

# Competition, Consumer Trust, and Consumer Choice (CCT) Review Team

- New Sections of Draft Report

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18 December 2017



# Agenda

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CCTRT  
Mandate & Timeline

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DNS Abuse

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Rights Protection  
Mechanisms

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“Parked” Domains

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Next Steps

# CCTRT Mandate & Timeline

Jonathan Zuck

# CCTRT Mandate

Evaluate how  
New gTLD Program  
has promoted  
Competition,  
Consumer Trust and  
Consumer Choice

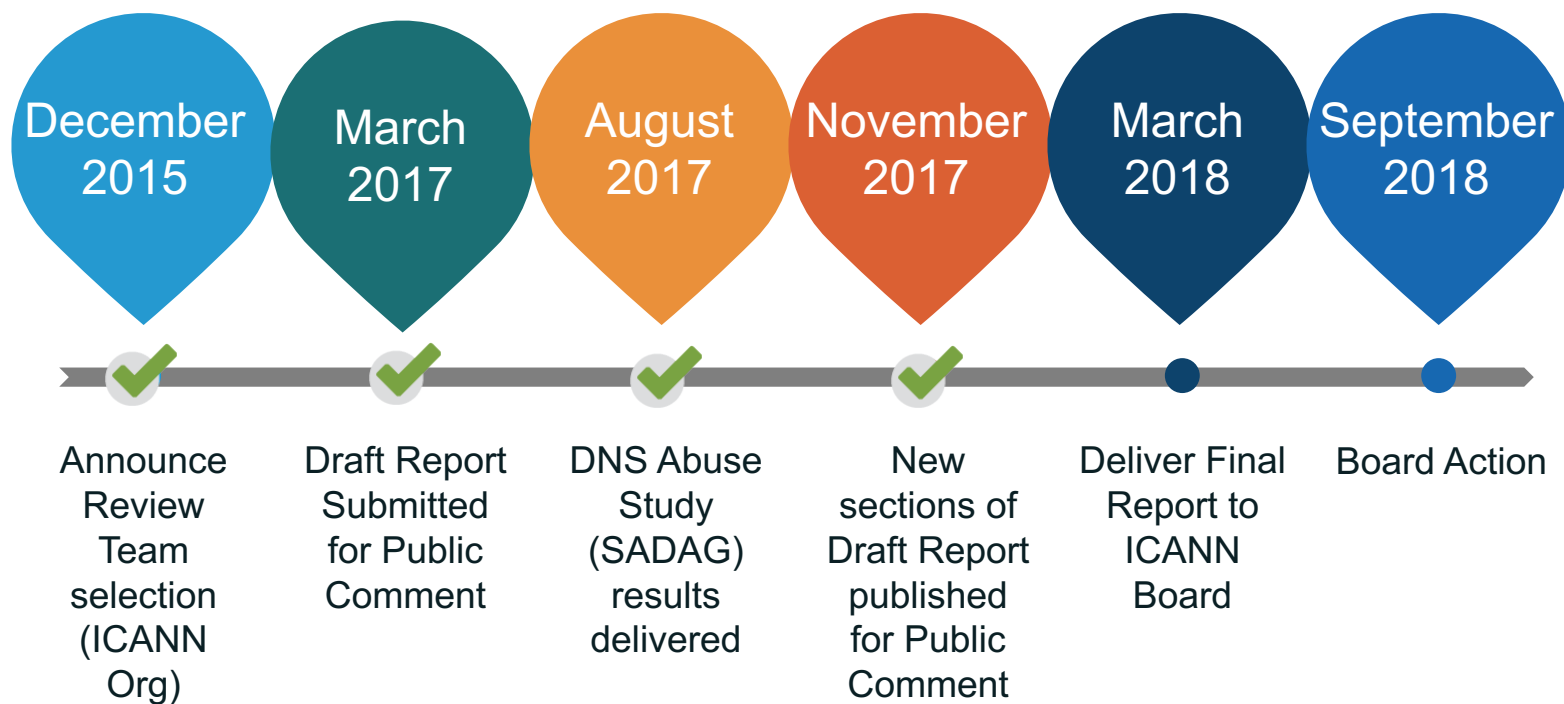
Evaluate Effectiveness  
of Application and  
Evaluation Processes

Evaluate  
Effectiveness of  
Safeguards

## CCT Goals

- Perform data driven assessment of the New gTLD Program
- Inform policy related to the entry of new gTLDs

# Timeline



# New Sections to Draft Report

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- New sections were published for public comment (30 days) on 26 November (translations available) on:
  - Parked Domain
  - DNS Abuse
  - INTA Survey
- Updates and additions are marked in orange, public comments on previous draft report will not be considered.

- **Commitment to Data-Driven Effort**

- **Statistical Analysis of DNS Abuse in gTLDs (SADAG)**
  - Measures the effectiveness of technical safeguards.
  - Analyzes rates of spam, phishing, and malware distribution in the global gTLD.
  - DNS from 2014 to 2016, distinguishing between legacy and new gTLDs.
- **International Trademark Association (INTA) members survey:**
  - Understand the impact of the New gTLD Program on rights holders.



# DNS Abuse

Drew Bagley

# Impact of New gTLD program on DNS Abuse

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**CCT-RT DNS abuse inquiry:**

Were new gTLD safeguards effective in mitigating/preventing DNS Abuse?



# Defining DNS Abuse

## DNS Abuse

Use of unique identifiers for cybercrime infrastructure

Directing users to websites that enable other types of crime

Includes: fraud, IP infringement, child exploitation, etc.

