



Warm Up Week

Intensive Cloud Computing Hands-on Training

Week's schedule



TOOLKIT OF THE MULTICLOUD & DEVOPS PROFESSIONAL



Monday @ 7 PM Eastern Time



HANDS-ON WITH TERRAFORM AND AWS



Tuesday @ 7 PM Eastern Time



HANDS-ON WITH DOCKER ON CLOUD



Docker

Wednesday @ 7 PM Eastern Time



HANDS-ON WITH KUBERNETES ON CLOUD



Kubernetes

Thursday @ 7 PM Eastern Time



HANDS-ON WITH TERRAFORM ON GOOGLE CLOUD



Friday @ 7 PM Eastern Time



TOOLKIT OF THE MULTICLOUD & DEVOPS PROFESSIONAL



Python



Ansible



Terraform



Docker



Git



Kubernetes





Larry Ellison and Satya Nadella Announce New **Multicloud** Collaboration

Orgs Say Multi-Cloud Helps Achieve Business Goals



90% Of Orgs Say Multi-Cloud Helps Achieve Business Goals

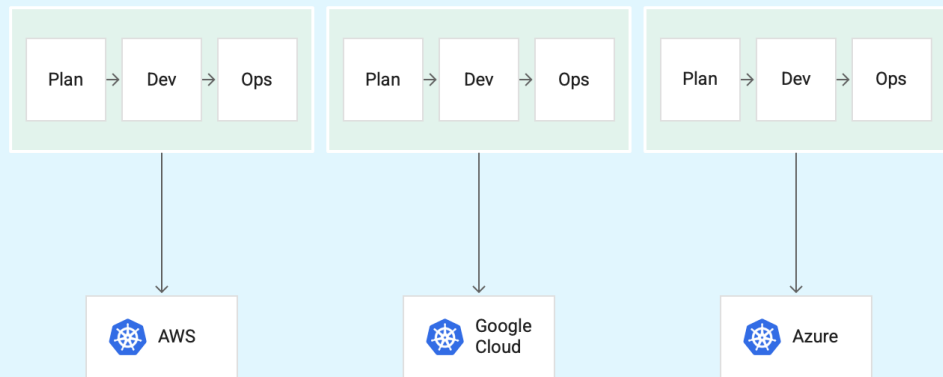


BY: BILL DOERRFELD ON SEPTEMBER 1, 2022 — 0 COMMENTS

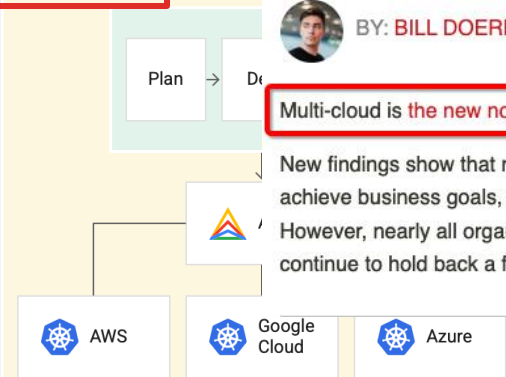
Multi-cloud is **the new normal**. And thankfully, this new normal isn't just happenstance—it's driving positive outcomes.

New findings show that most organizations benefit from using multiple cloud providers. Multi-cloud adoptions are helping achieve business goals, such as improving reliability and scalability and increasing overall security and governance. However, nearly all organizations (94%) admitted that they have some avoidable cloud spending and skills shortages continue to hold back a fully-realized multiple-cloud success.

