Teradici Innovation and Disruption

Teradici is the **leader** in technology solutions for **high performance** remote workloads in **multicloud architectures**
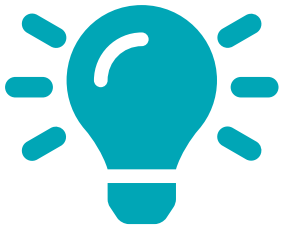
Developer of the **revolutionary PCoIP®** multi-codec remote display protocol, **enhanced in 2019 with PCoIP Ultra™ features.**
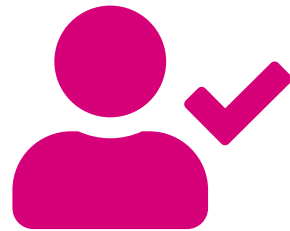
Today, there are more than **15 million PCoIP users** across the world. We have been awarded 74 patents for our technological innovations.

We are the **leaders of secure virtual workloads**. Customers include Fortune 500 enterprises and institutions.
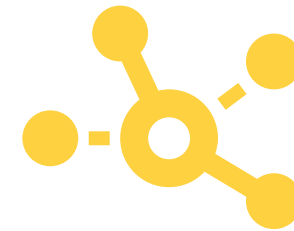
We work with major **technology partners** to provide our offerings to end users everywhere.

teradici.

CLOUD ACCESS SOFTWARE

A high-performance **remote desktop solution** delivering Windows or Linux desktops to any device.

Built on industry-leading **PCoIP® technology**, it provides ultimate security and user experience, while offering complete freedom and flexibility on any combination of public or private cloud.
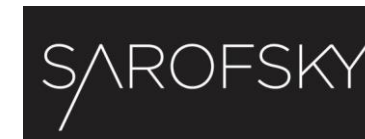
3

teradici®

Our Technology Impact

> 80% of studios' remote workstations use Teradici technology

Teradici is…
- Raising the bar on content security

TPN TRUSTED PARTNER NETWORK — MOTION PICTURE ASSOCIATION OF AMERICA — CDSA CONTENT DELIVERY & SECURITY ASSOCIATION
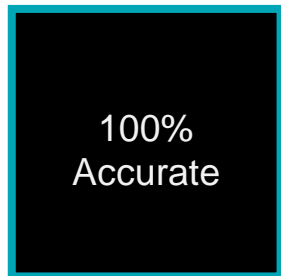
- Revolutionizing productivity
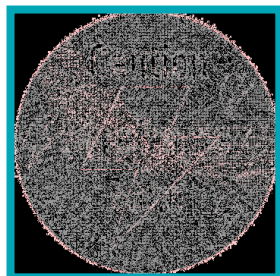- Fueling business innovation

Unrivalled Color Accuracy

PCoIP Ultra Auto-Offload created ground-up for demanding users interacting with high fidelity text, raw video, wireframes and exacting colors - vital for complex CAD wireframes or visual effects artworks.

- **100% Pixel accuracy** when build-to-lossless (BTL) mode is enabled
- **Seamless transition** between bandwidth-efficient H.264 and BTL colour accuracy
- **Perceptually lossless** interaction with dynamic content such as raw video – no artifacting
- **Crystal clear text and wireframes –** always!