# Focus on Technical DNS Abuse b/c:

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Consensus Definition;  
Measurable; Prohibited

Phishing

Malware

Spam

# DNS Abuse Study

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## Statistical Analysis of DNS Abuse in gTLDs (SADAG) (9 August 2017)

Goal: Measure effectiveness of new gTLD safeguards on mitigating technical DNS Abuse

Task: Calculate rates of technical DNS abuse from 1 January 2014 through the end of 31 December 2016

### Methodology:

Relied upon:

- Zone files,
- Whois records,
- 11 distinct domain name blacklist feeds

### Analysis includes:

1. Absolute counts of abusive domains per gTLD and registrar
2. Abuse rates
3. Abuse associated with privacy and proxy services
4. Geographic locations associated with abusive activities
5. Abuse levels distinguished by “maliciously registered” versus “compromised” domains

# DNS Abuse Study Findings

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## Introduction of New gTLDs

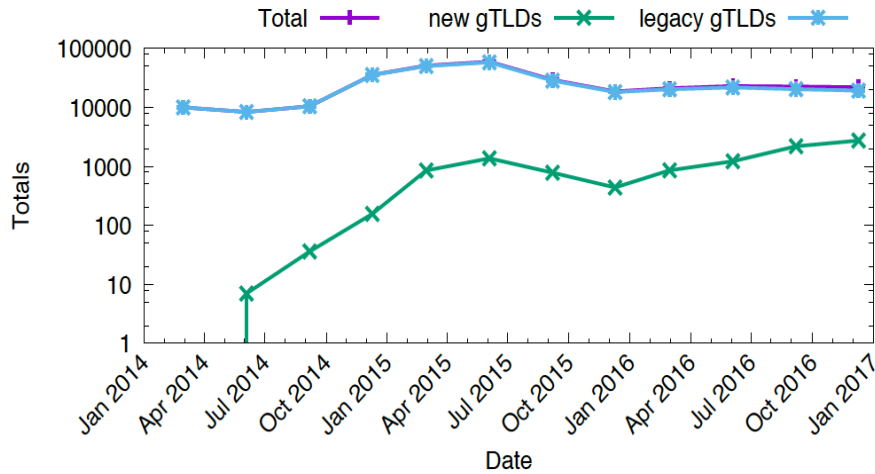
- **Did not increase** the total amount of abuse for all gTLDs
- While number of abused domains remains approximately constant in legacy gTLDs, clear upward trend in the absolute number of phishing and malware domains in new gTLDs.
- Decreased the number of spam associated registrations in legacy gTLDs
- The absolute number of spam domains in new gTLDs higher than legacy gTLDs at the end of 2016

## Legacy vs. New gTLDs

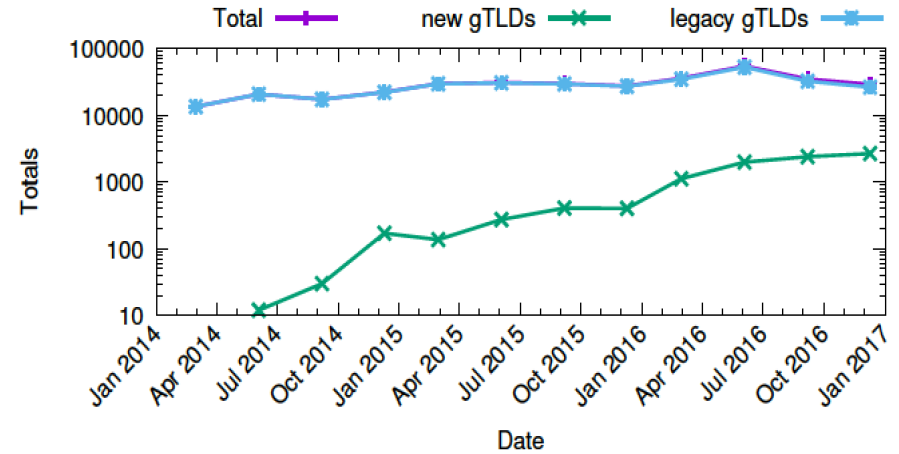
- The nine new gTLD program safeguards alone did not prevent abuse
- Rates of abuse in legacy and new gTLDs were similar by the end of 2016
- Higher rates of compromised legacy gTLD domain names than new gTLDs
- Increased malicious registrations (more common in new gTLDs)
- Use of privacy/proxy services to mask registrant Whois data is more common in legacy than new gTLDs

