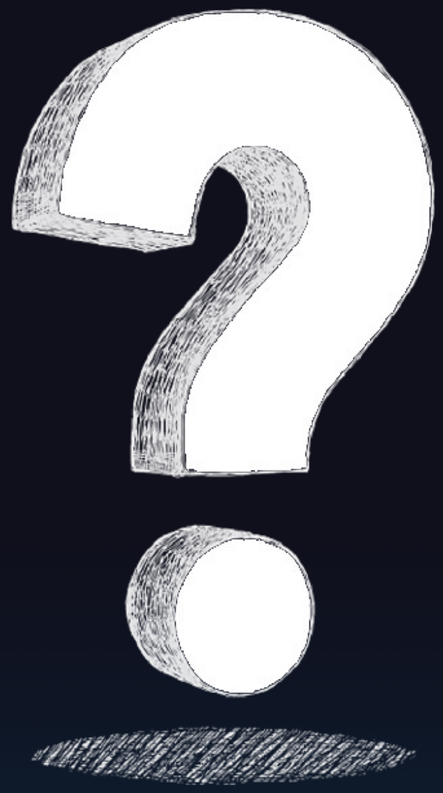
Traffic Prediction And Load Testing Infrastructure

Sumit Sulakhe

Site Reliability Engineer, LinkedIn



1. Do you know how much traffic your infrastructure will serve in the next quarter?
2. Is your infrastructure capable of handling such load?

Image Source

Why Traffic Trend Changes?

