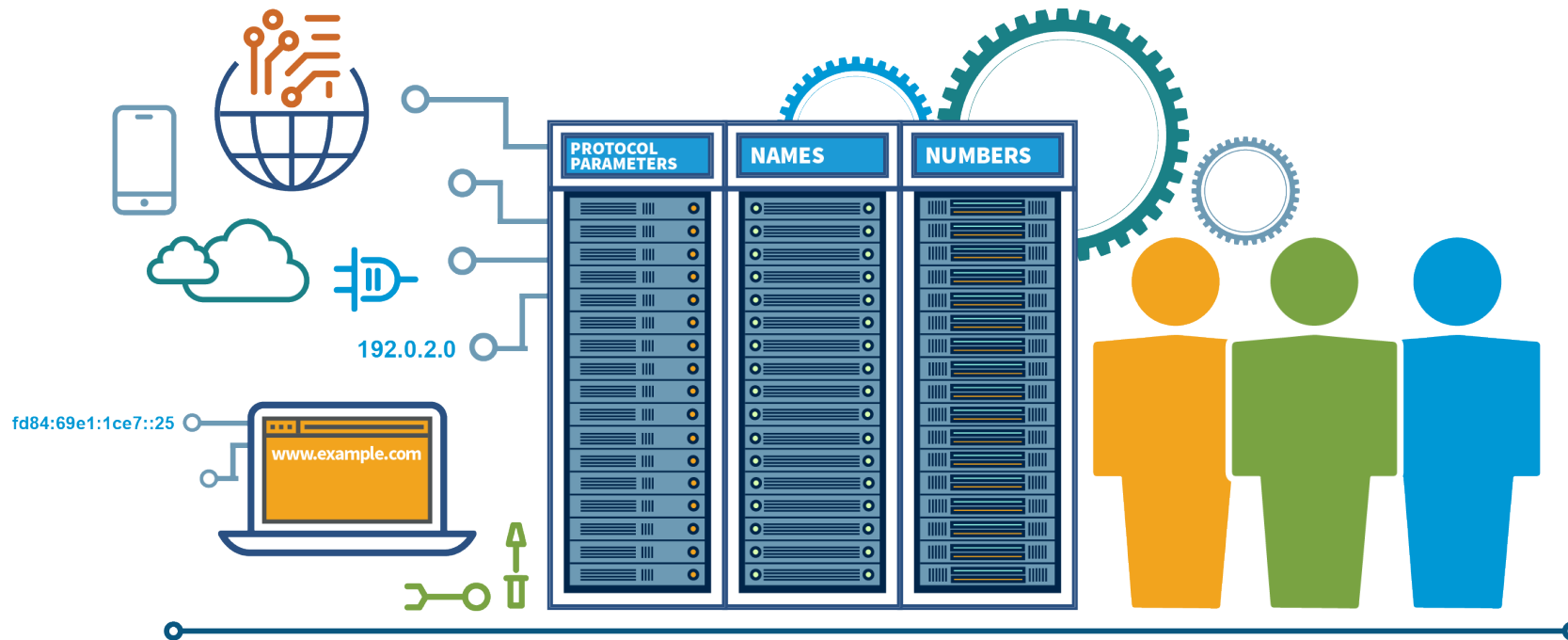# Universal Acceptance

Yaovi Atohoun
Stakeholder Engagement & Operations Manager - Africa
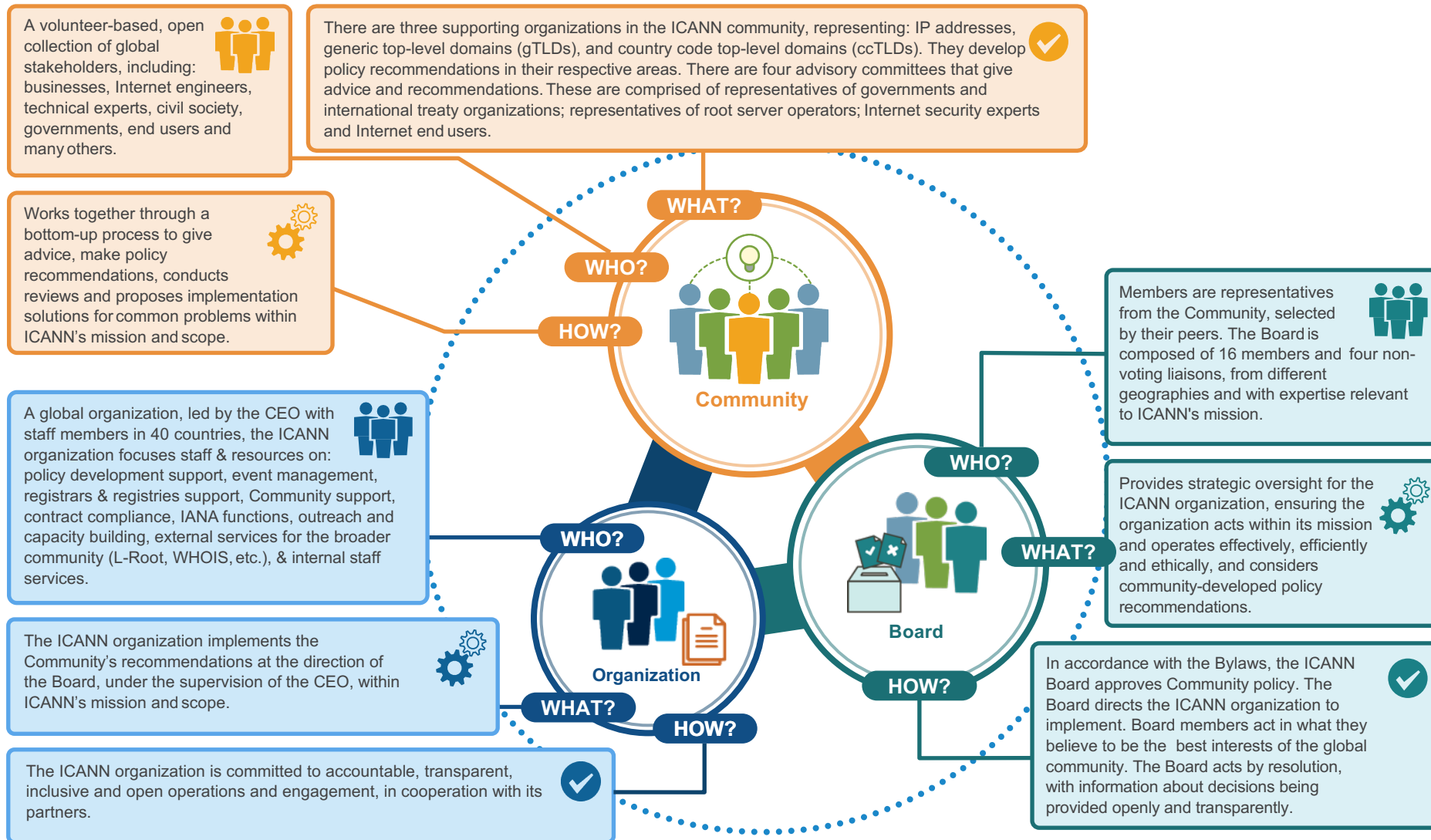
WACREN 2018
15-16 March 2018, Lome - Togo

ICANN

ICANN IN BRIEF

**Coordinating with our partners,
we help make the Internet work.**

Who We Are

A volunteer-based, open collection of global stakeholders, including: businesses, Internet engineers, technical experts, civil society, governments, end users and many others.

There are three supporting organizations in the ICANN community, representing: IP addresses, generic top-level domains (gTLDs), and country code top-level domains (ccTLDs). They develop policy recommendations in their respective areas. There are four advisory committees that give advice and recommendations. These are comprised of representatives of governments and international treaty organizations; representatives of root server operators; Internet security experts and Internet end users.

Works together through a bottom-up process to give advice, make policy recommendations, conducts reviews and proposes implementation solutions for common problems within ICANN's mission and scope.

Members are representatives from the Community, selected by their peers. The Board is composed of 16 members and four non-voting liaisons, from different geographies and with expertise relevant to ICANN's mission.

A global organization, led by the CEO with staff members in 40 countries, the ICANN organization focuses staff & resources on: policy development support, event management, registrars & registries support, Community support, contract compliance, IANA functions, outreach and capacity building, external services for the broader community (L-Root, WHOIS, etc.), & internal staff services.

Provides strategic oversight for the ICANN organization, ensuring the organization acts within its mission and operates effectively, efficiently and ethically, and considers community-developed policy recommendations.

The ICANN organization implements the Community's recommendations at the direction of the Board, under the supervision of the CEO, within ICANN's mission and scope.

In accordance with the Bylaws, the ICANN Board approves Community policy. The Board directs the ICANN organization to implement. Board members act in what they believe to be the best interests of the global community. The Board acts by resolution, with information about decisions being provided openly and transparently.

