ID	Date	Title	Details
00575	5/24/2017	Fibre Card replaced in MCP or Dorado or IBMi	Problem: Fibre card replaced in an MCP or Dorado or IBM i HOST. VTL virtual drives are no longer available to the HOST.
			Solution 001: SAN clients on the VTL are specific to initiators and targets. If the WWPN of one of them changes, then the drives are no longer seen by the HOST. Rezoning the new WWPN of the new card through the switch and identifying the WWPN in the SAN client is necessary for the resolution of this issue.
00574	5/19/2017	Unable to establish connection to the linux library controller after failover.	Problem: Host was unable to communicate through the library controller after failover for robotic controls. A pattern of login failed attempts to the library were noticed in the event log of the VTL console and the linux message logs.
			Solution 001: It was determined that the both the primary VTL and standby VTL contained the same initiator name in /etc/iscsi/iniatorname.iscsi Changing the primary VTL initiator name to be different solved the problem. example of /etc/iscsi/initiatorname.iscsi initiatorrname=iqnvtl-ha-robot
			change to initiatorrname=iqnvtl-ha-lib1-robot
00573	5/18/2017	Installing A TapeManager Keysfile	The TapeManager keys file contains the license keys for both the TapeManager and LibraryManager products. The keys file is a standard MCP keys file that must be merged with the main SYSTEM/KEYSFILE on your system. The following process will cause the TapeManager/LibraryManager license keys to be merged with the main MCP keys file.
			1) The CD or tape labeled TAPEMANAGERKEYS contains a single file titled KEYSFILE/TAPEMANAGER. This file must be copied to the same family and usercode where the other TapeManager files are installed. Ex: COPY = AS (DSI)= FROM TAPEMANAGERKEYS(CD) TO XPACK(PACK) In this example, (DSI) and XPACK would be changed to the usercode and family where the TapeManager files are installed.
			2) Bring the TapeManager software down with the TM QUIT command or the site's defined process for shutting the TapeManager system down.
			3) Use either of the following methods to install the TapeManager keys file. a) Run the SYSTEM/TAPEMANAGER/INSTALL program as described in the TapeManager Operations Guide. The installation program will detect the presence of the TapeManager keys file and merge it with the system keys file. b) From an ODT, REMOTESPO, or privileged MARC session, use the IK MERGE command to add the TapeManager keys file to the system keys file. Ex: IK MERGE (DSI)KEYSFILE/TAPEMANAGER ON XPACK In this example the (DSI) and XPACK usercode and family name would be changed to the usercode and family where the TapeManager files are installed.
			4) After verifying that the previous execution of TapeManager has completed (gone to
00572	5/9/2017	TR: vtl email from <servername></servername>	Problem: VTL stopped sending out email and reports.
			SOLUTIONS: When an email server changes. You must change the settings in the VTL as well. It is not automatic.
00571	5/9/2017	REPORT LAST UPDATE SN LAC254	PROBLEM: DSI TM will only log the last tape that was APPENDED to a MCP librarymaint tape.
			SOLUTION: Customer must view the LIBMAINTDIR disk file on the mainframe, in order to see ALL of the APPENDED tapes. DSI TM will only show you the last tape that was appended.

ID	Date	Title	Details
00569	5/8/2017	VTL Manual License Registration Instructions	1. Login to the server that requires a manual key registration. Right click on the server node and select â€~License' from the menu.
			2. Highlight the registration key(s) that requires activation and select â€~Register'.
			3. Select â€~Offline' as the method of key activation.
			4. Select a location to save the registration data to by selecting â€~…', then save this data by clicking on â€~Save'.
			5. Locate the registration data file that was just saved, and e-mail it to activate.keycode@falconstor.com. A reply should come shortly, if this is not the case please contact support@dynamicsolutions.com.
			tructions 1. Login to the server that requires a manual key registration. Right click on the server node and select å€"Licenseå€" from the menu. 2. Highlight the registration key(s) that requires activation and select å€"Registerå€"*. 3. Select å€"Offline候 as the method of key activation. 4. Select a location to save the registration data to by selecting å€"å€\候, then save this data by clicking on å€"Save候. 5. Locate the registration data file that was just saved, and e-mail it to activate.keycode@falconstor.com reply should come shortly, if this is not the case please contact support@dynamicsolutions.com. 6. Once the reply has been received save the file attachment to an accessible place. Select å€"å€\å€" and locate the recently saved attachment. Complete the manual registration by selecti å€"Sendå€", then å€"Finish候. ress on Command line instructions: We will use the following information as an example: (*NOTE - Verify your settings before proceding with any changes) subnet = 192.168.1.0 + 192.168.1.255 ipaddress = 192.168.1.125 gateway = 192.168.1.125 gateway = 192.168.1.125 gateway = 192.168.1.125 gateway = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server ar should be specified in /etc/sysconfig/network) netmask = 255.255.255.0 2nd ipaddress = 192.168.2.15 2nd gateway = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server ar should be specified in /etc/sysconfig/network) netmask = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server ar should be specified in /etc/sysconfig/network) netmask = 255.255.255.0 2nd ipaddress = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server ar should be specified in /etc/sysconfig/network) netmask = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server ar should be specified in /etc/sysconfig/network) netmask = 255.255.255.0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
00570	5/8/2017	Instructions for changing the IP address on	Command line instructions:
		the VTL running Linux.	We will use the following information as an example: (*NOTE - Verify your
			settings before proceding with any changes)
			subnet = 192.168.1.0 - 192.168.1.255
			ipaddress = 192.168.1.125
			gateway = 192.168.1.1 (* NOTE - Only one DEFAULT GATEWAY can be used on one computer / Server and it
			•
			o ,
			To make the changes permanent, the ifcfg-eth0 file needs to be edited. This
			file is located in: /etc/sysconfig/network-scripts
			# vi /etc/sysconfig/network-scripts/ifcfg-eth0
			press "i" to edit the file