# Phishing domain names in new and legacy gTLDs

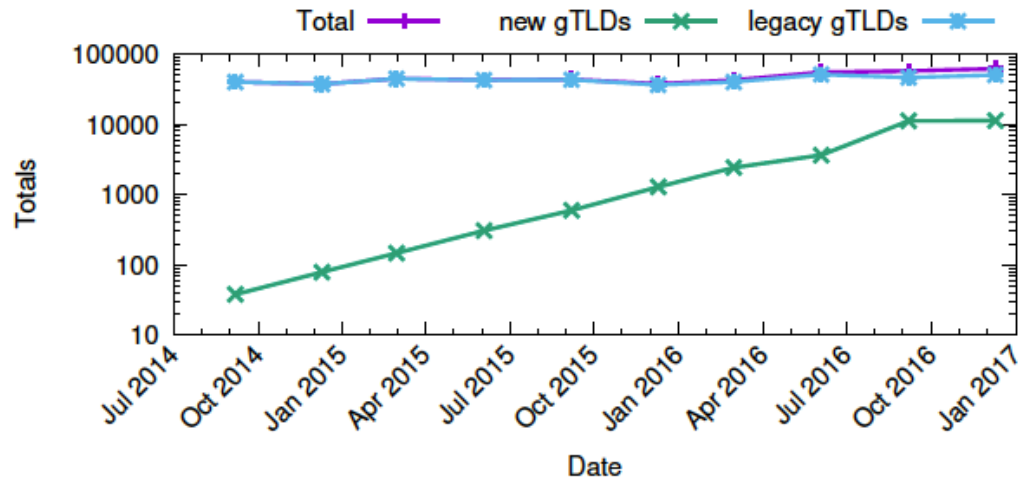
## APWG



## CleanMX

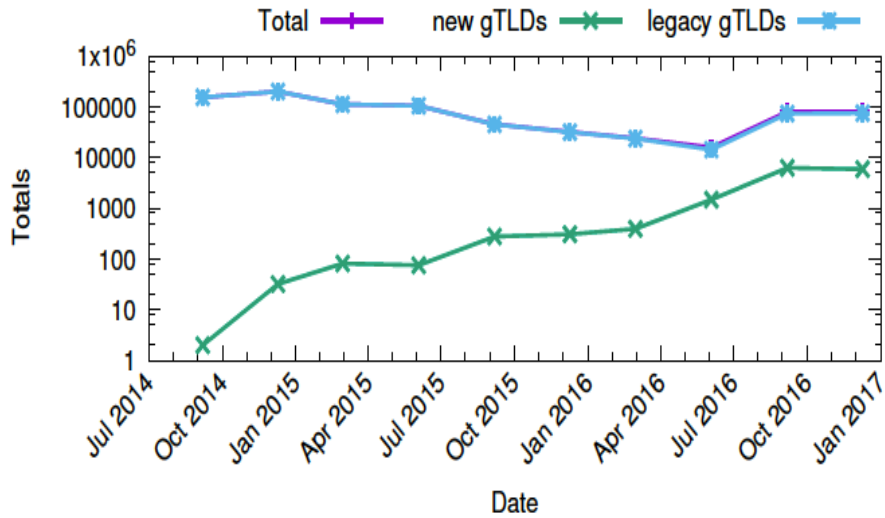


## SURBL

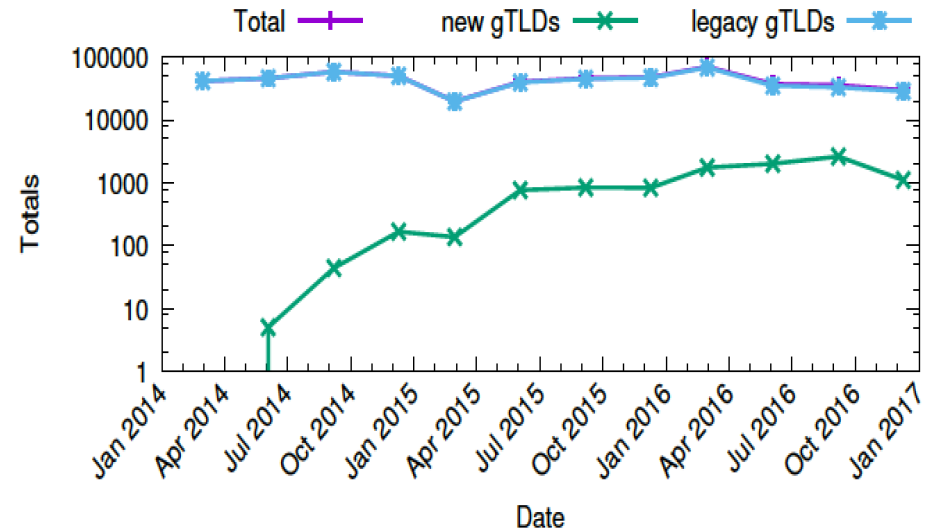


# Malware domain names in new and legacy gTLDs

## SURBL

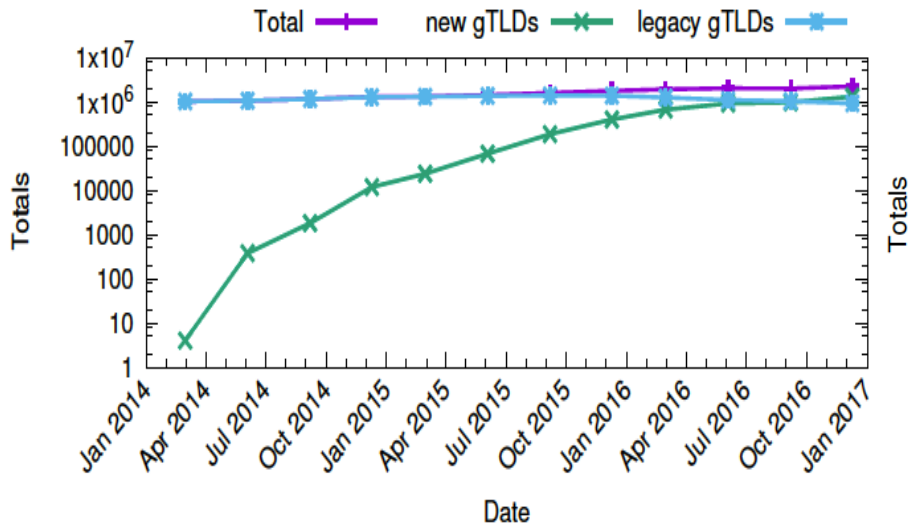


