Business Continuity con Google Cloud ai tempi del COVID-19

14 Maggio 2020

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Google Cloud

Rings a bell?

The world is changing fast

la Repubblica

Twitter ai dipendenti: "Se volete potete lavorare da casa, per sempre"

(afp)

L'annuncio via email dall'amministratore delegato Jack Dorsey: "Ma gli uffici resteranno aperti e chi vuole potrà tornarci quando sarà possibile farlo". In Italia una legge lo prevede e tutela dal 2017

di JAIME D'ALESSANDRO

12 maggio 2020

Coronavirus

Smart

INAIL

Mariano

Milano

Salva   3   Commenta

COME CAMBIA IL LAVORO

Lo smart working diventa un diritto con figli under 14

Una nuova spinta alle attività a distanza, che nella fase di ripresa produttiva consentono di limitare le presenze fisiche e ridurre i rischi di contagio. Coinvolti 6-8 milioni di addetti

di Aldo Bottini e Valentina Melis

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We are in crisis

criše e **criši** = *lat*. CRISIS dal *gr*. KRÍSIS, che tiene a KRÍNŌ *separo*, e fig. *decido* (v. *Cernere*). — *Generic*. Momento che separa una maniera di essere o una serie di fenomeni da altra differente, o anche Piega decisiva che prende un affare. — Più speciaml. Subitaneo cangiamento in bene o in male nel corso di una malattia, da cui si giudica, si decide la guarigione o la morte; *fig*. Stato di un uomo agitato da vive passioni, in cui egli sta per prendere qualche grave deliberazione; Stato anormale e pericoloso di un paese agitato da partiti o guerre civili; Sospensione nella regolarità del movimento di scambio, che costituisce il commercio.

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Business Continuity Plan: some challenges

- Disaster recovery plan

- Enable remote workers
  - connectivity
  - access to enterprise assets

- Massive pressure to reduce cost

- Connect and collaborate

- ...

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Business Continuity: use cases enabled via Cloud

- ○ Enable a remote workforce
  - ■ GSuite
  - ■ Identity Aware Proxy
  - ■ VDI

- ○ Data Center extension
  - ■ DR and failover
  - ■ VMware-aaS

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Business Continuity: use cases enabled via Cloud

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- Identity Aware Proxy
- VDI

○ Data Center extension
- DR and failover
- VMware-aaS

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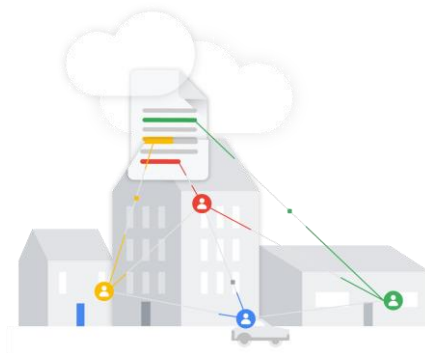# Remote work is the new normal

US workers who **work from home** multiple days per week:

Before COVID-19
3.6%

25–30%

After COVID-19
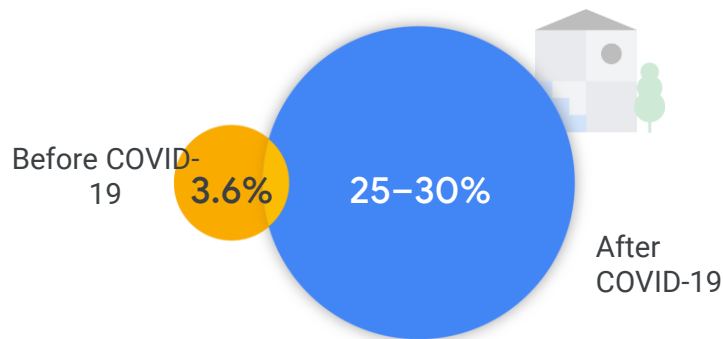
(Global Workplace Analytics)

74%

of CFOs surveyed in March 2020 say they intend to shift some previously on-site employees to remote work permanently post COVID-19

