Phase 2 Cycle 3 – Webinar Agenda

1. WHOIS ARS Background
2. Phase 2 Cycle 3: Timeline and Process
3. Phase 2 Cycle 3: Population and Sample Information
4. Phase 2 Cycle 3: Results and Major Findings
5. Contractual Compliance Follow-up
6. Summary and Question & Answer Session
WHOIS ARS Implementation
Background
WHOIS ARS Implementation

Pilot
“Proof of Concept”: Tested processes for data collection and validation
Report: Published 23 December 2014
Public Comment Report: Published 3 April 2015

Phase 1: Syntax Accuracy only
Is the record correctly formatted?
Report: Published 24 August 2015

Phase 2: Syntax + Operability Accuracy
Does the email go through, phone ring, mail deliver?
Cycle 1 Report: Published 23 December 2015
Cycle 2 Report: Published 8 June 2016
Cycle 3 Report: Published 12 December 2016
Cycle 4 Report: Expected June 2017

WHOIS ARS Information and Reports available here: https://whois.icann.org/en/whoisars
Phase 2 Cycle 3
Process and Timeline
Phase 2 Cycle 3 – Cyclical Timeline of Phase 2

**Cycle 3: Started July 2016**

- Jun 2016
- Jul 2016
- Aug 2016
- Sep 2016
- Oct 2016
- Nov 2016
- Dec 2016
- Jan 2017

- Accuracy Criteria Refinement
- Data Collection
- Accuracy Testing
- Data Analysis & Report Development
- Report Publication

**Cycle 4: Jan 2017**

- Jan 2017
- Feb 2017
- Mar 2017
- Apr 2017
- May 2017
- Jun 2017

- Report Publication

- Cycle 3 Report published 12 December 2016
- Cycle 4 has already started; records will start to be pulled in the next couple of weeks
Phase 2 Cycle 2 – Cross-Functional Team

ICANN Team:
- GDD OPERATIONS
- CONTRACTUAL COMPLIANCE
- REGISTRAR SERVICES
- LEGAL
- IT & PRODUCT MANAGEMENT

Vendor Team:
- NORC
- WHIBSE
- DIGICERT
- UPU

Accuracy Reports
Phase 2 Cycle 3
Testing Criteria and Sample Design
### Phase 2 Cycle 3 – Contact types, modes, and testing criteria

<table>
<thead>
<tr>
<th>RAA Type</th>
<th>Registrant</th>
<th>Administrative</th>
<th>Technical</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2009, 2013GF, 2013NGF)</td>
<td>• Email Address</td>
<td>• Email Address</td>
<td>• Email Address</td>
</tr>
<tr>
<td></td>
<td>• Telephone Number</td>
<td>• Telephone Number</td>
<td>• Telephone Number</td>
</tr>
<tr>
<td></td>
<td>• Postal Address</td>
<td>• Postal Address</td>
<td>• Postal Address</td>
</tr>
</tbody>
</table>

#### Syntax
- Does the email address contain an “@”?
- Does the telephone number have a country code?
- Does the postal address include an identifiable country?

#### Operability
- Did the email bounce back?
- Did the number ring when dialed?
- Can mail be delivered to the address?

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**GF** = Grandfathered. A domain registered before a registrar changed to the 2013 RAA. Obligated to 2009 RAA requirements.

**NGF** = Non-grandfathered. Obligated to 2013 RAA requirements.

Detailed criteria listed at whois.icann.org/en/whoisars-validation
Accuracy Statistics by Subgroup

- Phase 2 reports provide syntax and operability accuracy rates for:
  - The gTLD space, with further breakdown by geographic region
  - New gTLDs and Prior (legacy) gTLDs
  - RAA Type (2009, 2013GF, 2013NGF)
  - Privacy/Proxy status is not evaluated
- Data within 95% confidence intervals, ≤+/- 5% margin of error

Report identifies reasons for error

- All domains evaluated against 2009 RAA requirements for both syntax and operability
- Cycle 3 Report, like Cycle 2, contains section on regional differences in accuracy and reasons for error
- Cycle 3 Report also contains additional information on domain name population demographics
Phase 2 Cycle 3 – Change in Distribution of RAA type

Change in Distribution across Sample Dates

The 2009 RAA share is shrinking;
The share of non-grandfathered 2013 RAA domains are growing rapidly (from ~30% of distribution in June 2015 to ~50% in July 2016).

