



NetFUNNEL


- Challenge
- How it Works
- Customer Values
- Easy and Simple Application

Virtual CASPER Show

Estimated waiting time: **00:00:19**
Your queue number: **320**

If you refresh it or go back to the previous page, you will be moved to the back of the line.



You are now in line.

Estimated Wait Time **00:03:04**
Your Number in line **9746**

You will move to the front of the line automatically. There is no need to refresh the pages, but please keep your browser open.

[Event Details](#)

BTS X Samsung

You are now in line!

00:50
min. sec.

50 members are ahead of you!
Estimated waiting time **00:00:50**

If you refresh it or go back to the previous page, you will be moved to the back of the line.

Virtual Waiting Room Solution for Massive Online Traffic

Ensure a seamless customer experience by safeguarding your online services and infrastructure assets against sudden traffic surges.

[close] when you press the [close] button, the waiting order will be reassigned. [close](#)

[close] Please use the [close] button only when the internet connection is temporarily interrupted, causing the waiting line to stop without reducing the number of waiting people.

It may take up to 98 minutes to connect to the reservation page.

Online reservation access wait notice

There are currently **2051** people ahead of you and they will be automatically connected in order of their waiting number.

Online reservation request frequency and time limit guide

You can make up to 6 reservation requests, and the total reservation time is up to 3 minutes.

*Seats in the preferred time slot may be sold out during the initial stages of the



LOTTE HOTEL online reservation access wait notice

Estimated waiting time: **00:02:19**
Number of people waiting: **138**

- There is a temporary delay for reservations due to a high volume of bookers accessing the site.
- If you press "Refresh", "Go Back", or close the pop-up window and access the page again, you will be moved to the back of the line.
- Minutes after accessing the page, you will be notified.

COVID-19 Vaccine Reservation

We're working to get you in.

Our website is full to the brim with people now and you have been temporarily placed in a virtual queue!

There are currently **1272** people ahead of you and **304** people waiting behind you.

You will be back on and logging into the website soon.

If you refresh it or go back to the previous page, you will be moved to the back to the back of the line.

Challenges

Traffic surges can happen any moment in time caused by either expected or unexpected triggers for any online services. These traffic surges lead to server overload resulting in a crashed website or services.

Business Issue

Expected

- Product Launch / Ticket Sales Opening
- Limited Edition Sales
- Special Offer Promotion
- Seasonal Shopping
- SEO
- Bot Attack
- Technical Issue Resolved
- Media Exposure Effect
- Online Viral Effect

