

Universal Acceptance Technology and EAI Working Groups

ICANN66 Montreal / 4 November 2019



Universal Acceptance

UA Technology WG

Satish Babu, Dessalegn Yehuala / ICANN66 Montreal / 4 November 2019



Universal Acceptance

Agenda

- * Summary of charter
- * Summary of completed work
- * Current progress
- * Overview of future plan of work
- * Collaboration with UA WGs and ICANN community
- * Update by ICANN org on UA readiness

Technology WG: Purpose

- * Collaborate with UA Measurement WG (and other relevant WGs) to define UA readiness and provide strategies to address its technical aspects.
 - * Determine the technical scope of UA readiness.
 - * Identify technical gaps and undertake strategies to address them.
 - * Determine technical documentation and training requirements.



Technology WG: Intended Outcomes

- * Develop the scope of UA readiness and its testing criteria.
- * Evaluate and address technical standards and best practices.
- * Evaluate and address the following for open source and proprietary platforms on mobile and computer.
 - * **Application development environments:** Frameworks, programming language libraries, etc.
 - * **Applications:** browsers, social media, content management systems, databases, legacy applications, etc.
- * Develop technical documentation.
- * Develop technical training.

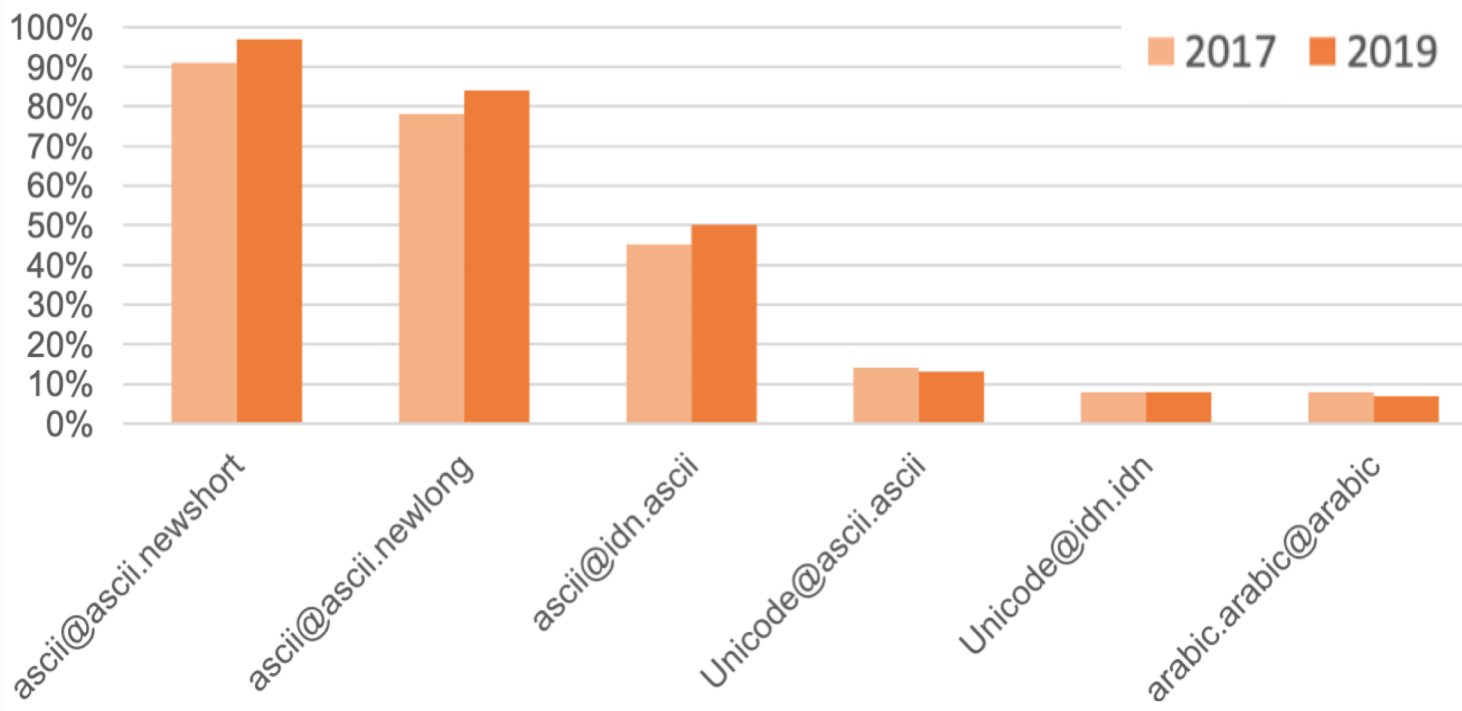
UA Work Recently Published

- * Recent studies completed and published along with translations:
 - * Updated [Universal Acceptance Quick Guide](#) (UASG 005)
 - * Updated [Introduction to Universal Acceptance](#) (UASG 007)
 - * [UA Readiness of Command Line Networking Tools](#) (UASG 024)
 - * [Global Evaluation of Websites for Acceptance of E-mail Addresses in 2019](#) (UASG 025)
 - * [Email Address Internationalization: Evaluation of Major Email Software and Services](#) (UASG 021B)
 - * [EAI Readiness in TLDs](#) (UASG 021D)



Global Evaluation of Websites for Acceptance of E-mail Addresses

Global Evaluation of Websites for Acceptance of E-mail Addresses in 2019 (UASG 025)



ascii@ascii.newshort