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>2009 RAA</th>
<th>2013 RAA GF</th>
<th>2013 RAA NGF</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2015</td>
<td>3.3%</td>
<td>63.7%</td>
<td>33.0%</td>
</tr>
<tr>
<td>January 2016</td>
<td>2.9%</td>
<td>52.4%</td>
<td>44.7%</td>
</tr>
<tr>
<td>July 2016</td>
<td>0.7%</td>
<td>46.9%</td>
<td>52.3%</td>
</tr>
</tbody>
</table>
Phase 2 Cycle 3 – Domains by Region

Regional Distribution of Domains, by Sample Date

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>NA</th>
<th>AP</th>
<th>EUR</th>
<th>LAC</th>
<th>AF</th>
<th>Unknown</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2015</td>
<td>84.40</td>
<td>34.70</td>
<td>30.30</td>
<td>6.25</td>
<td>1.12</td>
<td>1.15</td>
<td>157.92</td>
</tr>
<tr>
<td>January 2016</td>
<td>85.50</td>
<td>43.70</td>
<td>31.30</td>
<td>7.05</td>
<td>1.16</td>
<td>1.26</td>
<td>169.97</td>
</tr>
<tr>
<td>July 2016</td>
<td>88.00</td>
<td>52.80</td>
<td>33.20</td>
<td>8.31</td>
<td>1.27</td>
<td>0.49</td>
<td>184.07</td>
</tr>
</tbody>
</table>
### Phase 2 Cycle 3 – Demographics

#### gTLD Population At Time of Sample (July 2016)

<table>
<thead>
<tr>
<th>Records in gTLDs</th>
<th>Total gTLDs</th>
<th>2009 RAA*</th>
<th>2013GF RAA*</th>
<th>2013 NGF RAA*</th>
<th>New gTLDs</th>
<th>Prior gTLDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>181.2m</td>
<td>1,074</td>
<td>1.5m</td>
<td>85.1m</td>
<td>94.7m</td>
<td>1,056</td>
<td>18</td>
</tr>
</tbody>
</table>

#### 200k Sample

<table>
<thead>
<tr>
<th>AFR</th>
<th>LAC</th>
<th>EUR</th>
<th>APAC</th>
<th>N.A.</th>
<th>2009 RAA</th>
<th>2013GF RAA</th>
<th>2013 NGF RAA</th>
<th>New gTLDs</th>
<th>Prior gTLDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3k</td>
<td>9.9k</td>
<td>36.2k</td>
<td>65.2k</td>
<td>84.2k</td>
<td>1.5k</td>
<td>78.6k</td>
<td>117.1k</td>
<td>646</td>
<td>18</td>
</tr>
</tbody>
</table>

#### 12k Sub-sample

<table>
<thead>
<tr>
<th>AFR</th>
<th>LAC</th>
<th>EUR</th>
<th>APAC</th>
<th>N.A.</th>
<th>2009 RAA</th>
<th>2013GF RAA</th>
<th>2013 NGF RAA</th>
<th>New gTLDs</th>
<th>Prior gTLDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3k</td>
<td>1.9k</td>
<td>2.2k</td>
<td>2.9k</td>
<td>3.6k</td>
<td>1.4k</td>
<td>4.8k</td>
<td>5.7k</td>
<td>646</td>
<td>18</td>
</tr>
</tbody>
</table>

* Weighted estimates from 200k sample
Phase 2 Cycle 3
Changes in Accuracy from Cycle 2 to Cycle 3
Cycle 2 to Cycle 3 Changes

**Overall**
- Overall Syntax accuracy decreased slightly from 67.4% to 66.6%.
- Operability accuracy decreased from 70.2% to 65.1%.