Unexpected

- ! Uncertainty when traffic surges

Infra Issue

! Real-time scalability infeasible

! Over provisioning / slow scale Back

! Database bottleneck



! Budget constraints for server expansion

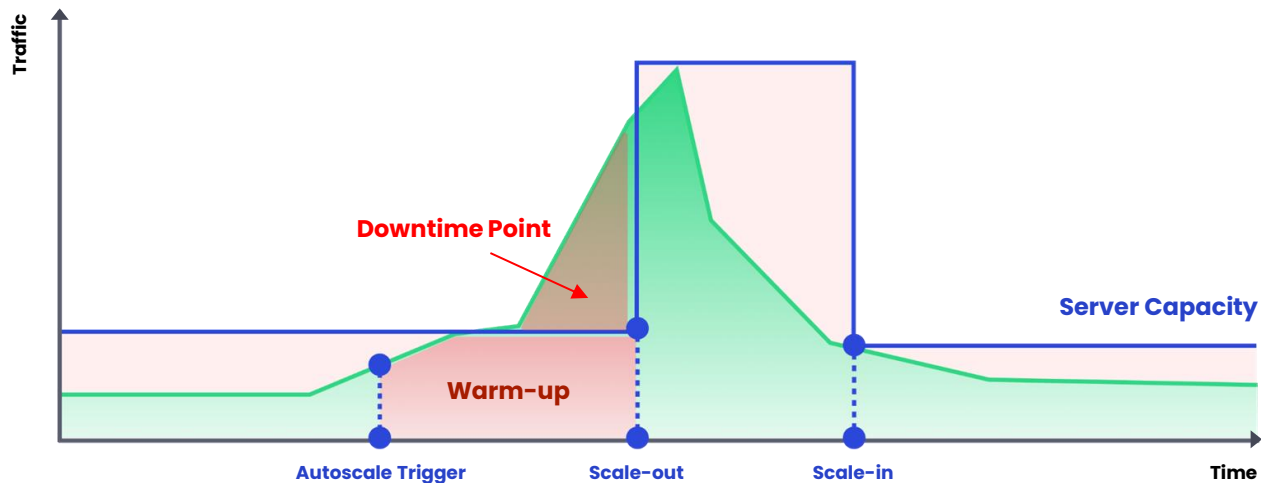
! Scale Out Time

! Cost wastage in typical scenarios

Challenges

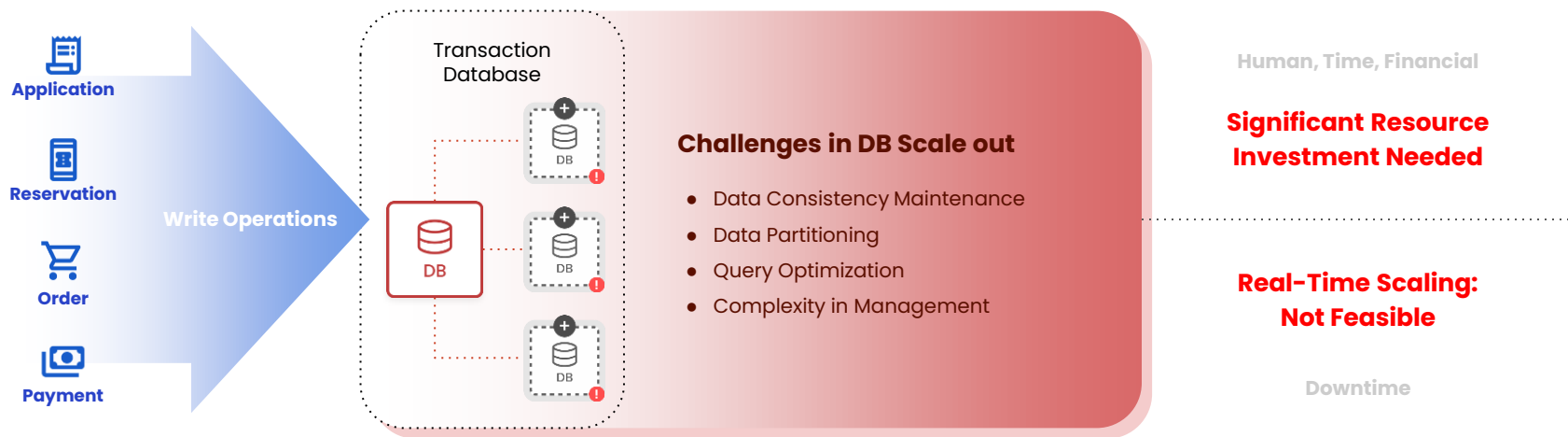
For web servers, auto scaling solutions are available but these solutions are near impractical against sudden traffic surges.

Warm-up Delay & the Preparation Time are crucial before the Scale-out process. However, a sudden traffic surge during warm-up delay limits the server from responding in time – leading to server overload, website crashes, increase of CS, etc.



Challenges

Database scaling involves numerous and complex considerations demanding significant investments in developing and managing. Given these complexities, real-time control in response to traffic surges is close to impossible.



Challenges

Service downtimes are very costly and one of the top risks to avoid for anyone with an online service.

A service downtime caused by a traffic surge can lead to significant loss in multiple areas, which all hinder business growth.

