# CDW Amplified™ Services

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Technology Services solve your unique challenges and capitalize on new opportunities. From roadmaps to adoption to project deployment and lifecycle management, the experts at CDW bring years of experience to help you design, orchestrate and manage your technology environments.

Get More From Your Technology

No matter where you are on your technology journey, CDW’s full lifecycle of services supports your internal team and helps you focus on your business goals.

**DESIGN**
Using a wide breadth of tools, data and years of expertise, we offer guidance and workshops with CDW engineers that assess your specific needs and make recommendations to address gaps and optimize growth.

**ORCHESTRATE**
Our expert engineers configure and deploy your solutions to help you implement the right technology and ensure it works the first time. We create a roadmap to ensure you’re fully utilizing your technology solutions and receiving expected value.

**MANAGE**
Save time and money or augment internal IT team bandwidth with our 24/7/365 support and expert management of any aspect of your technology solutions.
Overview

CDW AMPLIFIED™ Infrastructure Services
Today, applications need to scale rapidly, and users need access to complex data at increasing speeds. It takes precise planning and execution to build a standards-based infrastructure that meets business needs. CDW Amplified™ Infrastructure services provide expertise, tools and resources to scale and future-proof your data center architecture. We help you upgrade your existing architecture and prepare for what’s to come, whether you’re on-premises, migrating to the cloud or already there.

CDW AMPLIFIED™ Workspace Services
Security challenges, multiple tools and lack of resources can make it difficult to deliver the real-time collaboration experiences that employees expect. CDW Amplified™ Workspace services provide a comprehensive approach that allows employees to work from anywhere, on any device. We enable you to build a communications platform that grows with you, is rapidly adopted by end users and helps you improve business outcomes through seamless collaboration.

CDW AMPLIFIED™ Development Services
Growing technical debt in your application stacks and software delivery processes can bring your organization to a halt. Modern, cloud-native technologies and industry-leading best practices allow you to develop applications that revolutionize your infrastructure and solve business issues. CDW Amplified™ Development Services can modernize your applications, streamline delivery through DevOps, and write custom, cutting-edge apps that drive your business.

CDW AMPLIFIED™ Security Services
Cybersecurity risks are higher than ever, and organizations require continuous defense, detection and dynamic responses against evolving threats while maintaining industry compliance. CDW Amplified™ Security services provide independent evaluations of your security posture and help you fortify your weaknesses. Our certified experts design comprehensive strategies and solutions for protection and response. We orchestrate advanced network defense techniques such as next-generation firewalls, advanced endpoint protection and network visibility, content security, policy and access and more. And we manage solutions for complete threat visibility.

CDW AMPLIFIED™ Support Services
IT teams are busier than ever — they aren’t just keeping the lights on for everyday technology needs, they’re driving innovation across organizations. IT teams no longer have time to drop everything for every broken laptop or lost password. CDW Amplified™ Support services deliver custom warranty, maintenance and support services that augment your IT staff so they can focus on maximizing business outcomes.

CDW AMPLIFIED™ Data Services
Making data-driven decisions in a competitive market takes a comprehensive data strategy and a modernized data warehouse. CDW Amplified™ Data Services, including artificial intelligence (AI) and machine learning (ML) services, offer actionable insights that give you a stark competitive advantage. Design, build and deploy modern data analytics and AI/ML solutions for storing, transforming, discovering and operationalizing your data.
CDW Amplified Services at a glance:

**EXPERTISE PLUS EXPERIENCE**
Our deep expertise across a full range of integrated technology solutions backed by deep industry specialization allows us to provide flexible, end-to-end services to our customers. Our on-demand resources provide the assistance and scale your IT team needs — freeing them up to focus on delivering bottom-line value and innovation.

**HOW WE DO IT**
We get that every IT solution is unique, and that its delivery must be customized to meet your specific needs. In tandem with industry-leading partners, our highly experienced architects, engineers and project managers will work with you to design, orchestrate and manage solutions that meet your needs and help you reach your IT goals.

**OUR SERVICES**
From configuration and maintenance to advanced engagements across infrastructure, workspace, security, data, development and support, CDW has the expertise you need to help with everything. Our technical support and professional services experts, architects and engineers give your IT team the time and focus they need to turn IT into a competitive advantage.

**OUR VALUE**
We know IT. That’s our business. When you partner with us, we take the extra load off of your IT team so they can focus on innovating while your organization maximizes its IT investments — all while delivering real value for your customers.

CDW Local touch, multinational reach
CDW Services offer you an unusual combination: the close relationship and easy access of a local provider who understands your IT environment inside and out, and the scale, efficiency and resources of a multinational provider.

**LOCAL ATTENTION**
CDW is headquartered just outside of Chicago, Ill., and we have 30-plus local branch offices throughout the United States and Canada. So, chances are, we’re within driving distance of your office. And even if you’re located in an area without a local CDW branch, our network of trusted service providers — all trained to follow the same consistent approach, processes, methodologies and professional manner of CDW-badged engineers — ensure that your organization will still get the full attention and resources it deserves.

**NATIONAL SCALE**
For U.S. customers, our operational footprint is abundantly national, with offices located in every region and two state-of-the-art distribution centers strategically located for the fastest possible service. We have full redundancy, eProcurement integration and provider consolidation available to further increase our cost and service efficiencies. In addition to our local branches, we have over 1,100 services professionals and a fast-growing network of trusted service and solutions partners. In fact, because of our national scale, CDW is able to identify areas of emerging need for our customers and then ramp up our expertise and resourcing in those areas.

**MULTINATIONAL REACH**
CDW is expanding its unique expertise and experience around the world, with offices in the Asia-Pacific region, the U.K. and Ireland, the Middle East and Africa, along with a supply chain and logistics capabilities that extend into more than 100 countries. As a result, CDW is now able to extend its solutions and services deep into international markets.
Today, applications need to scale rapidly, and users need access to complex data at increasing speeds. It takes precise planning and execution to build a standards-based infrastructure that meets business needs. CDW Amplified™ Infrastructure services bridge gaps in expertise, tools and resources to scale and future-proof your data center architecture.

**CDW Amplified™ Networks**
- Data Center Networking
- Enterprise Networking

**CDW Amplified™ Hybrid Cloud**
- Cloud
- Hyperconverged Infrastructure

**CDW Amplified™ OS**
- Operating Systems, Applications and Services

**CDW Amplified™ Data Center**
- Software-Defined Data Center — Virtualization, Storage and Compute
- Next-Gen Backup
- Data Center Migration and Optimization Services
- Compute and Storage
- Power and Cooling
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 Hypervisor), 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
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.
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/Silver Peak
- 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**
- **Advisory Workshops:** CDW will provide a workshop to educate and validate readiness for advanced solution deployment such as SD-WAN, DNA-Center, and Software-Defined Access. As a result of this engagement, your organization will be better positioned to make an educated decision on your go-forward strategy.
- **Network Health Checks and Assessments:** CDW will assess your overall network infrastructure and report back detailed findings and recommendations. The deliverables include a network inventory report, topology map, and configuration details such as QoS and Multicast. As a result of this engagement, your organization will have a list of items to enhance your network environment to achieve your desired business outcomes.
- **Wireless Surveys:** CDW will survey your wireless service area and provide recommendations for access point placement to ensure a service level appropriate to your business needs. CDW can provide surveys for new deployments, redesigns and validations for organizations looking to ensure top quality wireless performance.
- **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. The deliverable is a low-level design to be used for deployment.
- **Software-Defined 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 projects including wired and wireless, CDW has done it. CDW can provide any level of engagement required by a customer. CDW implementation services span from consultative deployment assistance, to turn–key deployment services. The outcome is a deployed solution implemented to the industry’s best practices and designed to provide the desired business outcomes.

• Adoption Services: 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. The result of this engagement will be your organization getting the most value out of your investment.

• 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.

• DNA/Software–Defined Access Path to Pilot: This engagement provides your organization with the DNA QuickStart, Software–Defined Access planning and design, and Proof of Concept for a lab or non–production site. This includes one WLC and an ISE server with a very basic configuration to assist you with basic testing of the solution. The result of this engagement allows you to validate that the solution provides the desired business outcomes.

• 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, Aruba, Silver Peak and Cradlepoint solutions.

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.
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 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 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 organization.

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 archivial 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**

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

- **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
CDW Amplified™ Hybrid Cloud
Cloud (continued)

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 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 regard 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 Security Posture Assessment:** Adopting new cloud services can accelerate digital transformation across industries, sometimes the move to the cloud presumes a certain level of inherent security that is not actually present. 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 Security Posture Assessment (CSPA) Specialists 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.

- **VMC on AWS Proof of Concept (POC):** The POC is a vital step on your hybrid cloud journey to determine how VMC on AWS can be leveraged to extend infrastructure agility and availability into the cloud. The POC can help identify any potential issues in migrating onto VMC on AWS, and success is measured by a small-scale, 30-day deployment. Successful deployments can also be promoted to full-scale production instances at the conclusion of the POC.

**Orchestrated Implementation/Acceptance**

- **CloudEndure DR for AWS:** This service will help you design and implement a disaster recovery solution in AWS using CloudEndure DR. It supports on-premises to cloud, cross region, and cross cloud use cases. The service includes: discovery of your environment, AWS infrastructure build, implementation, validation, technical documentation, and a failover and fallback runbook. Let CDW help you realize your desired business outcomes to ensure business continuity.

- **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
CDW Amplified™ Hybrid Cloud
Cloud (continued)

CDW can assist with

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 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...
CDW Amplified™ Hybrid Cloud

CDW Amplified™ Hybrid Cloud (continued)

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 management.

- **Microsoft Windows Server 2008 End-of-Support Services**: Microsoft Windows Server 2008 and 2008 R2 reached end-of-support phase on January 14, 2020. Organizations that are running Windows Server 2008 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**: Microsoft SQL Server 2008 and 2008 R2 reached end-of-support phase on July 9, 2019. Organizations that are running SQL 2008 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 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-
CDW Amplified™ Hybrid Cloud

Cloud (continued)

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 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.

- **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, updates, maintenance, configuration and reporting for your Azure environment; managed by our 24/7 Enterprise Command Center (ECC). CDW’s Azure-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.
It’s not hard for traditional data centers to sprawl into a disjointed hoard of equipment. On top of high-maintenance, outdated technologies, a growing hodgepodge of nonuniform systems can hinder performance and growth within your organization.

That’s why no data center remodel is complete without converged infrastructure — which combines servers, data storage, networking equipment and software into a single unified computing system. Our solutions will keep your organization prepared for growth at a moment’s notice.

**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 Hyperconverged Infrastructure solution:

- Tightly integrate your servers, storage, networking and software components.
- Reduce administration costs by minimizing capital expenses and improving operational efficiencies.
- Simplify management with a single platform.
- Improve application performance and availability by improving allocation of resources.
- Streamline support models and offer scalability to meet changing demands.

**Vendors Supported**

- Cisco
- Nutanix
- NetApp
- VMware
- Dell EMC
- Pure Storage

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

**Services**

CDW’s Hyperconverged Infrastructure services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**

- **Data Center Assessment:** CDW will assess your overall infrastructure and report back its detailed findings and recommendations.
- **Planning and Design Services:** CDW will recommend validated reference architectures that utilize converged appliances such as NetApp FlexPod, NetApp HCI, Dell EMC Vblock, Cisco HyperFlex and HyperFlex Edge, Dell EMC VxRail, Nutanix and Cisco/Pure Storage FlashStack.

**Orchestrate**

- **Deployment Services:** When it comes time to implement technologies like NetApp FlexPod, NetApp HCI, Dell EMC Vblock, Cisco HyperFlex and HyperFlex Edge, 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.
- **Cisco HyperFlex Workshop:** With CDW’s Cisco HyperFlex Workshop, you can build a private cloud on-premises in just a few days of work. CDW engineers will guide you through a proven process that takes your new equipment from in the box, to ready for workload. We’re not just going to get your new environment running, we are going to mentor you through the process and teach you how to operationalize the new solution. We’ll provide everything from cabling and logical drawings to operational guides and testing. When we’re done you’ll have a complete package for your operations team to start utilizing Cisco HyperFlex.

**Manage**

We offer hosted private clouds that run on managed Cisco HyperFlex, Nutanix and VMware vSAN infrastructures and are hosted in your data center, one of our own data centers or in a third-party data center. 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).
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™ Data Center
Software-Defined Data Center — Virtualization, Storage and Compute (continued)

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 Hypervisor), 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/Acceptance**

- **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.
This engagement expands Cisco's CDW's CDW AMPLIFIED Software-Defined Data Center — Virtualization, Storage and Compute (continued)

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

• **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 Jumpstart**: 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 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).
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 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.

**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 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).
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.

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.

Orchestrate
Implementation/Adoption

- 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.

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.
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.

**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
- Rubrik
- 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.

**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.

**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).

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.

- **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.

800.800.4239 | CDW.com/cdwservices
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.

**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.

**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.
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.

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

**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. Enablers include best practices and enabling 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. Auxiliaries 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 Tuning, 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 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 ways to modernize their data platforms and reduce the costs and complexity of managing SQL Server. CDW can help organizations migrate their SQL Server workloads to Azure, providing a comprehensive solution for moving SQL Server to the cloud.
CDW Amplified™ OS
Operating Systems, Applications and Services (continued)

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 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

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**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™ OS
Operating Systems, Applications and Services (continued)
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.

- 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 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.

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 Orchestration, 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 Orchestration 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-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:** Microsoft Windows Server 2008 and 2008 R2 reached end-of-support phase on January 14, 2020. Organizations that are running Windows Server 2008 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:** Microsoft SQL Server 2008 and 2008 R2 reached end-of-support phase on July 9, 2019. Organizations that are running SQL 2008 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 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 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 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.

- **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 cost-effective approach leverages experience and proprietary engagement methods to accelerate timelines and maximize results for a SAM solution. Leveraging platform overview and configuration alongside key stakeholders as well process demonstrations for customer agents, the CDW approach is a comprehensive program that provides quick results with effective use of resources.

- **CSM JumpStart**: The Customer Service Management (CSM) JumpStart is a seven-week, start-to-finish CSM implementation that leverages out-of-the-box functionality, combined with best practice guidance, to jump start your organization’s time-to-value. This cost-effective approach leverages experience and proprietary engagement methods to accelerate timelines and maximize results for a CSM solution. Leveraging platform overview and configuration alongside key stakeholders as well process demonstrations for customer agents, 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 Windows: Our engineers can help improve 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 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.

