

# Email Address Internationalization (EAI)

St. Vincent and the Grenadines  
Case Study

- Present a Case Study that was done to test the level of UA readiness on websites in St. Vincent and the Grenadines
- Practical Demonstration
- How to get UA Ready
- Invite Developers to join the Developers Forum
- End

- We wanted to test the level of UA readiness of SVG
- In March 2024, we conducted a case study to examine 20 websites representing businesses and agencies that operate in St. Vincent and the Grenadines.
- Websites were randomly selected from the following categories
  - Government Agencies
  - Banks
  - Credit Unions
  - Education Institutions
  - Hotels
  - ICT Service Providers
  - Internet Service Providers
  - Real Estates

## What Was Done

1. Locate one form on each website that takes an email address as input eg: contact us, booking, grievance or registration form
2. Input a valid Internationalized Email Address
3. Document the form's validation response

## 6 Internationalized Emails Address were used for testing

ID	EAI Type	Sample Email
Test 1	ascii@ascii.newshort	test@test.exp
Test 2	ascii@ascii.newlong	test@test.example
Test 3	ascii@idn.ascii	test@普遍接受-测试.org
Test 4	unicode@ascii.ascii	测试1@test.org
Test 5	unicode@idn.idn	测试5@普遍接受-测试.世界
Test 6	arabic.arabic@arabic (RTL)	دون @ رسيل . السعودية

## Sample Rejected

测试5@普遍接受

The e-mail address entered is invalid.

Email \*

测试1@test.org



A part followed by '@' should not contain the symbol '测'.

