

TWO-CHARACTER SECOND-LEVEL DOMAINS (SLDS)

MAIN POINTS

Purpose: The present document describes the process implemented by ICANN to enable the release of two-character second-level domains for new gTLDs, in view of concerns raised.

Context: There are requests to ICANN from Registry Operators representing some 350 TLDs to release two-character SLDs (see Appendix 2).¹ GAC members have raised concerns with the GAC leadership and on the GAC mailing list about the new process for the release of two-character labels at the second level. The GAC leadership in turn raised concerns during its telephonic meeting with the ICANN leadership on 20 January 2015. On 26 January 2015 the GAC Chair sent a letter to the ICANN Board Chair laying out some of the concerns of GAC members and proposing ways forward.

Content: The present note covers the following aspects of the process ICANN has set-up to authorize the release of SLDs for new gTLD registries:

1. **Background on the evolution in the use of two-character SLDs:** use of two-characters second-level domains in some legacy and sponsored TLDs, with limited confusion.
2. **The current process to authorize two-character SLDs:**
 - Registry Operators have been authorized to release two-character letter-number (a1), number-number (11) and number-letter (1a) ASCII labels at the second level since 1 December 2014 (620 such labels, see Appendix 1, excluding letter-letter (aa) labels);
 - For letter/letter labels, including most country codes, ICANN reviews requests from Registry Operators, posts these for public comment and notifies the GAC. If no relevant reasoned objections are filed with 30 days, ICANN plans to authorize release (see Appendix A, there are 671 potential letter/letter labels, of which 242 are country codes).²
3. **Provisions contained in the Registry Agreement:**

The Registry Agreement contains obligations for Registry Operators to implement measures to avoid confusion and misleading use. These obligations are fully enforceable.

For reference, requests raised by the GAC in its 26 Jan, 2015 letter to ICANN include:

- Providing information in a user-friendly format: sortable alphabetically; by public comment dates; by whether the TLD is considered to be Category 1 or 2, a brand TLDs or an IDN TLD.
- Improving notifications, including outreach to non-GAC members regarding their country codes.
- Enabling countries to file a single objection on use of one country code under all or several TLDs.
- Increasing the length of the comment period from the current 30 days.
- Empowering relevant government to decide to exclude a country code as opposed to ICANN.
- Ensuring that governments are aware of open registrations and that they can, if they wish to, apply to register a country code SLD.

For reference, concerns raised by GAC member comments in public comment include:

- Number-letter concerns: although ICANN released number-letter combinations effective 1 December 2014, concerns have since been raised by GAC members about number-letter combinations containing the number “1” that could be confused with GAC members country codes, including from Lebanon (1b for .lb), Italy (1t for .it), India (1n for .in), Cote d’Ivoire (c1 for .ci).
- A Letter-Letter concern surrounding possible confusion was also raised by India (ln for in).
- A Category 1 TLDs objection was raised. Spain objected to the release of the “es” country code under TLDs ".casino", ".bingo", and “.abogado”.

1. BACKGROUND INFORMATION ON THE EVOLUTION IN THE USE OF TWO-CHARACTER SLDS

Two-character second-level domains in legacy and sponsored TLDs

Historically, two-character names, letters and numbers at the second level have been reserved, seemingly due to concerns about confusion with two letter country codes.³ Nonetheless, registries have been able to propose release provided they implemented measures to avoid confusion with any corresponding country codes.

As of 2007, two-character SLDs have been authorized in some legacy and sponsored TLDs, following an RSTEP report of 4 December 2006 that identified no significant risk for the stability and security of the DNS related to the release of two-character domain names.⁴ From 2007 to 2012, ICANN approved various proposals regarding the release of two-character domain names for 11 gTLDs (.jobs, .coop, .mobi, .biz, .pro, .cat, .info, .travel, .tel, .asia, and .org). The usage of two-characters name in legacy TLDs as well as the history of ICANN approvals of releases of such names for legacy and sponsored gTLDs seems to have shown limited concerns for user confusion.

RA provisions on two-character second-level domains in new gTLDs

Specification 5 of the New gTLD base Registry Agreement (RA) required the reservation of all “two character” labels at the second level within the TLD, *i.e.* of all labels combinations of letter-letter (aa), letter-number (a2), number-number (22) and number-letter (2a) labels.