Fact check

\$300K

A 91% Majority of Corporations Say
Hourly Downtime Costs Top \$300,000.
SRC. ITIC 2021 Hourly Cost of Downtime Survey

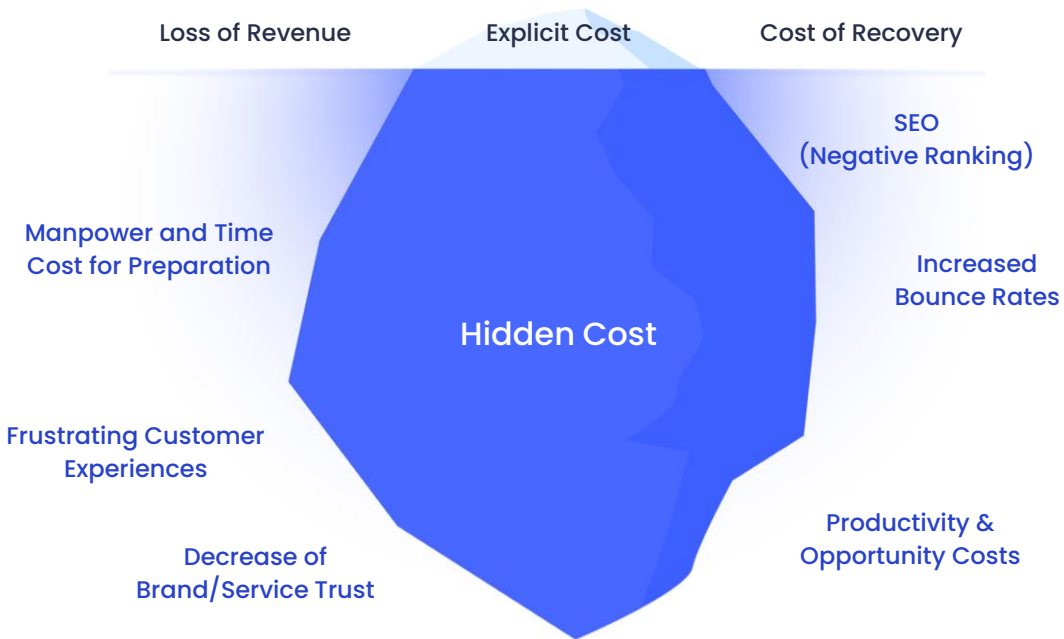
16X

Frequent outages and brownouts result in
16x higher costs compared to less downtime.
SRC. LogicMonitor IT Outage Impact Study 2023

77%

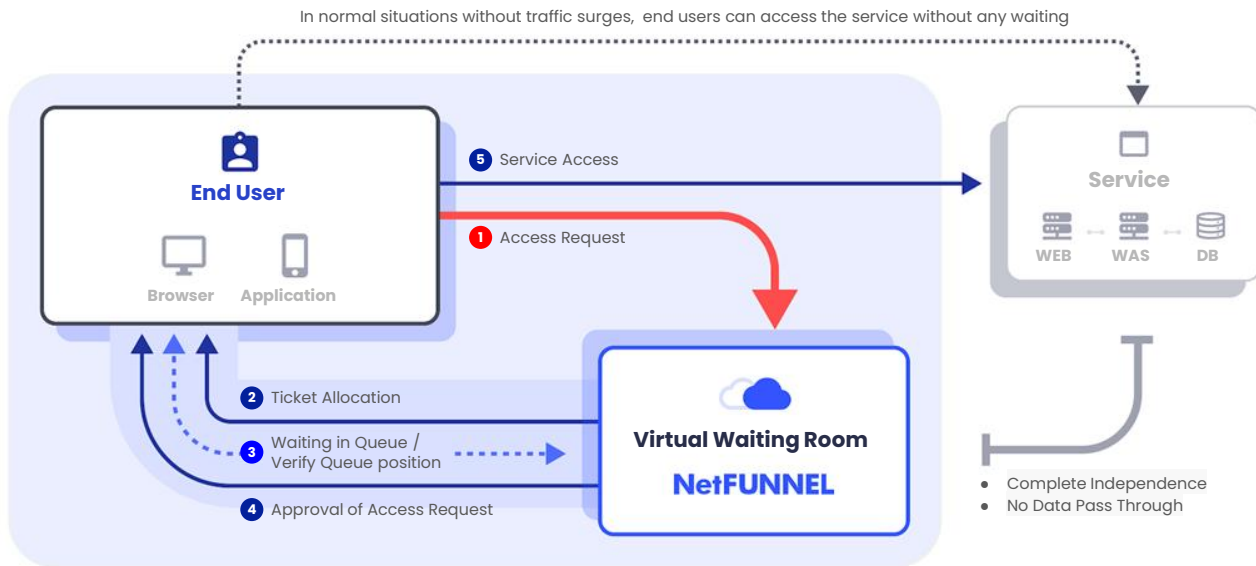
77% of Consumers will leave without completing a transaction if they encounter an error.
SRC. FullStory

