Quick Startup Guide - EnsureDR for VMware SRM

Ver:1.0 - 11/05/17

EnsureDR is a tool that can make sure your DR site will work when you need it. It automates DR testing and uncovers any issues that need to be fixed. It runs every few days and keeps the business up to date with its DR state. EnsureDR supports DR solutions such as Double-Take, Zerto, VMware SRM, and Microsoft Hyper-V replica.

Documents description

In this quick startup guide you will learn how to quickly set up EnsureDR to test you DR environment. Please follow the instructions, and if there something unclear, contact support@ensuredr.com

Choose the design

EnsureDR supports multiple DR solutions in multiple environments. It is important to understand how it works and what environment is supported.
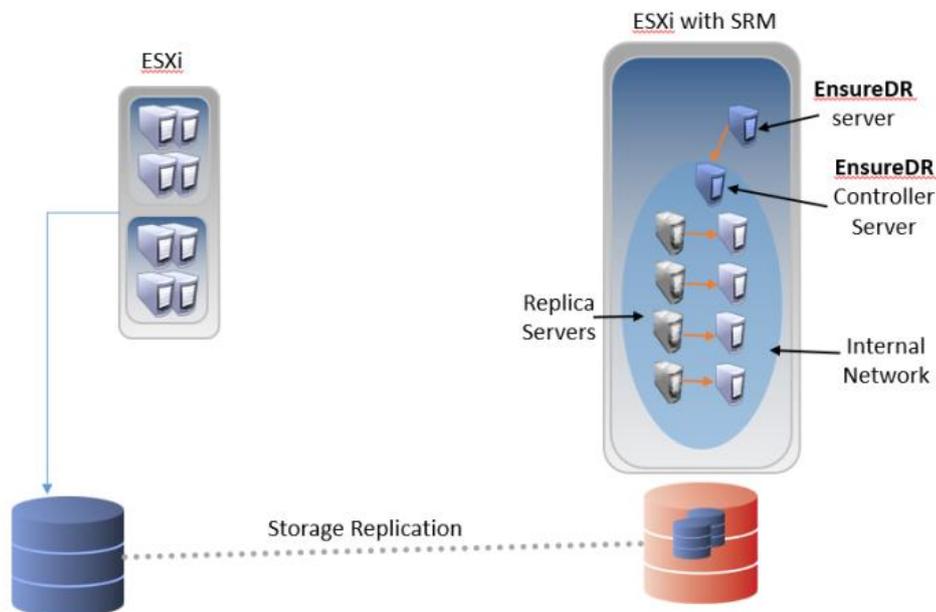
Prerequisites

In order to make EnsureDR work correctly, there are few prerequisites to set up in advance.

Servers and console	Two VM server machines with Windows 2012R2 / Windows 2016 clean install, 4GB mem, 2CPU, 50GB disk (C drive of VMs) located on DR host (target host). .Net 3.5 installed.
Credentials in domain	Domain admin user VC admin user Two servers should be joined to domain
Credentials in workgroup	Local administrator user VC admin user
Credentials in mix workgroup and domain	Same as above but use for each environment a different job
Networking	Bubble network on target Host / Cluster isolated from environment. If target is a cluster of multiple hosts, a physical or virtual VLAN that can close connection between them in bubble such as VMware DVSWITCH or close VLAN on physical switch with no Gateway so VMs can communicate with each other between hosts in close DR environment. EnsureDR console must be able to connect to Hypervisor, VC, VMM at source and target site.
Domain controller	Scenario 1: DC in replication job and boot first so any internal test done by EnsureDR won't be blocked due to missing login server. Scenario 2: DC is replicated via MS DC replication to live DC at DR. Use the DC clone in workflow in EnsureDR console. See user guide for more information.

Setup

Prepare two servers VMs with clean install of 2012R2/2016 (as described in prerequisites table). The first server will act as console and engine the second as gateway (EnsureDR controller).

In the EnsureDR controller, create an empty EDRC folder in C: root drive and give everyone full control access in NTFS and Share. Share C: drive ac "C" and give everyone full control access. Give access to domain admin group and local administrator to hosts file at c:\windows\system32\dirvers\etc\host. Make sure you can access c:\EDRC folder and hosts file from the EnsureDR server before starting.

