

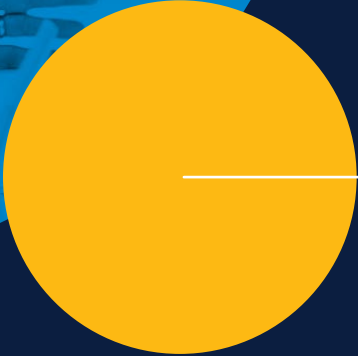


USSIGNAL.COM / 866.2.SIGNAL



# Services

## IMPLEMENTATION GUIDE



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# What to Expect

At US Signal, we make becoming a US Signal customer easy and transparent by putting our customers first. It starts with a process designed to fully understand customer needs and priorities, minimize disruptions to your operations and deliver peace of mind. While every customer partnership is unique, here's a general overview of what you can expect during your implementation project.



**PRE-SALES**



**DISCOVERY**



**IMPLEMENTATION**



**VALIDATION & COMPLETION**

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1



## PRE-SALES

Once a customer has voiced a desire to use a US Signal service, US Signal Sales team members will coordinate with the customer to get the necessary paperwork and contractual documents in place and an order for service is created.

2



## DISCOVERY: PROJECT KICK-OFF

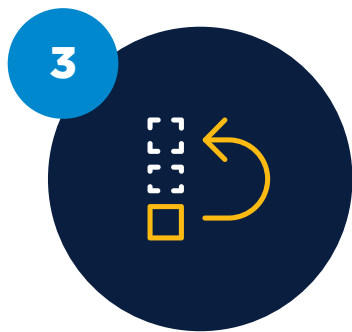
US Signal assigns a dedicated project manager to each implementation that will guide the customer through a smooth and successful implementation project. US Signal customers will be introduced to their project manager during the project kick-off meeting. The items discussed in each kick-off meeting include:

1. Overview of the customer solution & project goals
2. Introduction of the project team (US Signal and Customer)
3. Explanation of the implementation process
4. Review of project milestones & identified risks
5. Budget and billing review
6. Next steps and action items
7. Establish a schedule for weekly status calls

## DISCOVERY: DATA COLLECTION

During the discovery phase, the US Signal Professional Service Engineers will begin discovery to determine the technical configuration of the existing environment and the desired state of the architected solution. The size, complexity, and available documentation about the customer environment will determine how long the discovery period takes. The discovery process will include:

1. Review of initial sizing information, solution design drawing, solution summary, updated server inventory and advise on best practices
2. Discovery of network topology/VPN/Firewall (current and desired)
3. Analysis of workload inventory with customer to ascertain server roles, applications and their dependencies
4. Confirmation and practice of proper validation testing



## IMPLEMENTATION

After completing the discovery phase, the implementation will begin. Due to the variation in implementation steps for US Signal services, specific implementation details can be found on a service by service basis throughout the rest of this guide.



## **VALIDATION & COMPLETION: TESTING**

A data protection solution is only as good as the availability of customer data when needed. Upon completion of the initial implementation, the US Signal project team initiates test recoveries to verify functionality of the platform and prove the established success criteria. Additional testing of other components of the solution, such as local/public networking and client side connectivity is strongly recommended. Validation and completion testing is the final step prior to closing the implementation project.

## **VALIDATION & COMPLETION: DESIGN UPDATE**

Solution design often changes throughout the implementation process for many different reasons. The original design as defined in the discovery phase is updated to match the final configuration after validation testing is complete. Current state design details are documented in the customer playbook is verified with the customer before the implementation project is closed. The playbook will continue to be updated throughout the life of the service as the solution evolves. Once the final design has been completed and documented, project closure will take place.

## **VALIDATION & COMPLETION: PROJECT CLOSURE**

The overall goal of the project team is to deliver to our customers a fully implemented, tested and validated solution as requested and designed during the sales process. Upon a successful implementation, a project closure meeting will be scheduled to review the following:

- + Final details & solution review
- + Project workbook review
- + Billing expectations
- + Transition to operations
- + Customer Portal overview
- + Next touchpoints & ongoing support

## **SERVICE SPECIFICS**

Each service has slightly different sub-phases within the overarching four phase implementation process discussed in the beginning of this guide. The following service specific sections will expand on those differences in order to clearly communicate what customers should expect from their project team.