The ICANN organization is committed to accountable, transparent, inclusive and open operations and engagement, in cooperation with its partners.

WHAT?
WHO?
HOW?

Community

WHO?
WHAT?
HOW?

Organization

Board

Universal acceptance

Warm-up Exercise

Each of the 3 groups below contain lists of Top Level Domains (TLDs) that are valid (approved and delegated by ICANN), except that each list contains one made-up or invalid TLD. **Which TLD in each group is invalid?**

Group A	Group B	Group C
嘉里	ABC	GMAIL
ANALYTICS	مصر	قطر
BLOCKBUSTER	ATHLETA	JOY
DIAMONDS	இலங்கை	LIKE
HOTELES	CANCERRESEARCH	ҺШЈ
广东	CITIC	ONYOURSIDE
MOVISTAR	新加坡	OOO
இந்தியா	ESURANCE	فلسطين
REALLY	FAKE	SILLY
政务	ไทย	SUCKS

Warm-up Exercise

The 3 invalid TLDs are highlighted below in **red**. *There are 1541 valid TLDs (as of January 2nd, 2018), and the list is continuing to grow.*

Group A	Group B	Group C
嘉里	ABC	GMAIL
ANALYTICS	مصر	قطر
BLOCKBUSTER	ATHLETA	JOY
DIAMONDS	இலங்கை	LIKE
HOTELES	CANCERRESEARCH	hயர
广东	CITIC	ONYOURSIDE
MOVISTAR	新加坡	OOO
இந்தியா	ESURANCE	فلسطين
REALLY	**FAKE**	**SILLY**
政务	ไทย	SUCKS

Building Blocks: gTLDs

* Starting in 2013, ICANN (the organization responsible for the creation and maintenance of TLD assignments) approved the creation of a large number of new TLDs. These new TLDs can represent brands, communities of interest, geographic communities (cities, regions) and more generic concepts. Collectively, all of these new TLDs are known as Generic Top Level Domains (gTLDs).

Original Seven gTLDs	Common cc TLDs	New gTLDs
.com	.de	.top
.org	.cn	.xyz
.gov	.uk	.loan
.edu	.nl	.club
.mil	.eu	.网址
.net	.ru	.信息
.int	.tk	.コム

Anatomy of an email address

username@example.com

测试5@普遍接受-测试.世界

* *Username/测试5*
  * *Mailbox name*
  * *Can be in ASCII or Unicode*
* *Second level domain name (example/普遍接受-测试)*
  * *Can be ASCII or Unicode.*
  * *Unicode can be represented as Unicode or Punycode*
* *Top Level Domain name (.com/.世界)*
  * *Can be ASCII or Unicode*
  * *Unicode can be represented as Unicode or Punycode*
  * *Can be 2 to 63 characters long*
  * *Can ONLY be from an authoritative list that is dynamic and has more than 1,000 choices*

The Reality
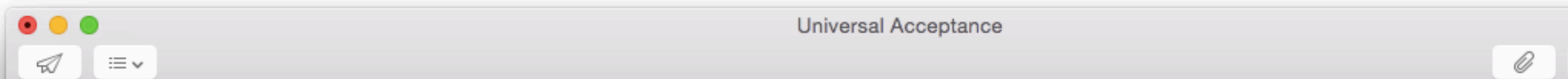
To: Борис@пример.рф

Cc: ‏مارك@رسيل.السعودية <مارك@رسيل.السعودية>

Bcc: 微软测试@互联网.中国 <微软测试@互联网.中国>

Subject: Universal Acceptance

From: Lars Steffen – mail@larssteffen.de   Signature:

Hi!
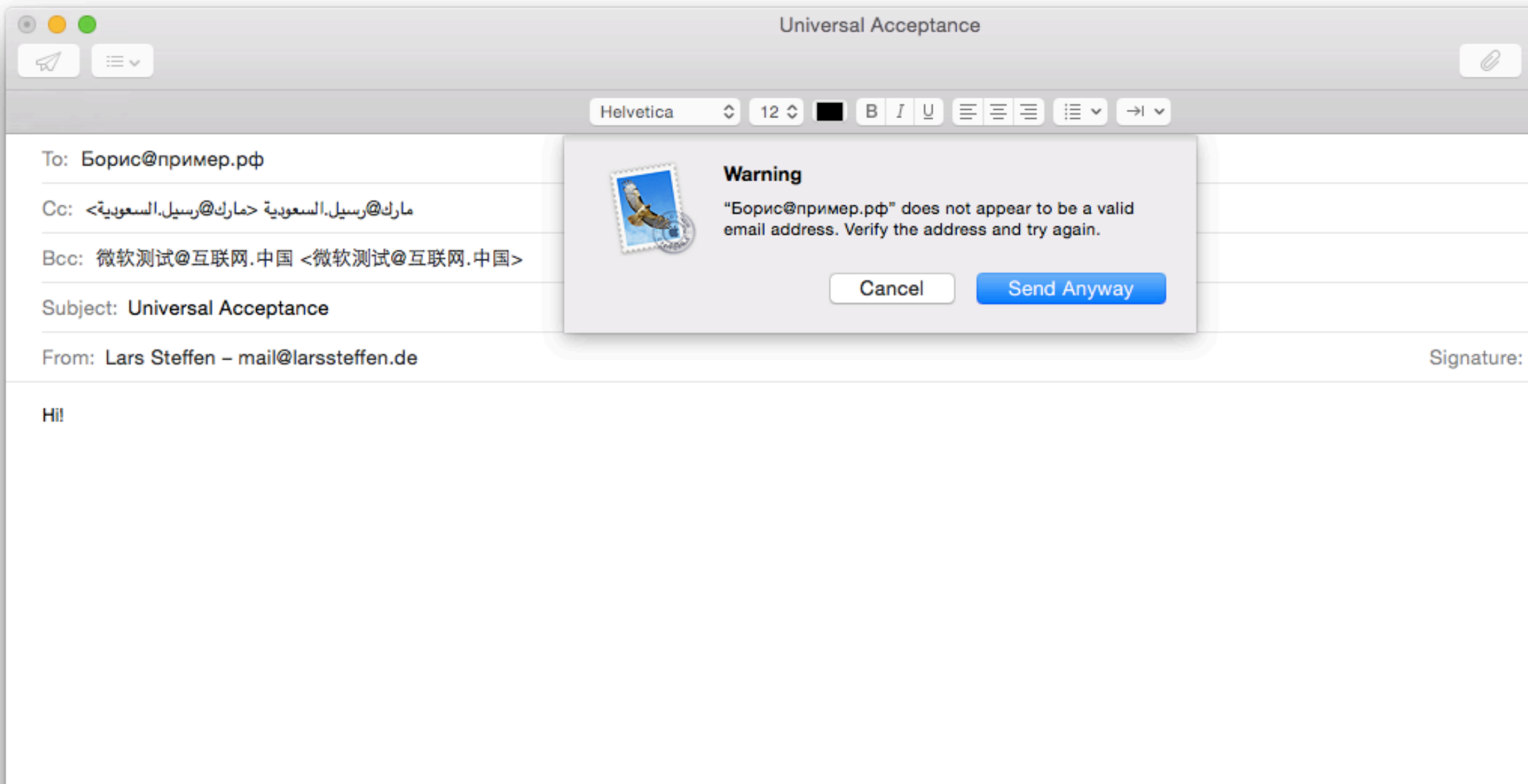
Definition

*Universal Acceptance (UA) ensures that all **domain names** and **email addresses** can be used by all Internet-enabled applications, **devices** and **systems**.*

ICANN

Universal Acceptance Steering Group

Who is involved…

UASG Activities

Review   Popular Websites, Dev Frameworks, Browsers, OS

Build   Use Cases, Test Environments, EAI Community

Outreach Live Workshops, Panel Discussions, Presentations

Writing   Knowledge Databases, Whitepapers, Quick Guides

Why should you care?

How to get Universal Acceptance ready?

Universal Acceptance ready

* Accept, Support, Use and Show Unicode.

* Store Information in UTF-8.

* Accept Strings up to 256 characters.

* Validate as little as possible.

   * Verify TLDs against authoritative table.

   * Query domain name against DNS.

Universal Acceptance ready

* When developing app / service, or operating a registry, consider languages supported.

* Perform code reviews.

* Check code points that were not defined when application / service was created.

Universal Acceptance ready

* Consider mixed-script addresses become more common.

* Convert non-Unicode to Unicode before display.

* Use Unicode IDNA Compatibility Processing to match user expectations.

* End user should see "everyone.みんな" vs. "everyone.xn--q9jyb4c."

Encountering UA issues?

uasg.tech/global-support-centre

Further information

* Visit uasg.tech
* Visit bit.ly/icannUA
* Visit github.com/icann

* Get your Universal Acceptance Quick Guide!

Engage with ICANN

Thank You and Questions

Visit us at **icann.org**
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