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**P5 Discuss risk assessment procedures.**

• Assessing Risks

1. Natural Causes

we would need to build/ implement this idea far from aquba because it has a sea and by doing that we would elements the risk of having a flood and irbid is a good place for it to be built in, because of that's where many people live and its really hard for any natural disaster to happen but just in case I would recommend to base the building on metal and place frame over it.

In case of natural disaster the metal frame would let the building shake and the frame would protect everything inside it

1. Human Causes  
     
   Intentional behavior

* Social Engineering  
  the firewall can detect the connection source safety plus the firewall company provides a list of safe connection source list and spicily for famous website’s
* Man-in-the-Middle  
  the Man-in-the-Middle attack would get data from the user but in our case the data would be encrypted which means the hacker cant read it and have to run decryption process which would take a long time like years and the data would be useless by that time.
* Viruses  
  in case of getting a virus there is a firewall in the company plus each computer has its own anti virus protection system such as AVG and it would be able to detect any virus and the server is on a different network and it has a firewall and the firewall has many methods to deal and discover viruses
* D Dos  
  this attacked cant be a applied due to the fact the the firewall will drop all the connection from a ip if it requests the site more that 2 time per second
* TCP/IP Hijacking  
  in this case the server keeps checking the connection for how many jumps and how much delay is in the connection and there are other methods that can check how secured is the connection between the Clint and the server
* viruses

Trojan Horses

Worms

Logic Bombs  
all of those viruses can be detect by the firewall and the anti virus system

Unintentional

* Unintentional risks come usually from employees who do things and forget about them like forgetting to lock the server room door behind them or while testing the backup battery for server and leave unplugged from the wall or forget to lock their computers or shut them down, and there are the software part were they do mistakes like forgetting to save or placing weak passwords and for employees who work on database they can forget to backup or delete things by mistake, in addition to all of the employees get mails sometimes those mail can be infected and they would be in spam but some of them still do open them or when they send files/data through 3ed party services and the data gets taken or spied on through some social-engineering tools that can listen to the Wi-Fi or have the man in the middle connection to himself.

All of the unintentional risk can be dealt with by using the CCTV system and having a strong policies in the company such changing the network/wifi password every week and all of the data to be backed up in multiple different methods and locations and keep the backup’s updated.

* CBA :A cost-benefit analysis is a process used by businesses to evaluate the potential rewards and costs associated with a given decision. The analyst sums up the expected returns and then subtracts the total costs.

I will have to start by saying that x-power company is a startup company and it haven’t been long on the market only 3 years, so we will need to use cost benefit analysis(CBA) to check wither it’s worth it or not because it doesn't make sense to place 5000 jds security/fire system on 1500 jds power generator or on a 2000 jds ups, so we are going to use CBA to check and what to do regarding security and safety systems.

Generally I have say that this plan cover almost all of the variability from hardware to software safety in the Xpower company and it should be cost effective and efficient comparing to other solution's.

**P6 Explain data protection processes and regulations as applicable to an organization. Not**

**covering**

**Data Protection Processes and Regulations**

All the data that travels through the intranet or the internet must be protected no matter what it contains!

Data protection is the process of guarding important data from corruption, compromise, or loss.

We can provide the data protection using certain methods, like ( Encryption Algorithms, Data Integrity Checking,

SSL protocols and using Firewalls.)

-Encryption Algorithms: Encryption is the process of changing data into a form to be only

readable using a decryption key. Encryption must point out all the communications within the

database as well as securing all protocols into the database. Examples of encryption methods:

-RSA: A secret key is randomly generated which is unique to each session. All the

network traffic is fully safeguarded.

-DES (Data Encryption Standard): This method uses symmetric key cryptography to safeguard

network communications.

-Triple DES: This method is based on DES, but the difference is that the message data has three passes of the DES algorithm. One drawback of using such an encryption method is that

it decreases the general performance of the network.

-Data Integrity Checking: Integrity algorithms are also added to the network to make as safe

as possible to use. It verifies that the data has not been changed. A database uses these

algorithms to detect corruption. There are two common methods of integrity checking.

-MD5 Checksum: It is a method that provides data integrity through hashing and

sequencing to assure that data is not modified or stolen.

-SHA (Secure Hash Algorithm): It is a similar method to MD5, but in contrast it

produces a larger message digest for greater security.

-SSL Protocol: SSL protocol stands for "Secure Socket Layer" protocol. This exact protocol

provides authentication, data encryption, and data integrity in a PKI form. PKI stands for

Public Key Infrastructure. In addition to that, SSL can only authenticate server-to-client and

client-to-server communication.

-Firewalls: To exclude any weak points the network infrastructure, it is a method to transfer

data from a protocol to another protocol without the trouble of decryption and re-encryption

One way to ensure that the data is protected is to place the firewall between the public

network and the intranet.

Regulations

What is the General Data Protection Regulation (GDPR) and how does it affect you?

The General Data Protection Regulation (GDPR) is a legal framework that establishes guidelines for the collection and processing of personal data from persons living in the European Union (EU). Because the Regulation applies regardless of where websites are headquartered, it must be followed by all websites that appeal to European visitors, even if they don't specifically promote things or services to EU citizens.

The GDPR requires EU site users to accept certain statistical disclosures. The web site online must also take efforts to assist EU customer rights such as timely notification in the event that personal data is compromised.

GDPR's Customer-Service Requirements

According to the guidelines, visitors must be informed about the information that the website collects from them and must expressly consent to such data collection by clicking an Agree button or taking another action.

(This need explains, in part, the prevalence of disclosures that webweb sites collect "cookies," which are little files that store private information such as webweb page settings and preferences.)

Sites must also notify visitors in a timely way if any of their personal information stored via the use of the website is compromised. 2 These EU requirements may be more strict than those imposed by the country in where the website is hosted.

A review of the website's data security is also required, as is determining if a dedicated data security officer (DPO) should be hired or if an existing employee can execute this duty.

Information on how to contact the DPO and other relevant staff members must be made available so that visitors may use their EU statistics rights, which include the ability to have their presence on the website removed, among other things. four

(Of course, in order to fulfill such demands, the website must also upload a team of workers and other resources.)

The General Data Protection Regulation's Other Provisions and Obligations (GDPR)

As a related measure of consumer protection, the GDPR mandates that any personally identifiable information (PII) collected by websites be anonymized (i.e., turned anonymous) or pseudonymized (i.e., the customer's identity is replaced with a pseudonym).

The pseudonymization of data allows businesses to conduct more extensive data analysis, such as determining the average debt ratios of their clients in a certain region—a calculation that would otherwise be beyond the scope of the data gathered for determining creditworthiness for a loan.

Controversies Surrounding the GDPR

The GDPR has elicited criticism from a number of places. Some argue that the obligation to hire DPOs, or to virtually examine the need for them, places an unfair administrative load on a few businesses. Some further complain that the pointers are too ambiguous on how to best address worker facts.

Furthermore, data cannot be transmitted to any other country outside the EU unless the recipient company offers the same level of security as the EU. This has resulted in court battles involving high-priced disruptions to business processes.

**References**

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