Two-character ASCII labels at the second level could be released IF:

- Either the Registry Operator reached an agreement with the related government and country-code manager of the string;
- Or the Registry Operator, having implemented measures to avoid confusion with the corresponding country codes, proposed to release these reservations, subject to approval by ICANN. The Registry Services Evaluation Policy (RSEP) process was then used to process Registry Operator requests: after review by ICANN Staff, proposals were posted for a 21-day Public Comment Period and a 21-day Reply Period and the GAC was informed of each proposal and public comment period.

Use of the RA provisions: Registry Operators submitted 28 RSEP requests between May 2014 and November 2014 to release various sets of two-character labels in 207 new gTLDs.⁵ These 207 TLD requests were bundled into 5 distinct proposals.

During the 2014 process the GAC Chair expressed some concern about the release of two-character letter/letter combinations to the ICANN Chair:

- On 8 August 2014, the GAC Chair expressed concern by some GAC members about the release of two-character letter/letter second level domains and informed ICANN that the GAC would discuss its concerns at ICANN 51 <https://www.icann.org/en/system/files/correspondence/dryden-to-crocker-08aug14-en.pdf>.
- On 2 September 2014, the ICANN Chair asked the GAC Chair for clarification as to whether concerns were for letter-letter combinations only, or all two-character combinations <https://www.icann.org/en/system/files/correspondence/crocker-to-dryden-2-02sep14-en.pdf>
- On 10 September 2014, the GAC Chair wrote that the GAC’s concern over letter-letter combinations only and asked for a pause in granting any exemptions from Specification 5 <https://www.icann.org/en/system/files/correspondence/dryden-to-crocker-10sep14-en.pdf>

GAC Los Angeles Communiqué

The GAC Los Angeles Communiqué of 15 October 2014 contained a section on the [Release of 2-Character Names at the Second Level](#) (section 8) that stated:

“The GAC notes that new gTLD registry operators have submitted RSEP (Registry Service Evaluation Process) requests to ICANN in order to use two-character labels at the second level of their TLD.

The GAC recognized that two-character second level domain names are in wide use across existing TLDs, and have not been the cause of any security, stability, technical or competition concerns. The GAC is not in a position to offer consensus advice on the use of two-character second level domains names in new gTLD registry operations, including those combinations of letters that are also on the ISO 3166-1 alpha 2 list.

In considering these RSEP requests, and consistent with the Applicant Guidebook, the GAC considers that the public comment period is an important transparency mechanism, and in addition asks that relevant governments be alerted by ICANN about these requests as they arise.”

2. NEW PROCESS TO AUTHORIZE RELEASE OF TWO-CHARACTER ASCII LABELS

Board resolution authorizing set-up of a process for release of two-character ASCII labels

With consideration of the GAC Los Angeles Communiqué [ICANN Board Resolution 2014.10.16.14](#) passed on 16 October 2014. It directed ICANN staff to “develop and implement an efficient procedure for the release of two-character domains currently required to be reserved in the New gTLD Registry Agreement.”

Implementation of new process to release two-character ASCII labels on 1 December 2014

The process implemented by ICANN to authorize the release of two-character ASCII labels is as follows:⁶

- Effective 1 December 2014, ICANN issued an amendment to the RA authorizing all new gTLD registries to release all number/number, letter/number, and number/letter two-character ASCII labels for registration (see list of possible combinations in Appendix 1) [See 1 Dec 2014 authorization](#);

Absence of concerns raised on Number/Letter two-character ASCII labels prior to December 2014:

ICANN did not receive objections to the release of number/letter two-character ASCII labels from GAC members, from ccTLD managers, from members of the technical community, or from rights holders.

The opportunities to formulate objections included five two-character SLD public comment periods held from March to October 2014, the August 2014 correspondence between the Board and the GAC, and the GAC LA Communiqué.

- For all letter/letter two-character ASCII labels, ICANN created a new process as follows:
 - o Request: Registry operators complete a form requesting that ICANN release one or more letter/letter two-character labels. Registry operators are asked to indicate which two-character labels they intend to use by either checking a box indicating “All letter/letter two-character ASCII labels” or by removing from the list in Appendix A the labels that they do not intend to use.⁷
 - o Appendix A of the form lists all letter-letter two-character labels that can be requested. It excludes AU, EU, EC, UN, and EP as these are on the reserved list for IGOs/IOC/RCRC that were granted interim protections).⁸ The list includes all the ISO 3166-1 alpha-2 country codes, except for AU, EC, and EU.