## CleanMX

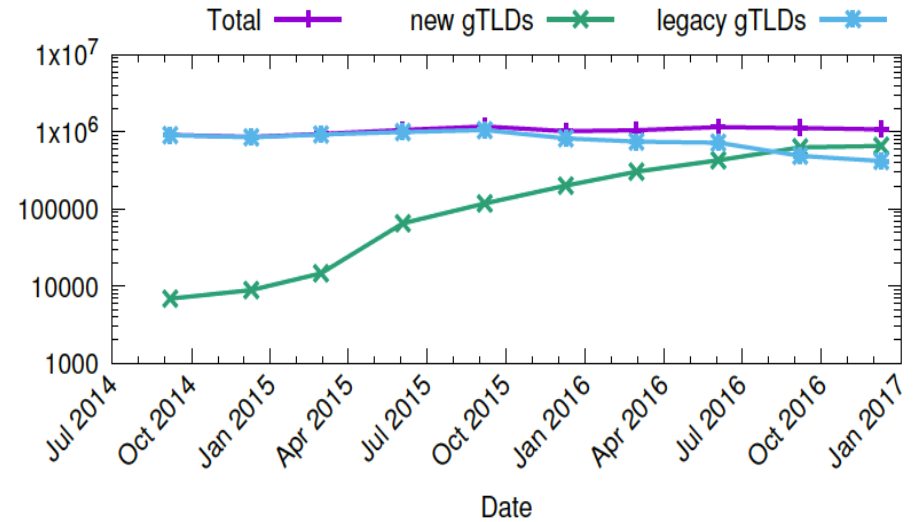


# Spam domain names in new and legacy gTLDs

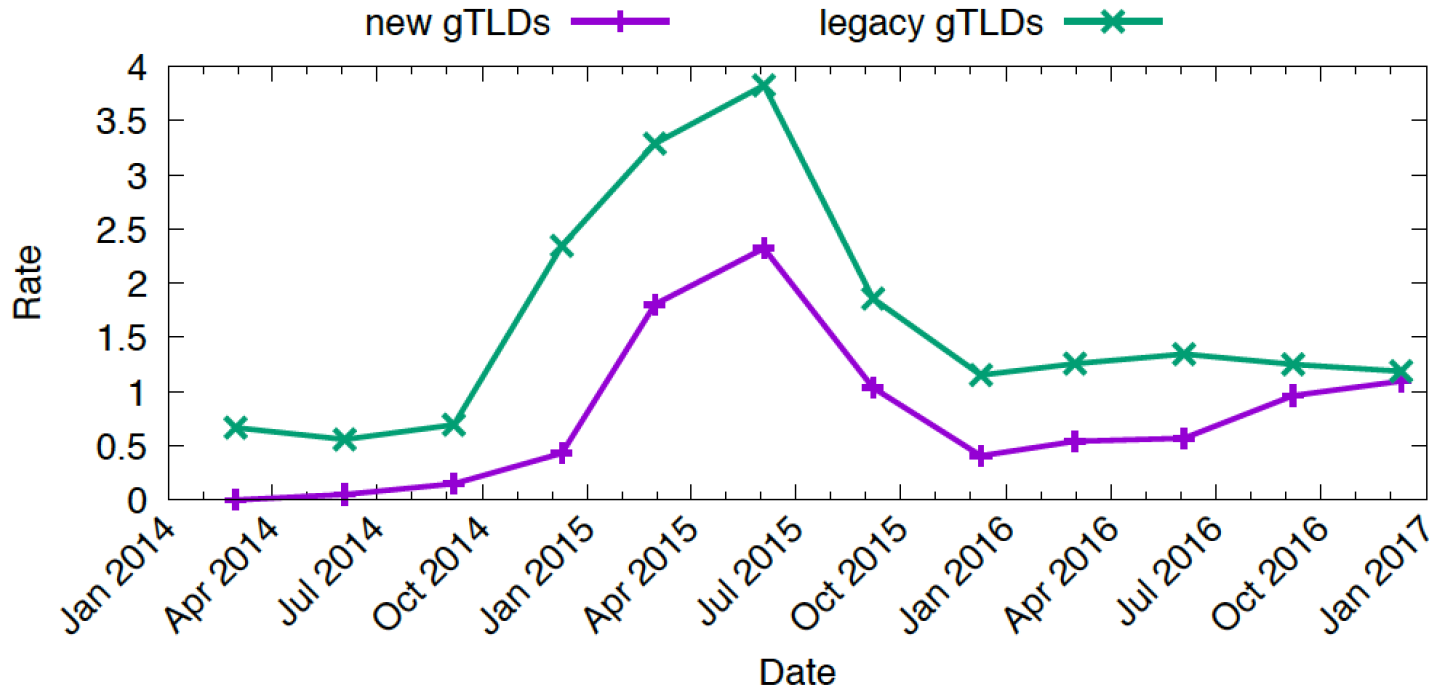
## Spamhaus



## SURBL



# Phishing rates in new and legacy gTLDs

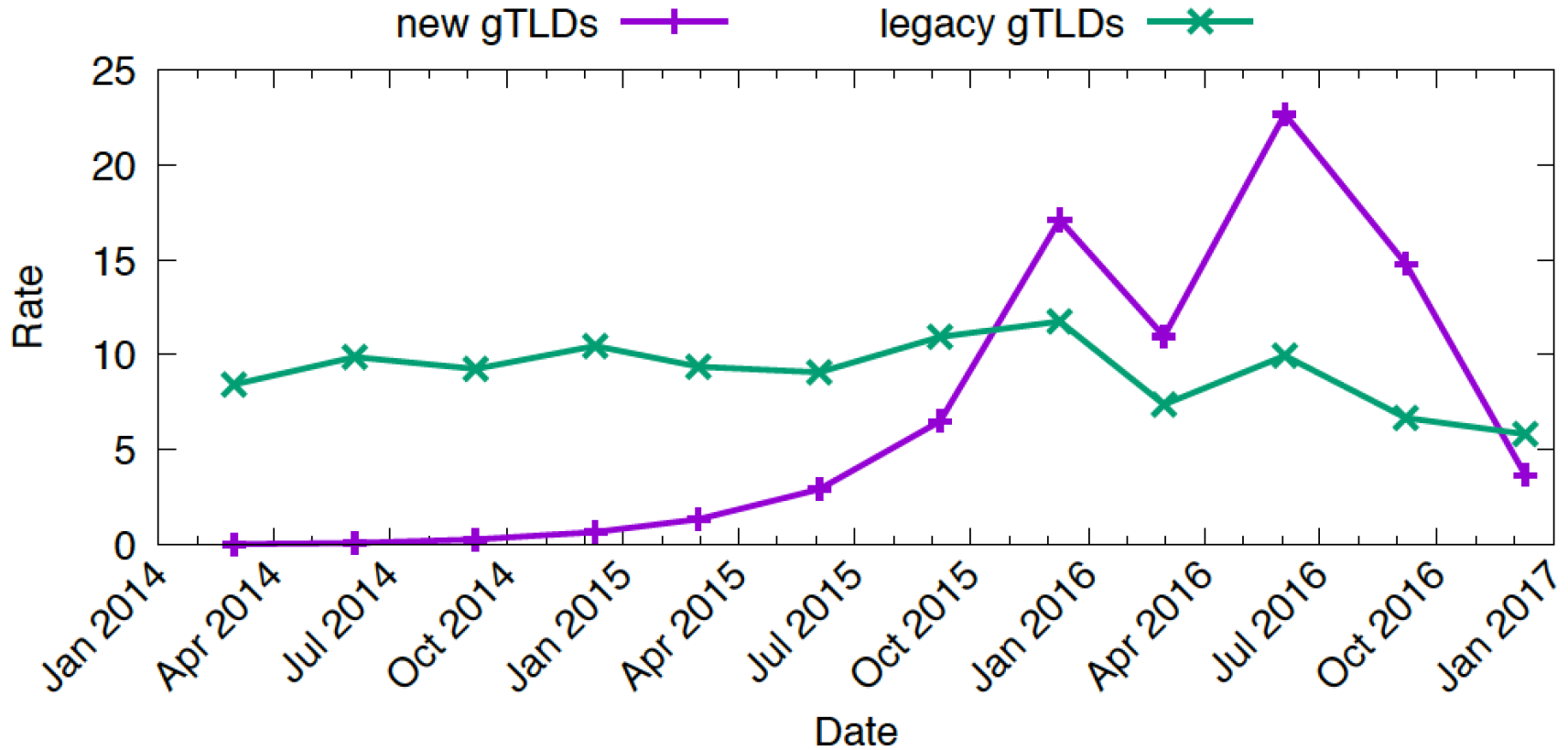


