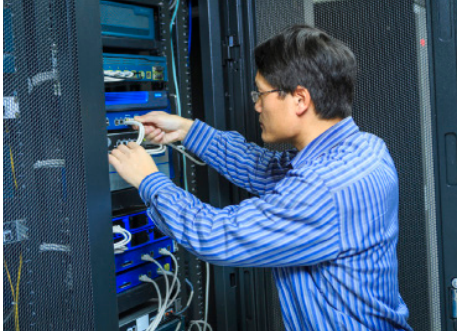# Winter Catalog | 2021

CDW AMPLIFIED™ Infrastructure Services

CDW | **CDW AMPLIFIED™ SERVICES**

CDW Amplified™ Networks
Data Center Networking

High-bandwidth deployments like virtualization and cloud computing support your organization but can put massive strains on your network. To properly manage the changing traffic patterns of your data and applications, you need a highly optimized network.

CDW's experts can help you improve the performance of your network so it can help keep your entire data center humming.

Solution Benefits

Your organization can achieve the following by employing a CDW Data Center Networking solution:

· The ability to support increased application demands.

· Give employees consistent, reliable access to the tools they need to do their jobs by delivering applications faster and more securely.

· Avoid costly downtime and lost productivity by improving network performance, availability and continuity of operations.

· Prepare for future needs by increasing network flexibility and scalability.

Vendors Supported

· Cisco
· HP
· F5
· Citrix NetScaler
· VMware

CDW can deliver additional Data Center solutions by utilizing its vast network of third-party partner services providers.

Services

CDW's Data Center Networking services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

· **Network Health Checks and Assessments:** CDW will assess your overall network infrastructure and report back detailed findings and recommendations, including a Network Inventory Report, L2/L3 topology map, and configuration details such as QoS and Multicast.

· **Cisco ACI Planning and Design Workshop:** The workshop is held in advance of deployment of Cisco's Application Centric Infrastructure to validate a customer's design.

· **NSX Design and Planning Workshop:** VMware NSX is the gold standard for Software Defined Networking (SDN) within VMware vSphere environments. Its key features include Network Virtualization (L2/L3 routing and forwarding within the Hypervfisor), Micro-Segmentation (firewalls between servers) and Network Function Virtualization (virtualized firewalls, routers, load-balancers and VPN running on NSX edge). This design and planning sessions is led by a CDW NSX implementation engineer to determine your organization's NSX requirements, use cases and design strategy. We will work with you on NSX feature and design decisions while developing a high-level design document.

· **Multi Data Center Planning and Design:** Customers with data centers in multiple locations frequently encounter networking challenges when attempting to get multiple sites to operate well with each other. CDW can help build a solution to get the most out of your multiple data center locations.

Orchestrate Implementation/Adoption

· **Cisco ACI Jumpstart:** This engagement deploys ACI, getting it up and running in your environment along with moving some applications to the new platform.

· **CDW Migration Services for Cisco Nexus 7000 and 7700 Series:** Whether you are planning to migrate to a new network architecture or simply want to shore up your current environment, CDW is your trusted advisor for success. Our engineers help you plot out a strategy according to your downtime tolerance, whether it be five hours, five minutes, or none at all. We will

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Networks
Data Center Networking (continued)
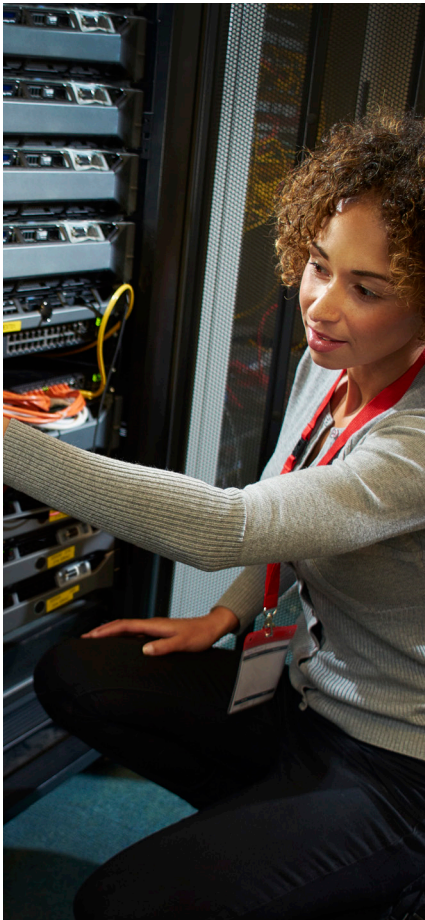
use our labs (or yours) to develop, validate and explain the strategy, then migrate to the appropriate hardware as designed.

- **NSX Proof of Concept with Microsegmentation:** This engagement is suited for customers who want to test functionality of VMware NSX micro-segmentation features in a pre-production environment. The service includes a design session to determine use cases, deployment in a pre-production environment, implementation of use cases and knowledge transfer.

- **VMware NSX Network Virtualization Accelerator Service:** This service is suited for organizations that want to deploy a pre-production environment designed to meet their specific requirements. This jumpstart-style engagement will consist of a design session(s), deployment and two days of knowledge transfer.

- **Data Center Network Deployment:** CDW's engineers can install Nexus switches to provide connectivity to devices within your environment, in addition to implementing the logical design the customer desires, resulting in network connectivity across your racks of servers and storage.

- **Load–Balancer Services:** We can provide assessment, design and implementation services for F5 and NetScaler application delivery controllers.

- **Configuration Services:** Technology products don't come off the assembly line ready to work for you. They must be custom-configured to meet your organization's unique needs and specifications. That's not as easy as it sounds. It takes time and expertise that your IT team might not have. CDW has a wealth of experience in satisfying customers' needs for Network and Security Device Configuration, Rack Configuration and Asset Management Services.

Manage

CDW can take responsibility for the tasks associated with monitoring, upgrades, maintenance, reporting and hardware and circuit incident management for products from Cisco, HP, F5, NetScaler and VMware. To best meet your organization's needs, you can choose from three tiers of support, all powered by our redundant 24/7 Enterprise Command Centers (ECC).

Next Steps

An in-depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Networks
Enterprise Networking

Enterprise networks are an essential component to digitize your business. Whether your goals include connecting fans in stadiums, connecting mechanical sensors or connecting users, CDW can help provide the solution to drive your desired business outcomes.

CDW has the experts to design and deploy these complex solutions and make them easily consumable for your business.

Solution Benefits

· Your organization can achieve the following by employing a CDW Enterprise Networking solution:

· Solutions that provide business outcomes and integrate those solutions with your environment.

· New levels of business integration with IT and business processes.

· Improved user experience.

· Access to our extensive experience built on previous projects and relationships with vendors.

Vendors Supported

· Cisco

· Cisco Meraki

· Aruba

· Cradlepoint

· Silver Peak

CDW can deliver additional Enterprise Networking solutions by utilizing its vast network of trusted third-party partner services providers.

Services

CDW's Enterprise Networking services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

· **Network Health Checks and Assessments:** CDW will assess your overall network infrastructure and report back detailed findings and recommendations, including a Network Inventory Report, L2/L3 topology map, and configuration details such as QoS and Multicast.

· **Advisory Workshops:** CDW will provide a workshop to validate readiness for advanced solution deployment such as SD-WAN, DNA-Center, and Software-Defined Access.

· **Wireless Surveys:** CDW will survey your wireless service area and provide recommendations for access point placement to ensure service level appropriate to your business needs. CDW can provide surveys for new deployments, redesigns and validations.

· **Public Venue Wireless Services:** Improve the fan experience! CDW has experts to survey, design and deploy wired and wireless network services to large public venues or stadiums, and we've done some of the largest!

· **Planning and Design Services:** CDW will work with you to create a design and integration strategy for next-generation network solutions such as SD-WAN and DNA-Center.

· **Software-Defined Access Services:** CDW provides both Software-Defined Access and SD-WAN services, which include solution readiness to validate the solution meets your organization's business and technical objectives, planning and design services on how the solution should be implemented, integrated and migrated, followed by implementation services to assist in the roll out of the solution into your environment and managed services to ensure the solution continues to provide optimal performance throughout the lifetime of the Software-Defined investment.

Orchestrate
Implementation/Adoption

· **Deployment Services:** CDW's engineers can help you get the most out of your network infrastructure by designing and deploying a solution tailored to fit your needs. Whether it's deploying emerging technologies such as SD-WAN or complex,

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Networks
Enterprise Networking

Next Steps

An in–depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

multisite projects including wired and wireless, CDW has done it.

- **Adoption Services:** Get the most out of your investment in advanced solution deployments. Our engineers will provide scheduled, post–implementation sessions around defined metrics and technology goals such as additional IT staff knowledge of the implemented solution and enhancement recommendations.

- **DNA Center with Assurance QuickStart:** The DNA Center with Assurance QuickStart service is a solution that stands up Cisco DNA Center in your environment, allowing your organization to see immediate value from Assurance and base automation. This service includes a remote or onsite planning session, boot–strapping and initial configuration of DNA Center, creating sites and importing customer maps, adding customer devices, and providing training to your staff on Cisco DNA. Software Defined Access is not included in this QuickStart.

- **Configuration Services:** Technology products typically do not come custom configured for a specific application. They require some type of custom configuration to meet your organization's unique needs and specifications. This can be a complex and/or repetitive process which your IT may not have the expertise or resources available to administer. CDW has a wealth of experience and resources used to provide Access Point Provisioning Services.

Manage

CDW can help your IT team ensure the solution provides optimal reliability, availability and performance by taking responsibilities for tasks associated with monitoring, upgrades, maintenance and reporting for your Cisco enterprise wired and wireless networking, Cisco Meraki, Silver Peak and Cradlepoint solutions.