test@test.exp

ascii@ascii.newlong

test@test.example

ascii@idn.ascii

test@普遍接受-测试.org

unicode@ascii.ascii

测试1@test.org

unicode@idn.idn

测试5@普遍接受-测试.世界

arabic.arabic@arabic

(RTL)

دون@رسيل.السعودية

Technology WG: Current Progress

- * UA Technology WG charter [published](#)
- * UA Technology WG chairs finalized
 - * Chair: Satish Babu
 - * Vice-chair: Dessalegn Yehuala
- * Work organized and recently started in three sub-areas:
 - * Detailed definition of UA readiness
 - * Remediation for UA readiness
 - * Development of training materials



Technology WG: Next Steps

- * Based on [FY20 Action Plan](#), the following activities are prioritized:

T1	Define UA readiness in detail jointly with other UA WGs.
T2	Review and revise the test suite based on UA readiness definition, which can be used by developers.
T3	Create a UA Readiness Maturity Model - a map for organization in terms of UA readiness.
T4	Identify relevant standards and standards bodies, and work towards updating these standards.
T8	Develop communication materials to reach to UA Technology WG stakeholders in collaboration with UA Comms WG.
T9	Review and remediate popular open source programming language libraries and utilities.
T13	Develop training materials for technology training for UA readiness.

Collaboration with UA WGs and Community

- * Jointly develop the scope of UA readiness and its measurement with UA Measurement WG.
- * Jointly develop communication for relevant stakeholders with UA Communications WG.
- * After identification of gaps, work with standards bodies to address them or develop best practices as appropriate.
- * Develop mechanism to collaborate with academia to create awareness on how to develop UA-ready technology.

Q&A



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For general information, email at info@uasg.tech

More details about UASG at www.uasg.tech

Universal Acceptance Readiness Update



Gary Petzer

ICANN66

4 November 2019

Agenda

- Universal Acceptance Strategic Focus
- ICANN org Systems: UA Readiness Update
- Email Address Internationalization Update