PCoIP Auto-Offload (BTL)
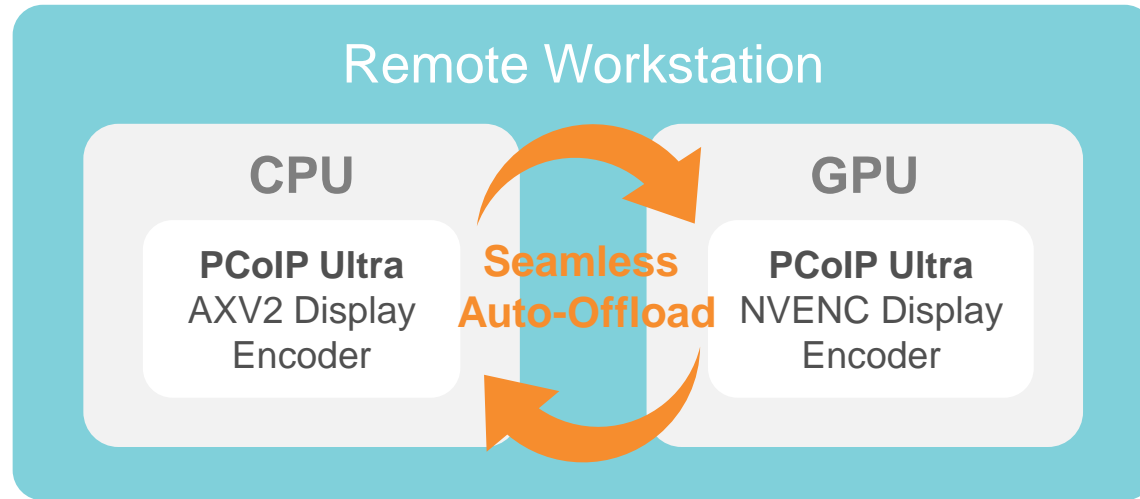
PCoIP Auto-Offload (Default)

Parsec H.265

RDP10

REFERENCE IMAGE

Heatmaps using CIE D_{00} with thresholds derived from Yang Yan et. al "Color Image Quality Assessment Based on CIEDE2000", Advances in Multimedia, 2012.

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Introducing PCoIP Ultra™ Auto-Offload

Lossless Accuracy

Remote Workstation

CPU

PCoIP Ultra
AXV2 Display Encoder

Seamless Auto-Offload

GPU

PCoIP Ultra
NVENC Display Encoder

System Efficiency

AVX2 Encoder Benefits

- Inspires confidence in remote content
- Lossless text, fine textures and details
- Build-to-lossless color accuracy

Auto-Offload Benefits

- Active quality vs. efficiency balance
- No per-workload admin tuning needed
- No burst stealing of CPU or GPU cycles
- No transitionary image artifacts
- No aggressive network consumption

NVENC Encoder Benefits

- Efficient network bandwidth utilization
- Frees up CPU for demanding applications
- Frame rates up to 60 fps

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Teradici Cloud Access Software

wacom®

The performance standard for remote artists
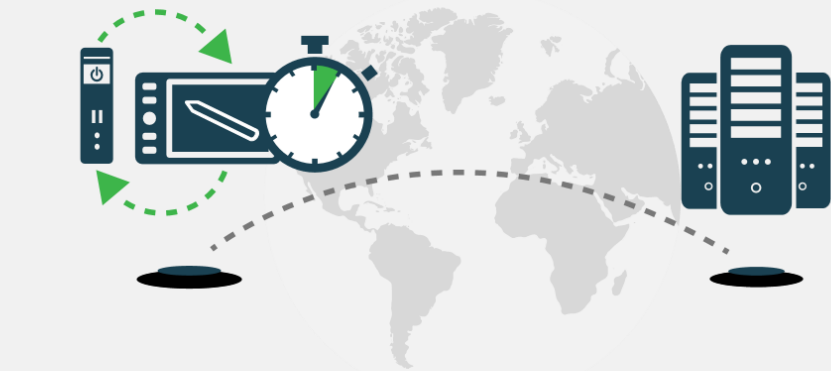
Low Latency
Great Interactivity