CDW AMPLIFIED™
SERVICES

CDW Amplified™ Hybrid Cloud
Cloud

Even if your organization is well along on its cloud journey, added complexities of public and multicloud environments make careful planning a must. CDW Amplified™ Infrastructure Services help you design and augment your cloud capabilities, build custom cloud applications and bolster security for your new platform.

Building the ideal cloud platform is a monumental task. We help you build your platform to your exact specifications, allowing for easier service and application integration while keeping your public and private clouds scalable and secure.

Managing an ever-evolving cloud environment — or multicloud environments — requires specialist skills. CDW helps you manage your cloud environment efficiently and transparently. CDW helps you control costs and monitor operations while providing ongoing technical assistance and platform development support, so you can continue to innovate in a cloud environment tailored to your business.

Solution Benefits

Your organization can achieve the following by employing a CDW Cloud solution:

- Identity benefits: Identity and access management via Azure Active Directory, including single sign-on to thousands of SaaS-based apps to the cloud

- Storage benefits: Reliable cloud storage for data which allows you to tier on-premises storage, provide robust backup and archival to the cloud

- Computer benefits: Launch Windows Server and Linux virtual machines in minutes and pay only for the capacity you need

- Site Recovery benefits: Set up your disaster recovery plan without the upfront capital costs associated with dedicated DR environments

- Dev/Test benefits: Quickly create and centrally develop and test environments on Azure

- Data Analytics Scenarios: Analyze and visualize relational data without investing in costly hardware typically required for these scenarios

- IoT benefits: Connect devices, other M2M assets and people to better harness data across your business

Services

CDW's Cloud services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

- **CDW Application Modernization:** CDW's Application Modernization and Software Engineering Practice utilizes our expertise in modern software development and delivery that we employ to help you with the rapid adoption of distributed systems architectures (including migration and creation of microservices) and serverless frameworks, leveraging the latest cloud-native patterns and tooling. When modernizing applications, CDW utilizes industry best practices like Agile/SCRUM and DevOps/SRE concepts to organize and deliver our work products. We will refactor and/or replatform the applications you want and need to perform better in the cloud, letting your development experts focus on client-relevant outcomes, while reducing your infrastructure costs and overall time to market. We offer several types of Application Modernization services, including Advisory, Planning and Deployment.

- **CDW Data Modernization:** Organizations need to be data-driven in decision making, approach to customers, and running operations. To succeed in today's marketplace requires modern data strategy and modern data platforms. The process of modernizing your strategy and platforms is complex. CDW will not only help you understand how and why to modernize your data strategy/platforms, but will also help you build a roadmap to take you from where you are today to where you want to be. CDW will develop solutions to achieve your business, technical and organizational objectives. CDW gets the power of unlocking data making business velocity a reality. We offer several types of Data Modernization services, including Advisory, Planning and Deployment.

- **Azure Migration Assessment:** CDW will work with you to deploy an assessment tool in your environment, ensure the tool is

CDW Amplified™ Hybrid Cloud
Cloud (continued)

configured properly, run the tool, and then help interpret and review the results. The results will help you understand the costs of moving your on–premises workloads to Azure as well as expected performance. The assessment tool will take approximately two weeks to collect data. The length of the assessment analysis will be based on the size/type of the environment to be assessed.

- **Azure Governance — Security and Cost Management:** We will work with you to create a plan for Azure cloud governance. This workshop will help take an in–depth look at the people, processes and technology currently in place and assist with building a framework that will make it easier for your IT team to support business needs while still providing the flexibility to use Microsoft Azure. The workshop is typically three days in duration for brand–new, greenfield Azure environments. For existing Azure deployments, we recommend coupling this workshop with the Azure Design Assessment to give you a complete view of your Azure environment.

Next Steps

An in–depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

- **Azure IaaS Foundation Jumpstart:** We will work with you to validate your existing Microsoft Azure IaaS infrastructure to document and validate it is configured according to best practices. The following IaaS components will be reviewed: Azure subscription(s), identity in Azure, resource group(s), storage accounts, networking and connectivity, and virtual machine configuration. We will provide a findings and recommendations document and can also assist with remediation if needed. The Azure Design Review sessions will be based on the complexity of the existing Azure environment. The typical engagement will range from one to two weeks and will scale according to the complexity of the existing Azure environment. The Azure Design Assessment can be coupled with the Azure Governance Workshop.

- **Azure Advanced Identity and Authentication Workshop:** This workshop service offering formulates a complex identity and authentication architecture for your organization after you've decided to move to the cloud. The cloud decision has an impact on how your environment is set up and early decisions are necessary, as the cloud identity will become the foundation for cloud transition efforts. This engagement will help you understand complex environments and requirements and sort through all the available services, products and configuration options, resulting in the development of a high–level cloud identity and access architecture that meets your requirements. Among the items typically discussed during the workshop are: Azure Active Directory, Azure AD Connect, Active Directory Federation

Services, Microsoft Identity Manager, Microsoft Exchange/O365, Active Directory, Active Directory Lightweight Directory Services, migration tools and user experience and client behaviors.

- **Azure DevOps Assessment:** DevOps is the integration of the essential parts of IT, development, operations and security to deliver a successful project. Bringing these teams together into a standardized process can accelerate the delivery of applications in a standardized and efficient manner. Embracing DevOps is more than just the tools. It requires the right people and processes to deliver success. Understanding DevOps and how it can make your organization run more efficiently and on–time can be a difficult. CDW has the right people and experience to help set your organization on the right path to adopting a DevOps framework. The Azure DevOps Assessment will provide an Azure DevOps Overview and Environment Assessment. We will review your current development process and provide knowledge transfer on DevOps best practices. We will provide recommendations on how to integrate your application development process into DevOps and develop a roadmap for DevOps adoption. Some of the products and tools covered for DevOps include: Visual Studio Team Services; Continuous Integration/Continuous Delivery (CI/CD); Azure Automation; Platform as a Service; App Services; SQL Database Services; and Serverless, Functions, Service Fabric, Logic Apps, Mobile Apps, and Event Hubs.

- **Microsoft TFS to Azure DevOps:** Azure DevOps provides numerous improvements over Team Foundation

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Hybrid Cloud
Cloud (continued)

Server in terms of features and management. Your organization can benefit from having the latest functionality without having to manage the infrastructure. Migrating from Team Foundation Server to Azure DevOps requires careful planning to ensure a successful transition. CDW can help with all phases of a TFS Migration, including assessment, planning, design and migration.

- **Azure App Modernization Workshop:** Application modernization transforms your business into taking the most advantage of cloud services. Take your applications to the cloud to leverage the scalability, reliability and performance of Azure. Modern applications and mobile devices reach more customers and cut costs. The Azure App Modernization Workshop will guide you on identifying applications that are ideal candidates for modernization and then deploy to Azure App Services. Learn how to leverage Azure App Services to modernize your infrastructure with best practices.

- **SQL Migration to Azure Workshop:** Over the years, organizations have deployed on–premises SQL Server for a wide variety of needs. Many of these deployments become increasingly complex over time, often are business critical, and are typically resource intensive. Organizations are looking for options for their next–generation data requirements. Microsoft has created additional options for those data requirements by utilizing Microsoft Azure. You now have the option of using traditional Microsoft SQL servers in Azure Infrastructure as a Service (IaaS), Azure SQL Database in Azure Platform as a Service (PaaS), or

Microsoft's new Azure SQL Database Managed Instance. During the SQL Migration to Azure Workshop, CDW will assist you reviewing your current on–premises SQL infrastructure and plan a logical migration strategy to a next–generation SQL infrastructure.

- **Hybrid Cloud Assessments:** CDW Consulting Services help reduce the complexity of your cloud journey. We help create a strategy that fits your organization's goals and meets your needs. Our consultants are experienced in advising clients on Workload Rationalization, Financial Modeling, Migration Planning, Cloud Readiness Workshops, Cloud Center of Excellence, and DevOps, Data Analytics and Business Intelligence.

- **Governance Workshop for AWS —Cost Management, Security and Identity:** This workshop takes an in–depth look at your cloud infrastructure, business goals, gaps, and provides recommendations for optimization and remediation, all of which CDW can implement for you. It is a less–invasive/high–impact engagement with one–on–one CDW AWS engineering support that doesn't require excessive time or resources from your organization. A CDW AWS engineer helps you understand your AWS environment and where improvements can be made in regards to cost control, security and identity management.

- **Migration for AWS:** The Migration for AWS will assist in prepping, building, testing and executing your migration to AWS. CDW deep dives into all the resources you plan on migrating, including: Detailed Analysis; Security, Risk and Compliance; Application and Hardware Dependencies; Migration Wave Planning; and Operational Integration. CDW then migrates the

identified resources and ensures a successful transfer. This project will also assist in providing best practices, knowledge transfer, and keeping your costs low, reducing downtime and maximizing efficiency.

- **Cost Management for AWS:** We will work with you to create a plan for AWS cloud governance. This workshop will take an in–depth look at the people, processes and technology currently in place and assist with building a framework that makes it easier for IT to support business needs while still providing the flexibility to use AWS.

- **CDW Well–Architected Review for AWS:** The CDW Well–Architected Review for AWS can help you understand the pros and cons of decisions you may have made while building on AWS. This Review will also help you learn architectural best practices for designing and operating reliable, secure, efficient and cost–effective systems in the cloud.

- **VMware Cloud on AWS Design Services:** These engagements focus on design of VMware's hybrid–cloud Software–Defined Data Center (SDDC) solution, VMware Cloud on AWS. This is a physical VMware infrastructure that is located in AWS data centers and managed by AWS/VMware. It is a true IaaS model, but using the same VMware infrastructure and management tools you already use in your on–premises data center. The VMware Cloud on AWS Design Workshop focuses on implementation design and use–case validation to help prepare for a successful VMware Cloud on AWS deployment.

