# Limitless Creativity in the Cloud (2018 Update)

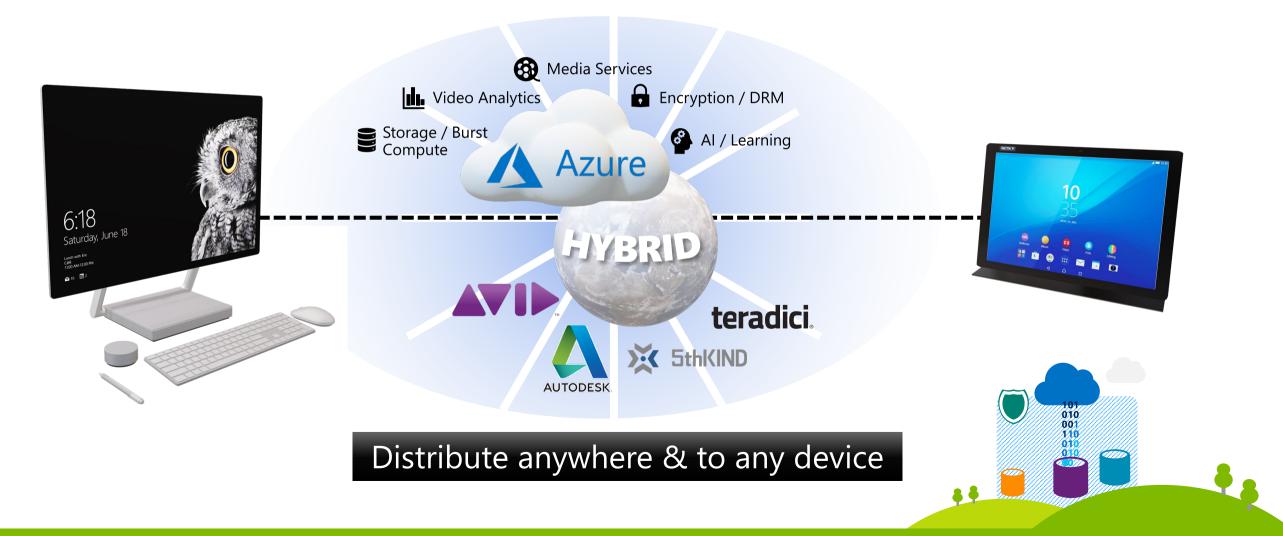
Joel Sloss, Sr. Program Manager, Microsof

Dec. 5, 2018

### End-to-End Pipeline in the Cloud

### Pre- and post-production workflows

### Whichever tools artists want to use



### Workflows: Device-to-Cloud-to-Screen

#### Ingest and asset management

• Getting camera files, generating proxies, uploading VFX assets, ...

#### Visualization

• Workstation, desktop virtualization, modeling, scheduling / orchestration, rendering (/hybrid)

#### Editorial and metadata / analytics

• Building your content (/hybrid)

#### Storage, protection, and archive

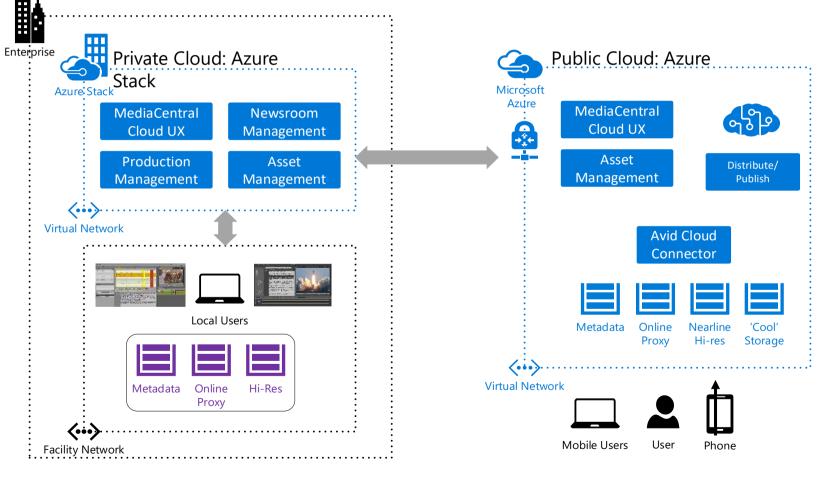
• Keep what matters, track everything, keep it safe