# Roles and Responsibilities

## IMPLEMENTATION TEAM

### **SOLUTION ARCHITECTS**

US Signal Solution Architects are trusted advisors for their customers. When hiring Solution Architects, US Signal requires at least 7 years of high-level, enterprise, health care, financial, or consulting experience. Solution Architects have at minimum VMware VCP certification with preference given to candidates that also hold appropriate industry certifications from Cisco Systems, VMware, ISC2, EMC, and other vendors. Some architects hold graduate and post-graduate degrees in information security and other industry verticals. All Solution Architects hired by US Signal have demonstrated experience deploying virtualized environments and highly available computing environments.

### **IMPLEMENTATION MANAGER**

US Signal's Implementation Managers must possess excellent leadership and communication skills to provide technical leadership and guidance on customer projects. They are outcome oriented, creative thinkers who shepherd projects from start to finish ensuring work is performed to best practices and meets the business needs of the customers they serve. 5+ years of demonstrated technical excellence paired with the required communication and leadership skills make these the perfect people to assist customers as they implement US Signal technologies.

### **SERVICE DELIVERY AND PROJECT MANAGEMENT**

The US Signal Service Delivery team is the project management hub for any customer project. A dedicated project manager is assigned to each customer and order. The assigned Project Manager is accountable for the entire life cycle of an order, from creation to billing. The Project Manager acts as the internal and customer facing advocate to ensure on-time completion, risk management, and proactive customer communication.

US Signal Project Managers are the primary point of contact during the implementation phase of any customer order. Project Managers hired by US Signal have at least 3 years' prior experience in Telecommunications or Information Technology project management.

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# ROLES AND RESPONSIBILITIES

## PROFESSIONAL SERVICE ENGINEERS

Professional Service Engineers (PSE) ensure that customers receive the highest level of service by implementing high touch cloud migration and service onboarding strategies. Engineers act as a guide for the customer through the implementation of new practices and processes in their US Signal environment. The team becomes experts on individual customer solutions and becomes an extension of the customer's IT team. Professional Service Engineers have at least 5 years of experience working in enterprise customer environments and hands-on knowledge of data center technologies and applications.

## PROVISIONING

US Signal's circuit design engineers are responsible for provisioning the network, cloud, and colocation resources ordered by a customer. This team holds multiple Cisco and VMware certifications. This team is accountable for ensuring all US Signal hardware and software is properly configured and tested to ensure that services are operational on the assigned due date and meet the design specifications.

## FIELD OPERATIONS

To support US Signal customers, network, and cloud infrastructure, US Signal employs Field Operations Technicians throughout its ten-state region. US Signal's technicians are qualified to provide on-site customer premise equipment installation, network element installation, configuration, and support. All technicians are equipped with the necessary tools and test sets to perform fault isolation and begin restoration. US Signal provides spare equipment inventory for each technician allowing for immediate resolution without the need to rely on vendor advanced replacement services for customer premise or network hardware.

## FACILITY OPERATIONS

The Facility Operations team is responsible for the safe operation, maintenance, and upkeep of all US Signal owned properties including US Signal's eight data centers. This team assists new colocation customers with onboarding, ensuring that the space is prepared and that appropriate access is established. Additionally, this team is responsible for the engineering and maintenance of the space, physical infrastructure, HVAC, power, alarm systems, fire suppression, video surveillance, and access control at each location.

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# ROLES AND RESPONSIBILITIES

## TECHNICAL OPERATIONS CENTER

US Signal's Technical Operations Center (TOC) is staffed 24 x 7 x 365 to ensure that trained technicians are available to assist customers and monitor US Signal's network and cloud infrastructure. The TOC is broken into three teams: Maintenance, Surveillance, and Change Management. The US Signal TOC's toll-free number has a Service Level Objective to be answered in 30 seconds or less by a live technician. No call trees are permitted at US Signal, and the TOC has a consistent history of maintaining a 16 second or better time to answer metric.

