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**Task 1 - Impact on an organization by implementing a new computer system**

An organization will put a lot of money into making sure the new computer system works when putting it into place, making it a big undertaking. Multiple associations are enforcing new computer systems because they may offer a load of benefits which can result in numerous benefits. nevertheless, a lot of risk is involved when implementing a new system. A lot of testing is required in order to run a safe organisation.

**Benefits to an organisation:**

A new computer system can have many advantages for an organization. These advantages can be short-term or long-term, and they can help the organization grow and succeed. The new computing system's implementation in the areas of the organization that stand to gain from advantages. These advantages include, but are not limited to:

**Automation for certain processes:**

Certain procedures can be automated by an organisation to do away with the requirement for staff to carry out the necessary roles. Computer systems can be used by businesses to automate a variety of processes, from production to customer care. Organizations can, for example, design public tools or methods for customers to access their services to use the goods and services they produce.

**Convenience to customers:**

Customers of a company may benefit from the use of computers within that company. For instance, computers may enable customers to access or order products using a device without the assistance of a person. Because it takes less time and effort than speaking with a person, it is more convenient for the customer.

**Long-term benefit in growth and profit:**

Overall, computers (especially those utilised for factory automation) can benefit a company significantly more than they otherwise would have without the modern technology. Investing in a new system will yield little benefits as soon as it is put in place; instead, it will help the organisation grow because, for instance, if it makes a given product, it can do so more quickly and cheaply than it could with employees. This enables the company to sell a lot more items all at once.

The use of new computer systems can also significantly speed up organization-wide operations. For instance, if a particular client at a huge corporation with several

**Security and reliability:**

For several reasons, including in the event of a hostile assault and in terms of safeguarding, a computer system is significantly more secure than, say, a standard filing cabinet in a corporation without computers.

Because files are frequently left alone and are only kept secure by building security and the cabinet itself, there is a significant risk of someone stealing data from an organisation that employs filing cabinets to keep it. There is no way to know who accessed the data, so if an employee intended to take information from the company, there would be no way to stop them.

**Risks to an organisation:**

The following risks can arise in several diverse ways in separate times. Some of the risks may not be apparent to the organisation whereas others may be seen more often. There are 2 types of risks, one type of risk is those which we can fix and the other can be a permanent risk which will cause severe damage to the organisation. This will result in having to make a lot of amendments.

**Data loss from a hardware/software failure:**

Every organisation will have some sort of storage for all their data. A common example which many organisations use are server rooms with storage devices. This is more efficient than keeping data saved on a hard drive or a usb drive as they can easily be lost or damaged.

The top 6 reason for why data is lost are:

* Failure in hardware
* Physical damage to storage device
* Corruption on the software / crashes
* Data deletion by accident
* Cyber-attacks on devices with data
* Human error

Another because which is quite rare to experience is natural disaster, such as: flood, hurricane, and earthquake. These can destroy all your data Aswell as your workspace.

**Crashes which prevent an organisation from working:**

Crashes can take place anytime without the knowledge of the user. When an organisation uses a system / software for work, it can take an unusual cause and perform a crash. A crash in computing is when a system stops performing and running which leads to the system closing and exiting the user out. Any unsaved work will have to be done again if this takes place.

If the organisation software developed for the organisation were to contain an unnoticed error, that error could someday occur when using the system in a certain way which would cause the system to crash.

If this does happen, then the organisation which is dependent upon the system working will no longer function. This will continue until the error with the system has been fixed, which could take multiple days to fix, during that time, the organisation will have to endure losses in money and time from the organisation not functioning.

**Unintended side effects in products/services caused by bugs:**

This issue is seen with organisations which use ecommerce to promote or sell products. This requires for the organisation to upload all the detail of their product which they are promoting/selling. What can happen is a bug may occur on the website or system of the organisation leading to the site being muddled up. For example, the price or name of a product may be moved elsewhere in the system. This will result in the developers having to fix it which can be time consuming.

Another unintended side effect can be seen on the product itself rather than the initial system/website/program. For example, if an organisation is selling phones (apple/Samsung) and one of their products has been upgraded to a new system or downgraded then the service on the system or webpage will need to be changed Aswell as pricing.

**Changing of roles and structure within an organisation:**

Before the final deployment stage, there is an implementation stage. This is carried out as a beta to check everything is running as intended before the final deployment. In this stage, a lot of testing takes place Aswell as major and minor faults. This gives time for developers to make amendments before the main use of the program. When implementing a new system, developers may see changes which have not been updated yet for example, changes to employees if they are no longer working or if there are new employees who do not have access to the system or changes for the product itself.

**Impacts of development in computing:**

**Reliance on computers for data storage:**

Due to the advancement of technology, most organisations, and people themselves are dependent on their data being stored and kept safe online on computers. We can see a substantial change because before technology and the advancement of technology, most people and businesses would have printed out documents and handwritten pages of data stored in a draw with a lock to keep them safe. Although it was still a risk from thief it was better than carrying them around in the fear of losing or misplacing them.

As time has passed, we now depend more on keeping information saved into a database (Once data has been placed into a database, they turn into records which can then be transferred into files) The reason for this is because it is extremely fast to recover the data due to the advancement in technology, the processor clock speed will depend on the time taken to get your data back. Having a faster processor clock speed will allow you to repossess your data in a shorter time.

**Use of the internet to communicate:**

The impact of technology on humans allows us to access the internet on any smart device from anywhere across the globe if we are connected to the internet via Wi-Fi, mobile tethering, or personal data. This is a great advantage for organisations as they will have access to liaise other organisations and individuals. This can lead to partnership Aswell as customer service. Once again due to the improved technology which we have, these Commnications can take place across the world through email, call, text, and video call. This feature is seen beneficial to online sellers as they can easily make transactions across the world Aswell and product deliveries.

For a business to run without any source of internet would be seen extremely difficult. This is because they will not be able to reach out to their customers nor their stakeholders. This can be an issue for the management of employees because if they are unable to attend work the other employees would have no idea. Without internet, customers would also be at a disadvantage as they will not be able to call up for services such as: hospital, work, emergency services, vehicle repair and much more.

**Automation of certain processes:**

The number of employees within an organization will be reduced if certain processes are automated with the help of computers. It may be possible for some large-scale businesses that can automate most of their processes to have a small workforce. In other words, the processes that were previously performed by employees are now automated and therefore no longer necessary.

Data input, collection, and retrieval can be automated for a business that needs to store customer information. The information needed to identify a customer had to be manually found through organized files before computers. Computers can now search databases to find the relevant information rather than people searching through files.

**Impact of emerging technology in computing:**

**Internet of things (IoT):**

The term "internet of things" refers to a physical network of gadgets, including sensors, that have computers built into them and can transmit and receive data between themselves and other gadgets in the network. The billions of gadgets that make up the internet of things can all send and receive data to be processed. Smart appliances for the kitchen, smart doors, and smart lights are a few examples of these gadgets.

The internet of things can be helpful to a business since it allows for remote control of numerous operations that previously required manual intervention. When connected to the Internet of things, devices like production lines for a factor can be remotely managed.

**Cost effective serverless computing infrastructure:**

In most cases, cloud computing is more cost-effective than maintaining one's own servers, which is why serverless computing is used. The necessity for planning, building, installing, maintaining, backing up, and updating servers necessitates several people in addition to the expense of maintaining the servers. Organizations can eliminate these expenses and transfer them to specialised cloud computing firms by leveraging the cloud.

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