Microsoft Azure

Security in the New Remote World

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Microsoft Azure M&E

Another Glorious Day in the Corps-(antine)

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Topics Today (in 10 minutes or less)

The "new normal" everyone is talking about

You must work from home (home office != Starbucks)

Can a remote edit / animation desktop really work?

- What changed?
- Now who/what/where/how?

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New Normal,
or New
Nightmare ?

aaaannd ...
there went my lunch ...

Working Alone

My graphics workstation is under my desk … at work

My home connectivity is less than ideal

I can't collaborate (well) with my production team

All of my assets are … somewhere

and I miss the office espresso machine

Stuck in My Bedroom / Kitchen / Basement

No covfefe shops, restaurants, libraries, conference rooms, or bars

Remote isn't a question of if/when anymore;

it's a requirement

I need, right away:

High-performance workstation and storage

Reliable but flexible connectivity

HD (maybe 4K/UHD) support, 2+ monitors, 30fps+

Frame-accuracy, audio sync, color accuracy

Centralized assets + accessibility for post-production

Collaborative review, edit, VFX

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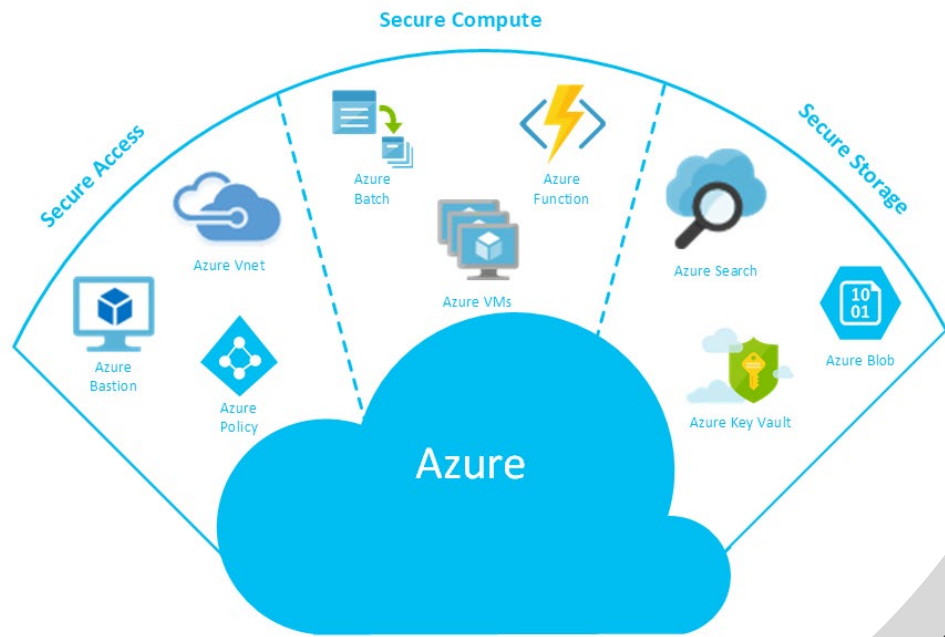
SECURELY

Secure by Nature

- Cloud offers more native security than many production houses are used to

- Reduces fragmented security implementation across multiple vendors / services / providers

- Helps unify perimeters, policies, defense strategies, etc.

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Tomorrow (is today) in the Cloud
Increase access and scale now, securely

New Capabilities

- Virtual workstations w/HDR, UHD, HFR via WVD, PCoIP
- Tiered-storage with fully addressable archive
- AI processing -> high-performance, intelligent storage with metadata and analytics
- High-thruput network ingest, virtual / physical appliances