EnsureDR console setup

It is recommended to install .net 3.5 upfront on console server. Setup will try to install it if it is missing.

1. Copy the EnsureDR-0.X.X.XXXX-setup.exe file to one of the server created up front in the DR site.
2. Run the setup file.

3. Set up the default location and basic setup settings.
4. It may take few minutes to run (it depends on environment and components missing).
5. In the Hypervisor setup windows, choose the target Hypervisor you got on the DR site.
6. When finished, run the EnsureDR for first time.
7. Press on Yes when asked to disable UAC.
8. Enter the license key. If you don't have a license key, you can enter the console, but you will not be able to run any jobs. Contact support if you have any issues with the license key.
9. Press on "No" when asked to run job wizard.
10. When you get to first screen, close the application and restart the server.

Note: During setup, the setup will pop up a few CMD windows installing components needed for it to work appropriately. When setup is finished, you may restart the server to make sure all works well.

Setting a job

1. Start EnsureDR and wait for it to start.
2. If you got previous other jobs you may see the "Job Selection" windows where you need to choose a job or create a new one.
3. In main console, choose "VMware SRM"

4. Set the expected RTO (the total time to recover). EnsureDR will compare the actual time to the expected time you set.
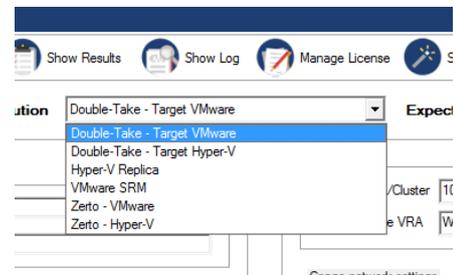
Credentials – (left side of main settings console)

5. Write the User Name and Password with credentials to the VMs you are testing. In VMware SRM for Hyper-V write a domain admin that has credentials to VMM (System Center Virtual Machine Manager).
6. Write the VC User and Password for the VC admin.
7. Write server name or IP of target VC.
8. Write server name or IP of source VC.
9. Press on SRM Settings to set up the recovery plans to work with.

SRM settings

10. Write server name or IP of source VMware SRM (SRM production).
11. Press on update. If all settings are correct, all fields will be filled (except "SRM DR"). If you do not see any Recovery Plans in the table, make sure the VC user name and password are correct, server name and IP are correct, and there is network connection to the servers.

12. Write server name or IP of target VMware SRM (SRM DR).
13. Press on Scan now. If all settings are correct, you will see a list of Recovery Plans in the Recovery Plans list table. If you do not see any Recovery Plans in the table, make sure the VC user name and password are correct, server name and IP are correct, and there is network connection to the servers.
14. Choose the Recovery Plans you want to include in the EnsureDR test job.
15. Press OK.

Network Settings

16. Write the production network name that VMs will get in the DR site. It must be case sensitive.
17. Write the DR network name that VMs will get in the DR site (Bubble Network where VMs will be tested). It must be case sensitive.
18. Press Next (It may take time since EnsureDR is testing the settings).

DR Test Settings

Note: The test here will be enforcing on all servers picked.

19. Do test DR – Change this only if you don't want to run the Test Fail Over. Change it to No only if you want to automate just Test FO cleanup.
20. Perform Undo – Change this only if you don't want to run the Test Fail Over Cleanup. Change it to No only if you want to keep replica server running after the job finishes.
21. Test inside VMs – Change this to decide if EnsureDR will test the VMs or only practice the Fail Over and Cleanup of VMware SRM.
22. Test Networking IP – Test the server network inside the bubble network.
23. Test Service – Test a specific service inside the VM. Write the service name as it appears in the service properties.
24. Test Custom Command – Test a specific command line or batch file. This command will run inside the VM tested, so the command should be relative to it. If running a batch file, the tested server should have it internally or in a network share inside the bubble.
25. Custom Command Results – A keyword that EnsureDR will look for when searching the custom command test results. Make sure to write a unique keyword that indicates that the command was finished successfully. For example, Running in custom command: "SC.exe query termservice" will check if the local terminal service is running. The desired keyword to look for is: "Running." If EnsureDR won't find it, then EnsureDR will present a fail test.
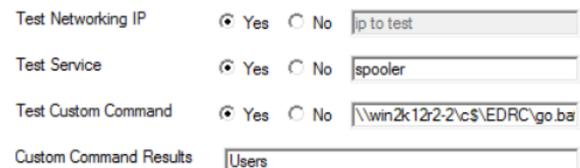
EnsureDR controller – EDRC

26. It is recommended to always use EDRC as a gateway between EnsureDR console to test VMs in bubble network.
27. Display Name – The display name of the EDRC server VM as it appears in the VMware console.

