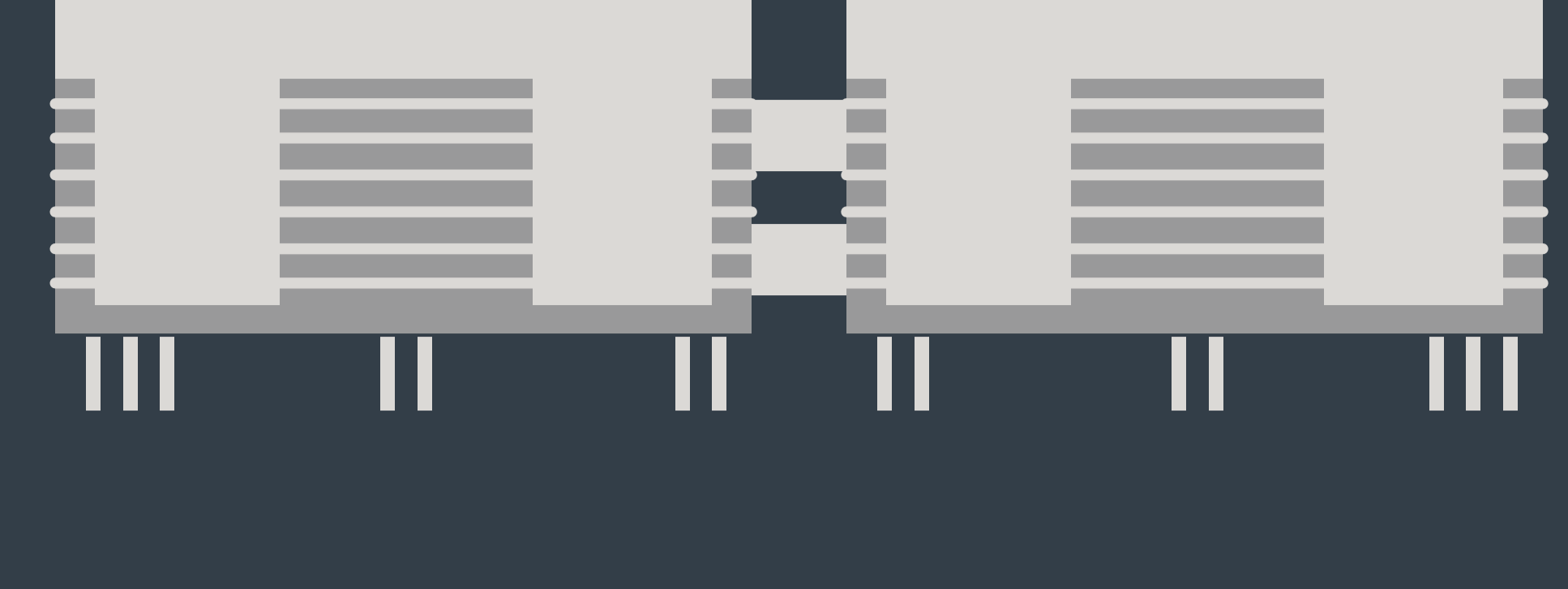


# WHAT IS A DATA CENTRE?

**But more importantly, why does it matter to you?**



If you've ever heard of a data centre, you might be thinking of a hugely techie building full of electric filing cabinets.

You probably think they are really expensive and use a huge amount of electricity?

