ABSTRACT

Data security using randomized features, provides improved protection of user data, within a cloud infrastructure. Files received are broken apart into data blocks then randomly written into storage locations that are recorded in sequence into a key comprising an array of pointers. Data blocks may be randomly sized between maximum and minimum parameters. Storage locations may first be tested to prevent unwanted overwrites of preexisting data, undersized locations may receive a partial write, plus a pointer to an overflow location into which the remainder of data is written. Randomized data storage is separate and isolated from pointers based key storage via separate communication channels, and separate storage infrastructures. Download speeds may be boosted via parallel processing of data blocks out of storage and into reassembly according to the pointers key sequence. Re-assembled files may be worked upon then saved back into the cloud infrastructure.