- **CDW Cloud Check:** Adopting new cloud services can accelerate digital transformation across industries, but

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Hybrid Cloud
Cloud (continued)

rapid cloud adoption can also expose organizations to unnecessary risk. Thankfully, cloud security posture management (CSPM) tools give IT professionals the deep visibility they need to recognize and correct security vulnerabilities and potential regulatory issues as they arise. After setting you up with a complimentary trial license of your chosen CSPM solution, our CDW Cloud Check engineers will draw upon experience from thousands of security engagements to help you determine whether the tool fits your organization's unique needs. Their detailed guidance can speed up the decision-making process to jump-start your risk-mitigation efforts

Orchestrate
Implementation/Adoption

- **Azure Migration for Windows and Linux Servers:** This engagement will assist your organization with the selection and implementation of virtual networking technology. We will help you learn the best approaches to deploying virtual machines, including the associated cloud services and storage accounts. During the engagement, we will assist in planning, designing and building of an Azure subscription environment. This project serves as an accelerated Jumpstart, which will allow your organization to utilize your production, test and development environments. This service is best-suited for organizations that have yet to implement Azure and are looking for assistance in getting started. It is not intended to be a complete integration solution. This offering will result in the development of a clear vision of the high-level solution goals and constraints. We will determine the appropriate network connectivity

and configuration for the project and define an authentication mechanism for virtual machines in Azure. The servers implemented can include both supported Microsoft Windows Servers and supported Linux distributions. We will share our knowledge of industry-leading practices on the administration, operation and configuration of Azure, as well as identify business and technical requirements. Finally, we will implement and pilot the solution in the production environment.

- **Azure DevOps Automation:** DevOps is the combination of the right people, processes and tools to get the most from your IT organization. Automation of many of your common tasks is critical in implementing DevOps practices to reduce effort and costly errors. There are many tools to get started in automating activities for on-premises and cloud. CDW can help identify the processes that can be automated and show you how to leverage the tools available in Azure. This engagement will provide an Azure DevOps Overview and current Environment Assessment. CDW will review your current automation process and provide setup and configuration of Azure Automation. We will offer recommendations on how to integrate Infrastructure as Code into your environment and develop a roadmap for DevOps Automation adoption. Some of the products and tools covered for DevOps include: Azure Automation; Desired State Configuration; Infrastructure as Code; Source Control; PowerShell Workflow and Scripting; Third-party integration; and Development and Operations Governance.

- **Using Azure Storage for Backup:** CDW will assist your organization in

enabling Microsoft Azure Storage as an offsite repository for backups. A highly skilled CDW engineer will interview various stakeholders during the information-gathering stage of this remote service. We will create and configure recovery vaults. If a blob storage account is required, we will create that, too. When the engagement is complete, an Azure Storage environment designed to your requirements will be stood up and operational in the cloud. This engagement is limited in scope and does not include configuration of your storage device or the migration of any data to Azure Storage. If your environment demands a more complex solution, our Professional Services team can deliver it through a custom statement of work.

- **AWS Offsite Storage for Veeam:** This service will help you integrate your on-premises Veeam infrastructure to archive backup data into the public cloud for offsite backup archiving. The service will create or validate your public cloud subscription is ready for integration, then assist with configuring Veeam to use the cloud storage for backup archival for the appropriate SLA domains and backup jobs.

- **Enhancing Identity and Access with Azure:** Our highly skilled engineers will assess your organization's readiness for connecting your Active Directory environment to the cloud, remediating the more common or simple issues that currently exist. We will then download and install Azure Active Directory Connect using either Express Settings or Customized Settings. We will configure Azure AD Connect to sync identities from your on-premises Active Directory to Azure Active Directory, resulting in the single

CDW Amplified™ Hybrid Cloud
Cloud (continued)

sign–on solution your end users expect. If AD Federation Services is chosen as part of the engagement, CDW will configure the AD FS Farm as necessary using SSL certificates and will install and configure AD FS servers and proxy servers. We will configure and verify Federation and DNS configurations. CDW will then assist in enabling single sign–on for up two applications and two users as a pilot. All of this work is done remotely. Our engineers will typically run scripts or connect to your environment manually to discover the necessary information to complete the engagement. We will supplement that information by interviewing various stakeholders within your organization.

- **Citrix on Azure:** Delivering applications and virtual desktops to your users is demanding on your infrastructure and seems to never stop growing. Placing your Citrix environment on Azure allows for scalability, growth and flexibility to adopt to business demands. The Citrix on Azure Pilot is to help accelerate a deployment of XenApp, XenDesktop or Netscaler that is hosted on Azure. Evaluate Azure for an application or desktop delivery project deployed on Azure.

- **NetApp ONTAP Cloud for Azure Jumpstart:** CDW can assist with planning and deploying a NetApp cloud–based storage solution (ONTAP Cloud) that can be used for both SnapMirror/SnapVault replication and for end–host connectivity via CIFS, NFS and iSCSI. This service assists with the overall ONTAP cloud design, deployment of needed appliances, and finishes with a CDW engineer providing knowledge transfer around the solution.

- **Azure Site Recovery for Disaster Recovery:** Within your organization's Azure environment, we will install and configure Azure Site Recovery, establishing a Disaster Recovery as a Service solution that allows you to replicate your virtual machines to the Azure cloud and then bring them up in the event of a disaster. The engagement begins with a planning and design workshop, which consists of a series of meetings that will focus on your current environment and the identification of business and technical requirements. After we have mapped out the appropriate plan, we will work with you to get the solution implemented. We will configure the virtual networking and the gateway in your Azure environment, and then configure storage. Then we will replicate your designated virtual machines to Azure storage, taking what you want from your on–premises environment and replicate it in the cloud. We will conduct failover testing to ensure Azure Site Recovery is operating the way it was specifically designed for your organization. The solution can include both supported Microsoft Windows Servers and supported Linux distributions. When the engagement is complete, you will have a fully functioning and tested Disaster Recovery Solution.

- **Azure Stack — Proof of Concept:** CDW will help accelerate a deployment to a public, private or hybrid cloud that is hosted on Azure but on–site. Evaluate Azure Services for an application development project without investing in a full Azure Stack solution. The Azure Stack Development Kit is a single server solution to evaluate the features and services of Azure on–premise.

- **Azure Monitor and Log Analytics:** No matter if you are using the cloud or have servers on–premises, management and monitoring of critical applications are imperative to ensure availability and performance. Azure Monitor and Log Analytics is the single dashboard with all the information needed to show current status, logging of security data, backup and recovery, and automation of common steps. Azure Monitor and Log Analytics contains these features to help manage any mix of on–premises or cloud environments: Log analytics, application monitoring, security and audit, capacity planning, AD and SQL server assessment, configuration changes, malware assessment, and patch managment.

- **Microsoft Windows Server 2008 End–of–Support Services:** As Microsoft warned Windows Server 2008 and 2008 R2 reached end–of–support phase on January 14, 2020. Organizations that are running Windows Server 2008 will need to assess the impact, in terms of both the risks and benefits. Microsoft has announced that for Windows Server 2008 servers that are migrated to Microsoft Azure, they will provide extended support for an additional three years. The Windows Server 2008 End–of–Support engagement helps you gain a clear understanding of how to manage application incompatibilities that could arise from an upgrade from Windows Server 2008 or 2008 R2 and provides a roadmap for remediation of application compatibility issues in preparation for migration to Windows Server 2012/2016 or to Microsoft Azure. CDW can then assist your organization in the testing, remediation, validation and migration of applications to Windows Server 2012/2016 or to Microsoft Azure.

CDW AMPLIFIED™ **SERVICES**

CDW Amplified™ Hybrid Cloud
Cloud (continued)

- **Microsoft SQL Server 2008 End–of–Support Migration:** As Microsoft has been warning, SQL Server 2008 and 2008 R2 reached end–of–support phase on July 9, 2019. Organizations that are running SQL 2008 will need to assess the impact, in terms of both the risks and benefits. The risks are numerous. End of support means that Microsoft will no longer develop or release security patches or fixes. Additionally, you will no longer be able to call Microsoft and get technical support. Should you have a Microsoft SQL Server 2008 server misbehaving, you will be on your own. The risks fall into two broad categories — regulatory and downtime. Your unsupported Microsoft SQL 2008 servers might not meet PCI, HIPPA, SOX or other regulatory audit requirements. This can create significant costs or problems for your business. Even if regulatory audits are not a concern, the downtime risks are. Now that Microsoft will no longer provide support, your organization could incur significant costs in the event of downtime.

- **Jumpstart for AWS:** The Jumpstart for AWS will assist in the design, planning and build of an AWS environment. This project will be an accelerated Jumpstart, which will allow you to utilize your production, test or development environment. It will also assist in providing best practices and knowledge transfer in demonstrating the best way to maximize the benefits of utilizing AWS.

- **AppStream for AWS:** The AppStream for AWS will assist in the design, planning and build a single AppStream custom image for your environment. This project will also assist in providing best practices and knowledge transfer in demonstrating best way to create images and build your AWS infrastructure.

- **Rubrik Cloud Integration for AWS:** CDW Services will help you integrate your on–premises Rubrik infrastructure to archive backup data into the public cloud for offsite backup archiving. The service will help validate your public cloud subscription is ready for integration, then assist with configuring Rubrik to use the cloud storage for backup archival for the appropriate SLA domains and backup jobs.

- **NetApp Cloud Volumes ONTAP for AWS:** CDW can assist with planning and deploying a NetApp cloud–based storage solution (ONTAP Cloud) that can be used for both SnapMirror/SnapVault replication and for end–host connectivity via CIFS, NFS and iSCSI. This service assists with the overall ONTAP cloud design, deployment of needed appliances, and finishes with a CDW engineer providing knowledge transfer around the solution.

- **Migration for AWS:** The Migration for AWS will assist in prepping, building, testing and executing your migration to AWS. CDW deep dives into all the resources you plan on migrating, including: Detailed Analysis; Security, Risk and Compliance; Application and Hardware Dependencies; Migration Wave Planning; and Operational Integration. CDW then migrates the identified resources and ensures a successful transfer. This project will also assist in providing best practices, knowledge transfer, and keeping your costs low, reducing downtime and maximizing efficiency.