Strategic Focus

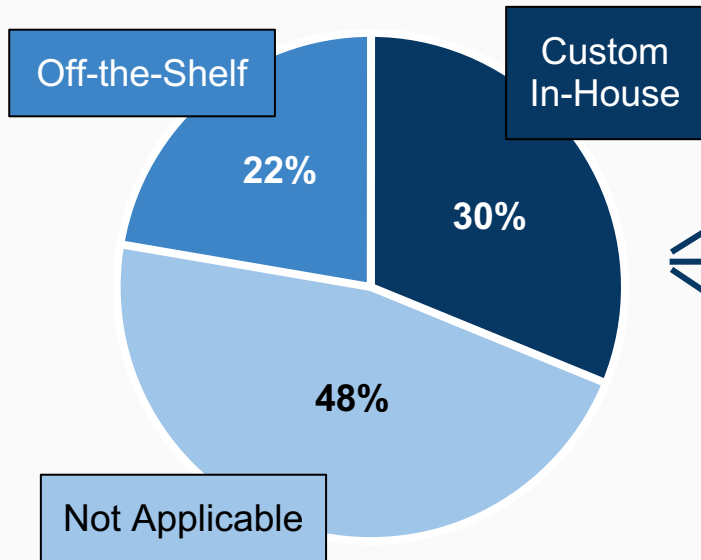
- Universal Acceptance is a strategic focus for ICANN org
- Ensure ICANN org's custom systems are Universal Acceptance ready
- ICANN org IT team includes Universal Acceptance readiness as part of our design guidelines
- ICANN org procurement process includes Universal Acceptance readiness provision
- Work with vendors of purchased solutions to confirm Universal Acceptance readiness, and educate where needed

ICANN Systems Update

- We have refined our approach to Universal Acceptance for ICANN org systems, making the UA readiness phases more measurable against specific targets, which include:
 - Phase 1
 - Both short and long ASCII domain names
 - Phase 2
 - Punicode (A-label) domain names
 - Phase 3
 - Unicode / International Domain Names (IDNs)
 - Phase 4
 - Email Address Internationalization (EAI)

ICANN Systems & Custom In-House Update

ICANN Business-Directed Services



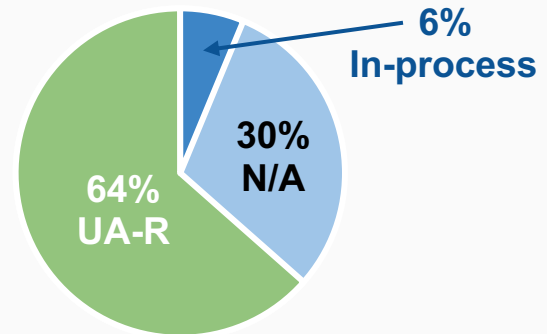
Custom In-House Phase 1



Custom In-House Phase 2

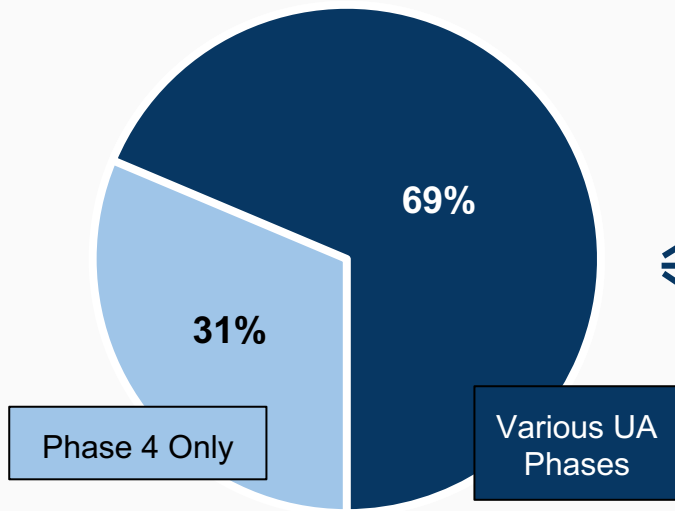


Custom In-House Phase 3

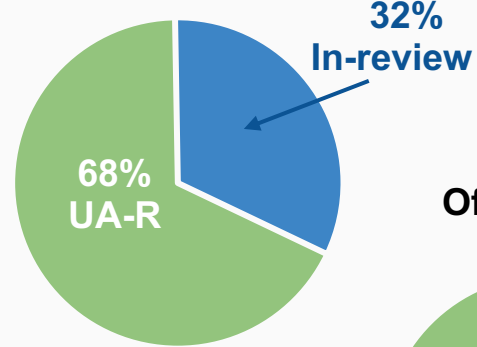


ICANN Off-the-Shelf Systems Update

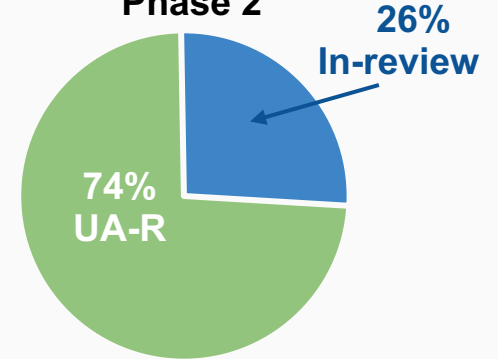
UA Consideration for Off-the-Shelf Services



