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Amazon Virtual Apps & Desktops as a Service How customers are transforming their workforce with AWS

Yvonne Dresser – EUC Business Development

December 2020

Agenda

- Workforce transformation overview
- Key workforce transformation use cases
- Introduction to Amazon Virtual Apps & Desktops as a Service
- Service benefits for key stakeholders
- Pricing overview
- Next steps



Workforce is changing

1 in 5

of jobs held by contractors*

79%

of organizations expect an increase in M&A**

70%

of users worked remotely 1 day per week***

Workforce Transformation

Agility | Continuity | Security

- * NPR/Marist poll, 2018
- ** Deloitte's 2020 annual comprehensive look at M&A activity, 2019
- *** International Workplace Group, 2018



Accelerate your workforce transformation with cloud managed virtual apps & desktops





Workforce transformation use cases



Flexible remote workforce (employees/contingent)



Optimize contact center & BPO operations



Maximize Windows app migration to AWS benefits



Reduce design engineer computing costs



Simplify M&A integration



Accelerate dev/test cycles



Amazon Virtual Apps & Desktops as a Service



Persistent desktops

AppStream 2.0

Non-persistent apps & desktops



Fully-managed cloud services

Delivery at scale

High reliability

High security & control



Amazon Virtual Apps & Desktops as a Service

Other cloud VDI

On-premises VDI

lmage management	lmage management	lmage management
Directory services & policies	Directory services & policies	Directory services & policies
VDI control plane install & admin	VDI control plane install & admin	VDI control plane install & admin
Host admin	Host admin	Host admin
Storage admin	Storage admin	Storage admin
Load balancers install & admin	Load balancers install & admin	Load balancers install & admin
Hypervisor install & admin	Hypervisor install & admin	Hypervisor install & admin
Physical security	Physical security	Physical security
Power, HVAC	Power, HVAC	Power, HVAC
Rack and stack	Rack and stack	Rack and stack



Serving tens of thousands of customers

Enterprise























































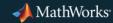






















Benefits for key stakeholders

Amazon Virtual Apps & Desktops as a Service









BUSINESS LEADERS

IT

SECURITY

END USERS



Benefits for business & IT Leaders



BUSINESS LEADERS





SECURITY



END USERS

Optimize business operations

Deliver workforce Improve reliabil continuity and performance

mandates

Protect company data

Provide rich remote experience

Enable device choice

Control IT costs



Optimize business operations



Eliminated all on-site plant design infrastructure—speeding project setup from months to days



GE doesn't operate any infrastructure which saves them days of work every month

KYOWA KIRIN

Reduced VDI hardware, software, and operations costs by 30%

Focus IT on high value projects

reduce undifferentiated infrastructure deployment and management tasks

Faster response to business demands rapid desktop & app provisioning and auto scaling

Reduce upfront CapEx purchasing for future and unknown demand



Deliver workforce continuity

GRUBHUB

Enabled a Work From Home model and scaled to 1,200 Work Spaces in two days

MRS

"Amazon WorkSpaces was the perfect solution for enabling work from home and working with our clients remotely."

<u>EMPLOYERS</u>*

America's small business insurance specialist.

"Now our employees access WorkSpaces and are as productive as when they were in the office."

Quickly enable work from home

automated provisioning with scale up & down controls

Maintain workforce productivity

rich user experience over latent networks

Simplified user onboarding

company owned or BYOD PC, Mac & tablets



Benefits for IT



BUSINESS LEADERS



IT



SECURITY

END USERS

Optimize business operations

Deliver workforce continuity

Simplify deployment and management

Improve reliability and performance

Control IT costs Meet compliance

Protect company data

Provide rich remote experience

Enable device choice



Simplify deployment & management

Built-in services

Pre-configured instances

Auto scaling policy control

Usage & performance monitoring

Automation APIs



Systems/App Management (SCCM, AppLocker)

Third-party integrations



Automation Tools (Liquidware, Synchronet)



ITSM/Self-Service (ServiceNow)



Microsoft (AD/GPO/Roaming Profiles)



Improve reliability & performance

Regions

Northern Virginia

Oregon

Gov Cloud

Montreal

London

Ireland

Frankfurt

Singapore

Tokyo

Sydney

Seoul

Sao Paolo

China (Ningxia)

Mumbai

Service uptime monthly SLA 99.9%

Multiple availability zones per region

Auto scale load balancing

Global footprint for disaster recovery



Control IT costs



Cost optimization monitoring



Pay as you go pricing—hourly or monthly



Auto stop, on-demand, auto scale out/in policy controls



Self-service end user support



Benefits for security



BUSINESS LEADERS

Optimize business

Deliver workforce continuity



IT.