- After reviewing the requests, ICANN posts them for comment for 30 days and notifies the GAC of the request and the comment period. In the absence of relevant and reasoned objections to the request, ICANN will authorize the release of the requested letter/letter two-character labels.

Current notification mechanism

Those who wish to be notified of all requests for authorization to release letter/letter combinations can login to their ICANN account (at www.icann.org), select “settings” from the drop down menu, and sign up for daily or weekly notification using the option entitled “Two Character Label Request Settings”.

3. PROVISION IN REGISTRY AGREEMENT TO AVOID CONFUSION WITH COUNTRY CODES

Provision in Specification 5 of the Registry Agreement:

The following provision is similar to that contained in legacy gTLD agreement that have released two-character domains and that have had them in use for several years.

Specification 5: Registry Operators are required to implement measures to avoid confusion with the corresponding country codes; issues can be reported as complaints to ICANN’s compliance team.

MORE INFORMATION

Two-character labels webpage: <https://www.icann.org/resources/two-character-labels>

Announcement of new authorization process: <https://www.icann.org/news/announcement-2014-12-01-en>

General authorization: <https://www.icann.org/en/system/files/files/spec5-amend-two-char-01dec14-en.pdf>

ICANN blog post on new process: <https://www.icann.org/news/blog/icann-clears-the-way-for-two-character-second-level-domain-names>

New gTLD registry agreement: <http://newgtlds.icann.org/sites/default/files/agreements/agreement-approved-09jan14-en.htm>

ICANN Board resolution (2014.10.16.14): <https://features.icann.org/introduction-two-character-domain-names-new-gtld-namespaces>

GAC LA Communique: <https://www.icann.org/en/system/files/correspondence/gac-to-board-15oct14-en.pdf>

Appendix 1: all digit/digit, digit/letter and letter/digit two-character ASCII labels that new gTLD Registry Operators can register to third parties and activate in the DNS at the second level – 620 labels

Note: (2^(10digits+26letters) - 2^{26 letters-only})