- **CDW Managed Database Services**: CDW is your trusted partner for all of your organization’s database needs supporting Microsoft SQL Server, Oracle, MySQL and PostgreSQL through our Managed Database Services. From installing the database software to managing complex high-availability solutions, we have it covered. Our team of expert database administrators (DBAs), with over 25 years of experience, can be the eyes on your mission-critical databases 24/7/365. CDW provides three options for database administration and managed services: Gold, Silver and Bronze. Our holistic approach to IT management allows you to select the service tier that best supports your individual business goals and current capabilities.

- **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.
CDW Amplified™ OS
Operating Systems, Applications and Services (continued)

- **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.

- **Safe Workplace Rapid Implementation Services by CDW**: Returning to our workplaces will require preparation to get everyone ready, and then ongoing management to keep everyone safe. ServiceNow’s Safe Workplace Apps are designed to coordinate these activities and support a consistent and compliant approach across the organization. With CDW’s Rapid Implementation Services, you can be up and running in as few as 1-2 weeks, ready to support employee readiness, PPE inventory, workplace distancing, and tracking and managing activities. 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).
Rapid advances in mobile technology allow for real-time collaboration, but without a detailed plan, gaps in security and productivity disrupt both employee and customer experiences. CDW Amplified™ Workspace services employ a comprehensive approach that enables employees to work from anywhere, on any device.

**CDW Amplified™ Collaboration**
- Communications
- Messaging and Conferencing
- Video
- Engagement — Contact Center
- Business Applications
- Portals and Content Collaboration

**CDW Amplified™ Endpoint**
- Mobility
- Management and Security: Unified Endpoint Management
- Management and Security: Mobile Workspaces
- Managed Print Services and Printer Supplies Program
While various communication technologies have arrived to add new capabilities such as text, instant messaging, email and video, the foundation of voice telephony is still at the core of an effective collaboration solution. Your organization needs a fundamentally sound voice framework into which all other forms of collaboration can be built. CDW’s experts can help you navigate this complex area and design a telecommunications solution that fits your current and future telephony needs. We start by determining how your users work and then customize a solution to both your user needs and your business goals.

Solution Benefits
Your organization can achieve the following by employing a CDW Communications solution:

- Increase efficiency and reduce costs for both your business processes and operations by communicating more efficiently.
- Maximize your existing infrastructure and gain the ability to scale when you need to.
- Better enable productivity by streamlining your communications and collaboration.
- Adherence to best practices guidelines.

Vendors/Products Supported
- Cisco (Business Edition 6000 and 7000, Unified Communications Manager (CallManager), Unity Connection, Voice Gateways, SIP Trunking, Jabber, Expressway Series and Webex Teams).
- Microsoft (Office 365, Skype for Business Server, Skype for Business Online and Teams).
- Poly
- Singlewire
- iQ NetSolutions
- AudioCodes
- Yealink
- RingCentral
CDW can deliver additional Collaboration solutions by utilizing its vast network of third-party partner services providers.

Services
CDW’s Communications services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Advisory/Assessment
- Collaboration Health Check: We will provide comprehensive analysis and recommendations based on the performance and efficiency of your enterprise’s existing infrastructure.

Orchestrate Implementation/Acquisition
- Deployment Services: CDW can handle production fulfillment, configuration, broad-scale implementation of the telephony technology. We can also assist with the integration and training process.
- Adoption Services: Enabling technology in your organization takes more than just turning on the features. CDW can help with everything from “basic training” for end users and administrators, all the way up through advanced “success management,” which includes envisioning, planning, orchestration, measurement of key performance indicators (KPIs) for your organization, “Champion” and internal marketing programs, and custom classroom-, remote-, and video-on-demand trainings. We will work with you to tailor a solution that best meets your business needs.

Collaboration Security Assessment: We will provide analysis and recommendations based on the performance and efficiency of your enterprise’s collaboration security infrastructure.

Planning and Design Services: These engagements evaluate your current telephony environment and identify opportunities for performance improvements and cost savings.

Emergency Calling Assessment: With the new 911 laws coming into effect, including Kari’s Law and Ray Baum Act, you need to make sure you are compliant and can ensure the safety of your coworkers. The Emergency Calling Assessment service by CDW assists you with making sure your communications platforms are configured correctly, continue to operate, and provide timely and accurate access to emergency services.
CDW Amplified™ Collaboration Communications (continued)

- **Microsoft Teams Voice and Meetings with Adoption:** This service will provide necessary support to make your organization’s transition to real-time communications in Microsoft Teams as seamless and effective as possible, while obtaining all of the benefits of the journey to cloud collaboration.

- **Microsoft 365 — Business Voice Remote Jumpstart:** Microsoft 365 Business Voice is a cloud-based phone system built for small and medium business productivity. It integrates into Office 365 for an all-in-one communication solution that brings together calling, meetings and messaging into a single application: Microsoft Teams. The Microsoft 365 — Business Voice Jumpstart service will provide the necessary support to quickly enable your organization to utilize Microsoft Teams as a calling solution with Microsoft’s Calling Plans, while also obtaining all of the benefits of the journey to cloud collaboration.

- **CDW RingCentral UCaaS Professional Services:** CDW RingCentral Professional Services help you ensure your RingCentral communication services are configured to operate in the most efficient way. Let our experts strategically plan, design and provide the support you need to successfully implement and operate your RingCentral system while minimizing frustration and downtime. Additionally, you also get the peace of mind in knowing that you have the ongoing support and any adoption assistance you may need.

- **CDW Avaya Cloud Office UCaaS Professional Services:** Let our experts strategically plan, design, implement and provide the support you need for all your critical calls and meetings. With CDW Avaya Cloud Office Services, you get the peace of mind knowing that you have ongoing support, outstanding adoption assistance and a partner that will minimize frustration and downtime to you and your end users. CDW has the best practices and standardized methodology for collaboration, the Avaya Cloud Office platform and the needs of your business.

- **Singlewire InformaCast Deployment Services with Integration to a Cisco Collaboration Environment:** The top priority of any organization is the safety of their people. Whether it be from severe weather, unwelcome intruders or active shooters, the ability to notify everyone very quickly can be the difference in achieving a positive outcome. InformaCast integration into a Cisco Collaboration environment transforms your Cisco phones into a powerful emergency notification system. This solution features text and intrusive audio to Cisco phones, overhead paging systems, email, mobile phones, Webex Teams and more. A well-defined API set allowing InformaCast to connect with systems, as well as sensors for speed and reach, complete the creation of an unrivaled mass notification ecosystem. CDW Singlewire InformaCast Deployment Services with Integration into a Cisco Collaboration safeguard your organization by providing top-of-the-industry product expertise. Our custom-developed import tools and tight partner integration ensure a successful, on-budget project that meets your desired safety goals.

- **Singlewire InformaCast Deployment Services with Integration to Microsoft Teams:** The top priority of any organization is the safety of their people. Whether it be from severe weather, unwelcome intruders or active shooters, the ability to notify everyone very quickly can be the difference in achieving a positive outcome. InformaCast Fusion integrated with Microsoft Teams provides the ability to activate emergency messages and manage crisis situations from directly within Teams. CDW Singlewire InformaCast Deployment Services with Integration

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**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.

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CDW Amplified™ Collaboration Communications (continued)

CDW can take on the responsibility for tasks associated with monitoring, upgrades, maintenance, configuration, reporting and hardware and SIP trunk incident management for products from Cisco, Singlewire and IQ NetSolutions. Your voice servers and applications can be remotely supported practically anywhere; on your premises, a CDW data center, or a third-party data center. To best meet your organization’s needs, you may choose from three levels of support, all powered by our 24/7 Enterprise Command Center (ECC).

- **Remote Engineering and Operations Support**: CDW can take on the responsibility for tasks associated with monitoring, upgrades, maintenance, configuration, reporting and hardware and SIP trunk incident management for products from Cisco, Singlewire and IQ NetSolutions. Your voice servers and applications can be remotely supported practically anywhere; on your premises, a CDW data center, or a third-party data center. To best meet your organization’s needs, you may choose from three levels of support, all powered by our 24/7 Enterprise Command Center (ECC).

- **UC Advantage**: You can leverage CDW’s technical expertise using pre-paid hours for 24/7, immediate-response, reactive, remote engineering support for products from Cisco, Singlewire and IQ NetSolutions as well as many other video, conferencing and messaging, and contact center applications. UC Advantage provides your IT operations team with a support safety net of collaboration experts, ensuring that critical outages are solved quickly.

- **Office 365 Support Services**: Provided as part of the O365 CSP program, support services include 24/7 help and “how-to” support, technical maintenance contracts, service disruption issue resolution, bug/product-related issues, and provisioning and post-migration issues through CDW’s Enterprise Command Centers (ECC).

- **End–User Help Desk Support**: CDW can provide a single point of contact for end–user help desk support for Cisco Jabber, UC Manager (Call Manager), Unified Presence, Unity Connection, Webex, Microsoft Office 365 and Skype for Business as well as many other applications. Standard monthly reporting options include service–level agreement report, contact statistics, incident metrics, root cause analysis and end–user satisfaction reporting. Three levels of service are available to suit your business needs.

- **UC Advantage**: You can leverage CDW’s technical expertise using pre-paid hours for 24/7, immediate-response, reactive, remote engineering support for products from Cisco, Singlewire and IQ NetSolutions as well as many other video, conferencing and messaging, and contact center applications. UC Advantage provides your IT operations team with a support safety net of collaboration experts, ensuring that critical outages are solved quickly.

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CDW Amplified™ Collaboration
Messaging and Conferencing

Solution Benefits
Your organization can achieve the following by employing a CDW Messaging and Conferencing solution:

• Increase efficiency and reduce costs for both your business processes and operations by communicating more efficiently.
• Maximize your existing infrastructure and gain the ability to scale when you need to.
• Better enable productivity by streamlining your communications and collaboration.
• Adherence to best practices guidelines.
• Accelerated deployment.
• Your IT professionals can concentrate on your business operations, not deploying the new technology.

Vendors/Products Supported
• Microsoft (Exchange Server, Exchange Online, Skype for Business Server, Skype for Business Online, Teams and Office 365).
• Esna
• Citrix
• Singlewire

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

Services
CDW’s Messaging and Conferencing services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

• Planning and Design Services: These engagements evaluate your current conferencing and messaging environment and identify opportunities for performance improvements and cost savings.
• Cisco Webex Teams Assessment: This engagement will help you understand the path you need to take to get the most out of your investment as quickly as possible. CDW will evaluate your current environment and make recommendations to get your organization up and running.
• Cisco Jabber Readiness Assessment: This assessment will help you get started with Jabber, Cisco’s solution that allows your employees to collaborate anywhere on any device. CDW will evaluate your current environment and make recommendations to get your organization up and running.
• Microsoft Teams Assessment and Jumpstart: This engagement works with business decision-makers (BDMs) and key leadership to enable industry best practices and how best to utilize Microsoft Teams as an innovative collaboration and productivity platform.

Orchestrate
Implementation/Adoption

• Deployment Services: CDW can handle production fulfillment, configuration, broad-scale implementation of the conferencing and messaging technology. We can
also assist with the integration and training process.

- **Adoption Services:** Enabling technology in your organization takes more than just turning on the features. CDW can help with everything from "basic training" for end users and administrators, all the way up through advanced “success management,” which includes envisioning, planning, orchestration, measurement of key performance indicators (KPIs) for your organization, “Champion” and internal marketing programs, and custom classroom-, remote-, and video-on-demand trainings. We will work with you to tailor a solution that best meets your business needs.

- **Cisco Webex Teams Jumpstart:** This engagement is the first step in your organization’s Webex Teams journey. The jumpstart will assist with the planning and design of this collaboration tool that helps connect teams, improve access to information and increase productivity.

- **Microsoft Teams Voice and Meetings with Adoption:** This service will provide the necessary support to make your organization’s transition to real-time communications in Microsoft Teams as seamless and effective as possible, while obtaining all of the benefits of the journey to cloud collaboration.

- **Singlewire InformaCast Migration Service:** This engagement assists you with migrating your InformaCast services from on-premises to cloud via a streamlined process and a CDW-developed migration tool, covering all aspects of the process, both technical as well as change management. Moving to cloud-based Singlewire services allows you to take advantage of the additional features such as mobile integration and centralized mass notification, but getting all of your current workflows and configurations off your on-premises InformaCast Advanced platform can be challenging due to the vast number of messages, groups and different logic that may be hosted there. The CDW Singlewire InformaCast Migration Services ensure that all of your data is migrated to InformaCast Fusion successfully, in a timely, efficient and error-free manner using our custom tools and processes.

**Manage**

- **Managed Collaboration Anywhere Hosted and On–Premises:** CDW’s Managed Collaboration Anywhere solution is a valuable, secure and highly capable communications and collaboration platform that empowers organizations to leverage Cisco’s industry-leading collaboration experiences and tools under a single subscription with Cisco’s Collaboration Flex Plan. CDW fully manages the platform and overall solution for your organization and it allows for a mix and match of deployment models including pure cloud, on–premises, hosted, and hybrid. The solution is fully scalable to account for organization growth, increased user adoption or other events such as M&A activity.

- **Remote Engineering and Operations Support:** CDW can take on the responsibility for tasks associated with monitoring, upgrades, maintenance, hardware incident management, configuration and reporting for products from Cisco and Esna. Your servers and applications can be remotely supported practically anywhere; on your premises, a CDW data center, or a third-party data center. To best meet your organization’s needs, you may choose from three levels of support,
all powered by 24/7 Enterprise Command Centers (ECC). CDW also has you covered for monitoring upgrades, maintenance and reporting for Microsoft Exchange, Lync and Skype for Business through our partners SkyPeak Group.

- **UC Advantage:** You can leverage CDW's technical expertise using pre-paid hours for 24/7, immediate-response, reactive, remote engineering support for products from Cisco and Esna as well as many other voice, video and contact center applications. UC Advantage provides your IT operations team with a support safety net of collaboration experts, ensuring that critical outages are solved quickly.

- **Office 365 Support Services:** Provided as part of the O365 CSP program, support services include 24/7 help and “how-to” support, technical maintenance contracts, service disruption issue resolution, bug/product-related issues, and provisioning and post-migration issues through CDW’s Enterprise Command Centers (ECC).

- **End-User Help Desk Support:** CDW can provide a single point of contact for end-user help desk support for Cisco Jabber, Webex, Citrix GoToMeeting, Microsoft LiveMeeting, Office 365, Office Communicator/Lync and Skype for Business as well as many, many other applications. Standard monthly reporting options include service-level agreement report, contact statistics, incident metrics, root cause analysis and end-user satisfaction reporting. Three levels of service are available to suit your business needs.
High-definition video brings users together and creates a connection that’s impossible to achieve via basic teleconferencing, IM or email.