- **CDW Classroom in the Cloud on AWS:** The CDW Classroom in the Cloud on AWS will assist you with the planning, designing, and implementing of an AWS infrastructure to migration your on–premise classroom application(s) to AWS. The service includes an introduction to identity and access management, core compute services, virtual networking, connectivity options, and provides best practices and knowledge transfer of the implementations.

- **VMware Cloud on AWS Implementation Services:** These engagements focus on design and implementation of VMware's hybrid–cloud Software–Defined Data Center (SDDC) solution, VMware Cloud on AWS. This is a physical VMware infrastructure that is located in AWS data centers and managed by AWS/VMware. It is a true IaaS model, but using the same VMware infrastructure and management tools you already use in your on–premises data center. The VMware Cloud on AWS Implementation service focuses on taking the design variables and implementing the SDDC, establishing connectivity and integration with your on–premises data center, and running through pilot operation and migration tasks to ensure a smooth transition to VMware Cloud on AWS. We also offer Proof of Concept services for validated accounts, allowing a test drive of VMware Cloud on AWS before production use.

- **Microsoft Azure VMware Solution:** Using VMware to virtualize server workloads on–premises provides a cost–effective method to add capacity and more efficiently use the hardware that is available. The Microsoft Azure VMware Solution lets you use your current investment in VMware but provides flexibility and global reach of the Azure data centers. CDW can help you successfully

CDW AMPLIFIED™ **SERVICES**

CDW Amplified™ Hybrid Cloud
Cloud (continued)

deploy a complete solution. We will plan and design an Azure VMware Solution architecture to deploy in a new infrastructure or integrate into your existing infrastructure. We will gather business and technical requirements to ensure a successful project, and then install and configure the Azure VMware Solution based on your needs. We will migrate VMware server workloads to Azure and provide a knowledge transfer.

Manage

- **Managed Services for Azure:** The cloud can boost productivity of your IT department, allowing it to spend less time on daily IT tasks and more time dedicated to strategic deliverables. CDW can enhance this effect by taking on the responsibility for tasks associated with monitoring, upgrades, maintenance, configuration and reporting for your Azure environment; managed by our 24/7 Enterprise Command Center (ECC). Plus, through the Azure Cloud Service Provider (CSP) program, you may take advantage of both managed services and the pay–as–you–use model on one invoice for storage, application and infrastructure scalability, compute power and other cloud services.

- **Managed Services for AWS:** The cloud can boost productivity of your IT department, allowing it to spend less time on daily IT tasks and more time dedicated to strategic deliverables. CDW can enhance this effect by taking on the responsibility for tasks associated with monitoring, updates, maintenance, configuration and reporting for your AWS environment; managed by our 24/7 Enterprise Command Center (ECC). CDW's AWS–certified architects, consultants and engineers provide

the day–to–day management so you can focus on business performance, not technology management. Our cloud experts work closely with you to guide your organization to an end–to–end cloud management strategy that brings clarity to cloud.

CDW AMPLIFIED™ **SERVICES**

CDW Amplified™ Data Center
Software-Defined Data Center — Virtualization, Storage and Compute

A software-defined data center combines and simultaneously manages traditionally siloed server, storage and network virtualization, making IT's job a lot simpler. In addition, with SDDC, you can deliver and provision resources automatically within a framework of defined roles, policies and SLAs. More flexibility and efficiency can transform the way you deliver IT.Building the perfect cloud platform is a monumental task. We help you build your platform to your exact specifications, allowing for easier service and application integration while keeping your public and private clouds scalable and secure.

Managing an ever-evolving cloud environment — or multi-cloud environments — requires specialist skills. CDW can help you manage your cloud environment efficiently and transparently. We help you control costs and monitor operations while providing ongoing technical assistance and platform development support, so you can continue to innovate in a cloud environment tailored to your business.

Solution Benefits
Your organization can achieve the following by employing a CDW Software-Defined Data Center solution:

· Provision computing, storage and networking resources quickly from a central interface, eliminating the need to work with siloed storage network device interfaces and hardware.

· Allocate your resources from a single point of control with a centralized monitoring and management center.

· Eliminate having to work with multiple vendor-specific configuration interfaces.

· With all network hardware responsive to a central authority, pooled network resources can be automatically applied to relieve bottlenecks and ensure application responsiveness.

· The streamlined, centralized network management of SDDC helps clear pileups quickly and effectively — even as you face increased network traffic.

· Guarantee compliance with security policies with policy-based management.

· Eliminate errors that come with repetitive manual processes.

· Monitor resources more efficiently with a unified system that eliminates the piecemeal monitoring of resources across operative silos and vendor products.

· SDDC makes transitioning to the cloud simpler by extending your infrastructure and applications to the right technology.

Vendors
· VMware
· Cisco
· Dell EMC
· Microsoft
· Nutanix
· Hewlett Packard Enterprise
· NetApp

CDW can deliver additional Data Center solutions by utilizing its vast network of third-party partner services providers.

Services
CDW's Software-Defined Data Center services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

· **Infrastructure Health Check:** CDW will work with your organization to perform an environment collection and review workshop that includes an overall health assessment of the environment, including networking, storage and compute.

· **Data Center Assessment:** CDW will assess your overall infrastructure and report back its detailed findings and recommendations.

· **Virtualization Infrastructure Health Check:** We will provide analysis and recommendations based on the performance and efficiency of your enterprise's existing VMware vSphere environment.

· **Virtualization Assessment:** CDW offers assessments that are not just template reports with generic data. We provide you with customized, detailed reports featuring specific virtualization recommendations based on your unique environment.

· **Virtualization Planning and Design Workshop:** Our experts will learn what your organization is trying to achieve and then design the appropriate infrastructure.

· **VMware Cloud on AWS Design Services:** These engagements focus on the design of VMware's hybrid-cloud Software-Defined Data Center (SDDC) solution, VMware Cloud on AWS. This is a physical VMware infrastructure that is located in AWS data centers and managed by AWS/VMware. It is a true IaaS model, but using the same VMware infrastructure and management tools you already use in your on-premises

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Data Center
Software-Defined Data Center — Virtualization, Storage and Compute (continued)

Next Steps

An in-depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

data center. The VMware Cloud on AWS Design Workshop focuses on implementation design and use-case validation to help prepare for a successful VMware Cloud on AWS deployment.

- **Cisco ACI Planning and Design Workshop:** The workshop is held in advance of deployment of Cisco's Application Centric Infrastructure to validate a customer's design.

- **VMware NSX Design and Planning Workshop:** VMware NSX is the gold standard for Software Defined Networking (SDN) within VMware vSphere environments. Its key features include Network Virtualization (L2/L3 routing and forwarding within the Hypervfisor), Micro-Segmentation (firewalls between servers) and Network Function Virtualization (virtualized firewalls, routers, load-balancers and VPN running on NSX edge). This design and planning sessions is led by a CDW NSX implementation engineer to determine your organization's NSX requirements, use cases and design strategy. We will work with you on NSX feature and design decisions while developing a high-level design document.

- **Converged/Hyperconverged Infrastructure Planning and Design Services:** CDW will recommend prevalidated reference architectures that utilize converged appliances such as NetApp FlexPod, NetApp HCI, Dell EMC Vblock, Cisco HyperFlex, Dell EMC VxRail, Nutanix and Cisco/Pure Storage FlashStack.

- **Cisco UCS Health Check:** A low-cost way to quickly evaluate the state of your current Cisco Unified Computing System (UCS) environment and plan for an upgrade. You will be provided

with an in-depth document providing details of the assessment along with recommended changes.

- **IT Automation and Orchestration Assessment:** During this engagement, CDW will interview members of your organization's business units to learn how they currently automate. We will produce a business-process diagram of your current state, as well as a diagram depicting a recommended business process. We produce a report giving recommendations around the following:

· Global recommendations: How to run unified.

· Workflow is broken down into Agile User stories along with toolset recommendations.

· An executive summary with high-level findings and then answer questions.

· Engagement is sized based on the number of business units being evaluated.

Orchestrate Implementation/Adoption

- **Virtualization Implementation Services:** CDW's Jumpstart engagements are designed to quickly get your environment up and running. A typical engagement, performed at your site, includes implementation services for solution components. A key benefit with a Jumpstart is the knowledge transfer of best practices from CDW's experts to your IT team. Our implementation offerings are available for vSphere, vRealize Automation, vRealize Operations/Log Insight, VMware Site Recovery Manager and NSX.

- **VMware Cloud on AWS Implementation Services:** These engagements focus on the

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Data Center
Software-Defined Data Center — Virtualization, Storage and Compute (continued)

implementation of VMware's hybrid-cloud Software-Defined Data Center (SDDC) solution, VMware Cloud on AWS. This is a physical VMware infrastructure that is located in AWS data centers and managed by AWS/VMware. It is a true IaaS model, but using the same VMware infrastructure and management tools you already use in your on-premises data center. The VMware Cloud on AWS Implementation service focuses on taking the design variables and implementing the SDDC, establishing connectivity and integration with your on-premises data center, and running through pilot operation and migration tasks to ensure a smooth transition to VMware Cloud on AWS. We also offer Proof of Concept services for validated accounts, allowing a test drive of VMware Cloud on AWS before production use.

- **Cisco ACI Jumpstart:** This engagement deploys ACI, getting it up and running in your environment along with moving some applications to the new platform.

- **NSX Proof of Concept with Micro-Segmentation:** This engagement is suited for customers who want to test functionality of VMware NSX micro-segmentation features in a pre-production environment. The service includes a design session to determine use cases, deployment in a pre-production environment, implementation of use cases and knowledge transfer.

- **NSX Network Virtualization Accelerator Service:** This service is suited for organizations that want to deploy a pre-production environment designed to meet their specific requirements. This jumpstart-style engagement will consist of a design session(s),

deployment and two days of knowledge transfer.

