Nama : Gagat Padi Yogaradhana

Nim : 20230140030

Kelas : TI A

GREEN DATA CENTER

WHAT

Green data centers are a concept that aims to create environmentally friendly data centers with a high level of energy efficiency. This concept has developed along with increasing awareness of the importance of protecting the environment and reducing the negative impact of the large energy consumption required by data centers.

WHY

Green data centers are needed for several reasons: environmental impact, cost savings, regulatory compliance and brand reputation. Data centers designed and operated with the aim of reducing environmental impacts will increase and develop rapidly in Indonesia. Green data centers reduce theis energy consumption and therefore their environmental impact also through the use of renewable energy sources, energy-saving technologies and sustainable practices.

WHERE

Green Data Centers can be in different locations around the world, and are often placed in areas with access to renewable energy sources.

WHEN

The Green Data Center concept has evolved with increasing awareness of climate change and the need to reduce environmental impact. Implementation can be carried out at any time in accordance with company policy and strategy.

WHO

Green Data Centers can be owned and operated by a variety of entities, from large technology companies to data service providers or government organizations committed to poverty-stricken

practices. Examples of green data centers at well-known technology companies such as *LinkedIn, Microsoft, Google, Apple, and Facebook* show that adopting green practices can be successful on a large scale.

HOW

Green data centers, can support efficient energy use, reduce global emissions, and also improve data center cooling, thereby ensuring the company's operating system is uninterrupted. A green data center can be a data center cooling machine designed to reduce the temperature of electronic components in the data center, by immersing the components in a non-conductive liquid such as oil. Its function is to increase cooling efficiency, reduce data center cooling energy usage, and is environmentally friendly because it complies with global "net-zero emissions" standards. The way green data centers work is usually equipped with internal sensors to actively monitor the temperature of the fluid around the server, thereby ensuring optimal cooling efficiency. These tanks can reduce data center energy consumption by more than 30% and achieve energy usage efficiency (PUE) below 1.1.