Video conferencing has become the norm in our personal lives, and it can add real value to our professional ones. From conference rooms to huddle rooms to home offices, we can help define your user experience and recommend a video solution that meets your goals.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Video solution:
- Video conferencing increases efficiency and lowers costs by reducing travel expenses.
- The ability to read body language, pick up on nonverbal cues and gauge visual feedback — all crucial aspects of interpersonal communication.
- Video conferencing can also play a crucial role as a differentiator for a line of business — for example, Telemedicine or Telebanking — or video-enabled customer contact.

**Vendors/Products Supported**
- Microsoft (Office 365, Surface Hub Endpoints, Skype for Business Server, Skype for Business Online and Teams, and Microsoft Teams Rooms).
- Poly (RealPresence Group-series, RealPresence Medialign-series, Microsoft Skype Room-series, RealConnect for Office 365 and on-premises Skype for Business).
- Pexip
- Vyopta (analytics)
- Crestron
- Yealink
- Logitech

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

**Services**
CDW’s Video services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**
- Advisory/Assessment
  - Cisco Video Health Check: We will provide comprehensive analysis and recommendations based on the performance and efficiency of your enterprise’s existing Cisco video infrastructure.
  - Webex Planning and Design Services: These engagements evaluate your current Webex video conferencing environment and identify opportunities for performance improvements and cost savings.
  - Surface Hub Basic: This engagement will help you get the most out of your Surface Hub investment by working with your administration team and project stakeholders to ensure that the environment, rooms, devices and timelines are ready for deployment.

**Orchestrate**
- Implementation/Adoption
  - Webex Deployment Services: CDW can handle production fulfillment, configuration, broad-scale implementation of your Webex video conferencing technology. We can also assist with the integration and training process.
  - Webex Adoption Services: Enabling technology in your organization takes more than just turning on the features.
CDW can help with everything from “basic training” for end users and administrators, all the way up through advanced “success management,” which includes envisioning, planning, orchestration, measurement of key performance indicators (KPIs) for your organization, “Champion” and internal marketing programs, and custom classroom-, remote-, and video-on-demand trainings. We will work with you to tailor a solution that best meets your business needs.

- **Surface Hub Essentials with Adoption:** The engagement will help you get the most out of your Surface Hub investment by delivering enablement activities that cover the Surface Hub journey from unboxing and setup, all the way through targeted adoption and teamwork training for your end users.

- **Poly Endpoint Installation Services:** CDW offers customizable Poly endpoint installation services that can be tailored to an organization’s needs, including envisioning, project management, deployment and adoption — or any combination required to make a deployment successful.

- **Success/Adoption Inspection and Transformation Services:** These services help plan for the continued success of your solution. We track and inspect the measurements that matter from the solution and success plans. Based on the results, we optimize and enhance your solution to drive desired business outcomes.

**Manage**

- **Managed Collaboration Anywhere Hosted and On-Premises:** CDW’s Managed Collaboration Anywhere solution is a valuable, secure and highly capable communications and collaboration platform that empowers organizations to leverage Cisco’s industry-leading collaboration experiences and tools under a single subscription with Cisco’s Collaboration Flex Plan. CDW fully manages the platform and overall solution for your organization and it allows for a mix and match of deployment models including pure cloud, on–premises, hosted, and hybrid. The solution is fully scalable to account for organization growth, increased user adoption or other events such as M&A activity.

- **Remote Engineering and Operations Support:** CDW can take on the responsibility for tasks associated with monitoring, upgrades, maintenance, hardware incident management, configuration and reporting for products from Cisco and Pexip. Your video servers and applications can be remotely supported practically anywhere; on your premises, a CDW data center, or a third–party data center. To best meet your organization’s needs, you can choose from three levels of support, all powered by our 24/7 Enterprise Command Center (ECC).

- **UC Advantage:** You can leverage CDW’s technical expertise using pre–paid hours for 24/7, immediate–response, reactive, remote engineering support for products from Cisco and Pexip, as well as many other voice, conferencing and messaging, and contact center applications. UC Advantage provides your IT operations team with a support safety net of collaboration experts, ensuring that critical outages are solved quickly.

- **Office 365 Support Services:** Provided as part of the O365 CSP program, support services include 24/7 help and “how-to” support, technical maintenance contracts, service disruption issue resolution, bug/product-related issues, and provisioning and post–migration issues through CDW’s Enterprise Command Centers (ECC).

- **End–User Help Desk Support:** CDW can provide a single point of contact for end–user help desk support for Cisco Jabber, Webex, Microsoft Office 365 and Skype for Business as well as many other applications. Standard monthly reporting options include service–level agreement report, contact statistics, incident metrics, root cause analysis and end–user satisfaction reporting. Three levels of service are available to suit your business needs.

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**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.
The way a customer engages with companies has evolved over the years. It is no longer a straight phone call for help. With the proliferation of mobile devices, tablets and whatever new technology comes next, the way customers engage with a company evolves. Growth in engagement centers has reshaped how companies do business, and it is no longer considered a technology for the niche players.

Customer engagement is now seen as a necessity for companies to compete in all verticals of business, and if not done correctly can lead to business failures. From small- to large-sized, all engagement centers have the same requirements in terms of complexity and features. Effectively communicating with your internal and external customers is key to doing business.

Solution Benefits
Your organization can achieve the following by employing a CDW Contact Center solution:

- Best-of-Breed customer interaction with first call resolution.
- Customer Engagement Center Business Analysis.
- Increased coworker efficiencies with use of Multi/Omnichannel solutions. Allow agents to multi-task between email, chat, voice, and any other channel your company uses for customer interaction.
- Simplify agent experience with a single desktop for all customer interactions.
- Tight integrations within a CRM System like SAP, and Salesforce.com.
- Improve customer satisfaction scores using reporting metrics, analytics and quality recordings.
- Enrich customer interaction using mobile device applications and portals.
- Compliance reporting and scoring on your customer interactions.
- Customer self-service portals and interactive voice response (IVR’s).
- Remote experts spread throughout or centralized within your organization. This allows customers to centralize these higher-dollar employees, giving them the advantage of leveraging them remotely through video-enabled contact centers.

Vendors Supported
- Cisco
- eGain Analytics
- Calabrio
- Verint
- 2Ring
- Bucher + Suter
- NovelVox

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

Services
CDW’s Contact Center services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment
- UCCE Planning and Design Services/ Business Analysis: CDW will recommend solutions customized around your organization’s engagement center. Using the Cisco UCCX/UCCE as the base, we can add components and custom integrations with your organization’s current backend systems. This allows us to deliver a one-of-a-kind solution for the engagement center. We can also help with roadmaps and engagement center gap analysis with our uniquely qualified business analysts.

Orchestrate
Implementation/Adoption
- Customer Engagement Center Health Assessments: CDW will assess your current Cisco Customer Engagement Center and report back its detailed findings and recommendations/remediations to issues found during the evaluation.

Engagement Center Deployment and Upgrade Services: CDW will deploy customer engagement centers using Cisco Systems Unified Contact Center Express (UCCX), Packaged Contact Center Enterprise (PCCE) or Unified Contact Center Enterprise (UCCE).
- UCCX: For 400 agents or less.
- PCCE: For 2,000 agents or less which require complex integrations or channels not available with UCCX.
- UCCE: For 12,000 agents or less for engagement centers that require agent count and integrations not in UCCX or PCCE.
- MCA UCCE, Webex CC
Along with the base deployments,
CDW can also customize the solution with tight integrations into your organization’s CRM solution using products from Bucher + Suter or 2Ring. We can deploy products from eGain Analytics to give the customer an Omnichannel-enabled engagement center. Compliance recording, surveys, workforce management, and analytics can be achieved through products from Calabrio and Verint.

Manage

- **Cisco Webex CC**: Webex--CC provides you a simplified path to migrate to the Cisco Cloud. Businesses see challenges with having to maintain their customer engagement solution platform. Moving to Webex--CC allows you to focus on other IT initiatives and reduce the capital costs tied to on-premises solutions. Webex--CC gives the flexibility and features to run your business, such as inbound voice, outbound voice, email and chat. Webex--CC provides the ability to quickly configure and connect with your customers.

- **Remote Engineering and Operations Support**: CDW can take responsibility for tasks associated with monitoring, upgrades, maintenance, hardware incident management, configuration and reporting for products from Cisco, Calabrio, Bucher + Suter, 2Ring and eGain Analytics. Your contact center servers, applications and components can be remotely supported practically anywhere: on your premises, a CDW data center or a third-party data center. To best meet your organization’s needs, you can choose from three levels of support, all powered by our 24/7 Enterprise Command Center (ECC).

- **UC Advantage**: You can leverage CDW’s technical expertise using pre-paid hours for 24/7, immediate-response, reactive, remote engineering support for products from Cisco, Calabrio, Bucher + Suter, 2Ring and eGain Analytics as well as many other voice, video, and conferencing and messaging applications. UC Advantage provides your IT operations team with a support safety net of collaboration experts, ensuring that critical outages are solved quickly.

**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.
How can you get more from your employees and your budget? For many organizations, it means getting a little creative. It means embracing innovation. It means moving software to the cloud with SaaS productivity apps.

CDW can help you select the right productivity app — such as Office 365 or G Suite — and design a customized, scalable solution that grows with your business.

**Solution Benefits**

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

- **Strategies designed for growth:** Our collaborative approach to enterprise mobile apps prioritizes your objectives, budget and timeline. We'll help you design a comprehensive mobile app strategy with simple management tools, robust security and scalable features that can evolve as new technologies emerge.

- **Cross-industry expertise:** We have specialized teams across a number of industries — including retail, healthcare, energy and utilities, and K-12 and higher education. Our experts can help you mobilize existing workflows and unlock new strategies that transform the way your team works.

- **Industry-leading partnerships:** We work directly with top mobility partners, giving you unmatched choice and expertise in selecting the best mobile app solutions.

- **Enterprise-wide uniformity:** All locations are using the correct version of the application software. The availability of applications is increased at every location, and all application transactions are logged for compliance audits.

**Vendors Supported**

- Microsoft Office 365
- G Suite
- HCL Connections

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

**Services**

CDW’s Business Applications services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

- **Design Advisory/Assessment**

  - **Office 365 Envisioning and Advisory Sessions:** We will work with you to align your vision, business goals and needs to create a comprehensive strategy that is focused on business outcomes. The strategy defines the expected end-user experience and considers the current technology investment as the foundation to build upon.

  - **Office 365 Roadmap and Advisory Services:** Deploying Office 365 involves more than just the implementation of a single workload, hybrid, or client and tools. It requires the right people, industry knowledge, broad consultation and processes to deliver success. Understanding Office 365 and how it can make your users and organization run more efficiently, securely and timely can be difficult. CDW has the right people and experience to help set your organization on the right path to fully adopting Office 365 while eliminating common errors that hinder success. This engagement will include deep-dive discussions on key Office 365 services, plus business and technical landscape evaluations. We will conduct line-of-business interactive sessions and share best practices surrounding Office 365 services specific to your business and industry. You will also receive one- to three-year technical remediation and implementation roadmap recommendations, in addition to high-level recommendations on key challenges to avoid specific to your...
CDW Amplified™ Collaboration
Business Applications (continued)

environment and requirements.

- **Envisioning Sessions for Business Process Automation:** This strategic service is customized for your organization. We’ll start by aligning your organization’s goals with a strategy. Then we will develop a roadmap and make recommendations to see that you achieve your business goals after introducing automation to your enterprise.

- **SharePoint Business Process Automation Planning and Design:** A customized service that will take your organization’s business goals into account and result in a plan to automate a process or segment of your organization.

- **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.

- **CDW Chatbot Advisory Services:** Organizations have numerous processes that are manual and/or repetitive. Some processes and tasks require users to access multiple back-ends to answer questions or access information or data. Oftentimes, these require multiple interfaces. With CDW’s Microsoft Teams/Cisco Webex Teams Bots, we can automate, optimize and enhance connectivity to multiple back-ends, creating Chatbots that are accessible from the Microsoft Teams/Cisco Webex Teams platform from anywhere, any time. During the people and process track, we will deliver a user experience demo and envisioning and planning session, which includes defining the business plan, identifying pain points and potential use cases, and defining and prioritizing use cases. During the technology track, we will provide an assessment of your current technical state, and design the bots platform and conversational architecture. The end result will be Chatbots accessible through Microsoft Teams/Cisco Webex Teams, delivering automation and increasing productivity within your environment.

**Orchestrate Implementation/Acceptance**

- **Office 365 Migration Services:** Our customized migration service will help you ensure the seamless and secure transition of your critical IT assets and workloads to the cloud. We can help you migrate your data and processes from your onsite data center to the cloud or even from one cloud to another. This allows you the flexibility to switch providers as needed, ensuring your cloud evolves with your business. After the migration, we’ll test and assess the new environment to make sure everything went smoothly.

- **Office 365 Integration Services:** CDW’s cloud experts understand that different legacy technologies require unique integration approaches. We ensure that all

**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.

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CDW Amplified™ Collaboration
Business Applications (continued)

When planning for cloud migration, the implications of moving to the cloud are anticipated, calculated and handled so your solution will be optimal for you now and as your organization grows. Your Office Productivity Software solution will be tied to your existing infrastructure and processes and will extend your current abilities with unlimited scalability, redundancy, flexibility and control.

- **Office 365 Deployment**: This engagement provides planning, design and implementation services for all or a subset of the following solutions — Exchange Online, Skype for Business, SharePoint Online—Collaboration Suites, SharePoint Online—OneDrive for Business and Office 365 ProPlus.

- **Mobile Application Development Services**: Mobile app development allows your organization to meet stringent requirements around performance, functionality and user experience. Our partner network of Tier 1 developers provides native, HTML5 or hybrid apps based on your needs. Additionally, we offer Mobile Application Development Platforms (MADP) for organizations that want the tools to quickly create, deploy and maintain apps in–house.

- **SharePoint Business Process Automation Implementation**: CDW will act on the results of your Envisioning Sessions and/or Planning and Design engagement and see through the implementation of the business process automation solution. The end result will be an operational system that is sure to save you time and money.

- **Microsoft Teams Adoption and Change Management**: Collaboration solutions are capable of changing the ways members of teams work together, increasing productivity and efficiency. This engagement will help drive large–scale adoption of Microsoft Teams, resulting in the creation of high–functioning teams within your organization. This service will help you maximize your investment in Office 365 by driving effective use of the technology.

