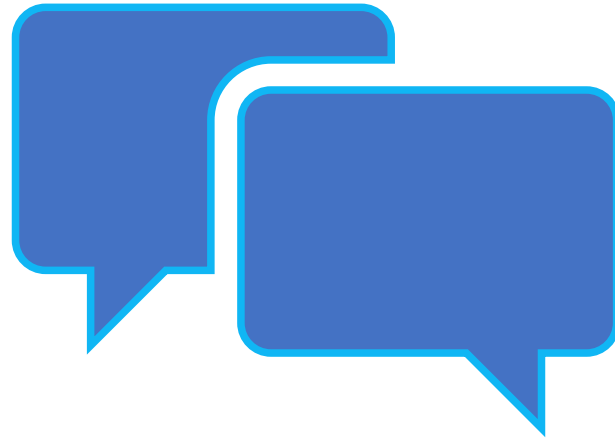




Pre-assess discussion and points mean prizes

Data Security NC Level 5



What is
data?

1 point for each possible answer

The background of the slide is a dark blue and red gradient. It features a faint line graph with a red line and a bar chart with red bars. Scattered throughout the background are binary digits (0s and 1s) in a light blue color. A large, semi-transparent blue rectangle is positioned in the center-left of the slide, containing the text 'What is data?'.

What is data?

- Data of any kind that can be used
- Words, numbers, images, sounds – all without context
- When put together in a meaningful way, the data becomes information
- Information can lead to knowledge



Where is
data stored?

1 point for each

Different data is stored on different backing storage devices depending on what that data is and how it is used.

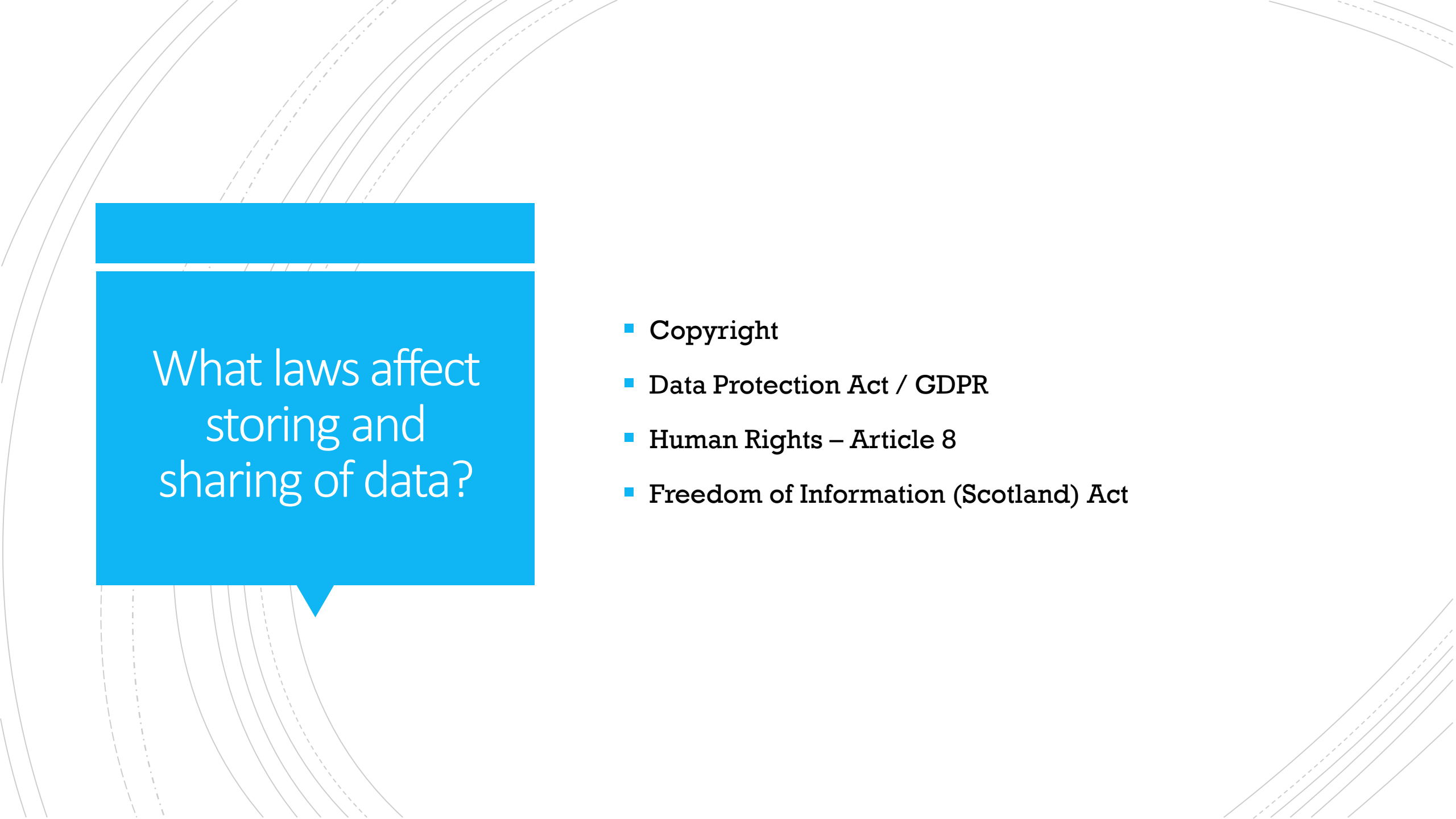
Hard drives, USB flash drives, SIM cards, mobile phones, tablet computers... are just some of the more common methods of storing data. More recently ... on the cloud.