Top 5 most abused new gTLDs collectively owned 58.7% of all blacklisted domains in all new gTLDs.

Source: APWG

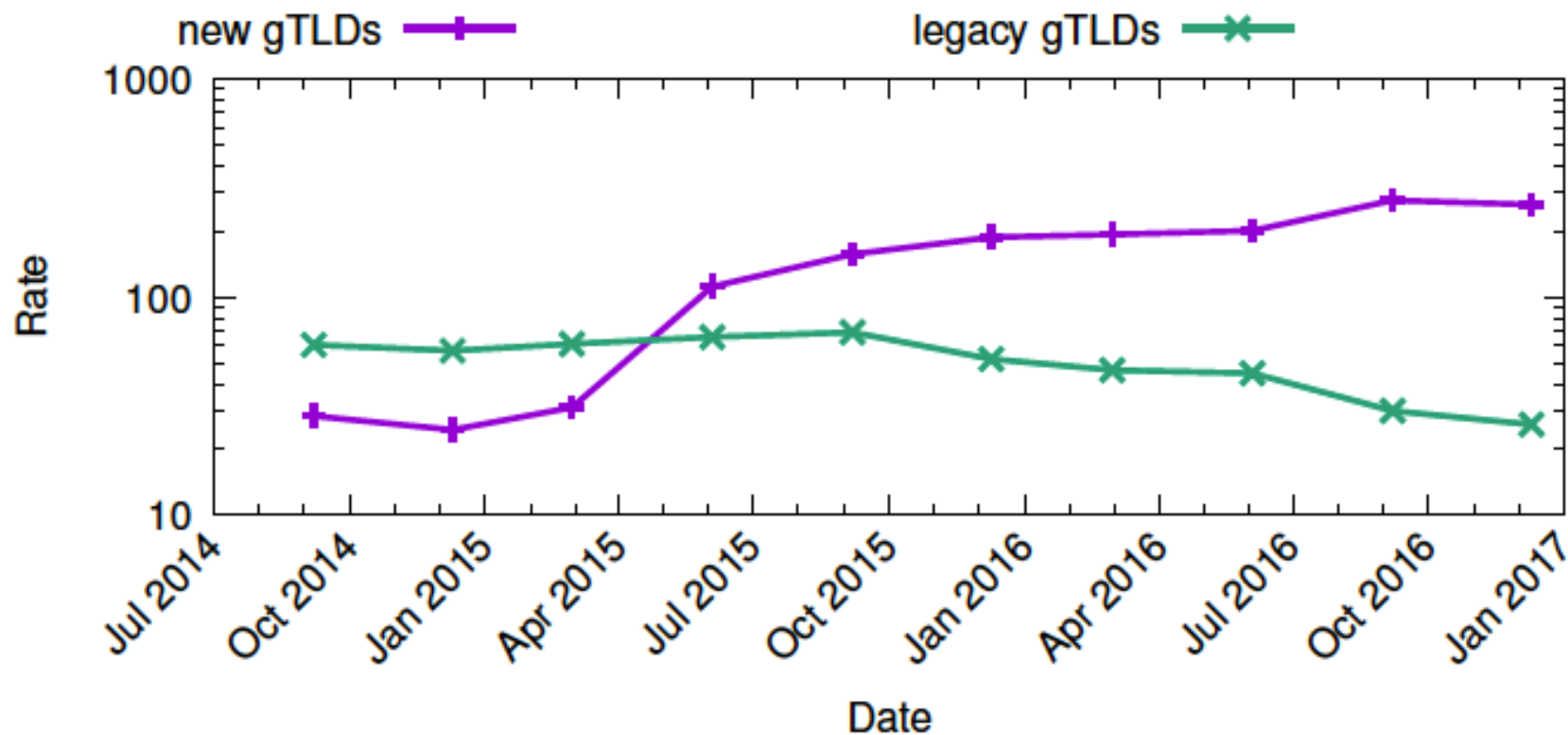


# Malware rates in new and legacy gTLDs



Source: StopBadware

# Spam rates in new and legacy gTLDs



Source: Spamhaus

# New gTLDs with highest relative concentrations of abuse

(4Q 2016)

