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# IDN Global Deployment - The Wider History and Status

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# Flavors of IDN



- o Hybrid IDN  
idn.ascii (or ML.ascii)
- o Full IDN  
idn.idn (or ML.ML) - **What is needed**
- o Hybrid internationalised email addresses  
idn@idn.ascii or idn@ascii.ascii  
(or ML@ML.ascii or ML@ML.ML)
- o Full internationalised email addresses  
idn@idn.idn (or ML@ML.ML)





# Resolution Methods



- o Two methods of resolving these IDN names have been attempted. One is the plug-in or browser-enablement approach approved by ICANN. The most widely distributed plug-ins being CNNIC's plug-in (within China), Verisign's iNav and I-dns.net's iClient. Mozilla is the only significant browser that has a built-in capability.
- o Patching the ISP servers which is not recommended by ICANN. This has been done in a few dozen ISPs worldwide with significant penetration (in excess of 50% of all the country's Internet users) in Korea, Egypt, Saudi Arabia, Syria, Iran, UAE, Oman, Qatar and China. In addition Tiscali (a major pan-Western European ISP) and about 15 Western European ISPs via PublicRoots have patched.



# Non-commercial IDN deployment



- o Mar 98 - July 98

First tests within National University of Singapore (NUS) and between NUS and individuals in Korea and Japan etc. CJK and other languages. Tens of names.

- o Oct 98 - Oct 99

Asia-Pacific Networking Group (APNG) endorsed testbed conducted by NUS spin-off and the NICs of the Asia-Pacific region - JPNIC, KRNIC, CNNIC, pre-TWNIC etc. Asian languages deployed (Arabic, European, Indian tested). Hundreds and thousands of names.





## Non-commercial internationalised email address deployment



- o July 98 - Sep 98

First tests within National University of Singapore (NUS) and between NUS and individuals in Korea and Japan etc. CJK and other languages. Tens of addresses.

- o Oct 98 - Oct 99

Asia-Pacific Networking Group (APNG) endorsed testbed conducted by NUS spin-off and the NICs of the Asia-Pacific region - JPNIC, KRNIC, CNNIC, pre-TW/NIC etc. Asian languages. 100's of addresses.





# Commercial Launches of IDN (1999 to Now)



Date	Country	Language	Type	Org	Support
Dec 99	Taiwan	Chinese	idn.idn	i-dns.net	Minister, ISPs
Feb 00	China	Chinese	idn.idn	i-dns.net	
Mar 00	HK	Chinese	idn.idn	i-dns.net	Major ISP, Portal
Mar 00	India	Tamil	idn.idn	i-dns.net	Chief Minister
Apr 00	China	Chinese	idn.idn	cnnic	Ministry, ISPs
May 00	Tuvalu	Many	idn.tv	dot tv/i-dns	Government
Jun 00	Cooks	Many	idn.cc	enic/i-dns	Government
Aug 00	Thailand	Thai	idn.idn	i-dns.net	Key ISPs
Sep 00	Egypt	Arabic	idn.idn	l-dns.net	Minister
Nov 00	World	CJK	idn.com	Verisign	ICANN registrars
			idn.net /org		



# Commercial Launches of IDN (1999 to Now )



Date	Country	Language	Type	Org	Support
Feb 01	India	Telugu	idn.idn	i-dns.net	Chief Minister
Mar 01	Nuie	Swedish	idn.nu	Worldnames	
May 01 Comm.	Russia	Russian	idn.idn	i-dns.net	Chamber
Apr 01	Korea	Korean	idn.idn	i-dns.net	Registrars/ISPs
Apr 01	Israel	Hebrew	idn.idn	I-dns/DTN	Info Minister
May 01	Japan	Japanese	idn.idn	i-dns/ejapan	
Jun 01	India	Hindi	idn.idn	i-dns/Synfo	Prime Minister
Jul 01	Japan	Japanese	idn.jp	jpnic	jpnic
Feb 02	Belize	Many	idn.bz	Neteka	bznic
Jun 02	Djibouti	Korean	idn.dj	i-dns/dot DJ	President
Jun 03	China	Chinese	idn.cn	cnnic	cnnic
Aug 03	Korea	Korean	idn.kr	krnic	krnic