Traditional Pattern



Multi-Cloud Pattern



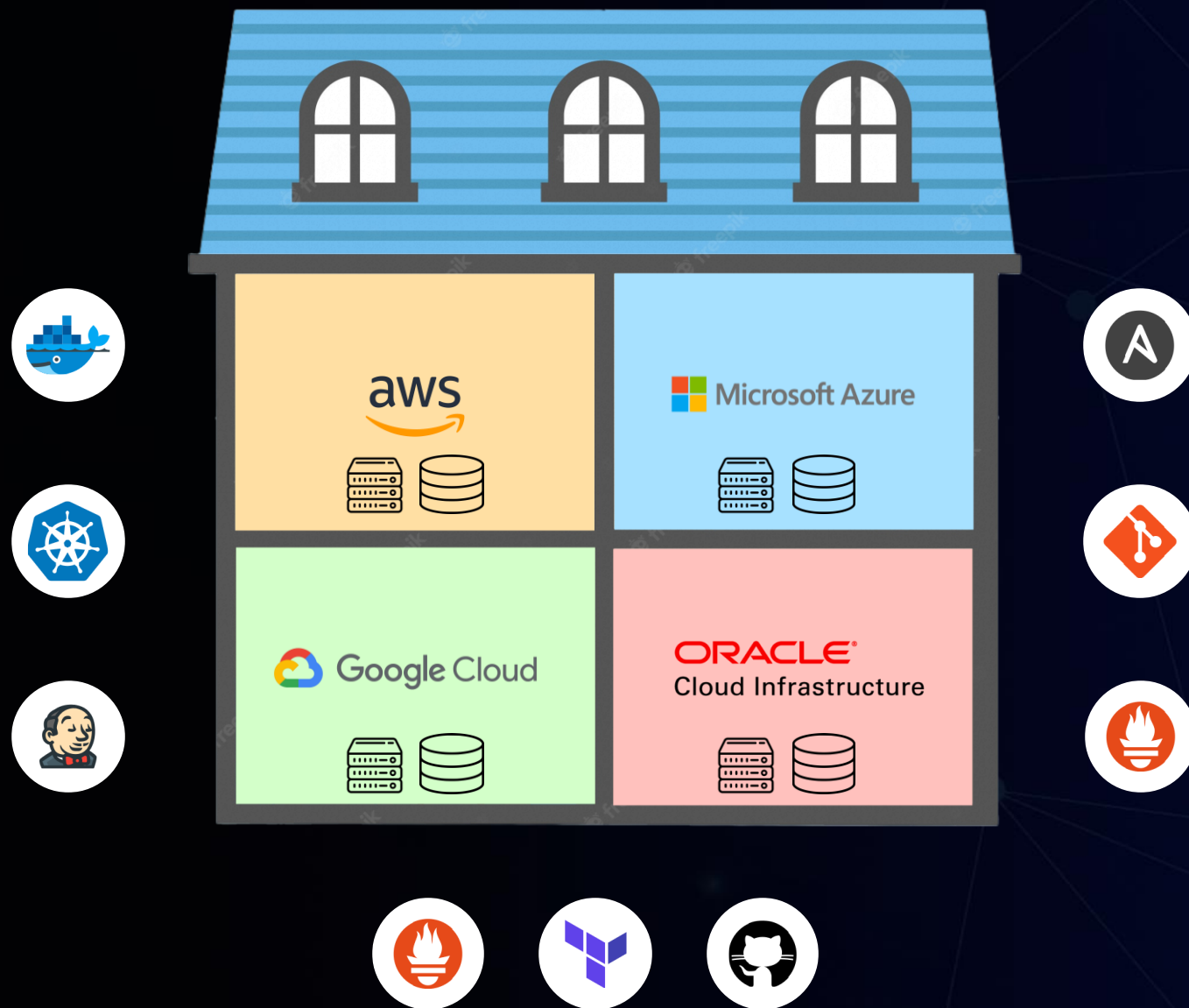
A \$16.7 Billion Global Opportunity for DevOps by 2026 - New Research from StrategyR

NEWS PROVIDED BY
[Global Industry Analysts, Inc. →](#)
Jun 03, 2022, 11:35 ET

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San Francisco, June 3, 2022 /PRNewswire/ -- A new market study published by Global Industry Analysts Inc., (GIA) the premier market research company, today released its report titled "[DevOps - Global Market Trajectory & Analytics](#)". The report presents fresh perspectives on opportunities and challenges in a significantly transformed post COVID-19 marketplace.



INFRASTRUCTURE PROVISIONING

BEFORE

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot Instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1

Purchasing option: ☐ Request Spot Instances

Network: vpc-2667e143 (172.31.0.0/16) (default) [Create new VPC](#)

Subnet: subnet-d579c5a2 (172.31.32.0/20) | Default in us-we-2 [Create new subnet](#)

Auto-assign Public IP: Use subnet setting (Enable)

IAM role: None [Create new IAM role](#)

Shutdown behavior: Stop

Enable termination protection: ☐ Protect against accidental termination

Monitoring: ☐ Enable CloudWatch detailed monitoring
Additional charges apply.

Tenancy: Shared tenancy (multi-tenant hardware)
Additional charges will apply for dedicated tenancy.

Network interfaces

Device	Network Interface	Subnet	Primary IP	Secondary IP addresses
eth0	New network interface	subnet-d579c5a2	Auto-assign	Add IP

[Cancel](#) [Previous](#) [Review and Launch](#) [Next: Add Storage](#)



TERRAFORM

AFTER

```
live1-canivete > main.tf > provider "aws"
1 terraform {
2   required_providers {
3     aws = {
4       source = "hashicorp/aws"
5       version = "~> 4.16"
6     }
7   }
8
9   required_version = ">= 1.2.0"
10 }
11
12 provider "aws" {
13   region = "us-west-2"
14 }
15
16 resource "aws_instance" "app_server" {
17   ami           = "ami-830c94e3"
18   instance_type = "t2.micro"
19
20   tags = {
21     Name = "tcb-app-server1"
22   }
23 }
```



THE CLOUD BOOTCAMP

ENVIRONMENT CONFIGURATION

BEFORE

Tasks to install Apache on 10 Linux VMs:

- 1) Install apache
yum install apache2
- 2) Change directory permission
chmod /var/www/html
- 3) Copy sample index file
- ...
- N) ...



