

# Dissecting IT infrastructure

## Netflix

Welcome back to our blog series, where we dive into the IT infrastructure of leading online brands.

In this installment, we're looking at Netflix, a global leader in streaming entertainment. It supports streaming to millions of users simultaneously, ensuring seamless playback and top-notch user experience.

For SMEs, understanding how Netflix manages its IT infrastructure can offer valuable insights into building a scalable, reliable, and high-performing system. While Netflix operates on a massive scale, the principles behind its infrastructure can be applied to any business with Fasthosts ProActive solutions.

Here's a section about server locations in the same format:

### Global presence

Having servers in multiple geographic locations is key to delivering fast and reliable service to users around the world. By strategically placing servers closer to your customers, you can significantly reduce latency, improve load times, and ensure a smoother user experience, no matter where they are.

#### What to consider for your business...

- **Global reach** – Strategically deploying servers across various regions enables you to connect with customers more effectively. This is especially crucial for businesses with a global audience, ensuring that content and services are delivered swiftly and reliably across diverse markets. At Fasthosts ProActive, we offer servers in key global locations, including the UK, Germany, Spain, and the US, to help you reach your customers wherever they are.
- **Scalability** – As your business grows, so does your need for additional server locations. Planning ahead to expand your server network will help you handle increasing traffic and maintain performance during peak times.

### Microservices architecture

Netflix uses a microservices architecture, where different small services handle specific tasks, like managing movie lists or user logins. This setup allows Netflix to update or fix parts of the system independently, making it more reliable and scalable for a smooth viewing experience.

#### What to consider for your business...

- **Cost** – While microservices can reduce long-term costs by improving scalability and reducing downtime, the initial setup can be complex.
- **Complexity** – Implementing and managing a microservices architecture requires a deep understanding of your system's needs.

## Data analytics and personalisation

Netflix's success comes from using data analytics to personalise recommendations. By looking at what you watch and how you watch it, Netflix figures out what shows and movies you might like. This way, Netflix can suggest content that matches your interests, keeping you engaged and happy with the service.

### What to consider for your business...

- Data management – Effective data analytics starts with proper data management. We can help you set up and maintain data management practices that make sure your analytics tools are fed accurate, timely information.
- Cost – Advanced analytics tools can be expensive, but they're important for understanding customer behaviour. Travel companies can analyse customer data to offer personalised travel recommendations and targeted promotions, improving customer satisfaction and loyalty.

## Global scalability and availability

Netflix's infrastructure is built to handle lots of users worldwide at once. It uses load balancing to spread traffic evenly, auto-scaling to add resources when needed, and disaster recovery systems to keep everything running smoothly, even during problems. This makes sure Netflix stays available and reliable, no matter how many people are watching.

### What to consider for your business...

- Cost – Building a globally scalable infrastructure is costly but necessary for businesses with a large or international customer base. Game developers and publishers need infrastructure that can scale to support many players simultaneously and maintain uptime during peak periods.
- Complexity – Managing a global infrastructure requires significant expertise. We provide the skills and support you need to manage your infrastructure effectively, no matter the scale.

## Security and compliance

Netflix focuses heavily on security by using advanced encryption to protect user data and following strict rules to meet regulatory standards. This keeps your information safe and makes sure Netflix complies with necessary regulations.

### What to consider for your business...

- Security – Protecting user data is a must for maintaining trust, and building robust security from the start is essential for your business. At ProActive, we provide fully managed backups, ensuring that in the event of an attack, your data can be swiftly restored.
- Compliance – Navigating regulatory requirements can be complex, especially as your business grows.
- Cost – Investing in security and compliance tools can be expensive, but the cost of non-compliance is far greater. Schools and universities must secure student data and comply with educational privacy laws to protect personal information and avoid penalties.

By learning from Netflix's approach to IT infrastructure, SMEs can gain valuable insights into how to build systems that are scalable, reliable, and secure. With the right support from Fasthosts ProActive, even small businesses can implement robust infrastructure strategies that meet their unique needs.

Stay tuned as we continue to explore the IT infrastructure of other leading brands in our upcoming blog posts.



If you have any questions or want to learn more about how Fasthosts ProActive can help your business, give us a call at 0333 111 2000 or book a meeting at a time that suits you.