**Put simply, a data centre is a large warehouse full of computers**

## DATA CENTRES DO FOUR KEY THINGS

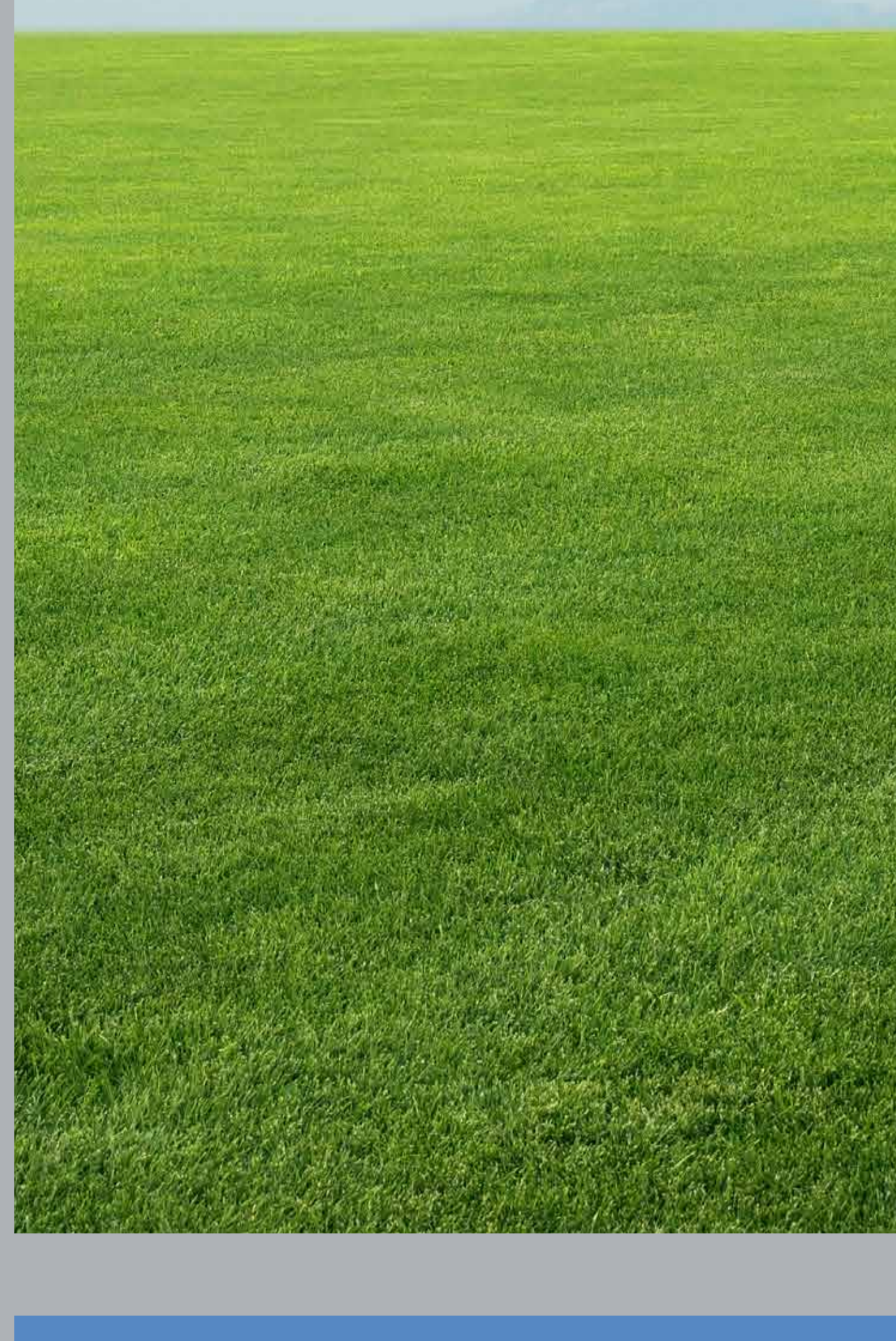
### SPACE

FOR RACKS

Inside the data centre are hundreds of rows of racks.

Each rack is full of computers often called servers.

The servers do lots of different things. Some are storage, some are running applications and some are making calculations.