US Signal's Maintenance team is the primary customer-facing group within the TOC. Maintenance Technicians are accountable for responding to customer calls and emails for assistance. The Maintenance Engineers are trained to a common baseline of skills, but each technician has an area of specialization or certification including CCNA's, CCNP's, VMware certified staff, and MCSE's. The Maintenance team also has a tier 2-support team to address complex troubleshooting and customer support. The Maintenance team will provide customers with hourly updates on any open trouble tickets until a satisfactory resolution is reached. This team within the US Signal TOC is not graded on the number of tickets it closes, but instead, on the quality of the service provided.

US Signal TOC Technicians have a minimum of 3 years of network, cloud, or IT experience at the time of hire. Each US Signal TOC technician is provided with training to allow for minimum established testing and support standards for all US Signal products. Technicians have a specialization reflected in their prior work experience including network, software support, OS support, or hardware support. At time of hire, candidates must possess the applicable certification for the area in which they were hired. These certifications include CCNA for network support, and VCA or MCSA for Cloud support. Upon hire, additional training, including the option to attain VMware VCP certification, is provided.



# Managed Data Migration Services

Workload migration to the cloud doesn't have to be difficult. Drawing upon their expertise and "lessons learned," US Signal's team of experienced migration specialists can migrate your data from almost any physical or virtual environment directly into your US Signal cloud environment. They've successfully handled data migrations for customers across a wide range of industries. They've seen what works and what doesn't, know where the risks lie, and know how to mitigate them to ensure a successful move.

Data Migration Services include cloud-readiness assessments, migration planning, destination environment configuration, physical data migration, migration process monitoring, post-migration connectivity confirmation and testing, and other services as needed.

## 1. DISCOVERY: PLAN CUTOVERS

Once data collection is complete, US Signal will work with the customer to schedule pertinent migration events. Some environments, depending on complexity and size, may require several scheduled migration windows. The Project Manager will work with the customer to determine the ideal window(s) for cutover to ensure a smooth transition into the new environment.

## 2. MIGRATION: IMPLEMENTATION

After the discovery phase, and scheduling has been determined, the data migration will begin. Installation of the preferred migration tooling will often happen during a remote session with the customer's chosen assets and the US Signal Professional Services team. This call usually takes 1-2 hours to complete the installation of the necessary tooling to begin the migration of data.

## 3. MIGRATION: INITIAL SYNCHRONIZATION

Once the tooling is installed and checked for quality, customer targeted workloads can begin initial synchronization. Initial "sync" is the process of creating an initial copy of the servers and the data they hold. Depending on the size of the data and the bandwidth available this can take hours, days or even weeks.

## 4. MIGRATION: DELTA SYNCHRONIZATION

After the initial sync of the data is complete, the project transitions into the monitoring of change or "delta" synchronization. Because moving the same data over and over again isn't in the best interest of either party, US Signal uses tooling to cut out the movement of data that doesn't change. We monitor the data movement for performance and completeness and make final updates to the cutover windows as necessary.

## 5. VALIDATION & COMPLETION: CUTOVER

### Once the final cutover is scheduled, the following can be expected:

1. Prior to the cutover event, the Professional Services team will send the customer a Method of Procedure (MOP). The MOP will provide detailed instructions that will be followed during the cutover. It will also contain a detailed rollback plan.
2. The customer will receive call bridge information that will be used during the cutover event. The project team will meet-up on the assigned call bridge at the arranged time.
3. The project team will advance through the steps detailed in the MOP. Once the cutover is completed by the project team they will hand off the customer workloads to the customer so validation and testing can take place.

4. If any issues are found during customer testing and validation the project team will assist with remediation where appropriate.
5. The cutover and call will end once the customer has confirmed that all workloads are performing as expected.