5/4/2017	How to obtain an x-ray for DSI	X-Rays: 1. X-Rays can be obtained from the server in several ways. First, one must be connected to the correct VTL
		1. X-Rays can be obtained from the server in several ways. First, one must be connected to the correct VTL
		•
		via the Console
		GUI.
		1) V rays are gathered from the VTL Console GUL in one of two ways
		1) X-rays are gathered from the VTL Console GUI in one of two ways.
		A. Click on Tools on the Menu,
		and then click on "Capture
		X-Rayâ€⊡
		B. Or right-click on the VTL
		Server and click on "X-Rayâ€⊡
		a. All options should be selected
		b. Choose the location to save the X-ray by clicking on
		the "…â€∄outton.
		c. Click on "Take X-rayâ€⊡
		C. X-Rays can also be taken via the Linux command line, this is an alternative to the Console GUI and should
		only be
		used if:
		a. unable to use the Console GUI
		b. under the direction of a DSI Support Engineer.
		c. run iscon command on the command line; = root password for the VTL
		# iscon getxray -s 127.0.0.1 -u root -p
		d. the xray will be saved to the root directory
4/26/2017	Using a replicated Deduplicated virtual tape	Problem:
., 20, 202,	comb a representation planting threat tape	A virtual tape that has been replicated to another VTL via a deduplication policy will reside in the virtual
		vault or a library if dictated in the policy. If a user moves the tape from the vault to a library, the VTL will
		warn the user that the tape will be overwritten when moved back to the vault.
		Solution:
		This is a benign warning, letting the user know that if the replica has changed during the use of it's test-
		mode pormoted copy, that once that tape is moved back to the vault, it will be overwritten. This is normal,
		and any tape moved from the vault that is used in a library should be returned to the vault when
		completed.
4/25/2017	WinSCP Guide	Using WinSCP to transfer files from a local computer to a VTL
		Start WinSCP from the start menu or from an icon located on the Desktop
		2. Fill in the Host Name (or IP address) of the VTL, user name, and password.
		3. Click on "Yesâ€₫o accept the connection to the VTL
		4. From this window you can drag and drop files to or from the VTL
4/25/2017	PuTTY Guide	PuTTY Procedures
		Putty is a utility that will allow you to connect to a VTL console via SSH. The user can then perform various
		command line options as directed by DSI or FalconStor Technicians in order to complete necessary tasks.
		1. Open PuTTY via the Start Menu or an icon on the users desktop
		2. Input the host name (or IP address) and click on "Open‮
		3. Click on "Yesâ€⊡to connect to the VTL
		4. Login with the user name and password just as you would using a console direct attached
		to the server.
		5. Proceed with instructions as provided by the
		4/25/2017 WinSCP Guide

ID	Date	Title	Details
00564	4/25/2017	Patch Installation	1. VTL Patches
			FalconStor supplies patches to their software and OS to apply fixes for various issues.
			There are two distinctly different ways to install the patches.
			a. Procedure 1 covers installation using the Console GUI while the VTL services are still running
			b. Procedure 2 covers installation using the command line via PuTTY, stopping the services, installing the
			patches and then restarting the services.
			The procedure you use will depend on your comfort level in using each of the tools.
			The process of the second control of the sec
			**CAUTION â€" VTL Software patches must be up to date prior to applying any OS related patches provided
			by FalconStor.
			Note: OS related patches and Server upgrades must be applied directly on the server and cannot be applied
			or rolled back via the console.
			1) Procedure 1:
			**Warning - All patch installations will stop the VTL software and services. Ensure that there are no tape
			operations taking place during this procedure.
			**Warning â€" Failover must be suspended in order to use these procedures. Patch the secondary server
			first, then the primary.
			A. Download patches from DSI Website
			B. Use VTL Console GUI to apply patch(es)
			a. Click on Tools > Add Patch
			b. Click on "OK" on Warning window
			**NOTE â€" The Warning cautions user that applying the patch may cause the server to restart and to
			ensure the no critical operations are running. Please verify that no backups are running.
00561	4/13/2017	Controller Faulted with STRINGPOOL	Problem:
		Exceeded	The Library Controller (LLC in this case) faulted with a STRINGPOOL exceeded error.
			Solution 001:
			Change the VTL statement in the Library Manager/ Tape Manager configuration file so that the name of the
			library EXACTLY matches the name as defined on the VTL server.
00560	3/31/2017	SCSI error messages during failover and	Problem:
		failback	During a failover, and review the event log on the EVO it's possible to see ISCSI connection failures and LUN
			trespass errors.
			Solution 001:
			The scsi error is for inquire scsi device. It is normal message when discover the device.
			The tresspass is also normal behavior. They can be ignored during failover/failback or appliance booting up.
00559	3/28/2017	TAPMLBnn is stuck between vary on and vary off.	Problem: IBM I system has the TAPMLBnn stuck in limbo, between vary on and Vary off status.
			Solution:
			Reboot the IBM host, that will free the condition.