## Spamhaus

| TLD        | # Domains | Rate  |
|------------|-----------|-------|
| SCIENCE    | 117,782   | 5,154 |
| STREAM     | 18,543    | 4,756 |
| STUDY      | 1,118     | 3,343 |
| DOWNLOAD   | 16,399    | 2,016 |
| CLICK      | 20,713    | 1,814 |
| TOP        | 736,339   | 1,705 |
| GDN        | 45,547    | 1,602 |
| TRADE      | 23,581    | 1,521 |
| REVIEW     | 9,415     | 1,318 |
| ACCOUNTANT | 6,722     | 1,279 |

## SURBL ws

| TLD        | # Domains | Rate  |
|------------|-----------|-------|
| RACING     | 51,443    | 3,812 |
| DOWNLOAD   | 21,515    | 2,645 |
| ACCOUNTANT | 10,543    | 2,007 |
| REVIEW     | 12,615    | 1,766 |
| GDN        | 49,427    | 1,739 |
| FAITH      | 5,540     | 1,301 |
| TRADE      | 19,330    | 1,247 |
| CLICK      | 13,270    | 1,162 |
| STREAM     | 4,406     | 1,130 |
| DATE       | 1,3851    | 999   |

Rates: (#blacklisted domains / #all domains) \* 10,000

# Factors that correlated to DNS Abuse

## Registration Restrictions:

Stricter registration policies correlated with lower levels of abuse

## Price matters:

operators associated with the highest rates of abuse offered low price domain name registrations

## Trademarks as Bait:

Maliciously registered domain names often contained strings related to trademarked terms

# Concerns Based on DNS Abuse Study

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**High levels of DNS abuse concentrated in a relatively small numbers of registries and registrars.**

Our recommendations seek to:

- Encourage and incentivize pro-active abuse measures
- Introduce measures to prevent technical DNS abuse
- Ensure that data collection is ongoing and acted upon
- Consider additional means to deal with registry operators or registrars who have not effectively mitigated DNS abuse

# DNS Abuse

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## Dealing with DNS Abuse

- We are concerned at the high levels of DNS abuse concentrated in a relatively small number of registries and registrars and geographic regions; this DNS abuse appears to have gone on unremedied for an extended amount of time in some cases.
- ICANN Compliance is critical in dealing with DNS Abuse
- The CCTRT carefully considered the means available today and relative success (or not) of those means, and sought to provide additional means via recommendations to:
  - Encourage and incentivize pro-active abuse measures
  - Introduce measures to prevent technical DNS abuse
  - Ensure that the data collection is ongoing and acted upon
  - Consider additional means / mechanism to deal with registry operators or registrars who have not effectively mitigated the DNS abuse

# DNS Abuse Recommendations:

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**Encourage Proactive Anti-Abuse Measures:** Consider directing ICANN org, in its discussions with registries to negotiate amendments to existing Registry Agreements, or in negotiations of new Registry Agreements associated with subsequent rounds of new gTLDs, to include provisions in the agreements to provide incentives, including financial incentives, to registries, especially open registries, to adopt proactive anti-abuse measures.

**Prevent Systemic Use of Contracted Parties for Abuse:** Consider directing ICANN org, in its discussions with registrars and registries to negotiate amendments to the Registrar Accreditation Agreement and Registry Agreements to include provisions aimed at preventing systemic use of specific registrars for technical DNS abuse.

**To:** The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization and the Subsequent Procedures PDP WG

**Prerequisite or Priority Level:** High

# DNS Abuse Recommendations:

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## **Collect and Publish Data to Identify Sustained and Systemic DNS Abuse; Response Plan:**

Commission ongoing data collection to identify the relationship between specific registry operators, registrars and DNS abuse, including but not limited to, ICANN Domain Abuse Activity Reporting (DAAR) initiatives. For transparency purposes, this information should be regularly published in order to be able to identify registries and registrars that need to come under greater scrutiny and higher priority by ICANN Compliance. Upon identifying abuse phenomenon, ICANN should put in place an action plan to respond to such studies, remediate problems identified, and define future ongoing data collection.

**Consider Alternative Mechanisms to Combat Excessive Levels of Abuse:** A DNS Abuse Dispute Resolution Policy ("DADRP") should be considered by the community to deal with registry operators and registrars that are identified as having excessive levels of abuse (to define, e.g. over 10% of their domain names are blacklisted domain names). Such registry operators or registrars should in the first instance be required to

- a) explain to ICANN Compliance why this is,
- b) commit to clean up that abuse within a certain time period, and / or adopt stricter registration policies within a certain time period failing which a DADRP can be brought should ICANN not take any action themselves.

**To:** The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, the Subsequent Procedures PDP WG, SSR2 Review Team.

**Prerequisite or Priority Level:** High

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# Questions?

# Rights Protection Mechanisms

David Taylor

# Rights Protection Mechanisms

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**New rights protection mechanisms (RPMs)** were specifically developed in connection with the introduction of the New gTLD Program alongside existing rights protection mechanisms.

CCT Review Team examined whether these **RPMs help encourage a safe environment and promoted consumer trust in the DNS** and also sought to **measure the costs impact of the New gTLD Program to intellectual property owners**.

How?

- CCT Metrics Reporting
- INTA Impact Study
- ICANN Rights Protection Mechanisms Review
- Independent Review of Trademark Clearinghouse (TMCH) Services Revised Report
- Parallel work by the ongoing Working Group

# Rights Protection Mechanisms

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## INTA Survey

- Concern on multiple occasions about the New gTLDs on the basis that such expansion would likely create additional and increased costs in enforcing intellectual property rights.
- Assess what additional costs and efforts have been required to protect trademarks in the DNS.

