

Data Security - Data Loss Risk Reduction

Many companies are now completely reliant on the data stored on their network servers, PCs, laptops, mobile devices or in the cloud. Some of this data is likely to contain either personal information and/or confidential company information.

Here we look at some of the issues to consider when reviewing the security of your computer systems, and how to minimise the risks of data loss.

There have been many high profile incidents of data loss – where large volumes of personal information have found their way into the public domain.

Examples of this sort of information include health records, financial records and employee details.

A commercial organisation also faces the additional risk of data being lost to a competitor.

Obviously, the larger data losses from government and corporations hit the headlines.

However, any company, however large or small can suffer data loss unless sensible precautions are taken.

In the past year alone, according to research undertaken by the Department for Business Innovation & Skills some 87% of small businesses have experienced some sort of security breach.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200455/bis-13-p184-2013-information-security-breaches-survey-technical-report.pdf

Small businesses were commonly subject to system failures and data corruption, with computer theft and fraud also featuring on the list of types of security breach.

Mobile devices in particular – which can run applications, link to corporate servers and can receive emails with corporate and personal data in the form of attachments, can be considered high risk. Firms may want to think about a BYOD (Bring Your Own Device) policy.

There are usually two ways in which data can go missing:

- an employee accidentally or deliberately loses a device, or discloses personal information
- the data is stolen through the physical theft of a device, or by electronic penetration.

Audit use and storage of personal data

Consider the potentially sensitive and confidential data which is stored by your business –

- staff records with date of birth, salary and bank account details, sickness/absence etc
- customer and supplier records with bank/credit card account details, pin numbers, passwords, transaction information, discounts and pricing, contracts information
- financial and performance data and business plans.

Confidential data is not always conveniently stored in a 'secure' database. Often employees need to create and circulate ad hoc reports (using spreadsheets and other documents) which are usually extracts of information stored in a database(s). This is quite often done at the expense of data security - as the database itself invariably will have access controls, but these ad hoc reports usually do not.

Find out what is happening to data and what controls are in place to prevent accidental or deliberate loss of this information.

Risk analysis and risk reduction

So the first key question is - If all or some of this data is lost who could be harmed and in what way?

When that is known, then steps to mitigate the risks of data loss must be taken.

So here are some steps which should be undertaken to reduce the risk of data loss –

- Take regular backups and store backup data off-site.
- Review the type of information which is stored on devices (such as laptops, mobiles or other media) which are used off-site. If such information contains personal and/or confidential data try to minimise or anonymise the data. Ensure that the most appropriate levels of data security and data encryption are applied to this data.
- Review the use/availability of USB, and other writable media such as Optical devices within the company and think about restricting access to these devices to authorised users only, via appropriate security settings, data encryption, and physical controls.

- Ensure that company websites which process online payments have the highest levels of security. This means adopting SSL encrypted transmissions, and also testing for vulnerabilities from attacks.
- Have a procedure for dealing with sensitive information and its secure disposal once the data is no longer required.
- Train staff on their responsibilities, the data security procedures and what they should do if data goes missing.

Security breach

As well as risk reduction, it is also good practice to have procedures in place in the event a security breach occurs.

This should concentrate on four main areas –

1. A recovery plan and procedures to deal with damage limitation.
2. Recovery review process to assess the potential adverse consequences for individuals; how serious or substantial these are; and how likely they are to happen again.
3. Notification procedures – this includes not only notifying the individuals who have been, or potentially may be, affected. If the security breach involves loss of personal data, then the Information Commissioner (ICO) should be informed. There may be other regulatory bodies and other third parties, such as the police, the banks and the media who may need to be informed.

4. Post-breach – ensure that appropriate measures are put in place to prevent a similar occurrence, and update procedures and train or re-train staff accordingly.

How we can help

Please contact us if you require help in the following areas:

- performing a security/information audit
- training staff in security principles and procedures

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