



## **Previous versions**

### **Virtual Desktop Service**

NetApp  
December 18, 2020

This PDF was generated from [https://docs.netapp.com/us-en/virtual-desktop-service/Reference.Release\\_Notes.vds\\_v5.3\\_release\\_notes.html](https://docs.netapp.com/us-en/virtual-desktop-service/Reference.Release_Notes.vds_v5.3_release_notes.html) on December 18, 2020. Always check docs.netapp.com for the latest.

# Table of Contents

- CWS – v5.0 Release Notes ..... 1
  - Overview ..... 1
  - Highlights ..... 1
  - Key features ..... 1
  - Virtual Desktop Service – Version 5.3 ..... 2
  - Cloud Workspace Management Suite – Version 5.2 ..... 22
  - Cloud Workspace Suite – Version 5.1 ..... 37

# CWS – v5.0 Release Notes



There will be no further recurring releases for v5.0 of CWS – all releases will be considered hotfixes.

## Overview

CloudJumper has released Cloud Workspace Suite 5.0 for general implementation starting in Q4 2016. This release includes an update of both the CWS APIs and the Admin Control interface. The release is a significant change and is not “backward compatible” to version 4.x entities.

Version 4.x will continue to be supported until all partner Software Defined Data Centers (SDDCs) have been upgraded to the 5.0 platform, upgrades will be completed by CloudJumper in coordination with each Partner and will not interrupt existing services. There is no upgrade fee or implementation cost to transition. CWS 5 continues to support all of the previous versions’ functionality, and extends new features that enhance both Administrator and End-User experience, and further improve the award winning automation and orchestration introduced with previous releases of Cloud Workspace Suite.

Existing Partners should have little trouble adopting the new Admin interface, and “time to mastery” for new Partners will be even easier. With CWS 5.0, CloudJumper has re-written all of the platforms APIs into REST API format and completely retired the earlier SOAP APIs. This updated architecture will make further enhancement by CloudJumper easier and faster, and creates an even friendlier environment for external developers to extend their services and products based on Cloud Workspace.

## Highlights

- Complete UI/UX Rewrite
- Azure AD Integration
- Azure SDDC self service deploy
- App Services
- Resource Scheduling
- Live Server Scaling – Cross Platform
- Automated Server Cloning – Cross Platform
- Customize Drive Shares on a per client basis

## Key features

### Azure Active Directory (AD) Integration

- Build SDDC as Private Cloud Active Directory or use Microsoft Azure-AD-as-a-Service
- Combine CWS with Office365
- Support Azure-based SSO & MFA

### Azure SDDC self service deploy

- Complete integration with Azure

- Rapidly deploy new SDDCs
- Deploy private enterprise Clouds within Azure for any workload including Cloud Workspace managed: WaaS, App Services, Private Web App & SharePoint

## App services

- Deploy application silos for publishing applications as isolated service building blocks
- Apps delivered from 'public' app servers to many custom entities
- Apps installed in single app dedicated server pools
- Apps decoupled from user profile and data layer requirements
- Build hyper-scalable app services
- Multiple app services can be combined into user collections
- CWS license tracking and usage reporting

## Live server scaling – cross platform

- Intelligent automated scaling of server resources/active servers
- Tightly manage server resources with dynamic increase/decrease while user load changes
- Automatically scale server resources up & down as workload varies

## Automated server cloning – cross platform

- Automatically increase server until count availability as defined user count grows
- Adds additional servers to the available resource pools
- Combine with CWS Live Server Scaling capability to create fully automated solution

## Resource scheduling

- Schedule service times on a per-customer basis
- Cost containment for Public Cloud
- Shut systems down when not in use and re-activate on pre-defined schedule

## Virtual Desktop Service – Version 5.3



There will be no further recurring releases for v5.3 of VDS – all releases will be considered hotfixes.

### VDS 5.3 release: Thurs., December 17, 2020

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday December 17th, 2020 at 10pm - 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.



The next release cycle will be on Thursday January 7th, 2021 instead of New Year's Eve 2020.

## Virtual Desktop Service

- Update SMTP service to leverage Postmark

## VDS 5.3 release: Thurs., October 22, 2020

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday October 22nd, 2020 at 10pm - 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## VDS

- Bug fix for scenarios where the MFA agent resides in a folder with legacy IIT naming conventions

## VDS 5.3 release: Thurs., October 8, 2020

*Components:* 5.4 Virtual Desktop Service

*When:* Thursday October 8th, 2020 at 10pm - 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## VDS

- Bug fix for Provisioning Collections – hypervisor template not auto-selected

## VDS 5.3 release: Thurs., September 10, 2020

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday September 10th, 2020 at 10pm - 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## Virtual Desktop Service

- Reduce the number of API calls used to return a list of Azure templates
- Referential link update in server resource nightly report
- Fix for changing administrative passwords to support improved, slimmer permission sets in AD

## VDS 5.3 release: Thurs., August 27, 2020

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday August 13th, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## **Virtual Desktop Service**

- Bug fix for a Scripted Events scenario where date and time info was being displayed as current date and time

## **Azure Cost Estimator**

- Release of Azure Hybrid Benefits functionality
- Bug fix for a display issue when entering custom name information into VM details

## **VDS 5.3 release: Thurs., August 13, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday August 13th, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## **Azure Cost Estimator**

- Add Ephemeral OS Disk support
- Improved tooltips for storage selections
- Disallow a scenario where a user became able to enter negative user counts
- Display the file server when using both WVD and File Server selections

## **VDS 5.3 release: Thurs., July 30, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday July 30th, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## **Virtual Desktop Service**

- Bug fix for a subset of scenarios where WVD Diagnostics were not displaying properly

## **Azure Cost Estimator**

- Ask if the customer's data needs to be HA and if so, define if cost and labor savings are available by leveraging a PaaS service like Azure NetApp Files
- Update and standardize default storage type for both WVD & RDS workloads to Premium SSD
- Behind the scenes performance enhancements

## **VDS 5.3 release: Thurs., July 16th, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday July 16, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## **Virtual Desktop Service**

- Proactive security enhancements behind the scenes
- Performance improvements in the Workspace module via paginating Groups under the Users and Groups tab

## **VDS Setup**

- As new automation options are available, update for deployments selecting Azure Active Directory Domain Services (AADDs) to ensure the use of the Standard service tier
- Update to reflect a change to a Microsoft ARM API call

## **HTML5 Login Experience**

- Updates to reflect NetApp branding/phrasing

## **Azure Cost Estimator**

- Display pricing dynamically by region
- Display whether relevant services are available in the region select to ensure that users understand whether the functionality desired will be available in that region. Those services are:
- Azure NetApp Files
- Azure Active Directory Domain Services
- NV and NV v4 (GPU enabled) Virtual Machines

## **VDS 5.3 release: Thurs., June 25, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday June 25, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

## **Virtual Desktop Service**

- Updates to reflect NetApp branding/phrasing
- Bug fix for an isolated scenario where the list of users was not populating as expected
- Bug fix for a scenario where manual deployments were receiving a GPO configuration that was only partially correct

## **VDS Setup Wizard**

- Support for American Express
- Updates to reflect NetApp branding/phrasing

## **REST API**

- Ongoing enhancements to gather and display list data faster

## **VDS 5.3 release: Thurs., June 11, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday June 11, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

### **Virtual Desktop Service**

- Proactive API processing enhancements
- Continued proactive hardening of platform elements

### **Cloud Workspace Tools and Services**

- Ongoing improvements to Live Scaling triggers
- Improved auto-correction of issues identified when migrating a deployment from vCloud to vSphere

## **VDS 5.3 Hotfix: Thurs. May 7, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Wednesday June 3rd, 2020 at 10:00am – 10:30am Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

### **Cloud Workspace Tools and Services**

- Bug fix for an automated element of platform deployment automation. This only applies brand new deployments – there will be no impact to existing deployments.
- Bug fix for deployments into an existing Active Directory structure

## **VDS 5.3 release: Thurs., May 28, 2020**

*Components:* 5.3 Virtual Desktop Service

*When:* Thursday May 28, 2020 at 10pm – 11pm Eastern

*Impact:* Access to desktops and application services for End Users will remain uninterrupted. Access to Virtual Desktop Service will remain available.

