

The background features abstract, flowing wavy lines in shades of red and blue, creating a dynamic and modern aesthetic.

# **SERVERLESS COMPUTING**

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# APPROACH

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- What is Serverless Computing ?
- How we arrived here ?
- Why use Serverless Computing ?
- Benefits
- Where best to use and not to use
- Who are using it ?
- Examples

The image features a white background with abstract, flowing, wavy lines in shades of red and blue. These lines are positioned at the top and bottom of the frame, creating a sense of movement and framing the central text. The lines are semi-transparent and overlap, giving them a soft, ethereal appearance.

**SOMEONE TELLS YOU  
BRAINLESS, IS BAD**

The image features a white background with abstract, flowing, wavy lines in shades of red and blue. These lines are positioned at the top and bottom of the frame, creating a sense of movement and framing the central text. The text is written in a bold, blue, sans-serif font, centered horizontally and vertically.

**IF YOU HAVE GONE  
SERVERLESS, IS GREAT!**

# WHAT IS SERVERLESS COMPUTING ?

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- You **do not own** the servers
- The **cloud provider** handles server allocation/provisioning
- *“Serverless Computing eliminates infrastructure management tasks such as server or cluster provisioning, patching, operating system maintenance, and capacity provisioning.” – [AWS](#)*

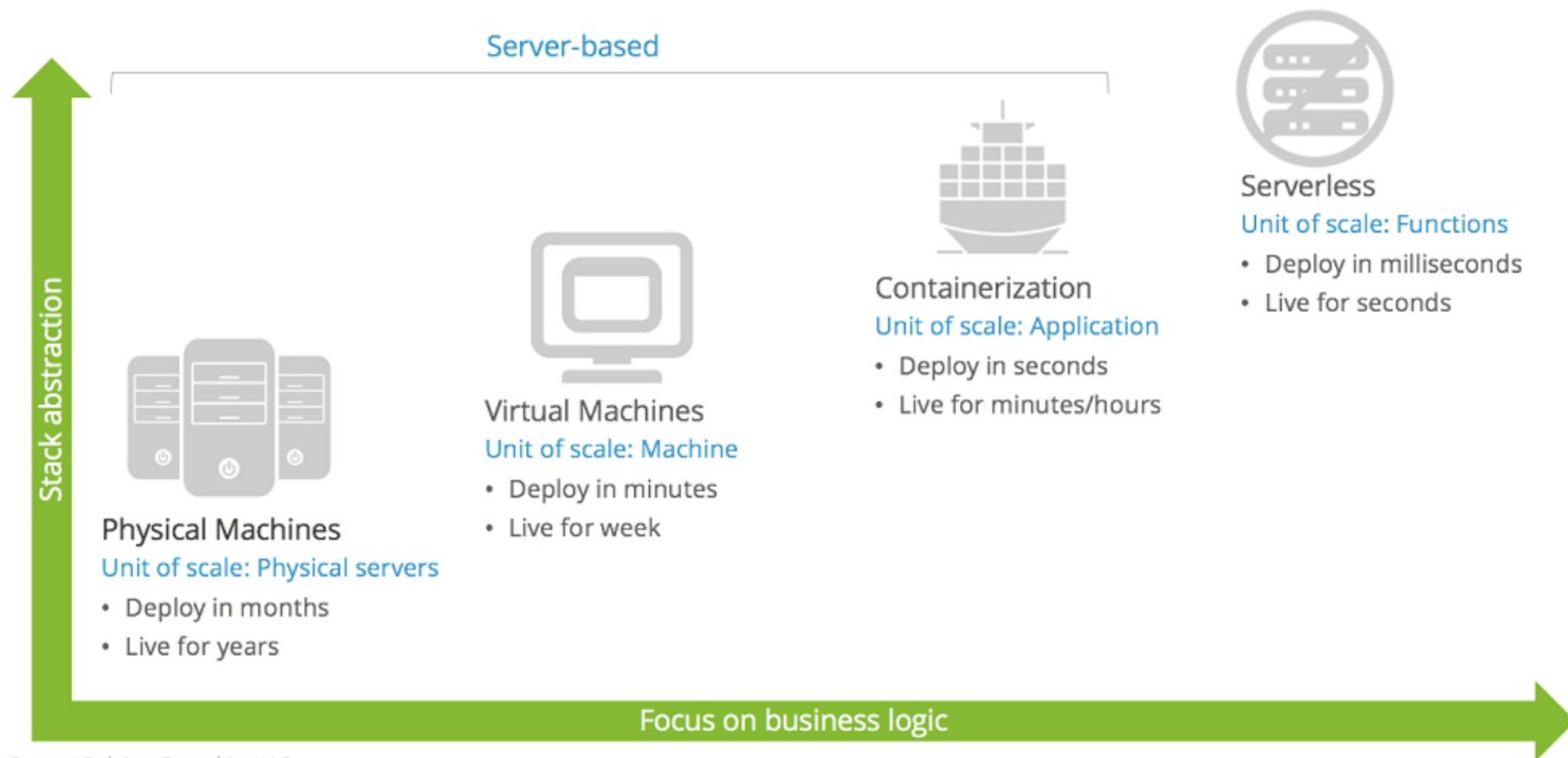
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**HOW DID WE ARRIVE  
HERE ?**