- **Converged/Hyperconverged Infrastructure Deployment Services:** When it comes time to implement technologies like NetApp FlexPod, NetApp HCI, Dell EMC Vblock, Cisco HyperFlex, Dell EMC VxRail, Nutanix and Cisco/Pure Storage FlashStack, CDW's engineers can help you get them up and running in your environment and assist with data migration. Our engineers will also teach your IT professionals how to get the most out of the new technology.

- **UCS QuickStart:** The UCS QuickStart is a hands-on engagement, optimized for custom interaction and knowledge transfer. If your organization needs to gain experience operating UCS, CDW will get your enterprise up and running. This service includes professional configuration of the UCS platform, plus hands-on training.

- **UCS Central Deployment:** Cisco's centralized management platform is capable of managing multiple UCS domains. CDW can plan and implement its deployment, allowing you to manage nearly your entire UCS environment from a single pane of glass.

- **VMware vRealize Automation 8 Jumpstart:** This engagement expands the power of virtualization, moving IT services away from existing infrastructure delivery methods to where virtual machine infrastructure is delivered as a service. This service provides rapid deployment of standard, non-customized virtual machine infrastructure services for use in pre-production environments. You will receive an introduction on how to reduce costs of managing

IT by optimizing the provisioning process through a self-service portal to provide infrastructure services.

- **UCS Director Jumpstart:** CDW's three-week Jumpstart engagement is designed to quickly get your environment up and running. It involves meeting with you, confirming your use cases, helping to lay down a deployment schedule, working toward agreed upon targets and culminates in a supported launch. During this process you can work alongside our orchestration engineers to familiarize yourself with the product.

- **Microsoft Private or Hybrid Cloud Jumpstarts:** This engagement will assist you with the planning, design and evaluation of Windows Server, System Center and Hyper-V. CDW will create a deployment roadmap for your private or hybrid cloud solution, which also includes installation and configuration of Hyper-V, System Center Virtual Machine Manager, App Controller and Operations Manager. We will deploy virtual machines to the private or hybrid cloud either on premises or Azure. CDW will provide knowledge transfer of reporting, security roles and end-user self-service portal, and will create standard OS image for deployment with Virtual Machine Manager to Hyper-V.

- **Cisco CloudCenter Suite Jumpstart:** This engagement is used to take your organization's existing application and make it so you can leverage CloudCenter to deploy it in VMware, AWS or Azure. We will show you how to deploy an application with governance and be multi-cloud-ready without lock-in. This six-week, fixed-fee service builds in time to allow for dealing with application complexities.

- **Red Hat Ansible Jumpstart:** This deployment engagement by CDW is a consulting and implementation

CDW Amplified™ Data Center
Software–Defined Data Center — Virtualization, Storage and Compute (continued)

service that utilizes the ease of a fixed fee and fixed time frame. CDW works hand in hand with you, the customer, to focus on deploying automation that is relevant to addressing your business problems. A primary outcome of this service is that you will "learn to fish" by applying Ansible to drive to an optimal desired end state, as opposed to layering on more and more complexity to your environment. In short, you learn how to properly leverage the technology with expertise, guidance and leadership from CDW.

Manage

CDW can take responsibility for the tasks associated with monitoring, upgrades, maintenance, reporting and hardware incident management for your UCS server platform or your VMware, Microsoft, IBM and Nutanix environments. To best meet your organization's needs, you can choose from three tiers of support, all powered by our redundant 24/7 Enterprise Command Centers (ECC).

CDW Amplified™ Data Center
Next–Gen Backup

If hit with an emergency outage, your data center needs a backup solution that is flexible enough to sway through the quake — not crack and crumble.

But with the wide adoption of virtualization, the proliferation of mobility and BYOD, and the ever–growing avalanches of storage data, efficient backups are more challenging than ever.

CDW's solution architects will survey your data landscape and construct a custom backup solution for your data center using the latest tools.

Solution Benefits

Your organization can achieve the following by employing a CDW Next–Gen Backup solution:

- Prepare for unanticipated data loss with offsite backups.

- Automate and streamline time–consuming backup processes with centralized data management that enables remote management of your data landscape.

- Accelerate data recovery by minimizing redundant data.

- Strengthen disaster recovery by hosting backups on multiple servers across data centers.

Vendors Supported

- Dell EMC
- Microsoft
- IBM
- Rubrik
- NetApp
- Commvault
- Veritas NetBackup
- Veeam
- Cohesity

CDW can deliver additional Data Center solutions by utilizing its vast network of third–party partner services providers.

Services

CDW's Next–Gen Backup services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

- **DR/Business Continuity Services:** CDW Consulting Services help reduce the complexity of your Next–Gen Backup needs. We help you create a strategy that fits your organization's goals and meets your needs. CDW consultants have vast experience in helping clients with Business Continuity Planning, Business Impact Analysis, Disaster Recovery, Recovery Time Objective (RTO)/ Recovery Point Objective (RPO) Analysis and Workflow Analysis.

- **Veeam Health Check:** CDW Veeam Availability services encompass solutions around the Veeam Availability Suite. The suite contains the Veeam Backup and Replication, and VeeamONE products. The Veeam Health Check assesses an organization's current Veeam infrastructure, and provides reporting and recommendations on the status and fitness of the solution.

- **Dell EMC Avamar Design:** CDW can plan and design your entire backup solution, setting you up for success from the start.

- **Data Domain Design:** CDW can plan and design your entire Data Domain solution, setting you up for success from the start.

Orchestrate
Implementation/Adoption

- **Veeam Jumpstart:** CDW Veeam Availability service offerings encompass solutions around the Veeam Availability Suite. The suite contains the Veeam Backup and Replication, and VeeamONE products. The Jumpstart service provides design, installation and configuration services for Veeam Availability.

- **Dell EMC Avamar Installation:** Our engineers will configure and set up the hardware and deploy the host agents. Upon completion, your backup solution will be operational and protecting the assets that are so vital to your organization.

- **Data Domain Installation:** CDW can set up the Data Domain hardware at

CDW AMPLIFIED™ **SERVICES**

CDW Amplified™ Data Center
Next–Generation Backup (continued)

your location. If you are planning to use Avamar as the backup software, CDW can integrate the solution.

- **Rubrik Deployment Services:** CDW Services will ensure your Rubrik System is installed and configured according to Rubrik's recommended best practices. Our certified engineers will provide you with an onsite production deployment of the Rubrik System. Once the product is successfully installed and tested, CDW will provide a knowledge–transfer session that will ensure you are comfortable managing your new environment when the engagement is complete.

- **Rubrik Cloud Integration for AWS:** CDW Services will help you integrate your on–premises Rubrik infrastructure to archive backup data into the public cloud for offsite backup archiving. The service will help validate your public cloud subscription is ready for integration, then assist with configuring Rubrik to use the cloud storage for backup archival for the appropriate SLA domains and backup jobs.

- **Veeam Cloud Tiering for AWS:** The Veeam Cloud Tiering for AWS service will help you integrate your on–premises Veeam infrastructure to archive backup data into the public cloud for offsite backup archiving. The service will validate your public cloud subscription is ready for integration, then assist with configuring Veeam to use the cloud storage for backup archival for the appropriate SLA domains and backup jobs.

- **Microsoft System Center Data Protection Manager Pilot:** This engagement helps you plan, design and deploy Data Protection Manager (DPM) to best support

your environment. The service includes configuring DPM to support the backup and recovery of many common workloads and applications. CDW will also assist in aligning your disaster recovery plans to match with DPM's recovery groups.

Manage

- **Data Protection, Retention and Disaster Recovery by CDW:** With CDW's Data Protection, Retention and Disaster Recovery as a Service (DRaaS), CDW Managed Services can operationalize the complexities of providing data protection and backup for your environment. Provided completely as-a-service, one monthly fee provides hardware, software, monitoring, software support and updates with full management, including storage. Choose from three tiers of service to retain your data only on–site, or replicate a copy offsite or in AWS or Azure. A third tier offers an option for providing DRaaS including quarterly DR tests. A final option is available for protecting your Microsoft office 365 data, providing you a full suite of data protection and retention for your business.

CDW can take responsibility for the tasks associated with monitoring, upgrades, maintenance and reporting for products from Veeam, Rubrik, Dell EMC, IBM, Microsoft and Commvault. To best meet your organization's needs, you can choose from three tiers of support, all powered by our redundant 24/7 Enterprise Command Centers (ECC).

Next Steps

An in–depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Data Center
Data Center Migration and Optimization Services

Data migration is complicated, no matter the size of your enterprise or the scope of the project. If not planned carefully, your transfer of data between storage types, formats or computer systems could be at risk. What if a server crashes during the process? Or your data center encounters an issue such as an array failure during the transfer? These are more than minor inconveniences. They are incidents that can threaten your data migration. You can achieve peace of mind by working with CDW to plan, design and implement a custom data migration for your organization. By working with our solution architects and engineers, you will have access to experts who have successfully moved data for thousands of satisfied clients.

Next Steps

An in-depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

Solution Benefits

Your organization can achieve the following by employing a CDW Data Migration and Optimization solution:

· Access to CDW's knowledge of the process and industry, which is passed on to members of your IT team.

· With the extensive experience CDW has gained by orchestrating successful data migrations, we can customize migration solutions that result in minimized risk and reduced outage time.

· The ability to leverage our relationships with best-in-class vendors.

Services

CDW's Data Center Migration and Optimization Services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

· **IT Strategy Services:** CDW Consulting Services help reduce the complexity your IT environment. We help you create a strategy that fits your organization's goals and meets your needs. CDW consultants have vast experience in helping clients with Mergers and Acquisitions Technology Integration, IT Transformation, Management Consulting, Security, InfoSec and Compliance, and Strategy and Economics.