### **Virtual Desktop Service**

- Updates to reflect NetApp branding/phrasing
- Performance improvements for the Workspace module
- Proactive stability enhancement VDS functions powered by frequently used API calls

### **Virtual Desktop Service Deployment**

- Further streamlining of the footprint of the VDS platform in Azure deployments
- Bug fix for an optional scenario when deploying into an existing Active Directory Structure



## **Virtual Desktop Service Tools and Services**

- Ongoing improvements to the way the number of users logged into a server is identified for Live Scaling

## **Virtual Desktop Service Web Client**

- Updated branding to reflect NetApp branding/phrasing
- Support for shortening URLs saved as favorites that are longer than the default Web Client links to the default Web Client links (cloudworkspace.com/login/ to cloudworkspace.com, for example)

## **Azure Cost Estimator**

- Add SQL Server options for more VM series/sizes
- Update to the way IP address pricing is displayed – don't display the IP address cost unless additional IP addresses are added

## **CWMS 5.3 release: Thurs., May 14, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday May 14, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Azure Cost Estimator**

- Updated messaging to reflect NetApp branding/phrasing
- Updated platform server to reflect D2s v3 use
- Updated Windows 10 Enterprise E3 license details and price point
- Change default storage choice to Azure NetApp Files

## **CWMS 5.3 Hotfix: Thurs. May 7, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Friday May 8th, 2020 at 10:15am – 10:30am Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Cloud Workspace Tools and Services**

- Bug fix for the method in which DNS records are set for a specific combination of settings during the deployment process

## **CWMS 5.3 release: Thurs., April 30, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday April 30, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Improved session tracking to enable a future update – the option to preview future features
- Update to Scripted Events to allow for increased flexibility in applications and activities
- Bug fix for a specific combination of Provisioning Collections configurations

## Cloud Workspace Tools and Services

- Enable the ability to set Workload Scheduling per WVD host pool
- Improved process of creating new deployments into an existing AD structure
- Enable the ability to assign Data/Home/Profile data paths for organizations using Azure Files
- Enable the ability to manage Resource Pools
- Improved handling of special characters in the deployment wizard process
- Adjustments to automated HTML5 components as a part of deployment for RDS (not WVD) workloads

## REST API

- Updated list of Azure regions available for deployment
- Improved handling of Azure Backup integration for servers with the TSData role
- Resolve an issue in subset of scenarios where a failed login result in two failed login attempts being logged

## CWA Setup

- Per Azure best practices, enforce that the Subnet IP details are within a Private IP address range. Accepted Private IP ranges are:
  - 192.168.0.0 through 192.168.255.255
  - 172.16.0.0 through 172.31.255.255
  - 10.0.0.0 through 10.255.255.255

## HTML5 Login Experience

- Behind the scenes hosting enhancements for <https://login.cloudworkspace.com> and <https://login.cloudjumper.com>. Note: there will be no impact for custom branded HTML5 login portals.
- Bug fix for a subset of scenarios where self service password reset was not presented

## CWMS 5.3 Hotfix: Wedn. April 22, 2020

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Wednesday April 22nd, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Performance upgrade to accommodate increased Customer use

## **CWMS 5.3 release: Thurs., April 16, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday April 16, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Continual enhancements to validation of WVD host pool VM creation (accounting for Azure process times due to surge in Azure activity due to COVID-19)
- WVD stability improvement when initializing WVD – if the WVD tenant name is not unique to WVD globally, CloudJumper will replace it with an updated string unique to the Deployment/tenant.
- Include support for special characters in email addresses in CWMS password reset functionality
- Bug fix for a subset of scenarios when adding apps to an WVD RemoteApp app group didn't pull apps from the Start menu
- Bug fix for a subset of the user activity report
- Remove the requirement for a description of a WVD host pool (remains as an optional field)
- Bug fix for a single fringe scenario where VMs in a shared host pool were tagged as VDI VMs

### **CWA Setup**

- Additional support for order codes for Distributor workflows

### **Cloud Workspace Tools and Services**

- Enhancements to unmanaging VMs that are managed by the Solarwinds Orion RMM tool to accommodate Workload Scheduling

## **CWMS 5.3 release: Thurs., April 2, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday April 2, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Activity History fix resolving a display issue for regional deployments where date localization prevented some Activity History from being visible in CWMS
- Provisioning collection enhancement to allow for images of any size
- Bug fix for AADDS deployments in Azure tenants with multiple domains – newly created users would previously use the primary Azure domain rather than matching the Workspace's login ID
- Bug fix for activity history when updating a username – the functionality is working as expected, but the previous username was not being displayed correctly

### **CWA Setup**

- Improved handling of MFA on CWMS accounts used during registration

- Reduced permissions applied during deployment

## **Cloud Workspace Tools and Services**

- Reduced permissions required for ongoing services/automation
- Process enhancements to reduce resource consumption on CWMGR1

## **REST API**

- Bug fix for activity history when updating a username

## **CWMS 5.3 Hotfix: Tues. March 24, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Tuesday March 24th, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Azure Cost Estimator**

- Updated description of WVD User types and the programs they run per Microsoft documentation
- Increased clarity for CWMS licensing

## **CWMS 5.3 release: Thurs., March 19, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday March 19, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Cloud Workspace Management Suite**

- Connect to Server enhancement for multi-site deployments – automatically detect which site the CWMS admin is connecting to and process the connection
- Enabling migration mode now disables Live Scaling
- Bug fix for enabling new Cloud Workspace Services for an existing Client

## **CWA Setup**

- Behind the scenes improvements to the deployment wizard

## **CWMS 5.3 release: Thurs., March 5, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday March 5, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Cloud Workspace Management Suite**

- Performance improvement for the Master Client Report

- Remove the delete function from a VM that didn't get properly created, as it cannot be deleted if it was never created

### **Cloud Workspace Tools and Services**

- Bug fix for gracefully handling multi-site deployments where DC Config settings are not properly configured
- Bug fix for multi-site deployments where vSphere sites have resource allocation types set to Fixed

### **HTML 5 Portal**

- Process enhancement for users logging in with WVD credentials

### **Azure Cost Estimator**

- Clarity improvement for Live Scaling
- Phrasing adjustments to match Microsoft WVD messaging
- Bug fix for Workload Scheduling and Live Scaling savings details in heavily customized quotes

## **CWMS 5.3 release: Thurs., February 20, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday February 20, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Switch the word SDDC to Deployment in the VM Resource tab of the Workspaces module

### **CWA Setup**

- Streamlining the process of applying policies during deployment
- Increased security for new deployments using Azure Active Directory Domain Services
- Increased security for new deployments – require defined subnet isolation (as opposed to flat subnets) during deployment
- Bug fix for RDS (non-WVD) deployments when applying ThinPrint licensing
- Bug fix for proper handling of whether ThinPrint is installed in DC Config
- Additional checks and validation for organizations opting to leverage FTP functionality

### **Cloud Workspace Tools and Services**

- Bug fix for automated actions when a deployment with multiple sites has a site that is configured incorrectly
- Bug fix for an instance where deleting a VM didn't properly clear out the VM behind the scenes
- Functionality improvements and bug fixes when testing hypervisor connectivity in DC Config

### **REST API**

- Performance improvements when displaying the list of users for an organization

- Performance improvements when displaying the list of applications for an organization
- Improved functionality when adding Users to WVD App Groups:
- Limit the number of users imported to 425
- If attempting to import more than 425 users, proceed with the import of the first 425 users and display that WVD's limit for user imports is 425 and that they can proceed with additional imports in 5 minutes
- Update to reflect that the number of users in a group is the number of Cloud Workspace users in a group as opposed to the total number of users in a group (which may be less when deploying into an existing Active Directory structure)
- Enable application assignments via security group for named users that are a member of the group (nested groups will not receive the app assignment)

### **Azure Cost Estimator**

- Add a link at the bottom of the page so that users can request assistance
- Default Azure NetApp Files to the Premium tier
- Add Premium SSD to the choices for Fileserver storage type
- Update text for Azure Active Directory Domain Services – change from AADDS to Azure AD Domain Services
- Update text for Active Directory – change from Windows Active Directory VM(s) to Windows Server Active Directory

## **CWMS 5.3 Hotfix: Thurs., February 13, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday February 13, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Azure Cost Estimator**

- Bug fix for pricing error when using E-series VMs in a subset of scenarios

## **CWMS 5.3 release: Thurs., February 6, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday February 6, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Improved provisioning status details during the VM creation process
- Improved handling of automation for newly created session host VMs that are part of a WVD host pool
- Performance improvement to the User Activity report when including “Only Server Access Users”

### **Cloud Workspace Tools and Services**

- Bug fix for data path management when admins manually edit user accounts in traditional (non-Azure)

Active Directory

- Improved Workload Scheduling stability in nuanced scenarios

### **Azure Cost Estimator**

- Describe the specific savings achieved via Workload Scheduling and Live Scaling separately vs. combined
- Display the “S” versions of servers in order to support Premium (SSD) storage
- Improved layout for printed estimates
- Bug fix for an issue where SQL server pricing was not being calculated correctly

## **CWMS 5.3 release: Thurs., January 23, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday January 23, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Redirect the older <https://iit.hostwindow.net> site to the modern <https://manage.cloudworkspace.com>
- Bug fix for a subset of CWMS admins logging in via IE 11
- Correct a visual issue where deleting an API user correctly deleted them behind the scenes, but was were not showing as deleted in CWMS
- Streamline the process of clearing out Subscriptions so that you can re-provision a new/test environment
- Service board enhancement – only look at session host servers that are online for icons to place for application shortcuts

### **Cloud Resource App**

- Support importing users from an OU or Active Directory security group via command line

### **Cloud Workspace Tools and Services**

- Live Scaling enhancements behind the scenes

### **CWA Setup**

- Improved handling for scenarios when the account used during the CWA Setup process has MFA applied

### **Azure Cost Estimator**

- Update VM sizing defaults to mirror Microsoft's recommendations

## **CWMS 5.3 release: Thurs., January 9, 2020**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday January 9, 2020 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Updating phrasing in the email admins receive after creating a new Workspace to reflect updated links
- Bug fix for an issue where servers were not appearing in the Servers list if a series of folder permissions errors existed
- Bug fix for servers were not appearing in the Servers list if a resource pool was not present in the Resource Pools table in CWMGR1

## Cloud Resource App

- Support importing users from an Active Directory security group.
- Enhanced validation – ensure the proper command line parameter is being used for command line argument/servers
- Enhanced validation – check for duplicate users when importing from command line
- Enhanced validation – ensure the servers being imported belong to the site specified when importing from command line

## REST API

- Additional behind the scenes security enhancements

## Cloud Workspace Tools and Services

- Enhanced command processing stability behind the scenes
- Workload Scheduling and Live Scaling enhancements behind the scenes
- Additional Workload Scheduling and Live Scaling stability behind the scenes
- Updates and improvements to FSLogix in new deployments – redirect Downloads and Favorites into Profile Container to match best practices
- Additional Host Pool VM creation stability enhancements
- Introduce the ability to specify the gateway for new sites
- Improved automation validation for VMs
- Improved automated database management
- Improved handling of user creation if the action takes place at the exact same time VMs are powered down
- Streamlined handling of temporary disks in Microsoft Azure deployments
- Improved handling of resource allocation type for GCP deployments
- Bug fix for drive expansion in ProfitBricks data centers
- Improved stability for App Services based client creation
- Bug fix and stability improvements after converting a server from one role to another

## CWMS 5.3 release: Fri., December 20, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Friday December 20, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.



