0

distributed + replicated db dynamic f scalable

Components: -

Name space inpostoried => US(=) iP addir Resource records

Client - sends queries Server - holds part of the namespace

2001 zone (.)

TLDs

Second level domains

Third level domains

Zone file = Plain text file containing Zone data Exist on authoritative DNS serviers, not on eaching Modulers

Record types A - maps name to ipaddress CNAME - Alias, maps name to another name MX = Mail server of the domain SOA = Stood of Authority, must exist at least once contains metadata of the domain itself NS = IP addresses of authoritative (Name Servers) of the domain DNS uses Port 53 Client has no post requirement

Client only talks to local resolver

Focal resolver only knows IP address of Roof name server

- this info is called Root Stub - stored statically
on the resolver

Roof name sower has info on TLD servers reporal nepouse

Authoritative · provides injo abt multiple zones DNS' Sower rules · Acceptible from internet · Answers only about its zones Resolving · Not source of info · Caches info from authoritative armese · Receives quories, delivers Hesponse · Not accepible from the Open DNS => gesolving DNS somer acceptible
from the internel Tools

Ping => A record

nslookup=> Not on Unix, windows only

dig =>

dig =>

dig =>

To add a DNS server to resolve

dig =>

Lecordtype > + Short

To add a DNS server to resolve

dig =>

Lecordtype > @LDNS Server 197

Absolutes to Lone file A Deugn Addement \$ ORIGIN Zdomain> which domain is this file about # TTL \$ TTL =) time to earlie @ most · instead of @ * Server record Jordonain name Time to Internet Record type

Itself Live & Room of (a)

- Ingressor of (a)

- Ingressor of (a)

- Ingressor of (a)

- Record o Timers of Represhinternal all for 20 Retry update DNS Sowou When to give up Min ttl for zone IN NS 2 ns seower > NS 2ns server 27 IN M'X 2 mx Soower 7 www IN A La record> > webserver A La record> = domain itself=) IN without www

	BIND
	Global config file letel bind (namediconf. local
	·*
	Zone file letc/bird/zones/22one name?
	Service bird & reload of reloads the file.
	P. 1 10 . Lâs
	Bind delegation
	Subdomain records point to NS for that
	domain
	CCGVIICLV
	A record in [PV6 is AAAA (quad A)
	DNSKEY & DNSSEC
	RRSIG J
19.	
	DNS Spoofing - Attacher is blind, can attack only
	when window is open, need to gues TxID, food
	Requirements: - * Spoof & Source (P) Accentist (Unicast RPF, Anti Spoof Blood)
	A Fast response
	this is randomized - A Topausa Guen Transaction D
	* Guen source port

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The state of the s	