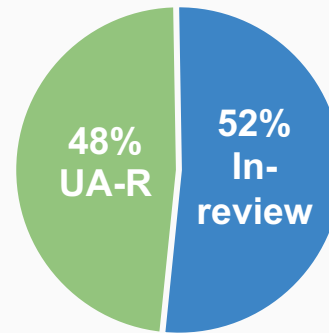
Off-the-Shelf Phase 1



Off-the-Shelf Phase 2



Off-the-Shelf Phase 3



Email Address Internationalization

- ICANN org email system's EAI readiness is progressing

Outlook email client is compliant

Microsoft Exchange server support planned for Q4 FY20

Routers/gateway support planned for Q3 FY20

Security/spam filter and archive/backup in planning with vendor

All parts must support EAI before ICANN org is compliant

- Salesforce platform expected to be compliant in Summer '20 release

Thank You

Appendix

- ICANN org's Contractor Consulting Agreement contains Universal Acceptance language as part of Exhibit D: Technical Contractor Attachment as a required technical standard.
- UNIVERSAL ACCEPTANCE OF TLDs COMPLIANCE (Universal Acceptance (UA) is the state where all valid domain names and email addresses are accepted, validated, stored, processed and displayed correctly and consistently by all Internet-enabled applications, devices and systems.): To the extent the Services and/or Deliverables include development or provision of software and/or devices that support network or Internet connectivity of any kind, Contractor warrants and represents that all such Services and Deliverables will be fully compliant with the following provision: In whatever manner a Service/Deliverable handles a domain name, the Service/Deliverable shall do so consistently for all standards compliant names in all top-level domains listed in IANA's Root Zone Database (accessible via <https://www.iana.org/domains/root/db>) at the time of delivery and guarantees consistency for three years.

UA Email Address Internationalization WG

Mark Svancarek / ICANN66 Montreal / 4 November 2019



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- * Summary of charter
- * Summary of completed work
- * Current work and projects underway
- * Overview of future plan of work
- * Collaboration with UA WGs and ICANN community



EAI WG: Summary of Charter (1/2)

Purpose

- * Provide a forum for EAI discussion.
- * Identify technical gaps, relevant stakeholders, and strategize how to address them.
- * Determine technical documentation and training requirements, along with their audience, scope, and content.



EAI WG: Summary of Charter (2/2)

Purpose

- * Collaborate with UASG WG to plan and undertake the training to support EAI.
- * Promote development and deployment of EAI readiness (both send/receive support and mailbox creation).



EAI WG: Summary of Progress

Outcome	Progress (%)
1. Review the levels/phases of EAI support already developed and refine these as needed.	50%
2. Develop an inventory of proprietary and open source tools and applications for EAI along with their contacts.	75% (UASG015)
3. Develop an inventory of email service providers along with their contacts.	-
4. Develop technical requirements for implementing EAI and baseline metrics for measuring EAI support.	100% (UASG021B)
5. Undertake review of email technology and services to determine the degree of their support for EAI, in conjunction with Measurements Working Group.	20% (UASG021B)
6. Review, update, and develop technical documentation and make translations available.	On going
7. Review, update, and develop technical best practices and standards for the security and usability of EAI (e.g. dealing with homographs, script mixing, variant characters, right-to-left scripts, etc.)	10%

