Explain the Cloud Like I'm 10

How big is a Petabyte, Exabyte, Zettabyte, or a Yottabyte?

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An intuitive look at large data sizes By Julian Bunn in Globally Interconnected Object Databases

Bytes(8 bits)

0.1 bytes: A binary decision

1 byte: A single character

10 bytes: A single word

100 bytes: A telegram OR A punched card

Kilobyte (1000 bytes)

1 Kilobyte: A very short story

2 Kilobytes: A Typewritten page

10 Kilobytes: An encyclopaedic page OR A deck of punched cards

50 Kilobytes: A compressed document image page

100 Kilobytes: A low-resolution photograph

200 Kilobytes: A box of punched cards

500 Kilobytes: A very heavy box of punched cards

Megabyte (1 000 000 bytes)

1 Megabyte: A small novel OR A 3.5 inch floppy disk

2 Megabytes: A high resolution photograph

5 Megabytes: The complete works of Shakespeare OR 30 seconds of TV-quality video

10 Megabytes: A minute of high-fidelity sound OR A digital chest X-ray

20 Megabytes: A box of floppy disks

50 Megabytes: A digital mammogram

100 Megabytes: 1 meter of shelved books OR A two-volume encyclopaedic book

200 Megabytes: A reel of 9-track tape OR An IBM 3480 cartridge tape

500 Megabytes: A CD-ROM OR The hard disk of a PC

Gigabyte (1 000 000 000 bytes)

1 Gigabyte: A pickup truck filled with paper OR A symphony in high-fidelity sound OR A movie at TV quality

2 Gigabytes: 20 meters of shelved books OR A stack of 9-track tapes

5 Gigabytes: An 8mm Exabyte tape

10 Gigabytes:

20 Gigabytes: A good collection of the works of Beethoven OR 5 Exabyte tapes OR A VHS tape used for digital data

50 Gigabytes: A floor of books OR Hundreds of 9-track tapes

100 Gigabytes: A floor of academic journals OR A large ID-1 digital tape

200 Gigabytes: 50 Exabyte tapes

Terabyte (1 000 000 000 000 bytes)

1 Terabyte: An automated tape robot OR All the X-ray films in a large technological hospital OR 50000 trees made into paper and printed OR Daily rate of EOS data (1998)

2 Terabytes: An academic research library OR A cabinet full of Exabyte tapes

10 Terabytes: The printed collection of the US Library of Congress

50 Terabytes: The contents of a large Mass Storage System

Petabyte (1 000 000 000 000 000 bytes)

1 Petabyte: 5 years of EOS data (at 46 mbps)

2 Petabytes: All US academic research libraries

20 Petabytes: Production of hard-disk drives in 1995

200 Petabytes: All printed material OR Production of digital magnetic tape in 1995

Exabyte (1 000 000 000 000 000 000 bytes)

5 Exabytes: All words ever spoken by human beings.

From wikipedia: ◾The world's technological capacity to store information grew from 2.6 (optimally compressed) exabytes in 1986 to 15.8 in 1993, over 54.5 in 2000, and to 295 (optimally compressed) exabytes in 2007. This is equivalent to less than one 730-MB CD-ROM per person in 1986 (539 MB per person), roughly 4 CD-ROM per person of 1993, 12 CD-ROM per person in the year 2000, and almost 61 CD-ROM per person in 2007. Piling up the imagined 404 billion CD-ROM from 2007 would create a stack from the earth to the moon and a quarter of this distance beyond (with 1.2 mm thickness per CD).

The world’s technological capacity to receive information through one-way broadcast networks was 432 exabytes of (optimally compressed) information in 1986, 715 (optimally compressed) exabytes in 1993, 1,200 (optimally compressed) exabytes in 2000, and 1,900 in 2007.

According to the CSIRO, in the next decade, astronomers expect to be processing 10 petabytes of data every hour from the Square Kilometre Array (SKA) telescope.[11] The array is thus expected to generate approximately one exabyte every four days of operation. According to IBM, the new SKA telescope initiative will generate over an exabyte of data every day. IBM is designing hardware to process this information.

Zettabyte (1 000 000 000 000 000 000 000 bytes)

From wikipedia: The world’s technological capacity to receive information through one-way broadcast networks was 0.432 zettabytes of (optimally compressed) information in 1986, 0.715 in 1993, 1.2 in 2000, and 1.9 (optimally compressed) zettabytes in 2007 (this is the informational equivalent to every person on earth receiving 174 newspapers per day).[9][10]

According to International Data Corporation, the total amount of global data is expected to grow to 2.7 zettabytes during 2012. This is 48% up from 2011.[11]

Mark Liberman calculated the storage requirements for all human speech ever spoken at 42 zettabytes if digitized as 16 kHz 16-bit audio. This was done in response to a popular expression that states "all words ever spoken by human beings" could be stored in approximately 5 exabytes of data (see exabyte for details). Liberman did "freely confess that maybe the authors [of the exabyte estimate] were thinking about text."[12]

Research from the University of Southern California reports that in 2007, humankind successfully sent 1.9 zettabytes of information through broadcast technology such as televisions and GPS.[13]

Research from the University of California, San Diego reports that in 2008, Americans consumed 3.6 zettabytes of information.

Internet Traffic to Reach 1.3 Zettabytes by 2016

Yottabyte (1 000 000 000 000 000 000 000 000 bytes) named after Yoda.

Xenottabyte (1 000 000 000 000 000 000 000 000 000 bytes)

Shilentnobyte (1 000 000 000 000 000 000 000 000 000 000 bytes)

Domegemegrottebyte (1 000 000 000 000 000 000 000 000 000 000 000 bytes)