

Danksharding and Proto-danksharding Explained 07-11-2025:

If you know anything about the Ethereum network, you probably know that it's the hub for decentralized applications (dApps) accessible through an Ethereum wallet due to its capability to host smart contracts. Ethereum is still the most popular network for blockchain apps today, and as such this puts the network under huge amounts of pressure. Unfortunately, hosting so many platforms, protocols, apps and tokens slows down its transaction finality and causes exorbitant fees.

To combat this scalability issue, the Ethereum roadmap includes several upgrades. With the Merge, Ethereum became a proof-of-stake chain, greatly reducing its power consumption and opening the door to innovations only possible on PoS networks. But to achieve cheaper and faster transactions, Ethereum still has a way to go.

One plan for the network was to implement sharding, a way to reduce network congestion and fees by splitting the massive Ethereum blockchain into smaller partitions. But the current solution it has found is danksharding: a way to make transactions much quicker and cheaper than they are currently.

However, upgrading the Ethereum network isn't easy. Its high network activity and the sheer number of apps relying on the network means big updates to the network's consensus can take months or even years to implement. As such, it needs a custom solution. Enter proto-danksharding: it's essentially a step between Ethereum as you know it today and its danksharding future.

Proto-danksharding is a proposal, which when implemented, would provide the foundations to introduce danksharding to the Ethereum network. The concept was proposed in Ethereum Improvement Proposal 4844 (EIP-4844), and named after Ethereum researchers Dankrad Feist and Proto Lambda. Soon, EIP-4844 is due to be implemented as part of Ethereum's Dencun Upgrade scheduled for March 13th, 2024.

Binary Large Objects (blobs) are a temporary store of data. Although new to the Ethereum network, blobs are already common in computer science.

Secret Phrase **Danksharding** Backup Table

assume left shoulder mother argue present transfer net catch music ribbon entire	hedgehog effort glow tragic rice oak afraid equal green curious pause speed
future gain consider trap interest humble come social marble prison when alpha	arrest example useful wrong slight toy cotton book language dad moment forward
convince inflict paddle scheme matrix forest shop pen blood siege romance shaft	miss floor tooth garlic know frequent survey unusual dismiss cost step attack
digital rug diamond solid update wink quit bonus alone cruise help roof	sudden home enough crater retire place armor puppy balance oven arrow board
thunder hockey genuine wear nature soup exact plunge almost find glance half	lucky special rhythm gorilla health click into embrace maximum sound claim waste
runway boost trouble expect neutral trigger void hold avocado sing potato stone	core train dolphin rotate memory wrestle inside entry judge admit black toe
bronze claw law suit bounce misery decorate six dust depend bargain luxury	prize burden width clutch print walk corn private vibrant team reduce merge
onion tip nothing human enlist ghost obscure shuffle oblige nerve sunset love	annual agree need dress stadium spirit room hover latin cable cigar initial
raccoon flavor coyote erupt race congress jelly deny priority educate horn reason	chronic craft spell stick season base master absent silver flat until loyal
lake crumble patrol pretty embody stable tenant yard sport vague easy midnight	size brain tunnel wonder hill maze charge sugar goose bridge pill lazy
divide detect minor eyebrow utility rich teach minimum drop boss payment cradle	fashion picnic fantasy federal isolate spike brass improve vapor nominee pistol long
erosion dignity erode gossip divorce stuff mosquito dragon thrive alert van foster	polar gown gallery brief chalk hub impose match owner girl very mansion
excuse tray shoot filter chief enrich tree soon kingdom happy struggle scrub	promote say nation system airport fitness crouch tent liquid run cargo road
trick cactus panel clarify stove impact cake august estate impulse appear today	shoe glass diet scale wise kid horror axis bar table erase cross
cattle range valley tonight visa bright cloud poverty near negative kiwi remind	leaf idle pact purse sniff switch juice govern knock target name march
order naive cycle laundry symptom asset vote hen lava peanut answer mobile	flee cement attitude success fee roast science salt chest track victory bulb
there slogan fox work cool cabbage measure define pole suffer safe asthma	decline staff pulse people secret grocery cook save flock winner any drum
hospital snap wet violin rose cry plug renew mutual toddler script feature	wave habit tomorrow daring assist arrive citizen notice file enroll they buyer
release cover glimpse mistake surge drama garment broom slab ship kangaroo crowd	debris ticket tired panther outer essay weapon awake grab film expand ball
timber deputy hurdle correct office vault together always metal pond neither dinosaur	fork already alcohol hurry own frown creek ring century quality mushroom time
enemy atom urge where muffin else rely imitate globe lunch toward knee	aunt fabric path dune blush episode key gaze inch mirror comic party
orchard oil athlete still supreme gun barrel siren abuse above venture word	nut fan ordinary accuse provide pencil tone coil sock park piano loan