· **DC Optimization Services:** CDW Consulting Services help reduce the complexity of your IT environment. We help you create a strategy that fits your organization's goals and meets your needs. CDW consultants have vast experience in helping clients with Data Center Assessments, Consolidations, Operation and Architecture Design, Data Center Migration Planning, Application Transformation, and IT Governance.

· **Data Migration Assessment Services:** CDW will perform a physical and logical inventory of your current storage environment and supporting network hardware. We will also gather information related to the data type, size and environment.

· **Data Migration Planning and Design Services:** CDW will create a data migration strategy based on your specific needs.

· **Data Migration Preparation Services:** CDW will ensure that all relevant equipment is onsite at the appropriate location and ready to begin the process of moving your data.

Orchestrate Implementation/Adoption

· **Data Migration Services:** CDW will handle the actual transfer of data from one area to the next — whether it be related to hardware, Applications, Physical-to-Virtual, Database or your entire Data Center — following the exclusive implementation plan designed for your enterprise.

· **Data Validation Services:** To complete the data migration process, CDW will ensure the migration was successful. We will make sure all data scheduled for migration was moved to its proper new location.

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Data Center
Compute and Storage

A network storage array here. A backup appliance there. Yesterday's patchwork of data storage and archiving solutions has left many growing organizations with a complex mess of congested, inefficiently managed megabytes that only keeps piling higher.

Today's organizations must unify data storage management across cubicles, mobile workers, and cloud providers and be prepared to scale up at any moment.

Next Steps

An in–depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

Solution Benefits

Your organization can achieve the following by employing a CDW Compute and Storage solution:

· Improve IT control and visibility with updated storage management tools.

· Better meet enterprise storage needs with fast, reliable and efficient flash storage.

· Adjust to changing needs with scalable, cost–effective cloud storage.

· Improve manageability and portability of storage resources with SAN, NAS and DAS — potentially lowering storage costs.

· Determine accurate cost–per–performance balance for your storage tiers using hierarchical storage management.

Vendors Supported

· NetApp
· Dell EMC
· Hewlett Packard Enterprise
· IBM
· Cisco
· Brocade
· Veritas NetBackup
· Veeam
· Commvault
· Pure Storage

CDW can deliver additional Data Center solutions by utilizing its vast network of third–party partner services providers.

Services

CDW's Compute and Storage services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

· **Storage Solution Review:** Essentially a health check, CDW will review your existing storage environment and provide recommendations for best practices and performance improvement.

· **Data Migration Assessment:** CDW will perform an assessment of the existing data you desire to be migrated. We will determine the best methods to migrate that data from one array to another with the least amount of impact to the business.

· **Storage Planning and Design Sessions:** Before creating a blueprint for your storage plan, CDW will conduct planning and design sessions to determine your organization's needs and goals.

Orchestrate
Implementation/Adoption

· **Storage Deployment Services:** To help you roll out your new storage solution, we offer hardware implementation, software installation and data migration assistance for a variety of products, including the following: NetApp FAS and AFF, NetApp ONTAP Cloud, NetApp E–Series, SolidFire, Dell EMC VNX/ VNXe, Dell EMC Unity, Dell EMC SC SAN, VMware vSAN and Pure Storage FlashArray.

Manage

CDW can take responsibility for the tasks associated with monitoring, upgrades, maintenance, reporting and hardware incident management for your Dell EMC, NetApp, IBM, Cisco and Brocade storage and storage networking solution. To best meet your organization's needs, you can choose from three tiers of support, all powered by our redundant 24/7 Enterprise Command Centers (ECC).

CDW AMPLIFIED™ SERVICES

CDW Amplified™ Data Center
Power and Cooling
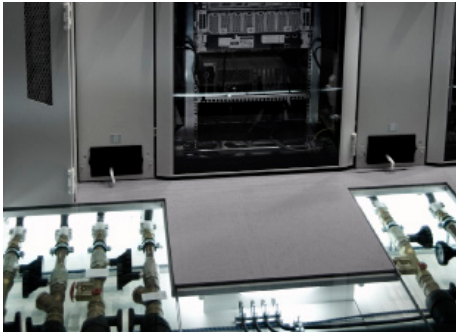
Overheating. Power surges. Energy inefficiency. They might sound like minor problems, but they take time and funds away from your IT infrastructure. Instead, CDW can help you find power and cooling solutions that protect your equipment, maximize efficiency and save you money.

As one of the largest providers of power protection products, we offer competitive pricing, dedicated resources and rebate programs. Our experts can assist you from the initial assessment and site survey phase all the way through to installation, management and ongoing support.

Next Steps

An in–depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

Solution Benefits

Your organization can achieve the following by employing a CDW Power and Cooling solution:

· Increase uptime and reduce operational costs by controlling airflow and keeping your infrastructure properly cooled and running smoothly.

· Safeguard against potential disasters by protecting your data center in the case of power failure.

· Maximize energy efficiencies and cost savings thanks to management resources that monitor energy use and identify potential problems.

Vendors Supported

· APC
· Eaton
· Tripp Lite
· Vertiv

CDW can deliver additional Data Center solutions by utilizing its vast network of third–party partner services providers.

Services

CDW's Power and Cooling services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

· **Power and Cooling Assessment:** We offer an onsite assessment that serves as the foundation for your comprehensive data center optimization plan. We'll determine where energy is being wasted, gauge your usage of HVAC and provide a recommendation on how to address your current needs.

· **Power and Cooling Planning and Design:** Our solution architects can review your needs and perform an evaluation to help you develop a comprehensive solution for your project needs.

Orchestrate Implementation/Adoption

· **Data Center Installation:** We can help you manage the implementation of your power and cooling solutions by providing manufacturer–trusted local electrical/mechanical contractors to install equipment in accordance with all manufacturer and local requirements.

· **Assembly Services:** CDW can handle the physical setup of your new equipment at your site.

· **Start–up Services:** We can handle the initial configuration of your equipment at your site to get it up and running.

· **Physical Infrastructure Staff Augmentation:** Ever wear too many hats within the organization at once? CDW can arrange through our partner services to staff a person to manage any power and cooling gear at your location, augmenting your staff with someone skilled in data center operations. This will ensure what was initially set up optimally stays that way over time.

· **Physical Move Assistance:** If you are moving locations or transferring your equipment to a co–hosted facility, we can arrange for the move of your physical equipment from point A to point B.

· **Configuration Services:** Technology products don't come off the assembly line ready to work for you. They must be custom–configured to meet your organization's unique needs and specifications. That's not as easy as it sounds. It takes time and expertise that your IT team might not have. CDW has a wealth of experience in satisfying customers' needs for Rack Configuration and Asset Management Services.

CDW AMPLIFIED™ SERVICES

CDW Amplified™ OS and Apps
Operating Systems, Applications and Services

Once the infrastructure of your data center is installed and optimized, you can focus on the installation of applications and services that allow you to run your business.

Whether we are helping you upgrade from your Microsoft Windows Server 2008 environment or providing a detailed assessment of your current Active Directory Domain Services, you can count on CDW's trained and certified experts to deliver the ideal data center technologies to your organization.

Vendors Supported

· Microsoft　· IBM
· Oracle　· Red Hat
· ServiceNow

CDW can deliver additional Operating Systems and Apps solutions by utilizing its vast network of third-party partner services providers.

Services
CDW's Operating Systems, Applications and Services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

· **Microsoft FastTrack Services by CDW:** FastTrack services are intended to help you successfully enable and drive user adoption of Microsoft 365 solutions. Enablement activities include best practices guidance and enablement workshops. When you purchase eligible Microsoft 365 (Office 365, Windows 10, or EMS) licenses, CDW can help you enable more effective teamwork and collaboration, utilize capabilities to protect your organization from cybersecurity threats, and keep devices and applications up to date. Microsoft FastTrack Services by CDW covers three primary areas of guidance: Discovery and Enablement Workshops for enabling Microsoft 365 services; onboarding, with access to best practices; and ensuring readiness with an adoption plan and training.

· **Active Directory Domain Services Planning and Design:** CDW will provide you with an Active Directory architecture design and an administrative model design. We can also handle consolidation and migration.

· **Active Directory Domain Services Health Check:** CDW will investigate your domain controllers, check logs, check networking, look for gaps in security and best practices deployment, and provide detailed remediation recommendations.

· **Microsoft Identity Manager (MIM) Design:** This engagement provides you with a comprehensive review of MIM requirements to synchronize identity information between your Active Directory and other identity stores. Your organization will receive an architecture and workflow design for a MIM deployment.

· **Public Key Infrastructure (PKI) Health Check:** This engagement is a systemic and rigorous evaluation of an existing PKI implementation. Auxiliary environments that have a dependency on the health of the PKI are also examined for functionality and configuration. The Health Check will include an architecture review and system and gap analysis. A Findings and Recommendation Report will be presented to you upon completion of the project.

· **Microsoft SQL Server Services:** CDW can bring expertise to ensure your SQL environment is operating at peak efficiency. The different types of SQL engagements include Health Checks, Performance Turning, Always On Pilot, DTS Migration Assessment, Consolidation Planning and High Availability.

· **Microsoft System Center Operations Manager Health Check:** This engagement will review the health of your Operations Manager environment by performing a thorough examination of both the design and administration. This assessment will identify problem areas and any gaps where Operations

CDW Amplified™ OS and Apps
Operating Systems, Applications and Services (continued)

Manager can be improved or fixed. Your organization will receive guidance and recommendations on how to maximize your investment in Operations Manager.

- **SQL Migration to Azure Workshop:** Over the years, organizations have deployed on-premises SQL Server for a wide variety of needs. Many of these deployments become increasingly complex over time, often are business critical, and are typically resource intensive. Organizations are looking for options for their next-generation data requirements. Microsoft has created additional options for those data requirements by utilizing Microsoft Azure. You now have the option of using traditional Microsoft SQL servers in Azure Infrastructure as a Service (IaaS), Azure SQL Database in Azure Platform as a Service (PaaS), or Microsoft's new Azure SQL Database Managed Instance. During the SQL Migration to Azure Workshop, CDW will assist you reviewing your current on-premises SQL infrastructure and plan a logical migration strategy to a next-generation SQL infrastructure.

