

## NODE RESOURCE ESTIMATION

Repository Segment	Count	Commit type:					Average		
		Import existing	Production	Documentation	Merge	Submodule	per Project	Total	
		<b>Monthly average normal flow</b>							
Code Snippet	350	Commits	0.1	0.5	0.4	0	0	1.0	350
		Files/Deltas	0.1	0.5	0.4	0	0	1.0	350
		Bytes processed	512	512	410	0	0	1,434	501,760
Library / Dependency	525	Commits	0.1	9	2	0.7	0.2	12.0	6,300
		Files/Deltas	0.7	18.0	4	1.1	0.2	24.0	12,600
		Bytes processed	20,480	36,864	2,048	282	205	59,878	31,436,160
Simple Final Product	100	Commits	0.1	19.9	2	4	2	28.0	2,800
		Files/Deltas	5	50	4	7	4	70.0	7,000
		Bytes processed	2,097,152	153,600	8,192	1,792	4,096	2,264,832	226,483,200
System / Framework	20	Commits	0.1	89.9	8	9	3	110.0	2,200
		Files/Deltas	200	500	20	15	6	741.0	14,820
		Bytes processed	5,242,880	1,536,000	40,960	3,840	6,144	6,829,824	136,596,480
Complex Final Product	5	Commits	0.1	52.9	8	6	3	70.0	350
		Files/Deltas	5,000	1,000	30	10	6	6,046.0	30,230
		Bytes processed	20,971,520	4,096,000	122,880	2,560	6,144	25,199,104	125,995,520
<b>Total Projects</b>	<b>1,000</b>								

  

		EOS Stake/day		
		per file/delta	per action	Total
Actions	1			Total Safe*
CPU time, ms	2	0.0054	14.0400	140.4000
Traffic, KiB	4	0.0020	5.2000	52.0000
		<b>Files/Deltas</b>	<b>2,600.0 daily*</b>	

  

Commits	12,000
Files/Deltas	65,000
Bytes processed	521,013,120

\* we assumen up to 25 full time productive days a month, reducing on inproductive / partially used weekend / festive days

Commit hashes and checksums will be indexed, as well as file sizes.

Knife Nodes will monitor EOS network for incoming hashes and will have to compare them to all known hashes.

This task will get more difficult with ever growing DB, but nothing well indexed database (PgSQL) table could not handle.

A match found will need to be reported back to EOS blockchain smart contract. Once finding is reported, it has to be verified by all other Knife nodes in as short as possible time. Most of that would be in the form of redundant reporting which counts.

Bytes to store is irrelevant before storage nodes would be required to be run

Technical requirements of running a node:

\* EOS mainnet node (nodeos) with specific plugin configuration like history and watcher enabled

\* Local access only PgSQL database

\* NodeJS backend, npm

\* nGinx, open TCP port

\* 2 CPU cores

\* Enough RAM to run EOS node (dedicated EOS node not required), plus 2 GB