Where is data stored?



Name legislation
that impacts upon
data storage or
sharing of data?

2 points for each named

The background of the slide features a series of thin, curved lines in shades of grey and blue, creating a sense of motion and depth. These lines are primarily located on the left and right sides of the slide, framing the central content.

What laws affect storing and sharing of data?

- **Copyright**
- **Data Protection Act / GDPR**
- **Human Rights – Article 8**
- **Freedom of Information (Scotland) Act**



How does
legislation relate to
data storage or
data share?

List the main points of each
piece of legislation

1 points for each per legislation
item listed, namely Copyright,
GDPR, Human Rights, FOIA

Copyright

Data storage and data sharing must adhere to copyright legislation in respect to:

- software, artwork, designs, own work, permissions, length of copyright

Data Protection Act / GDPR

Personal data: consent, secure, up to date/accurate, right to be forgotten, right to be informed, data breaches, data portability, minimal data

7 principles:

- fair & transparent
- purpose limitation
- data minimisation
- accuracy
- limitation
- secure
- accountability

More about GDPR

8 main rights:

- The right to be informed
- The right of access
- The right to rectification
- The right to erasure
- The right to restrict processing
- The right to data portability
- The right to object
- Rights relating to automated decision-making profiling

Human Rights – Article 8

Human Rights – Article 8 requires public bodies to respect the private life of an individual and any information held about them;

- (a) everyone has the right to respect for private and family life, home and correspondence
- (b) no interference by public authority except within law for national security, public safety, economic well-being of the country, prevention of crime, protection of health or morals, protection of the rights of others and their freedom

Note: Private life can include:

- Sexuality and personal autonomy and psychological integrity
- Private and Confidential information
- Respect for a reasonable expectation of privacy
- Trade Union membership, political persuasion, religious beliefs

FOIA

- Freedom of Information (Scotland) Act
- a person requesting information from a Scottish public authority is entitled to have it, with certain conditions and exemptions



What is a data
security breach?

1 point



What is a data security Breach?

- A data breach is an incident in which sensitive, protected or confidential data has potentially been viewed, stolen or used by an individual unauthorised to do so.



List some common
causes of data
security breaches

1 point for each one listed

Common causes of data security breaches

- Loss or theft of data
- Loss or theft of equipment on which data is stored
- Equipment failure
- Human error
- Fire, flood, emergencies (unforeseen circumstances)
- Hacking attack
- Deceit / Blagging offences (e.g. falsifying identity)
- Weak or stolen passwords
- Back door vulnerabilities (exploitation by hackers)
- Malware
- Malicious insider



Name some internal
data security threats
to organisations

1 point for each one listed

Inside threat

Redundant or sacked employees could spread a virus or delayed time for virus infection

Ex-employees might still have access to data

Friends, relatives or ex-colleagues might help

Copied data might be taken prior to leaving

Senior personnel may have more access rights to data

Cleaners / lower paid staff seeking other finances

Employees holding a grudge whilst employed

Competitors (espionage, theft)



Name some
perimeter security
enforcement
measures

5 points for each one listed

Perimeter
Security
enforcement

The diagram features a central blue box on the left with the text 'Perimeter Security enforcement'. To its right, five colored boxes are stacked vertically, each connected to a larger, empty rectangular box of the same color by a thin line. The colored boxes are: blue (Firewalls), purple (Intrusion Detection Systems), pink (Intrusion Prevention Systems), red (VPN), and orange (Demilitarised Zone). The background has faint, curved, concentric lines on the left and bottom right.