Simplify deployment and management

mprove reliability and performance

Control IT costs



SECURITY

Meet compliance mandates

Protect company data



END USERS

Provide rich remote experience

Enable device choice



Meet compliance mandates

Key Certifications

SOC

PCII

ISO

FedRAMP

DoD SRG

HIPPA BAA

IRAP

MTCS

C5

ENS High

OSPAR

HITRUST CSF





























































https://aws.amazon.com/compliance/services-in-scope/



Protect company data



Secure remoting protocol

No app data touches the endpoint



Data protection policy controls

Restrict copy/paste, printing, file download



Strong authentication

Certificates, MFA, Identity providers



VPC endpoint

Secure private networking



Benefits for end users



BUSINESS LEADERS



П



SECURITY



END USERS

Optimize business operations

Deliver workforce continuity

Simplify deployment and management

mprove reliability and performance

Control IT costs Meet compliance

Protect company data

Provide rich remote experience

Enable device choice



Benefits for end users

Provide rich remote experience & enable device choice



Multi-display

HD/4K resolution, Up to 4 monitors



Popular peripherals

Speaker, mic, headset, mass storage, card readers, pen tablets



Flexible Printing

Network printing & local printer redirection



Device Choice

Windows, Mac & Linux PC, iOS & Android tablets, thin & zero clients



Pricing

WorkSpaces

- 22 Pre-configured Windows and 20 AWS Linux server bundles*
- BYOL (Windows & Office) on dedicated hardware**
- Always-on or auto-stop
- Billing monthly and hourly

AppStream 2.0

- 30 Windows Server Instance types
- Hourly billing
- Always-on or on-demand
- RDS SAL license required***



^{*} Microsoft Office Pro Plus add-on available with Windows bundles for additional fee.

^{**} Bring Your Own License (BYOL) minimum 200 WorkSpaces required, Windows VDA license required. Microsoft Office Pro Plus can optionally be included for additional WorkSpaces fee.

^{***} RDS SAL can be BYOL or purchased monthly by AWS.

AWS Professional Services









White glove

Discovery, planning & ongoing support

Technology and business integration

Design & deployment

Risk and compliance focus

Knowledge transfer

Easy scalability

Automation



AWS End User Computing Competency Partners





















































<u>Learn more about AWS End User Computing Competency Partners</u>



Next steps

Explore AWS End User Computing services

- Free Tier—WorkSpaces
- Free Tier—AppStream 2.0

Learn more about WorkSpaces and AppStream

- WorkSpaces videos & whitepapers
- AppStream videos & whitepapers

Schedule a deep dive on a use case

Get started with a Proof of Concept



Thank you!



Use cases



Workforce transformation use cases



Flexible remote workforce (employees/contingent)



Optimize contact center & BPO operations



Maximize Windows app migration to AWS benefits



Reduce design engineer computing costs



Simplify M&A integration



Accelerate dev/test cycles



Flexible remote workforce (employee & contingent)

Challenges

- Contain desktop management costs and deliver secure remote access without sacrificing user experience
- Maintain control over sensitive company information and share much of it with third parties
- Mitigate user downtime when an endpoint device breaks or gets lost
- Lead times to acquire, provision, ship physical devices for shorter-term contract remote workers
- Rapidly scale out & scale in remote desktop access to meet business needs

- Centralize OS & app management save endpoint management time
- Highly available cloud desktop built in redundancy within region & cross-region
- Rich user experience with less bandwidth than VPN
- Repurpose older hardware & enable BYOD to lower desktop management costs
- Eliminate laptop fleet acquisition, provisioning, shipping costs
- Rapid provision/de-provision from cloud flex with business demand
- Process all app data on AWS help prevent data leakage



Optimize contact center & BPO operations

Challenges

- Provide cost effective follow the sun operations for 24 X 7 live contact access.
- Deliver resilient customer facing operations at all times.
- Protect PII for industry and governmental data privacy/residency regulations.
- Contain desktop management costs and deliver secure remote access without sacrificing user experience.