28. Computer Name – The NetBIOS name of the EDRC as it appears internally.
29. Update host file – Run this to update the "c:\windows\drivers\etc\hosts" file inside the EDRC. It will help EnsureDR to resolve the server names in the bubble network. If a DC is replicate and configured to boot first, updating the hosts isn't a must.
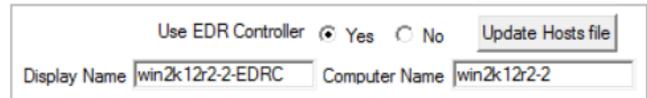
Server List – list of servers that will be tested in job

30. Pick the server you want to include in the test job. All servers will be fail over in the Recovery Plan, but only the server picked will be tested.

**Advanced – individual test to each server**

Note: You can use different test options for each server by setting advanced tests.

31. Choose which server you want to do advanced testing on by scrolling using the Next button at the bottom of the Advanced window.
32. When the server you want to change to an advanced test is picked, choose Yes in Advanced Test.
33. Pre Script – Pick a script that you want to run before the server is tested. The script will run after the VM was fail over to bubble network and just before EnsureDR starts to do the tests. Make sure the script path is relative and can be run while the VM is inside the bubble network. EnsureDR will not monitor the script or present the script run state.
34. Test Network – Ping to – Write an IP that the server will ping to. In contrast to the Test Network in the main console, here you can write a specific IP the replica server pings to and it can get its network connectivity from a different server in the bubble network. You can write "LocalHost" and it will ping itself.
35. Test Service – Write the service that EnsureDR will test for this specific VM.
36. Test Custom Command – Write the command or batch EnsureDR will test on this specific VM.
37. Custom Command Results – A keyword that EnsureDR will look for when searching the custom command test results.
38. Press on "Exit and Save" to save the settings.
39. Press Next. (It may take time since EnsureDR is testing the settings.)
40. If a "Update hosts file" pops up, press Yes if there is no DC in the Recovery Plan.
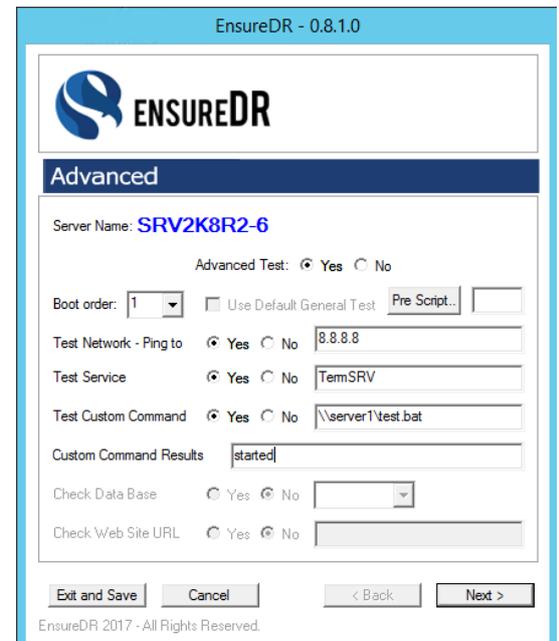
Mail Report and Schedule – Set up mail recipient for report and schedule the test