EAI WG: Summary of Progress

Outcome	Progress (%)
8. Prioritize outreach to tool and service provider contacts to support EAI and maintain a high level of engagement. Encourage them to support EAI in their tools and services (e.g. encourage one service provider to support EAI per year).	-
9. Develop training materials for EAI deployment for email administrators, email tools and application developers, and web developers (e.g. including advice for managing ASCII and non-ASCII usernames in one mailbox).	90% for Email Administrators
10. Develop and undertake training dissemination to promote EAI support and its deployment by organizing webinars, training courses on ICANN Learn, face-to-face trainings, and other effective mechanisms.	-
11. Develop communication materials (blog, case studies, etc.) to acknowledge the support of EAI by various proprietary and open source email tools and services, in collaboration with the Communications Working Group.	-
12. Recognize email software and service providers who are EAI compliant.	-

EAI WG: Completed Work

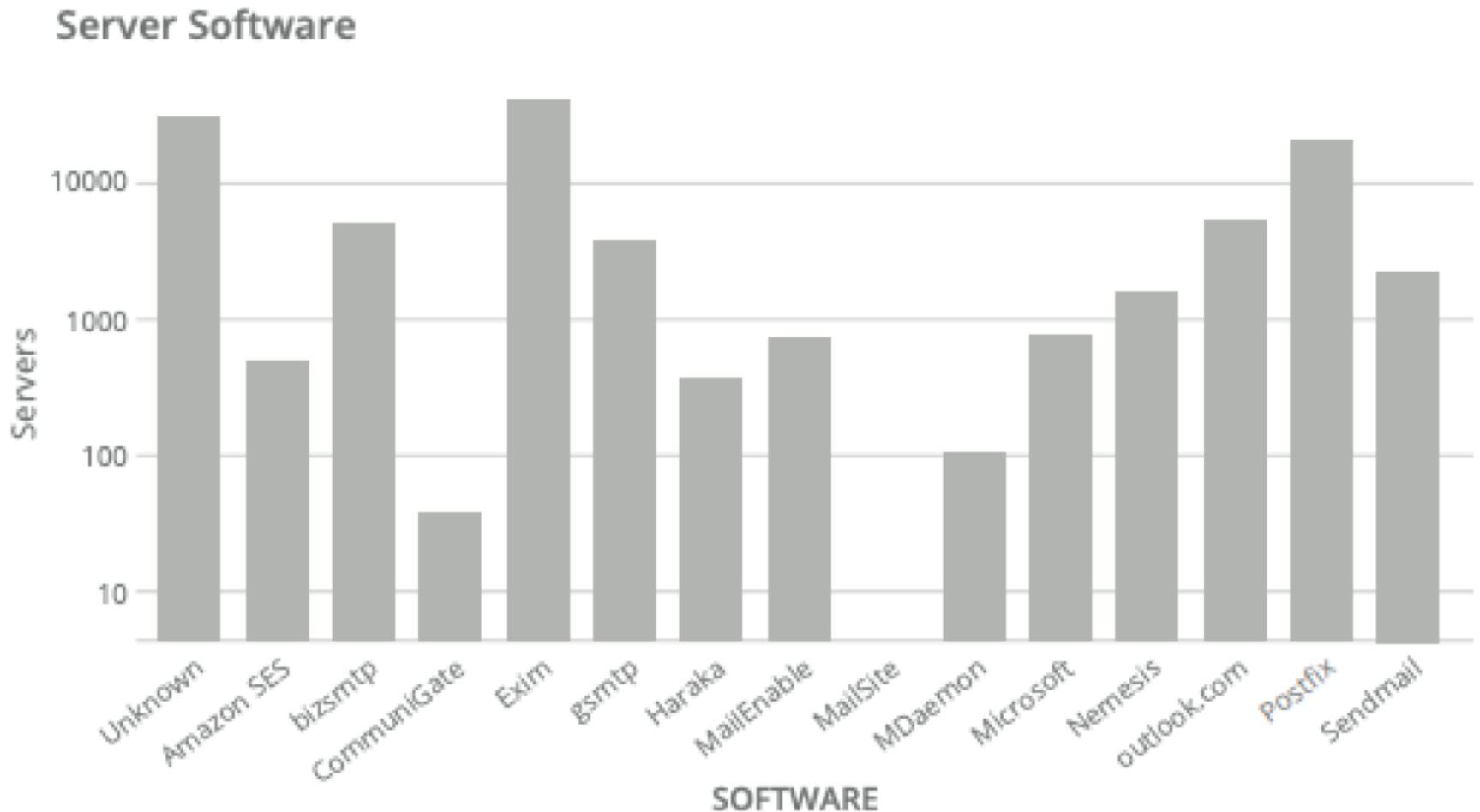
- * EAI Readiness in TLDs ([UASG021D](#)), February 2019