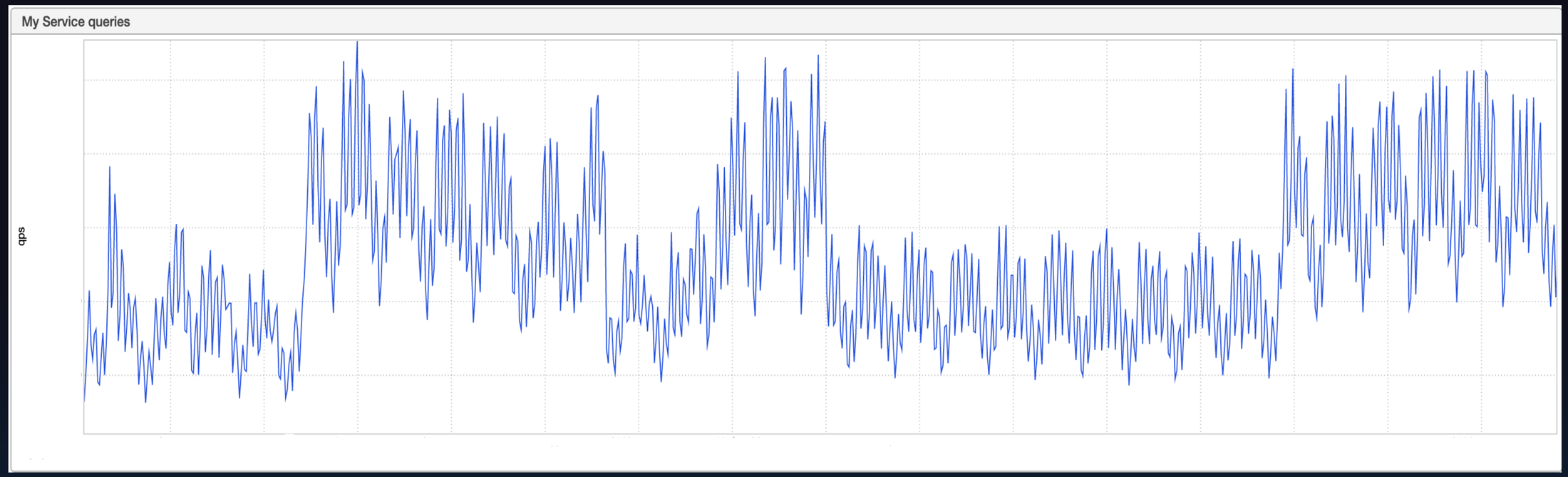
User Engagement

New Releases

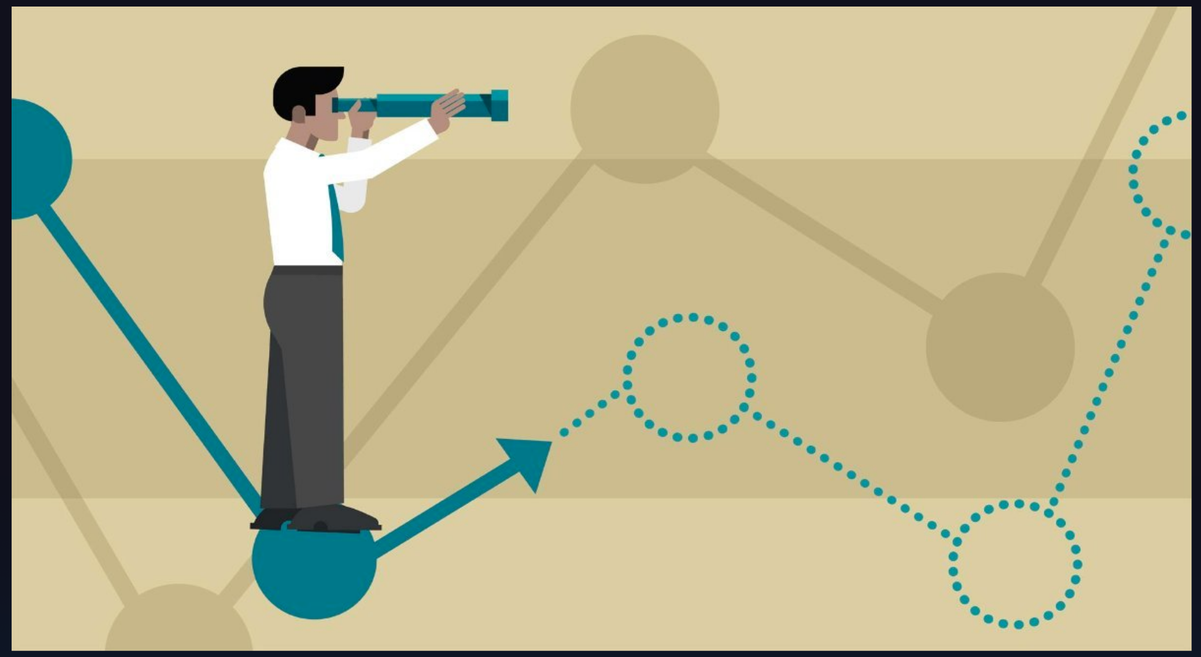
Seasonal Trends

Yearly Seasonality

Yearly trend:



