GREEN DATA STORAGE

What is green data storage?
 - Green storage is the practice of using a variety of "clean energy" storage methods and products to cut down on a data centre's Carbon Footprint as well as the cost.
A green data center is an enterprise classcomputing facility that is entirely managed and operated on the principles of green computing. It comes with the same features and capabilities of a typical data center but uses less energy and space, and also its design and operation are environment friendly

What exactly is Carbon Footprint ?
 - A carbon footprint is the amount of greenhouse gases—primarily carbon dioxide—released into the atmosphere by a particular human activity.
It is usually measured as tons of CO_2 emitted per year, a number that can be supplemented by tons of CO_2-equivalent gases, including methane, nitrous oxide, and other greenhouse gases.

So, what is the relation between storing data and **Carbon footprint**?

- Producing electricity consumed by data centers will result in the release of 100 million metric tons of carbon dioxide (CO2) by 2020.
In 2018, Google estimated that one month of a typical individual's emailing and searching adds up to about the same greenhouse gas emissions as driving a car 1.6 km.

Fun Fact:
Every Google search comes at a cost to the planet. In processing 3.5 billion searches a day, the world's most popular website accounts for about 40% of the internet's carbon footprint.

Reduced Impact on Environment

- The green or sustainable data centers reduce the energy consumption and exert less impact on environment as compared to the traditional ones.

Decreased Capital Expenditure

- Green or environment-friendly data centers use the minimum amount of power thanks to continuous monitoring and effective data management services.

Effectiveness

- The green data center can offer up to 60% savings in hardware cost and a 32% increase in PUE (Power Usage Effectiveness).

Turning Off Unused Servers

- The green data centers can turn these servers off and reduces the energy consumption and cost.

- Green storage protect the environment like mentioned above

- The service utilizes environmentally friendly solar panels meeting optimal energy efficient standard.

- Green units use smart technologies to keep your items safe and dry no matter what season it is because of that system

- They usually incorporate a self sustainable power system that save money so other benefits.they usually incorporate a self sustainable power system that save money so other benefits.

- A number of technologies had been recognised as effective ways to adapt energy

- The use of cloud storage improve capacity system better performance oriented technology

- Reduced cooling requirements

There are a number of factors for improving power and cooling efficiency by reducing the heat generated in the data center with water or refrig-errant heat exchangers

- Increasing facilities system efficiency

Replacing chiller or UPS systems that have been in service for 15 years or more can result in substantial savings.

- Reduced power consumption with innovative technologies

replacing older IT equipment with newer models can significantly reduce

overall power and cooling requirements reduced by 25 to 40 percent over older(1U) technologies.
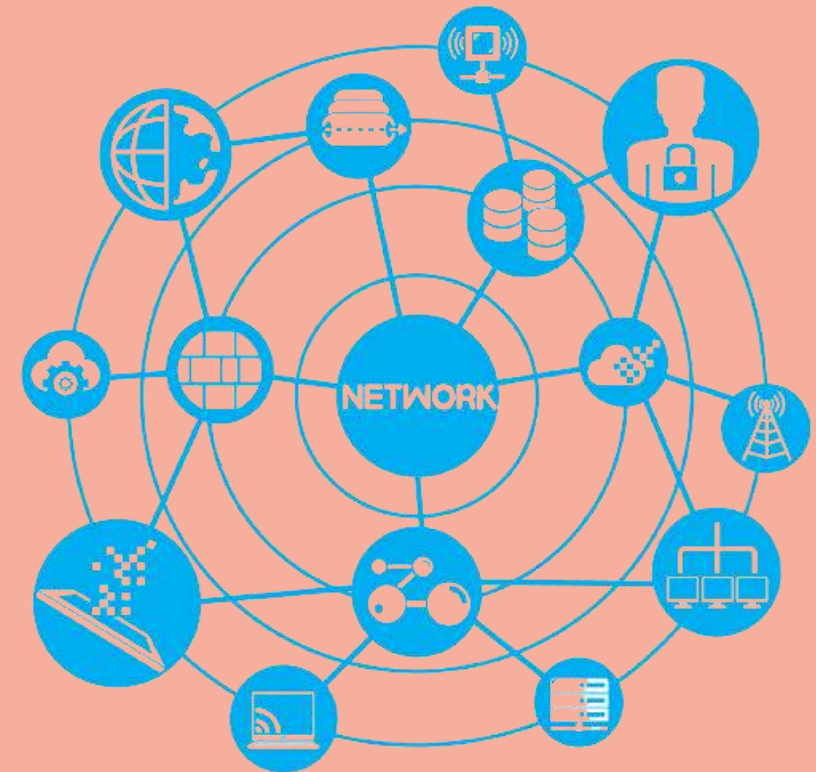
- Virtualization

This eliminates the approach
of dedicating a single workload to a single server—a practice that yields low
utilization rates—and allows virtualized servers to function near maximum

- Power management in IT systems

Ideally, power usage in a data center should be proportional to the workload.
The amount of
power used by a single server or groups of servers can be capped

TECHNOLOGY

- Data centers throughout Europe are leading the charge in efficient energy practices and renewable energy.

- When you think of spring, you think of good weather and the color green. But today, the color green has taken on a brand-new significance as the symbol of the booming green energy movement. That has become a vital component of Europe's economy.

- Data centers throughout Europe are leading the charge in both efficient energy practices and the use of renewable energy, showing that being green is a crucial way to win customers in Europe.

- Demonstrating green practices can be a notable business differentiator for service providers looking to sell services to the European market.

- Europeans care strongly about sustainability: slightly more than eight in ten EU citizens felt that environmental impact was an important element when deciding which products to buy.

- So, data centers have been implementing energy-saving designs and harnessing everything from arctic winds to underground aquifers to the Baltic Sea to reduce energy use and thus reduce their carbon footprint.

- .So, for US companies trying to take advantage of the European market, colocating in data centers committed to both using green technology and innovating new efficiency measures is a way to distinguish themselves from their competitors.

CONCLUSION

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- Green storage protect the environment like mentioned above

- Increasing facilities system efficiency, Reduced power consumption with innovative technologies

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THANKYOU!