- Concurrent cloud-based desktops and apps shared by shift-based users.
- Automated onboarding/offboarding integrations
- In region redundant availability zones, autoscaling policy controls; any device access on endpoint.
- Process all app data on AWS help meet data residency mandates
- Protect PII with policy based access controls
- Enable BYOD to lower desktop management costs
- Rich user experience with less bandwidth than VPN



Maximize Windows app migration to AWS benefits

Challenges

- Re-hosting just the server side tiers to the cloud can degrade app performance for many client/server apps
- Re-writing custom Windows apps as native cloud apps takes time, increasing cloud migration time to ROI
- Adhering to company and industry data compliance and residency requirements when migrating to the cloud still exists

- Re-host entire app stack to achieve "like local" app performance
- Translate Windows apps for browser access from any device without costly re-writes
- Rich user experience with less bandwidth than VPN
- Centralize OS & app management save endpoint management time
- Process all app data on AWS help prevent data leakage



Enhance design engineer productivity

Challenges

- Dependency on expensive workstation hardware used by design-engineers
- Dependency on high speed network access in order for design engineers to be productive
- Adhering to company and industry data compliance and residency requirements when migrating to the cloud still exists

- Provision less expensive devices and deliver like local app experience
- Lower network bandwidth costs reduced app data traffic
- Extend remote work and BYOD to design engineers
- Process all app data on AWS help prevent data leakage



Simplify merger & acquisition integration

Challenges

- Adding acquired company's devices to the parent company's network domain just to provide access to a few apps is time consuming
- Maintaining productivity of acquired company employees without disruptive end user device changes
- Retain parent control over financial, sales, and HR data with new semi-trusted users

- Built-in network access control eliminate adding acquired company's devices to the domain
- No desktop acquisition & management costs acquired employees use existing devices to access both networks
- Process all app data on AWS help prevent data leakage



Accelerate developer/testing cycles

Challenges

- Rapid releases of new software builds requires developers and testers to constantly reimage machines and install new builds which is time consuming.
- Need to protect source code when using 3rd party contract developers and testers.
- More easily manage and control app development costs.

- Quickly set-up and deploy dev/test environments to all of your users VMs from a centrally controlled single base image.
- Leverage APIs to automate VM provisioning/deprovisioning workflows with your CI tools.
- Process all app data on AWS to help prevent source code leakage.
- Control costs with policies to automatically shut down and start up VMs.
- Enable self-service for users to have more control over their desktop experience and reduce support tickets.



Customer case studies





AppStream Case Studies



Serving tens of thousands of customers





































































WorkSpaces customer case studies



Amazon speeds desktop deployment for 25,000 global workers using WorkSpaces

amazon

Problem

Purchasing, configuring, and shipping laptops to remote workers was not meeting business SLAs.

Security concerns around Amazon assets leaving our custody during shipment.

VPN access caused network latency issues for users.

Solution

Amazon Client Engineering formalized a WorkSpaces program to support use cases where the need for fast, highly secure, and scalable access was required.

Implementing WorkSpaces globally circumvents need for physical logistics and network build-outs.

Benefits

- Gives 25,000 global remote workers fast, restricted access to resources.
- On-boards new users in minutes instead of months.
- Expected annual savings of \$17M.

Organization: Amazon

Industry: Retail

Country: United States

Employees: 647,500

Website: www.amazon.com/

As a result, Amazon IT has rolled out Amazon WorkSpaces to even more remote employees, bringing the total number to more than 25,000 users—all supported by two Amazon engineers.

Andrew Blackard, Manager, Client Engineering, Amazon



About Amazon

Full Case Study



Comune Di Cagliari keeps local government operations running smoothly with WorkSpaces

COMUNE DI CAGLIARI

Problem

As a government entity in Italy, Comune di Cagliari could not stop operating during the Covid-pandemic.

The municipality also needed to comply with the countries measures to combat the virus.

Solution

To ensure employee safety and the city's safety they implemented Amazon WorkSpaces to enable remote work for its employees.

Benefits

- Enabled 600+ government employees to work from home.
- Continue their projects uninterrupted while working remotely for months.

Organization: Comune di Cagliari

Industry: Government

Country: Italy

Vebsite: comune.cagliari.it



As a municipality, our people depend on us. We cannot stop running. In compliance with Italy's measures to combat Covid-19 and to help reduce the movement of people as much as possible, we worked with AWS to implement Amazon WorkSpaces. Employee safety, as well as the safety our city's people are the top priority. WorkSpaces allowed us to enable 600+ employees to work from home and stay safe.

Riccardo Castrignanó, Dirigente Tecnico, Comune di Cagliari



About Comune:

Comune di Cagliari is a government municipality in Italy



Enova rolls-out Amazon WorkSpaces and avoids interruption to its contact center operations during Covid-19



Needed to quickly develop and implement a work-from-home solution for 600 office-based contact center workers.