## Cloud Workspace Tools and Services

- Fix for scenario where user activity logging does not record data successfully

## CWMS 5.3 release: Thurs., December 19, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday December 19, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### Cloud Workspace Management Suite

- Improvements for CWMS availability monitoring
- Fix for an issue with WVD app group user modal where the username is not always selected properly when it contains capital letters
- Fix for pagination in the Users list for 'User Support Only' admin role members
- Fix for alignment of radio buttons in MFA setup dialog
- Improvement for Dashboard/Overview page load by removing service board dependency
- Fix for issue where admin users cannot reset their own passwords if they don't have edit admin permissions
- Improvements collecting debug logging for future troubleshooting

### Cloud Resource App

- Feature Enhancement: Allow import of users based on AD group membership.
- Feature Enhancement: Allow default logon identifier to be specified during import

### Azure Cost Estimator

- Improve text and tooltip for storage under VMs

### CWA Setup

- Release deployment workflow improvements

## Cloud Workspace Tools and Services

- Improvement handling locking of the data server during new user creation
- Fix for scenario where a client is incorrectly flagged as a cache company during workload scheduling
- Fix to correctly update the company table when a organization is created without a workspace
- Fix for invalid characters appended to the WVD host pool name in the local control plane database
- Fix for issue with workload scheduling when a VM is listed in the local control plane database, but not the hypervisor
- Fix for issue preventing some VMs from having drives expanded automatically in Azure hypervisor
- Fix for client provisioning error 'Supplied data drive not valid'
- Fix for CWAgent install failure in certain scenarios

- Improvement for TestVDCTools to allow assignment of RDS Gateway URL during new site creation
- Fix for workload scheduling failure in some scenarios where it is set to 'disabled'
- Fix for issues starting servers when in still in cache
- Fix for failure to power on some VMs after automatic drive expansion
- Fix for issue managing folders/permissions when using Azure files or Azure NetApp Files

## **CWMS 5.3 release: Mon. December 2, 2019**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Monday December 2, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Enhancements to automated FSLogix installs
- Updates and fixes to Live Scaling
- Add AMD (non-GPU) VMs to the drop-down list in CWMS
- Support for multiple tenants in the same WVD deployment

### **CWA Setup**

- Clarity improvements in the Help/Support section CWA Setup

### **Azure Cost Estimator**

- Bug fix for a scenario where electing to not include Microsoft licensing in the estimate continues to include it

### **Cloud Resource App**

- Additional validation when using the Data Center site command line functionality
- New command line argument – /listserversinsite
- Configuration enhancement – when importing a company, now set the RDSH deployment to use the RDHS Gateway configured for the site

### **Cloud Workspace Tools and Services**

- Updated vCloud support elements in DC Config
- Enhancement to TestVDCTools to correctly detect the server type in more specific scenarios

## **CWMS 5.3 release: Thurs., November 14, 2019**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday November 14, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Additional redundancy/high availability added behind the scenes
- Drop-down menus in CWMS will become searchable
- Performance improvements when using the Workspaces module
- Performance improvements when using the Servers section of the Workspaces module
- Display host pool name in the Servers section of the Workspaces module
- The Servers section of the Workspaces module will now be paginated, displaying 15 servers at a time
- Bug fix for a scenario where a subset of admins creating a new host pool would not see VM templates
- Bug fix for a scenario where navigating to a host pool, then a second host pool would sometimes display information from the first host pool
- Bug fix where a subset of admins could not log into an older version of CWMS
- Bug fix where navigating to WVD Diagnostics and then back to Workspaces displayed 'page not found'
- Change friendly name of a user's desktop (what appears in the WVD RDP client and in the blue bar at the top of the user's session) to match the name of the host pool
- Servers must be manually added to the pool with a checkbox "Allow New Sessions" which is unchecked by default. Checkbox was previously checked by default.

## CWA Setup

- Deployments will now automatically use FSLogix
- Add Azure Files as an optional storage target for Data, Home and Profile storage if the deployment will use Azure Active Directory Domain Services
- Deploy a package to support deployment automation where Azure tenants have enabled RBAC
- Install the latest version of Java and HTML5 licensing with each deployment
- Bug fix for when a subnet range was incorrectly calculated, causing a validation error prior to deployment

## HTML5 Login Experience

- Update default branding to reflect the branding of the Cloud Workspace Client for Windows. A preview is available [here](#).
- Apply in-place branding updates to additional branded HTML5 login pages

## Azure Cost Estimator

- Update the default storage tier for D4s v3 VMs (the default VM type for WVD) to Premium SSD in order to match Microsoft's default setting

## Cloud Resource App

- Add ability to pre-allocate a company code for use during import

## CWMS 5.3 release: Thurs., October 31, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday October 31, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Update for users logging into iit.hostwindow.net (the URL for the older v5.2 deployments, of which there are very few) will see a prompt indicating them to navigate to manage.cloudworkspace.com (the URL for v5.3 and future deployments)
- Allow users to delete WVD host pools via CWMS
- Enhancement that allows for future branding enhancements in CWMS
- Bug fix for an issue when validating a VDI Provisioning Collection

### **Deployment Automation**

- Improvements in automated issue resolution and behind the scenes process streamlining

### **HTML5 Login Experience**

- We will be making a series of user experience enhancements for end users logging into their virtual desktops from login.cloudjumper.com or login.cloudworkspace.com:
- Allow the user to view the WVD host pools the user has access to
- Enable Wake on Demand functionality for users with the proper permissions, allowing them to log in and work at a time which a WVD session host VM is scheduled to be offline
- Enable Self Service Password Reset for users that have an email or phone number set in their user account in CWMS

### **Azure Cost Estimator**

- Allow users to select Windows Active Directory VM(s) after selecting WVD for AD Connect use cases
- Update the default storage quantity for all VMs to 128 GB in order to match Microsoft's default value
- Update the default setting for uptime hours to 220 in order to match Microsoft's default value
- Update the names of the workload types to match the names that Microsoft changed them to

## **CWMS 5.3 release: Thurs., October 17, 2019**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday October 17, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

- Support for Server 2019 as the OS for an organization's Workspace
- Update to improve showing active users in a WVD Host Pool
- Allow for multiple Organizations/Workspaces under a WVD deployment
- Add "Update" button for editing multiple fields associated with an Admin
- Add "Update" button for editing company details and contact info
- Updated search function to use Flight School

- Updated links in the bottom of CWMS
- Allow for the use of a Validation Host Pool in WVD deployments – this will provide earlier access to WVD features prior to them being GA (production release)
- Typo fix in a prompt responding to an action taken by an admin on an AADDs deployment
- Bug fix for a prompt for an admin that does not have App Services permissions

## **REST API**

- Support for Server 2019 as the OS for an organization's Workspace
- Bug fix for a scenario where call would return a client's services as offline

## **Deployment Automation**

- Bug fix for auto-generating Data Center site name
- Log files summarized and moved to c:\Program Files to c:\ProgramData

## **Cloud Workspace Tools and Services**

- Support for accessing templates from the Azure Shared Image Gallery
- Security improvement – reduced use of administrative accounts by changing the location of log files from c:\Program Files to c:\ProgramData (also an updated Microsoft best practice)
- Enhancement for data center site creation in VDCTools – sites can be created with a space in the name
- Feature add for Automatic Data Center Site creation – now able to automatically select the address range
- Feature add – add the configuration option to use unmanaged VHD files as templates
- Support for assigning a VM series/size in the provisioning collection
- Bug fix for a subset of scenarios where a license server setting was applied improperly
- Bug fix – deleting temp folders post deployment as intended
- Bug fix for a scenario when creating a server in Azure that has the same IP address as a VM already in use

## **Azure Cost Estimator**

- Update pricing to reflect that WVD customers pay for Linux OS VMs instead of Windows OS VMs
- Added an option to include relevant Microsoft licensing
- Update to storage defaults used according to Microsoft's updated calculator (flat vs. user count)
- Add SQL pricing for D4s v3 VMs
- Bug fix for a display issue when editing VMs