If it was determined that multiple cutovers work best for the customer's environment, this process will be followed for all scheduled cutover events. Once the cutover events have completed successfully and the user environment validated, the project can move forward with the project closure.



# Disaster Recovery-as-a-Service

With Disaster Recovery-as-a-Service (DRaaS), your primary production environment will be continuously replicated to one or more US Signal cloud environments or between US Signal virtual data centers. When needed, a fully replicated instance of your environment can be deployed with just the click of a button.

US Signal's DRaaS solution leverages Zerto Virtual Replication technology and is available as a fully managed or self-managed solution to fit your applications, business requirements and budget. Fully managed disaster recovery is setup, monitored and maintained by US Signal engineers and includes documented RTO SLA's plus a full disaster recovery playbook.

## 1. DISCOVERY: PLAYBOOK CREATION

For Managed DRaaS customers, once data collection is complete, US Signal will work with the customer to create the playbook and design documentation outlining the technical details of the solution. The playbook will eventually be used by the customer and US Signal to fail the targeted workloads over to the designated recovery environment.

## 2. IMPLEMENTATION: PLATFORM INSTALLATION AND CONFIGURATION

After discovery is complete, the implementation will begin. Installation of the preferred tooling will often happen during a remote session with the US Signal professional services team. This call usually takes 1-2 hours to complete the installation of the necessary tooling to begin protection.

## 3. IMPLEMENTATION: INITIAL SYNCHRONIZATION

Once tooling is installed and checked for quality, customer targeted workloads can begin initial synchronization. Initial “sync” is the process of creating an initial copy of the servers and the data they hold. Depending on the size of the data and the bandwidth available this can take hours, days or even weeks.

## 4. IMPLEMENTATION: DELTA SYNCHRONIZATION

After the initial sync of the data is complete, the project transitions into the monitoring of change or “delta” synchronization. Because moving the same data over and over again isn’t in the best interest of either party, US Signal uses tooling to cut out the movement of data that doesn’t change. US Signal monitors the data movement for performance and completeness and makes any final modifications to protection grouping before moving to validation.



# Enterprise Backup-as-a-Service

Shorten backup and recovery times. Improve bandwidth efficiencies. Shrink storage requirements. It's all possible with Enterprise Backup-as-a-Service (EBaaS), US Signal's fully managed backup and recovery for on-premises environments and data hosted in a US Signal cloud environment. All related infrastructure and backup components are managed and monitored by the US Signal team to free internal resources from dealing with daily management and troubleshooting.

## EBaaS is available in three deployment models:

- + **Agent-based Deployment** offers file and application backup and restoration and protection for entire operating systems.
- + **Image-based Deployment** interacts directly with the hypervisor to take crash-consistent full image-level backups of virtual machines.
- + **Combined Agent- and Image-based Deployment** uses software agents to protect workloads that have application-level requirements, while protecting workloads that require full crash-consistent recovery points with image-based protection.



## 1. DISCOVERY: SOLUTION DESIGN

Once data collection is complete, US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION: POLICY CREATION

Based on the information gathered in discovery, the project team will begin the setup and configuration of:

1. Backup datasets
2. Backup retention schedules
3. Backup run schedules
4. Backup group(s)
5. Backup alerts
6. Scheduled backup reports

These policies will be configured prior to the platform installation. Changes to these configurations can always be changed post installation when necessary.

## 3. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

During the installation and configuration, the project team will begin to perform platform installations based on the solution designed for the customer. The following steps will be taken during this phase of implementation.

1. Install EBaaS software components.
2. Place protected endpoints into their corresponding backup group(s).
3. Confirm pre-configured backup settings to ensure all the items in the above documented procedure have been provisioned.

## 4. IMPLEMENTATION: INITIAL BACKUP

Once the customer designated endpoints have been configured for backup, success criteria is established prior to moving on in the implementation. The following areas will be considered:

1. Ensure each endpoint is consecutively backing up without error.
2. If issues are discovered with individual machines or subsets of the customer environment, which prevent successful backups, the customer will be engaged to troubleshoot.
3. Implementation will not be deemed complete until all devices in scope for backup are occurring successfully.