## Figure 1: Road to Serverless Solutions

Paradigm shift in computing evolution



Source: Deloitte Consulting LLP

# WHY GO SERVERLESS ?

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- No Implementing the Infrastructure
- No Maintaining ...
- No Debugging ...
- No Monitoring ...

Focus on your **Application**, not the **Infrastructure**





# SERVERLESS ARCHITECTURE

*Pay-as-you-go*

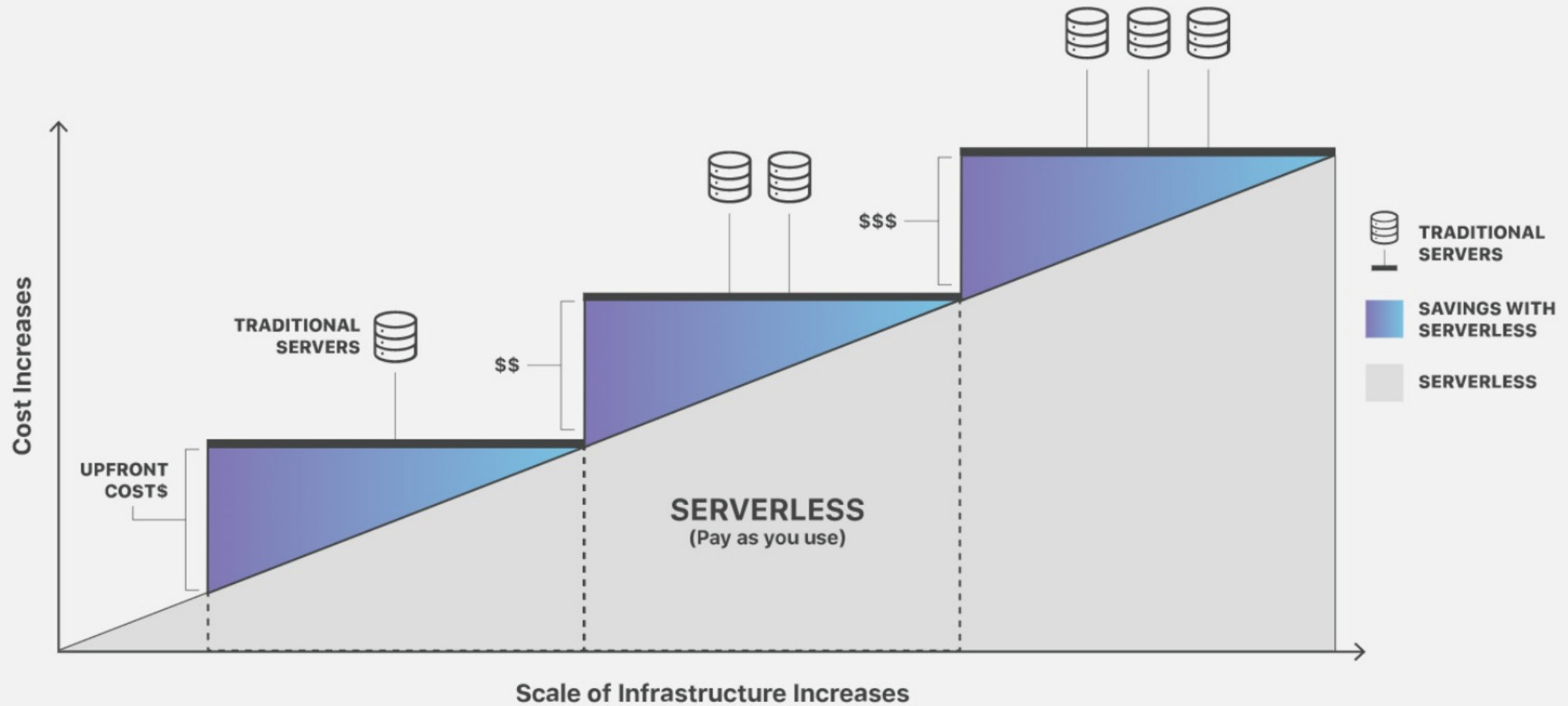


# BENEFITS OF GOING SERVERLESS

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- Low Cost as pay per execution only
- Faster go-to-market as less dev time
- Simplified Coding so Debugging Easier
- Disciplined Coding as execution timeout fixed
- Easy Scaling

## Cost Benefits of Serverless



<https://www.cloudflare.com/learning/serverless/what-is-serverless/>

# WHEN 'NOT' TO GO SERVERLESS

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- Long Running Codes
- High Memory Usage Codes
- Cold-Starts may not work for you
- Vendor Lock-In

Functions	<p><b>Basic IO:</b>  5/Account  Maximum Execution Time: 15 Seconds  Maximum Memory Allowed: 256 MB/Function</p> <p><b>Cron Functions:</b>  5/Project  Maximum Execution Time: 15 Minutes  Maximum Memory Allowed: 256 MB/Function</p> <p><b>Event Functions:</b>  5/Project Maximum Execution Time: 15 Minutes  Memory Allowed: 256 MB/Function</p>
App Logic	<p>1/Project  Maximum Execution Time: 15 Seconds  Maximum Memory Allowed: 256 MB/App Logic</p>
Cache	<p>5 Segments/Project  Memory Allowed: 10 MB/Segment  Maximum Size of a Cache Item: 32 KB  Retention Hours of a Cache Item: 48 hours (2 days)</p>
Cron	<p><b>Periodic or Calendar Cron Jobs:</b> 5/Account  <b>One-Time Cron Jobs:</b> 20/Minute</p> <p>Maximum Number of Cron Executions: 10 K/Day/Account  Maximum Execution Time: 5 minutes  Maximum Number of Failures allowed: 50/Cron Job</p>

# WHEN 'NOT' TO GO SERVERLESS

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- Cost of splitting a single application