Solution needed to support secure remote access from workers' personal devices.

Existing on-prem VPN would not scale in time to support additional users.

Solution

Set-up and deployed Amazon WorkSpaces to 600 users in 1 week.

Leveraged a single Amazon Linux image containing a softphone app and web browser for all 600 users to access Genesys from any device.

Solution enabled BYOD to reduce the number of company laptops to be purchased and provisioned.

Benefits

- Solution resulted in no interruptions to its contact center operations.
- Easily respond to changing business conditions with rapid scale-up and scale down WorkSpaces capabilities.
- No additional IT overhead to roll-out and maintain new work from home solution.



Organization: Enova International

Industry: Financial Services

Country: United States

Employees: 1,500

Website: <u>enova.com</u>

About Enova International

Provides online financial services to non-prime consumers and small businesses. The Company uses proprietary technology, analytics, and customer service to evaluate, underwrite, and fund loans. Enova International serves clients globally.



Enova leadership credits Amazon WorkSpaces as a major reason for our company's resiliency during the Covid-19 pandemic. Our IT team's ability to quickly respond by rolling out a new work from home solution based on WorkSpaces resulted in no interruption to our contact center operations.

Jeff Bagnall, Director, Infrastructure & Technology Operations, Enova





EndemolShine Group streamlines desktop operations with Amazon WorkSpaces

Problem

EndemolShine was requiring onsite video production crews to carry and use heavy workstation—grade laptops which was burdensome.

Sharing 20+ GB media files between crew members over consumer grade internet was very slow.

Solution

The company decided to replace physical workstation-grade laptops with AWS WorkSpaces, so crew members could use their own lighter weight laptops and tablets, and collaborate on media files centralized on AWS.

Benefits

- Enables crew members to use their preferred device.
- Reduces bandwidth consumption costs.
- Eliminates laptop fleet acquisition & management costs.
- Provides smoother media view & edit experience.



Company: Endemol Shine Group

Industry: Media & Entertainment

Country: Netherlands

Website:

https://www.endemolshinegroup.com/

About Endemol Shine Group

Creates world class content including Peaky Blinders, Extreme Makeover: Home Edition, and Master Chef, that entertains and enthralls billions of people around the world

Full Case Study



By providing crews with Amazon WorkSpaces, EndemolShine has saved 30% on desktop operations and 70% on capital expenditure. We have reduced our project preparation time from 2 weeks to 2 hours.

Leon Backbier, ICT Manager, EndemolShine Group





EMPLOYERS maintains business continuity with WorkSpaces

America's small business insurance specialist.

Problem

Needed to move entire company to work from home quickly.

Primary remote access method was via VPN, but most employees were office based.

Ability to quickly scale existing VPN to support the entire company was not feasible.

Solution

Scaled-up usage of existing WorkSpaces environment to support employees without VPN or WorkSpaces to 500 in less than 1 week.

Provided employees with company owned Chromebooks and thin clients or use of their personal devices.

Eliminated VPN dependency.

Benefits

- Fully transitioned entire business to remote work while maintaining business continuity and productivity.
- No upfront capital costs, pay as you go pricing simplified transition to a remote work business model.

Organization: EMPLOYERS

Country: United States

Website: employers.com

When the COVID-19 pandemic began, we scaled-up our use to 500 users in less than a week. Now our employees access WorkSpaces through a thin client or Chromebook device we provide, or through their own device, and are as productive as when they were in the office.

Jeffrey Shaw, Executive Vice President, Chief Information Officer, **EMPLOYERS**



About EMPLOYERS

For over a century, EMPLOYERS has been providing cost-effective workers' compensation products and services for America's small businesses



Fairstone builds new end user computing solution with Amazon WorkSpaces

Fairstone

Problem

Fairstone separation from parent company Citi Financial meant building a new IT infrastructure for the company from scratch.

Build new end user computing stack.

Solution

Deployed Amazon WorkSpaces to 1,000's of employees across 235 branch offices in days.

Provisioned Wyse thin clients.

Benefits

- Centralized app & desktop management enables nimbler IT.
- Offer flexible work from home & office policy.
- Reduced endpoint device hardware and management costs.



Industry: Financial Services

Country: Canada

Branches: 235

Website: www.fairstone.ca
Read the Full case study

About Fairstone Financial

Canada's leading non-bank provider of personal loans, home equity loans and debt consolidation loans



Amazon WorkSpaces is scalable, secure, and easy to provision and manage. This is the best way for us to support our employees across Canada as we continue to grow.