True Cost of Downtime



How it Works

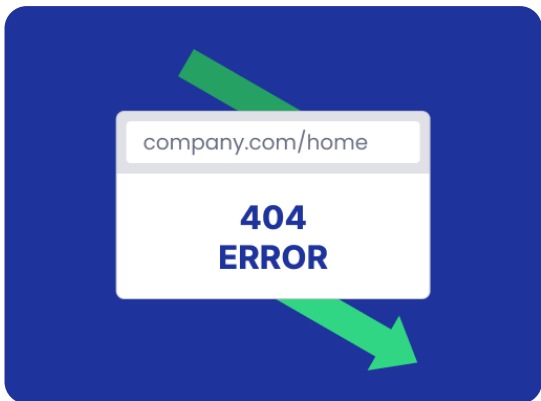
NetFUNNEL monitors the flow of traffic and when the volume of traffic hits the preset value, the NetFUNNEL Virtual Waiting Room is created. NetFUNNEL then issues a ticket to all the excess traffic on a first-come first-serve base and as the traffic flows through the service, the next user in queue with a ticket will be able to enter the traffic flow.



During traffic surge scenarios, end users receive a ticket through the NetFUNNEL server and wait in a virtual waiting room based on their position in the queue.

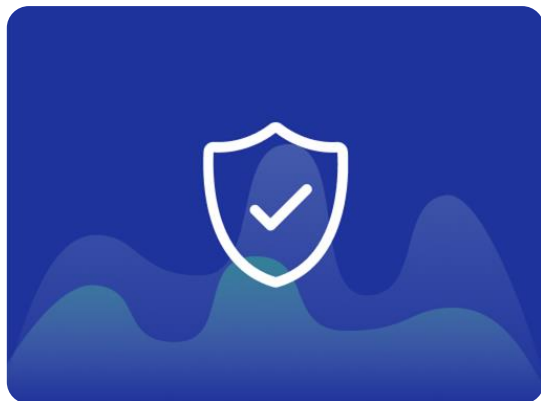
Customer Values

NetFUNNEL helps clients to free-up their time and efforts to focus more on other revenue driving business challenges.



Reduced downtime and server errors

Effectively preventing downtime caused by unexpected traffic surge, resulting in potential cost savings of up to \$300,000 per hour.



Resilient Traffic Protection

Successfully defending against traffic surges and ensuring smooth service even during high-demand periods.