## **CWMS 5.3 release: Thurs., October 3, 2019**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday October 3, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Workflow enhancement where clicking “Back” will return Users to the Workspace tab instead of the Organizations tab
- When provisioning Cloud Workspaces in Azure via CWMS, confirm that AADDs is successfully validated during the Validation step
- Support for usernames up to 256 characters

## CWA Setup

- System improvements to remember linked Partner accounts in the event that the user links their account to CWMS, but did not complete the provisioning of the deployment the first time around
- Bug fix for a javascript error appearing when selecting a tenant to provision a Cloud Workspace deployment during the CSP workflow

## Azure Cost Estimator

- Add an option to display or not display Microsoft licensing in the Azure Cost Estimator
- Not enabling this (default behavior) assumes that the organization already owns Microsoft licensing via their EA or existing Microsoft/Office 365 licensing
- Enabling this provides a more complete, TCO-level understanding of the solution
- Bug fix where hours of uptime was very slightly off when users were toggling uptime by increments of 15 minutes
- Bug fix for a scenario where users set the day to start in the afternoon/evening (PM setting) and end in the morning (AM setting)

## CWMS 5.3 release: Thurs., September 19, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday September 19, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## Cloud Workspace Management Suite

- Default an Azure deployment's Resource Allocation Type to Fixed; with the VM series/size selected being the VM defined by the Administrator in CWMS
- Add search functionality for User Activity audit functionality
- Improvement to bulk user creation process – enable the “force password change at next logon” feature when importing users
- Bug fix for incorrectly displaying session inactivity timeout warning after 5 minutes instead of 55 minutes
- User Support role fix – a subset of Admins with this role were unable to see the list of Users for their organization
- User sorting fix – sorting by username works as intended instead of sorting by status
- Added Heartbeat function to the Overview section of the Deployments tab, indicating the last time the deployment was polled to see if it is online
- Workflow improvements – when clicking “back” in the WVD module, you will now be taken the Workspaces module instead of the Organizations module

- Ensure Master Client Report is present; hide the non-applicable SPLA report for non-Master Software Partners

## **Cloud Workspace Tools and Services**

- Remove the standard ThinPrint agent from Windows Virtual Desktop (WVD) servers in host pools, as this is not the supported ThinPrint agent for WVD. Instead, organizations should contact ThinPrint about their ezeep solution.
- Enhanced password encryption behind the scenes
- Bug fix for Password Enforcement Notification (PEN) where using the “change password at next logon” feature wasn’t working as intended if password expiration dates were set to null by an administrator in CWMGR1

## **Cloud Workspace for Azure Setup App**

- Fix for international administrators – this on longer requires a State if the Country is not the United States.
- Apply CloudJumper via Partner Admin Link (PAL) to present and future Azure deployments at the subscription level

## **CWMS 5.3 release: Thurs., September 5, 2019**

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday September 5, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **Cloud Workspace Management Suite**

- Updates to the User Support Only role:
- Add searching for/filtering Users functionality
- Include Connection Status column for Users and their connections
- Provide access to the Force Password Change at Next Login feature
- Remove visibility of the Delete Client function
- Enforce logout of CWMS after 1 hour of inactivity
- Fix for a display issue where VM series/sizes were displaying incorrectly when viewing VM roles whose Resource Allocation Type is set to Fixed
- Fix for a display issue where environments with Workload Scheduling set to Always Off were displaying improper settings in CWMS, despite being correctly set to Always Off behind the scenes
- Permissions update – remove Resource Scheduling tab if the CWMS admin does not have access to the Resources function in CWMS
- Remove the ability to add more than one VM instance in a VDI User Host Pool
- Display fix for Max Users per Session Host in a WVD Host Pool – these values now match the values set in the Live Scaling section of the Workload Scheduling tab

## **Cloud Resource App**

- Updated functionality – support for Command Line usage

## Cloud Workspace Tools and Services

- Support for the vCloud Rest interface

### CWMS 5.3 release: August 22, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday August 22, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

#### 5.3 Cloud Workspace Management Suite

- Add a message to the WVD tab defining under which circumstances WVD is supported
- Workflow improvements when returning from the WVD tab to the Workspace
- Text edit in the instructions on the WVD module

#### 5.3 Cloud Workspace for Azure Setup

- Remove the requirement for entering a state when the Customer registering is outside of the United States
- Now deploys CWMGR1 as a D series VM for initial deployment, then resizes to B2ms for cost purposes after initial deployment

## Cloud Workspace Tools and Services

- Bug fix for SSL certificate management on Legacy (2008 R2) environments
- Additional health checks for certificate enforcement and lifecycle management

### CWMS 5.3 release: August 8, 2019

*Components:* 5.3 Cloud Workspace Management Suite

*When:* Thursday August 8, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

#### 5.3 Cloud Workspace Management Suite

- Bug fix for a subset of scenarios where connecting to CWMGR1 from CWMS was not functioning as expected

## Cloud Workspace Management Suite – Version 5.2



There will be no further recurring releases for v5.2 of CWMS – all releases will be considered hotfixes.

### CWMS 5.2 release: Mon., December 2, 2019

*Components:* 5.2 Cloud Workspace Management Suite

*When:* Monday December 2, 2019 at 10pm – 11pm Eastern

*Impact:* Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.



Access to Cloud Workspace Management Suite will remain available.

No updates this release cycle.

### **CWMS 5.2 release: Thurs., November 14, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday November 14, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

No updates this release cycle.

### **CWMS 5.2 release: Thurs., October 31, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday October 31, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

No updates this release cycle.

### **CWMS 5.2 release: Thurs., October 17, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday October 17, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

No updates this release cycle.

### **CWMS 5.2 release: Thurs., October 3, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday October 3, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

No updates this release cycle.

### **CWMS 5.2 release: Thurs., September 19, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday September 19, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

Default an Azure deployment's Resource Allocation Type to Fixed; with the VM series/size selected being the VM defined by the Administrator in CWMS

Add search functionality for User Activity audit functionality

Bug fix for incorrectly displaying session inactivity timeout warning after 5 minutes instead of 55 minutes

User Support role fix – a subset of Admins with this role were unable to see the list of Users for their organization

User sorting fix – sorting by username works as intended instead of sorting by status

Ensure Master Client Report is present; hide the non-applicable SPLA report for non-Master Software Partners

### **Cloud Workspace tools and services**

Enhanced password encryption behind the scenes

Bug fix for Password Enforcement Notification (PEN) where using the “change password at next logon” feature wasn’t working as intended if password expiration dates were set to null by an administrator in CWMGR1

### **Cloud Workspace for Azure setup app**

Fix for international administrators – this on longer requires a State if the Country is not the United States.

Apply CloudJumper via Partner Admin Link (PAL) to present and future Azure deployments at the subscription level

## **CWMS 5.2 release: Thurs., September 5, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday September 5, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **Cloud Workspace Management Suite**

Updates to the User Support Only role:

- \* Add searching for/filtering Users functionality
- \* Include Connection Status column for Users and their connections
- \* Provide access to the Force Password Change at Next Login feature
- \* Remove visibility of the Delete Client function

Enforce logout of CWMS after 1 hour of inactivity

Fix for a display issue where VM series/sizes were displaying incorrectly when viewing VM roles whose Resource Allocation Type is set to Fixed

Fix for a display issue where environments with Workload Scheduling set to Always Off were displaying improper settings in CWMS, despite being correctly set to Always Off behind the scenes

Permissions update – remove Resource Scheduling tab if the CWMS admin does not have access to the Resources function in CWMS

### **Cloud resource app**

Updated functionality – support for Command Line usage

### **Cloud Workspace tools and services**

Support for the vCloud Rest interface

## **CWMS 5.2 release: Thurs., August 22, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday August 22, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

## **Cloud Workspace Management Suite**

Fix a display issue in the User profile for some monitor sizes

Add clarifying message for non-dynamic App Services notifying admins that it may take a few minutes for changes to take effect

Add refresh button for non-dynamic App Services to make it easier to tell if new clients/users have been added

## **Cloud Workspace for Azure setup**

Add support for MFA for the registration process when linking to an existing CWMS account

Improvement to post-provisioning instructions – link to new and improved Public KB

Improvement to post-provisioning instructions – link opens in a new tab

## **Cloud Workspace tools and services**

Bug fix for SSL certificate management on Legacy (2008 R2) environments

Additional health checks for certificate enforcement and lifecycle management

## **CWMS 5.2 release: Thurs., August 8, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday August 8, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

No updates this release.