Local Termination

Using Cloud Access Software

Reach if Wacom is locally terminated

Reach if Wacom is bridged

Vancouver

WASHINGTON

Seattle

MONTANA

Portland

OREGON

IDAHO

WYOMING

NEVADA

UTAH

COLORADO

Sacramento

San Francisco

Las Vegas

CALIFORNIA

Los Angeles

ARIZONA

NEW MEXICO

San Diego
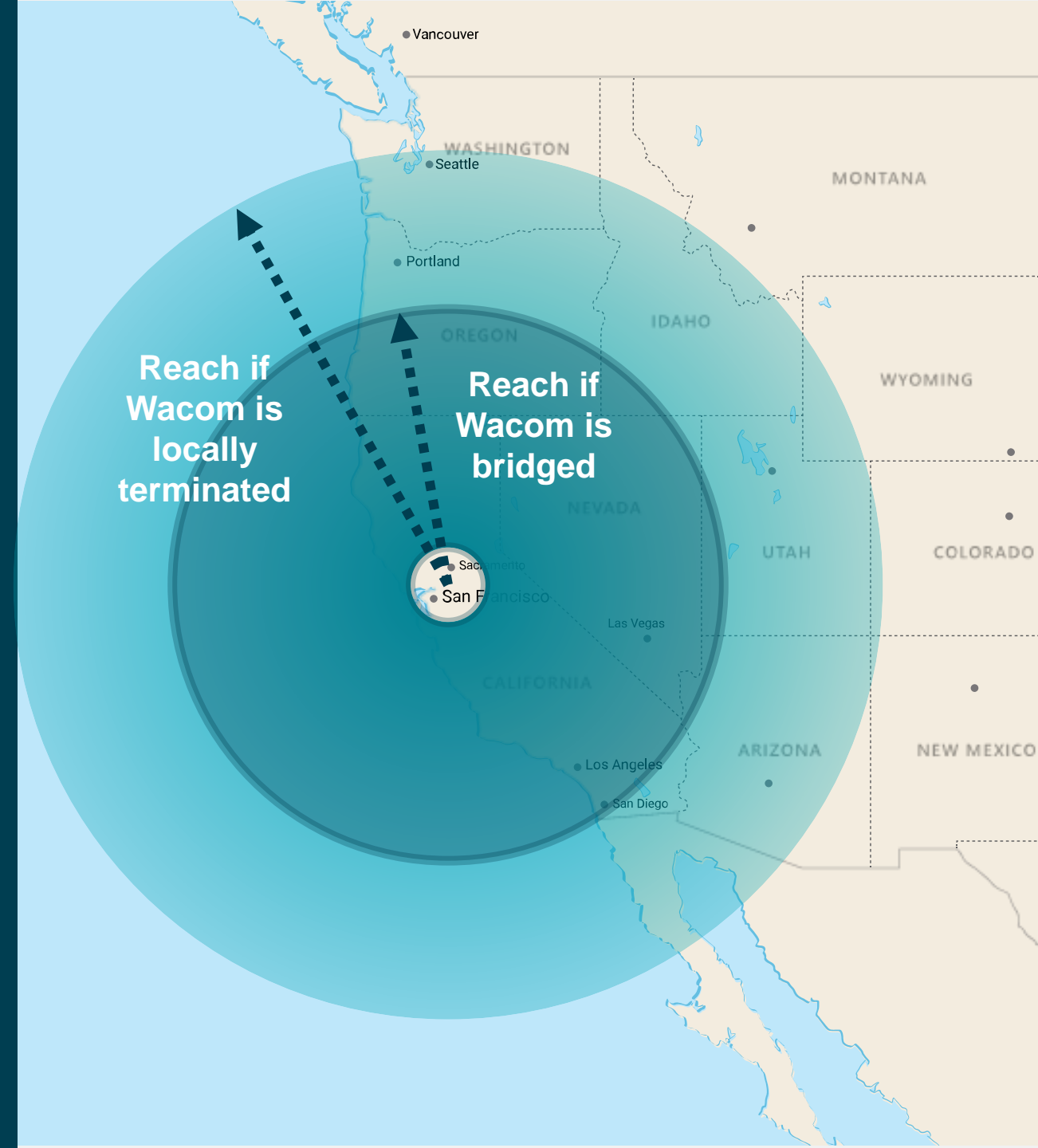
The Rapid Transition to Work-from-Home
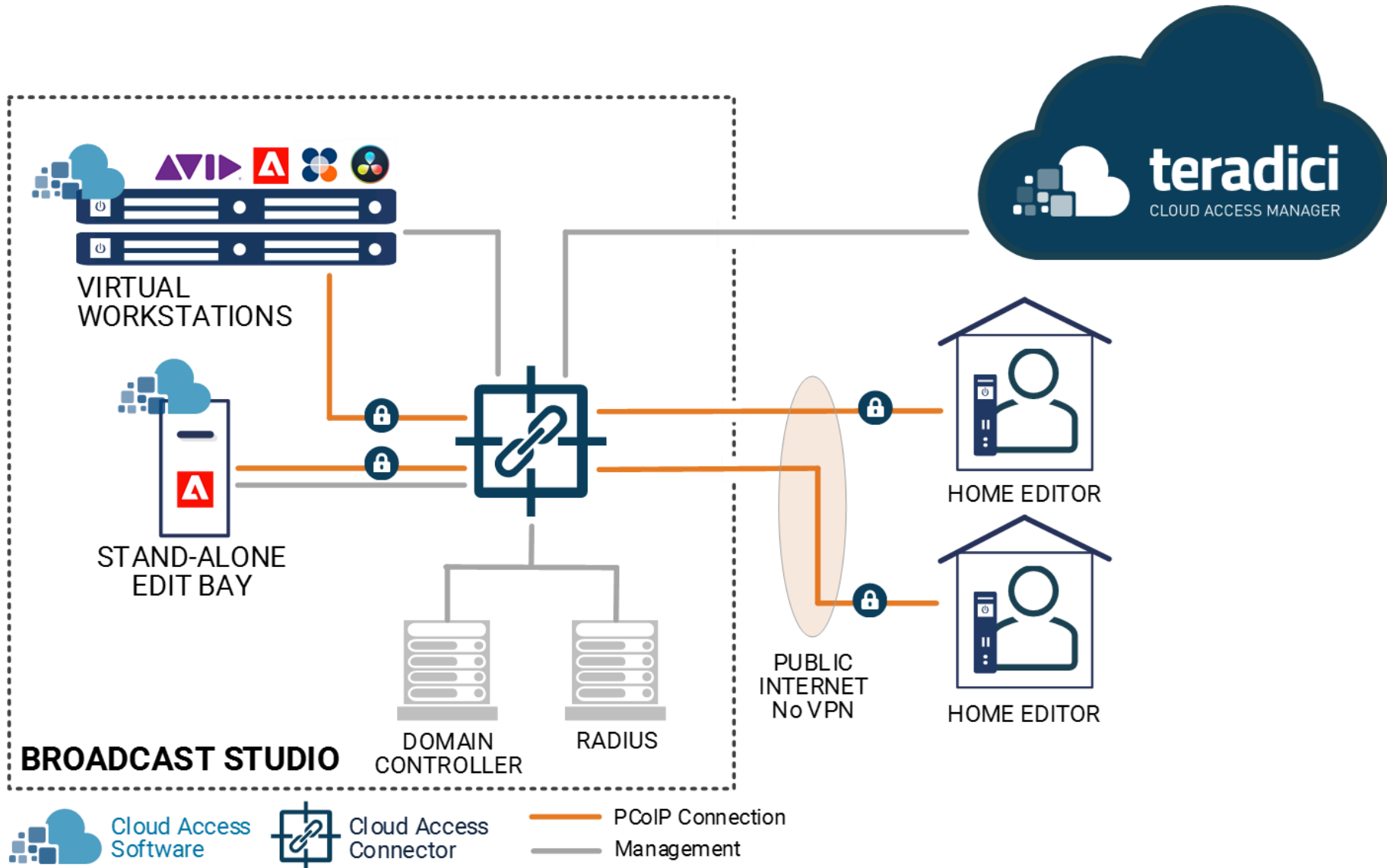
The Need for High Performance Desktop and Streaming