00	1c	2o	40	5c	6o	80	9c	c4	h2	m0	q8	v6
01	1d	2p	41	5d	6p	81	9d	c5	h3	m1	q9	v7
02	1e	2q	42	5e	6q	82	9e	c6	h4	m2	r0	v8
03	1f	2r	43	5f	6r	83	9f	c7	h5	m3	r1	v9
04	1g	2s	44	5g	6s	84	9g	c8	h6	m4	r2	w0
05	1h	2t	45	5h	6t	85	9h	c9	h7	m5	r3	w1
06	1i	2u	46	5i	6u	86	9i	d0	h8	m6	r4	w2
07	1j	2v	47	5j	6v	87	9j	d1	h9	m7	r5	w3
08	1k	2w	48	5k	6w	88	9k	d2	i0	m8	r6	w4
09	1l	2x	49	5l	6x	89	9l	d3	i1	m9	r7	w5
0a	1m	2y	4a	5m	6y	8a	9m	d4	i2	n0	r8	w6
0b	1n	2z	4b	5n	6z	8b	9n	d5	i3	n1	r9	w7
0c	1o	30	4c	5o	70	8c	9o	d6	i4	n2	s0	w8
0d	1p	31	4d	5p	71	8d	9p	d7	i5	n3	s1	w9
0e	1q	32	4e	5q	72	8e	9q	d8	i6	n4	s2	x0
0f	1r	33	4f	5r	73	8f	9r	d9	i7	n5	s3	x1
0g	1s	34	4g	5s	74	8g	9s	e0	i8	n6	s4	x2
0h	1t	35	4h	5t	75	8h	9t	e1	i9	n7	s5	x3
0i	1u	36	4i	5u	76	8i	9u	e2	j0	n8	s6	x4
0j	1v	37	4j	5v	77	8j	9v	e3	j1	n9	s7	x5
0k	1w	38	4k	5w	78	8k	9w	e4	j2	o0	s8	x6
0l	1x	39	4l	5x	79	8l	9x	e5	j3	o1	s9	x7
0m	1y	3a	4m	5y	7a	8m	9y	e6	j4	o2	t0	x8
0n	1z	3b	4n	5z	7b	8n	9z	e7	j5	o3	t1	x9
0o	20	3c	4o	60	7c	8o	a0	e8	j6	o4	t2	y0
0p	21	3d	4p	61	7d	8p	a1	e9	j7	o5	t3	y1
0q	22	3e	4q	62	7e	8q	a2	f0	j8	o6	t4	y2
0r	23	3f	4r	63	7f	8r	a3	f1	j9	o7	t5	y3
0s	24	3g	4s	64	7g	8s	a4	f2	k0	o8	t6	y4
0t	25	3h	4t	65	7h	8t	a5	f3	k1	o9	t7	y5
0u	26	3i	4u	66	7i	8u	a6	f4	k2	p0	t8	y6
0v	27	3j	4v	67	7j	8v	a7	f5	k3	p1	t9	y7
0w	28	3k	4w	68	7k	8w	a8	f6	k4	p2	u0	y8
0x	29	3l	4x	69	7l	8x	a9	f7	k5	p3	u1	y9
0y	2a	3m	4y	6a	7m	8y	b0	f8	k6	p4	u2	z0
0z	2b	3n	4z	6b	7n	8z	b1	f9	k7	p5	u3	z1
10	2c	3o	50	6c	7o	90	b2	g0	k8	p6	u4	z2
11	2d	3p	51	6d	7p	91	b3	g1	k9	p7	u5	z3
12	2e	3q	52	6e	7q	92	b4	g2	l0	p8	u6	z4
13	2f	3r	53	6f	7r	93	b5	g3	l1	p9	u7	z5
14	2g	3s	54	6g	7s	94	b6	g4	l2	q0	u8	z6
15	2h	3t	55	6h	7t	95	b7	g5	l3	q1	u9	z7
16	2i	3u	56	6i	7u	96	b8	g6	l4	q2	v0	z8
17	2j	3v	57	6j	7v	97	b9	g7	l5	q3	v1	z9
18	2k	3w	58	6k	7w	98	c0	g8	l6	q4	v2	
19	2l	3x	59	6l	7x	99	c1	g9	l7	q5	v3	
1a	2m	3y	5a	6m	7y	9a	c2	h0	l8	q6	v4	
1b	2n	3z	5b	6n	7z	9b	c3	h1	l9	q7	v5	

Source: <https://www.icann.org/en/system/files/files/spec5-amend-two-char-01dec14-en.pdf>

Appendix A: Letter-Letter labels that are currently not reserved at the second level

Note: 671 labels (2^{26} letters – 5reserved)

