



# **ccNSO Members Meeting**

## **.au Registry Transformation Project**

Barcelona, Spain  
23 October 2018

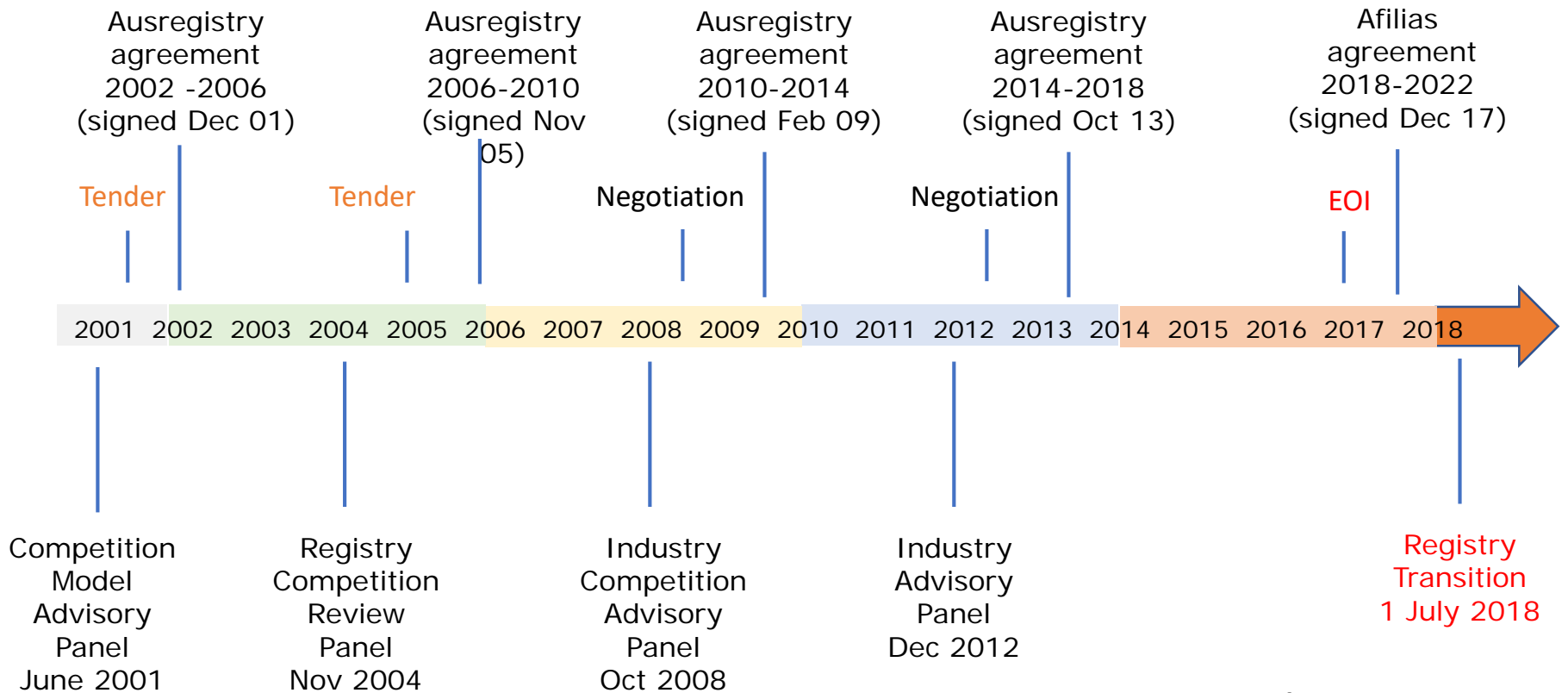
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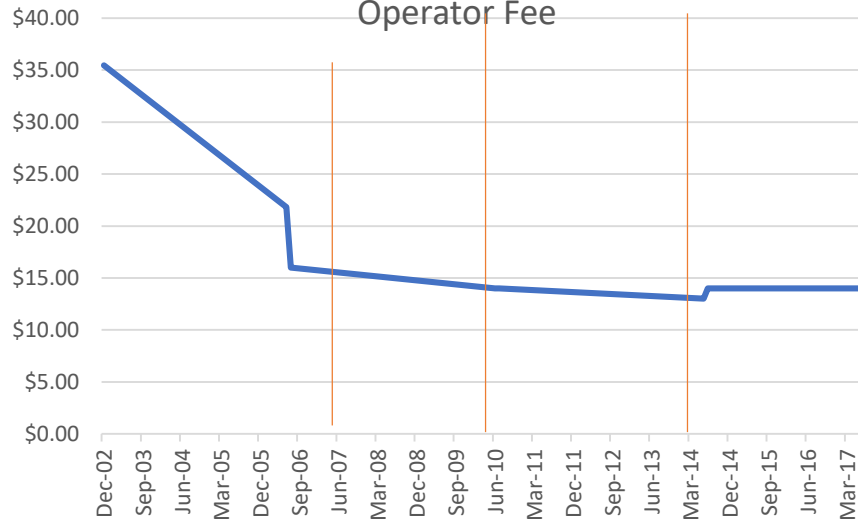
# Background