Remote Desktop

Teradici PCoIP Connection

SDI

clearview flex

Sohonet Clearview Streaming

EDIT BAY

Flexbox

HOME EDITOR

STUDIO

teradici
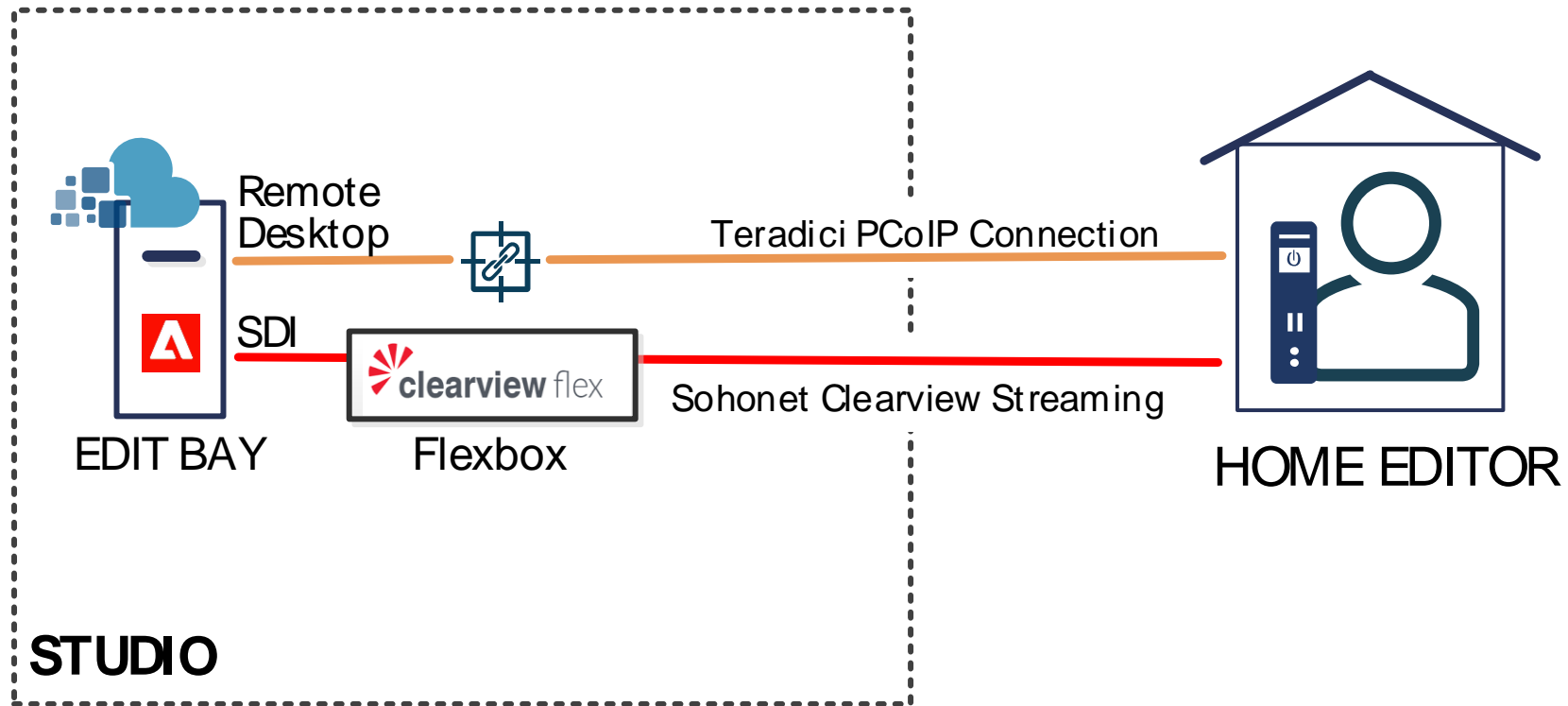
The Future of Work: Hybrid Virtualized Infrastructure
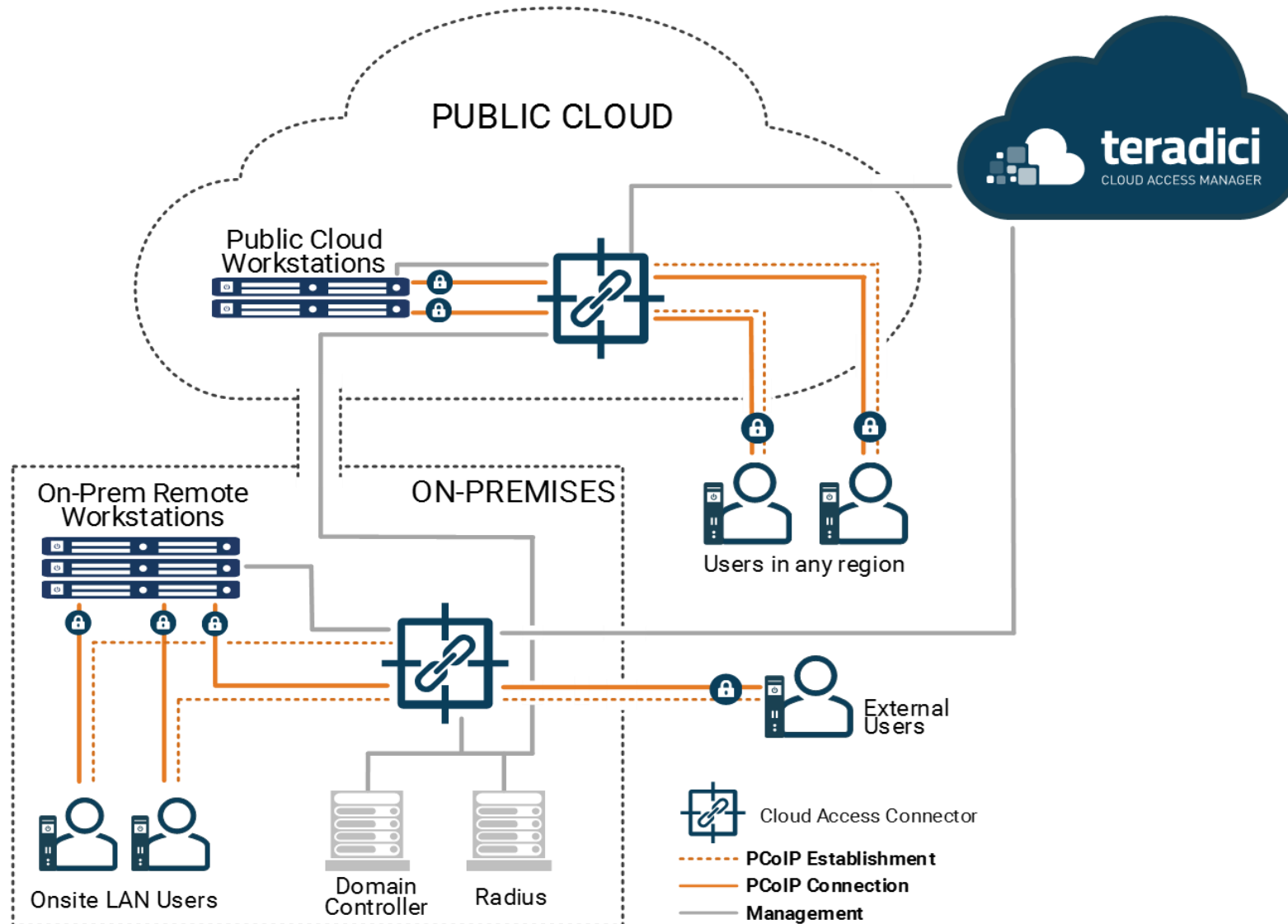
Visual Effects (VFX) Use Case – Hybrid Cloud