Distributed Production

- New and remote locations, securely and seamlessly
- Collaborate from any device, with anyone, with almost any toolset (edit-on-demand, VFX, script, …)
- Features / episodic / unscripted – understand what you have and where, create content faster, leverage assets
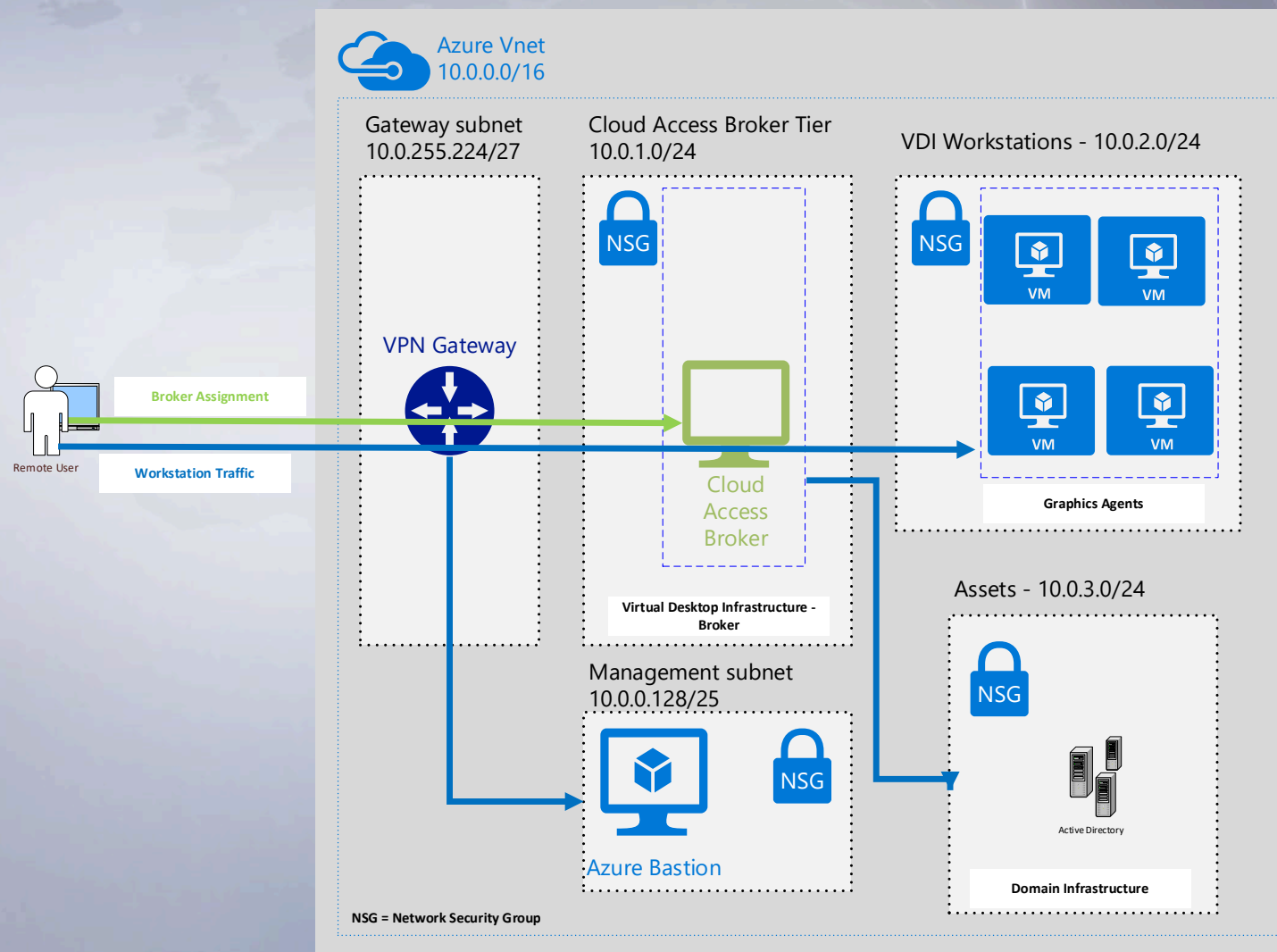
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Secure Performance

Authenticated, encrypted storage and isolated networks over private links

Role-based authorization, multi-factor authentication, defense-in-depth

Inherently secure "pixel pushing"; block up/download

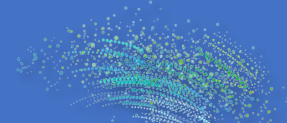MAM/DAM, watermarks, secure distribution/access of sensitive pre-release content

Azure Vnet
10.0.0.0/16

Gateway subnet
10.0.255.224/27

Cloud Access Broker Tier
10.0.1.0/24

VDI Workstations - 10.0.2.0/24

NSG

VPN Gateway

NSG

VM VM

VM VM

Broker Assignment

Workstation Traffic

Remote User

Cloud Access Broker

Graphics Agents

Virtual Desktop Infrastructure - Broker

Assets - 10.0.3.0/24

Management subnet
10.0.0.128/25

NSG

NSG

Azure Bastion

Active Directory

Domain Infrastructure

NSG = Network Security Group

I'm Still Stuck in My Basement

Considerations	Thoughts
Physical security concerns	• Badge entry in your work-space? (i.e., children, roommates, …) • Fully secure workstation (hardware baseline config.) or PCoIP
Solutions	• Turnkey vs. roll-your-own (determined by scale)
Data protection / collaboration	• Teams, Office 365 – encryption, DRM • Collaboration – libraries (SharePoint), assets (DAM, MAM)
Endpoint protection	• Watermarking during production / post
Network security	• Encryption, bastion hosts, isolated VMs for each user • Firewalls (host and user), ACLs, protocol filtering
User ID management – provisioning / deprovisioning	• Secure remote access and control – MFA, granular auth policy • Challenges in ensuring appropriate user / group access and management across 1+ productions
Things for the studio / production company	• Data centralization, redundancy • Bring artists *and* applications to content, not the other way around • Securely connect to render capacity, archive • Improve performance with caching using Azure HPC Cache

Who's Doing This, Anyway?

- Educational Videos, demos
  - Industry Experts: https://aka.ms/thecontrolroom
  - Index / Retrieve - https://youtu.be/nkPi7-VVcEU
  - Collaboration - https://youtu.be/tFA1HCecedE
  - Production - https://youtu.be/kc14STSLkns
- Coming Soon (Azure Trust Portal)
  - Secure VDI configuration guidelines
  - Updated editorial configuration hardening guide

WOULD YOU LIKE TO KNOW MORE?