François Côté, Chief Digital and Technology Officer, Fairstone Financial





Ferrellgas deploys Amazon WorkSpaces to enable remote work - achieves employee productivity boost



Needed to provide remote access to corporate and customer service users to enable work from home and business continuity in the wake of COVID 19.

Many employees reside in rural areas with low bandwidth Internet connectivity.

Solution

Scaled-up existing WorkSpaces environment to support 250 new remote employees in a month.

Enabled WorkSpaces accounts for BYOD access to ERP, contact center, mapping & productivity apps.

Existing WorkSpaces deployment supporting wholesale and commodity trading teams.

Benefits

- Provides business continuity by enabling employees to productively work from home.
- Improves end user satisfaction with smoother performance over low bandwidth networks.
- Easier compliance audits the result of better control over desktop environment.



Organization: Ferrellgas

Industry: Propane gas supplier

Country: United States

Employees: 4,191

Website: www.ferrellgas.com

About Ferrellgas

Ferrellgas is an American supplier of wholesale, commercial and retail propane with corporate operations in the Kansas City suburbs of Liberty, Missouri and Overland Park, Kansas.



With Amazon WorkSpaces, our remote workers are experiencing 85% faster application performance over low bandwidth connections than with a traditional physical PC with VPN access, providing a boost in user productivity and satisfaction.

Damon Carrasco, Vice President of Technology, Ferrellgas





Firstmac transitions entire company to remote work in two weeks with Amazon WorkSpaces

firstmac

Problem

Needed a solution to support business continuity when people could not get to the office.

Existing on-prem VDI solution could not quickly scale to accommodate required work from home policy.

Solution

Deployed Amazon WorkSpaces to its 400 employees across Australia and Philippines in two weeks.

Provides new flexibility to easily ramp up/down WorkSpaces capacity and change configurations.

Benefits

- Enabled smooth transition to productive remote work for company's employees.
- Built-in workforce continuity protects Firstmac against futures disruptions—volcanos, fires, pandemics.



Industry: Financial Services

Country: Australia

Employees: 500

Website: firstmac.com.au/

About Firstmac

Australia's largest non-bank lender managing \$12 billion in mortgages and \$300 million in cash investments



Working from home is a new phenomenon for most of our staff, but WorkSpaces has made that adjustment go smoothly. Our staff are set-up to be productive remotely, and with the flexibility of WorkSpaces, we can ramp up/down and change configurations easily.

Robert Cooper, Head of IT Operations, Firstmac





GBS International maintains business continuity with WorkSpaces



Problem

During the COVID-19 pandemic GBS customer service employees required remote access to their CRM and PBX platforms in order to maintain business continuity.

Solution

The company deployed 160 WorkSpaces to its customer service employees enabling them to be productive from home.

They worked with AWS partner Nub8 to deploy all WorkSpaces in 48 hours.

Benefits

- Employees now have remote access to their CRM and PBX platform enabling the business to continue its support operations.
- Eliminated the complexity of managing hardware inventory, different OS versions and patches.



Industry: Hospitality

Country: United States

Partner: Nubs

Website: gbsinternationalinc.com

About GBS International:

GBS International provides members with a unique vacation ownership experience that allows access to spacious and sophisticated resort-level accommodations all over the world



We worked with Nub8 to assess our organization and develop a plan to enable over 160 customer service employees to begin working remotely in just 48 hours via Amazon WorkSpaces.

Orlando Campanioni, IT Director, GBS International





Grubhub ensures business continuity with Amazon WorkSpaces

Problem

Needed to ensure business continuity by moving all departments to a work from home model.

Required a remote desktop solution that could scale-up and down quickly.

Enable employees to use their own devices.

Solution

Deployed 1,200 WorkSpaces in just two days to facilitate employees quick transition to work from home model.

BYOD enabled employees without corporate owned devices to securely access company apps and resources.

Benefits

- Ensure business continuity by supporting 100% of staff & new hires to work from home.
- Remote access via employee devices allowed IT to get the solution up & running quickly & maintain security standards.
- Flexibility to control cost & scale virtual desktop environment to meet future needs.

GRUBHUB

Organization: Grubhub Holdings, Inc.

Industry: Online platform for restaurant pick-up & delivery

Country: United States

Employees: 2,700

Website: grubhub.com/

About Grubhub Holdings, Inc.

Grubhub is a leading online and mobile food-ordering and delivery marketplace with the largest and most comprehensive network of restaurant partners



GrubHub now has the flexibility to control cost and scale our virtual desktop environment to meet the current needs and future needs of our customers, restaurant partners, and drivers for whatever comes next.