Firewalls

Intrusion Detection Systems

Intrusion Prevention Systems

VPN

Demilitarised Zone



Name some physical
security enforcement
measures

2 points for each one listed

Physical Security enforcement



Surveillance



Locks on doors,
windows, all room
access to server



Hide / secure
away from view of
portable devices



Alarm system



Security guards



Disable USB ports

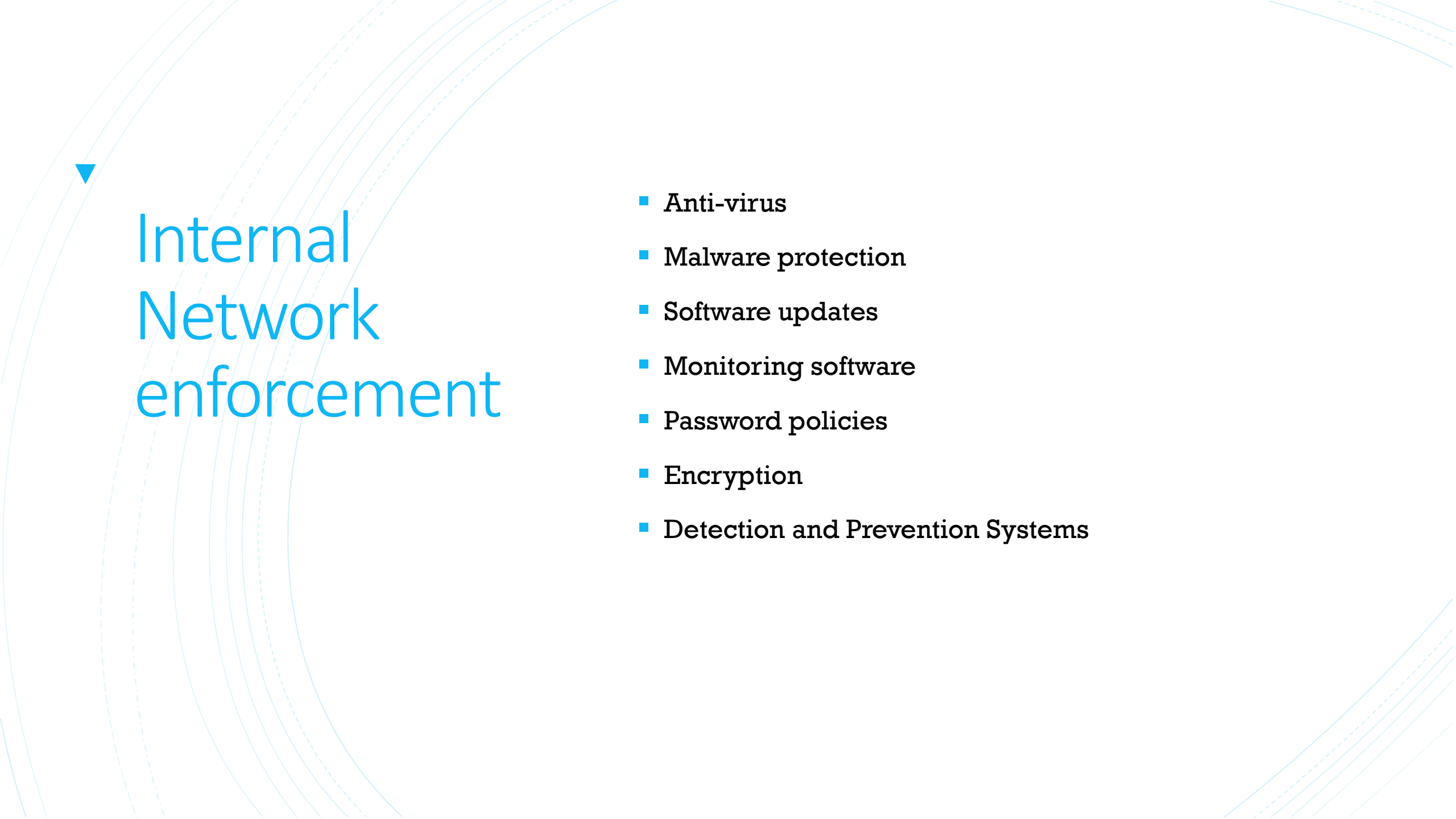


Encrypt data



Name some internal
network security
enforcement
measures

2 points for each one listed



Internal Network enforcement

- **Anti-virus**
- **Malware protection**
- **Software updates**
- **Monitoring software**
- **Password policies**
- **Encryption**
- **Detection and Prevention Systems**



Name some general
ideas for keeping data
secure

2 points for each one listed

Keeping data secure

Generally
keeping data
secure

Social media
restrictions

Block suspicious
users

Avoid public wi-
fi for sensitive
activity

Use privacy
settings

Do NOT forget
to sign out

Email security

Mindful of
online
reputation

Care with
downloads

Do NOT save
passwords to
web browser

Two-step
authentication

Do NOT believe
everything you
read



What can be the
impact upon
individuals of a data
security breach

2 points for each one listed

The background of the slide features several thin, curved lines in a light gray color, some solid and some dashed, creating a sense of motion or a stylized globe. On the left side, there is a large blue speech bubble with a white border. Inside the bubble, the text "Impact upon individuals" is written in white. To the right of the bubble, there is a list of seven items, each preceded by a small blue square bullet point.

Impact upon individuals

- Financial loss
- Financial reputation
- Damaged personal reputation
- Loss of employment
- Marital breakdown
- Stress / illness
- Mental health illness



What can be the
impact upon
organisations of a
data security breach

2 points for each one listed

Impact upon organisations

- **Fines (up to 20 million Euros or 4% of global annual revenue)**
- **Financial loss**
- **Insolvency**
- **Reputational damage**
- **Theft**
- **Employee loss**
- **Customer loss**
- **Competitor benefits and strengthens**

Points total

- Over 120 points ... EXCELLENT, EVERYONE SAY “WOW”
- 100 – 120 points ... VERY GOOD, PAT ON BACK
- 80 – 100 points ... BRAW, WELL DONE
- 50 – 80 points ... NOT BAD, study some more
- Less than 50 points ... STUDY A LOT MORE