



# Signing [sanog.org](http://sanog.org)

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# Signing sanog.org

- ISC & SANOG
- ISC has been signing isc.org and internal zones with DNSSEC since 2004.
- Operated ISC DLV (Domain Lookaside Registry) since 2007.

# So How Did We Do It?

- Re: <https://dlv.isc.org/about/using>
- Create KSK:
  - `dnssec-keygen -r /dev/random -f KSK -a RSASHA1 -b 2048 -n ZONE sanog.org`
- Create ZSK:
  - `dnssec-keygen -r /dev/random -a RSASHA1 -b 1024 -n ZONE sanog.org`
- Sign your zone with the created KSK/ZSK:
  - `dnssec-signzone -l dlv.isc.org -r /dev/random -o sanog.org -k Ksanog.org.+005+aaaaa  
example.com Ksanog.org.+005+bbbbbb.key`
- Upload DS records to Afillias for inclusion into the .ORG zone.
  - for .in or other TLD's that are not signed, register w/ DLV.

# What does it look like?

```
;sanog.org.          IN      SOA

;; ANSWER SECTION:
sanog.org.          3572  IN      SOA      ns-int.isc.org. hostmaster.isc.org. 2009071900 7200 3600 604800 3600
sanog.org.          3572  IN      RRSIG   SOA 5 2 3600 20090817233351 20090718233351 23988 sanog.org.
HQe7TPQcsOQIbuYfelymgRDbVusyVWV1tPY1PITRci/Gi4KGtdNAE2TU 3xjP4tfybH3/LDsMR5gBcTj/R/UFteKAgWTCdKoSzUMqwb/OlOuJ+c5d
JUOtaiBpPg642WY20HxkMEFiTwN6sGrBBngD61eLcuRxByqU8GbQ+szw W14=

;; AUTHORITY SECTION:
sanog.org.          2512  IN      NS       ord.sns-pb.isc.org.
sanog.org.          2512  IN      NS       ns-ext.nrt1.isc.org.
sanog.org.          2512  IN      NS       sfba.sns-pb.isc.org.
sanog.org.          2512  IN      NS       ams.sns-pb.isc.org.
sanog.org.          2512  IN      RRSIG   NS 5 2 3600 20090817233351 20090718233351 23988 sanog.org.
pzBvOxRSRHSiFKKSxaEwLwluffOsdxdC38zg+1Tdkco2OSBfkgfQ3EPI SZ1xypNOFHQSavtrSyUuDvC/tSEDKTlDBExb+oVaZvcyb11dvc0XWsmc
XX77XzJLoGMBR5Y4UrV4+r4gGH64Ou5TznNShp5uXflG1n8Ycqum1/O E98=

;; ADDITIONAL SECTION:
ams.sns-pb.isc.org. 42088 IN      A        199.6.1.30
ord.sns-pb.isc.org. 42088 IN      A        199.6.0.30
sfba.sns-pb.isc.org. 42088 IN      A        149.20.64.3
sfba.sns-pb.isc.org. 42088 IN      AAAA    2001:4f8:0:2::19
ams.sns-pb.isc.org. 42088 IN      RRSIG   A 5 4 43200 20090820204821 20090721204821 27624 isc.org.
tG9kPaiQa8KRuhJKJAE3iWR96jKpERoxhwhfGMPCQDs96ZjRsZ6HALu9 TO7fEPOac/tWEjrzhRDshZS2/guhkuPfCA3zm4it2bErA1jRNB/huu
tnopsXmIzHjd3NbRITTMAlatxVMDDxprE6HIRcBE9vgteqvWZGJdMc4C whs=
ord.sns-pb.isc.org. 42088 IN      RRSIG   A 5 4 43200 20090820204821 20090721204821 27624 isc.org.
y58klMsZ9S6lomseUIqewcxo1H9SxAmhAVpCBNwnBg4sKx67meuOruSZ dxoiBVXQCp+y4iEMtp7rWJa6Jto4pBDj6CeezAUzvnVjea3HC/D1NPgN
q4aOvLFNMc9AlC4U1Eg82PalAAWDP1YT02uMP00DxrDFH4rd9ZZ4dBvd yWk=
sfba.sns-pb.isc.org. 42088 IN      RRSIG   A 5 4 43200 20090820204821 20090721204821 27624 isc.org. mp+zn01Lgf/
CikxOyV8YFGfusUKBrUWb50ET+xe5j1KhEs25dujCQNCj yRSGO6g2VgILw3Rid6nXgJmV7V8zkLsyzpHWXkXYG3F5LnVJ2we5jBpu +wIFPZdgsHr33DsK8y66vGd/
xO7pTckH+oiRDs1I9Q/TbcAFBPlhtTf0 zi0=
sfba.sns-pb.isc.org. 42088 IN      RRSIG   AAAA 5 4 43200 20090820204821 20090721204821 27624 isc.org.
HfUKSo2n5ZL1f6HpVCbISPrs4951ccrrq1pKvQ3y9XnQz0fmF6Gyz+on hp/E6MLGtWsYBQdrAxdzThWZBQ60T+yFuEL4lBPRmqxQ+Y6VA1TbtZL
q4VM7TF7avEpht1aO8Was62eosMXQ2FA0+PBcHqushTGaBPTgchMYWiw uts=

;; Query time: 242 msec
;; SERVER: 204.152.184.76#53(204.152.184.76)
;; WHEN: Tue Jul 21 21:08:49 2009
;; MSG SIZE rcvd: 1266
```

# In Conclusion

- Key Rollover (KSK/ZSK)
- Try it out on a test zone.
- Visit <https://dlv.isc.org/> for more information and to register your zones there. (if your TLD isn't already signed)