Justinian Fortenberry, CISO, Grubhub Holdings, Inc.





Hankook Rapidly Deploys Remote Operations and Cuts Costs Using Amazon Connect, Amazon WorkSpaces

Challenge

Hankook needed remote contact center functionality and flexible offerings for its customers but struggled to provide this with its onprem private branch exchange environment and VPN.

Solution

With Amazon WorkSpaces, Hankook, quickly deployed a remote work environment for 120 employees in 2 days.

Migrated on-prem PBX system to Amazon Connect in 2 weeks to rapidly to enable business continuity.

Benefits

- Maintained business continuity and increased customers' trust.
- Cut new customer service delivery time by 50% by rolling out WorkSpaces and Connect services



Company: Hankook Corporation

Industry: BPO

Country: Korea

Employees: 3,700

Vebsite:<u>http://besthc.co.kr/eng/</u>

About Hankook Corporation

Hankook is a customer relationship management marketing business in Korea that offers consulting and development solutions for contact centers. It has facilitated contact center operations for 117 companies.

Building the new system using Amazon WorkSpaces and migrating to a cloud based Connect call center service took 2 weeks. After that, Hankook deployed the remote work environment in 2 days—a 50 percent reduction in service delivery time compared to introducing remote work with an on-premises PBX system and traditional VPN for remote access.

Changhee Kim, deputy general manager, Hankook





Itegria delivers superior desktop service using WorkSpaces as their cloud partner

Problem

Wanted to replace current RDS solution hosted internally with a more scalable & efficient cloud desktop service.

Enhance user experience and eliminate latent performance.

Complying with increasing financial services regulations was critical for operations .

Solution

Transitioning client base to WorkSpaces.

Integrated with ConnectWise RMM system in several days.

Providing complete end user computing service including endpoint device management, productivity software & licensing.

Benefits

- Provide desktop service that appeals to elite & tech forward clients at premium prices.
- Reduce IT burden; enable more focus on value creation.
- Deliver on their "fast, compliant, and secure" promise.



Organization: Itegria

Industry: Cloud Service Provider (FinServ)

Country: United States

Customers:125+

Website: <u>itegria.com</u>

About Itegria

The leader for cloud desktops & infrastructure for elite registered investment advisory firms. Itegria is a top 200 public cloud service provider and top vertical-focused managed service provider*

*CHANNEL e to e



Itegria's partnership with AWS WorkSpaces is helping us achieve very high business growth and deliver on our "fast, compliant, and secure" value proposition.

Richard Mabbun, CEO & Founder, Itegria





Kyowa Kirin enables remote work, cuts VDI costs 30% with Amazon WorkSpaces

Problem

Existing on-premises VDI solution required additional investment in order to effectively scale with business demand.

Burdensome operational overhead distracted IT from pursuing higher value projects.

Solution

Replaced existing VDI solution with Amazon WorkSpaces for 1,600 of its employees.

Implemented RPA app on WorkSpaces to automate time intensive data entry tasks.

Enabled work from home for 400 users in 1 week.

Benefits

- Reduced VDI hardware, software, & operations costs by 30%.
- Improved business agility to react to fast changing business conditions.

KYOWA KIRIN

Organization: Kyowa Kirin

Industry: Life Sciences

Country: Japan Employees: 7,500

Website: kyowakirin.com

About Kyowa Kirin

Kyowa Hakko Kirin Co, Ltd. is a Japanese pharmaceutical and biotechnology company under the Kirin Holdings, and is among the 40 largest in the world by revenue



Having a fully-managed cloud desktop service with Amazon WorkSpaces is key for us because it allows us to offload unnecessary operations work.

Takayuki Kusumoto, manager, ICT solutions division, Kyowa Kirin





Lunar Bank ensures compliance in Sweden and Norway with WorkSpaces

Problem

The Danish cloud-based bank needed to meet security and compliance standards as they expanded to other countries.

Needed a scalable solution for their technical and customer support department as the bank expand globally.

Required a solution to enable remote work.

Solution

Deployed Amazon WorkSpaces on zero clients and BYOD for their customer support team.

Implemented WorkSpaces to ensure compliance when they launch in Sweden and Norway.

Solution enabled BYOD to reduce the number of company laptops to be purchased and provisioned.

Benefits

- Meet high security and compliance standards in multiple countries.
- Able to maintain business continuity during COVID-19 pandemic.
- Access to financial apps with no data living on local devices.