Being that the initial backup is a net new creation of every block of data, the process can take time based on the size and complexity of the backup solution. Once the initial backup is complete, the consecutive backups will only capture the change data and will be much faster in most use cases.



# Enterprise Replication

Use Enterprise Replication to replicate on-premises data to a US Signal cloud native target and customer pay only for target storage amounts after deduplication. Enterprise Replication reduces the amount of data transmitted over the network by replicating only changed data blocks. Data replication endpoints are securely accessible from the Internet. All data replication traffic is protected by SSL encryption. Restorations are managed by the US Signal team, and US Signal monitors and maintains the replicated cloud target storage appliance.

## 1. DISCOVERY: SOLUTION DESIGN

Once discovery is complete US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION

Initialization of the replication is a simple process that can be broken down into a short three phase workflow. Based on the solution design and discovery information, implementing the service consists of:

1. Configuration of replication destination
2. Configuration of replication source
3. Commence Replication



# Managed Backup-as-a-Service

With Backup-as-a-Service (BaaS), US Signal's agent-based data backup solution, you can back up customer data from any physical or virtual infrastructure or Windows workstation to the US Signal Cloud. Then, easily access it anytime and restore it to anywhere using any Internet connection and outgoing TCP ports.

Individual servers are protected by installing a backup agent inside any supported operating system. Customers can also install an agent on any server with network visibility to their hypervisor to provide backup and recovery for VMware vSphere or Microsoft Hyper-V.

All traffic from the client machine to US Signal cloud storage is transmitted over SSL encryption. Choose fully managed Backup-as-a-Service or a manage-it-yourself data backup option.

## 1. DISCOVERY: SOLUTION DESIGN

Once data collection is complete, US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION: POLICY CREATION

Based on the information gathering in the Pre-Sales process and the customer environment discovery, the project team will begin the setup and configuration of:

1. Backup datasets
2. Backup retention schedules
3. Backup run schedules
4. Backup group(s)
5. Backup alerts
6. Scheduled Backup reports

These policies will be configured prior to the platform installation. Changes to these configurations can always be changed post installation when necessary.

## 3. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

During the installation and configuration, the project team will begin to perform platform installations based on the solution designed for the customer. The following steps will be taken during this phase of implementation:

1. Install BaaS software components.
2. Place protected endpoints into their corresponding backup group(s).
3. Confirm pre-configured backup settings to ensure all the items in the above documented procedure have been implemented.

## 4. IMPLEMENTATION: INITIAL BACKUP

Once the customer designated endpoints have been configured for backup, success criteria is established prior to moving on in the implementation. The following will be considered:

1. Ensure each endpoint is consecutively backing up without error.
2. If issues are discovered with individual machines or subsets of the customer environment which prevent successful backups, the customer will be engaged to troubleshoot.
3. Implementation will not be deemed complete until all devices in scope for backup are occurring successfully.

Being that the initial backup is a net new creation of every block of data, the process can take time based on the size and complexity of the backup solution. Once the initial is complete, the consecutive backups will only capture the change data and will be much faster in most use cases.



# Managed Cloud Backup for Veeam

With Cloud Backup for Veeam (CBFV), US Signal's Veeam based backup solution, you can protect Virtual Machines at the hypervisor level or install agents to backup servers and workstations. Veeam Cloud Connect allows copies of customer backups to automatically be sent to the cloud for site redundancy and restore to the source as needed.

Backup VMware virtual machines by installing Veeam Backup & Replication on the customer network with access to the hypervisors to be protected. Customers can also install an agent to protect individual servers and workstations.

All traffic from the client machine to US Signal cloud storage is transmitted over SSL encryption. Choose fully managed Cloud Backup for Veeam or the manage it-yourself data backup option.