دون @ رسائل . السعودية

## Sample Accepted

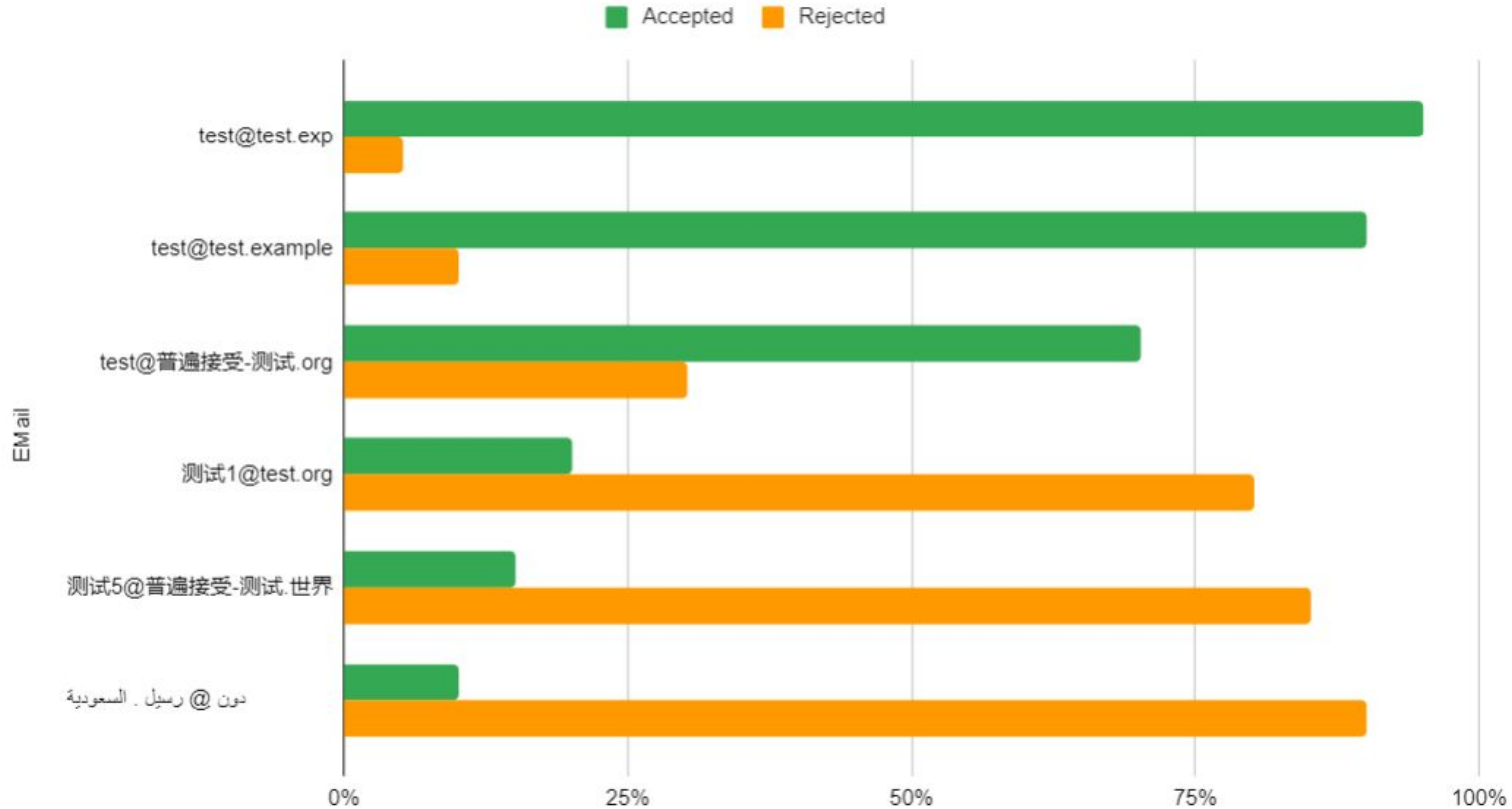
test@普遍接受-测试.org

# Case Study - Raw Data

Website	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6
1	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
2	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
3	Accepted	Accepted	Accepted	Accepted	Rejected	Rejected
4	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
5	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
7	Accepted	Rejected	Rejected	Rejected	Rejected	Rejected
8	Accepted	Accepted	Accepted	Accepted	Accepted	Rejected
9	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
10	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
11	Accepted	Accepted	Rejected	Rejected	Rejected	Rejected
12	Accepted	Accepted	Rejected	Rejected	Rejected	Rejected
13	Accepted	Accepted	Rejected	Rejected	Rejected	Rejected
14	Accepted	Accepted	Rejected	Rejected	Rejected	Rejected
15	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
16	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
17	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
18	Rejected	Rejected	Rejected	Rejected	Rejected	Rejected
19	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected
20	Accepted	Accepted	Accepted	Rejected	Rejected	Rejected

# Case Study - Result Chart

## Accepted vs Rejected





# Case Study - Result Table

ID	EAI Type	Sample Email	Accepted	Rejected
Test 1	ascii@ascii.newshort	test@test.exp	95%	5%
Test 2	ascii@ascii.newlong	test@test.example	90%	10%
Test 3	ascii@idn.ascii	test@普遍接受-测试.org	70%	30%
Test 4	unicode@ascii.ascii	测试1@test.org	20%	80%
Test 5	unicode@idn.idn	测试5@普遍接受-测试.世界	15%	85%
Test 6	arabic.arabic@arabic (RTL)	دون @ رسيل . السعودية	10%	90%

# Demonstration

EAI Ready vs NOT EAI Ready

# Let's Test A Website Together:

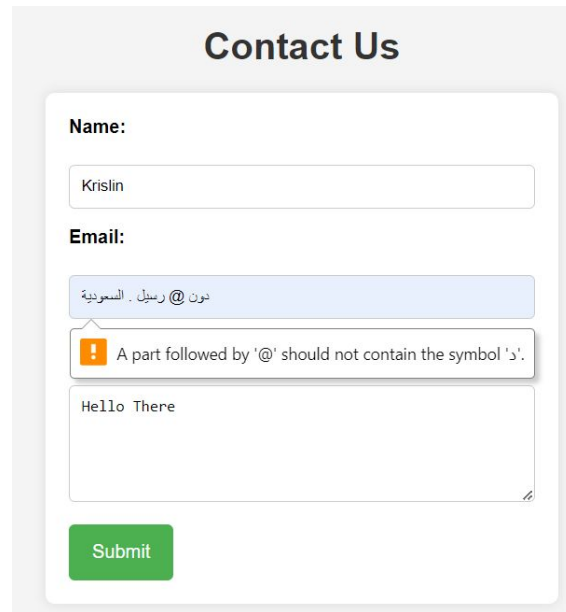


Let's look an example of a contact form that is **NOT** EAI (Email Address Internationalization) ready:

- The form collects name, email address, and message.
- The email field uses the `type="email"` attribute, which prompts modern browsers to perform basic email validation. However, it doesn't fully support internationalized email addresses (EAI). For instance, it doesn't accept non-ASCII characters in the local part (before the @) or in the domain part (after the @).

## Code Snippet

```
<input type="email" id="email" name="email" required>
```



The screenshot shows a 'Contact Us' form with the following fields and content:

- Name:** A text input field containing 'Krislin'.
- Email:** A text input field containing 'دون @رسيل . السعودية'. Below the field is a blue error message box with an exclamation mark icon: 'A part followed by '@' should not contain the symbol 'د'.'.
- Message:** A text area containing 'Hello There'.
- Submit:** A green button labeled 'Submit'.