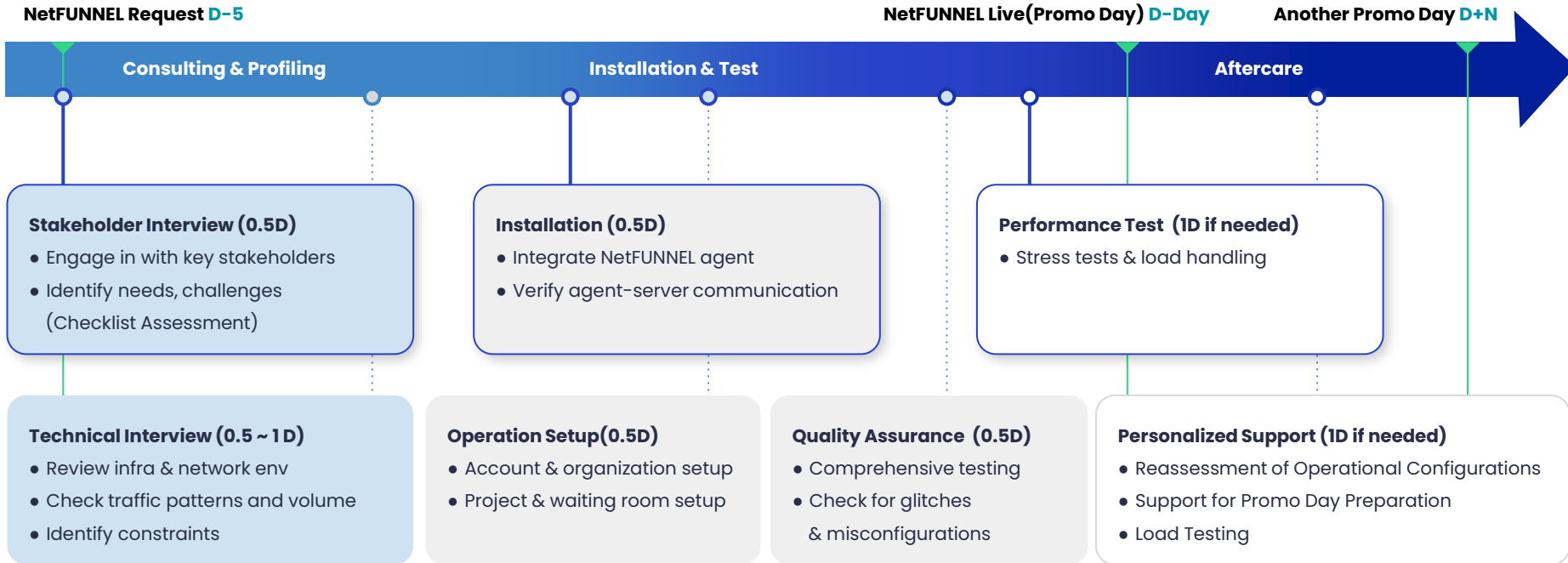


Improved brand reliability

Improving user experience and enhancing brand reliability by maintaining service availability.

Easy and Simple Application

NetFUNNEL offers **simplified** integration process. It only takes 2 to 5 days (max) from assessment to implementation, depending on client's environment and requirements.



Use Cases

Business Impact

NetFUNNEL's reliability is trusted by more than 450 industry-agnostic customers.

97%

Korean VWR market share
Proven to stabilize online services

450+

Acquired customers
across different verticals

2M

Maximum number of simultaneous
requests handled



Travel

NetFUNNEL serves as a reliable companion throughout the entire journey of a successful online reservation service, from start to finish.



Airfare Discount Event

- 20,000 tickets offered, 200,000+ web traffic surge
- Service disruptions led to user abandonment

With NetFUNNEL

- Separated event booking and regular booking services for effective traffic control
- Enhanced waiting experience to improve customer satisfaction and service reliability



Korean National Railroad ticketing system

- Service downtime was common every seasonal holiday with over 800,000 users trying to purchase online tickets resulting in increase of customer dissatisfaction and cs
- Only about 10% of the total tickets were available for online booking, while the remaining 90% had to be sold offline to help prevent service downtime

With NetFUNNEL

- Stabilized KORAIL website during the seasonal holidays
- By offering a seamless online booking service, tickets sold online increased to 90%

E-commerce

NetFUNNEL enables you to prepare for traffic surges in advance when launching a new product/service, while minimizing additional costs.