- **OneDrive Essential Adoption and Change Management**: Microsoft OneDrive changes the way team members share and collaborate on content. This engagement will help drive large–scale adoption of OneDrive within your organization, allowing your employees to find their content anywhere, at any time, resulting in increased productivity. This service will help you maximize your investment in Office 365 by driving effective use of the technology.

- **Office 365 Adoption and Change Management**: New technology tools and solutions change the way end users work. When your organization switches to a new technology, some end users embrace the change, while others never make the shift. By answering the “what is in it for me?” question at all end–user levels, CDW can help drive large–scale adoption of new solutions. This will maximize your investment in Office 365, as we drive effective use of the technology by all members of your organization.

- **Business Intelligence/Power BI Pilot**: This customized engagement will build and define a vision for business intelligence for your organization. We will design a BI architecture for communicating relevant business data. Typically, your organization can expect to receive scorecards and operational dashboards reporting the data you desire. By working with CDW, you can count on realizing the full value of your business intelligence investment.

- **Adoption and Change Management Services**: CDW can design and prioritize solutions based on desired business and technical outcomes. This will result in solution designs and/or reference architectures. These engagements evaluate your current environment and identify opportunities for performance improvements and cost savings for specific technology solutions and help plan for the continued success of your solution. We track and inspect the measurements that matter from the solution and success plans. Based on the results, we optimize and enhance your solution to drive desired business outcomes.

- **Office 365 Support Services**: Provided as part of the O365 CSP program, support services include help and “how–to” support, technical maintenance contracts, service disruption issue resolution, bug/product–related issues and provisioning and post–migration issues.

- **End–User Help Desk Support**: CDW can provide a single point of contact for end–user help desk support for Microsoft Office 365 as well as many applications. Standard monthly reporting options include service–level agreement report, contact statistics, incident metrics, root cause analysis and end–user satisfaction reporting. Three levels of service are available to suit your business needs.
Many organizations using SharePoint as their content repository are looking for ways to expand the use of the application for more advanced workloads, such as business intelligence, business process improvement and surfacing line of business data.

We can help you take advantage of the opportunity to re-launch SharePoint and improve what it does for your business. Leveraging CDW’s methodology and approach will help you get the most out of your SharePoint environment.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Portals and Content Collaboration solution:

- Work with your business units to optimize content management practices.
- Determine the right migration approach for your business.
- Minimize project risk and accelerate deployment time.
- Streamline a costly redesign.
- Enable seamless end user adoption.

**Vendors Supported**
- Microsoft

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

**Services**
CDW’s Portals and Content Collaboration services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**
- **Advisory/Assessment**
  - **SharePoint Health Check:** We will review your current state, including the physical structure and logical structure, and make recommendations.
  - **SharePoint Planning and Design:** The key to any successful SharePoint deployment is aligning the vision, uncovering use cases and identifying measureable return on investment. This can include a branding and user experience design based on your requirements. After learning about your business, CDW can formulate a clear vision for the best approach to your SharePoint solution.

**Orchestrate**
- **Implementation/Adoption**
  - **User Experience Branding Workshop/Implementation:** We work with your organization to design a user-friendly SharePoint web portal that will result in a delightful experience for your customers.
  - **Lotus Notes to SharePoint Migration Planning and Design:** CDW can determine the right migration approach for your business, which will minimize project risk and speed up time to deploy. During this engagement, we will develop a road map and provide a plan for the migration effort.

**Services**
- **SharePoint Jumpstart:** CDW will design and deploy your Intranet page with clear information architecture and a superior user experience. CDW will also deploy collaboration sites that ultimately connect your teams.
  - **SharePoint Migration Workshop:** CDW can determine the right migration approach for your business, which will minimize project risk and speed up time to deploy. During this engagement, we will develop a roadmap and provide a plan for the migration effort.
  - **SharePoint Publishing Workshop:** The organizational needs and site objectives will drive the user experience and branding strategy around publishing. These workshops will help determine your content strategies, understanding your audience, drive user experience and create a visual composite of your future publishing portal. The depth of what is cover depends on which package is chosen, and they range from planning your new site to a full build of your new site.
CDW Amplified™ Collaboration
Portals and Content Collaboration (continued)

• **OneDrive for Business Adoption:** CDW will put OneDrive for Business into action in your environment. We know Microsoft’s secure and reliable cloud storage product and how to get your team engaged and excited about using it. We will educate your team members about all of the benefits they can enjoy from utilizing OneDrive.

• **Office 365 Deployment:** This engagement provides planning, design and implementation services for all or a subset of the following solutions — Exchange Online, Skype for Business, SharePoint Online—Collaboration Suites, SharePoint Online—OneDrive for Business and Office 365 ProPlus.

• **Lotus Notes to SharePoint Migration Implementation:** After determining the right approach, CDW will see to it that your legacy content is successfully moved to your new SharePoint environment.

- **Manage**

• **Engineering and Operations Support:** As partners to CDW, SkyPeak Group provides monitoring, monthly patching, service pack installation, maintenance, troubleshooting and reporting for Microsoft SharePoint.

• **Office 365 Support Services:** Provided as part of the O365 CSP program, support services include 24/7 help and “how-to” support, technical maintenance contracts, service disruption issue resolution, bug/product-related issues, and provisioning and post-migration issues through CDW’s Enterprise Command Centers (ECC).

• **End–User Help Desk Support:** CDW can provide a single point of contact for end–user help desk support for Microsoft SharePoint as well as many other applications. Standard monthly reporting options include service-level agreement report, contact statistics, incident metrics, root cause analysis and end–user satisfaction reporting. Three levels of service are available to suit your business needs.

**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.
Working across the device lifecycle, we make it easy to manage a diverse array of organization- and employee-owned devices and platforms. From smartphones, tablets and notebooks to routers and point-of-sale systems, we can help you integrate your software and services to get the most out of your devices.

We offer a huge selection of mobile devices and accessories — all from the industry’s leading brands. Plus, our procurement, activation, configuration and managed services function to reduce the workload and cost to your organization.

Solution Benefits
Your organization can achieve the following by employing a CDW Mobility solution:

- Unmatched expertise: Our mobility experts have helped thousands of customers craft BYOD and mobile device policies from the ground up — including our own.
- Flexible financing options: We will work with you to determine the best financing method for your organization, be it a traditional purchase, lease or through a monthly subscription.
- Industry-leading partnerships: Our partnerships with market leaders give you access to the widest selection of connected devices and the ability to customize them to your specifications.

Vendors Supported
- Apple
- Microsoft
- HP
- Lenovo
- Samsung
- LG
- Cradlepoint
- Verizon
- Panasonic
- AT&T
- Sprint
- T-Mobile
- Zebra

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

Services
CDW’s Mobility services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design Advisory/Assessment

- Assessment Services: This engagement starts with a kickoff consultation assessment with your dedicated mobility experts. This provides insight into your current environment so we can design a solution to fit your needs and goals. CDW can recommend the appropriate vendor for your organization and schedule partner-specific virtual or online consultations to strategize about getting your mobility solution off the ground.

- Enterprise Mobility Strategy Development: CDW can provide you with a comprehensive, holistic approach to mobility focused on optimal user experience while maintaining compliance requirements. Our approach views mobility as a solution that incorporates several facets of IT and the business, including: User experience requirements, application needs and strategies, mobility management strategies, data sharing, cost modeling/ cost recovery, security standards and compliance review as well as network infrastructure review and planning.

Orchestrate Implementation/Adoption

- Configuration Services: CDW’s configuration experts work with your IT staff and your carriers to ensure your enterprise mobile devices are ready to use right out of the box. We offer software configuration, imaging
and MDM enrollment services for Windows, Mac, iOS or Android. Among the options CDW can deliver are loading your organization’s wallpaper or logo, loading mobile configuration profiles, running through the startup/setup using your specific instructions and enrolling the device into your mobile device management system. Installation of SIM and Gobi cards is also available.

- **Customization Services:** CDW’s asset tagging services can benefit your organization by offloading the arduous task of managing mobile device assets, which in the case of most mobile devices, might never make their way into the IT department. As part of the configuration for an iOS or Android product, a dynamically printed asset tag can be placed on the unit, the unit’s box or the shipping box. The custom asset tag is printed using design and information specifications outlined by your organization. CDW’s laser etching service is a way to provide personalization and professionalism to your mobile devices. CDW can add a custom logo and/or text to an etch design.

- **Custom Packaging Services:** CDW can consolidate your shipment of mobile devices onto pallets with shrink wrap so you receive the entire shipment together instead of multiple shipments over multiple days. Your items can be bundled together into a single box to create a custom “care package” that ships to your desired destination, reducing deployment time by eliminating the need to repackage and ship the items yourself. Additionally, we can label the outside of the packages with vital information that will help your team easily identify and route shipments within your organization.

- **Activation Services:** Onboarding new devices can be a cumbersome process. Some organizations manage this centrally through IT, while others delegate it to the end users. No matter which strategy is employed, it often results in either increased workload or data capture errors that result in lost time. CDW simplifies the activation process by sending the equipment identifiers to your chosen carrier so it can activate new lines on your account.

- **Procurement Services:** Our Mobility Management Portal simplifies administration of devices, including selection, deployment, expense management and help desk services. Employees can order from a predefined catalog, perform upgrades or make changes to existing services — all in accordance with your internal mobile device policies.

- **Deployment Services:** CDW not only ships new devices to your locations, but it also provides assessment management services and works directly with your carrier of choice to activate the devices. Before delivering each device, CDW records the serial number and places a custom asset tag on the back. That information is then stored in a database.

**Manage**

- **Managed Endpoint Anywhere:** Managed Endpoint Anywhere gives your organization fully supported, customized devices for a monthly subscription fee, allowing you to shift procurement costs to an operating expense. We’ll take care of managing technology refreshes, securing your devices, procuring management software, providing help desk services and recycling devices.

**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 offers a full range of proven management tools and end-to-end security to simplify mobility management and mitigate risk. Our management tools allow you to measure, monitor and adapt all of your various endpoints from a unified console. Plus, we’ll help you integrate security into the very fabric of your network and mobility strategy.

Solution Benefits
Your organization can achieve the following by employing a CDW Unified Endpoint Management solution:

- **End-to-end security**: CDW has more than 15 years of experience designing and implementing customized security solutions. Our mobility and security teams work together to provide risk mitigation advice, which could include network and mobile security, data loss prevention or advanced threat protection technologies.
- **Streamlined productivity**: Our solutions give you device management, app store and sign-on options, as well as the option to grant users access to legacy applications without the cost of mobile app development.
- **Simple payments and cost controls**: With Mobile Expense Management, you can automate the tedious review, approval and payment process. You can also get insight into cost-saving opportunities and alerts about compliance issues.
- **Industry-leading partnerships**: We work with the industry’s leading brands, giving you unmatched choice and expertise in selecting the best mobility management and security solutions.

Vendors/Products Supported
- Microsoft
- Citrix
- VMware
- Apple

CDW can deliver additional Unified Endpoint Management solutions by utilizing its vast network of trusted third-party partner services providers.

Services
CDW’s Unified Endpoint Management services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design

Advisory/Assessment

- **Microsoft Enterprise Mobility + Security Environment Review**: The needs of your users and their devices are constantly changing. You need to ensure that your investment in the Enterprise Mobility + Security suite is being used to its maximum potential. There are numerous new features that help manage and secure your sensitive data. CDW can help ensure that EMS is configured correctly. We will work with you to review the following components: Microsoft Intune, Azure Active Directory Premium, Azure Information Protection, Cloud App Security, and Azure Advanced Threat Protection. During this engagement, we will review your current environment and gather business and technical requirements to ensure EMS meets your needs. We will identify issues with configuration items within Microsoft Intune and develop a deployment roadmap of security features based on requirements. An assessment of the health of Azure Active Directory Premium and AD Connect synchronization will be performed, and we will review the configuration of Conditional Access to O365 and Active Directory. CDW will provide a knowledge transfer on proper administration and configuration of mobility components and an overview of features that have not been implemented and how they could be deployed. You will also receive a review configuration of Windows Autopilot to automate deployment of Windows 10 devices.
CDW Amplified™ Endpoint Management and Security: Unified Endpoint Management (continued)

- **Microsoft Windows 10 Services:** The Windows 10 Pilot engagement will help customers evaluate their readiness to deploy Windows 10 in their environment. It will provide workshop sessions with some of the latest tools and techniques to deploy and manage Windows 10. The Assessment engagement will help you get started with Windows 10 by evaluating your hardware and software to identify any issues before upgrading. You will receive a detailed report on your compatibility and next steps to fix any issues.

- **Microsoft Endpoint Configuration Manager Health Check:** Microsoft Endpoint Configuration Manager provides knowledge-driven management for today’s dynamic IT infrastructures. Its powerful capabilities enable you to assess, deploy and update your clients, servers and mobile devices across IT systems in physical, virtual, distributed and mobile environments. This service will assist with evaluating the state of a Configuration Manager environment. It will review the health by performing a thorough examination of both the design and administration. The Health Check will identify problem areas and any gaps where Configuration Manager can be improved or fixed. The results of this engagement will be guidance and recommendations on how to maximize your investment in Microsoft Endpoint Configuration Manager Health Check.

**Orchestrate Implementation/Adoption**

- **VMware Workspace ONE MDM/Email Jumpstart:** VMware Workspace ONE is the industry leader in Enterprise Mobility Management. Gartner has named AirWatch / Workspace ONE a leader in the EMM space for seven years running. Workspace ONE functionality includes Mobile Device Management, Mobile Application Management, a unified application store, content management, identity management, secure productivity applications and telecom expense management. The Workspace ONE MDM/Email Jumpstart is an accelerated solution to manage mobile devices and applications. This service provides for technical implementation related to the VMware Workspace ONE offering, including installation and configuration of AirWatch Cloud Connector, Active Directory/LDAP Integration, Personal Information Management, compliance policies, application management and MDM enrollment strategy. If licensed, the service also includes the configuration of the Secure Email Gateway and VMware Boxer.

- **VMware Workspace ONE MDM/Email/Productivity Jumpstart:** This service provides for technical implementation of MDM, email, Application management and VMware Identity Manager for an initial Workspace ONE deployment.

- **VMware Workspace ONE Proof of Concept:** The Workspace ONE POC services are intended to showcase the integration of customer on-premises or pre-existing software and infrastructure. The POC demonstrates basic Workspace ONE functionality within CDW’s POC environment. The POC test cases include Unified Endpoint Management, Unified Application Catalog, Application Deployment and Management, and incorporating SAML SSO with key third-party identity providers. Because the POC is performed in the CDW POC environment, this service enables a customer to prove out these basic test cases before committing to the purchase of Workspace ONE licensing.