# Background - Timeline

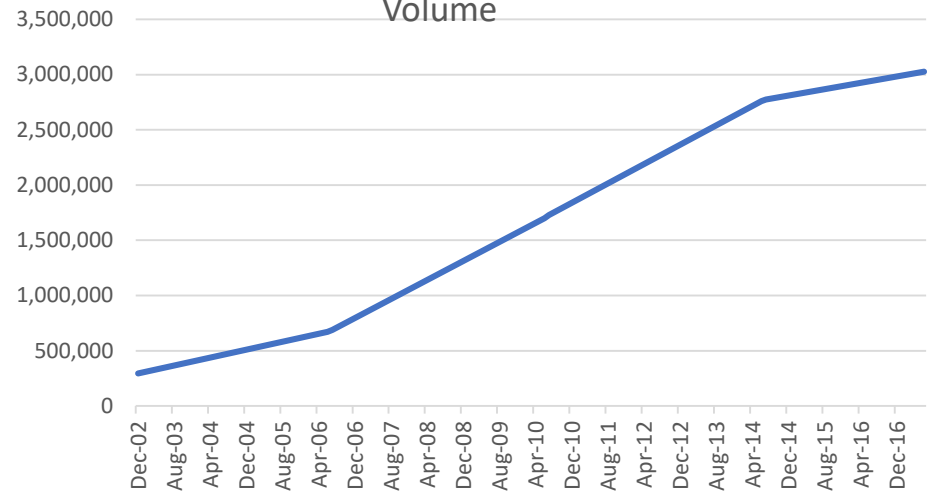


# Background – Registry Fee changes

.com.au/.net.au per domain Registry Operator Fee



.com.au/.net.au Cumulative Domain Name Volume



All fees for two years and ex GST

References: <https://www.ausregistry.com.au/domain-reports>

# Background

- Competition model was reviewed by the 2012 Industry **Advisory Panel**
- 2001 Competition model retained
- Initiate **renegotiations with Ausregistry**
  - At that time most potential responders to a tender were focussed on ICANN's new gTLD program
  - Expected that new gTLD program would result in additional potential registry operators and it would take 2-3 years for the market to evolve and for new registry operators to establish market experience and track-record
  - Resulted in **current agreement with Ausregistry – 2014 – 2018 (4<sup>th</sup> term)**
- auDA should **undertake a formal RFT process once the renegotiated registry agreement expires.**
- The recommendations from the Advisory Panel relating to the registry were approved by the auDA Board in Feb 2013

# Background 2016/2017

- .au registry had not been through a market exercise since 2005, and AusRegistry/Neustar had been the registry operator since 2002
- The AusRegistry/Neustar agreement had an expiry date of 30 June 2018
- auDA Board resolved to **undertake** a restricted **tender exercise** starting with a scoping exercise, sourcing expert advice
  - Consistent with the 2012 Advisory Panel recommendations approved by the auDA Board in Feb 2013
- **Registry Transformation Project** commenced in May 2017

# Registry Transformation Project Goals

- a) Clear and effective separation between policy and operations
- b) Maintain and further enhance trust with the Australian Government and the Australian community
- c) Maintain operational stability and utility of the .au ccTLD
- d) Becoming a world leader in managing security, confidentiality, integrity and availability of .au registry data
- e) Supporting longer term goal to be an Emergency Back-end Registry Operator (EBERO) for other gTLDs or ccTLDs
- f) Supporting a data science and data analytics capability in relation to the registry data



# Committees

- Registrar Liaison Committee
  - All registrars invited to participate
  - Focus on registrar and technical requirements
- Tender Process Committee
  - Dr Stephen Arnott (Aust Gov't), Dr Liz Williams (ISG), Jay Daley (.nz), Nigel Phair (Uni. Canberra)
  - Advice on the tender process – EOI and RFT approach, and evaluation criteria
- Tender Evaluation Committee
  - Teams led by partners: Jeff Schmidt (JAS Global), Charlie Offer (Ernst & Young), Colin Egan (PPB Advisory), Cameron Whittfield (PwC Legal)
  - Carried out evaluations of EOI respondents and RFT respondents
- Probity Advisor
  - Adrian Gibby (KPMG)



# Request for Expression of Interest

# Expression of Interest process

- The Request for Expressions of Interest (**REOI**) was the initial scoping exercise to:
  - define parameters of the subsequent restricted tender process
  - assess potential suppliers and options
- Call for Expression of Interest – 29 May 2017
- Expression of Interest closed – 26 June 2017