aa	cb	eb	ge	ie	ke	me	oe	qe	se	ue	wf	yf
ab	cc	ed	gf	if	kf	mf	of	qf	sf	uf	wg	yg
ac	cd	ee	gg	ig	kg	mg	og	qg	sg	ug	wh	yh
ad	ce	ef	gh	ih	kh	mh	oh	qh	sh	uh	wi	yi
ae	cf	eg	gi	ii	ki	mi	oi	qi	si	ui	wj	yj
af	cg	eh	gj	ij	kj	mj	oj	qj	sj	uj	wk	yk
ag	ch	ei	gk	ik	kk	mk	ok	qk	sk	uk	wl	yl
ah	ci	ej	gl	il	kl	ml	ol	ql	sl	ul	wm	ym
ai	cj	ek	gm	im	km	mm	om	qm	sm	um	wn	yn
aj	ck	el	gn	in	kn	mn	on	qn	sn	uo	wo	yo
ak	cl	em	go	io	ko	mo	oo	qo	so	up	wp	yp
al	cm	en	gp	ip	kp	mp	op	qp	sp	uq	wq	yq
am	cn	eo	gq	iq	kq	mq	oq	qq	sq	ur	wr	yr
an	co	eq	gr	ir	kr	mr	or	qr	sr	us	ws	ys
ao	cp	er	gs	is	ks	ms	os	qs	ss	ut	wt	yt
ap	cq	es	gt	it	kt	mt	ot	qt	st	uu	wu	yu
aq	cr	et	gu	iu	ku	mu	ou	qu	su	uv	wv	yv
ar	cs	ev	gv	iv	kv	mv	ov	qv	sv	uw	ww	yw
as	ct	ew	gw	iw	kw	mw	ow	qw	sw	ux	wx	yx
at	cu	ex	gx	ix	kx	mx	ox	qx	sx	uy	wy	yy
av	cv	ey	gy	iy	ky	my	oy	qy	sy	uz	wz	yz
aw	cw	ez	gz	iz	kz	mz	oz	qz	sz	va	xa	za
ax	cx	fa	ha	ja	la	na	pa	ra	ta	vb	xb	zb
ay	cy	fb	hb	jb	lb	nb	pb	rb	tb	vc	xc	zc
az	cz	fc	hc	jc	lc	nc	pc	rc	tc	vd	xd	zd
ba	da	fd	hd	jd	ld	nd	pd	rd	td	ve	xe	ze
bb	db	fe	he	je	le	ne	pe	re	te	vf	xf	zf
bc	dc	ff	hf	jf	lf	nf	pf	rf	tf	vg	xg	zg
bd	dd	fg	hg	jg	lg	ng	pg	rg	tg	vh	xh	zh
be	de	fh	hh	jh	lh	nh	ph	rh	th	vi	xi	zi
bf	df	fi	hi	ji	li	ni	pi	ri	ti	vj	xj	zj
bg	dg	fj	hj	jj	lj	nj	pj	rj	tj	vk	xk	zk
bh	dh	fk	hk	jk	lk	nk	pk	rk	tk	vl	xl	zl
bi	di	fl	hl	jl	ll	nl	pl	rl	tl	vm	xm	zm
bj	dj	fm	hm	jm	lm	nm	pm	rm	tm	vn	xn	zn
bk	dk	fn	hn	jn	ln	nn	pn	rn	tn	vo	xo	zo
bl	dl	fo	ho	jo	lo	no	po	ro	to	vp	xp	zp
bm	dm	fp	hp	jp	lp	np	pp	rp	tp	vq	xq	zq
bn	dn	fq	hq	jq	lq	nq	pq	rq	tq	vr	xr	zr
bo	do	fr	hr	jr	lr	nr	pr	rr	tr	vs	xs	zs
bp	dp	fs	hs	js	ls	ns	ps	rs	ts	vt	xt	zt
bq	dq	ft	ht	jt	lt	nt	pt	rt	tt	vu	xu	zu
br	dr	fu	hu	ju	lu	nu	pu	ru	tu	vv	xv	zv
bs	ds	fv	hv	jv	lv	nv	pv	rv	tv	vw	xw	zw
bt	dt	fw	hw	jw	lw	nw	pw	rw	tw	vx	xx	zx
bu	du	fx	hx	jx	lx	nx	px	rx	tx	vy	xy	zy
bv	dv	fy	hy	jy	ly	ny	py	ry	ty	vz	xz	zz
bw	dw	fz	hz	jz	lz	nz	pz	rz	tz	wa	ya	
bx	dx	ga	ia	ka	ma	oa	qa	sa	ua	wb	yb	
by	dy	gb	ib	kb	mb	ob	qb	sb	ub	wc	yc	
bz	dz	gc	ic	kc	mc	oc	qc	sc	uc	wd	yd	
ca	ea	gd	id	kd	md	od	qd	sd	ud	we	ye	

Source: <https://www.icann.org/en/system/files/files/two-char-auth-appx-01dec14-en.csv> and <https://www.icann.org/sites/default/files/packages/reserved-names/ReservedNames.xml>

Appendix 2: Active requests and requests under review as of 4 February, 2015 (350 requests)