Hyundai Motor Company's Pre-order Online Sales of Casper

- In September 2021, Hyundai Motor Group made its first attempt to sell the cars directly to the customers, not through the existing sales channels.
- With the launching of pre-order of the new product Casper, casper.hyundai.com experienced an immediate high traffic surges, and the server was down.

With NetFUNNEL

- Controlled the total traffic inflow on the main page
- Stabilized the new service
- Minimized customer bounce rate
- Increased the sales revenue

SAMSUNG

Samsung Electronics and BTS Collaboration Product Launch

- In June 2020, before the official launch of Samsung Electronics' BTS editions, the presale was open
- As it was the first collaboration between Korea's leading company and the global artist group BTS, Samsung Electronics had to prepare for the uncertain volume of total inflow.

With NetFUNNEL

- Stabilized the special edition pre-sale service
- With the stabilization of traffic inflow and control over the environment, products were sold out

Wave Autoscale

- Challenges of Autoscaling
- What is Wave Autoscale
- Customer Values



Beyond CPU Utilization Scaling, Handle Traffic Surges and Scale with Confidence

Synchronize traffic and scaling control across load balancers,
computing resources, and databases

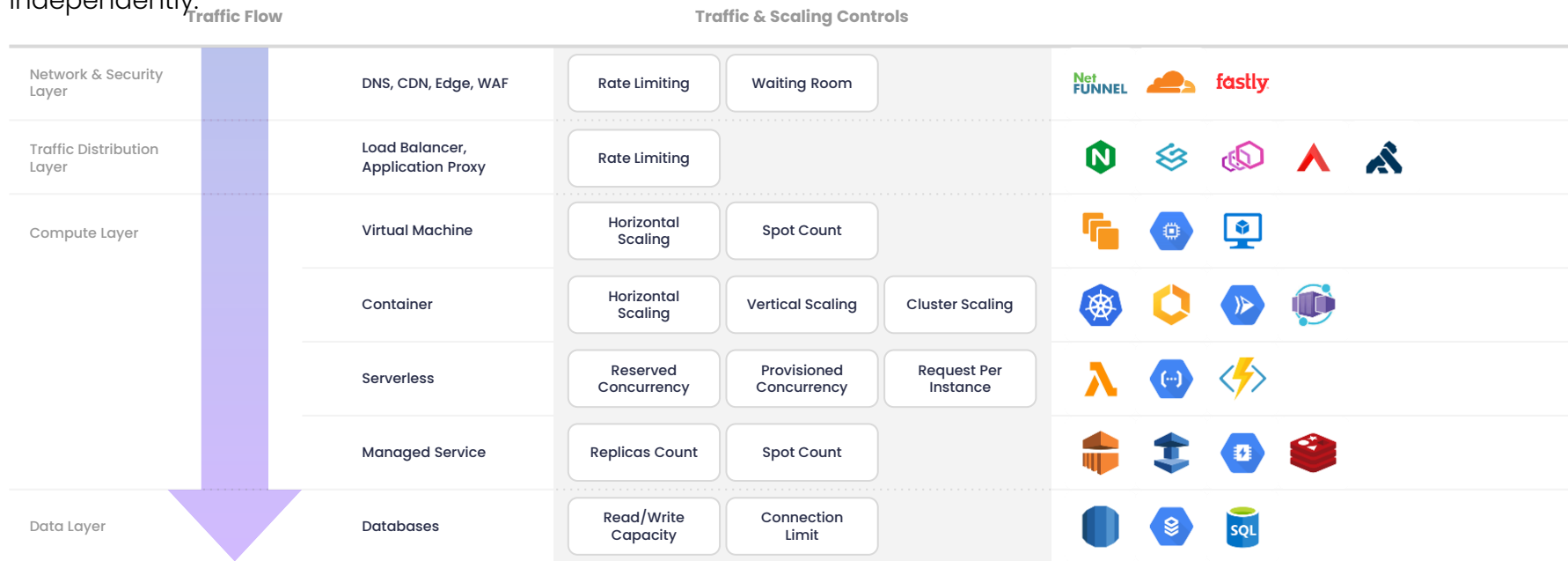


[EXPLORE THE WAVE AUTOSCALE](#)



Challenges

For many organizations, management of traffic and scaling is fragmented which requires components to be configured independently.