- **VMware Workspace ONE Custom Deployment:** This service is fully customizable by CDW Solution Architects, who will work with you to create a custom Statement of Work for the design and deployment of the key Workspace ONE components that are critical to success in your 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.
• **Microsoft Enterprise Mobility + Security Pilot:** The Microsoft Enterprise Mobility + Security solution helps provide easy, secure access to any device, no matter where someone might be. CDW can plan and design a solution to support a production-ready deployment. We will gather business and technical requirements to determine a deployment roadmap of Mobility features to ensure a successful project. The service includes installation and configuration of Microsoft Intune, Azure Active Directory Premium and Azure Rights Management Service (RMS). This service includes deployment of Intune agents, RMS add-ins and components to allow users and devices to use Microsoft Enterprise Mobility + Security (EMS), in addition to a knowledge transfer on proper administration and configuration of Mobility components.

• **Microsoft Enterprise Mobility + Security (EMS) from CDW:** EMS delivered by CDW has all the tools and services needed to successfully manage your mobile environment. EMS from CDW is a hosted solution that grows as quickly as you do, without requiring expensive hardware upgrades to your infrastructure. As a cloud solution, EMS is updated regularly to support the latest devices, operating systems and applications. It goes beyond the traditional Mobile Device Management platform by also including User and Group Management, as well as Application Management.

• **Microsoft Endpoint Configuration Manager Pilot:** This engagement will assist you with planning, designing and piloting Microsoft Endpoint Configuration Manager. CDW will gather business and technical requirements to ensure a successful project. We will determine a deployment roadmap of Microsoft Endpoint Configuration Manager features and handle the installation and configuration of Microsoft Endpoint Configuration Manager server roles. This service includes deployment of Microsoft Endpoint Configuration Manager agents to a pilot group of computers, servers and/or mobile devices, in addition to a knowledge transfer on proper administration and configuration of Microsoft Endpoint Configuration Manager component and common troubleshooting.

• **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 on-site and remote Client Imaging, MDM Enrollment, App Installation (iOS and Android), Software Installation, Asset Management, BIOS and Firmware Upgrades/Downgrades and Configuration, Server Network Operating System Installation and Server Imaging.

• **Microsoft Endpoint Configuration Manager 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 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.

• **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 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.
A mobile workforce is more productive and agile. Employees need access to their apps and data anywhere they are — with a customer, on a manufacturing floor or at a patient’s bedside. Mobility opens up new possibilities, but also has its own challenges.

CDW can help any organization empower its workforce to become productive on the go with a mobile workspace solution.

### Solution Benefits

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

- **End-to-end security:** CDW has more than 15 years of experience designing and implementing customized security solutions. Our mobility and security teams work together to provide risk mitigation advice, which could include network and mobile security, data loss prevention or advanced threat protection technologies.

- **Streamlined productivity:** Our solutions give you device management, app store and sign-on options, as well as the option to grant users access to legacy applications without the cost of mobile app development.

- **Simple payments and cost controls:** With Mobile Expense Management, you can automate the tedious review, approval and payment process. You can also get insight into cost-saving opportunities and alerts about compliance issues.

- **Industry-leading partnerships:** We work with the industry’s leading brands, giving you unmatched choice and expertise in selecting the best mobility management and security solutions.

### Vendors/Products Supported

- Microsoft
- Citrix
- VMware

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

### Services

CDW’s Mobile Workspaces services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

#### Design

**Advisory/Assessment**

**Client Virtualization Services**

Many clients are turning to mobile workspaces for secure mobility. We offer leading workspace solutions, including desktop virtualization, all supported by our professional services to ease selection and deployment.

- **Client Infrastructure Health Check:** We will provide analysis and recommendations based on the performance and efficiency of your enterprise’s existing Citrix and VMware infrastructure.

- **Client Virtualization Assessment:** CDW offers assessments that are not just basic template reports with generic data. We provide customized, detailed reports with specific virtualization recommendations based on your unique environment. We analyze physical hosts and virtual machines, which is critical to identifying the next best step in your virtualization path.

- **Client Planning and Design Workshop:** Our experts will learn what your organization is trying to achieve and then design the appropriate infrastructure for Citrix Virtual Apps and Desktops, Citrix ADC and VMware Horizon.

- **VMware Horizon Proof of Concept (POC):** The POC is the first step in your journey and will determine how the technology will function and integrate within your environment. The POC can identify any potential issues as a result of the project, and
success is measured by a small-scale deployment.

- **Microsoft Windows 10 Desktop Security Workshop:** This engagement provides planning, assessment and high-level design of Microsoft Windows 10 security features. This workshop allows you to evaluate functionality, as well as prepare for deployment of policies and configuration controls that are pertinent to your organization. CDW takes on these challenges and streamlines the process to implement a strong, secure platform. What you end up with is protection of your workstations at the front door from the risks that data, identity and system integrity bring to the enterprise system level.

- **Microsoft Security Threat Assessment:** This engagement helps you analyze and assess MITRE ATT&CK endpoint vulnerabilities through multiple Microsoft cloud solutions. Additionally, you will get a view across endpoint data ingested and detect threats using Microsoft’s analytics and threat intelligence. The endpoint security assessment provides evidence-based insight to ensure security, governance and compliance is uplifted across your organization. CDW helps you develop a remediation plan by providing a detailed endpoint attack kill chain with security configuration recommendations.

### 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.

- **Orchestrate Implementation/Adoption**

- **Client Virtualization Services**

  - **Client Virtualization Jumpstart:** CDW’s Jumpstart engagements are designed to quickly get an environment up and running. A typical engagement, performed at your site, includes implementation services for solution components. Our Jumpstart services are available for Citrix Virtual Apps and Desktops and VMware Horizon.

  - **Windows Virtual Desktop Pilot:** Providing access to your applications and data for your users is demanding on your infrastructure and seems to never stop growing. Placing your Virtual Desktop environment on Azure using Windows Virtual Desktop allows for scalability, growth and flexibility to adapt to business demands. The Windows Virtual Desktop Pilot helps accelerate a deployment of Apps and Desktops. Leverage Azure to ease access to key business applications and data without sacrificing security. Let your users utilize the device of their choice while providing a secure and standardized environment, all while controlling costs. The Windows Virtual Desktop Pilot will provide a Windows Virtual Desktop Infrastructure overview and an Environment Assessment for cost and performance. We will validate the current Azure subscription or deploy a new Azure environment, plus integrate network, storage and management. We will design and deploy Apps and Desktops of Windows 10 Multi-Session, Windows 7 or Windows Server, and configure Windows Virtual Desktop and Azure according to your needs. We will also deploy applications and desktops to client.

  - **Microsoft Remote Desktop Services (RDS) Pilot:** This engagement will assist customers with the planning, designing and piloting of Remote Desktop Services and Virtual Desktop Infrastructure (VDI). The service has different lengths depending on the topics and features that are configured. This can be a full production-ready
environment or a Proof of Concept deployment depending on the length of engagement. The Pilot will assist in providing best practices and knowledge transfer in demonstrating the best way to maximize the benefits of deploying RDS and VDI.

- **Citrix Remote Configuration Services:** CDW’s Citrix Remote Configuration Services can assist customers with deployment of Citrix Virtual Apps and Desktops and NetScaler Gateway products and are a perfect solution for rolling out Proof of Concept (POCs) systems, new farms, or adding additional servers to an existing farm. Installation can be performed on a new server in our Configuration Center prior to shipment or after delivery via a secure connection by our CDW–badged Citrix Certified Engineers.

- **Citrix Cloud Pilot:** Delivering applications and virtual desktops to your users is demanding on your infrastructure and seems to never stop growing. Placing your Citrix environment on Citrix’s new Platform as a Service (PaaS) solution allows for scalability, growth and flexibility to adopt business demands. The Citrix Cloud Pilot can help accelerate a deployment of virtual apps, virtual desktops or Netscaler that is hosted in Citrix’s cloud.

**Procurement and Expense Management**

In addition to simplified procurement of devices, our Mobility Management Portal provides help desk services — including phone, online chat and self-service support — as well as expense management services with custom reporting to ease the burden on your IT staff.

- **Help Desk and Support Services:** Help desk professionals support your mobile workforce and manage everything for you — from loading, testing, packaging and shipping devices, accessories and literature to answering your mobile users’ questions and providing replacements. Help desk supports both corporate–owned and personal devices in your program.

- **Expense Management Services:** Expense management solutions help you easily manage your invoices and payments. Mobile Expense Management automates the tedious review, approval and payment process — eliminating late charges and maximizing cost savings. Our expense management solution provides amazing vision into your total wireless communication spend, helps uncover opportunities to lower costs, monitors compliance and flags issues. It helps you make more informed, intelligent business decisions.

**Manage**

- **Remote Engineering and Operations Support:** CDW can take on the responsibility for tasks associated with monitoring, upgrades, maintenance, hardware incident management, configuration and reporting for Citrix Virtual Apps and Desktops, Citrix ADC, Provisioning Services and StoreFront. Your servers and applications can be remotely supported practically anywhere; on your premises, a CDW data center, or a third–party data center. To best meet your organization’s needs, you may choose from three levels of support, all powered by 24/7 Enterprise Command Centers (ECC).

- **End–User Help Desk Support:** CDW can provide a single point of contact for end–user help desk support for Citrix Applications as well as many other applications. Standard monthly reporting options include service–level agreement report, contact statistics, incident metrics, root cause analysis and end–user satisfaction reporting. Three levels of service are available to suit your business needs.
Managed Print Services
From the initial assessment to ongoing management of your environment, CDW’s No. 1 objective is to ensure your organization experiences the cost savings and productivity gains a managed service program can provide.

Solution Benefits
HP, Xerox and Supplies Network’s Managed Print Services (MPS) programs are built on cutting-edge printer fleet management software and are backed by exceptional delivery and support teams. Each provides support to thousands of companies and millions of devices worldwide. Whether you have standardized on HP, Xerox, Brother or you have a fleet that includes devices from multiple manufacturers, these solutions can support the unique printing needs of your organization. Your staff will be more productive, and your IT staff can focus on other priorities.

HP MPS: HP provides technologies and services that reduce the burden on IT while improving security across your print environment. HP print security offers real-time threat detection, automated monitoring, and built-in software validation. Choose HP Secure Managed Print Services (MPS) so you can focus on your core business. You can count on HP MPS to secure and manage your fleet, maintain printer security compliance, and keep everything up to date.

You can expect:
- 20–30% overall overage cost savings
- Minimized downtime
- Mitigation of security risks
- Streamlined workflows
- Automatic supplies shipments

Xerox MPS: With a comprehensive array of MPS assessment tools and services (including no-cost assessments), Xerox can unlock savings potential and reveal hidden opportunities. Streamline your processes and integrate them with the cloud, your network and mobile devices. Free yourself from security concerns with safeguards that lock down data and documents whether they reside on your devices, your network, or the cloud.

You can expect:
- Cost per page includes service and supplies
- Pay for what you print — no overages
- Expert, metrics-based analyses
- Comprehensive security solutions
- Help desk, break/fix and maintenance for Xerox and non-Xerox devices

Supplies Network: Comprehensive Cost-per-Image service for any make and model of device, including supply routing, labeling, and delivery with options for local printers, printer installation and dedicated support.

Service options provide the fundamental building blocks for your program and are designed to be flexible and highly scalable. Choose just the services you need to enhance your program or roll them into a comprehensive Cost-per-Image service.

You can expect:
- Printer data collection system
- Supply management system
- Service monitoring and service desk
- Local device management
- Device installation service
- Device tracker

Vendors Supported
- HP Inc.
- Xerox
- Brother
- Cannon
- Lexmark
- and more
Services
CDW Managed Print Services (MPS) enable you to choose from a set of managed services for device maintenance, supplies management, and remote management and diagnostic services. Our service solutions include:

- **Account delivery management:** Provide a dedicated team of MPS specialists who will assist you for all your print needs.
- **Support of devices:** Manage as-is fleets as well as new hardware.
- **Consumables management:** Automatic Toner Replenishment (ATR) for just-in-time supplies (ink/toner). CDW utilizes remote monitoring software reporting current status levels of supplies.
- **Remote services:** We provide remote audits and monitoring.
- **Cost reduction:** Optimize your fleet placement, uptime and utilization.
- **Strategic business reviews:** Provide a review of your devices that may be problematic; make recommendations that can help you save time and money while eliminating print fleet worries.
- **Cutting-edge print fleet management tools:** CDW’s leading tools allow us to make educated business recommendations and decisions enabling fleet optimization.
- **Software and Mobile solutions:** We can help implement customer software solutions and mobile solution efficiencies.

CDW’s Managed Print Services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**
**Advisory/Assessment**
We will provide a detailed assessment of your current environment, including the number of devices, different makes and models, and the types of devices running. This is key to managing costs.

**Orchestrate**
**Implementation/Adoption**
The implementation phase includes printer management software deployment, consumables alerts and establishing procedures for requesting supplies and service.

**Manage**
With the right software tools, you will be able to automate your print management, including supplies tracking and ordering, trouble shooting and repair, and usage monitoring. The CDW MPS team will show you which devices to retain, which to reposition or repurpose, and which to replace. We also include periodic business reviews, TCO analysis and green strategies.

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

When trying to wrangle printer expenses, you need a supplies solution that meets the following criteria:

- **No Contracts or Commitments:** Most toner fulfillment solutions rely on locking customers into multi-year contracts. PSP is different: no contracts, no fees, no commitment, and no renewals. With a 95% retention rate, customers stay with PSP for one simple reason: it works.

- **Complimentary Printer Fleet Optimization Tools:** Even though PSP offers discounts on ink and toner, we believe in savings through using your printers more efficiently. We provide complimentary tools to offer complete visibility into how your users treat your printers.

- **Complimentary Toner Fulfillment Services:** Different departments may have different toner fulfillment needs, which is why PSP gives you the choice to mix and match the system best for you.

- **Compliments Existing Managed Agreements:** PSP provides discounts, management tools and toner delivery services for the printers that are NOT currently under a Managed Agreement. As we have no contracts, our service is a terrific way to “fill in the cracks” for printers that do not currently have toner fulfillment or management tools.

### Services

Services within CDW’s Printer Supplies Program fall into one of three lifecycle phases — Design, Orchestrate and Manage.

#### Design

**Advisory/Assessment**

CDW provides a detailed assessment of your current environment and develop short and long-term objectives to improve your printing services and management.

- **Printer Fleet Assessment:** Using software tools, detailed usage reporting and years of expertise, we tailor a toner fulfillment program specifically to your needs: from manual or prompted ordering via a custom toner portal to a fully automated service, we build the system that works best for you.