## 1. DISCOVERY: SOLUTION DESIGN

Once data collection is complete, US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION: PLATFORM INSTALLATION AND CONFIGURATION

Based on the information gathered in the Pre-Sales process and the customer environment discovery, the project team will perform the setup and configuration of the following:

1. Any required Veeam components.
2. Backup retention schedules.
3. Backup run schedules.
4. Backup alerts.
5. Confirm backup settings to ensure all the items in the above documented procedure have been implemented.

Changes to the policies may be made as necessary.

## 3. IMPLEMENTATION: INITIAL BACKUP

Once the customer designated endpoints have been configured for backup, success criteria is established prior to moving on in the implementation. The following will be considered:

1. Ensure each endpoint is consecutively backing up without error.
2. If issues are discovered with individual machines or subsets of the customer environment which prevent successful backups, the customer will be engaged to troubleshoot.
3. Implementation will not be deemed complete until all devices in scope for backup are occurring successfully. Being that the initial backup is a net new creation of every block of data, the process can take time based on the size and complexity of the backup solution. Once the initial is complete, the consecutive backups will only capture the change data and will be much faster in most use cases.



# Managed Cloud Replication for Veeam

With Cloud Replication for Veeam (CRFV), your primary production environment will be replicated to the US Signal cloud environment. When needed, a replicated instance of individual workloads or your entire protected environment can be powered on with just the click of a button.

US Signal's CRFV solution leverages Veeam Replication technology and is available as a fully managed or self-managed solution to fit your applications, business requirements and budget. Fully managed CRFV may be setup, monitored and maintained by US Signal engineers and includes documented RTO and RPO SLA's plus a full disaster recovery playbook.

## 1. DISCOVERY: PLAYBOOK CREATION

Once data collection is complete for Managed CRFV customers, US Signal will work with the customer to create the playbook and design documentation outlining the technical details of the solution. The playbook will eventually be used by the customer and US Signal to fail the targeted workloads over to the designated recovery environment.

## 2. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

After discovery is complete, the implementation will begin. Installation and/or configuration of Veeam Backup & Replication will often happen during a remote session with the US Signal professional services team. This call usually takes 1-2 hours to complete the proper deployment and begin protection.

## 3. IMPLEMENTATION: REPLICATION

Once Veeam Backup & Replication is implemented and checked for quality, customer targeted workloads can begin initial replication. This process creates the initial copy of the servers and the data they hold. Depending on the size of the data and the bandwidth available this can take hours, days or even weeks.

## 4. IMPLEMENTATION: DELTA SYNCHRONIZATION

After the initial replication of the data is complete, the project transitions into the monitoring of change or “delta” replication. To limit bandwidth utilization and reduce replication time, US Signal tooling eliminates replication of data that doesn’t change. US Signal monitors the data movement for performance and completeness and makes any final modifications to protection grouping before moving to validation.



# Remote Monitoring and Management

Offered as a managed service, US Signal's Remote Monitoring and Management (RMM) keeps your operations secure, at peak availability, and performing optimally. If issues arise, US Signal's team of experts can pinpoint the core issues for speedy resolution before they become problems.

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## 1. DISCOVERY: SOLUTION DESIGN

Once data collection is complete, US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

During the installation and configuration, the project team will begin to perform platform installations based on the solution designed for the customer. The following steps will be taken during this phase of implementation:

1. Install RMM software components.
2. Discover endpoints that will be in scope for monitoring and begin initial monitoring.
3. As customer endpoints, or groups of endpoints, are imported into the platform your project team will begin conversations about the desired configurations for thresholds and alerting.

## 3. IMPLEMENTATION: ADDITIONAL CONFIGURATION

RMM is only as powerful as its meaningful configuration. While the bulk of the service pertains to monitoring performance data, RMM can include Patch Management and Security Manager. These are electable options and in some ways follow their own implementation process:

### 1. Configure Patch Management Policies

Over a series of one or more calls the project team will work with the customer to get patch management policies configured to meet the needs of the customer's organization. Profiles will be created for groups or individual endpoints that determine settings such as:

- a. Maintenance windows for patch installation
- b. OS patch policies vs 3rd party patch policies
- c. Automatic and manual approval policies
- d. Policy configuration for reboots, post-installation

## 2. Set Up and Installation of Managed Antivirus

The project team will work with the customer to configure the antivirus settings to meet corporate policies. Settings including white and black lists, active vs. passive scanning and group profiles will be discussed with the customer and a policy will be created to meet specifications. Once the antivirus profile is built the project team will push the agents to customer endpoints to begin protection.