Forecasting



- QPS: Queries Per Second
- Page views: Unique visit to a web page

Image source

Pre-Requisites For Traffic Forecasting

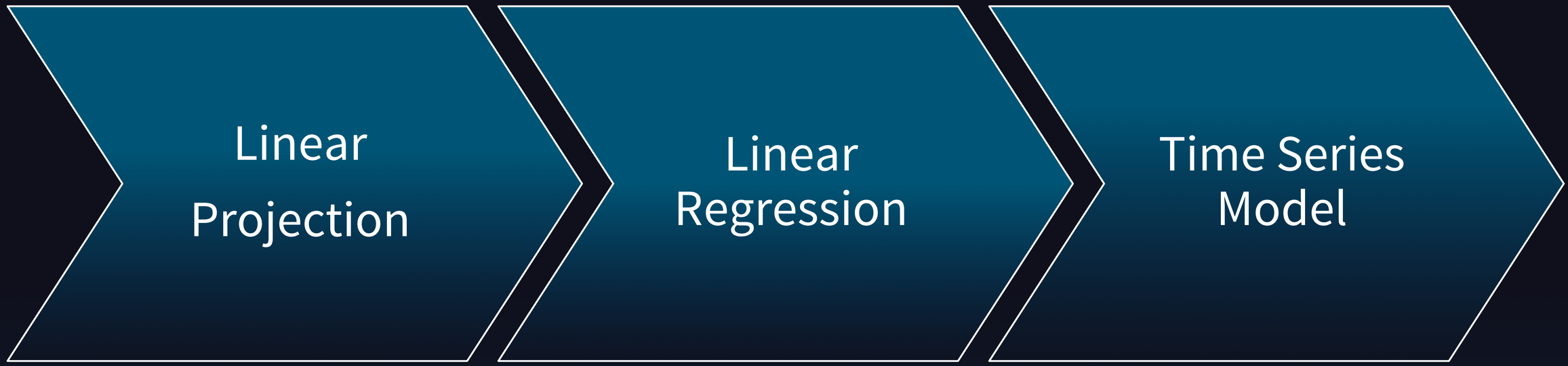
Metrics

Historic Data

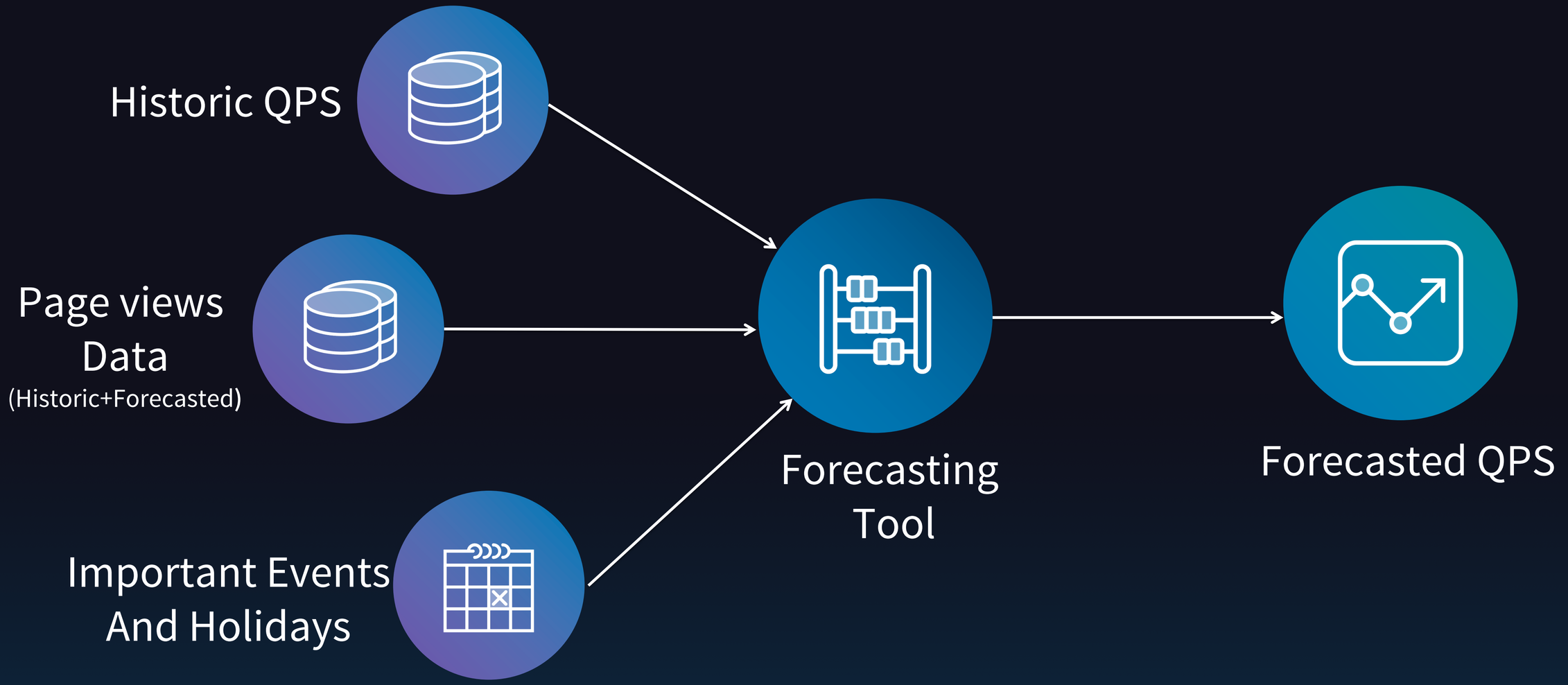
Frequency

Our Journey

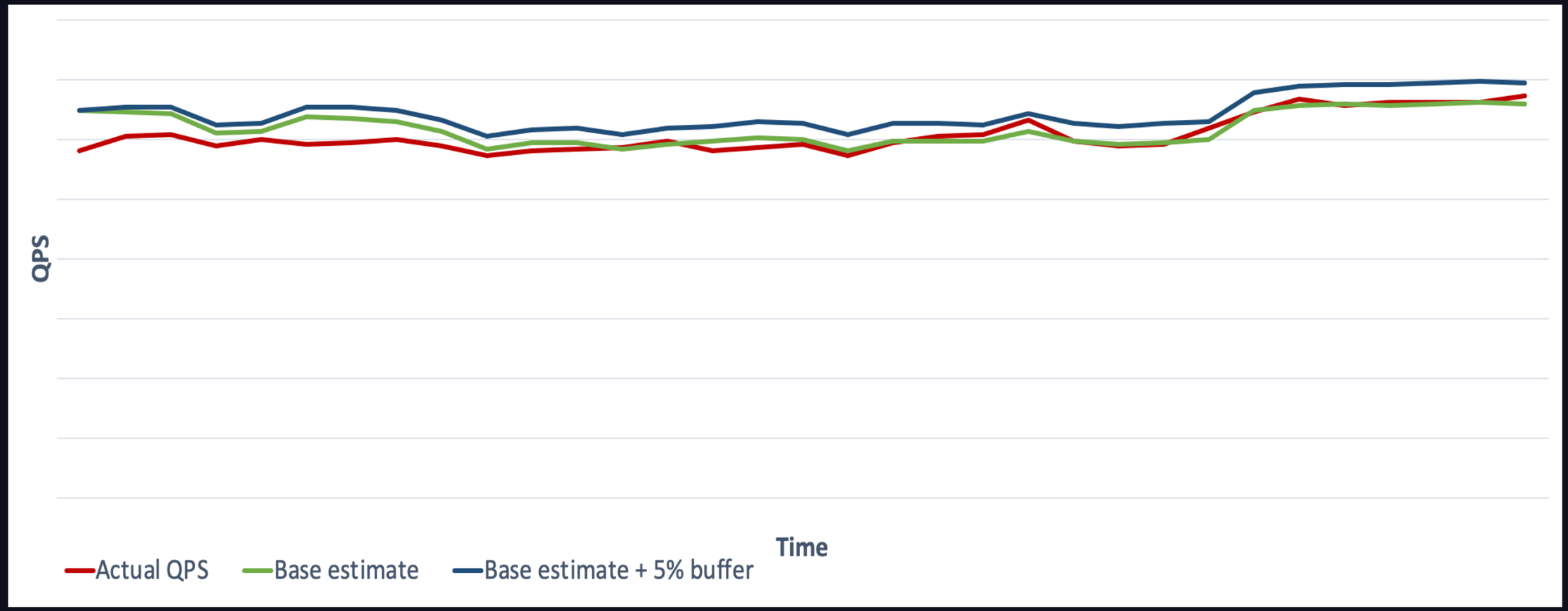
Our Journey



Traffic Prediction At LinkedIn



Sample Forecast



What Next?

Load Testing

Image source

Challenges In Load Testing

Load Test process

User Experience

Load Testing LinkedIn Infrastructure

Traffic Routing

Tools provide control over the traffic assignments across data centers.