## **CWMS 5.2 release: Thurs., July 25, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday July 25, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

## **5.2 CWA Setup**

Display a message post-provisioning that directs CWA Setup users to the CloudJumper Public KB where they can review next steps and how to refine their deployment

Improved handling of countries outside the United States during the registration process

Added a field to confirm the password of the newly created CWMS login during the CWA Setup process

Remove SPLA licensing section under circumstances where RDS licenses will not be required

## **5.2 Cloud Workspace Management Suite**

Improved HTML5 connection handling for CWMS Admins in single server deployments

Bug fix for a scenario where restarting a user's processing (when it had failed previously) resulted in an "Internal Server Error" message

Remove SPLA licensing section under circumstances where RDS licenses will not be required

Include Automatic SSL certificate handling and Automatic SMTP to the provisioning wizard inside CWMS

## **5.2 Cloud Workspace tools and services**

When a VDI user logs out of their VM at a time it is set to be powered off, power off that VM  
Azure Backup enhancement – when restoring TSD1 servers as a VM, restore as a TS VM instead of an additional TSD VM  
Streamlined preparation of Azure VMs for Azure Backup handling  
Back end processing speed and security improvements

## **5.2 REST API**

Improved handling of server information, enabling faster Wake-on-Demand server load times

## **CWMS 5.2 release: Thurs., July 11, 2019**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday July 11, 2019 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace tools and services**

Ongoing behind the scenes security enhancements  
Ongoing stability enhancements for auto-generated certificates  
Least Privileged methodology improvement – adjustment to use an account with fewer permissions/less affected by generic lockdowns to perform nightly reboots  
Improvements for integrated backups for Azure deployments  
Improvements for integrated backups for GCP deployments  
Bug fix to no longer unnecessarily reboot servers to apply resource adjustments when they were already correct  
Process enhancement to allow for manual certificate management, if desired

## **CWMS 5.2 release: Thurs., June 20, 2019**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday June 20, 2019 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace Management Suite**

Improved handling of Users imported into CWMS via the CRA process  
Correct storage displays in the Server section of the Workspace module for a subset of scenarios  
Updated year at the bottom of the CWMS web interface

## **5.2 Cloud Workspace tools and services**

Enhanced automated certificate automation

## **5.2 REST API**

Display correction – display the correct values previously entered in the Live Scaling feature when opening the Live Scaling feature again  
Allow for creation of a default backup schedule for the Power User role (VDI Users).

## **CWMS 5.2 release: Thurs., June 6, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday June 6, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace tools and services**

Improved handling of multiple emails for platform notifications

Bug fix for a subset of scenarios where Workload Scheduling was not turning servers off correctly

Bug fix for a subset of scenarios where restoring servers from Azure Backup didn't restore the proper storage type vs. a default storage type

### **5.2 CWA Setup**

Continued security enhancements during the CWA Setup Process

Improved automated handling of subnet and gateway settings

Improved behind-the-scenes process of handling user accounts during the registration process

Includes a process to refresh tokens in the event a user remains in the CWA Setup process for more than 1 hour

## **CWMS 5.2 release: Thurs., May 23, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday May 23, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Improved link in the WVD tab in the Workspaces module

Bug fix for a scenario where clicking a link to a Workspace from the Data Centers module wouldn't take you to that Workspace

Bug fix for a scenario where updating the contact info for a Primary Admin would remove their designation as Primary Admin

## **CWMS 5.2 release: Thurs., May 9, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday May 9, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace tools and services**

Scalability improvements for deployments with several hundred to several thousand VMs

## **CWMS 5.2 release: Thurs., April 25, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday April 25, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace Management Suite**

Interface improvement – in the event backups are not enabled for a server in Azure or GCP, remove the size column from the Backup section of a server

## **5.2 Cloud Workspace tools and services**

Bug fix for a scenario where changing resources for RDP and/or HTML5 gateway servers would not bring them back online after the resource change was complete

## **5.2 REST API**

Improved handling of initial MFA configurations, regardless of scenario

## **5.2 CWA Setup**

Support for existing CWMS accounts, empowering indirect CSPs to provision correctly and simplifying the process for existing Partners

Additional validation for Azure Active Directory Domain Services – display an error if Azure Active Directory Domain Services is selected, but is already in place

## **CWMS 5.2 release: Thurs., April 11, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday April 11, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace Management Suite**

Bug fix for Provisioning Collections – saving a Provisioning Collection with an app that does not have a desktop icon will no longer display an error in CWMS

Bug fix – resolve an issue where starting a stopped platform server from CWMS displayed an error because there was no Partner code attached

## **5.2 Cloud Workspace tools and services**

Stability enhancement for deleting servers in vCloud deployments – in the event that multiple FMs are found in one vApps, only delete the VM instead of deleting the vApp

Add an option to not install wildcard certificates on infrastructure servers

Improvements for cloning TSD servers in AzureAD

Improvements for Server Resource Report – handling servers with multiple IP addresses

Bug fix for a subset of scenarios when a list of backups for a server didn't load for review in AzureRM

Bug fix when attempting to clone VMs with a prefix in Azure Classic (all new and recent deployments use AzureRM)

Bug fix for DNS errors not being reported correctly in the Server Resource Report for Server 2008 R2

Bug fix for not sending the Company Resource report in the event that a VM deleted from the hypervisor (but not from AD) and CWMS cannot find Azure backups in the hypervisor itself (only in AzureRM deployments)

## **5.2 CWA Setup**

Adding a method to validate that the region selected to provision into has Azure Active Directory Domain

Services available

Adding additional checks to resolve DNS timeout issues in a subset of scenarios

Remove B2s as a target for CMGR1 deployment, as it was slowing down the deployment process

## **CWMS 5.2 release: Thurs., March 28, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday March 28, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Add Windows Virtual Desktop section to the CWMS interface

Allow a CWMS Admin to not set a company logo under Settings → Logo

Add requirement for External ID when updating an app in a Custom App Catalog

### **5.2 Cloud Workspace tools and services**

Further streamlining and improvements to the Cloud Workspace for Azure (CWA) deployment process

A Premium Storage account is no longer required to create VMs with Premium Storage in Azure RM deployments

Resolve an issue in a subset of scenarios where Application Usage Tracking reports did not capture usage data

Resolve an issue where updating certificates on HTML5 portal servers would result in an error as HTML5 portal server licensing was updated

Bug fix for Password Expiration Notifications not updating passwords when using Azure Active Directory Domain Services

Adjusted location to which Password Expiration Notifications writes log files

### **5.2 REST API**

Bug fix for starting/stopping Platform servers (not Customer servers) in the Data Center module

### **5.2 CWA Setup**

Improvements for FTP role settings during deployment

Improved mechanism to ensure Admins are seeing the latest release every time they access the CWA Setup process

Improved handling of elements that time out during deployment

Bug fix for a scenario where a deployment was incorrectly tagged as using Azure AD

## **CWMS 5.2 Minor Release: Thurs., March 14, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday March 14, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Change the name of the “Application Monitoring” feature to “Application Usage Tracking”

Apply a fix where refreshing a search for Scripted Events does not re-use selected start/end dates

Default File Audit to start with the date filter set to one day prior to the current date, streamlining the amount of data returned

Bug fix to Integrated Backups for Azure where restoring backups to a server was not functioning as intended in a subset of scenarios

Resolve an application error prompt when updating a Client that belongs to an App Service

## **5.2 REST API**

Azure safeguard – when adding an Azure AD User, ensure that their email address is not already added to the account.

Bug fix – when adding an application for a Client and creating a Group at the same time, add the Users to the Group as intended

Add a validation step when disabling access to RDSH servers that ensures it is still applied after a server is rebooted

General improvements for CWA workflow automation

Bug fix for a subset of scenarios when adding an App to a Group affected other Users of that Group

## **5.2 CWA Setup**

Add a refresh option for the list of subscriptions during the deployment process

Auto-set deployment flag for degraded, legacy MobileDrive service to False

Additional automation safeguards and checks in Azure

## **CWMS 5.2 Minor Release: Thurs., February 28, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday February 28, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace Management Suite**

Improved clarity and confirmation message for what happens when deselecting the “VDI User” checkbox for Users in the CWMS interface (deletes VDI User’s server) and how to proceed if you do not want to delete the server

Back-end improvements to timestamp handling

## **5.2 Cloud Workspace tools and services**

Updated settings for the license server name in Azure Domain Services

Behind-the-scenes improvements to the process by which a User can change their own password after being logged into their Cloud Workspace

Updated native 2FA to reflect CloudJumper imagery

Bug fix for 2FA if a rare setting is enabled

## **5.2 CWA Setup**

Additional Help/Support content in the CWA Setup wizard

Add agreement terms and pricing to the CWA Setup wizard

Improved mechanism for detecting a Subscription’s quota and permissions

Streamline deployments for Azure Active Directory Domain Services based deployments

Behind-the-scenes improvement to the storage account name format

Bug fix for FTP server settings in a subset of scenarios



## **CWMS 5.2 Minor Release: Thurs., February 14, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday February 14, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Performance improvement in User management actions

Additional logging enabled to display who requested a change on a Group in the Data Center task history

Resolve an issue in the Standard App Catalog where applications were not displaying in a subset of scenarios

Resolve an issue in App Services with Dynamic Provisioning where an error is displayed if two applications with the same name are

Remove the SDDC creation wizard from the CWMS 5.1 interface

\* If you are running a SDDC that is on 5.1 and you wish to provision a new SDDC, please contact [support@cloudjumper.com](mailto:support@cloudjumper.com) to schedule an upgrade to CWMS 5.2

Correct a spelling error in the API User creation screen of CWMS

### **5.2 Cloud Workspace tools and services**

In vCloud based SDDCs, re-login to the hypervisor in the event the connection expires

In vCloud based SDDCs, increase the default timeout when waiting for servers to boot up

Improved limitations on CloudJumper's administrative access

### **5.2 REST API**

When provisioning a new SDDC via the 5.1 interface of CWMS, the message displayed will be "New data center creation is only supported when using v5.2 of CWMS."