- * Overview

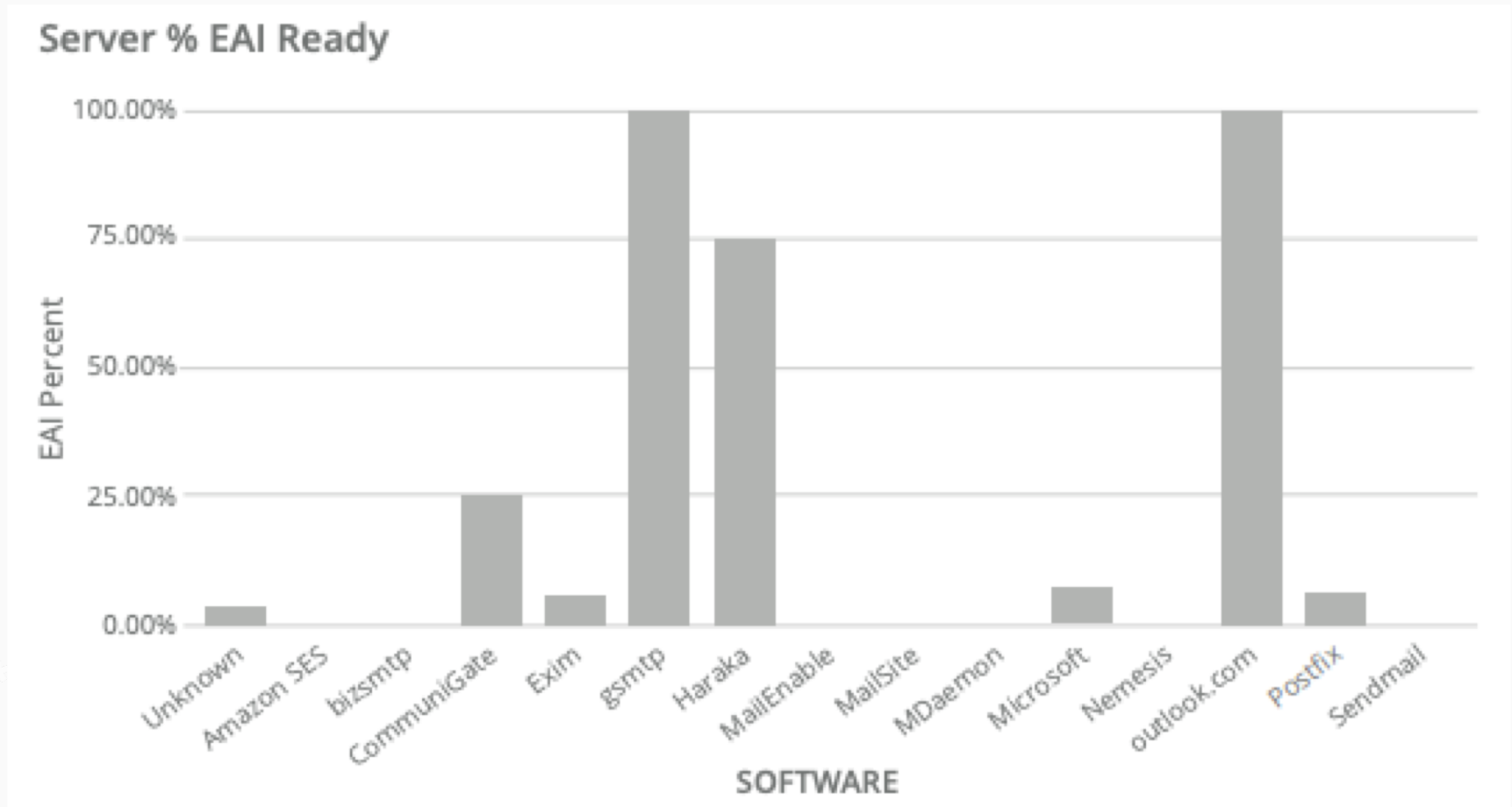
A report of informal survey of mail servers across domains to see whether they have mail servers that accept EAI mail.



