

Universal Acceptance

NARALO



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Chair – Universal Acceptance Steering Group

Member – ccNSO Council (NomCom Appointed)



IDN Program Objective

Enable deployment of domain names
in the local languages and scripts
used by the communities globally
in a secure and stable manner.

ASCII Domain Name Label

www.cafe-123.com



2

Forming ASCII Labels

Use LDH

- Letters [a-z]
- Digits [0-9]
- Hyphen [H]

Label length = 63

Other constraints (e.g. on hyphen)

1

Forming ASCII Labels

Use only Letters

- Letters [a-z]

Label length = 63

Domain Name Mnemonics in ASCII

Using LDH

- Letters [a-z]
- Digits [0-9]
- Hyphen (H)

2

	0	1	2	3	4	5	6	7
0	NUL	DLE	space	0	@	P	`	p
1	SOH	DC1 XON	!	1	A	Q	a	q
2	STX	DC2	"	2	B	R	b	r
3	ETX	DC3 XOFF	#	3	C	S	c	s
4	EOT	DC4	\$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	|
D	CR	GS	-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	del

Top-level Domain Name Mnemonics in ASCII

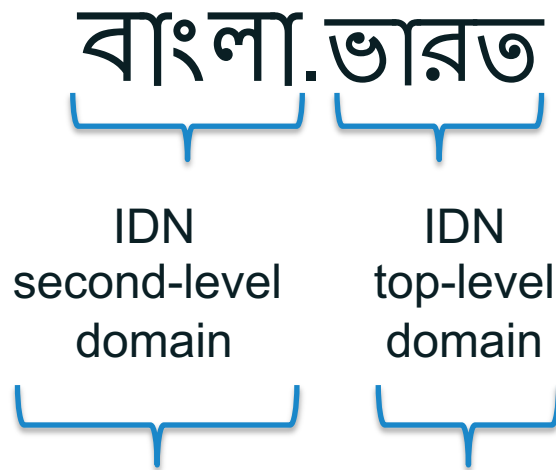
Using Letters only

- Letters [a-z]
- ~~Digits [0-9]~~
- ~~Hyphen (-)~~

1

	0	1	2	3	4	5	6	7
0	NUL	DLE	space	0	@	P	`	p
1	SOH	DC1 XON	!	1	A	Q	a	q
2	STX	DC2	"	2	B	R	b	r
3	ETX	DC3 XOFF	#	3	C	S	c	s
4	EOT	DC4	\$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	|
D	CR	GS	-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	del

Internationalized Domain Name (IDN) Labels



Syntax of IDN Labels

Valid U-Label: Unicode code points as constrained by **the “LDH” scheme** within IDNA 2008