## Commercial Launches of IDN (1999 to Now )



Date	Country	Language	Type	Org	Support
Sep 03	Poland	Polish	idn.pl	plnic	plnic
Oct 03	Sweden	Swedish	idn.se	senic	senic
Jan 04	Denmark	Danish	idn.dk	dknic	dknic
Jan 04	Global	Many	idn.museum	dotmuseum	ICANN
Feb 04	Norway	Norwegian	idn.no	nonic	nonic
Mar 04	Germany	German	idn.de	denic	denic
Mar 04	Austria	Austrian	idn.at	atnic	atnic
Mar 04	Switzerland	European	idn.ch	chnic	chnic
Mar 04	Latvia	Latvian	idn.lv	lvnic	lvnic
Mar 04	Global	German	idn.info	Afilias	ICANN
Mar 04	SaudiArab	Arabic	idn.idn	sanic	ADNPP
Mar 04	UAE	Arabic	idn.idn	aenic	ADNPP
Mar 04	Oman	Arabic	idn.idn	omnic	ADNPP





## Commercial Launches of IDN (1999 to Now )



Date	Country	Language	Type	Org	Support
Mar 04	Qatar	Arabic	idn.idn	qanic	ADNPP
Mar 04	Syria	Arabic	idn.idn	synic	ADNPP
Mar 04	Palestine	Arabic	idn.idn	psnic	ADNPP
Jan 05	Global	German	idn.org	PIR	ICANN
May 05	Brazil	Portuguese	idn.br	brnic	brnic
May 05	Iran	Persian	idn.idn	irnic	Ministry
Jul 05	Greece	Greek	idn.gr	grnic	grnic
Jul 05	Singapore	Chin/Tam	idn.sg	sgnic	sgnic
Sep 05	Finland	Finnish	idn.fi	finic	finic
Sep 05	Hungary	Hungarian	idn.hu	hunic	hunic
Sep 05	Chile	Spanish	idn.cl	clnic	clnic



# Deployment by the Numbers



- **IDN** - since late 1999 - author's estimates
  - Close to 2 000 000 purchased in over 50 languages.
  - But 90% of it in just CJK.
  - Over 1 000 000 purchased as part of Verisign IDN.com in 2000 but has since fallen to much smaller, owing to non-renewal. A much smaller number measuring in thousands in other gtlds - eg. IDN.info and IDN.biz.
  - Another 400 000 in IDN.jp, IDN.tw, IDN.tv, IDN.kr, IDN.cn and other cctlds. > 80% in Asian cctlds.
  - Another 400 000 initially in chinese.chinese (IDN.IDN), dropped dramatically, but now with official approval and near-universal resolution in China is growing to 100 000 again.
  - Other language IDN.IDN's (arabic, hebrew, russian, korean etc. - some 15 languages) at one point approached 50 000 but now around 20 000 and growing again.





# Progress in Resolution (author's estimates)



- o Browser-based resolution (Total 70M users)
  - >1M users enabled by each of
    - Safari
    - Opera
    - Pathfinder
  - 1to10M users enabled by each of
    - Netscape/Mozilla
    - iNav/Verisign
    - iClnet/I-dns.net
  - > 50M users enabled by each of
    - CNNIC plug-in





# Progress in Resolution



- ISP Server-based Resolution ~ 115M users
  - China (~80M users)
  - Korea (~10M users)
  - Western Europe (~20M)
  - Other (~5M users)
  
- Total Global Resolution Estimate ~ 145M users
  - ◆ China (~100M users) (full IDN)
  - ◆ Korea (~10M) (full IDN)
  - ◆ Western Europe (~20M) (full IDN)
  - ◆ Other (~15M) (full and hybrid IDN)





# Summary



- o IDN has been commercially launched for 6+ years - from Dec 99.
- o The 2 million cumulative paid-IDN registrations is not too different from the number of ascii domain names in use when ICANN was established.
- o When IDN was being commercially launched in late 1999, the number of ascii domain names was less than 5 million.
- o When viewed this way IDN is not in infancy, it has been around for a while and there has been no shortage of local deployments and in the case of IDN.IDN often with sizable local resolution. However, except for the deployment of IDN.IDN within China its not easy to use because of widespread lack of resolution. But this is beginning to change as we speak – for example the Chinese IDN.IDN can now be resolved in significant parts of Western Europe and Korea. We can expect more of the same.