INTA members were asked to capture all costs over the past 2 years (2015 and 2016). 33 respondents in total including one not for profit.

## Key Takeaways :

- Main reason for 90% of brand owners elect to register in new gTLDs: defensive purposes.
- Domain names registered by brand owners in new gTLDs are commonly parked
- The New gTLD Program has increased the overall costs of trademark defense
- Further investigation in future surveys needed on total enforcement costs related to TLDs generally (both legacy and new) per company
- Disputes: 75% of cases brought now involve privacy and proxy services, 2/3rds encounter some level of inaccurate/incomplete WHOIS information.
- Disproportionate cost associated with new gTLD enforcement actions compared to overall enforcement actions. An indication of proportionately more TM infringement in new gTLDs than legacy gTLDs.
- RPMs are generally considered to have been helpful in mitigating the risks anticipated with new gTLDs.

# Rights Protection Mechanisms

## ICANN Competition, Consumer Trust and Consumer Choice (CCT) Metrics Reporting

- Numbers of Cases Filed (UDRP and URS): increased considerably since the introduction of new gTLDs
- Between 2013 and 2016 - 36% increase in cases filed across all providers
  - (25% if use the baseline as the average of 2012 and 2013)

| Year          | Total split UDRP and URS | Total cases combined       |
|---------------|--------------------------|----------------------------|
| 2013          | 3,371 (UDRP)             | 3,371                      |
| 2014          | 4,056 (UDRP) & 231 (URS) | 4,287                      |
| 2015          | 4,130 (UDRP) & 213 (URS) | 4,343                      |
| 2016          | 4,368 (UDRP) & 222 (URS) | 4,590                      |
| 2017<br>Q1/Q2 | 2,112 (UDRP) & 104 (URS) | 2,216 (NB for half a year) |

- Proportionally more TM infringement in new gTLDs than in legacy TLDs in 2016
  - (18.6% of WIPO gTLD caseload involve new gTLDs compared to 14% of gTLD registrations being new gTLDs)
- NB UDRP / URS cases only part of overall enforcement costs to brand owners
- URS not proving popular. Only around 5% of the total cases. Case numbers are flat.

# Rights Protection Mechanisms

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## Conclusions

- Increasing numbers of disputes since the introduction of new gTLDs rising year on year.
  - 2016: Total cases running at 36% higher than 2013
  - (25% if use the baseline as the average of 2012 and 2013)
- Trademark owners also use a variety of other means to deal with abusive domain name registrations so filing costs are only part of the total enforcement costs.
- More trademark infringement presently in new gTLDs than in legacy TLDs
- Impact Study on cost and effort required to protect trademarks in the DNS needs to be repeated to obtain more data and be more user friendly
- URS and its value is questionable given its low usage compared to the UDRP
- TMCH cost benefit analysis needed and improved data so as to enable definitive conclusions to be drawn.

# Rights Protection Mechanisms - Recommendations

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**Recommendation 40:** An Impact Study in order to ascertain the impact of the New gTLD Program on the cost and effort required to protect trademarks in the DNS should be repeated at regular intervals to see the evolution over time as the New gTLD Program continues to evolve and new gTLD registrations increase. We would specifically recommend that the next Impact Survey be completed within 18 months after issuance of the CCTRT final report, and that subsequent studies be repeated every 18 to 24 months. The CCTRT acknowledges the fact that this was carried out in 2017 by Nielsen surveying INTA members and we encourage that to continue noting that the study needs to be more user friendly.

**Rationale/related findings:** Costs will likely vary considerably over time as new gTLDs are delegated and registration levels evolve. Repeating the Impact Study would enable a comparison over time.

**To:** ICANN organization

**Prerequisite or Priority Level:** High

**Consensus within team:** Yes

# Rights Protection Mechanisms - Recommendations

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**Recommendation 41:** A full review of the URS should be carried out and consideration be given to how it should interoperate with the UDRP. However, given the PDP Review of All RPMs in All gTLDs, which is currently ongoing, such a review needs to take on board that report when published and indeed may not be necessary if that report is substantial in its findings and if the report fully considers potential modifications.

**Rationale/related findings:** The uptake in use of the URS appears to be below expectations, so it would be useful to understand the reasons for this and whether the URS is considered an effective mechanism to prevent abuse. It is also important for all gTLDs to have a level playing field. The PDP Review of All RPMs in All gTLDs, which is running in parallel to this CCT Review Team, will contribute to this consideration with its report due in 2018. That Working Group's report needs to be considered to set the scope of any review and potential modifications.

**To:** Generic Names Supporting Organization

**Prerequisite or Priority Level:** Prerequisite

**Consensus within team:** Yes



# Rights Protection Mechanisms - Recommendations

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**Recommendation 42:** A cost-benefit analysis and review of the TMCH and its scope should be carried out to provide quantifiable information on the costs and benefits associated with the present state of the TMCH services and thus to allow for an effective policy review.

**Rationale/related findings:** It seems likely that a full review of the TMCH is necessary including a cost-benefit analyses. The effectiveness of the TMCH appears to be in question. The Independent Review of Trademark Clearinghouse (TMCH) Services Revised Report has not been able to make definitive conclusions due to data limitations and indeed specifically noted that it was unable to perform a cost-benefit analysis of extending the Claims Service or expanding the matching criteria. Indeed, the PDP Review of All RPMs in All gTLDs, which is running in parallel to this CCT Review Team, will contribute to this consideration with its report due January 2018. That Working Group's report needs to be considered to set the scope of any review and potential modifications.

**To:** Generic Names Supporting Organization

**Prerequisite or Priority Level:** Prerequisite

**Consensus within team:** Yes

# Questions?

# “Parked” Domains

Jordyn Buchanan

# “Parked” Domains

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## Definition

Majority of domains in both legacy and new gTLDs are not the primary identifiers of typical websites.

