



المشروع التجريبي لاسماء النطاقات العربية

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عربية

**How to Setup an  
Arabic ccTLD Server**

مسودة - Draft  
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*Arabic Domain Names Pilot Project*

## 1. Introduction

All Arab countries are invited to participate in this pilot project. Each participating country is expected to setup and run its own DNS server(s) for its Arabic ccTLD.

## 2. Recommendations

Since this is a pilot project, the technical committee recommends the following:

- ◆ Do not use an existing (operational) DNS server as an Arabic ccTLD server.
- ◆ Set up the ccTLD server on a brand new secure DNS server (e.g. PII Linux box with bind 8 or 9) with permanent Internet connectivity.
- ◆ Use the following format for naming your ccTLD server: ar-cctld.<domain> , (e.g. ar-cctld.nic.net.sa).

## 3. Puny Codes of Arabic ccTLDs

Use any tool on the Internet that converts an IDN domain name to its corresponding ASCII format to get the puny-code representation of your Arabic ccTLD. As an example, an Arabic domain name, "السعودية", will look like the following form "xn--mgberp4a5d4ar" after converting it from IDN to ASCII format (using "stringprep", "nameprep" and "punycode" operations).

The project provides the following tool: <http://arabic-domains.org.sa/idn.php>.

Appendix I lists all Arab countries names with their corresponding puny-codes.

## 4. Configuring Arabic ccTLD Server

To setup your ccTLD server you need to configure bind to host your Arabic ccTLD as "primary server" in the bind configuration file "named.conf":

```
// add these lines to your named.conf file.
zone "xn--mgberp4a5d4ar" {
    type master;
    file "idn.sa.zone" ;
};
```

File: named.conf

In Addition, you need to setup and configure the zone file for your Arabic ccTLD:

```
$TTL 172800      ; 2 days
@               IN SOA  ar-cctld.nic.net.sa. hostmaster.isu.net.sa. (
                2             ; serial
                86400          ; refresh (1 day)
                7200           ; retry   (2 hours)
                3600000         ; expire  (1000 hours)
```

```

172800      ; minimum (2 days)
)
NS          ar-cctld.nic.net.sa.

; netaq
xn--mgb5a8an NS      ns1.nic.net.sa.
xn--mgb5a8an NS      ns2.nic.net.sa.

; moq3
xn--4gbrim  NS      ns1.nic.net.sa.
xn--4gbrim  NS      ns2.nic.net.sa.

; dalel
xn--ugb6bax NS      ns1.nic.net.sa.
xn--ugb6bax NS      ns2.nic.net.sa.
;
; etc..

```

File: idn.sa.zone

Note: As you can see defining your Arabic ccTLD is same as defining any regular ASCII domain name.

## 5. Mirroring other Arabic ccTLD zone files

Each participant can act as secondary for other Arabic ccTLD, which will add more redundancy and localization for the DNS queries. This can be achieved by contacting the administrators of the other Arabic ccTLD and asking them to allow zone transfer for their ccTLD server, and by configuring bind to act as a secondary for other Arabic ccTLD:

```

// add these lines to your named.conf file.
zone "xn--mgberp4a5d4ar" {
    type slave;
    file "idn.sa.zone" ;
    masters { 212.26.18.12; };
};

```

File: named.conf

## 6. Adding some test Arabic domain names

Each participant should register some Arabic domain names for test and management purposes such as:

Example	Arabic test Domain name	Purpose
موقع.السعودية	موقع.<اسم الدولة>	A site for testing Arabic domain name in each Arab's ccTLD
دليل.الإمارات	دليل.<اسم الدولة>	A site that list all the registered Arabic test domain names in each Arab ccTLD.
مركز-التسجيل.قطر	مركز-التسجيل.<اسم الدولة>	A site for registering Arabic test domain names in each Arab ccTLD

**For Questions or Seeking Help**

- ◆ Please contact: [cctld-help@arabic-domains.org](mailto:cctld-help@arabic-domains.org)

### **More information**

- ◆ The Project website:  
<http://www.arabic-domains.org>
- ◆ Bind DNS server:  
<http://www.isc.org/sw/bind/>
- ◆ The DNS resource directory:  
<http://www.dns.net/dnsrd/>
- ◆ GNU Libidn:  
<http://www.gnu.org/software/libidn/>

## Appendix I

The puny-code representation for the Arab countries based on the Arab standard specifications No. 642-1985, "Codes for names of Countries and Languages", which is the equivalent to the ISO 3166 standard.

Country Official Names	Country Code	Short Name	Puny-Code
Hashemite Kingdom of Jordan	jo	الأردن	xn--igbhzh7gpa
United Arab Emirates	ae	الإمارات	xn--kgbdbap4b0ij
Kingdom of Bahrain	bh	البحرين	xn--mgbcpq6gpa1a
Republic of Tunisia	tn	تونس	xn--pgbs0dh
People's Democratic Republic of Algeria	dz	الجزائر	xn--lgbbat1ad8j
Federal and Islamic Republic of Comoros	km	القمر	xn--mgbu4chg
Republic of Djibouti	dj	جيبوتي	xn--ngbee7iid
Kingdom of Saudi Arabia	sa	السعودية	xn--mgberp4a5d4ar
Democratic Republic of Sudan	sd	السودان	xn--mgbaxp8fpl
Syria Arab Republic	sy	سورية	xn--ogbpf8fl
Somalia Democratic Republic	so	الصومال	xn--mgba5b5cceu
Republic of Iraq	iq	العراق	xn--mgba3a5azci
Sultanate of Oman	om	عمان	xn--mgb9awbf
Palestine	ps	فلسطين	xn--ygbi2ammx
State of Qatar	qa	قطر	xn--wgb16a
Stat of Kuwait	kw	الكويت	xn--mgbg8edvm
Lebanese Republic	lb	لبنان	xn--mgb7fjb
Socialist People's Libyan Arab Jamahiriya	ly	ليبيا	xn--mgb7fyab
Arab Republic of Egypt	eg	مصر	xn--wgbh1c
Kingdom of Morocco	ma	المغرب	xn--mgb0a9azcg
Islamic Republic of Mauritania	mr	موريتانيا	xn--mgbah1a3hjkrd
Yemen Arab Republic	ye	اليمن	xn--mgb2ddes