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CPE 592
Assignment: Topic 6

Q2: Which one you will prefer to use, "Data Encryption" or "WaterMarking"? Please write down one scenario for each of these mechanisms when one is preferred over the other. (5 points)

The decision to use data encryption or watermarking depends on the specific security objectives. Data encryption is essential for protecting the confidentiality of sensitive information, ensuring that only authorized parties can access it. For instance, in the healthcare sector, platforms like Philips HealthSuite collect data from various remote monitoring devices, such as blood pressure cuffs and wearable heart monitors. To safeguard this sensitive medical information during transmission and storage, encryption mechanisms are employed, preventing unauthorized access and ensuring patient privacy. In contrast, watermarking is used to assert ownership and deter unauthorized use, rather than to protect confidentiality. For example, Getty Images embeds digital watermarks in its stock photos to enforce copyright and licensing agreements, helping to track distribution and verify authenticity. Watermarking can also help trace the origin of digital content, making it easier to track where it came from and spot any potential misuse. Ultimately, while encryption focuses on ensuring the privacy and security of sensitive data, watermarking serves as a tool for asserting ownership and preventing unauthorized use, each fulfilling distinct but complementary roles in data protection.

Citations

Ataman, Altay. "Data Encryption in Healthcare: Importance, Benefits & Use Cases."

Research.aimultiple.com, 24 Feb. 2023,

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