Active requests:	style	bmw	diamonds	gripe	party	tips
apartments	suzuki	bnpparibas	digital	guide	photography	tirol
azure	tennis	bom	direct	guru	photos	today
bentley	tires	boutique	directory	hamburg	pictures	tokyo
bing	top	budapest	discount	haus	pizza	tools
bingo	toshiba	builders	domains	healthcare	place	town
cartier	uno	business	download	holdings	plumbing	toys
casino	vip	buzz	dvag	holiday	pohl	trade
chat	wang	cab	education	homes	press	training
chloe	windows	camera	email	horse	productions	tui
club	world	camp	emerck	host	properties	university
coach	xbox	capital	engineer	house	pub	uol
datson	xn--3bSt00M	cards	engineering	immo	recipes	vacations
delivery	xn--3ds443q	care	enterprises	immobilien	rehab	ventures
dnp	xn--45Q11C	careers	equipment	industries	reisen	vet
energy	xn--	casa	estate	ink	rentals	viajes
epson	6qQ986B3xL	cash	events	institute	repair	video
ferrero	xn--czru2d	catering	everbank	insure	report	villas
football	xn--fiq228c5hs	center	exchange	international	republican	vision
goldpoint	xn--hxT814E	cheap	expert	investments	restaurant	vodka
gucci	yodobashi	church	exposed	kaufen	review	voyage
honda	zara	city	fail	kitchen	reviews	watch
hotmail	Closed for	claims	faith	land	rich	webcam
hsbc	comments /	cleaning	fan	lawyer	rip	website
infiniti	under review:	clinic	farm	lease	rocks	wedding
iwc	abbott	clothing	fashion	life	rodeo	whoswho
jcb	abogado	codes	final	lighting	ruhr	wien
jlc	academy	coffee	finance	limited	sale	wiki
kddi	academy	community	financial	limo	sarl	win
kinder	accountant	company	fish	loan	sca	work
kyoto	accountants	computer	fishing	loans	schule	works
law	actor	condos	fit	luxe	science	world
legal	agency	construction	fitness	maison	services	wtf
london	airforce	consulting	flights	management	shoes	xerox
lotte	allfinanz	contractors	florist	market	singles	xn--czrs0t
memorial	amsterdam	cooking	flsmidth	marketing	sky	xn--fq720a
microsoft	aquarelle	cool	forsale	marriott	social	xn--unup4y
monash	army	country	foundation	media	software	xn--
money	associates	credit	fri	miami	solar	vermgensberate
montblanc	attorney	creditcard	fund	mini	solutions	r-ctb
nhk	auction	cricket	furniture	moda	space	xn--
nico	autos	cruises	futbol	mortgage	spiegel	vermgensberatu
nissan	band	dance	gallery	motorcycles	supplies	ng-pwb
nokia	bargains	date	garden	nagoya	supply	xn--vhquv
otsuka	bayern	dating	gifts	navy	support	yachts
panerai	beer	deals	gives	network	surf	yoga
piaget	berlin	degree	glass	ninja	surgery	yokohama
ricoh	bharti	dell	global	nrw	systems	zone
rocher	bible	democrat	globo	onl	taipei	zuerich
school	bid	dental	google	ooo	tax	
skype	bike	dentist	graphics	partners	technology	
	bloomberg	design	gratis	parts	tienda	

Source: Two-character labels webpage: <https://www.icann.org/resources/two-character-labels>

¹ See Appendix 2 containing requests since 1 December 2014: both active requests and requests under review. ICANN authorized release for registries representing 207 TLDs that have undergone public comments before 1 December 2014.

² According to the ISO 3166-1 alpha-2 classification, there are 245 country codes, but au, ec, and eu are reserved.

³ <http://gnso.icann.org/en/drafts/rn-wg-fr19mar07.pdf>.

⁴ ICANN Registry Services Technical Evaluation Panel, Report on Internet Security and Stability Implications of Limited Release of Initially Reserved Two-Character Names, 4 December 2006,

<https://www.icann.org/en/system/files/files/rstep-gnr-proposal-review-team-report-04dec06-en.pdf>.

<https://www.icann.org/en/system/files/files/rstep-gnr-proposal-review-team-report-04dec06-en.pdf>.

⁵ ICANN staff initiated 5 public comment forums to obtain feedback from the community on the amendments to implement the proposed new registry service: 12 June 2014 <https://www.icann.org/public-comments/twochar-new-gtld-2014-06-12-en>; 8 July 2014 <https://www.icann.org/publiccomments/two-char-new-gtld-2014-07-08-en>; 23 July 2014 <https://www.icann.org/public-comments/two-char-new-gtld-2014-07-23-en>; 19 August 2014 <https://www.icann.org/public-comments/two-char-new-gtld-2014-08-19-en>; and 12 September 2014 <https://www.icann.org/public-comments/two-charnew-gtld-2014-09-12-en>. Various community members submitted comments, including the At-Large Advisory Committee (ALAC) and registry operators. In addition, ICANN notified the GAC when each request from a registry operator was posted for public comment.

⁶ An informal notice on the new process was sent to the GAC via email from ICANN staff.

⁷ <https://www.icann.org/en/system/files/files/two-char-auth-form-01dec14-en.pdf>.

⁸ <https://www.icann.org/sites/default/files/packages/reserved-names/ReservedNames.xml>.