number field suspect upon pudding length join gospel skill mystery fuel volume	document mad brother fade account raven follow announce local endorse night broccoli
soda chase news topple total stage square rather skirt museum pony sun	ahead open result sting add involve whip genius build acoustic enjoy slot
visit noise lyrics collect ethics level allow meadow rent achieve return undo	animal quote great upper become royal husband donor kite question fall about
exotic helmet dentist raise tide thumb second segment retreat day spy oxygen	credit flip electric light cash use grid deposit vintage sand record robot
bullet grain put notable rally choice wall capable cube usage exit screen	wide address praise flag unfold curve mouse jar receive indoor rocket mention
pet fiber jealous laptop sentence shy smile fit depth hair jazz layer	super later zoo scan lunar rib card snake clog eye power tongue
magic program travel general curtain marriage noble member slide age street invite	seek woman brown inmate shield heavy shrug embark bring inquiry adapt actress
honey bag demise unable occur eight magnet unit bacon horse huge cup	cupboard laugh flame warm ill shadow height tourist wrap salute banner shock
budget army weekend warfare clay ski ridge topic way twice stereo prefer	depart sphere across assault scout narrow diagram carry face hero barely cream
popular zebra giant album engage bomb trade cricket large alarm piece champion	group purity sausage float crane try pepper despair couple borrow avoid puzzle
frog live wait trim turn dutch chair pig derive conduct life image	brand goddess tuition bachelor arctic egg spoil hole furnace tell industry culture
spider reflect obvious round parent unhappy autumn baby ability mesh review donate	fame text high rapid nest sail critic mask wing grit calm enforce
load legal beef jewel custom elegant welcome top dilemma salon nasty hamster	spring wisdom possible attract tomato throw major toss crystal seminar blame mimic
radar swamp fringe illness jeans gloom inherit sauce silly legend inspire sample	taxi cart circle quarter remember daughter mixture tower peasant myself slow lens
trumpet olympic duck audit photo stem glove organ route keep vast pigeon	envelope grace boy purchase crush matter tube hobby combine dirt skull section
phone spot indicate finger eager glare young ginger thing actor strong thank	faith swear burger recall price such ice uphold year bamboo main settle
reveal thought pattern dwarf harbor nose silk strike again object then call	nice during merry proof position remain area gauge client worry expose excess
lock stand coin response output tape evidence author weasel clap ancient recipe	loop abandon man insane escape blade eagle raw rubber story enhance blind
alien sure window club outside civil liberty squirrel spray boil soap never	drive sponsor surprise cat gentle earth village palace okay chef include weather
wine dove cancel tornado mercy stool wire spice exist pool amateur hawk	tattoo fun glue drill series various insect exercise pumpkin foot act online
brush monster ankle ripple lizard candy error sad situate company elite before	food swing ranch often alley smooth ozone rain edge movie camp strategy
pelican youth pottery inhale permit unique sort hurt shift city bicycle noodle	choose twist nurse logic mango ketchup tackle evolve gift cushion butter easily
direct desert advice mass offer pass wealth figure little grass glory hello	apart planet picture apple either garden limit decrease myth sweet under mail