(Gartner)

Organizations need to provide **secure access** to internal apps for their employees and extended workforce **as quickly as possible**

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VDI market shifts to cloud-based VDI and DaaS

App streaming	Desktop as a Service	Cloud-based Workstation
Deliver single application to a browser tab	**Deliver entire remote desktop** to a browser tab or client software	**Deliver Full-powered virtual workstation** on a managed or unmanaged VM or GKE cluster
Deliver legacy apps that can't be migrated to any endpoint	Lightweight content creation, game development, isolated environments	**GPUs**-accelerated VM
Inexpensive, Not compatible with GPUs	Limited customisation	**Graphics-intensive applications**, Full studio deployment for content creation, scientific visualization, medical imaging, engineering, media and entertainment, etc..
Fully managed	Fully managed	With access to network, storage, and all other cloud resources

Google Cloud

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Chrome Remote Desktop

G Suite

Chromebook

Google Cloud Platform
Identity-Aware Proxy
(IAP)

Virtual display devices for
Compute Engine

GPUs on Google Cloud

AMD FirePro S9300 x2   NVIDIA Tesla P100   NVIDIA Tesla K80s

Google Cloud

vmware   Google Cloud Platform

**Google VMware Engine for
VDI using VMware Horizon**

Existing solutions aren't a great fit for web apps

Hard to deploy and manage

Do not scale well
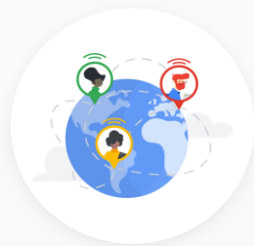
Leave important security gaps

Frustrating for end-users

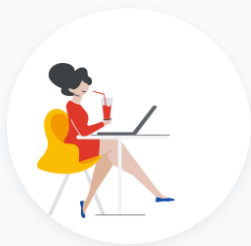Particularly ill-suited for third-party users like contractors & partners

Expensive

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GSuite : everything you need, to change how your teams work

Connect
Reach colleagues wherever they are.

Create
Everything you need to bring your project to life in

Access
Store files and find what you want instantly.

Control
Manage users, devices and data securely and easily.

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How our solution works

Access internal apps through a browser

Employees

Contractors

Partners

BeyondCorp
Remote Access

Proxies & protects traffic from the internet

Enforces access policies based on identity & context

Web apps hosted on Google Cloud

Cloud

Web apps hosted on other clouds

Web apps hosted on-premises

Business Continuity: use cases enabled via Cloud

○ Enable a remote
workforce
  ■ GSuite
 ■ Identity Aware Proxy
  ■ VDI

○ Data Center extension
  ■ DR and failover
  ■ VMware-aaS

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Data Center extension - Public cloud for failover and DR

DR PATTERNS

- Backup or replicate data to a different site to minimize the (RPO)
- Maintain cold, warm or hot standby systems to minimize (RTO)

KEY REQUIREMENTS

- Facilities & Capacity
- Network infrastructure & Bandwidth
- Security
- Support
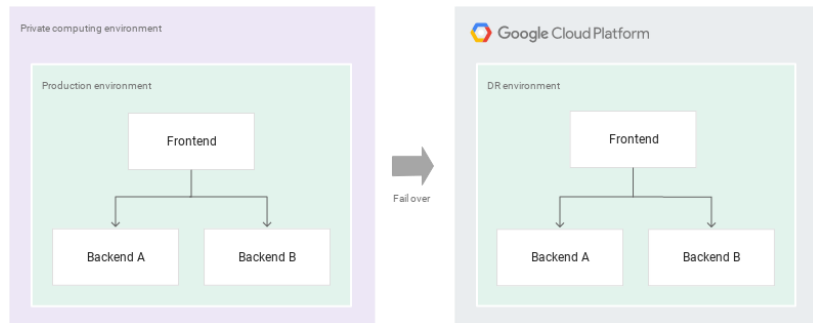
KEY BENEFITS