### Distribution and playout

• Move large assets to distributors, stream directly to consumers

### The Journey to the Cloud

Virtualizing local deployments with Azure Stack and connecting to the Azure Public Cloud

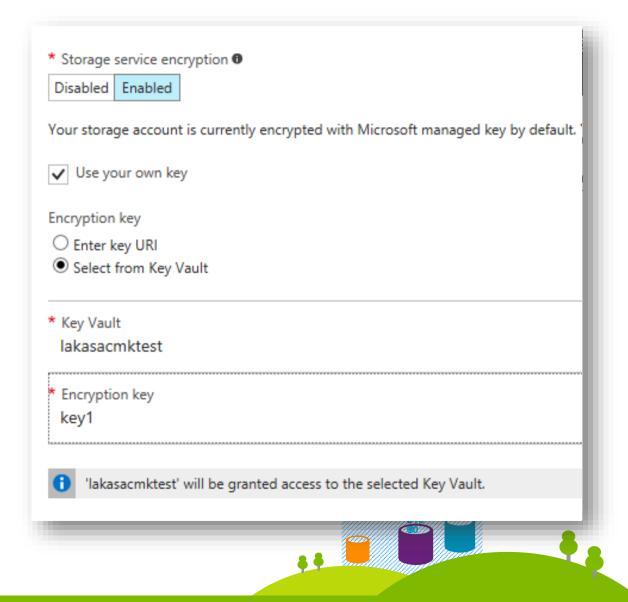


On-premise workloads & local users

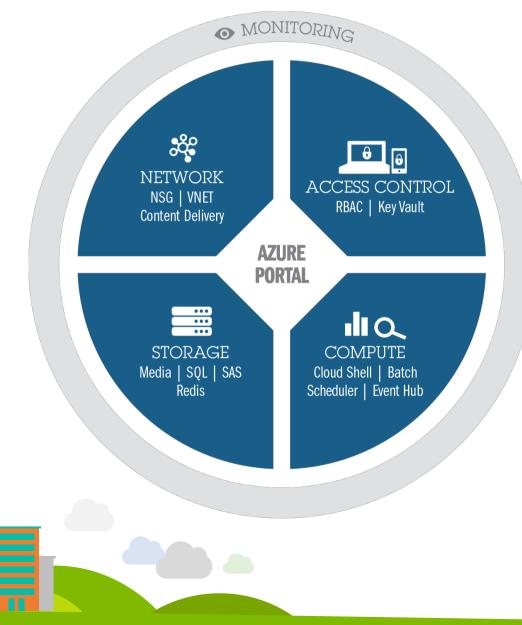
Cloud workloads & remote users

# Encryption At Rest + Granular Access Control

- Prevents data disclosure from physical disk compromise
- Available for Blobs with Microsoftmanaged keys
- Encryption enabled for all accounts
- Customer-managed encryption keys