bench spoon guitar differ trial beauty battle crack gold town stay empower	lab crucial east junior innocent quantum regular sick artefact sister maple fiction
media same dawn veteran sibling shine begin distance scene antique poet tag	reopen heart blanket approve destroy pioneer install forget bread border dog adult
couch taste fix trash student whale sketch around detail rate talent carbon	purpose winter side region birth mom awesome focus lamp vital person traffic
visual treat bean virus toilet state leave leg churn sleep make razor	artist develop degree voyage hour guide penalty fold clip ladder another pear
orphan holiday viable can hip learn anchor demand whisper rebel brick celery	amazing cheese stock panic pipe debate cabin able drastic sustain cave crisp
immune squeeze useless pizza pledge method gesture unknown balcony auction title wheel	paper devote over voice suggest quiz code tank armed history shiver public
blue harsh blast salmon shallow exile market feel protect castle weird hand	chapter defy upgrade push kit amused essence auto month confirm project casual
bone want bus tortoise truth mule denial bottom cause acid basket replace	basic similar front flower poem april physical supply mean tool type surround
farm brave pyramid better cannon alter giraffe pull buddy monkey acquire problem	outdoor blur toast pitch head diesel torch rare like certain garbage pulp
ignore wheat refuse exhaust emerge best resemble ramp knife double gather canoe	menu minute space jaguar risk tribe relax favorite satoshi expire steak disagree
item few theory satisfy odor search math antenna scrap attend lawsuit report	ten false right off awful worth crawl remove vendor tennis capital engine
exhibit test police art upset game lounge illegal this aspect snack flash	security wrist powder slam rail forum identify slush subject lion coast fever
immense mind elevator tail wood rural rival short symbol talk draw hat	spread course input hire list dice invest harvest icon fatigue family proud
network empty air perfect portion must pupil universe please aisle idea abstract	spatial deal what check world dish session speak october gap absorb unaware
just clinic shed boring ceiling rookie produce fish fruit design crop door	journey inner motion hungry seven defense trophy burst manual ask zero lecture
arm cute page submit term common post camera actual subway duty arch	goat swift damage anxiety tobacco typical model early merit hunt chuckle solar
library action walnut punch domain reform trend execute rebuild vacant buffalo smart	enable slim riot bird delay hybrid extend enact broken oval true issue
adjust win vocal dry lottery caught advance chimney decade dinner clerk soldier	brisk steel panda melody dream describe rifle diary lawn rude truck liar
opera bless belt crime lesson unlock friend source seat afford moral vehicle	host fresh agent twelve hotel rigid hard anger control turtle behind wolf
only ivory blossom economy three marine coral truly job surface song festival	humor beach twenty mechanic elder concert wage parrot valve close next guess
draft license obey elephant fetch lady tuna nephew once sorry garage cliff	hint inform car mix awkward buzz palm giggle split dose spin february
flush venue body regret island ritual chat robust excite foam modify oppose	analyst wasp bubble all valid climb loud child swallow benefit limb box
echo connect pink oyster good also iron select tissue plate current extra	since seed rough beyond access sheriff express other setup grief two cereal

mixed unfair primary ocean chicken used sell average catalog copy discover device	now absurd task summer point soccer wedding scatter firm style junk peace
note you hollow much move swarm injury uniform ecology bind column senior	stomach donkey yellow start jump tumble faculty census scissors clump grunt miracle
give betray fossil gas unveil syrup eternal patient hundred neglect soft video	morning galaxy coach service milk shrimp affair property ride glad damp first
virtual salad income moon twin dizzy render intact tilt arena dial funny	cage tiger hidden manage soul color hood old change cloth kick pilot
edit cousin jacket sword breeze urban kiss original drink cherry gym carpet	south labor female kind patch radio medal drip comfort blouse letter dumb
bracket sunny small margin vivid copper velvet observe enter reunion jungle pave	employ stairs coffee repair volcano prepare wash element random phrase shove stamp
pluck flight mandate explain famous evil sign angry grape guilt crunch evoke	quick frozen someone write web behave fire banana trip sense doctor scare
river lemon clever vanish school spawn usual gasp gate link energy cinnamon	desk caution crash arrange kidney cram theme material lonely require that cruel
infant fine practice saddle omit case fatal orient wife canyon clean message	business fancy sadness hazard crew bleak vicious prevent fence gadget coconut angle
warrior decide swap lift real stumble spare opinion kitchen joy fiscal fluid	era fog sight exclude spend will ensure wish mammal orange pair endless
bid rescue more witness option captain grow cheap napkin west hammer danger	fragile middle plastic amount finish exchange aware prosper frost cluster water shell
ugly frame share parade process predict display deer foil version play resource	novel verb skate among pride fault vessel divert bunker olive dash normal
recycle aerobic chaos artwork scorpion obtain chunk verify relief guard multiply wreck	turkey joke simple genre fury uncover ostrich leader motor between fortune slice
reward elbow end neck lobster boat token biology rabbit monitor wagon december	disease skin resist snow orbit nuclear maid profit clock equip grant final
bike feed million kitten canal uncle apology slender dynamic canvas busy vacuum	father gravity leisure drift view have machine north below because zone badge
clown label wool luggage fly silent tiny melt bitter bulk sea accident	believe lend mountain trust smoke away reject casino rack earn ready faint
swim increase addict leopard bundle deliver lumber disorder solution emotion country found	hope one dance aim umbrella doll wild crazy keen glide category force
repeat meat solve rule inject fat index muscle crack edge day ecology	