- **Toner Fulfillment Pilot:** It takes less than 5 minutes to deploy CDW’s complimentary software and less than 30 minutes to configure the system to your specification.

#### Orchestrate

**Implementation/Adoption**

Includes printer management software deployment, consumables alerts and establishing procedures for requesting supplies and service.

- **Automatic Toner Delivery:** Printers are scanned 2x per day with a highly accurate “Days Remaining” algorithm. Printers with low toner send a request to your closest regional warehouse. Toner is labeled with the make, model and serial number of the requesting printer and packed for easy identification. Your toner arrives on schedule and fully labeled to ensure delivery to the correct printer.

- **Custom Toner Ordering Portal for WFH:** A custom toner ordering portal is created for your

### Printer Supplies Program

Toner is a hassle to constantly order, and when it arrives you do not always have the time to install it; while you want users to print less, you don’t always have the visibility into your printer fleet to determine the best way to do so.

CDW’s Printer Supplies Program (PSP) is a complimentary and easy-to-deploy toner service built directly from customer feedback to address cost-reduction, time savings and printer efficiency. It even works to supplement existing managed agreements.

### Vendors Supported

- Brother
- Clover
- HP
- Lexmark
- Xerox
- Zebra
CDW Amplified™ Endpoint
Managed Print Services and Printer Supplies Program (continued)

- printers you own and only the supplies you want to buy with the discounted PSP price. This makes it easy for office workers and WFH employees to find and order the correct toner at the correct price.

- **Prompted Toner Ordering:** A custom low-toner notification is designed for your organization, allowing you to choose the trigger levels, printers, and alert recipients. Your network-attached printers are scanned four times a day to check toner levels. When a printer meets a low-toner threshold, an alert is generated and routed to the correct group or user. The person receiving the alert logs into a Custom Toner Ordering portal design just for your organization to quickly find and order the correct toner.

**Manage**

Lowering raw toner costs is only half the battle; reducing printer usage and deploying your printers correctly is the other half. PSP provides you the complimentary tools and the expertise for maximum printer fleet efficiency. With the right software tools, you'll be able to automate your print management, including supplies tracking and ordering, trouble shooting and repair, and usage monitoring.

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.
Evolving threats and lack of visibility make it difficult for organizations to stay ahead of threats while maintaining industry compliance. CDW’s Amplified Security™ consultants design, orchestrate and manage a comprehensive security strategy with a portfolio of services that identify and assess IT network security risks, increase your understanding of and visibility into risks, and prepare your organization for an evolving threat landscape.

**CDW Amplified™ Secure Platform**
- Next-Generation Firewall and IPS
- Content Security
- Identity and Access Management
- Policy and Access
- Network Visibility and Endpoint Protection

**CDW Amplified™ Detect and Respond**
- Log Aggregation and Correlation
- Security Incident Response Services

**CDW Amplified™ Information Security**
- Information Security

**CDW Amplified™ Physical Security**
- Video Surveillance
- Access Control
- Environmental Sensors
An increasingly mobile workforce is accessing your network with personal devices. Your organization's data is flowing to and from the cloud with increasing speed. The Internet of Things is connecting more devices to the web than ever before. Each of these advances has made network security more complex and even more critical to your organization. A robust network defense strategy lets you understand which people and devices are accessing your network — and what they’re doing when they get there. We understand that the internal demands are lofty and that the stakes couldn’t be higher. We have the partner relationships and experience to consult, design and implement the right security infrastructure to meet your unique needs — before, during and after an attack.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Next-Generation Firewall and IPS solution:
- Make sure only people you want to have access to your network are permitted to do so.
- Protect users and secure the traffic that is coming into and out of your network.
- Protect valuable assets inside your data center.
- Ensure users are not visiting dangerous websites that could result in your environment being exposed to malware.
- Prevent users from visiting workplace-inappropriate websites.
- Keep rogue devices off of your network.

**Vendors Supported**
- Cisco
- Palo Alto Networks
CDW can deliver additional Cybersecurity solutions by utilizing its vast network of trusted third-party partner service providers.

**Services**
CDW's Next-Generation Firewall and IPS services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Advisory/Assessment**
- Cisco Firepower Threat Defense Planning and Design: CDW will evaluate whether your organization’s current Firepower Threat Defense deployment meets your requirements. We will provide a findings report, assist in Next-Generation application firewall rule creation, remediation and make upgrades as requested.
- Cisco ASA with Firepower Planning and Design: CDW can evaluate business and technical requirements and custom design a solution for your organization.
- Cisco ASA with Firepower Health Check: CDW will evaluate whether your organization’s current ASA with Firepower deployment meets your requirements. We will provide a findings report, assist in Next-Generation application firewall rule creation, remediation and make upgrades as requested.
- Palo Alto Networks Planning and Design: CDW can evaluate business and technical requirements and custom design a solution for your organization.
- Palo Alto Networks Health Check: CDW will evaluate whether your organization’s current Palo Alto deployment meets your requirements. We will provide a findings report, assist in Next-Generation application firewall rule creation, remediation and make upgrades as requested.

**Orchestrate Implementation/Adoption**
- Cisco Firepower Threat Defense Implementation: After a solution for your organization has been designed, we will plan the deployment and then help you implement the Cisco Firepower Threat Defense solution.
- Cisco ASA with Firepower Implementation: After a solution for your organization has been designed, we will plan the deployment and then help you implement the Cisco ASA with Firepower solution.
- Palo Alto Networks Implementation: After a solution for your organization
has been designed, we will plan the deployment and then help you implement the Palo Alto solution.

- **Palo Alto Networks Prisma Access Jumpstart**: Accelerate timelines and maximize results for your Palo Alto Networks Prisma Access solution with this cost-effective approach providing a pre-packaged experience.

- **Palo Alto Networks Prisma Access Custom Implementation**: After CDW helps you design your solution, we plan the deployment and then help you implement the Palo Alto Networks Prisma Access solution.

- **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, Asset Management Services.

### 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.

### Manage

Security Infrastructure and Information Security solutions require constant attention to reduce risks associated with vulnerabilities. CDW can help your IT team stay vigilant and focused by taking on the responsibilities for tasks associated with monitoring, upgrades, maintenance, and reporting and management for your Cisco and Palo Alto Networks security infrastructure.
As essential as email and internet access are for today’s businesses, hackers view them as a door into organizations’ networks and sensitive information. Spam filters have gotten better at stopping unsolicited and undesirable emails, but the variety and ingenuity of attacks is growing — and basic products have given many customers a false sense of safety. As for the web, employees can unwittingly put your organization at risk by clicking where they shouldn’t. CDW can help design a solution to minimize threats from damaging your organization.

**Solution Benefits**

Your organization can achieve the following by employing a CDW Content Security solution:
- Cloud architecture that boasts 99.999 percent uptime.
- Combine traditional URL filtering, reputation filtering, malware filtering and data security on a single platform.
- Global email threat intelligence, with spam blocking, malware protection, outbreak filters, data loss prevention, forged email detection and more.

**Vendors Supported**
- Cisco

**Services**

CDW’s Content Security services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**
- **Advisory/Assessment**
  - **Cisco Web Security Appliance (WSA) Planning and Design:** CDW can evaluate business and technical requirements to help secure users’ connectivity to the internet and custom design a solution for your organization.
  - **Cisco Web Security Appliance (WSA) Health Check:** We can evaluate whether your organization’s current Web Security Appliance deployment meets your requirements, provide a findings report and assist you with any design or configuration changes that are needed.

**Orchestrate**
- **Implementation/Adoption**
  - **Cisco Web Security Appliance (WSA) Implementation:** After designing a solution to help secure users’ connectivity to the internet, we will plan the deployment and then help you implement the solution.
  - **Cisco Email Security Appliance (ESA) Planning and Design:** CDW can evaluate your email security requirements and design a solution for your organization.
  - **Cisco Email Security Appliance (ESA) Health Check:** We can evaluate whether your organization’s current Email Security Appliance deployment meets your requirements, provide a findings report and assist you with any design or configuration changes that are needed.

  - **Cisco Umbrella Planning and Design:** Cisco Umbrella is a cloud security platform that provides the first line of defense against threats on the internet. Umbrella is delivered from the cloud, making it simple to protect all of your users rapidly. CDW can evaluate your current business requirements and help design a solution that ensures you are protecting users both inside the network and on the go.
  - **Cisco Umbrella Health Check:** We can evaluate whether your organization’s current Umbrella deployment is optimally configured to meet your security needs, provide a findings report and assist you with any design or configuration changes that are needed.

  - **Cisco Umbrella Implementation:** Cisco Umbrella is a cloud security platform that provides the first line of defense against threats on the internet. Umbrella is delivered from the cloud, making it simple to protect all of your users rapidly. CDW can evaluate your current business requirements and help design a solution that ensures you are protecting users both inside the network and on the go.
of defense against threats on the internet. Umbrella is delivered from the cloud, making it simple to protect all of your users rapidly. CDW can implement a solution that ensures you are protecting users both inside the network and on the go.

**Manage**

- **Managed Services for Cisco Umbrella:** CDW Managed Services’ Enterprise Command Center and security engineers work together to help you block requests to malicious and unwanted destinations and provide visibility into the threats your organization is experiencing by taking responsibility for monitoring Umbrella functionality, implementing policy configuration changes, providing reporting and many, many more day-to-day tasks.

**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.
Employees in your enterprise are working with dozens of applications and juggling multiple mobile devices. Switching from one app to another, and from one device to another, doesn’t change the user’s identity. Without the right tools to authenticate the identity of the user, though, things can get pretty messy and result in reduced productivity.

Life is complicated. Your workplace — with new technology, hardware and software coming online at a fever pitch — can be equally as complicated. But it doesn’t have to be.

With the right Identity and Access Management solution, controlling information about users in your environment and determining who has access to what can be simplified. CDW has the experience and resources to deliver the right solution for your business.

### Solution Benefits

Your organization can achieve the following by employing a CDW Identity and Access Management solution:

- Centralize network access policy management to provide consistent and secure access to your users, no matter how they connect to your network.
- Reduce management and support burdens by centralizing and unifying device administration, authentication and user access policy.
- Simplify guest experience for easier onboarding and administration.
- Control who and what is on your network.
- Design a solution so that resources are only granted to those users who are entitled to them.
- Provide adaptive single sign-on to identity-federated devices.

### Vendors Supported

- Microsoft

CDW can deliver additional Cybersecurity solutions by utilizing its vast network of trusted third-party partner service providers.

### Services

CDW’s Identity and Access Management services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

#### Design

**Advisory/Assessment**

- **Microsoft Azure Sentinel Workshop:** CDW helps you experience Microsoft Azure Sentinel within your own environment, get a bird’s-eye view across all data ingested, and detect threats using Microsoft’s analytics and threat intelligence. In addition, product and solution best practices configuration provides evidence-based insight to ensure security governance and compliance is applied to your multicloud solution.

- **Microsoft 365 Security Assessment:** The Microsoft 365 suite contains numerous products and features designed to keep applications, data and users secure, while providing advanced notification of security threats from many sources. Security is at the forefront of every organization’s concerns and poses a real threat to their business. Maximize the benefits of Microsoft 365 by performing a Security Assessment of your current environment to determine where there are gaps and how Microsoft 365 can help address the risks. We can help you understand some of the features you may have overlooked and educate you on the benefits of Microsoft 365 E3 or E5 Enterprise.

- **Microsoft 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.

- **Microsoft 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 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.

- **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 three-day 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 AD Connect, Active Directory Federation Services, Microsoft Identity Manager, Azure Active Directory, Active Directory Federation Services, Microsoft Exchange/O365, Active Directory, Active Directory Lightweight Directory Services, migration tools and user experience and client behaviors.

- **Microsoft 365 CISO Security Workshop:** This engagement focuses on learning your organization’s unique needs and develops a strategic plan based on approaches recommended by Microsoft experts. The workshop will cover both product and solution best practices configuration recommendations around the security features of Microsoft 365. This will provide a functional roadmap to ensure security and compliance is built into the Office 365, Windows 10 and EMS solution. This will benefit both highly regulated organizations and those who have concerns about increasing their information security posture.

- **Microsoft 365 SaaS Security Workshop:** This engagement will help customers evaluate their current business security threat landscape as well as their existing Office 365 security controls to create an evidence-based roadmap to meet your most valuable assets and can easily be shared, even outside the organization. Protecting and managing access to this information is vital to your organization to retain the trust and confidence of your customers. Microsoft 365 has a variety of tools to help protect and manage this information. The Information Protection engagement will provide the best practices on how to configure the products to achieve your goals. This will provide a functional roadmap to ensure security and compliance is built into the Office 365, Windows 10 and EMS solution. Some of the products and tools covered in Information Protection include: Current Security Controls, Azure Sentinel, Cloud App Security, Azure Information Protection, Data Loss Prevention, Information Security and Email Security.

- **Microsoft 365 CISO Security Workshop:**
  - **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. CDW will work with you to determine the full scope of the engagement.
  - **Microsoft 365 Security Information Protection:** Information is one of
organizational needs. Additionally, this workshop will pilot advanced features and controls which allows customers the ability to mitigate numerous attack vectors that are prevalent today. Office 365 is fantastic technology that enables productivity, but too often it has set security to a one-size-fits-all format which, in today’s fast-moving environment, can leave areas exposed. The workshop will also cover both product as well as the solution’s configuration best practices and associated recommendations. This will provide an evidence-based roadmap to ensure security, governance and compliance is uplifted into your Office 365 solution. This will benefit highly regulated organizations and those who have concerns about increasing their cybersecurity posture beyond the default.

- **Microsoft 365 Security Device Protection:** As more and more users become mobile and are using a wider variety of devices, applications and documents need to keep up. How do you manage these devices while providing secure and reliable access to applications and data? Microsoft 365 helps provide easy, secure access to any device, no matter where someone might be. Device Protection will include the steps necessary to understand your requirements and develop the deployment plan just for you. There are many possible options which can include a variety of tools and techniques. Some of the products and tools covered in Device Protection include: Current Security Controls, Azure Sentinel, Cloud App Security, Azure Active Directory Premium, Azure Advanced Threat Protection, Azure Active Directory Identity Protection, and Identity Governance.

- **Orchestrating Implementation/Adoption**

- **Microsoft 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 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 ranking 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 DirectAccess architecture. CDW can assist with either a pilot or production deployment of the architecture determined during the design portion of the project.