# EOI Evaluation Criteria

- Financial
  - Value for money – financial and non-financial
  - Whole-of-life costs
- Technical and Operational
  - Ability to meet technical specs
  - Flexibility – ability to update software and continue to innovate
  - Similar experience and performance history
- Security
  - ability to support security, confidentiality, integrity and availability capabilities
- Ability to meet and deliver on the registry transformation project goals

# EOI Respondents

- 15 responses
- 2 DNS offers
- 1 business analytics offer
- 5 large and experienced gTLD and ccTLD operators (>10m names each)
  - Well resourced with significant migration experience
- 3 experienced gTLD and ccTLD operators (>1 m names each)
  - Very flexible, smaller and more complex gTLDs and ccTLDs
- 2 new gTLD market entrants
  - Modern, high quality software but limited experience
- 2 small software development teams
  - Local Staff with 15 years experience in domain names – build using open source software, public cloud services and recruit staff to operate



# Request for Tender

# Request for Tender process

- Draft Technical Specification published for comment – 26 August 2017
  - Summary of changes to Technical Specification published 21 September 2017
- Request for Tender (RFT) issued – 1 September 2017
- RFT closed – 3 October 2017

# Value for Money

- Achieving **value for money** is the core rule of the Australian Government Procurement Rules
- Requires consideration of the financial and non-financial costs and benefits
- Non-Financial – 65% weighting
- Financial – 35% weighting



# Non-Financial criteria

- Technical and Operation Capability (35%)
- Project Goals (10%)
- Risk management (10%)
- Financial Capability (10%)

# RFT Respondents

- 9 Respondents
- All strong technically and operating at significant scale
- All proposing to set up primary and secondary platforms in Australia that are geographically separated
- All proposing to set up a team in Australia
- Operate 9 of the top 20 TLDs representing over 43 million names

# Afilias selected

- Highest score for non-financial criteria around technical and operational capability
- Close to average price for financial criteria
- Overall best value for money



# **Transition between Registry Operators**

# Transition progress

- Largest ever migration of a TLD – 3.1 million names
- 6 month process
- Test environments for registrars delivered in March (phase 1) and April (Phase 2) 2018
- Went live with services using data from Neustar Asia Pacific – DNS name services and WHOIS services in May 2018
- Transition completed 1 July 2018 on schedule

# Transition Approach

- Focussed on International and Australian best practice standards with respect to the transition of a major IT service provider
- Particular focus on risk management and security
- Extensive testing from Feb 2018 to June 2018
  - auDA testing team
  - Registrar testing
  - Independent security penetration testing of each system
    - test and production

# Relevant international standards

- ISO 31000 – Risk management
- ISO 27000 – Information Security Management Systems
- ISO 22301 – Business Continuity Management Systems
- ISO 20000 – Service Management
- ITIL Service Operation – 2011 edition

# Relevant Australian Security standards

- Australian Signals Directorate – Essential Eight
  - Application Whitelisting
  - Patch applications
  - Configure Microsoft Office macro stings
  - User application hardening
  - Restrict Administrative privileges
  - Patch Operating Systems
  - Multi-factor authentication
  - Daily backups
- Australian Gov't Information Security Manual (ISM) – Protected level



# Independent audits

- Multiple independent reviews of security prior to transition
  - Ernst & Young - risk assurance – weekly review
  - Pivot Point Security – appointed by Afilias for penetration testing
  - Foresight IT Consulting – appointed by the Aust. Government to do an independent review of security processes for transition
  - Australian Government security agencies (ASD, ASIO, ACSC) did their own separate review of security
  - Regular meetings with the auDA Board's Security and Risk Committee

# Crisis Management

- Crisis management plan developed with input from Afilias, auDA, and Australian Government security agencies
- Multiple crisis scenario exercises run with the participation of Afilias, auDA, and Australian Government security agencies, with auDA Board observers

# Smooth transition

- Transition completed within a 24 hour period starting Saturday 30 June and completing early in the morning on Sunday 1 July
- DNS services progressively transitioned over a 3 month period with zero downtime
- Ausregistry/Neustar completed all transition tasks ahead of schedule on 30 June 2018
- auDA and Afilias team worked together in Melbourne on testing production systems before go-live
- Afilias technical team worked from Toronto
- Registrars immediately resumed operations on 1 July 2018



# Outcomes

# Key outcomes

- Lower registry fee – 10% drop in wholesale prices for registrars
- Registry Data to remain in Australia
- DNS services in all Australian capital cities
  - Perth, Adelaide, Melbourne, Hobart, Canberra, Sydney, Brisbane, Darwin
- Pro-active security monitoring – daily inspection of new names
- Extensive data collection for advanced data analytics to move to proactive compliance management and development of business information for registrars
- Focus on improved security and performance