Organization: Lunar

Industry: Financial Services

Employees: 200

Country: Denmark

Website: <u>lunar.app/en</u>

About Lunar International

Founded in 2015, Lunar is a Danish cloud-based bank that is expanding in the Nordics. It is a 100% digital bank that makes it easy for customers to manage and make the most of their money.



Our focus is to be a bank of the future. Amazon WorkSpaces allows us to meet the security and compliance standards in Denmark, and ensure our compliance when we re-launch in Sweden and Norway in the near future.

Thomas Jacobsen, IT Compliance and Security Lead, Lunar





MRS BPO back office operations continuity to Fortune 100 with WorkSpaces



Problem

Expand call center operations to India using contractors. Needed remote access solution that met data compliance requirements.

Needed to enable remote work solution for US based call center workers.

Solution

Implemented WorkSpaces to support growing contingent workforce in India

Deployed WorkSpaces to 850 call center staff in 13 days.

Benefits

- Increased revenue \$3M in a few months from new customers that needed MRS services when competitors shut down during Covid-19.
- Offer business continuity selling point to customers and prospects.



Industry: Back Office Solutions Country: United States

Website mrsbpo.com

Organization: MRS BPO

About MRS BPO

MRS BPO offers Accounts Receivables and Back Office Solutions to the Fortune 100



Amazon WorkSpaces was perfect solution for enabling work from home and working with our clients remotely. We got 95% of our staff working from home in 13 days.

Chris Repholz, Chief Growth Officer, MRS PBO





Worldwide Express migrates from RDS to WorkSpaces to gain cloud efficiencies



Problem

Datacenter migration of apps and data to AWS in progress.

Wanted to replace on-prem RDS solution with a cloud managed virtual desktop service for easier administration & more secure access to company apps, data, and AWS platform.

Solution

Deployed WorkSpaces to multiple user groups.

Finance/accounting user access to ERP system hosted on AWS.

Provisioned 100+ developers & IT with Amazon Linux WorkSpaces.

Eliminated VPN access layer.

Benefits

- Improved user productivity with faster rendering of large files and data sets.
- Improved security posture with WorkSpaces zero trust access.
- Lower end user device costs by switching to less powerful laptops & desktops.



Organization: Worldwide Express

Industry: Transportation & Logistics

Country: United States

Website: wwex.com

About Worldwide Express

Worldwide Express (WWEX) turns the complex world of shipping logistics into simple and easy-tounderstand solutions. As the largest non-retail UPS Authorized Reseller in the country, 90,000+ businesses of all sizes trust their shipping needs to WWEX and its sister company, Unishippers



Because Amazon WorkSpaces is a managed service, it handles many of the cumbersome processes associated with managing VDI. We can start and shut down WorkSpaces in a single click, re-provision a WorkSpaces to a known good bundle at any time, and expedite maintenance schedules which help improve our security posture.

Jason Miller, Director of Infrastructure, Worldwide Express



AppStream 2.0 customer case studies



GE Renewable Energy migrates Windows apps to AWS with AppStream 2.0 centralized client delivery



Problem

Executive mandate to migrate 80% of company's 1,000+ apps to AWS.

Looking to re-host vs rewrite many Windows client apps.

Cloud team needed to scale migration volume & return app management to LOB app owners.

Solution

Deploy AppStream in multiple regions to support global footprint.

Effectively manage costs with pooled instances scale out and scale in policy automation.

Scale migrations to AWS by extending secure, role-based AppStream access to LOB app owners.

Benefits

- Saving cloud team days per month of work centrally managing company apps on AWS.
- Meet executive app migration to cloud mandate without re-writing apps for faster ROI.
- Continue to deliver rich user experience similar to on-premises deployment.



ndustry: Energy Country: France

Employees: 40,000

Website: ge.com/renewableenergy
Watch Re:Invent 2019 presentation

About GE Renewable Energy

GE Renewable Energy is a division of General Electric focusing on production of energy from renewable sources. Its portfolio of products includes wind, hydroelectric, and solar power generating solutions



With Amazon AppStream 2.0, we don't operate any infrastructure, and scale on-demand to any number of users. And, we're no longer the single team maintaining applications for each business unit. This saves us days of work every month as we grow our deployment from hundreds to thousands of users.

Glorius Gaduang, Principle Cloud Architect, GE Renewable Energy





Amazon AppStream 2.0 empowers remote work and collaboration for design engineers



Problem

Enable remote collaboration for global employees and partners.

Reduce hardware and management costs to deploy global infrastructure.