**Email**
- Syntax accuracy increased slightly from 99.2% to 99.6%.
- Operability accuracy decreased slightly from 91.4% to 90.1%.

**Telephone**
- Syntax accuracy increased from 85.3% to 88.5%.
- Operability decreased from 76.0% to 72.4%.

**Postal**
- Syntax accuracy decreased from 77.4% to 74.7%.
- Operability accuracy decreased slightly from 97.6% to 96.8%.
Phase 2 Cycle 3 – Overall Syntax and Operability Accuracy by Region

Data as of July 2016
Categorized by ICANN region
Phase 2 Cycle 3
Contactable vs Fully Operable
Phase 2 Cycle 3 – Contactable vs. Fully Operable

97% Contactable
Record contains at least one operable email address or telephone number

65% Fully Operable
Strict conformance to the RAA; all nine contacts are operable
Phase 2 Cycle 3 – Contactable Domains, by Region

Entire gTLD Space
Contactable: 97.7%
Fully Operable: 65.1%

Europe
Contactable: 96.8%
Fully Operable: 55.6%

Asia/Australia/Pacific Islands
Contactable: 97.4%
Fully Operable: 51.9%

North America
Contactable: 98.1%
Fully Operable: 77.0%

Latin America/Caribbean Islands
Contactable: 97.8%
Fully Operable: 68.0%

Africa
Contactable: 97.9%
Fully Operable: 49.5%

Data as of July 2016
Categorized by ICANN region
Phase 2 Cycle 3
Results and Major Findings: Operability, 2009 RAA
Phase 2 Cycle 3 – Changes Over Time: Operability Accuracy by Contact Mode

Entire gTLD Space
Cycle 1 through Cycle 3

Postal Address

Email

Telephone

Study Cycle

Accuracy of all 3 contact modes and all 3 contact types

Overall Operability Accuracy
Cycle 1  |  Cycle 2  |  Cycle 3
64.7%   |  70.2%   |  65.1%
Δ 5.5%  |  Δ -5.1%
Phase 2 Cycle 3 – Changes Over Time: Operability Accuracy by RAA Type

Entire gTLD Space
Cycle 1 through Cycle 3

Accuracy of all 3 contact modes and all 3 contact types

Study Cycle

Overall Operability Accuracy

<table>
<thead>
<tr>
<th></th>
<th>Cycle 1</th>
<th>Cycle 2</th>
<th>Cycle 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>64.7%</td>
<td>70.2%</td>
<td>65.1%</td>
</tr>
<tr>
<td>RAA NGF</td>
<td>Δ 5.5%</td>
<td>Δ -5.1%</td>
<td></td>
</tr>
</tbody>
</table>
Phase 2 Cycle 3 – Overall Operability Accuracy by Region

Data as of July 2016
Categorized by ICANN region

* Denotes significant change
Phase 2 Cycle 3 – Reasons for Telephone Operability Error

Reasons for Telephone Number Operability Error
Administrative Contact Type
3,105 total errors

- Number Disconnected: 50.0% (1,551 errors)
- Invalid Number: 45.4% (1,409 errors)
- Other Not Connected: 2.9% (90 errors)
- Not Verifiable or Missing: 1.8% (55 errors)

Percent of all 3,105 errors

Note: A telephone number in the Registrant contact type is not a requirement of the 2009 RAA. This graph shows the percentage of overall error types found in the Administrative contact type.
Phase 2 Cycle 3
Results and Major Findings: Syntax, 2009 RAA
Phase 2 Cycle 3 – Changes Over Time: Syntax Accuracy by Contact Mode