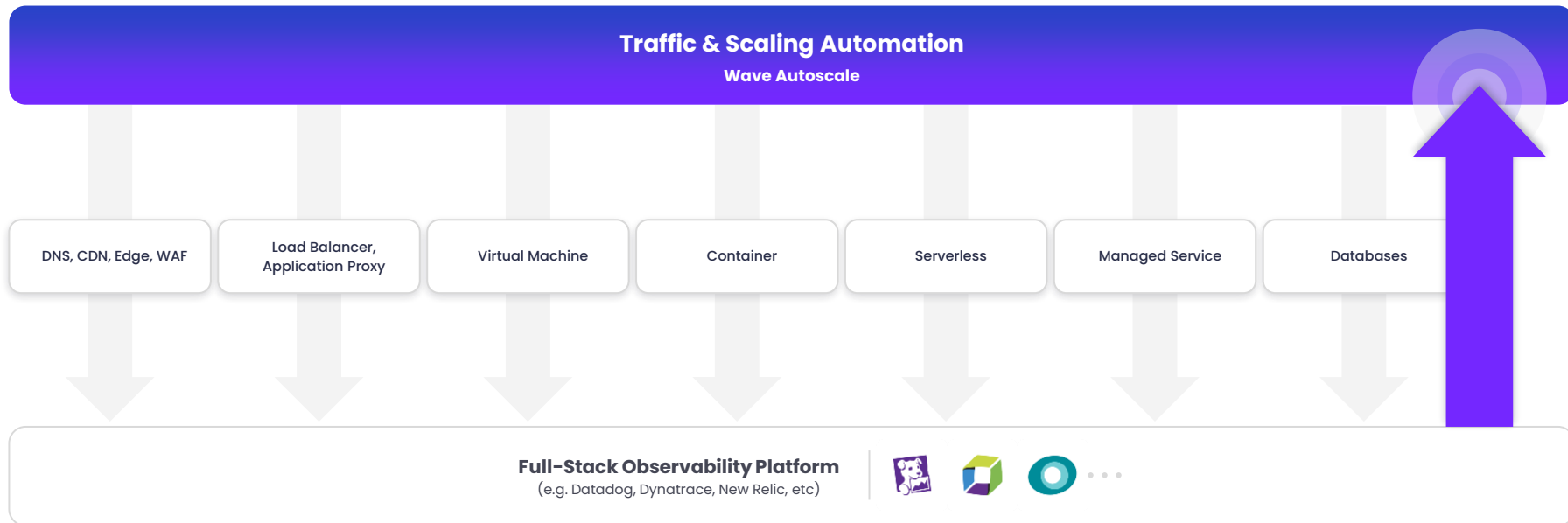
Our Solution

Wave Autoscale allows you to synchronize traffic and scaling control across components.



Wave Autoscale with Full-Stack Observability

Wave Autoscale seamlessly integrates with full-stack observability for optimal performance

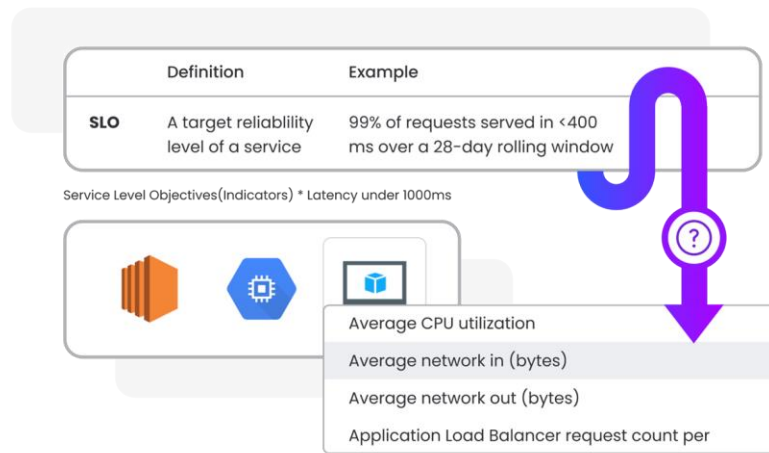


Challenges of Traffic and Scaling

1. Beyond CPU Utilization Scaling

Traditional autoscaling often relies on simple metrics like CPU utilization. While it's an essential factor, it doesn't always complete the picture.