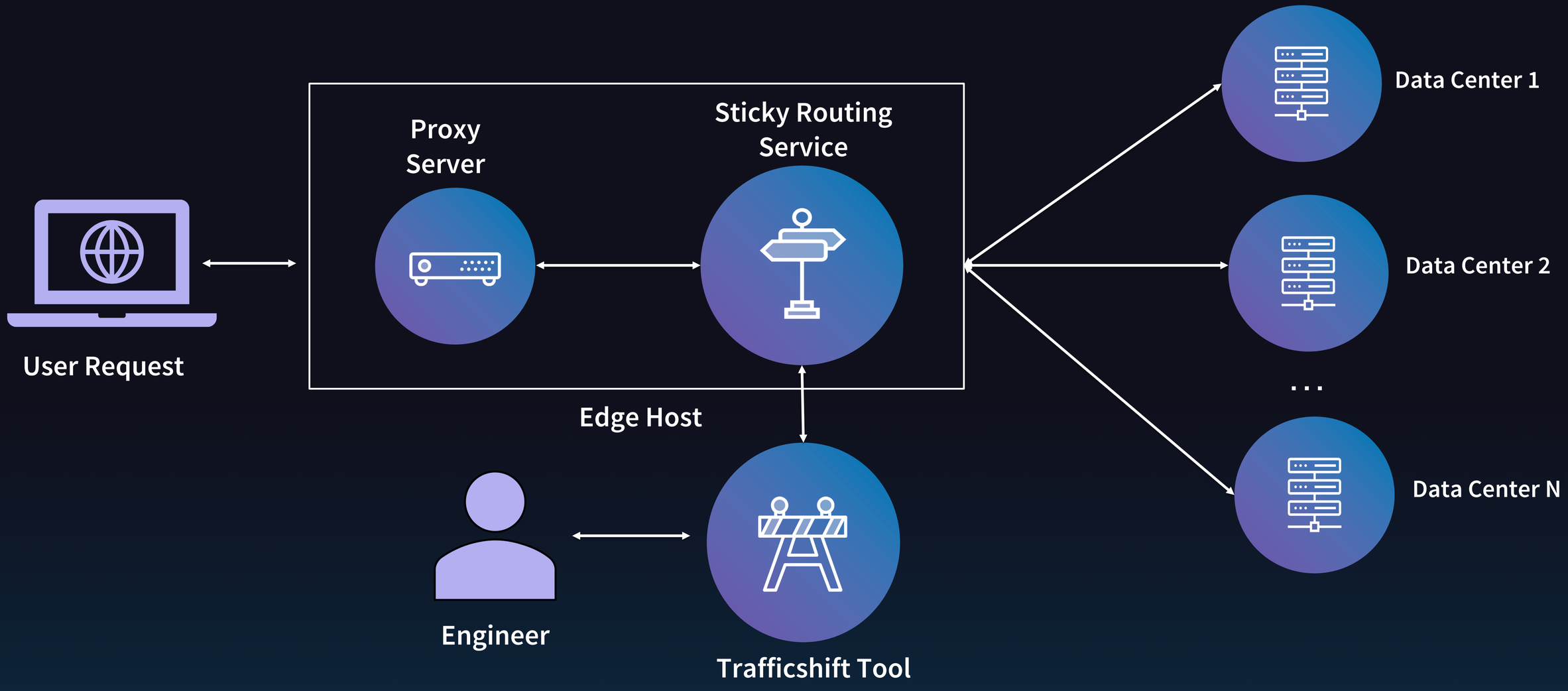
Monitoring

Monitoring infrastructure to capture any site wide impact of Load test.

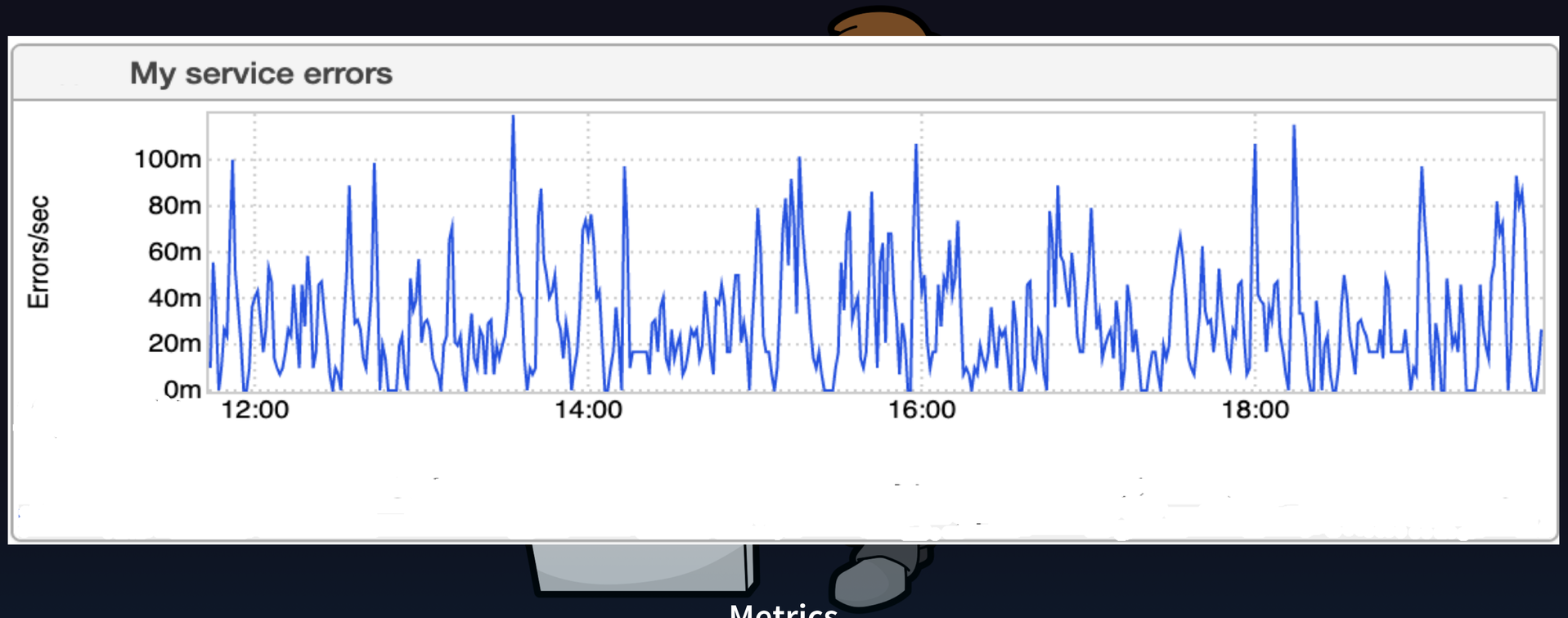
Learnings

Follow up actions to maintain the site capacity.

Traffic Routing



Monitoring



Metrics

SRE on-call

Image source

Learnings

Current Capacity

Degraded Services

Production Issues

Capacity Adjustments

Key Takeaways

- Be aware of the upcoming site traffic demand and keep your infrastructure ready.
- Load test your infrastructure regularly.
- “It is better to be safe than sorry”

Questions?