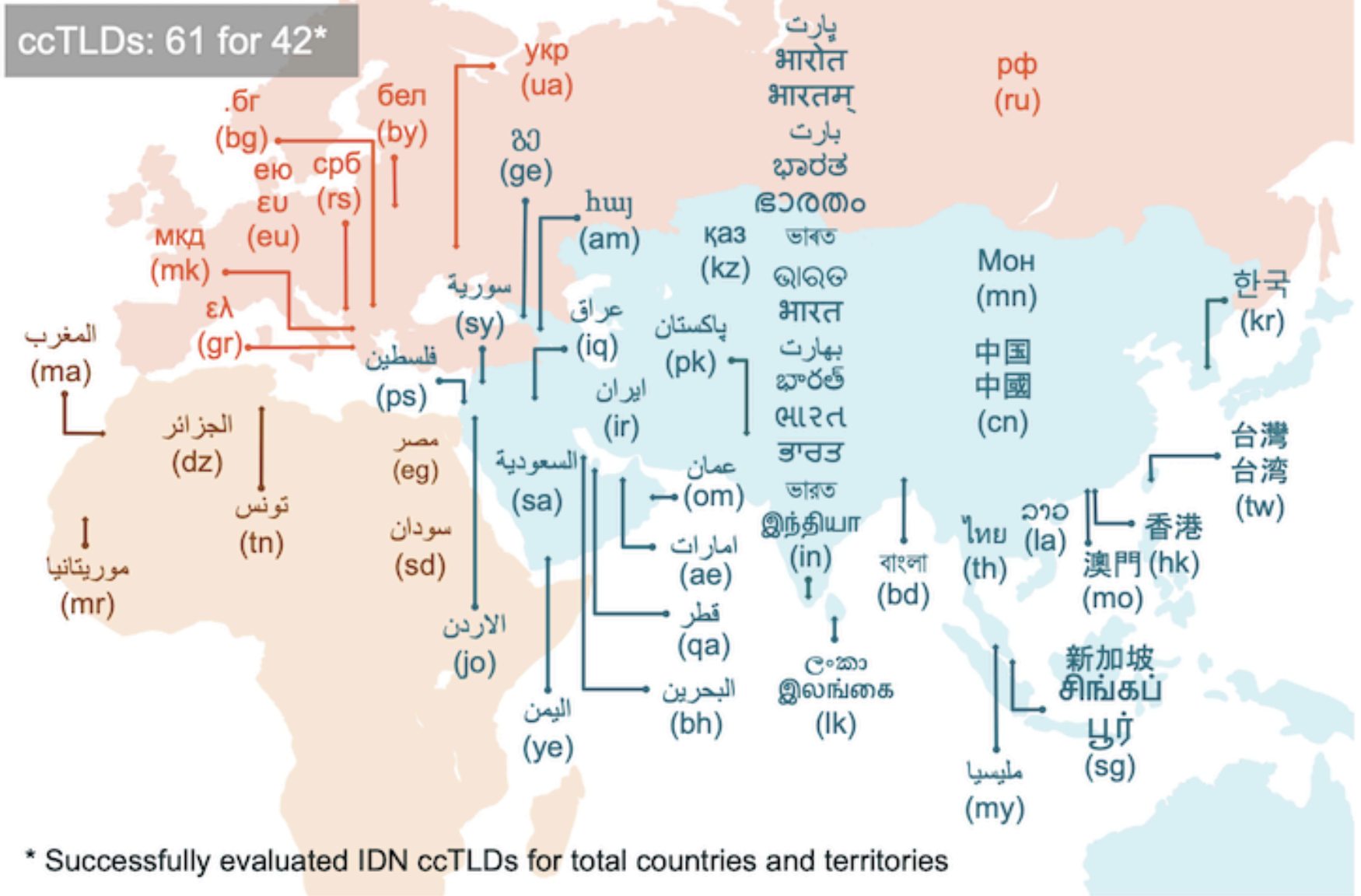
②

Syntax of IDN Labels

Valid U-label, further constrained by **the “letter” principle** for TLDs

①

IDN Country Code Top-level Domains



Vision

All domain names and email addresses work in all software applications.

Mission

To mobilize the software application developers to get their products UA-ready by providing encouragement, documentation, case studies, tools, and measures to deliver the right user experience to the end user.

Impact

Promote consumer choice, improve competition, and provide broader access to end users.

- ⦿ **Newer top-level domain names:** `example.sky`
- ⦿ **Longer top-level domain names:** `example.photography`
- ⦿ **Internationalized Domain Names:** `البحرين.مثال`
 - Rendering problems
 - Displaying A-label: `xn--mgbh0fb.xn--mgbcpq6gpa15g`
 - Ordering right-to-left scripts: should be `مثال.البحرين`
- ⦿ **Internationalized email addresses:** `अजय@डाटा.भारत` (Hindi email)
 - Available standards are not implemented by all email software and service providers making email delivery unreliable.
 - Test if your email is compliant: <https://uasg.tech/eai-check/>

Applications should be able to do the following for all domain names and email addresses:



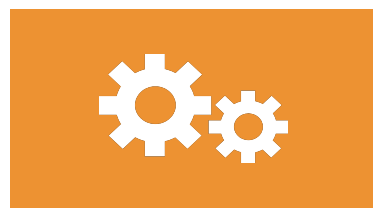
Accept



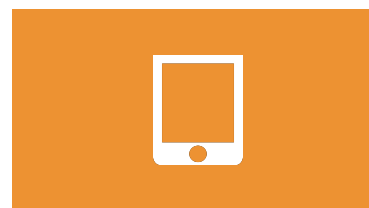
Validate



Store



Process



Display


- ⦿ **Technology Enablers** – Organizations producing relevant standards and current best practices, as well as providers of software programming languages, tools and frameworks
- ⦿ **Technology Developers** – Organizations and individuals developing and directing applications
- ⦿ **Email Software and Service Providers** – Organizations and individuals providing internationalized email software and services
- ⦿ **Influencing Individuals and Organizations** – Individuals at the local and international level who can help promote UA readiness, and organizations which can be used to spread the UA message more broadly
- ⦿ **Government Policy Makers** – Government officials, as a specific group, are included to generate demand for UA-ready products and services through accessibility standards and procurement processes

- ⦿ **Technology WG** – Plans, coordinates and oversees work on standards, current best practices, programming languages, tools and development platforms
- ⦿ **Email Address Internationalization (EAI) WG** – Plans, executes and oversees engagement with email software and service providers to make them EAI-ready
- ⦿ **Measurements WG** – Plans, oversees and directs the measurement efforts for UA readiness
- ⦿ **Communications WG** – Plans and develops the communications strategy and oversees its execution, in collaboration with other WGs
- ⦿ **Local Initiatives WG** – Plans, develops and oversees execution of local initiatives in various geographies
- ⦿ **UA Ambassadors WG** – Plans and executes training and outreach in local regions

- ⦿ [Test](#) your own email address
- ⦿ Secure an EAI address
 - Use [DataMail](#) or Install DataMail App
 - Use [CoreMail](#)
- ⦿ Get your own systems evaluated and fixed
 - Use UASG [Blueprint](#) for CIOs as a guide
- ⦿ Get your tendering and contracts to include UA Readiness Clauses
 - Use UASG [Quick Guide to Tendering](#) clauses
- ⦿ Report UA problems with other applications
 - UASG [Issue Logging](#)
- ⦿ Participate in the UASG Discussions
 - Join the [UA Discuss Mailing List](#)
- ⦿ Participate in the UASG Working Groups
 - Join the [Working Groups](#)

- ⦿ UASG has produced documentation to define and address challenges, and share progress, available at <https://UASG.tech>.
 - [Quick Guide to Universal Acceptance](#)
 - [Quick Guide to Email Address Internationalization](#)
 - [UA Case Study: Government of Rajasthan, India](#)
 - [Quick Guide to Tendering and Contractual Documents](#)

- THERE IS A NEED TO ENSURE THAT ALL SYSTEMS ARE UA-READY AND ABLE TO ACCEPT ALL DOMAIN NAMES AND EMAIL ADDRESSES IN ANY VALID SCRIPT
- UNIVERSAL ACCEPTANCE: EMPOWERING PEOPLE WITH LINGUISTIC EMAIL



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 He is also Chairman of Universal Acceptance Steering Group (UASG) of ICANN

BUG IN YOUR WEBSITE, SOLVE TO ENABLE YOUR BUSINESS FOR **NEXT BILLION CUSTOMERS**

In this competitive world everyone is trying to get new customers and investing millions of \$s to get customers however by solving a small bug into your website / software, you may get pie from next billion people online.

There are approx. 1500 Top level domains, Internationalized Domain Names,

going to have email address in their own language and if they visit your website and fill email address in enquiry form or contact us form and your website do not accept, validate, process, store and display email address correctly, you are going to lose the customers and will not be able to leave on the new billion of customers coming online.

It may be unbelievable to you that your website has a

messages when a server in the delivery path does not support the UTF8SMTP extension, some sort of converting mechanism is required. This is known as Downgrading mechanism for EAI.

So, when an EAI compliant server tries to deliver an email containing Unicode characters in the envelope and the recipient server does not announce UTF-8SMTP support, the sender server may downgrade and change the email address to its ASCII alias email address so that email communication can be established without any problem.

UASG: TAKING A MISSION FORWARD





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