### **5.2 CWA Setup**

Improved automatic error handling

## **CWMS 5.2 Minor Release: Thurs., January 31, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday January 31, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Add the Cloud Workspace client server's connection info to the Cloud Workspace client's Overview section

Add an editable field in CWMS Account Settings that allows you to enter your Azure AD Tenant ID

Use the most modern version of Microsoft Standard Storage in new Azure deployments

Improved Azure integration, requiring Integrated Backups in Azure deployments to be retained for at least 1 day

Improved handling in Dynamic Provisioning for App Services deployments

Add the date at which server storage is inventoried to that section of the Servers module

Display that an app is provisioned to a User while the User's status is still Pending Cloud Workspace

If a User is a VDI User, display the VDI Server on the User page

If a server is for a VDI User, display the User on the Server page

Resolve an issue in certain scenarios where if a User has an open Service Board task associated with their

username, remote access to the VM fails from CWMS

## **5.2 Cloud Workspace tools and services**

Improved handling of Live Scaling as Users log in throughout the day

Add automation prerequisites for future Wake on Demand improvements

Add automation prerequisites for future Workload Scheduling improvements

Resolve an issue where using Windows 10 for VDI servers was not properly enabling the remote registry service in Azure Active Directory Domain Services deployments

Resolve an issue where using Windows 10 for VDI servers was not properly setting the security group for the local Remote Desktop Users group in Azure Active Directory Domain Services deployments

Modify PCI compliance setting feature to take no action when not enabled instead of enforcing default configuration settings

Resolve a issue in Workload Scheduling so that Users with Wake on Demand enabled that log out can power down servers if they are scheduled to be powered down

Fix a bug when cloning a server in ProfitBricks public cloud

Fix a bug where cloning servers checks server prefixes to that server names aren't duplicated in VDI User scenarios

Add a check in nightly reports for cached customer codes that are not using a valid provisioning collection

Improved handling of exceptions when both the VM is not in the hypervisor and CWAgent requires an update

Resolve issue resetting passwords via Password Expiration Notification to correctly enforce password history

## **CWA Setup**

Implement option to automatically configure SMTP settings

Adding validation options for the location list to checks if the subscription has enough quota and enough permissions to create VMs in the selected Azure region

Added feature to remove unneeded Cloudworkspace and other service accounts with administrative permissions at the end of the provisioning process in Azure

Notify Users that manual DNS certificate uploads have been verified

Resolved an issue where ThinPrint installations don't install as intended in certain scenarios

## **CWMS 5.2 Minor Release: Thurs., January 17, 2019**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday January 17, 2019 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

## **5.2 Cloud Workspace Management Suite**

The Workload Scheduling interface will now display Description as the first column and change the name of Scheduling to Custom Scheduling

Bug fix for displaying backups of platform servers in Azure deployments

Bug fix for scenarios where End User self-administration for App Services use cases where the organization does not have any Cloud Workspace services set up

## **5.2 Cloud Workspace tools and services**

Add Support for PCI v3 compliance

Security enhancement: new CWMS deployments will use a local admin vs. a domain admin to run the CWAgent processes.

Support for Windows Server 2019 in AzureRM deployments

\* Note: Microsoft does not support Microsoft Office in this version yet

Improved handling of Wake on Demand Users – if their organization is scheduled to power VMs down but a User with Wake on Demand is still actively working, do not power down the organization's VMs  
Stability improvement when cloning VMs – remove roles like Connection Broker from the newly created VM coming from the cloned VM.  
Improved process for installing the ThinPrint license server role  
Improved AzureRM template handling – return all templates available for a VM in Azure based on the hardware it runs on, not just templates available in the tenant's Azure region  
Improved automated testing for vSphere deployments  
Include a check in nightly email reports to see if ThinPrint license server is installed  
Bug fix for Live Scaling in a limited subset of scenarios  
Bug fix for cloning servers in certain scenarios in vCloud deployments  
Bug fix for VM name prefixes in AzureRM deployments  
Bug fix for reporting error when using custom machine sizes in Google Cloud Platform  
Bug fix for reporting Users with ThinPrint functionality enabled  
Excluded Chinese version of Windows from the list of templates available in AzureRM

### **CWA Setup**

Fix a scenario where passwords that meet the minimum number of characters required were not accepted  
Change the ID column to Customer Domain during the tenant selection process for CSPs  
Update to the sign-up process that streamlines credit card entry

## **CWMS 5.2 Minor Release: Thurs., December 20, 2018**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday December 20, 2018 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Setup**

Added a feature of FTP DNS Registration in the event of a single-server deployment and Automatic SSL is selected during the deployment process  
Automated process for populating Azure AD info. (TenantId, ClientId, Key) into back-end tables  
The automated installation process will now install ThinPrint License Server 11 instead of 10

### **5.2 CWA Setup**

Fix an issue where the registration process redirected admins to a sign in page when completed

## **CWMS 5.2 Minor Release: Thurs., December 6, 2018**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday December 6, 2018 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Tools and Service**

Support for creating servers with Win10 OS  
Improved speeds when loading a VM from the hypervisor  
Return correct storage types available when creating servers in Azure  
Add logging of daily reports to the back end of the control plane  
Avoid a scenario where temp drives could expand automatically in Azure

Lay the foundation for a future change to display server OS when selecting a template for provisioning  
Bug fix for not automatically expanding a drive in GCP  
Bug fix for deployment automation when using Azure Active Directory Domain Services  
If multiple MGR servers are configured, note an error in the nightly report  
Bug fix for automated tests for public cloud (Azure, GCP) backups in VMware deployments  
Bug fix for determining disk space on a new VM created via HyperV deployments  
Bug fix for collecting server data when AD root OU is blank  
Stability improvement when cloning servers based off of a mis-configured hypervisor

## **5.2 REST API**

Enable support for machine series in public cloud deployments  
Allow the Default Resource Allocation to be Disabled for an SDDC  
Added DataCollectedDateUTC to storage details for a server  
Add the ability to Compute resource values  
Add a new method to get detailed user connection statuses  
Display an error in CWMS when deleting a user that also had admin rights  
Fixed issue with drive mapping for a data enabled app service not always appearing  
Fixed issue updating a client and/or user via CWMS that was imported via CWA  
Fixed issue when a new user was created and applications were assigned to the all users group, the new user would not receive the application shortcuts.

## **CWMS 5.2 Minor Release: Thurs., November 1, 2018**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday November 1, 2018 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Bug fix for integrated backups  
Bug fix for a specific use case in a CRA deployment

### **5.2 Cloud Workspace tools and services**

Enable the ability to return storage types available in Azure ARM deployments when creating servers  
Support for multi-site Active Directory topology  
Fix an issue with TestVDCTools when using Azure Active Directory Domain Service  
Bug fix for nightly email reports when AD root OU is blank

## **5.2 REST API**

Support unlocking Users when Azure Active Directory Domain Services. Note: please be aware that there may be a delay of up to 20 minutes due to replication.

## **CWMS 5.2 Minor Release: Thurs., October 18, 2018**

Components: 5.2 Cloud Workspace Management Suite  
When: Thursday October 18th, 2018 at 10pm – 11pm Eastern  
Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.  
Access to Cloud Workspace Management Suite will remain available.

## 5.2 Cloud Workspace Management Suite

in the Data Center wizard, enable validation of wildcard certificates

General behind-the-scenes improvements and bug fixes

Add a search function in the applications table

Improved sorting in the applications table

Add details for completing DNS registration in the Data Center provisioning process

Include all Sub Partner Users and groups in API call responses for Dynamic App Services

Fix a bug where migration mode didn't persist for a tenant in a specific instance

Add Extra Powered On Servers, Shared Users per Servers and Max Shared Users per Server to live scaling details

Add DNS validation to the wildcard certificate testing when provisioning via the new Data Center wizard

## 5.2 Cloud Workspace Tools and Service

Enable an option to return all VM sizes grouped by VM series

Return all VM sizes available from the hypervisor

Fix to Resource Allocation when calculating App Service Users

Enable option for automatic resource update for CWMGR1

Include wildcard cert status DataCenterResources Report

Enable future DNS enhancements

Bug fix – fix to automatic drive expansions in GCP deployments

## 5.2 REST API

Performance improvements when listing Clients/Users

Allow support for new Live Scaling features – configuring ExtraPoweredOnServers, SharedUsersPerServer and MaxSharedUsersPerServer

API now supports the ability to validate wildcard certificate domain when creating new Platform deployments

New API method available to get User activity data for all Partner Clients

Known issue: When using a the “Active Users” or “User Count” dynamic allocation method for resource pool sizing inside an Azure ARM deployment, the “Computed Resource Per Server” summary incorrectly displays the Machine Size as Basic A series type instead of the correct Standard D series type.