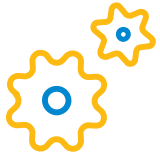
## 4. IMPLEMENTATION: TUNING

After an interval agreed upon during the initial kick-off call, the project team will work to adjust monitoring and alerting thresholds. These profiles are tailored specifically for each operating system and common applications, such as Exchange and SQL Server, that might be running within those environments. Any configurations discussed during the discovery process will be applied to standard monitoring templates.

Once the monitoring profiles have been built and applied, the customer will have a good base point for monitoring that will be refined over time. All alarms generated by these profiles will be analyzed by the project team and reviewed with the customer and adjusted as needed. This process ensures that the customer monitors are constantly groomed until they reach the point in which only receives alarms that are pertinent to their specific environment.

## 5. VALIDATION AND COMPLETION: TESTING

Once the monitoring health is agreed upon by the customer and project team, testing of the platform and configured workflows will begin. The testing is to ensure not only the alarm is triggered, but an appropriate response and workflow followed from alarm condition through ticketing, remediation, and the notification process is followed.



# Data Transfer Service

Data Transfer Service is a Professional Service that is purchased by the customer for the purpose of transferring a customer's compute environment templates and/or raw data to and from US Signal cloud services. This is accomplished by the customer shipping a storage device containing the applicable data to US Signal or a blank storage device to use as the destination for the export of data from a customer's cloud service.

## 1. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

After the discovery phase, implementation can now commence. The data transfer kiosk will be configured as an extension to the customer data plan where the data to transfer resides. The external device will be shared out and navigable via traditional network share protocol. The customer can then begin the transfer of data.

## 2. VALIDATION & COMPLETION: PROJECT CLOSURE

At this time, the project team will report any discrepancies between the original order and implemented solution to insure correct billing and documentation is complete. The device is collected from the data transfer kiosk and shipped to the customer.





# Backup-as-a-Service Pre-Seeding

Backup-as-a-Service (“BaaS”) Data Seeding allows customers to ship initial backup(s) on a storage device(s) to US Signal for transmission to Backup-as-a-Service via US Signal’s high speed in house network connection.



## 1. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

After the data collection phase, implementation will begin. The backups designated as “seed” backups will be uploaded directly to platform storage via US Signal’s network so any subsequent backups will only write changes and thereby take considerably less time for customers with lower available bandwidth.

## 2. VALIDATION & COMPLETION: DESIGN UPDATE

At this time, the project team will monitor the customer backup post upload to ensure the backup is processing as intended. Once validated, the customer device is returned and the project is closed.



# Vulnerability Management

With Vulnerability Management (VMaaS), your networks, servers and workstation environments will be scanned internally and externally for any known vulnerabilities. Your team will receive a report detailing detected vulnerabilities and their severity. Optionally, a SOC Analysis may be included with the report to provide expert guidance on prioritizing remediation efforts of the detected vulnerabilities. If you have remote employees working from home or that use VPN, our Cloud Agent based scanning will let you detect vulnerabilities on these workstations as well when employees are outside the office giving you a complete picture on the health of your company's assets.

US Signal's VMaaS solution leverages Qualys Cloud Platform to identify the risk cross-section of your network. Improve your security posture with a scan report that details the potential threats malicious actors may try to exploit in your network without standing up your own Security Operations Center. Receive regular scan reports to keep a constant watch on your dynamic environment in a constantly evolving threat environment with US Signal's expert analysis.

## 1. DISCOVERY: TOPOLOGY

Once network discovery is complete for Vulnerability Management customers, US Signal will work with the customer to identify domains and segmented networks to create design documentation outlining the technical details of the solution. The design will be used to map the network for the scan to identify what should and should not be scanned.