# Detailed Azure Workflow Configurations



### Workflows with detailed guidance

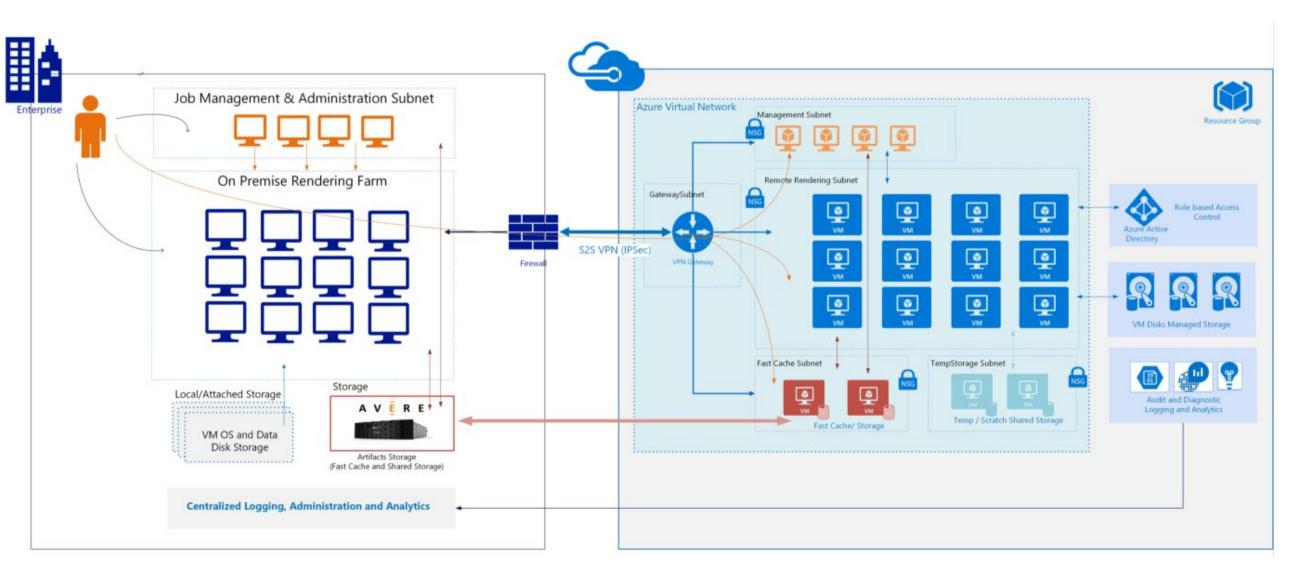
- Hybrid Render
- File Transfer
- MAM/DAM File Transfer
  - Storage
  - IAM and Networking

### **Example Services Assessed**

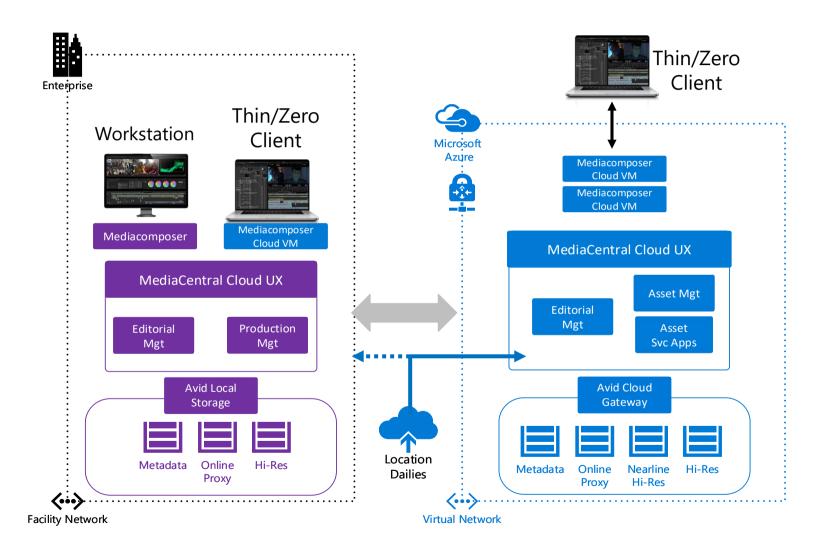
- Portal
- Networking
- RBAC
- Key Vault
- Command Line
- SQL Database
- CDN

- Batch
- Compute
- Storage
- Redis Cache
- Event Hub
- Scheduler
- Media

# Hybrid (Burst) Rendering Deployment



### Post Editorial - Cloud Production



#### What You Get

- Scale resources to match workload on-premise or to accommodate remote workers
- Potential for efficient direct delivery of location dailies proxies reducing delay and costs
- Flexiblility for balancing on-premise vs cloud storage costs and footprint
- Offload ancillary post workflows using thin/zero client technology, greater options for user flexibility

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Low-latency file accessEdge-Core architectureScalable performance and HAScale-out clustering (3 to 24 nodes per cluster)Familiar NFS and SMB interfacesFlashCloud file system for object storageManage as a single pool of storageGlobal namespace (GNS), FlashMoveData protectionCloud snapshots, FlashMirrorHigh securityAES-256 encryption (FIPS 140-2 compliant), KMIP			NAS
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		Data protection	Cloud snapshots, FlashMirror
Efficiency LZ4 compression		High security	AES-256 encryption (FIPS 140-2 compliant), KMIP
		Efficiency	LZ4 compression