## CWMS 5.2 Minor Release: Thurs., September 27, 2018

Components: 5.2 Cloud Workspace Management Suite

When: Thursday September 27th, 2018 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

## 5.2 Cloud Workspace Management Suite

Simplify the display of provisioning collection VMs in cache

Fix a display quirk when managing App Services

## 5.2 Cloud Workspace tools and services

Bug fix for an obscure use case for End User MFA

Update API to interface with the latest in Azure RM

Update Testing for Azure RM to use the latest API

Replace Power User terminology with VDI User

Update email report to include additional CPU and RAM for a server

Update the address reports come from – instead of [dcnotifications@independenceit.com](mailto:dcnotifications@independenceit.com) messages will come from [dcnotifications@cloudjumper.com](mailto:dcnotifications@cloudjumper.com)

Allow definition of Users per server and additional VMs to remain on via Live Scaling

Performance improvements when starting a stopped SDDC/deployment

Security enhancement – disallow Partners with multiple SDDCs/deployments from connecting from one to another

Stability improvement – in the event automation cannot return User count, do not make any changes to resource count

Minor cosmetic enhancements

## **CWMS 5.2 Minor Release: Thurs., September 6, 2018**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday September 6th, 2018 at 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Added the ability to search for Sub Partners in the Custom App Catalog

Fixed a bug where refreshing the screen in the Data Centers module causes an error prompt

Removing the restriction on max folder name size and making it easier to browse folders

Ensure that resource counts on VMs are never lower than the minimum specified CPU and RAM values

Rephrase Power User terminology to VDI User

Fixed an error where a generic error was displayed despite the back-end process completing successfully

Improved server name display in Data Center creation wizard

Fix account expiration not displaying saved expiration date in CWMS

### **5.2 Cloud Workspace tools and services**

Fixed a bug with MFA where Users who selected Email sometimes didn't receive a code

Allow additional CPU and RAM to be entered for User Count resource allocation type

Fix a bug where the automation engine didn't power all machine types on

Fixed a timing issue that sometimes would cause cloning servers to err out

Automate the previously manual installation of a wildcard certificate on FTP server

Added a process to purge old certificates after updating wildcard certificates

Resolve an issue where when using Data Enabled Application Services, the X: drive would not always map for an end user.

## **CWMS 5.2 General Availability Release: Thurs., August 10, 2018**

Components: 5.2 Cloud Workspace Management Suite

When: Thursday August 10th, 2018 at 10pm Eastern

Impact: Access to Cloud Workspace desktops and application services for End Users will remain uninterrupted.

Access to Cloud Workspace Management Suite will remain available.

### **5.2 Cloud Workspace Management Suite**

Release web interface components to enable the features found in the overview above

### **5.2 Cloud Workspace tools and services**

Release back-end tools to enable the features found in the overview above

## 5.2 REST API

Release API to production to enable the features found in the overview above

# Cloud Workspace Suite – Version 5.1



There will be no further recurring releases for v5.1 of CWMS – all releases will be considered hotfixes.

## CWMS 5.1 minor release: Thursday, October 18th, 2018

Components: 5.1 Cloud Workspace Management Suite

When: Thursday October 18th, 2018 @ 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### Workspace Management Suite

- Add a search function in the applications table
- Improved sorting in the applications table

## CWMS 5.1 minor release: Thurs., September 6th, 2018

Components: 5.1 Cloud Workspace Management Suite

When: Thurs., September 6, 2018 @ 10pm – 11pm Eastern

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted. Access to Cloud Workspace Management Suite will remain available.

### 5.1 Cloud Workspace Management Suite

- Added the ability to search for Sub Partners in the Custom App Catalog
- Fixed a bug where refreshing the screen in the Data Centers module causes an error prompt
- Removing the restriction on max folder name size and making it easier to browse folders
- Ensure that resource counts on VMs are never lower than the minimum specified CPU and RAM values

### 5.1 Cloud Workspace tools and services

- Fixed a bug with MFA where Users who selected Email sometimes didn't receive a code
- Allow additional CPU and RAM to be entered for User Count resource allocation type
- Fixed a bug for Resource Allocation for Server Load allocation type where in some cases the number of servers required was off
- Add safeguard when automatically rebooting a server – if CwVmAutomationService is busy, retry in 20 minutes
- Improved handling of wildcard certificate installs on CWMGR1
- Fixed data in the Data Center Resource Report

- Improved handling of updating RAM resources
- Improved calculations on the available Hard Drive Resources
- Introduces support of v4 of ProfitBricks' API, allowing for setting of CPU family
- Fixed deleting old temporary templates in ProfitBricks used when creating a provisioning collection
- Increased the timeout when waiting for ProfitBricks' hypervisor to create a VM
- When installing new versions of VdcTools, Update VdcToolsVersionRunningAtVdc as soon as it is in process so that automation will run sooner
- Fixed a bug that would surface when installing wildcard certificates on RDP Gateway servers
- Automate the previously manual installation of a wildcard certificate on FTP server
- Fixed a bug where password expiration notices were not forcing Users to update their password
- Improved the File Audit process to reduce the frequency of the Unknown user error appearing
- Fixed a bug where the File Audit Report was not properly excluding folders
- Added a feature to install the wildcard certificate if the certificate on the connection broker is expired
- Fixed a bug where password expiration notices wouldn't appear if the password expiration notification shortcut is removed from the startup folder (it will be reinstalled)
- Fixed a bug where wildcard certificate didn't delay an update on HTML5 portal servers if a User was logged in
- Fixed a bug where wildcard certificate would show needing an update HTML5 portal servers when it was already current
- Fixed a bug found when installing wildcard certificates on on connection broker servers
- Fixed a cloning issue where Local VM accounts have been removed
- Fixed an issue where cloning servers put the tenant in Migration Mode
- Fixed an error with cloning VMs in vCloud where the hypervisor took long than expected to create the VM
- Fixed a bug where deleting a VM in AzureRM would also always delete the associated managed disks
- Fixed a rare timing issue creating VMs in AzureRM to prevent two build operations from overlapping
- Updated list of machine sizes and types in AzureRM
- Fixed an error when configuring the subnet in the hypervisor for GCP during deployment
- Fixed an error storing monitoring data re: platform health by removing a timeout that caused data to not be written when a server is busy
- Added a feature to allow each server to have its time zone set individually, or not controlled by platform automation
- Fixed a bug when creating VMs at a secondary site would return static IP addresses from the primary site
- Fixed an error in capturing Username for the User Login Report
- Fixed a bug that failed to delete old monitoring data by making the call asynchronous so that it would not time out
- Automatically install wildcard certificates on all infrastructure servers

## **CWMS 5.1 minor release: Thurs., July 12, 2018**

Components: 5.1 CWMS Tools and Services

When: Thursday July 12, 2018 @ 10-10:30 pm Eastern



Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CWMS web app**

- Fix an issue regarding Master App Catalog settings persistence

## **CWMS 5.1 minor release: Thurs., May 17, 2018**

Components: 5.1 CWMS Tools and Services

When: Thursday May 17, 2018 @ 10-11 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CWMS web app**

- Fix an issue regarding summaries of Users for App Services groups
- Fix an issue with the Data Center wizard pre-populating Username and password
- Add Username validation for local VM Admins and Level 3 technicians in the Data Center wizard
- Improved session handling, including auto-logout of Users after a session timeout
- Fix an issue when deleting Admins if a primary Admin couldn't be detected
- Change placeholder in Data Center → Profile Server Changes from Enter Profile Name to Enter Profile and change Label from Profile Name to Server Name
- Fix enabling AD admin not working for non-Cloud Workspace Users
- Fix JavaScript error preventing adding new Users/Groups for a non-Cloud Workspace Customer
- Allow Master Partners to create Active Directory User Admins for Sub Partners
- Fix bug causing password resets of a Sub Partner's Primary Admin to err out

## **CWS 5.1 minor release: Wed., Feb. 21, 2018**

Components: 5.1 CW Tools and Services

When: Wed., Feb. 21, 2018 @ 10-11 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW web app**

- Fix issue managing user folders via Admin Access role

### **5.1 CW tools and services**

- Ensure failed server is not automatically deleted when upgrading a "no services" client with a Workspace
- Handle W2016 GPO updates to prevent notification pop-up from being briefly visible to user(s) logged into their RDS sessions on W2016 VMs

### **5.1 REST API**

- Add new attributes (modify CWS' SPLA Report to consume new attributes) to better handle core licensing-based apps (specifically, SQL)

## **CWS 5.1 minor release: Wed., Feb. 7, 2018**

Components: 5.1 CW Tools and Services

When: Wed., Feb. 7, 2018 @ 10-11 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW web app**

- None

### **5.1 CW tools and services**

- Fix issue disabling App Locker on Windows 2016 (due to newly discovered internal Windows 2016 issue)
- Fix bug when IP incorrectly being reassigned based-on clone failure event

### **5.1 REST API**

- Fix saving Storage Type when modifying a server in a Provisioning Collection
- When creating a Provisioning Collection with two Terminal Server (TS) servers, only one TS server should be built to validate collection

## **CWS 5.1 minor release: Wed., Jan. 31, 2018**

Components: 5.1 CW Tools and Services

When: Wed., Jan. 31, 2018 @ 10-11 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW web app**

- Increase number of rows per table on top-level CWS Modules from 10 to 20
- Fix User Support Only Admin being unable delve into a client

### **5.1 CW tools and services**

- Fix bug when template doesn't have .Net Framework v4.5.2 incorrectly fails the server creation
- Fix issue when cloning VMs in Hyper-V

## **CWS 5.1 minor release: Wed., Jan. 10, 2018**

Components: 5.1 CW Tools and Services

When: Wed., Jan. 10, 2018 @ 10-11 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW tools and services**

CWS version 5.1 Tools and Services (including the CW Automation Service, VM Automation Service and the CWAgent service) will be updated to eliminate any authorization error that occurs for specific RemoteApp application delivery scenarios. Specifically, the services will be modified to:

- Change automatic deployment of the SSL Wildcard Certificate for session servers to only deploy to Remote Desktop (RD) Connection Broker servers and Power User servers. Non-Broker session servers will utilize the default certificate generated by Remote Desktop Services (RDS).