## 2. MIGRATION: PLATFORM INSTALL AND CONFIGURATION

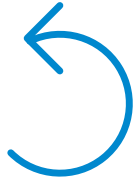
After discovery is complete, the implementation will begin. Installation and configuration of Vulnerability Management often happen during a remote session with the US Signal security operations team. This call usually takes 1-2 hours to complete the proper deployment and preparation for the initial scan. The US Signal security operations team will work with the customer to deploy remote agents and ensure connectivity to the cloud for workstations.

## 3. DELIVERABLE: SCAN REPORT

Once implementation is complete and verified, the specified domains and networks can be scanned. This process creates the initial report of vulnerabilities identified along with their Common Vulnerability Scoring System (CVSS) score. Depending on the number and types of scanners the scan and the bandwidth available this can take hours or days. US Signal monitors the scanner and agent performance and completeness before providing the report.

## 4. OPTIONAL: SOC ANALYSIS

After the initial scan is complete, a US Signal security operations center engineer will review the report and provide guidance on prioritization and remediation options. Their expertise will specifically address the most critical vulnerabilities as well as methods to efficiently remediate the vulnerabilities detected.



# Cohesity Backup

Shorten backup and recovery times. Improve bandwidth efficiencies. Shrink storage requirements. It's all possible with Cohesity Backup, US Signal's fully managed backup and recovery for data hosted in a US Signal cloud environment. All related infrastructure and backup components are managed and monitored by the US Signal team to free internal resources from dealing with daily management and troubleshooting.

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## 1. DISCOVERY: SOLUTION DESIGN

Once data collection is complete, US Signal will work with the customer to initially populate the design document for the service outlining the solution. The design document will eventually be used by the customer and US Signal managed services to track overall design and protection of the customer environment.

## 2. IMPLEMENTATION: POLICY CREATION

Based on the information gathered in discovery, the project team will begin the setup and configuration of:

1. Backup datasets
2. Backup retention schedules
3. Backup run schedules
4. Backup group(s)
5. Backup alerts
6. Scheduled backup reports

These policies will be configured prior to the platform installation. Changes to these configurations can always be changed post installation when necessary.

## 3. IMPLEMENTATION: PLATFORM INSTALL AND CONFIGURATION

During the installation and configuration, the project team will begin to perform platform installations based on the solution designed for the customer. The following steps will be taken during this phase of implementation:

1. Install Cohesity Backup software components
2. Place protected endpoints into their corresponding backup group(s)
3. Confirm pre-configured backup settings to ensure all the items in the above documented procedure have been provisioned



# DRaaS for Cohesity

With DRaaS for Cohesity (DRFC), your primary production environment will be replicated from the production environment to the US Signal cloud, or between US Signal virtual data centers. When needed, a fully replicated instance of your environment can be deployed with just the click of a button.

US Signal's DRFC solution leverages Cohesity backup replication and is a managed solution to fit your applications, business requirements and budget. Fully managed disaster recovery is setup, monitored and maintained by US Signal engineers and includes documented RTO SLA's plus a full disaster recovery playbook.

## 1. DISCOVERY: PLAYBOOK CREATION

Once data collection is complete, US Signal will work with the customer to create the playbook and design documentation outlining the technical details of the solution. The playbook will eventually be used by the customer and US Signal to fail the targeted workloads over to the designated recovery environment.

## 2. IMPLEMENTATION: PLATFORM INSTALLATION AND CONFIGURATION

After discovery is complete, the implementation will begin. Installation of the preferred tooling will often happen during a remote session with the US Signal professional services team. This call usually takes 1-2 hours to complete the installation of the necessary tooling to begin protection.

## 3. IMPLEMENTATION: INITIAL SYNCHRONIZATION

Once tooling is installed and checked for quality, customer targeted workloads can begin initial synchronization. Initial “sync” is the process of creating an initial copy of the backups and the data they hold. Depending on the size of the data and the bandwidth available this can take hours, days or even weeks.