Solution

Deployed AppStream to deliver 2D and 3D graphic applications to employees and partners around the world.

Able to meet their performance requirements while reducing costs.

Benefits

- Built a global collaboration model.
- Reduced costs by 30%.
- Enabled global access without sacrificing performance.
- Reduced number of FTEs to manage applications from 4 to 1.



Industry: Engineering Country: South Korea

Employees: 5,566

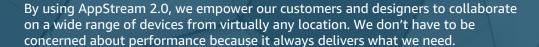
Website:

www.samsungengineering.com

About Samsung Engineering

Samsung Engineering Co., Ltd. was founded as the first engineering firm in Korea in 1970. As an Engineering, Procurement and Construction Company, it provides a full range of engineering services including feasibility studies, design, procurement, construction, and commissioning





Jeong Hoon Lee, Senior Engineer, Samsung Engineering



Tidewater Migrates SAP GUI to AWS

TIDEWATER

Problem

Installing and managing dozens of SAP VMs around the world to support global users was becoming untenable.

Alternative was Citrix remote access, but app performance was slow..

Solution

Migrate SAP GUI to AWS where SAP backend was deployed using AppStream 2.0.

Decommission locally deployed VMs around the globe.

Enable web browser access.

Benefits

- Enable secure remote access from anywhere, on any device with a "like local" user experience.
- Reduce global SAP VM deployment & management footprint.
- Easily extend SAP access to newly acquired companies.

Organization: Tidewater

Industry: Oil & Gas

Country: United States

Employees: 5,300

Website: <u>https://www.tdw.com/</u>

About

Tidewater owns and operates one of the largest fleets of OSVs (Offshore Support Vessels) in the industry, with over 60 years of experience supporting offshore energy exploration and production activities worldwide



With AppStream 2.0, we've moved the SAP BPC front end and back end closer together, so our global users are reporting much better performance. We can even extend SAP BPC to locations where distance once made it unusably slow. It is such a relief to be able to deliver SAP BPC over AppStream 2.0 instead of having to install 40-GB VMs all around the world.

Kevin Adams, Global IT Infrastructure Manager, Tidewater





Veolia migrates Windows apps to AWS for secure HTML 5 access using AppStream 2.0



Problem

Executive mandate to move 200 internal apps to cloud via SaaS replacement, re-write, or cloud re-hosting.

Enable HTML 5 browser access to re-hosted Windows apps.

Wide variety of apps—ERP, business productivity, R&D, graphics tools.

Solution

Deploy AppStream in 2 AWS regions to thousands of users.

AppStream 2.0 delivers Windows applications to Chromebooks.

Benefits

- Reduce cost: Reduce device management requirements.
- Increase security: Nothing resides on the local device.
- Simplify infrastructure: **Eliminated Active Directory** authentication dependency for Windows applications.



Organization: Veolia

Industry: Environmental Services

Country: France, Global

Website: veolia.com/en

Re:invent 2018 presentation

About Veolia

A French transnational company with activities in three main service and utility areas traditionally managed by public authorities water management, waste management, and energy services



We began working with AWS because we wanted to make all of our apps available to employees through an HTML 5 browser. We chose AppStream 2.0 because it allows us to deliver our applications to our users securely, anywhere and at any time. AppStream is used by 700+ people concurrently 24/7.

Catherine Beda, Application Transformation Squad Leader, Veolia





University of Virginia finds flexibility in app virtualization with Amazon AppStream 2.0

UNIVERSITY VIRGINIA McIntire School Foundation

Problem

The university's existing computer labs facilities had reached capacity from real estate and financial resource perspectives.

As student and programs continued to grow, meeting computer lab demand was paramount for university and student success.

Solution

Rapidly scaled its computer lab environment to expand computer lab availability by deploying AppStream 2.0 that could be accessed remotely, anytime, without students having to come into a physical lab.

Benefits

- Reduce classroom real estate and physical PC equipment and maintenance costs.
- Enable flexible computer lab access for students.
- Meet University growth plans with new academic program roll-outs.

Organization: University of Virginia
McIntire School of Commerce

Industry: Higher Education

Country: United States

Employees: 1,100

Students: 175

Website: https://www.virginia.edu/

About University of Virginia

The university is an iconic public institution of higher education boasting nationally ranked schools and programs, distinguished faculty, and renowned research

Video Case Study



We looked at several virtual desktop solutions and found AWS's scalability and unique pricing model most attractive with its pay-as-you-go model where we are only pay for AppStream based on student usage.

Eric Rzeszut, Associate Director of Client Services, University of Virginia