- Change the external DNS Forward Lookup Zone on Active Directory at the SDDC to only create one DNS record for client shared session servers. That record will point to the client's RDS Broker server (VM), which will in turn handle the load balancing between shared session servers. Power user servers will continue to have a separate DNS entries.

Note: Only end client configurations that utilize multiple shared session servers were impacted by this issue, but new and modified client configurations will be deployed using this configuration.

## **CWS 5.1 minor release: Wed., Jan. 3, 2018**

Components: 5.1 CW Web App

When: Wed., Jan. 3, 2018 @ 10-10:30 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW web app**

- Fix sorting by company code in CWS' Workspaces module
- Fix Cloud Workspace Users → Force Password reset not reflecting changes (when navigating to another module and then back to the user)
- SDDC Self-Deploy Wizard: Add confirmation alert modal when unchecking ThinPrint installation (Licensing section)

## **CWS 5.1 minor release: Tues., Dec. 5, 2017**

Components: 5.1 CW Web App

When: Tues., Dec. 5, 2017 @ 10-10:30 pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

### **5.1 CW web app**

- Fix CWS Admin MFA error on Internet Explorer (IE) 11
- Fix CWS Groups → Local Drive Access returning 'not found'
- Data Center Self Deploy Wizard: add support for AzureRM (ARM) Azure Active Directory
- Applications Catalog: ensure Subscription option always available/propagates
- CWS Scripted Events Module > Script Activity → Add Application: fix incorrect application icon path
- Improve efficiency of Admin Access request to prevent error when redirecting to CWS v5.0
- Fix various errors when updating AppService details and/or managing application licenses for an AppService
- CWS Workspace Module > Add Workspace Wizard → fix AppServices incorrect format being sent to Global Control Plane
- CWS Workspace Module > Add Workspace Wizard → New Client → Step 3, fix Update Group to address JavaScript error to ensure update is processed

## **CWS 5.1 minor release: Sat., Nov. 11, 2017**

Components: 5.1 CW Web App

When: Sat., Nov. 11, 2017 @ 10-11pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted.

## 5.1 CW web app

- As of 10pm EST on Nov. 11, all CWS 5.1 partners must use <https://iit.hostwindow.net>. This URL is being retrofitted to support CWS 5.1 (as well as CWS 5.0). Partners are responsible for ensuring their CWS Admin and end-users with CWS Admin Access are aware of this change.

## CWS 5.1 minor release: Mon., Oct. 30, 2017

Components: 5.1 CW Web App and 5.1 CW Tools & Services

When: Mon., Oct. 30, 2017 @ 10-11pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted

### 5.1 CW web app

- CWS Admin MFA: pressing Enter submit code for MFA and fix bug which prevents re-sending MFA code
- SDDC Self Deploy Wizard: for GCP, have Administrator for Local VM name instead of just being disabled
- SDDC Self Deploy Wizard: increase width of drop-down for time zones
- Scripted Events: add Arguments field to script activity
- Scripted Events: add %applicationname% as a runtime variable for scripted events scripts

### 5.1 CW tools & services

- End-user email address: fix issue with email addresses not being saved to DB for existing end-users
- End-user logon status: fix issue getting UPN of end-user logged-in
- End-user logon status in AzureRM: support Azure Managed Disks
- Templates: fix workflow when templates not being deleted properly
- Resources: fix issue converting old Resource Pools to new allocation types
- File Audit Report: fix bug that causes user to be unknown
- Windows 2016: fix to ensure GPO to remove PowerShell icons from end-user Workspaces is applied properly
- Change Resources/Resource Allocation Report: fix error being incorrectly displayed
- Data Center Resources Report: if hypervisor not configured to return available Hard Drive Space or VM Quote, prevent report from showing error
- Infrastructure Server Monthly Reboots: address scenario when infrastructure servers not rebooting monthly as scheduled because they couldn't communicate to the CWMGR1 server due to this server being busy rebooting

## 5.1 minor release: Tues., Oct. 3, 2017

Components: 5.1 CW Web App and 5.1 CW Tools & Services

When: Tues., Oct. 3, 2017 @ 10-11pm EST

Impact: Access to Cloud Workspace desktops and application services for end-users will remain uninterrupted

### 5.1 CW web app

- AppServices: fix issue blocking add licenses functionality for AppService applications
- AppServices: ensure "Add New Instance" functionality always available for AppService applications

- Resource Pool Terminology: update terminology while always allowing applying resource pool configuration to servers even when there are no changes – “Update” changed to “Apply to Servers” and “Edit” has been changed to “Manage”
- Workload Schedule: ensure Edit modal always opens
- Workload Schedule: ensure arrows for selecting time always appear
- Scripted Events: allow for more granular time selection
- CWS Report ‘Admin Access’: fix issue causing IP column to have multiple IP addresses listed instead of just the client IP

## 5.1 CW tools & services

- File Audit Service: now disabled consistently
- Automation Service and new SSL Wildcard Certificate (RDP connections): update order of commands to ensure updated RDP certificate on RDS Gateway is always refreshed (i.e. not cached)

## CWS® 5.1 initial release overview

Cloud Workspace Suite 5.1 is currently in Public Beta starting in Q3 2017. This release includes an update of both the CWS APIs and the Admin Control interface. The release is an update to CWS 5.0 (released Q4 2016) and is not “backward compatible” to version 4.x entities.

Once officially released in Q4 2017, there’s no upgrade fee or implementation cost to transition to CWS 5.1. The upgrades will be completed by CloudJumper in coordination with each Partner and will not interrupt existing services. CWS 5.1 continues to support all of the previous versions’ functionality, and extends new features that enhance both Administrator and End-User experience, and further improve the award winning automation and orchestration introduced with previous releases of Cloud Workspace Suite.

The CWS 5.1 upgrade is the fastest and easiest yet by extending and leveraging the updated architecture and REST API platform introduced in CWS 5.0. CWS 5.1 continues CloudJumper’s commitment for a friendlier environment to allow external developers to extend their services and products based on Cloud Workspace.



CWS 4.x will reach official end-of-life on 12.31.2017. Partners who remain on the CWS 4.x platform will no longer receive direct support for 4.x deployments and no further 4.x updates or bug fixes will be provided.

## 5.1 Highlights:

- Support for Windows 2016 Server
- Full Stack Support for Microsoft Azure Resource Manager
- Support for Office 365 Single Authentication
- MFA for CWS Portal Administrators
- Improved Provisioning Collection Management
- Administrator Defined Automation and Scripting
- Resource Sizing Management Schemes

### Support for Windows 2016 Server

- Support Windows Server 2016 server versions for all supported platforms.

- Windows 2016 Server provides the “Windows 10” desktop experience for shared RDS session users and enables configuration options such as GPU assignment for graphics intensive applications\*.

#### **Full stack support for Microsoft Azure Resource Manager**

- Microsoft requires migration from the traditional encryption key/delegated account user entitlement model to the Azure Resource Manager model.
- Microsoft Azure Resource Manager is a framework that enables users to work with the resources within a solution as a group.
- The required authentication attributes are collected once during software defined data center (SDDC) deployment and then reused for other Microsoft Azure activities without the need for re-entry or re-authentication.

#### **Support for Office 365 single authentication**

- Microsoft Office 365 utilizes an authentication model that requires end-users to enter credentials every time they use the office productivity suite on a new computer or device.
- CWS 5.1 Manages these credentials across the server farm so that end-users require authentication only on their first use of a new office 365 subscription.

#### **Improved provisioning collection management**

- Configuration and management of hypervisor templates for pre-defined workloads can be confusing, especially when working across multiple hypervisor platforms.
- CWS 5.1 introduces Automated hypervisor management functions that include the creation of server instances based on an existing template or Cloud Provider VM image; direct connection/login to the created server for installation of applications from CWS Web App; automatic template creation/Windows sysprep from the configured server instance, and validation of application paths and installs from within CWS to eliminate the need for accessing the hypervisor or cloud service dashboard directly.

#### **MFA for CWS portal administrators**

- CWS 5.1 includes a built-in multi-factor authentication (MFA) solution for CWS Administrators only
- Partners can implement their own MFA solution for end-users. Popular options include Duo, Auth-Anvil & Azure MF. CloudJumper will be releasing own built-in MFA for end-users in Q1 2018

#### **Administrator defined automation**

- CWS provides improved deployment/management automation for service providers with Administrator Defined Automation of tasks/script execution.
- With this enhancement, CWS 5.1 will significantly speed deployments, simplify management, and reduce overhead costs.
- CWS Administrator Defined Automation will allow for the installation or upgrading of applications based on events, allowing partners to trigger automated application installations/maintenance using this method.

#### **Resource sizing management schemes**

- CWS 5.1 resource functionality enhances ability to scale resources dynamically by adding three more resource schemas
- The existing Total Users schemas is now augmented by three more resource sizing schemes: Fixed, Active User & Activity-based

- Example: Fixed method supports exact specification of the CPU and RAM.
- All resource sizing schemes continue to allow for immediate/force change or nightly automated resource check/modification.

## Copyright Information

Copyright © 2020 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system-without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.