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

- **Manage**

- **Azure Identity Management:** Integrating your on-premises directories with Azure Active Directory will provide a common identity for access to both cloud and on-premises resources, simplifying things for your end users. CDW Managed Services can help by providing an integration and synchronization service between your on-premise Active Directory and Azure Active Directory using the AD Connect tool. This will allow your IT team to focus on more strategic initiatives because we are taking on the responsibility of monitoring, troubleshooting and dealing with the hassles associated with managing integration and synchronization of your Active Directory environments in Azure. On-premise Active Directory Federation Services management are separate service offerings and not included.

- **Certificate Services to resolve issues or separate service offerings and not included.**
In today’s threat-heavy environment, the enterprises that have strong risk management policies in place are the most likely to emerge from a security breach incident in the best shape.

Is there a better way to mitigate risk than by knowing who is on your network, and what each end user is doing while connected?

Every organization is now faced with employees utilizing multiple devices. Companies also need to share their network with third-party partners and contractors, not to mention guests visiting your offices. A policy and access solution designed by CDW can help secure your network against malicious activity and insider threats.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Policy and Access solution:

- Bolster the security of your network by ensuring all end users comply with your defined security policy.
- Identify users and devices on your network.
- Restrict the data that each end user may access.
- Regulate what end users may do while connected to your network.
- Take network action on compromised or non-compliant end users.
- Verify log-on information.

**Vendors Supported**
- Cisco
CDW can deliver additional cybersecurity solutions by utilizing its vast network of trusted third-party partner service providers.

**Services**
CDW’s Policy and Access services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**

**Advisory/Assessment**

- **Cisco Identity Services Engine (ISE) Planning and Design**: CDW can evaluate business and technical requirements and design a solution for your organization.
- **Cisco Identity Services Engine (ISE) Health Check**: CDW will evaluate whether your organization’s current ISE deployment meets your requirements. We will provide a gap analysis report, assist in remediation and make upgrades as requested.

**Orchestrate**

**Implementation/Adoption**

- **Cisco Identity Services Engine (ISE) Implementation**: After a solution has been designed for your organization, we will plan the deployment and then help you implement it.
- **Cisco Duo MFA Implementation**: After a solution for your organization has been designed, we will plan the deployment and then help you implement the Cisco Duo’s MFA for your Cisco or Palo Alto VPN solution.
- **Virtual Private Network (VPN) Implementation**: After the solution for your organization’s remote access and branch needs has been designed, we will plan the deployment and then help you implement it.

**Manage**

- **Managed Services for Cisco Identity Services Engine (ISE)**: CDW Managed Services’ Enterprise Command Center and security engineers work together to address critical authentication issues, certificate renewals, policy set configuration changes and security patch availability, in addition to performing many, many other ISE-related responsibilities.
CDW’s Network Security team helps you go beyond traditional chokepoint and perimeter threat detection by expertly deploying your solution so you can utilize the intelligence of the network and visibility provided by endpoints to uncover malicious activity.

By trusting CDW to help you with the integration of these solutions, you will strengthen your security posture with advanced visibility, analytics and protection enabling you to see threats to your network and data center. You will also be able to protect against attacks that target your internal environment.

When CDW’s experts combine network visibility technology with an advanced next-generation endpoint security client you get increased visibility and protection for your systems — both inside your network and for those users who are on the go.

### Solution Benefits
Your organization can achieve the following by employing a CDW Network Visibility and Endpoint Protection solution:

- Insight into attacks and malicious activity going on inside your network that many other solutions would never make visible.
- Embed security anomaly detection into the network element, using machine learning for incident response and device-level mitigation.
- Rapidly detect, contain and remediate advanced threats if they evade frontline defenses and get inside.
- Deep visibility into executable and file activity across all of your endpoints so you can spot threats fast, scope a compromise and remediate instantly to help with all those zero-day attacks.
- Continuous monitoring and recording of network and host activity for all hosts inside and out of your network.

### Vendors Supported
- Cisco
- VMware

### Services
CDW’s Network Visibility and Endpoint Protection services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

#### Design

**Advisory/Assessment**

- **Cisco Secure Endpoint Protection:**
  - **Secure Endpoint Planning and Design:** CDW can evaluate business and technical requirements and help you plan and design a Secure Endpoint solution.
  - **Secure Endpoint Health Check:** CDW will evaluate whether your organization’s current Secure Endpoint deployment meets your requirements and is providing the best protection available. We will provide a findings and recommendation report and can assist with any remediation and recommendations found.

- **Cisco Secure Network Analytics Health Check:** CDW will evaluate whether your organization’s current Secure Network Analytics deployment meets your requirements and make sure you are getting the visibility you expect. We will provide a findings and recommendation report and can assist with any remediation and recommendations found.

- **VMware Carbon Black Cloud:**
  - **VMware Carbon Black Cloud Services:** CDW’s VMware Carbon Black Cloud Services will help organizations get the most out of their investment while creating a protected environment using this best-of-breed NGAV and Endpoint Detection and Response (EDR) solution.

  - **Discovery and Design Session:** CDW will demonstrate VMware Carbon Black Cloud’s use and functionality in real-work attack scenarios and walk throughs. This will help drive a thorough understanding of the solution’s features and capabilities.

#### Orchestrate

**Implementation/Adoption**

- **Cisco Advanced Malware Protection:**
  - **Secure Endpoint Implementation:** After your solution has been designed, CDW can help you quickly deploy and enable Secure Endpoint’s features.
CDW Amplified™ Secure Platform
Network Visibility and Endpoint Protection (continued)

- **Cisco Secure Network Analytics Services:** CDW can provide options when deploying Secure Network Analytics. We can assist with either getting it up and running quickly and help alleviate problems, or offer design and deployment services for a complete enterprise rollout.

- **VMware Carbon Black Cloud:**
  - **Implementation:** CDW will blend technological expertise and personalization to create an optimized security solution that can be deployed everywhere without impacting business-critical applications.
  - **Extended Deployment Support:** CDW will help drive the complete adoption and optimization of the solution throughout your environment.
  - **Threat Hunting:** CDW will leverage industry-recognized frameworks to conduct Threat Hunting to detect instances of unauthorized access, adversarial movement, advanced persistent threats (APTs), and Command and Control (CnC) activity.

**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.
In today’s IT landscape, organizations large and small are overwhelmed by the amount of logs, alerts and notifications from security technology. How do you begin to sort through it all? By employing a Splunk and CDW Managed Security Information and Event Management (SIEM) solution. Splunk is a powerful tool that can assist in correlating and sorting data from a variety of systems and security devices and has full SIEM capabilities. This powerful tool can be quite complicated and overwhelming to manage. CDW can assist in harnessing the full security features of Splunk by implementing a new environment or optimizing a current deployment.

CDW’s Splunk Security Services team provides assurance that your organization is ready to fully adopt Splunk to gain deep security visibility in your environment. Additionally, CDW can manage your network security policies and troubleshoot issues with your security infrastructure around the clock. Our experts triage security alerts, notify you immediately of an attack, and take action to block further attacks.

Solution Benefits
Your organization receives many benefits by utilizing CDW Log Aggregation and Correlation Services:

- The knowledge and capabilities of an elite-level Splunk partner with Accredited Core Implementation certified engineers.
- Expertise with security and Splunk in large environments.
- Optimization of your Splunk environment to maximize value received from licensing.
- Hands-on knowledge transfer of your Splunk implementation to optimize your operational efficiency.
- Real-time incident response, log collection and correlation, and reporting.

Vendors Supported
- Splunk
- CDW

When You Need More Than Logs
While a syslog server is tried and true technology, gaining executable intelligence from it in near real time is almost impossible. Splunk can bridge the gap to help your organization respond to security threats and indications of compromise.

Services
CDW’s Log Aggregation and Correlation services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment

- Splunk System Health Check:
  Do you have an existing Splunk environment? CDW can review your environment to assure it is configured to recommended standards. We can also investigate your data ingestion to optimize your licensing consumption.

Orchestrate
Implementation/Adoption

- Splunk Installation Services:
  Are you implementing a new Splunk environment or expanding your existing Splunk Security infrastructure? CDW Splunk experts can help you bring your Splunk security strategy to reality.

- Splunk Security Product Add-On:
  Are you engaging CDW for a security product installation? Check out our Splunk Security add-on service where CDW implements a Splunk instance with the tools to help you gain full visibility into your firewall and security logs with the power of Splunk.

Manage

- CDW Managed SIEM: As an extension of your IT department, CDW provides trained experts and a cloud-based Security Information and Event Management (SIEM) solution to deliver real-time incident response, log collection and correlation, and reporting. In addition to helping you keep up with your logging compliance requirements, our experts notify you immediately of an attack, and quickly take action to block further attacks.
With next-generation firewalls, endpoint protection, IDS/IPS, DNS security, machine learning and other technologies, it would be nice if we could say our networks will never be breached. The reality is security incidents are inevitable, for all organizations of all sizes. The ability to respond effectively to limit the impact of such events is critical for every business, school, government agency and institution.

CDW Incident Response Services are available to enable you to respond and adapt to incidents before they become disasters.

**Solution Benefits**
Your Security Incident Response (IR) Services enable an organization to be ready to respond to credential theft, malware outbreaks, security breach and other potential security incidents.

**Services**

**Design Advisory/Assessment**

**Incident Response Services**
When you decide to add CDW’s Retainer-Based Security IR Services to your cybersecurity plan, that paperwork is handled up front, meaning there's no downtime between discovery and action.

- **Premium and Essential IR:** Depending on your service level, our prepaid one-year agreements are good for up to 120 hours of service, and up to 40 hours of event preparedness services. Event Preparedness Services included may consist of: IR Readiness Assessment, IR Program Development (Policy, Plan & Playbook Development, IR Tabletop Exercise or IR First Responder Training). This service also allows you to reallocate a portion of unused services fees to additional security advisory and assessment services at the end of your contract.

- **Basic IR:** We understand that a prepaid option is not right for everyone. Our Basic IR Service provides you with access to CDW’s IR team, should you need it. This service gives you up to 80 hours of IR services on a time and materials basis.

**Proactive and Preparedness Services**
CDW also provides four complete proactive event preparedness security services to help your team be better prepared for the inevitable. We utilize the same skilled consultants and tools for these services that we leverage to respond to security incidents.

- **IR Readiness Assessment:** CDW will review your IR policy, plan & playbook, evaluate roles, responsibilities, processes and security tools along with performing a refresher training for IR Handlers and First Responders.

- **IR Program Development (Policy, Plan & Playbook):** CDW will coordinate and lead a one-day workshop assessing your existing IR policy, plan, playbook and incident notification requirements and then provide you with a complete IR policy, plan and playbook.

- **IR Planning and Tabletop Exercise Workshop:** CDW will perform an assessment including a review of policy, plan and playbooks, review of tools, roles and responsibilities. We will also provide First Responder refresher training, IR tabletop exercise, after action review, playbook updates and complete knowledge transfer.

- **Compromise Assessment:** CDW will help you understand if/when you have been compromised by providing focused threat hunting in your 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.
As technology and IT environments continue to evolve at a rapid pace, security risks evolve right alongside them. In today’s climate, you can’t afford to be caught off guard when a security breach occurs.

A third-party security risk assessment process is the best way to root out vulnerabilities in your infrastructure before any damage occurs. CDW’s security threat assessment experts are here to put your network to the test and develop a smart risk management plan tailored to your organization.

Our team of white-hat hackers has been performing security threat assessments since 1998. From small business security protocols to enterprise risk management, we customize each service using security tools developed by our expert engineers as well as industry-standard tools.

**Solution Benefits**

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

- Critical insight into undetected issues that pose significant risks to enterprise security.
- Factual information on security threats will leave you better prepared to defend your enterprise.
- Armed with practical, action-oriented information, your IT department can take immediate action to remedy major security issues and reduce the risk of future compromises.
- Minimal demands on your IT department’s time.

**Services**

CDW’s Information Security services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**Design**

Advisory/Assessment

Technical Assessments

CDW can assist your organization conduct third-party agnostic security assessments; whether technical or procedural in nature. The assessments always combine vulnerability scanning with manual penetration testing and a human-generated final report to give you the clearest picture of your security posture.

- **CDW Cloud Security Posture Assessment (CSPA):** Adopting new cloud services can accelerate digital transformation across industries, sometimes the move to the cloud presumes a certain level of inherent security that is not actually present. 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 Security Posture Assessment (CSPA) Specialists 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.

- **Comprehensive Security Assessment (CSA):** CDW provides a tailored approach to assessing your security posture, including external, internal and wireless networks, application security, and social engineering campaigns. In addition, the CSA provides technical security assessments for mature or advanced operations such as: Red Team and Purple Team Assessments; IoT Assessments; SCADA Assessments; Advanced Social Engineering; and Asset-Centric Assessments (PHI, PII, proprietary data, etc.).

- **Rapid Security Assessment (RSA):** This service provides a quick view into your security posture, including External, Internal, and Wireless networks and Phishing Campaigns.

- **Purple Teaming Services:** CDW Purple Teamers simulate real-world cybersecurity attacks in collaboration with your defensive team with the primary goal of testing and assessing your organization’s detection and response capabilities overall. This helps assess not only your Blue Team’s capabilities, but also your end-user response to phishing and vishing. You may also opt into targeted testing and assessments intended to further understand your security posture.
Security Consulting

- **vCISO**: CDW’s Security Consultants are available to act as a virtual Chief Security Information Officer (vCISO) who helps you improve the maturity and scope of your existing security and advises you on your organization’s security strategy and planning initiatives. In addition, the Security Consultant facilitates rollouts of security products, solutions, and services in alignment with your wider security, risk, and compliance program. CDW offers three levels of engagement, depending on the needs of your organization.

- **Framework Assessment**: CDW uses a standards-based approach based on the National Institute of Standards and Technology’s (NIST) Special Publication 800-53 to security operational framework gap analysis. We will interview members of your organization and determine where improvements can be made.

- **Security Maturity Assessment**: CDW conducts a two-day workshop with the goal of assisting you in developing a security plan and roadmap to improve your security posture and then providing implementation services to assist you with resolving high-priority items identified in the roadmap.

- **Security Architecture Workshop**: Whether you are developing a segmentation or IoT security strategy, CDW can evaluate your business goals and your technology landscape to develop an architecture plan and roadmap that is right for your organization. We go beyond the typical considerations, such as focusing narrowly on your security goals, and provide a framework that considers business requirements, operational expectations, existing investments, and applications.

- **Security Remediation Workshop**: Using the results of an assessment, audit, or penetration test, CDW will help you prioritize findings and provide guidance on how to fully utilize existing tools as well as suggestions for new tools and processes that can be implemented to improve security posture and reduce risk.