- **ITSM Simulation/Executive Visioning Workshop:** This high-energy, "gamification-style" workshop is used globally by executive teams of Fortune 500 organizations and government departments. Participants are given roles in a sub-optimal business unit in which they have to respond to real, everyday challenges and transform processes and underlying technology that meet the needs of the business. Results improve as each round concludes. Participation from your entire team ensures the best results. This engagement helps you identify in real time how political, business, process and technology issues intermingle and affect overall business results. As a result of this service, you

will achieve better alignment between leadership and staff as it relates to both process and internal cooperation and learn to work better together as a team so that projects succeed.

- **ServiceNow Maturity Assessment and Roadmap:** Ensure the ongoing maturity and adoption of your ServiceNow instance with our specialized Maturity Assessment. This assessment builds a "just-in-time" path, from current state to a recommended future state, outlining the best-fit journey for you. This is an Advisory Services-led engagement that infuses a best-practice view of the future, incorporates a business-led approach and then designs a custom plan for ongoing ITSM and toolset maturity.

- **Organizational Change Management Planning Workshop:** This three-day workshop teaches participants the OCM framework for managing the effect of change on an organization, including new business processes, changes in organizational structure, overcoming cultural hurdles within an organization and more. We accomplish this through an approach that is based on the five-step ADKAR framework in order to help you deal with the human-aspect of change management: Awareness, Desire, Knowledge, Action, Reinforcement.

- **Process Alignment Workshop:** Led by CDW Advisory Consultants, this half- or full-day Process Alignment Workshop is grounded in ITIL and industry best practices. Process improvement consulting is critical for organizations wishing to advance their process maturity and improve IT service delivery responsiveness, maintain consistent levels of service, and increase customer satisfaction. Instead of reinventing the wheel, we'll focus on new processes that are in-scope for your project, aligning with your existing processes in order to work together at all levels. These

Next Steps

An in-depth discussion with CDW can provide you with more insight into the importance of this work and help determine how much effort will be required. Contact your CDW account manager to speak with one of our solution architects.

CDW AMPLIFIED™ SERVICES

CDW Amplified™ OS and Apps
Operating Systems, Applications and Services (continued)

workshops can stand alone, or be done in conjunction with a ServiceNow implementation, resulting in a significantly more effective Discovery workshop.

- **Process Engineering Engagement:** Process engineering supports maturity and business growth. With a focus on value creation, our workshop helps you align your existing processes with business goals and strategies to identify key areas for improvement. We'll work together to develop a process design and a maturity plan using industry best practices and real-world experience.

- **Service Management Executive Coaching:** This monthly or quarterly executive-level service management coaching provides guidance on an annualized basis for your executive sponsor and direct reports. It is executive-level coaching designed to provide a check and balance as you determine important steps of maturity, growth and transformation. You will leverage the full depth of our experience to execute on your roadmap and target important business objectives through interactive dialogue and sounding boards.

- **ServiceNow Authorized Training:** Build team credentials and realize ROI faster with ServiceNow-authorized training courses. Instructor-led and highly interactive, our ServiceNow courses help you expand your knowledge and propel you further down the path to ServiceNow expertise — all from the comfort of your desk. This training helps drive adoption, increase productivity and create consistency throughout your IT organization.

- **Service Taxonomy Workshop:** This three-day interactive journey will guide participants through the process of aligning IT service delivery with business needs and priorities. They will gain greater awareness of how

business services impact IT operations from a macro perspective. In the end, we help them build a useable service taxonomy model based on their specific services, and help them become self-sufficient in maintaining and maturing that business service taxonomy and CMDB. Our Advisory Service consultants help you define and document your organization's services and provide your team with the experience to easily handle continued updates and enhancements.

Orchestrate Implementation/Adoption

- **Active Directory Federation Services:** CDW offers a variety of AD Federation Services, including Mini Design (an abbreviated design session for deployments in the simplest scenarios), Planning and Design (a complete discussion and design session covering all AD FS topics), Build (deploy two internal AD FS servers and two AD FS proxy servers, either on-premises or in Azure), and Configuration of trusts and claims transformation rules.

- **Microsoft Identity Manager (MIM) Pilot:** CDW can provide a pilot production deployment of MIM based on design we provided for your organization. CDW can assist with configuring additional identity workloads as needed and will work with you to determine the full scope of the engagement.

- **Public Key Infrastructure (PKI) Services:** The Microsoft PKI Services include modules to assist in the design and deployment of Certificate Services to resolve a number of issues, representing work ranging from design to deployment, enabling a number of key technologies.

- **Windows Server DirectAccess:** This engagement will provide you with a

clear vision and high-level conceptual DirectAccess architecture. CDW can assist with either a pilot or production deployment of the architecture determined during the design portion of the project.

- **Microsoft System Center Operations Manager Pilot:** This engagement will assist customers with the planning, designing and piloting of Operations Manager. The offering has different lengths depending on the topics and features that are configured. It can be a full production-ready environment or a Proof of Concept deployment depending on the length of the engagement. This service will assist in providing best practices and knowledge transfer so your organization is maximizing the benefits of an Operations Manager deployment.

- **Microsoft System Center Orchestration Pilot:** This engagement will assist your organization with the planning, designing and piloting of Orchestrator, which is a workflow management solution for the data centers. The offering has different lengths depending on the topics and features that are configured. It can be a full production-ready environment or a Proof of Concept deployment depending on the length of the engagement. This service will assist in providing best practices and knowledge transfer so your organization is maximizing the benefits of an Orchestrator deployment.

- **Microsoft System Center Service Manager Pilot:** This engagement will assist your organization with the planning, designing and piloting of Service Manager. The offering has different lengths depending on the topics and features that are configured. It can be a full production-

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ready environment or a Proof of Concept deployment depending on the length of the engagement. This service will assist in providing best practices and knowledge transfer so your organization is maximizing the benefits of an Orchestrator deployment.

- **Microsoft Windows Server 2008 End–of–Support Services:** As Microsoft has been warning, Windows Server 2008 and 2008 R2 will reach end–of–support phase on January 14, 2020. Organizations that are running Windows Server 2008 will need to assess the impact, in terms of both the risks and benefits. Microsoft has announced that for Windows Server 2008 servers that are migrated to Microsoft Azure, they will provide extended support for an additional three years. The Windows Server 2008 End–of–Support engagement helps you gain a clear understanding of how to manage application incompatibilities that could arise from an upgrade from Windows Server 2008 or 2008 R2 and provides a roadmap for remediation of application compatibility issues in preparation for migration to Windows Server 2012/2016 or to Microsoft Azure. CDW can then assist your organization in the testing, remediation, validation and migration of applications to Windows Server 2012/2016 or to Microsoft Azure.

- **Microsoft SQL Server 2008 End–of– Support Migration:** As Microsoft has been warning, SQL Server 2008 and 2008 R2 will reach end–of–support phase on July 9, 2019. Organizations that are running SQL 2008 will need to assess the impact, in terms of both the risks and benefits. The risks are numerous. End of support means that Microsoft will no longer develop or release security patches

or fixes. Additionally, you will no longer be able to call Microsoft and get technical support. Should you have a Microsoft SQL Server 2008 server misbehaving, you will be on your own. The risks fall into two broad categories — regulatory and downtime. Your unsupported Microsoft SQL 2008 servers might not meet PCI, HIPPA, SOX or other regulatory audit requirements. This can create significant costs or problems for your business. Even if regulatory audits are not a concern, the downtime risks are. Now that Microsoft will no longer provide support, your organization could incur significant costs in the event of downtime.

- **Configuration Services:** Technology products don't come off the assembly line ready to work for you. They must be custom–configured to meet your organization's unique needs and specifications. That's not as easy as it sounds. It takes time and expertise that your IT team might not have. CDW has a wealth of experience in satisfying customers' needs for BIOS and Firmware Upgrades/Downgrades and Configuration, Server Network Operating System Installation, Server Imaging, iOS and Android MDM Enrollment, Software Installation, Server Rack Configuration and Asset Management Services.

- **ITSM Jumpstart:** The ITSM Jumpstart is a six–week, start– to–finish ITSM implementation that leverages out–of–the–box functionality, combined with best practice guidance, to jumpstart your organization's time–to–value. It's a cost–effective approach that leverages pre–packaged experience and proprietary tools to accelerate timelines and maximize results for an ITSM Solution. With two weeks

of onsite, interactive development and show backs, the CDW approach is a comprehensive program that provides quick results with effective use of resources.

- **ServiceNow End–User Instructional Videos:** Educate users on how to perform basic functions within ServiceNow. Created with the end user in mind, these are short, non–technical, narrated videos that use screen recordings to demonstrate the specific actions end users will need to perform to submit tickets, check statuses and receive assistance. At one to two minutes in length, these videos are easy for your end users to watch and digest.

- **ServiceNow Go–Live Launch Promotion Video:** Raise the bar (and the brand) of IT in your organization when you deploy a TV commercial style promotional video to build excitement for your new implementation or updates to ServiceNow. These videos are professionally scripted and produced, in coordination with you and your team, to promote the key message you want people to get about your initiative. These launch videos are informative but pack a punch. Your video will be easy for employees to watch and share. We'll turn the messaging that's important to you into a 90–second to 3–minute script, including narration, in order to boost awareness, secure buy– in, and drive better organization–wide adoption rates.

- **One–Day ITIL Awareness Workshop:** This engagement educates and informs leadership by using case studies from organizations around the globe that have successfully implemented ITIL. We take a high–level, results-oriented approach to the people, process and platform elements of the service improvement in order to convey: key concepts of ITIL; practical guidance for applying ITIL to everyday IT situations; how to align with business, control

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costs and improve IT service quality; strategies to balance IT resources with business needs and objectives; and the role of technology and how to maximize its value.

