## COMPUTING: 50 YEARS OF CHANGE



2011
Sprint HTC Evo 4G "Smartphone"


DIMENSIONS

| 2,500 sq. ft. (size of the average American home). <br> The CPU alone was $900 \mathrm{ft}^{2}\left(30^{\prime} \times 6^{\prime} \times 55^{\prime}\right)$ | $4.8 \times 2.6 \times 0.5$ inches. |
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| MEMORY |  |
| Maximum of 256 Kilobytes (256,000 bytes) of <br> RAM (Random Access Memory) immersion oil <br> heated \& cooled to stabilize its operation. | 1 Gigabyte (1,000,000,000 bytes) of ROM (Read- <br> Only Memory) + 512 Megabytes (512,000,000 <br> bytes) of RAM (Random-Access Memory). |

## COMPUTING SPEED

About 480 Thousand computations per second.
About 36 Million computations per second.
WEIGHT
Approximately 40,000 pounds ( 20 Tons). 6 Ounces, including the battery.

## COST

| About \$13,000,000 | About \$200 |
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| POWER |  |
| 20 Kilowatts of 208 Volt electric power | One tiny 7 Volt DC lithium battery |

## TEMPERATURE

| Required a dedicated environment and <br> 8 tons of air conditioning | No special cooling required but gets <br> slightly warm in your hand.. |
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## TRANSISTORS

169,200 discrete transistors (the small dark circles) on circuit boards. Each larger than one microchip.

Thousands of transistors are put on a microchip smaller than your fingernail