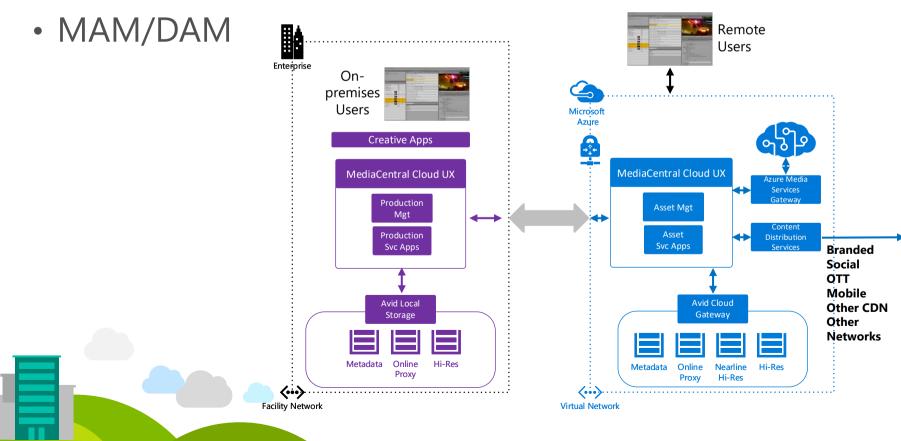
# Ingest and Asset Management

- Offline data migration
- Express
- Perforr



# Ingest and Asset Management

- Offline data migration
- ExpressRoute
- Performant hybrid storage

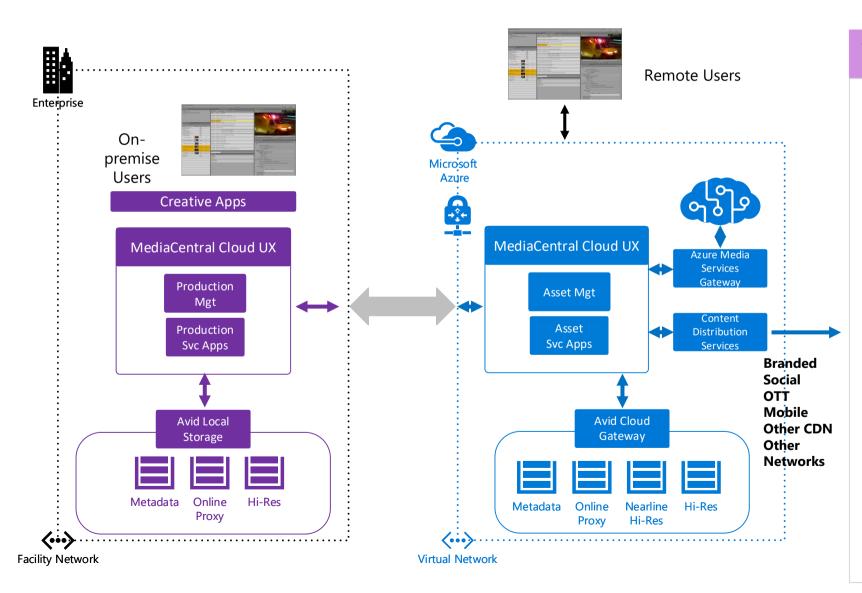


#### What You Get

•

- Extend collaboration beyond editorial users – rights, review, transcription, localization etc.
- Utilize secure tiered storage for media staging and archive matched to content usage – proxy vs hi-res vs shooting ratio vs cost
- Streamline packaging workflows for distribution and campaigns
- Augment ancillary processes using Cognitive services

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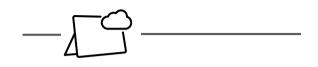
# New Surface Devices

- Surface Hub 2
- Surface Studio 2
- Surface Pro 6
- Surface Laptop 2
- Surface Go





Intelligent security



- Session wipe with Hub
- Always updated



- Firmware-level security with SEMM
- Work anywhere securely with eSim
- Biometric identification

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Windows 10 and Surface, when used in a layered solution, can **meet the strictest security requirements** for use in classified environments such as the classified programs at the NSA





### Azure Video Al

Cloud-based speech and vision services



Advanced search across printed text, spoken words, faces



Build actionable intelligence from media archives



Enhance content discovery and engagement through AI

