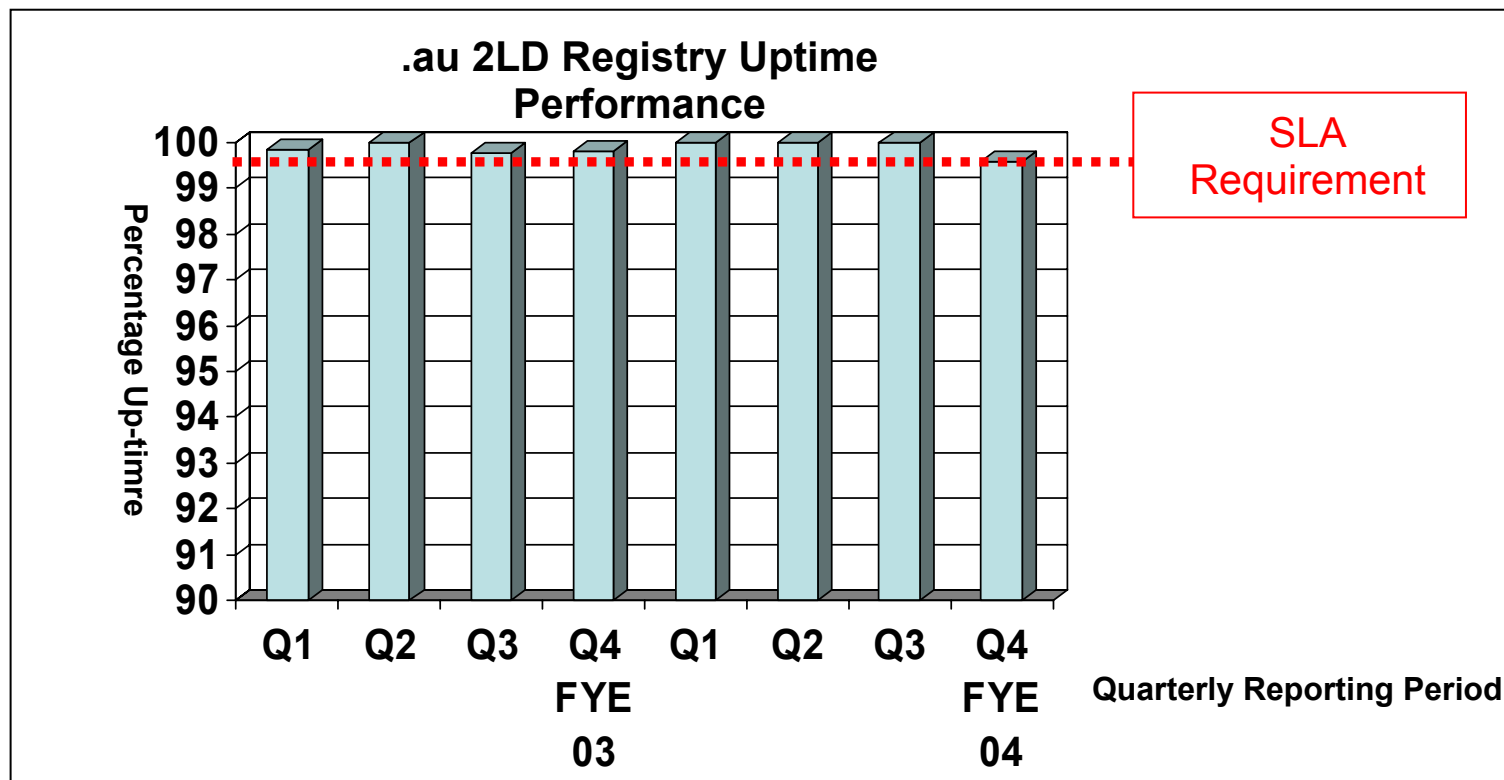
Compound Annual Growth Rate (CAGR) during the dot com boom was 93.9%. Since competition was introduced CAGR has slowed to 27.3%. This is estimated by interpolation to calculate the 2004 year end figure.

## Consequently a Reduction in the Registry Fee for .net.au & .com.au has occurred



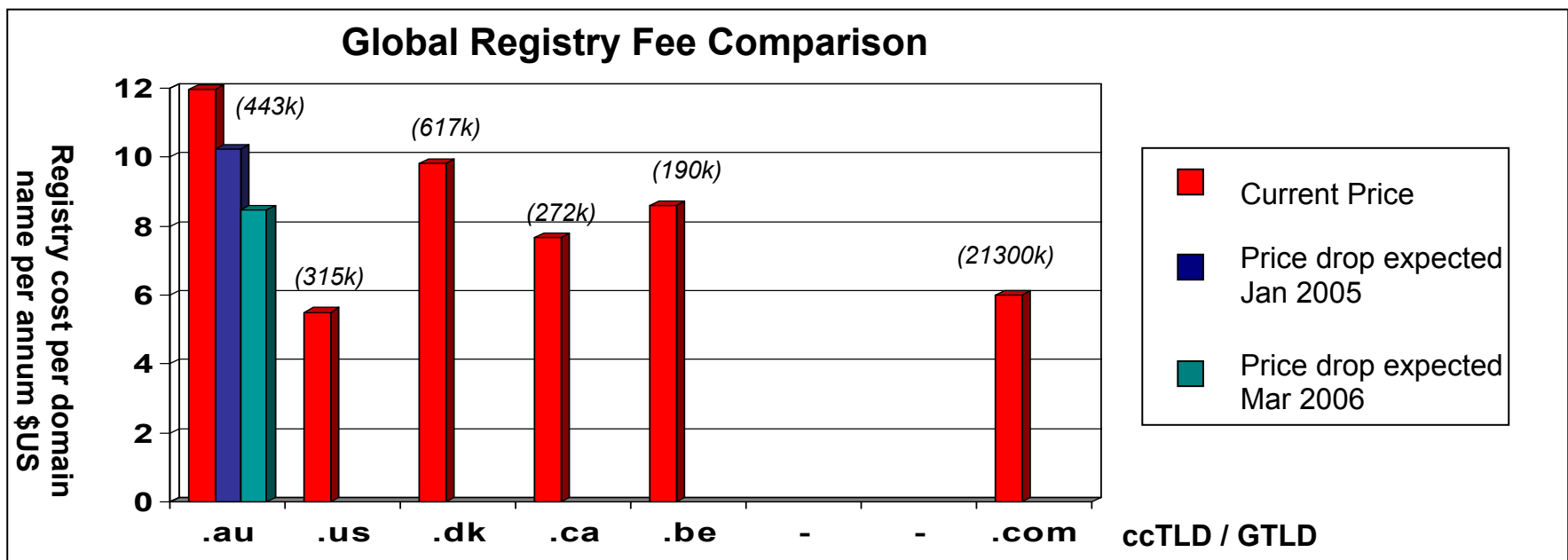
In October 2003, the number of net.au and .com.au domain names reached 350,000 which resulted in a reduction in registry fee. A further price drop is expected in January 2005.

## Overall Registry uptime has been above the Service Level Agreement Requirement



Due to technical problems in June 2004 the resulting uptime for that month was less than the required SLA.

## When Benchmarked Globally the Registry Fee per domain name is reasonably competitive when compared



The exchange rates used for currency conversion were those prevailing on 2 September 2004. It is noted that this is a small sample, and therefore may not be statistically significant. It is also noted that technical standards, amongst other important factors vary significantly across the nominated registries and may affect underlying cost structures. The .com registry cost is included as a comparison to indicate likely global registry costs when domains under management approaches 20 million. The italicised numbers on top of each bar refer to the domains under management in each case.