- Testing is more time-taking



# WHEN TO GO SERVERLESS

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- Autoscaling Websites
- Backups
- Image and Video Edits
- Processing Events
- IoT Data Handling

# WHO ARE THE CLOUD-PROVIDERS ?

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- Amazon
- Microsoft
- Alibaba
- Google
- Zoho

# WHO IS USING SERVERLESS ?

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- Netflix
- Reuters
- Coca-Cola
- Nordstrom
- CodePen

<https://dashbird.io/blog/companies-using-serverless-in-production/>

# SOME TERMS YOU MUST KNOW

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- FaaS (Function-as-a-Service)
  - Developers can deploy an individual function or a piece of business logic
- BaaS (Backend-as-a-Service)
  - Database, Caching, Cron, etc are available as services
- Event-Triggered Programming
  - When some specific activity happens, do something

# SOME TERMS YOU MUST KNOW

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- PaaS (Platform-as-a-Service)
  - Application is deployed as a single unit as normal apps
- Kubernetes
  - Container orchestration platform
- AWS Fargate
  - Highly secure container deployment and management architecture. A mix of PaaS and Serverless

# SOME EXAMPLES

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- Serverless Websites -
  - <https://weather-serverless-692911511.development.zohocatalyst.com/app/>
- E-com Order Placement
  - <https://shoppy-698833516.development.zohocatalyst.com/app/index.html>
- Dog Dictionary
  - <https://dogdictionary-698653107.development.zohocatalyst.com/app/>



# SOME EXAMPLES

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- Video Selfies-
  - <https://videoselfies-696722811.development.zohocatalyst.com/app/login.html>
- Take Selfies
  - <https://selfie-696722811.development.zohocatalyst.com/app/login.html>
- Don't Read. Listen
  - <https://newfileup-696722811.development.zohocatalyst.com/app/login.html>