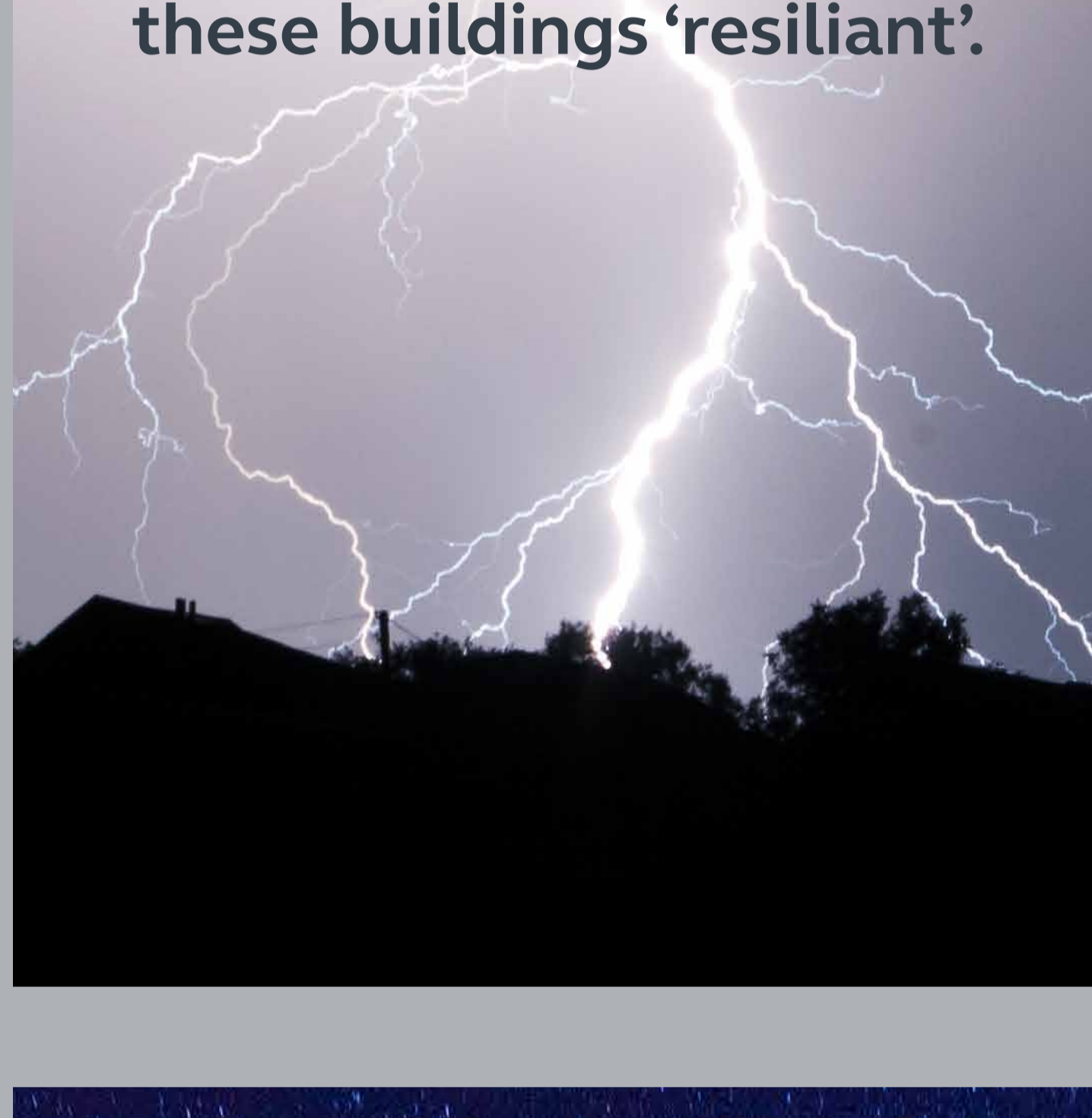
### POWER

ELECTRICITY FOR THE COMPUTERS

These servers are very powerful and therefore need lots of electricity to run them.

Not only this, but lots of the servers are running operations that must never be interrupted. Therefore, data centres are built to never have power cuts.

To stop this happening, they have batteries and generators in addition to the power from the grid. We call these buildings 'resilient'.



### COOLING

THE COMPUTERS MAKE LOTS OF HEAT

Like the computer on your desk, the servers in data centres get hot.

So due to the huge amount of computers, there is a massive amount of heat generated.

So data centres need to have equally powerful cooling (just like air conditioning).



