



STATEMENT OF WORK (SOW)

VILLAGE OF ORLAND PARK — VIRTUALIZATION UPGRADE

11/7/2018
SWC Technology Partners
Eric Jandacek

1 STATEMENT OF WORK

This Statement of Work will be incorporated into the Master Services Agreement with an Effective Date of May 17th, 2006 between SWC Technology Partners, LLC. ("SWC"), and Village of Orland Park ("Orland Park", "Client").

All terms and conditions of the Services Agreement not modified herein remain in full force and effect for the Term of the Agreement.

2 BACKGROUND

Village of Orland Park seeks to upgrade its Hyper-V environment, infrastructure that supports it, and expand its disaster recovery capabilities. SWC will design and implement the process to execute the upgrade and setup DR infrastructure.

This Statement of Work serves as a guideline for the work to be performed.

3 OBJECTIVES

Key objectives of this project include:

- Upgrade virtual infrastructure
- Virtualize physical Exchange Server
- Build out DR infrastructure

4 SCOPE

The items within the scope of this project are:

4.1 DESIGN AND PLANNING

- Networking core switch stack design and planning
- Hyper-V upgrade and migration to Server 2016 design and planning
- Plan for P2V conversion of Exchange Migration
- Backup job documentation for migration from Barracuda to Veeam.

4.2 BACKUP SETUP

- Deploy and configure a new Veeam backup server

- Configure new backup jobs in Veeam
- Perform cluster integration and validation testing
- Perform backup jobs and remediate errors

4.3 STORAGE SETUP

- Upgrade existing 3PAR SAN to latest release of software
- Upgrade existing 3PAR SAN with new drives
- Apply new licenses and confirm accessibility
- Create new virtual volumes for segmented workloads
- Export volumes to Hyper-V nodes

4.4 HYPER-V CLUSTER UPGRADE

- Upgrade two existing Hyper-V cluster hosts with memory
- Upgrade firmware and deploy all updates
- Install Windows Server 2016 Hyper-V and all updates
- Configure 10GB converged networking for Management, Cluster, VM Access, and Live Migration networks

4.5 NETWORKING

- Install two new HPE Aruba 2930f series switches to replace existing Cisco 3750 switches
- Migrate networking to the new virtualization core stack

4.6 PHYSICAL EXCHANGE SERVER MIGRATION

- Virtualize existing physical Exchange server
- Validate functionality

4.7 DISASTER RECOVERY INFRASTRUCTURE

- Install, upgrade, and reconfigure the repurposed Cisco 3750 switch stack for DR virtualization infrastructure
- Remove 1 node from the Hyper-V cluster and repurpose as a DR node
 - Upgrade the host with memory and SAS HBA
 - Upgrade firmware and deploy all updates

- Install and configure Windows Server 2016 Hyper-V
 - Configure 10GB converged networking for Management, Cluster, VM Access, and Live Migration networks
- Install and configure a new MSA 2050
 - Integrate into network and DR host
 - Create new volumes and present to host
 - Deploy a new domain controller
- Configure VM replication
- Validate replication process
- Verify VM replica server is accessible

4.8 DOCUMENTATION AND INFRASTRUCTURE HAND-OFF

- Document the new environment topology
- Document DR failover procedure
- Knowledge transfer

DELIVERABLES

- Topology diagram
- DR Failover procedure

4.9 PROJECT MANAGEMENT

- Project initiation and tracking
- Weekly status reports
- Formal change requests (as needed)
- Project closure meeting
- Deliverables and quality review

4.10 HARDWARE

- SWC has worked with HPE to achieve escalated special discounted pricing on behalf of the Village of Orland Park
 - Hardware quote has been *Deal Registered* with HPE to ensure discounted pricing
 - See separate quote sheet for details

5 OUT OF SCOPE

The items not included the scope of this project are:

- Detailed business continuity and disaster recovery planning
- Troubleshooting of server/VM/application specific issues not related to Hyper-V migration

6 ESTIMATE

SWC will bill at the following rates for the project:

Infrastructure Role	Business Hours Rate	After Hours Rate
Infrastructure Consultant	\$185/hour	\$277.50/hour
Technical Project Manager	\$185/hour	\$277.50/hour

The estimated cost of the project is shown in the table below.

	Hours	Cost
Design and Planning	36	\$6,660
Backup Setup	12	\$2,220
SAN Setup	14	\$2,590
Hyper-V Cluster Upgrade	38	\$7,585
Networking	18	\$3,885
Exchange Server Virtualization	12	\$3,330
DR Infrastructure	46	\$8,510
Environment Documentation	40	\$7,400
Engineer Lead Project Management	45	\$8,325
TOTAL	261	\$50,505

This estimate may be modified by SWC upon further discovery of Project requirements and SWC involvement. If additional time is needed to complete the Project, it will require that a Project Change Request be duly authorized by Client.

The Project will be conducted on a time and materials basis. Actual hours spent will be billed. SWC will invoice Client monthly for services performed and approved expenses incurred during the previous period. Client agrees to pay within the invoice terms.

7 TIMELINE

The Project is expected to take 6-10 weeks from the date of project commencement. Any delays that extend the project duration beyond 10 weeks may require a Project Change Request to increase cost estimates.

The project start date has not been defined. SWC will work with Client to develop an acceptable project schedule and timeline.

8 ASSUMPTIONS & CONTINGENCIES

- All invoices will be based on net 30-day terms.
- Hours worked will be billed monthly.
- This proposal is in effect for thirty days from the date of this letter.
- Access to all existing relevant documents will be provided as needed.
- Access to technical and functional personnel will be made available as required.
- Appropriate access to required systems and services will be granted to SWC staff as needed.
- All work will be completed during normal business hours. After hours work will be billed at 1.5 times the standard billing rate.
- Normal business hours are 8:30 AM to 5:00 PM, Monday through Friday, excluding SWC holidays.
- SWC will conduct high-level testing of the solution; Client will be responsible for testing all functionality and then report issues to SWC.
- Client is responsible for purchasing all hardware, software and licensing.

9 APPROVAL

In Witness Whereof, the parties hereto have caused this Statement of Work to be executed by their duly authorized representatives.

Village of Orland Park

SWC Technology Partners, LLC.

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

