**Installation Process Details and Duration**

Below is a rough outline of the Zerto’s ISG Production Installation Process and the duration of each step

1. Pre-Installation Discussion (30 Minutes)

* Customer is provided Enterprise Guidelines PDF during / before call
* SFDC Production Rollout section reviewed to confirm environment details are correct and current
* Enterprise Guidelines PDF reviewed highlighting ZVM configuration, VRA configuration, VPG configuration
* Q&A session held with customer in regards to requirements, timeline for completion, any unique circumstances for installation (environment variables)
* Production Installation timeline discussed

1. Production Installation (45 min - 1 hour)

* Confirm Windows Servers created for ZVR installation, if not session rescheduled
* Confirm latest ZVR installer package downloaded, if not download latest
* Remotely connect to Windows Server and copy installer package (done for each ZVM)
  + Unzip package, begin installation
  + Discuss EULA, installation directory (C:\ or other) and vCenter credentials needed
  + Confirm connectivity from ZVM to vCenter (port 443) discuss installer process while awaiting completion
  + Once complete, review best practices for ZVM (updates, AV, snapshots etc)
* Log into vSphere Client, navigate to Plugin Manager, Enable Zerto Replication Plugin
* Navigate to Zerto Replication Plugin, also show customer standalone UI
* Highlight advantages to both User Interfaces
* Apply Zerto license
* Review Zerto 4.0 dashboard with customer to highlight enhanced GUI and new features
* Navigate to SETUP to enable Zerto VRA’s. Assist customer with installing 5 VRA’s
  + During initial configuration discuss each configuration option of VRA
  + During installation of VRA open vSphere client, review VRA installation tasks with customer to discuss process during each installation step (5%,10%,50%,80%90%)

1. Knowledge Transfer (1 hour – 90 min)

* Discuss virtual machine application dependencies, select virtual machines for VPG
  + Create VPG name, review importance of VPG priority
  + Select virtual machines from list, show customer searchable VM field, review Boot Order and discuss use cases for delayed VM power on (SQL, AD DC, etc.)
  + Choose Recovery site, discuss recovery site options (no multi-site rep support, self rep)
  + Review Host configuration, highlight choice of host cluster vs. host, same with data store
  + Discuss Journal history (point in time fail over) review benefits of journal history length
  + Highlight “Advanced” field, inform customer of Journal Hard Limit, ability to change JRNL data store or replica data store (ZVM will sVmotion)
  + Discuss customers current RPO, Zerto RPO setting, inform customer checkpoints are system defined 5 seconds and not changed by RPO
  + Discuss current testing strategy and usefulness of Test reminder
  + Review WAN compression (LZ4) and best practices
  + Highlight Thin provision and Swap settings, discuss using Swap with paging files, SQL TempDB
  + Ensure customer understands Storage “Edit Selected” options, highlight initial sync vs Delta Sync (pre-seeding strategies) and ability to protect RDM’s
  + Discuss FailOver/Move Network and Test Network, importance of Test Bubble network (In AWS this will be VPC network and Instance Family / Type)
  + Recovery Folder and Templates if customer has them setup in DR environment
  + Discuss Zerto’s ability to execute pre/post scripting and location scripts should be posted
  + Ask customer about need to change IPs when failing over, if applicable review RE-IP functionality, supported guest OS versions, need for VMware tools.
  + At high level discuss backup functionality, configuration of repository, length of archive (maybe discuss jFLR in future release)
  + Review Summary screen and go over details of VPG creation
  + Create VPG, navigate to VPG pane in ZVM GUI discuss VPG settings screen,
  + Discuss Initial Sync vs Delta Sync (depending on how VPG was configured)
* Perform Fail Over Test of VPG
  + Open vSphere Client and Zerto Plugin to show customer operations in both simultaneously
  + Review Execution Parameters, highlight Checkpoints and Point in Time Checkpoint selection capability
  + Initiate Fail Over Test of VPG, discuss tasks in vCenter (target VRA reconfiguration, move file, test VM creation)
  + Discuss best practices with customer (no test vm snapshot, or vMotion)
  + When applicable allow customer to log into test VM and to confirm application status of VM’s and RE-IP completion
  + Once customer confirmation granted, stop test, discuss fail over test cleanup process
* Perform Fail Over Live of VPG
  + Note Banner change from Dark Grey to Red to highlight difference in operation
  + Review execution parameters, highlight new parameters
  + Discuss differences between Commit / Rollback (and scratch volume) as well as Auto ability
  + Inform customer of VM shutdown option (and why FoL is no by default)
  + Ensure customer has full understanding of Reverse Protection and use cases
  + Log into DR vCenter vSphere Client
  + Initiate Fail Over Live of VPG (highlight “before-commit” and “promoting” tasks)
  + Allow customer ability to log into Failed Over VM’s to confirm application status
  + Navigate to VPG screen, discuss Delta Sync operation after Fail Over and the reasoning (data consistency)
* Perform Move Operation of VPG
* Initiate Move Operation by clicking on Actions button
* Review Execution parameters
* Highlight Move will always shut down VM and why (flush data to disk one last checkpoint
* Discuss use cases of Fail Over Live vs Move (reverse protection)
* Log into target vCenter execute Move operation
* Review vCenter tasks while operation is occurring
* Allow customer ability to console into VM once operation complete
* Review Reporting
  + Navigate to Reporting tab
  + Select Recovery Reports
  + Export Recovery Report to PDF
  + Download PDF to customers computer and open for review
  + Discuss Recovery report summary and highlight second page with individual tasks of Zerto operation performed
  + Highlight use cases for reporting
* Review Site Settings
  + Navigate to Site Sites
  + Review site Information
  + Discuss Performance and throttling (Bandwidth) and use case / need
  + Highlight Policies and “enable self replication” use case
  + Configure SMTP notifications and discuss Zerto alerting
  + Discuss Compatibility (and call home update) of ESXi with customer
  + Highlight License screen, and break down of protected VM location, review License update process if Zerto license expansion is done
* Discuss Zerto Upgrade process
  + Highlight ease of upgrade (download installer, upgrade from ZVM)
  + Show customer Setup tab, VRA column discuss “outdated VRA” and click to upgrade VRA
* Review VMware Upgrade Best Practices with Zerto
  + Highlight reasoning for preserving vCenter database
  + Discuss Host MM and upgrading hosts (VRA host affinity rule)
* Customer Q&A
  + Open discussion for customer Q&A session
  + Discuss follow up in 3 – 4 weeks for health check

1. Health Check (1 hour)

* Discuss any configuration or operational questions customer has in regards to Zerto since installation complete
* Provide Health Check of environment
  + Review VPG health in ZVM GUI dashboard, discuss any VPG’s not meeting SLA (differences between History Not Meeting SLA, Not Meeting SLA)
  + Review VRA Health, discuss any VRA disconnections – highlight any VRA’s that may be yellow or red and causes
  + Review Sites Health – confirm if sites showing connected / disconnected and causes
* Q&A session
  + End session with additional Q&A to wrap up health check. See if customer has any other questions, any upcoming projects Zerto might be able to help with