Overall Syntax Accuracy

<table>
<thead>
<tr>
<th>Cycle 1</th>
<th>Cycle 2</th>
<th>Cycle 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>68.0%</td>
<td>67.4%</td>
<td>66.6%</td>
</tr>
<tr>
<td>Δ -0.6%</td>
<td>Δ -0.8%</td>
<td></td>
</tr>
</tbody>
</table>

Entire gTLD Space
Cycle 1 through Cycle 3

Study Cycle
Accuracy of all 3 contact modes and all 3 contact types
Phase 2 Cycle 3 – Changes Over Time: Syntax Accuracy by RAA Type

Entire gTLD Space
Cycle 1 through Cycle 3

Study Cycle
Accuracy of all 3 contact modes and all 3 contact types

Overall Syntax Accuracy
Cycle 1 | Cycle 2 | Cycle 3
68.0% | 67.4% | 66.6%
Δ -0.6% | Δ -0.8%
Phase 2 Cycle 3 – Overall Syntax Accuracy by Region

Data as of July 2016
Categorized by ICANN region

* Denotes significant change
Phase 2 Cycle 3 – Reasons for Telephone Syntax Error

Note: Presence of a telephone number in the Registrant contact type is not a requirement of the 2009 RAA. This graph shows the percentage of overall error types found in the Administrative contact type. The “Unallowable Character” error type has been combined with the “Missing” error type, because unallowable character errors represent less than 0.2% of overall errors.
Phase 2 Cycle 3 – Reasons for Postal Syntax Error

Reasons for Postal Address Syntax Error
Administrative Contact Type
4,852 Total Errors

State/Province missing 34.5% (1,678 errors)
City missing 27.0% (1,300 errors)
Postal code missing or bad format 20.1% (984 errors)
Street missing 15.7% (755 errors)
Country code missing or undetectable 2.0% (95 errors)
Missing 0.7% (40 errors)

Percent of all 4,852 errors
Phase 2 Cycle 3
ICANN Contractual Compliance
Follow-Up
Phase 2 Cycle 3 – ICANN Contractual Compliance

- Potentially inaccurate records have been provided to ICANN Contractual Compliance
- Registrars must investigate and correct inaccurate WHOIS data:
  - Section 3.7.8 of 2009 and 2013 RAA (and WHOIS Accuracy Program Specification)
  - Failure to respond or demonstrate compliance during complaint processing will result in a Notice of Breach
- WHOIS inaccuracy and format complaints will follow the Contractual Compliance Approach and Process
- ICANN will continue to give priority to complaints submitted by community members

Whois ARS Compliance Metrics (as of 1 January 2017)

- Phase 2, Cycle 2:
  - 4,006 tickets created
  - 2,468 closed before first notice (generally because the domain names either had already been suspended or the current WHOIS data was not consistent with the sampled data).
  - 3,986 closed
- Phase 2, Cycle 3:
  - 4,552 tickets created
  - 1,171 closed before first notice (generally because the domain names either had already been suspended or the current WHOIS data was not consistent with the sampled data).
  - 1,471 closed
- More detailed metrics are available in the Compliance Quarterly Reports (see https://www.icann.org/resources/pages/compliance-reports-2016-04-15-en).
Summary and Q&A
**Phase 2 Cycle 3 Summary**

<table>
<thead>
<tr>
<th>Report included additional information on population demographics; Have seen a large growth in NGF domains and domains from AP region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subsample of 12k records; Accounted for regions and RAA type</strong></td>
</tr>
<tr>
<td>97% of records immediately contactable; 65% operability full accuracy rate on all 2009 RAA requirements</td>
</tr>
<tr>
<td>Decrease in overall Op accuracy; Email Syntax Accuracy and Postal Operability accuracy again very high</td>
</tr>
<tr>
<td>Compliance will conduct follow up on potentially inaccurate records</td>
</tr>
<tr>
<td>Next Cycle has already begun; Report expected June 2017</td>
</tr>
</tbody>
</table>
Questions & Answers