ANSIBLE

AFTER

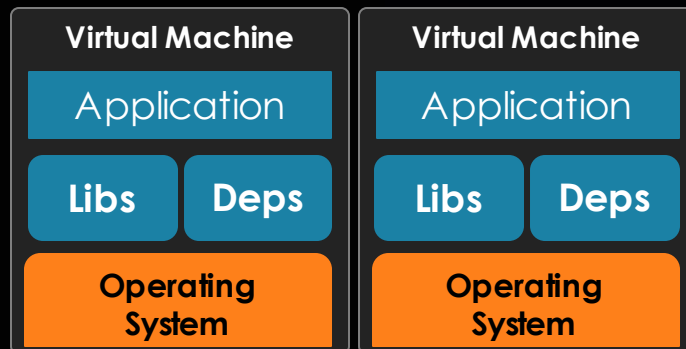
```
live1-toolkit > ! ansible-install-apache-pt.yaml
1  - name: Ansible Playbook to install Apache on Linux
2    hosts: webservers
3    become: yes
4    tasks:
5      - name: Install and configure the latest Apache version
6        apt: name=apache2 update_cache=yes state=latest
7
8      - name: Change directory permission
9        file:
10         path: "/var/www/html"
11         state: directory
12         owner: www-data
13         group: www-data
14         mode: '0755'
15
16      - name: Copy sample index file
17        template:
18         src: "files/index-template.html"
19         dest: "/var/www/html/index.html"
20
21      - name: "Iptables: Allow traffic on port 80"
22        iptables:
23         chain: INPUT
24         protocol: tcp
25         destination_port: 80
26         jump: ACCEPT
27         action: insert
```



THE CLOUD BOOTCAMP

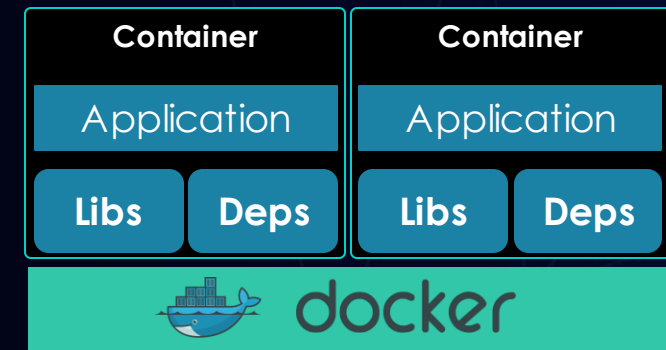
APPLICATION DELIVERY FORMAT

BEFORE



DOCKER

AFTER



APPLICATION ORCHESTRATION

BEFORE



Step 1: Application Server 1



Step 2: Application Server 2

...



Step N: Application Server N

Manual

Manual



KUBERNETES



AFTER



Application
pod 1



Application
pod 2



Application
pod N

Kubernetes Cluster



THE CLOUD BOOTCAMP

THE **NEW ERA** HAS BEGUN: MULTICLOUD & DEVOPS



COMMON MISTAKES



THINK THAT LEARNING JUST
AWS OR AZURE IS ENOUGH

DON'T HAVE THE PROPER
WAY TO LEARN MULTICLOUD

THINK THAT MULTICLOUD IS A
LOT TO LEARN & HANDLE







Documentation



Python



Ansible



Terraform



Docker



Git



Kubernetes

Productivity Tools



VS Code



THE CLOUD BOOTCAMP

MULTICLOUD TOOLKIT

AWS Documentation



Microsoft Azure
Documentation



Google Cloud
Documentation



Oracle Cloud Infrastructure
Documentation



Google Cloud vs
AWS vs Azure

OCI vs All

Services Comparison



DEVOPS TOOLKIT

Core

Collection



Ansible



AWS

Microsoft Azure

Google Cloud

Oracle Cloud



Terraform



Kubernetes

[kubectl Cheat Sheet - EN](#)

[kubectl Cheat Sheet - PT](#)



Docker

[Docker Docs Portal](#)

[Docker Cheat Sheet](#)



THE CLOUD BOOTCAMP

DEVOPS TOOLKIT



VS Code

DOWNLOAD