41. Press Yes on Send Mail with report.
42. Choose which SMTP server you are using: Local for on premises exchange, or Cloud to cloud service such as Gmail or Office 365.
43. Write the SMTP host name.
44. Write the From email. It must be a real email. If you are using a cloud provider for mail, then From must be the same as Mail User Name.
45. Write how you will get the mail with report. You can write multiple mails with the ";" between them.
46. Mail User Name – Cannot be blank even in domain environment.
47. Mail User Password – Cannot be blank even in domain environment.
48. Write the Mail Port – Usually in local setting, the port will be 25. In a cloud setting, it will usually be 587 as you use TLS. If you must use SSL then enter port 995 and change to "SSL" in job in settings under MailSecurity.
49. Press – Test Mail to test if the settings are OK.
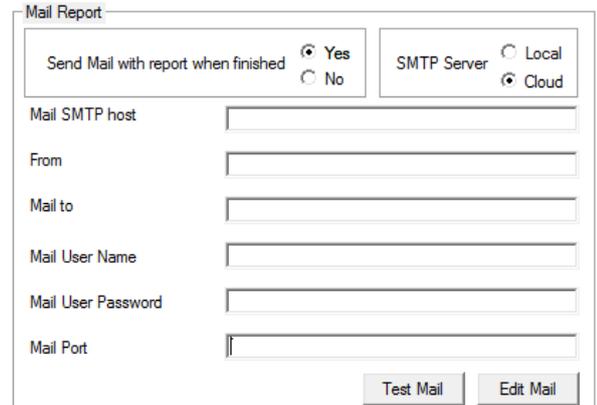
Schedule Tests – Create a scheduled task that will run the tests

50. Change the Set schedule task for tests to "Yes"
51. Choose a date to start the job in the calendar.
52. Pick the time.
53. Pick the intervals between the schedule tests.
54. Press "Finish".
55. In the finish message, choose Only Save Data to just save the job settings (EnsureDR will run on the next time and date you schedule) or Yes to run it now.
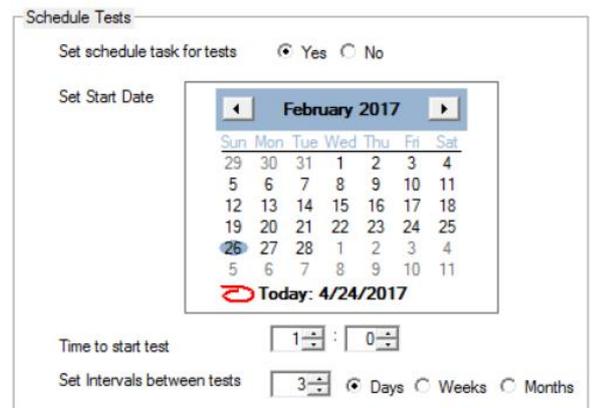
<u>**Running a job**</u>

If you are manually running the job, it is recommended to run it first on specific test servers to make sure your environment is OK. EnsureDR will run test fail over only and not live, so there shouldn't be any impact to your production servers.
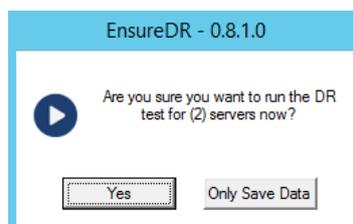
Analyzing results

"Bad" result in first run is OK.

Usually in the first run, EnsureDR will discover what is wrong in your DR settings. If you get any issues, first look at the PDF / HTML graphic log to figure out what EnsureDR discovered. Then you can drill down to the log and get more exact results with specific issues.
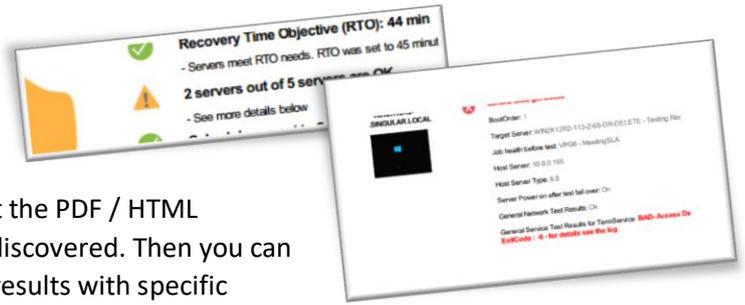
In a manual run, when EnsureDR finishes the test, you will see an ending message that will summarize the results of the test. There are four results items:

1. RTO — How much time the test run was, compared to the expected time.
2. How many tested servers are OK — all server tests were fine.
3. When the next scheduled test will be.
4. "Good State" is not applicable for SRM

By pressing on Show Results, you will get an HTML report with more details, such as a list of servers and state of tests results, details on each server test, and a screenshot of the server as proof.

In the detailed report, you can see errors that happen if there was a network problem, a credentials issue, or bad server. The screenshot is in 640x480 resolution so you can zoom in to it and discover issues such as a server didn't boot, server in BSOD, server has updates to install, etc.