Wave Autoscale considers a wider range of metrics, such as the size of the message queue, the status of the database, SLOs, etc. — allowing a more nuanced and responsive scaling strategy.

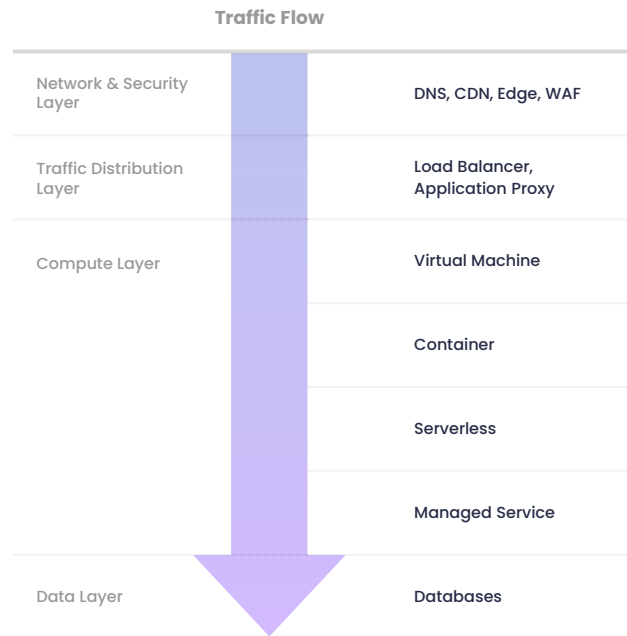


Bridging Business Requirements and Autoscaling Options

Challenges of Traffic and Scaling

2. Coordinated Traffic Handling Across Infrastructure Components

Each component might scale independently, leading to inefficiencies and potential bottlenecks. Wave Autoscale integrates with various components, from load balancers to compute resources, ensuring a harmonization of components.

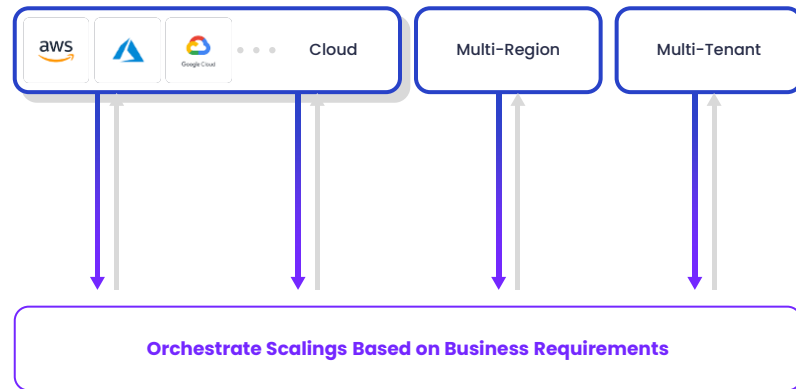


Coordinated Traffic Handling Across Infrastructure Components

Challenges of Traffic and Scaling

3. Multi-Cloud, Multi-Region, Multi-Tenant Scaling

Modern applications are often deployed across multiple cloud providers, regions, and tenants. After controlling each scaling component separately, it can be challenging to ensure that all parts of the application are scaled in harmony. Wave Autoscale offers a unified interface that allows you to manage all scaling components from a center controller, providing a more holistic approach to scaling.



Multi-Cloud, Multi-Region, Multi-Tenant Scaling

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