- **Three–Day ITIL Foundation Course:** This engagement covers all material specified in the ITIL Foundation certificate and prepares attendees to successfully achieve their Foundation certification. We infuse real–world examples throughout and discuss overcoming the practical challenges and barriers to implementing process improvement. All of our instructors are ITIL experts and have years of hands–on IT practitioner experience, enabling them to effectively intertwine theory and real–life stories and scenarios. Every Foundation class attendee will participate in activities that bring the concepts and processes to life in a fun, fast–paced way that reinforces memory and prepares them for success on the exam.

- **Prepaid Blocks:** CDW prepaid support blocks provide the support you need, purchased in 100– or 500–hour increments and fulfilled by a dedicated ServiceNow–certified Technical Consultant. Prepaid blocks give you access to our development experts for any issues or questions that arise around your ServiceNow initiatives. Hours in prepaid blocks are good for a full year, and rates are guaranteed for the duration of your contract.

- **ServiceNow Implementation Add–Ons:** A ServiceNow implementation is a major organizational undertaking. Beyond configuration and go–live, you will likely still need assistance in other mission–critical ways. Proper testing, training, documentation and knowledge transfer is necessary for success. While some organizations have the internal resources to carry a large part of the load and get the most out of the new platform, many do not. CDW's ServiceNow Solutions team

offers four specialized add–on services, all based on industry best practices, that will give your implementation a boost — while making the transition smoother and more complete. The add–on services to choose from are: Consultant–Led Application Training: User Acceptance Testing (UAT) for ServiceNow applications, facilitated by expert implementation consultants; Consultant–Led Fulfiller Training: We'll conduct a series of training sessions customized to your organization's ServiceNow implementation, explain how processes have been designed and configured and how the end users will utilize the system; Configuration Documentation: Detailed documentation of all configuration changes we've made to your instance during the project; and Admin Knowledge Transfer Workshop: Interactive remote sessions with your system administrators to transfer knowledge at the end of the project.

- **ServiceNow Implementation:** Your ServiceNow implementation is in the best hands with CDW's ServiceNow Solutions team. We have the expertise and experience to help you with both IT and non–IT applications, configured for your current processes and aligned with ITIL best practices. You'll have the peace of mind of working with one of the highest ranked partners in the ServiceNow partner community. Using a proven methodology — SAIF (ServiceNow Adaptive Implementation Framework) — our delivery experts guide you through the entire implementation process effectively and efficiently. We deliver custom applications and keep your team involved and interacting from start to finish. We have an expert project team working on your implementation, including an Engagement Manager, a Business Process Consultant and a Solution Architect, all committed to making your implementation as smooth as possible.

- **ServiceNow Upgrade Assistance:** Upgrading can feel like an uphill climb. We can help take the anxiety and difficulty out of planning, preparing and migrating successfully to the next sequential release of ServiceNow, using ServiceNow's proven six–phase approach. We'll verify custom applications along the way or implementing new ones if necessary. Upgrades to additional instances or upgrading more than one release version may be purchased, as needed.

- **SmartTeam Staff Enhancement Services:** With SmartTeam Staff Enhancement, CDW provides you with a dedicated ServiceNow–certified Support Services team member, who will join your IT team for up to five days per week. You'll have more time to attend to the larger issues of maximizing ServiceNow's impact on your business. Enhance your team with ours and get the project over the finish line.

- **SmartScan:** As more applications are implemented within your ServiceNow platform, it is imperative that the instance continues to be optimized for growth and scale without degrading performance. SmartScan is a thorough evaluation of your ServiceNow platform to ensure best practices are in place to give you the greatest return on investment.

- **Roadmap Calibration:** As your use of the ServiceNow platform adapts and grows, it's important to look at your current roadmap to decide if it's still an actionable plan that can keep growing with you. Roadmap Calibration is a four–day engagement during which CDW Advisory Consultants will conduct a review that focuses on updating your initial maturity assessment in order to deliver a multi–year, multi–phase view in identifying opportunities, benefits and investment levels, and subsequently design a recommended approach for the

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ongoing maturity and adoption of your ServiceNow platform.

- **ServiceNow Asset Management Automation Services with CDW:** With our new ServiceNow Asset Management Automation Services, CDW will provide you with a real-time, JSON-based push process to send Asset Management data from our system to your ServiceNow environment. With over 30 fields of information on every CDW order built in and delivered in real time, a simple, quick setup done in as little as 2–3 weeks, and professional resources available to you if you need them, we will get you on the path to Asset Management success.

- **ServiceNow DevOps Solution by CDW:** Transformation is driving DevOps, but organizations are struggling to scale DevOps and see value. While small teams are making progress, the overall delivery lifecycles are not speeding up and reliability problems remain. Managing the process and measuring the impact of DevOps eludes most organizations. CDW helps you leverage ServiceNow's end-to-end service management platform to expedite the DevOps lifecycle, from ideation to production, while supporting continual feedback from customers and incidents, problems, and changes. Our goal is to help you use your existing toolchains that you are both skilled and comfortable with, and to provide you with a data model that allows our platform to ingest all the data we need to provide analytics, change creation and policy checking, and automation across the toolchain. In short, we help you manage risk while going fast, bridging together the speed and agility of DevOps and the safety and assurance of regulations.

- **ServiceNow Integration Service:** Every IT solution is unique. That's why CDW takes an "API First" approach to deliver customized solutions and integrations

to meet our customers' business requirements. This service has been created to help our customers get started quickly and realize the value of having a common system of insight in ServiceNow. With this service CDW will integrate any system via pre-built connectors or a web service-based API enabling data to flow into ServiceNow. We then work with you to identify a use case that solves a real IT challenge to demonstrate the value of these types of integrations.

- **Modular Assessment Services by CDW:** As IT leadership, you want to make more of an impact by growing systems to help make good business decisions by providing data that is consistent and reliable. More trust in best practices and alignment within groups are required to mature the operation. CDW's Modular Assessment Service is a uniquely tailored engagement that clearly identifies organizational pain points and then recommends remedial actions to help you meet your IT and business goals. Our Advisory Services Consultants are IT leaders who have been in your shoes, and using a proven methodology, they'll help you identify and heal those pain points to get you on the path to success.

- **ServiceNow IT Financial Optimization Solutions by CDW:** CDW's ServiceNow IT Financial Optimization Solutions are uniquely tailored to clearly identify opportunities for smarter collaboration, greater optimization and clearer demonstration of IT investment results. We'll help you leverage ServiceNow's end-to-end service management platform to optimize your existing investments, streamline investment strategies and transform manual processes for tracking IT financial information into modern digital workflows, while demonstrating what IT services are being provided to every department/business unit.

Our goal is to help you transform IT from a cost center with unquantifiable benefits into a strategic partner that can clearly articulate IT's value to both the finance and business unit leaders. With this solution, IT and finance teams get the information they need, when they need it.

- **SAM JumpStart:** The Software Asset Management (SAM) JumpStart is a six-week, start-to-finish SAM implementation that leverages out-of-the-box functionality, combined with best practice guidance, to jump-start your organization's time to value. This is a cost-effective approach that leverages pre-packaged experience and proprietary tools to accelerate timelines and maximize results for a SAM solution. With interactive workshops and continuous improvement included, the CDW approach is a comprehensive program that provides quick results with effective use of resources.

Manage

- **CDW Managed Patching Services for Windows:** Our highly skilled engineers will help in assessment, implementation and ongoing management of your Microsoft Endpoint Configuration Manager environment with our Managed Patching Services for Microsoft Servers and workstations, which can include the support for third-party software products. We begin with a review of the health of your Microsoft Endpoint Configuration Manager environment by performing a thorough examination of both the design and administration. This professional assessment of the current Microsoft Endpoint Configuration Manager environment will identify gaps in design while introducing best practices for a successful and fully automated and

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optimized deployment. Let CDW Managed Services maximize your Microsoft Endpoint Configuration Manager deployment and investment. Once complete, you can be assured your organization will have a successful deployment that mitigates against vulnerabilities and threats, satisfying both business leaders and technology stakeholders alike.

· **SmartAdmin:** Is your ServiceNow platform being underutilized? Do you want to get more out of ServiceNow but don't have the internal resources? With SmartAdmin, CDW provides program management, implements enhancements and oversees platform maintenance and customer service while you attend to the larger issues of maximizing ServiceNow's impact on your business.

· **SmartCIP:** Continuous improvement gives you the satisfaction of knowing that you have help if and when you need it. It ensures increasing ROI by providing continued development and support from ServiceNow-certified developers. These resources provide best practice consulting with an eye toward the future and a focus on utilizing the ServiceNow platform to its fullest potential. Using CSI (Continuous Service Improvement) principles, SmartCIP focuses on improving Service Management in your organization. Our Support Services consultants meet with you to provide the resources, impetus and accountability necessary to keep improvement initiatives from being lost in the clutter of the many demands on your time.

· **SmartPDC Application:** Increasing regulations and audits make data loss prevention critical. But when staff and job roles are constantly shifting, how do you ensure data policy

compliance? Our PDC Application creates a step-by-step process within ServiceNow to redact data that must be private. SmartPDC takes data redaction to an entirely new level, giving you more control over who sees what than ever before. You can set privacy rules, get custom notifications, request or grant access to secured records and more. Administrators can assign review and release groups, securing the access and release of sensitive records. They can also receive custom notifications for access requests. SmartPDC creates a step-by-step process within ServiceNow that is dynamic and robust, yet easy to maintain, helping you ensure data compliance at every level.

Additionally, CDW can take responsibility for the tasks associated with monitoring, upgrades, maintenance, reporting and hardware incident management for products from Microsoft, IBM, Oracle and Red Hat. To best meet your organization's needs, you can choose from three tiers of support, all powered by our redundant 24/7 Enterprise Command Centers (ECC).