Summary Numbers: Server Software



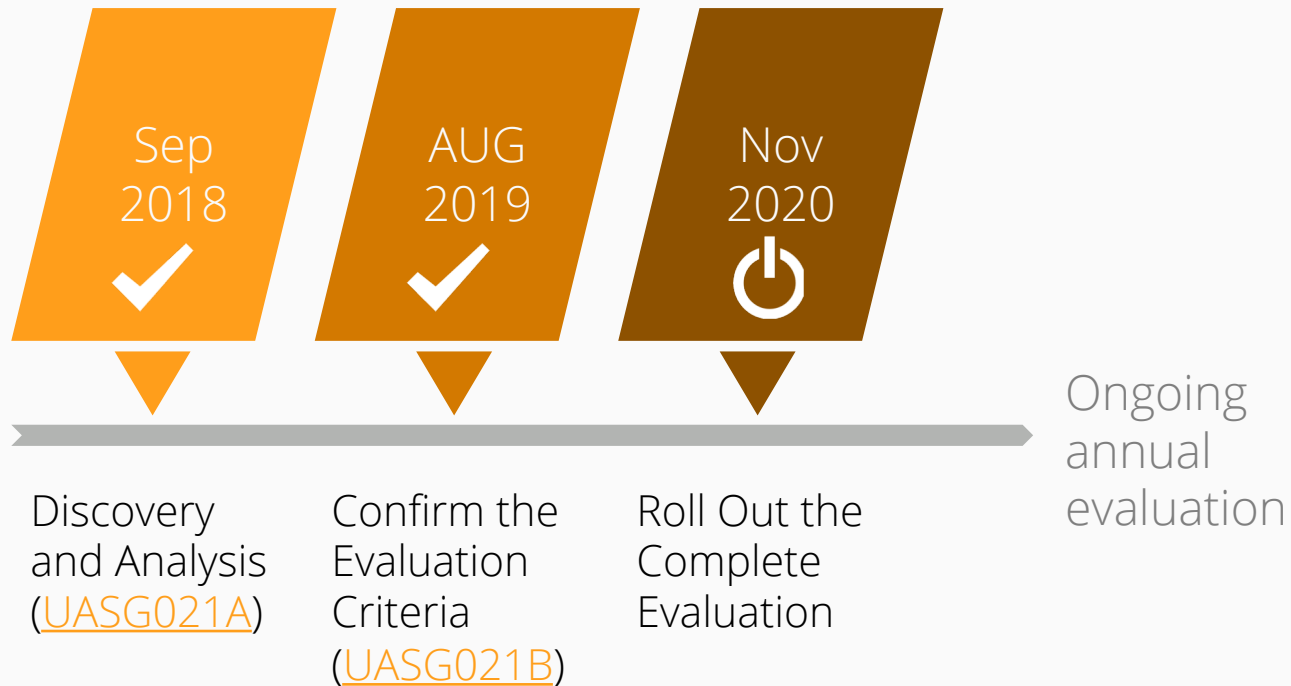
Summary Numbers: Server % of EAI Ready



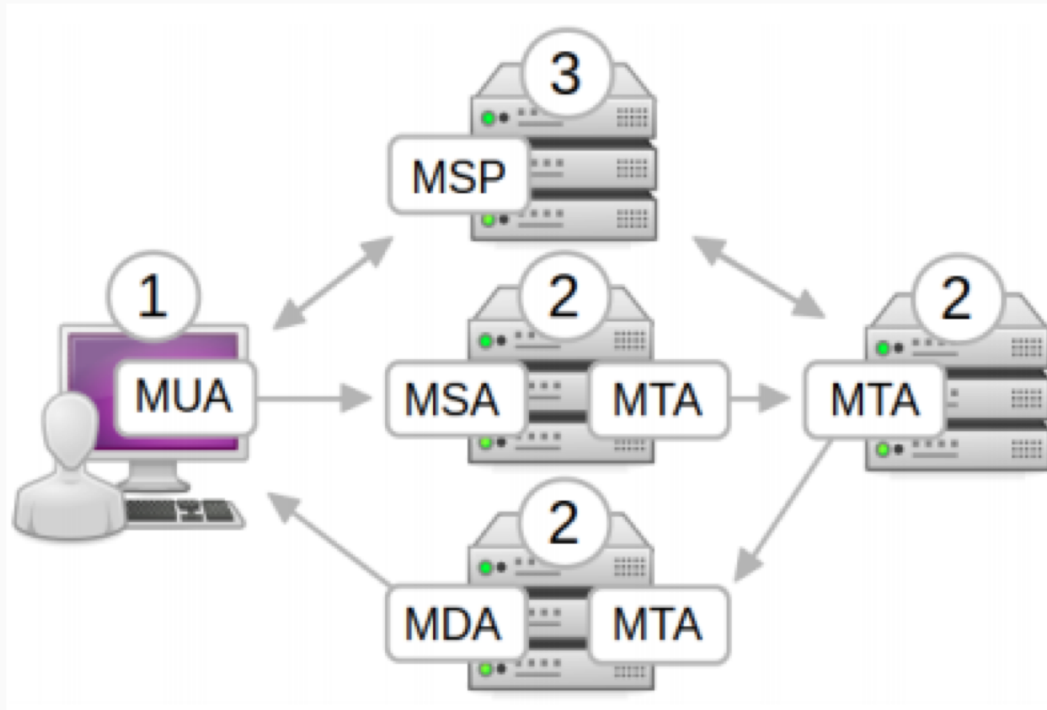
* Overall, 9.7 percent of the domains sampled were EAI ready.

EAI WG: Completed Work

- * Structure of three phases of EAI Evaluation Project



EAI WG: Email Components for Evaluation



- * Component 1: Mail User Agent (“MUA”).
- * Component 2: Mail Submission Agent (“MSA”), Mail Transfer Agent (“MTA”), and Mail Delivery Agent (“MDA”).
- * Component 3: Mail Service Provider (“MSP”).

EAI WG: Completed Work

- * EAI: Evaluation of Major Email Software and Services ([UASG021B](#)), 30 August 2019
 - * The second phase of the project
 - * Objectives:
 - * Confirm the evaluation criteria developed in the [UASG021A](#).
 - * Develop a template for reporting future test results.
 - * Determine the amount of effort required to evaluate additional email software and service providers.
 - * Results:
 - * The pilot evaluation exercised most of the test criteria defined by UASG021A (118 of 152 cases).



EAI WG: Current Work and Projects

- * Developing baseline materials
 - * Reviewing the definition of levels/phases of EAI support.
 - * Developing an inventory of proprietary and open source tools and service providers for EAI and their contacts.
- * EAI Evaluation Project (Phase 3)
 - * Collaborate with UA Measurement WG to roll out the testing based on UASG021B.
- * Create best practices and training materials
 - * Reviewing and updating the existing UASG EAI document and to make translations available.
 - * Developing the best practices for mailbox names.
 - * Develop training materials for EAI deployment for email administrators, email tools, and application developers.

EAI WG: Future Plan

1

Build the capacity

Continue to develop and disseminate the training material to promote EAI support and its deployment by organizing webinars, training courses on ICANN Learn, face-to-face trainings, and other effective mechanisms.

2

Communicate the success

In collaboration with Communication WG, develop blog, case studies, etc., to acknowledge the support of EAI by various proprietary and open source email tools and services.

3

Recognize the alliances

Acknowledge email software and service providers who are EAI compliant.

Collaboration with UA WGs and ICANN Community

- * Jointly develop the scope of UA readiness for EAI with UA Measurement WG.
- * Work with UA communications WG to develop communications for the following stakeholders for EAI:
 - * Email administrator
 - * Email tool providers
 - * Email service providers
 - * ISP (and registrars)
- * Work with Local Initiatives WG for disseminating communication to EAI stakeholders locally.

Q&A



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