Let's look at the same contact form, however this time it is **Partially** EAI ready:

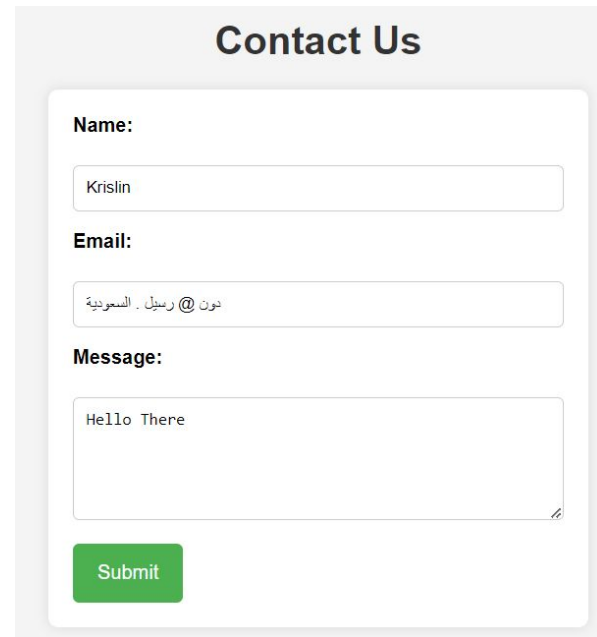
1. To make the form Partially EAI ready, I updated the email input field
2. Replace type="email" with type="text"

## Code Snippet

```
<input type="text" id="email" name="email" required>
```

3. Now the email address is not validated and will not give a warning.

**However, This is not enough to be considered EAI ready !**



**Contact Us**

**Name:**

**Email:**

**Message:**

## Gets Complicated

```
<input type="text" id="email" name="email" required>
```

To make this form More EAI ready

1. Validate the email address using JavaScript or server-side validation.

### Contact Us

**Name:**

**Email:**

**Message:**

- Internationalized Email Address was tested for Acceptance and Validation by the web forms.



Accept



Validate

**Goal:** All domain names and email addresses work in all software applications



Accept



Validate



Process



Store



Display

**Accept:** The user can input characters from their local script into a text field

**Validate:** The software accepts the characters and recognizes them as valid

**Process:** The system performs operations with the characters

**Store:** The database can store the text without breaking or corrupting

**Display:** When fetched from the database, the information is correctly shown




- <https://uasg.tech/>
  - Documentation Hub
  - EAI Check

## EAI Check

This widget takes an email address and checks to see if the mail server advertises support for receiving EAI (Email Address Internationalization) email addresses.

Check to see if your email address is EAI compliant. Enter a valid email address below:

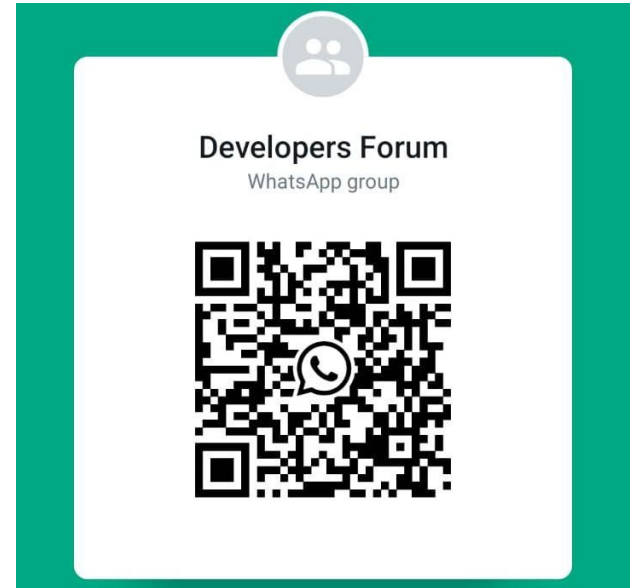
CHECK ADDRESS >

 The UASG does not store any email addresses entered here. No email will be sent to your address.

The developers forum is a collaboration of developers and aspiring developers in SVG. This includes software engineers, mobile app developers, website designers and students.

## Aims

- Increase Collaboration and Knowledge Sharing among developers
- Provide community support
- Equip developers with the knowledge, resources and tools needed to move forward with UA
- Be a resource pool of developers



# Thank You

Any Questions?