- **Network Segmentation Workshop**: In a five-day workshop led by CDW Security Consultants, we focus on understanding your organization and its risk profile and establish a roadmap to successfully implement Network Segmentation in your environment.

**Custom Security Consulting Services**

- **Custom Security Enterprise License Agreement Advisor**: CDW will provide a security advisor to help facilitate the rollout and alignment of security products and to ensure that your organization is getting the most benefit out of your ELA.

- **Custom Solution Evaluation**: Whether you are implementing a new solution or upgrading an existing one, CDW can help you evaluate your current environment, deployed tools and business and security objectives to determine gaps and identify tools that might be required to fulfill objectives.

- **Custom Security Advisory Services**: CDW provides a technology-neutral Security Consultant to support your security strategy and planning. This engagement also facilitates efficient rollout and alignment of security products and services with your wider security, risk, and compliance program.

**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.
Video surveillance has long been a key component of physical security. The advent of inexpensive, network-enabled cameras has made it easier for organizations to increase their video surveillance footprint. Whether limited to critical areas or deployed throughout an enterprise, cameras historically collected video footage that was only used for forensic purposes — something went wrong, and video footage enabled security teams to later determine what happened. Now, IP-enabled video cameras enhanced with analytics and AI can automatically detect and alert on incidents in real-time and be used for operational use cases in addition to security. CDW can help design and implement a solution to modernize your video surveillance to get more value from video.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Video Surveillance solution:

- Select and implement the video management system that is right for your organization, whether it is managed on premises or from the cloud
- Ensure that you are placing the right cameras in the right locations to better protect your organization’s people, property and premises
- Utilize camera-based video analytics that detect people and other objects and alert on specific conditions and events
- Implement advanced analytics that ingest and process all recorded video to greatly improve forensics search capabilities and gain insights on employee and customer behavior

**Vendors Supported**
- Milestone
- Genetec
- Cisco Meraki
- Verkada
- Arcules
- Axis
- Bosch
- Hanwha
- Panasonic i-PRO
- BCDvideo

**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.

**Design**

*Advisory/Assessment*
- **Envisioning Workshop:** A facilitated planning session to help build (or refine) your organization’s strategy and roadmap for transforming your current systems into a modernized physical security architecture.
- **Site Survey and Systems Design:** Survey of a physical site to determine the placement and specification requirements for cameras, resulting in a deliverable that includes hardware/software recommendations, floor plans illustrating camera install locations with field of view and/or a complete system design.

**Orchestrate**

*Implementation/Adoption*
- **Camera Deployment:** Expert installation of IP-connected cameras — both indoors and outdoors — including installation of conduit and cabling if needed.
- **Video Management System (VMS) Implementation:** Installation, configuration and commissioning of video management system software.
- **Software and Analytics Integration:** Installation and configuration of video analytics software as well as custom design and integration of dashboards for data visualization.

**Manage**

- **Managed Services:** Remote monitoring and management of cameras and devices.
- **Day 2 Support Services:** Remote technical support and onsite break/fix services for physical security components and solutions.
Modern access control systems – characterized as increasingly digital and IP-connected – allow you to secure the points of entry to your facilities with IP-enabled controllers and modern credentials including keycards, mobile apps, and biometrics. With new options to manage physical security either on premises or from the cloud, these systems can be closely integrated with video surveillance for improved situational awareness and forensics search. CDW can help you take advantage of new access control technologies, whether you are outfitting a new facility or modernizing and retrofitting an existing building, making it easier than ever to protect your people, property and premises.

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 Access Control solution:
- Select and implement the access control system that is right for your organization, whether it is managed on premises or from the cloud.
- Quickly deploy new door controllers and credential readers to secure doors and/or replace obsolete analog controllers with IP-based technology.
- Employ the right credential for each situation, whether it is a badge or mobile app for personnel entry, license plate recognition for parking lot gates, or multifactor authentication with biometrics for highly secure areas – all managed in a single platform.
- Integrate access control and video surveillance systems to automatically associate camera footage to access events for faster forensics.

Supported Vendors
- Genetec
- Axis
- Arcules
- Verkada
- HID Global
- Open Options

Services
CDW’s Access Control services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

Design
Advisory/Assessment
- Envisioning Workshop: A facilitated planning session to help you build (or refine) your strategy and roadmap for transforming your current systems into a modernized physical security architecture.
- Site Survey and Design: Onsite survey of a physical site to determine the placement and specification requirements door controllers, readers and other access control hardware; resulting in a deliverable that includes hardware/software recommendations, floor plans to specify new device install locations and/or a complete system design.

Orchestrate
Implementation/Adoption
- Door Controller Installation: Deployment of IP-connected controllers for doors, gates, turnstiles, etc., and associated badge/credential and biometric readers, including installation of door locks, low-voltage connections, and ethernet cabling.
- Access Control System Implementation: Installation, configuration and commissioning of access control platform software and integration with other physical security systems such as video surveillance.

Manage
- Day 2 Support Services: Remote technical support and onsite break/fix services for physical security components and solutions.
The proliferation of IoT devices in recent years has resulted in making it possible to easily deploy and utilize sensor-based solutions that monitor atmospheric conditions, detect audio signatures, and use advanced imaging devices (thermal, LIDAR, 3D). Whether you need to monitor your facility for airborne chemicals, detect water leaks, rising temperatures or audio signatures — it is easy to integrate relatively inexpensive IP-enabled sensors into your building’s physical security system. This greatly improves situational awareness and streamlines incident monitoring and notification processes. CDW can help you extend your physical security systems to include environmental sensors, enhancing the safety and security of your operations.

**Solution Benefits**
Your organization can achieve the following by employing a CDW Environmental Sensor solution:

- Select and deploy the sensor solutions that are right for your organization, whether it is managed on premises or from the cloud.
- Monitor indoor atmospheric conditions including temperature, moisture, air quality index and the presence of vaping/smoking and airborne chemicals.
- Detect and alert on audio signatures such as screams, aggression, breaking glass, or spoken keywords.
- Use specialized sensors such as LIDAR, machine vision, and thermal sensors to solve for situations where standard video cameras are insufficient.
- Integrate environmental sensors into other physical security systems such as video surveillance and access control, for complete situational awareness.

**Supported Vendors**
- Cisco Meraki
- Verkada
- IPVideo Corporation
- Soter Technologies
- Flir

**Services**
CDW’s Environmental Sensor services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

**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.

**Design**
**Advisory/Assessment**
- **Envisioning Workshop**: A facilitated planning session to help your organization build (or refine) your strategy and roadmap for transforming your current systems into a modernized physical security architecture.
- **Site Assessment and Systems Design**: Onsite survey of a physical site to determine the placement and specification requirements for environmental sensors; resulting in a deliverable that includes hardware/software recommendations, floor plans to specify new device install locations and/or a complete system design.

**Orchestrate**
**Implementation/Adoption**
- **Sensor Deployment**: Expert installation of IP-connected sensors — both indoors and outdoors — including installation of conduit and cabling if needed.

**Manage**
- **Managed Services**: Remote monitoring of IP-connected devices.
IT teams are busier than ever — they aren't just keeping the lights on for everyday technology needs, they're driving innovation across organizations. IT teams no longer have time to drop everything for every broken laptop or lost password. CDW Amplified™ Support services deliver custom warranty, maintenance and support services that augment your IT staff so they can focus on maximizing business outcomes.
If your IT staff is wishing there were more hours in the day, a certified partner can help ease the burden of routine maintenance. CDW Amplified™ Support services provide custom maintenance plans for all your critical technology, so your organization stays up and running at minimal cost. And with hundreds of experts and engineers certified by our extensive list of partners, we provide on-site support that keeps business-critical hardware and systems operational when you need it most.

**Solution Benefits**
Your organization can achieve the following by employing:
- Operational efficiencies
- Reliability
- Reduced risk

**Vendors Supported**
- Cisco
- Microsoft
- Palo Alto Networks

**Services**
CDW’s Tech Support services fall into one of three lifecycle phases — Design, Orchestrate and Manage.

### Orchestrate

**Implementation/Adoption**
- **SanitizeIT**: At CDW, we understand that protecting the people within your organization is paramount to you. As you prepare to bring people back into your facilities, CDW can help you properly sanitize devices that are accompanying them. We will work with you to create a sanitization plan that includes collecting devices brought into the building and disinfecting them in accordance with OEM standards, WHO guidelines and CDC requirements — helping you to lower the spread of germs and provide a safer environment.

### Manage

**CDW Technology Support**: CDW Technology Support is CDW’s branded offering backed by the OEM collaborative warranty support service. CDW will take the first call for our client to help resolve their issue and, if needed, provide an engineer onsite to perform a hardware replacement. If escalation to the OEM is required, CDW will do that on the client’s behalf. Because of CDW’s depth and breadth of expertise, we are able to get a top-level TAC engineer more quickly than a client can, resulting in quicker incident resolution. Some of the features and benefits of CDW Technology Support (CTS) include:
- CDW Technology Support allows you a single point of contact. We provide around-the-clock, end-to-end ownership of all incidents, service requests and support for maintenance, hardware replacement, knowledge base and software support.
- Your organization is given top priority for incident resolution and escalation. CDW constantly monitors our CTS Performance Dashboard and holds weekly internal calls to review any and all CTS cases to ensure quick resolution, case closure and client satisfaction and delight.
- If after troubleshooting, CDW engineers determine that a device needs to be replaced, CDW will request the RMA from the OEM on your behalf and have it sent to your location. In many cases, we will also dispatch an engineer to meet that part and swap out the device for you.
- A support partner contract is purchased from the OEM so you do not lose the ability for upgrades, updates, etc., and may be provided software download access to those contracts if requested.

**E-Learning Technical Support**:
Schools that have enacted either a remote or hybrid learning model need a strong supplemental support team when technology breaks
down and prevents students from learning and teachers from teaching. Our IT and AV support professionals can quickly identify and resolve or escalate issues from both students and teachers — allowing everyone to get back to the business of education. This additional support allows your team to focus on more strategic operational matters. CDW’s E-Learning provides highly responsive Level One IT and AV support that leverages 20–plus years of service desk experience. Our solution includes implementation of the service desk and ongoing support during the life of the agreement.

- **Technical On-Call Support**: With CDW’s Technical On-Call Support, powered by Quest, experience the agile and responsive technical support and ad hoc services you need to allow your organization to carry on with business as usual, knowing we’re there when you need an extra lifeline. Your organization is thoroughly onboarded so that we understand your environment before help is needed, providing ease of escalation and saving you valuable time, money and resources. We’re here to assist 24x7 to address most any technical question or problem including, but not limited to:
  - Files are locked by a ransomware virus
  - No access to internet resources outside of the local network
  - Users can’t get a wireless connection in the office
  - One branch cannot connect to the internet
  - No access to email or IP phone service

- **Umbrella Support**: With CDW’s Umbrella Support, powered by Quest, you can experience agile and responsive support for your existing infrastructure in its current state and end-user help desk. This allows your organization to carry on with business as usual, knowing we’re there to help. Your business is supported in its current state to help reduce IT-related pains and get the most ROI out of your legacy systems and investments. Priced on a simple per-user basis, Umbrella Support provides the following:
  - Staff augmentation to address support needs for remote offices
  - Best-effort support on end-of-life or out-of-support infrastructure
  - Security monitoring and patching of systems
  - End-user support issues and more

In addition, we conduct a thorough assessment within the initial 60 days that includes actionable recommendations and options on improving or managing your environment.
Growing technical debt in your application stacks and software delivery processes can bring your organization to a halt. Modern, cloud-native technologies and industry-leading best practices allow you to develop applications that revolutionize your infrastructure and solve business issues. CDW Amplified™ Development Services can modernize your applications, streamline delivery through DevOps, and write custom, cutting-edge apps that drive your business.

**CDW Amplified™ Software Engineering**

**Software Design and Consulting:** CDW provides the skills and knowledge your teams need to achieve their digital needs, now. With consulting engagements ranging from hyperscale application architectures to agile and product development, we help you adopt and implement modern software patterns and practices such as DevOps, CI/CD and agile delivery. Covering more than just technology, we evaluate your people, process and tools. And through our enablement services, your team receives the knowledge transfer and real-world experience needed to manage your new, modern software development lifecycle from end to end.

**DevOps:** As a client of CDW Amplified™ Development Services, you don’t just receive code artifacts. We leverage the Continuous Delivery model for delivering working software continuously to our clients through the project lifecycle. This CI/CD process enables promotion of builds to a test environment where you can use and review the application, working iteratively with our teams. And when our project is complete, you have a working CI/CD pipeline as part of your project deliverables.

**CDW Amplified™ App Modernization**

**Application Modernization:** Legacy applications hinder your ability to adapt to changing market demands. Extreme operational overhead and slow software development due to manual processes lead to the inability to ship new features to your customers, while incurring large management costs. Monolithic application design leads to performance bottlenecks, increased resource utilization, and the inability to adopt scalable, cost-efficient cloud-native platforms or agile development patterns. CDW rapidly refactors your applications to adopt modern development principles such as microservices, containerization, and event-based architectures. Our agile development teams plan and implement modern API design patterns for scalability and resiliency in your deployments.

To learn more about CDW Amplified™ Development Services, please visit cdw.com
Making data-driven decisions in a competitive market takes a comprehensive data strategy and a modernized data warehouse. CDW Amplified™ Data Services, including artificial intelligence (AI) and machine learning (ML) services, offer actionable insights that give you a stark competitive advantage. Design, build and deploy modern data analytics and AI/ML solutions for storing, transforming, discovering and operationalizing your data.

**CDW Amplified™ Data**

**Data Modernization:** The CDW Amplified™ Data Services team builds solutions to modernize your data warehouse, allowing you to keep up with the changing needs of your business. We work with multiple vendors and platforms to meet your database needs.

**Data Analytics:** CDW experts can design and build solutions that allow for advanced data visualization, data governance and even AIOps. We work across multiple vendors — such as Microsoft, AWS, Google, IBM, Splunk, Tableau and others — to quickly create and implement a custom data solution that fits the needs of your organization.

To learn more about CDW Amplified™ Data Services, please visit cdw.com

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**CDW Amplified™ AI/ML**

**Machine Learning Analytics:** By building and training machine learning models on your enterprise, you’ll be enabled to instantly analyze huge amounts of data and predict and proactively respond to emerging customer behavior and demands.

**Artificial Intelligence Data Analytics:** The right AI solution can reduce labor and turnover costs and improve functions such as customer support satisfaction and consistency. CDW’s AI/ML experts prove the value of artificial intelligence and machine learning through minimum viable model (MVM) creation, which shows the efficiency gains and operational enhancements you can take to market with the data you have available.