Jellyfish Pictures
Award-winning visual special effects (VFX) and animation studio

CASE STUDY | JELLYFISH PICTURES

About

Jellyfish Pictures creates visual effects (VFX) and animation for advertising, film, and television. The company has won Emmy, VES, and BAFTA awards.

Challenges

Jellyfish planned two new animation studios in London. The company didn't want to pay London real-estate prices to house IT infrastructure. Another dilemma: how to provide desktops to freelancers who work outside the studio.

Solution

Jellyfish built a private cloud in an existing location to host virtual desktops. Artists in the new studios log in to their virtual desktops from Dell Wyse Zero Clients, powered by Teradici PCoIP technology. Freelancers use Teradici Cloud Access Software to access virtual desktops hosted in Microsoft Azure.

Results

Avoiding on-site IT infrastructure saved ~$100,000. Now that Jellyfish can quickly provision virtual desktops for freelancers in any location, the company can take on larger projects with tighter deadlines. Creative content remains secure because it never leaves the cloud.

Visual Effects (VFX) Use Case – Public Cloud

Hive VFX

Can take on any size project with an all-cloud pipeline, enabled by Teradici Cloud Access Software and AWS

CASE STUDY | **HIVE** *Visual Effects*

About
Founded in 2019, Hive VFX provides visual special effects for film, TV, and commercials. The studio is known for beauty fixes and "gore enhancements" for realistic-looking cuts, blood, etc. Titles include *Spenser Confidential* and *Extraction*.

Challenges
To keep fixed costs down, Hive's founder wanted an all-cloud VFX pipeline—no on-premises infrastructure, no physical studios. To make it work, artists needed a way to securely connect to cloud workstations over home internet connections with the same experience they'd have in a studio.

Solution
Hive VFX found its solution in Teradici Cloud Access Software and AWS. Artists install the Teradici software on their personal devices to work on virtual workstations running Nuke, Mocha, Silhouette, and other graphics applications. The company uses AWS EC2 G4 instances, which include NVIDIA GPUs.

Results
Good artist experience. After login, the experience is just like working on a local workstation, including support for dual monitors and Wacom devices.

Security. Data never leaves the AWS data center. Only encrypted pixels travel over the network to the artist's display.

Competitive edge. Hive VFX can onboard artists living anywhere in the world by simply spinning up virtual workstations and storage in a nearby AWS data center. Lower overhead enables the company to make highly competitive bids.

Video Editorial Use Case – Remote Production

Afrokaans Film & Television

Post-production in the Brave Channels cloud for *Survivor South Africa: Island of Secrets*

CUSTOMER STORY

FILM & TELEVISION

> **About**

Afrokaans Film & Television is a multicultural African production company based in South Africa. Founded in 2006, Afrokaans has become synonymous with cutting-edge TV programming—including reality shows, lifestyle shows, celebrity news shows, and dramas.

> **Challenges**

Selected to produce a new season of *Survivor South Africa*, Afrokaans would settle for nothing less than the same awesome production value of the American version— despite budget constraints and faraway locations. Producing the previous season had been a hardship because key company personnel had to relocate to be near a post-production facility 800 miles away from headquarters.

> **Solution**

For season 7, *Island of Secrets*, Afrokaans used "production as a service" from Brave Channels, a local cloud service provider. Using Teradici Cloud Access software, editors worked on powerful virtual workstations with NVIDIA graphics card —from existing Mac and Windows devices.

> **Results**

Afrokaans achieved world-class production value for *Island of Secrets*, delivering all episodes on time and within budget. Editors' productivity increased because they could work where and when they pleased instead of coordinating with a post-production facility. Footage remains secure because video files never leave the data center.