(Forwarded to other domains (including sub-domains), email, monetized via advertising, do not resolve, held in reserve by speculators or as premium domains by registries)

## Findings

- Further research is necessary
- 68% of registrations in new gTLDs are currently parked. By way of comparison, 56% of registrations in legacy gTLDs are currently parked.
- Hypotheses for both positive and negative impact on competition and choice
- New gTLDs have higher parking rates than legacy gTLDs
- Malware is marginally more likely to occur in zones with higher parking rates

# “Parked” Domains

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**Recommendation 5:** Collect parking data.

**Rationale/related findings:** The high relative incidence of parked domains in the new gTLDs suggests differences in the competitive landscape but insufficient data frustrates efforts to analyze this impact.

**To:** ICANN organization

**Prerequisite or Priority Level:** High

**Consensus within team:** Yes

**Details:** ICANN should regularly track the proportion of TLDs that are parked with sufficient granularity to identify trends on a regional and global basis. Future reviews should conduct further analyses of whether there is a correlation between parked domains and renewal rates or other factors that may implicate competition. Further analysis should be performed on the relationship between parking and DNS abuse.

**Success Measures:** The availability of relevant data for use by the ICANN organization, contractors and the ICANN community for its work in evaluating competition in the DNS space.

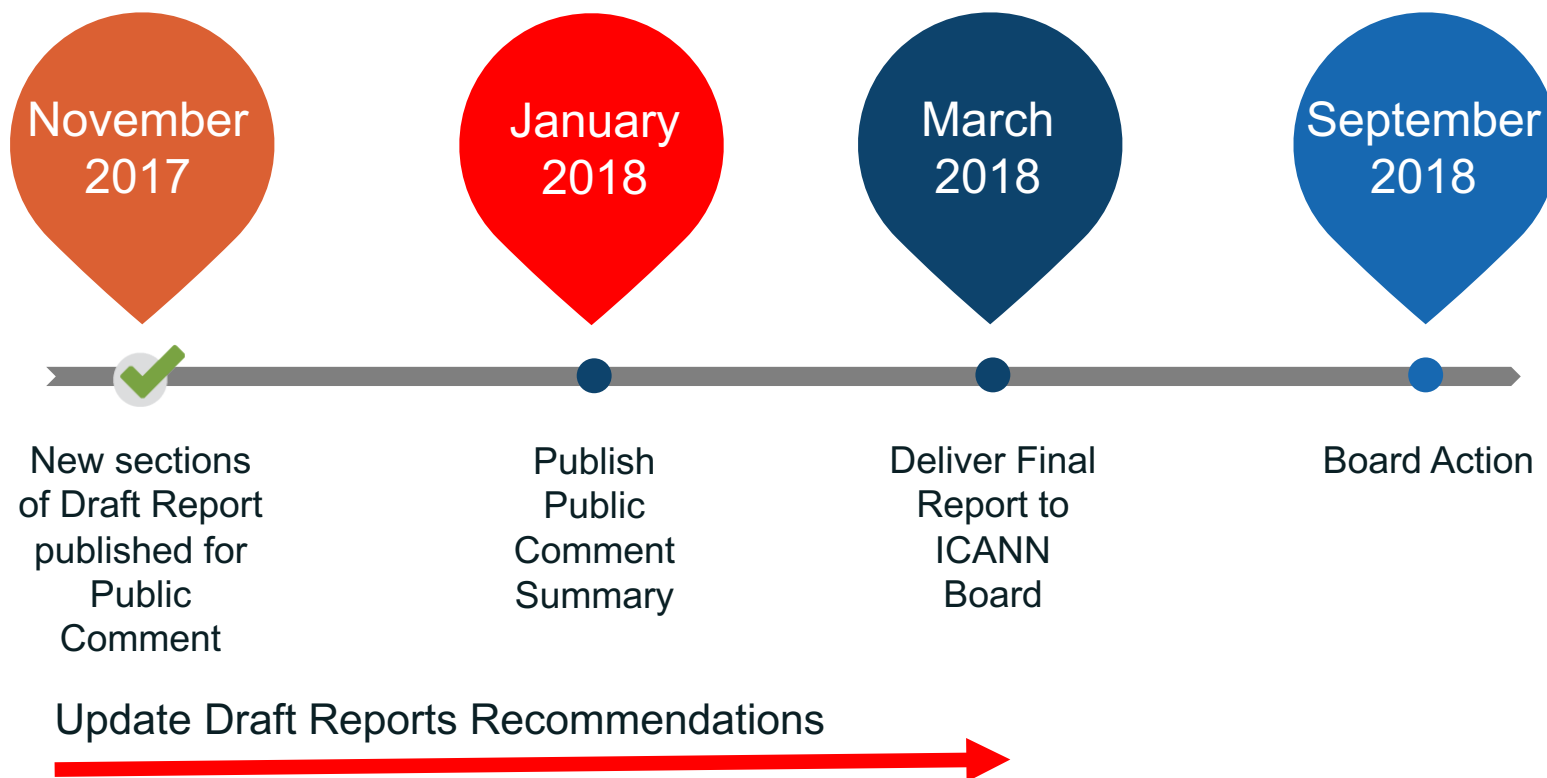
# Questions?

# Next Steps

Jonathan Zuck

# Timeline

- Read our new findings and recommendations, and leave a public comment on our new sections to draft report: <https://www.icann.org/public-comments/cct-recs-2017-11-27-en>.
- Public Comment period end date: **8 January 2018**





# Questions?

# Thank you!



Submit your public comment:

<https://www.icann.org/public-comments/cct-recs-2017-11-27-en>



Schedule a conference call



Follow our wiki at <http://cct.wiki> for more information!