



OpSus|Recover

Implementation and Configuration Assumptions

Functionality.

The OpSus Recover Service performs replication of backup data from the customer's primary data center to the OpSus Recover site. Upon declaration of a disaster, the CloudWave Disaster Response team will initiate restoration of customer data to our disaster recovery SAN. Our team will provide fully-managed operating support for your EHR and enterprise application infrastructure and data, including routine backups, network connectivity support, and systems maintenance until the disaster has passed and the hospital has re-established the computing infrastructure in their data center. The team will also assist in the migration of operations back to your site.

Implementation and Operations

Service Initiation and Customer Requirements.

CloudWave will provide necessary data replication services determined by service level to ensure successful replication of Customer data into an OpSus data center. Customer participation and environment management is also required.

- Readiness Assessment- An assessment of the Customer environment is performed to review scope, service level objectives, and technical and integration considerations prior to commencement of the service.
- Assessment Remediation- Describes specific areas of improvement or modification needed prior to the start of the service, as observed during the Readiness Assessment, including bandwidth and latency specifications.
- Professional Services- Professional assistance is provided to plan the details of Customer implementation and assist with telecommunications planning and optimization to ensure overall success of the project
- Operations Coordinator- A primary and secondary Customer point of contact is needed to coordinate changes, participate in periodic service evaluations, and arrange any on-site technical support or activities required at the local customer site.
- Customer Access to OpSus Services- Remote access to systems for all CloudWave OpSus services will be accomplished through Virtual Desktop Infrastructure. Users will log in via SSL web services or site-to-site VPN tunnels.
- OpSus Connectivity- CloudWave provides redundant VPN concentrators within the CloudWave network.
- Onsite Connectivity- Customer provides an Internet VPN tunnel via their existing WAN or dedicated Internet connection and manages their VPN concentrator(s) from their site to the OpSus Recover data center(s).
- EHR Application and 3rd Party Functionality- CloudWave will work with EHR application providers and other vendors to ensure proper application functionality.
- EHR Application Support- Customer provides EHR application support, monitoring, and management of the application environment including application upgrades.

Environment Components and Configuration.

CloudWave will provide necessary hardware and services determined by service level to ensure successful delivery of the OpSus Recover environment. Customer participation and environment management is also required.

- Virtual Desktop Infrastructure- The Proposal includes the Virtual Desktop Infrastructure (VDI) Service which runs from thin client devices or PCs. The underlying technology may be Horizon View or Citrix.
 - For Horizon View, Microsoft requires the Microsoft Virtual Desktop (MS VDA) to access the Windows OS License. Microsoft does not provide Service Provider Licensing for MS VDA and this must be provided by and paid for by Customer.
 - For Citrix, Microsoft requires Remote Desktop Services Client Access Licenses (RDS CALs) to access the remote desktop services running on the Microsoft OS. This may be provided by Customer or may be provided by CloudWave for an additional fee.

NOTE: If RDS user CALs are not purchased through CloudWave, the following must be met:

- Customer must provide CloudWave the required RDS User CALs with Software Assurance purchased under a Microsoft Volume Licensing Agreement.
 - Customer must complete, and Microsoft must accept, the Microsoft License Mobility Verification Form to allow CloudWave to use the RDS User CALs.
- Data Replication Device (optional)- A data replication device used for daily replication to the OpSus data center can be installed at the Customer's local site.
 - OpSus Backups- CloudWave will store and retain backups at an OpSus data center based on the OpSus Recover service level agreement, as specified in the Proposal.
 - Onsite Backups- Customer performs backups for EHR application and non-EHR application data on supported components and assesses restorability of the data stored on the backup.
 - Exception: CloudWave performs these backups during an actual recovery (post disaster declaration).

Disaster Testing.

CloudWave will coordinate initial and periodic testing with Customer as specified by the Proposal.

- Test Coordination and Frequency- The service includes one planned disaster recovery test each year, extra planned tests are available for an additional fee. Tests must be scheduled a minimum of thirty (30) days in advance.
- Testing Duration- Upon test scheduling, Customer will be allocated a five to seven-day window for resource allocation and testing.
- Post Test Assessment and Report- CloudWave will conduct a Post Test Assessment with Customer to review results, and to assess the need for improvements for future tests. CloudWave will provide a report to document the success, failure, and any improvement opportunities.

Disaster Declaration and Recovery.

A "Disaster" can be declared by the Customer and approved by CloudWave. In the event of a disaster declaration, the Customer's Key Administrative Contact signs a Disaster Declaration form to authorize recovery services.

- CloudWave Response- CloudWave will be available twenty-four hours per day, each day of the calendar year, to respond to a Customer's Disaster Declaration.
- Disaster Recovery Support Services- CloudWave will provide Customer with telephone or on-site support to assist Customer in regaining operational status of supported services following a Disaster Declaration.

- Recovery Mode Backups- While Customer is operating in Recovery Mode, CloudWave will perform nightly backups.
- Run Time In OpSus- Customer will operate from the OpSus data center for a specified time, according to the OpSus Recover agreement.
- Return to Normal Operations- If Customer chooses to return operations to the Customer site, CloudWave performs the following migration services according to the OpSus Recover agreement.

Services Included:

- Backup of Customer data,
 - Replication of Customer data to alternate site,
 - Reconfigure hardware for production,
 - Conduct data migration,
 - Configure on premise backups.
- Optional Services:
 - New hardware, staging, or installation of new hardware at Customer site,
 - Go-Live support for cutover from OpSus to on-premise operations,
 - Device wipe services of existing Customer hardware.