### SECURITY

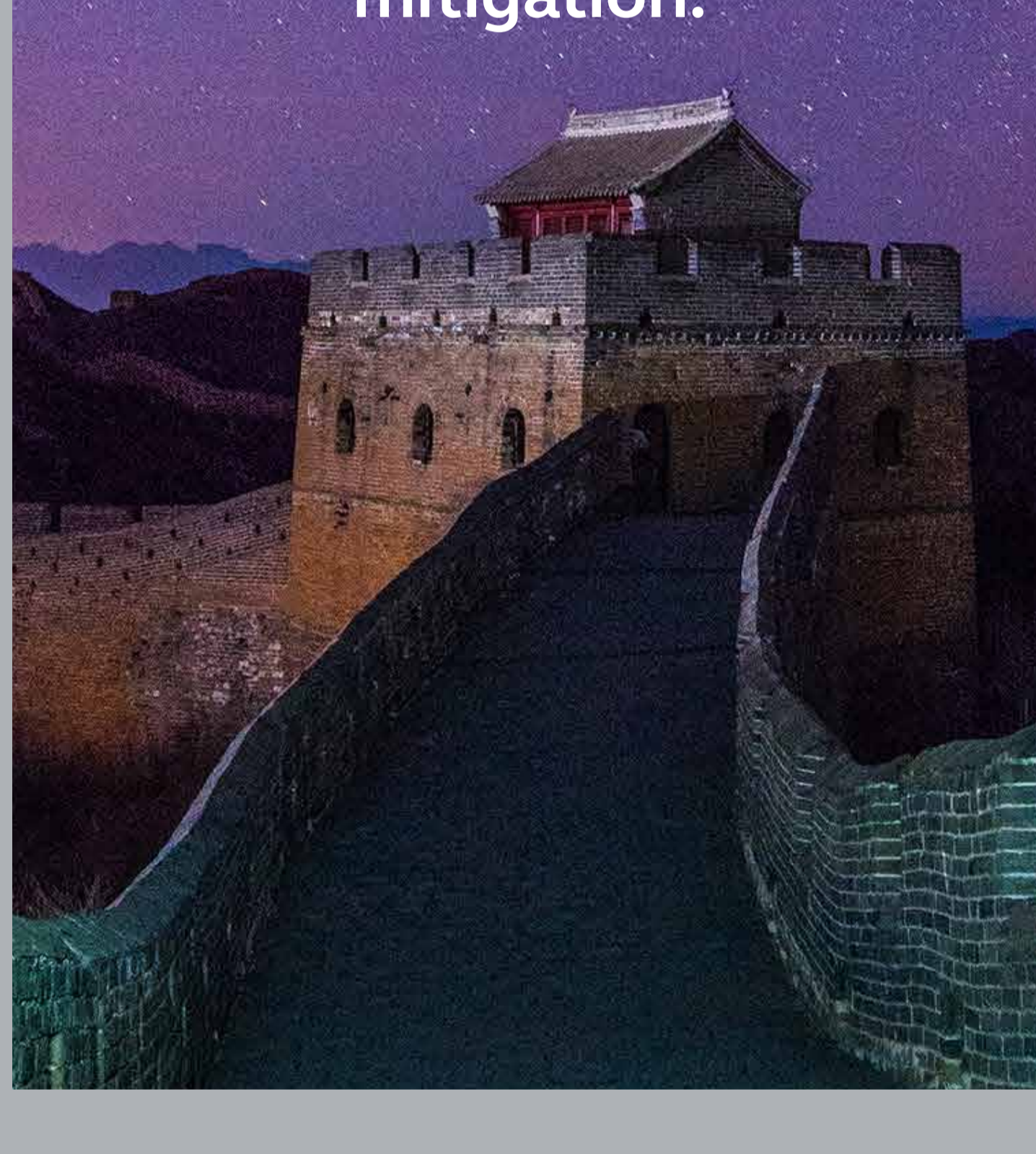
LOTS OF THE INFORMATION IS VERY PRECIOUS

Data centres hold a huge amount of information. For example, all high street banks use data centres. Therefore, your bank details live in a data centre.

So to stop anything being stolen, data centres have military style security:

Security fencing, Trembler wire, Biometric access (finger print or iris scanning), Specially trained guards, Man traps & CCTV.

As well as this, there are different layers of digital security, such as DDoS mitigation.



## CONNECTIVITY

**It's vital to be able to rapidly access the information you need from a data centre**

**This is where connectivity comes in**

Data centres are connected to the world through thousands of miles of fibre optic cables. These span the globe traveling under the seas to link up the world.

This can be done through the internet or through private networks. The connectivity that data centres offer is super-fast and can get you anywhere. Meaning you can access your files from your office, on the move or at home in less than a second.

## DO I USE A DATA CENTRE?

**The answer is yes and not only that, but you probably use one every day**



Streaming a movie online



Searching for something online



Checking your online banking



Replying to an email



Editing a document online



Even the storage of your medical records

# 365/24/7