Broadcast Industry Use Cases
Fox Sports - 2020 World Series
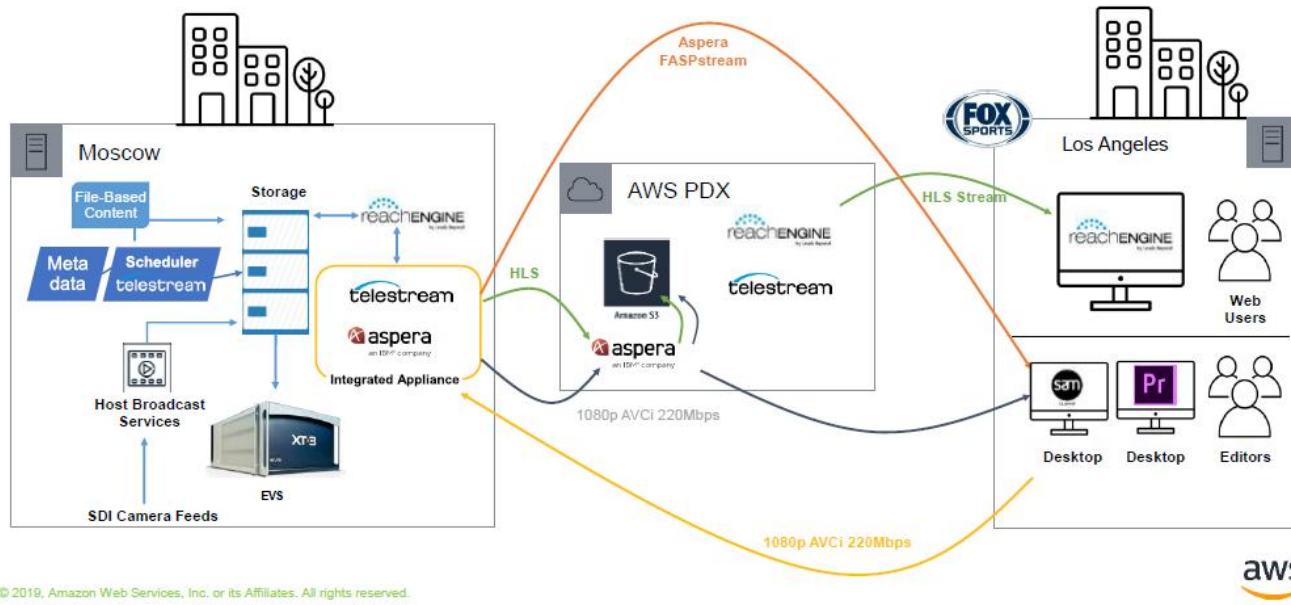
At World Series, Fox Sports Stays Connected, Enables Remote Work Via Hybrid-Cloud Workflows on Virtualized Infrastructure

THUMBWAR services have proved critical in an event generating tons of video data

By Brandon Costa, Director of Digital (https://www.sportsvideo.org/author/bcosta/)
Tuesday, October 27, 2020 - 1:58 pm
Print This Story (https://www.sportsvideo.org/2020/10/27/at-world-series-fox-sports-stays-connected-enables-remote-work-via-hybrid-cloud-workflows-on-virtualized-infrastructure/?print=1) | Subscribe (https://us1.list-manage.com/subscribe?u=74255ab74f2837b1232c567e2&id=5ccb082d23)

The World Series is one of the biggest productions that Fox Sports puts together each year, and the prospect of a neutral-site Fall Classic during a pandemic presented the network with a slew of challenges, as well as a huge opportunity for technological growth.

The ability to establish a single compound onsite at Globe Life Field in Arlington, TX, eliminated some of the traditional travel logistics that complicate a dual-site series. That has allowed Fox Sports operations professionals to focus on getting the most out of the compound while using the cloud to deploy rapidly maturing remote workflows, enabling contribution by offsite staffers.

Fox Sports' Features Group and pool of editors have greatly benefited from a new virtualization platform based on a hybrid-cloud infrastructure. Deployed by partner THUMBWAR, the system features remote virtual edit tools (powered by Teradici Cloud Access), a remote media-management network (powered by iconik), a custom-built remote feed-monitoring solution, and ancillary support of HDR transcoding, ingest, and collaboration all in a single virtual stack.

"What this really means is that people at home are connecting to site and are having the same experience as if they were onsite," says **Trevor Carlson, VP, engineering, THUMBWAR**, who has been onsite since the beginning of the month supporting Fox Sports' complete MLB Postseason efforts.

(https://www.sportsvideo.org/new/wp-content/uploads/2020/10/WorldSeriesTHUMBWAR_featured.png)
A virtualized, cloud-based workflow deployed in Fox Sports' coverage of the World Series has allowed remote technicians to contribute to the live production. For example, a colorist (whose set up is pictured here) works from his home Arizona.

Upcoming Teradici Features for the New Normal

- 'AV-Lock' Precision audio synchronization
- Installable CAS Manager for isolated deployments
- Webcams and screen sharing collaboration
- PCoIP Ultra extended to macOS users
- Smooth desktop experience to 4K 60 fps
- Multi-channel audio
- 10-bit SDR and HDR

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Teradici Cloud Access Software