- GCP can drastically reduce costs for DR
- Data is mirrored automatically across storage devices in multiple locations
- Stopped VM instances incur storage costs only

VMware as Service - Google VMware Engine

VMware SDDC delivered "-aaS"

VMs

VMs

VMs

- Customers create and manage workload VMs
- No change to application management surface
- We provide hypervisor access

vCenter, NSX Manager etc.

vSphere/ ESXi	vSAN	NSX

Bare Metal Servers

- Automated monitoring, patching and upgrades
- API driven management of VMware SDDC
- Frees customers from infrastructure operation toil

Google Cloud
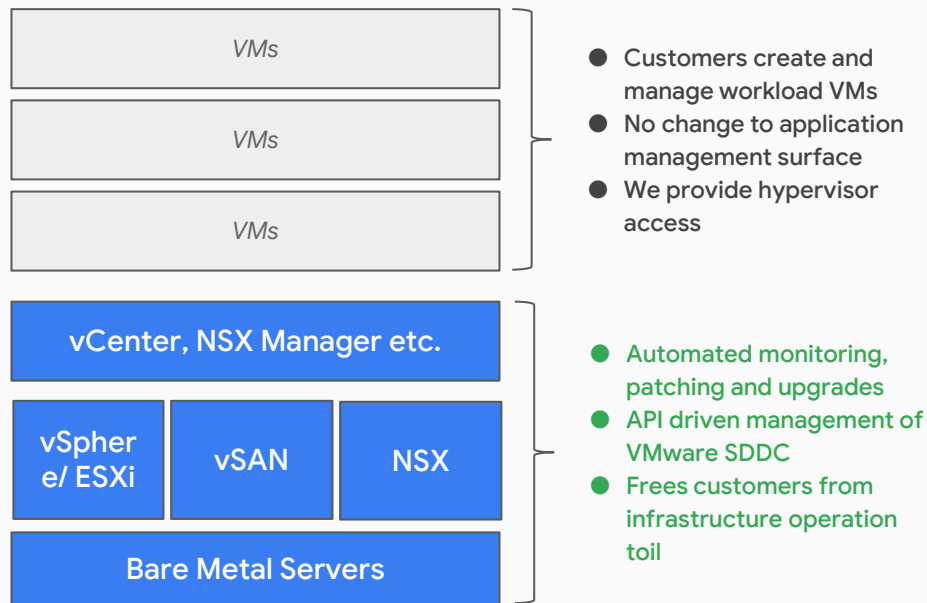
Key use cases

Datacenter extension and Hybrid cloud

Retire, consolidate, or extend your data center to the cloud. Benefit from **on-demand burst capacity** and move workloads to the cloud at your own pace.

Disaster Recovery

Build on-demand or shift disaster recovery capabilities to the cloud, lower cost, **remove operational burdens, with no changes** and free up resources for value add activities

Compute Intensive applications

Scale on-demand and achieve consistent performance for high-volume, compute-intensive applications such as VDI and Oracle DB without having to refactor applications

How can we help you with your Business Continuity Plans ?
Recap

Challenge	How Google Solution helps
Enable remote workers	G Suite — Google Cloud Platform Identity-Aware Proxy (IAP) — Chrome Remote Desktop — chrome enterprise — Chromebook
Provide DaaS and Full-powered virtual workstation	Virtual display devices for Compute Engine — GPUs on Google Cloud (AMD FirePro S9300 x2, NVIDIA Tesla P100, NVIDIA Tesla K80s) — vmware / Google Cloud Platform — Google VMware Engine for VDI using VMware Horizon
Massive pressure to reduce costs	• Only pay for what you use • Customize your VMs (cores, memory, and GPUs) • Preemptible VMs pricing up to 80% off regular instances
DR sites / Reduce latency	• Google global network 22 REGIONS 67 ZONES 140 NETWORK EDGE LOCATIONS AVAILABLE IN 200+ COUNTRIES AND TERRITORIES

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