ID	Date	Title	Details
00554	3/21/2017	VTL failover configuration when host & VTL are on different subnets	Problem: Host connectivity displays TCP errors while communicating to the VTL while on different subnets. Ping (ICMP) works as expected, however TCP/IP communication may fail.
			Solution: On a failover system, the host must connect to the "Virtual IP address of the VTL". This is
			identified as eth0:0 when running the ifconfig command.
			When the Host and VTL are on separate subnets i.e. 192.168.100.x & 192.168.200.x, you may need to add a persistent static route to ensure TCP communication can respond as expected. In this example I will use 192.160.100.8 as the VTL and 192.168.200.10 as the host and 192.168.100.1 as the gateway to get from 192.168.100.x network to 192.168.200.x network.
			Step 1. Add a route to the virtual interface. This will define how the VTL should respond on eth0 to packets from a different subnet.
			# vi /etc/sysconfig/network-scripts/route-eth0 # i
			#GATEWAY0=192.168.100.1
			#NETMASK0=255.255.255.0 (Note this is the netmask of the destination network)
			#ADDRESS0=192.168.200.0 (Note this is the network you are expecting to reach via this route)
			# wq!
			Step 2: restart network services
			# service network restart
			Step 3: Verify the new route is in the routing table.
			# route
			* Look for the entry you just created for interface eth0
00555	3/21/2017	Replication error from VTL	Problem:
			BANDL fails remote copies with a EDISCONNECT error.
			Solution:
			Verify network between PR and DR VTLs with iscon login.
			Verify replication with a normal VTL controller replica ape.
00552	3/20/2017	Question regarding VTI energytion	Verify / Reboot VTL Agent on both PR and DR VTLs. Problem:
00552	3/20/2017	Question regarding VTL encryption.	SED is not enabled on VTL disk array.
			Solution:.
			Enabled DELL Life Cycle Controller. Then enabled SED for the VTL virtual disks, via the IDRAC interface.
00550	3/19/2017	E-mail notifications not being promptly delivered.	Problem 001: Event notification and e-mail notification for the same issue being sent at different times.
			Solution 001:
			This is as expected because the event notification interval is typically set to 60 seconds and the e-mail interval can range from 1 minute to several hours. It's recommended that the e-mail interval be set to 1
			hour or less to ensure timely deliver of system issues.

ID	Date	Title	Details
00547	3/13/2017	IPSTORCOMM - Core File	Problem: A core dump file is generated by a process or application on the customers VTL system. In this case, IPSTORCOMM crashed and restarted.
			Solution: Core dump files are created when a process or application crashes. Core dump files can be used in conjunction with a program debugger to determine the cause of the failure. This is difficult if not impossible to do unless the state of the system is known. If the customer gets a notification that a core file is generated ask them if they've seen the issue before and if the issue is reproducible.
			If the answer is yes: Instruct them to enable debug though the GUI, either wait for the issue to occur again or reproduce the issue. Once a the issue reoccurs and a new core file is generated then have them provide the core file and x-ray to support. They should also be instructed to disable debug at this time.
			If the answer is no: Instruct them to enable debug for no longer than a week. If the issue happens to occur during this time then have them provide the core file and x-ray to support. They should also be instructed to disable debug at this time. If the issue doesn't occur after one week, then the case should be closed because the issue does not occur regularly and is not easy to reproduce. The is not enough information to properly troubleshoot the issue further.
			Important Note: Debug should not be left on for long periods of time. Leaving it enable will eventually fill the system log and create additional issues.
00540	3/6/2017	Container file containing keys needs public	Problem:
		key to unwrap	MCP errors "CONTAINER'S SIGNATURE NOT VERIFIED: " during unwrapping a keys container file caused delays in installation.
			Solution: Use the following command public key to unwrap keys file container (change FILENAME.CON to actual file name):
			UNWRAP *= OUTOF (DEVMGR)‮LENAME.CON";TASKSTRING = "0000CAEEA00FDB34557B4A453D8A67DDC95C93BA7CD0CBCC1E413EAB28B6671155BFEA15A372FEA744 10398300BC5D85AECB2BEBEAE2EDC79AD291C2C222CA7C9A06"
00539	2/27/2017	VTL 8.2 password complexity settings	Problem: Password complexity may be required at some client sites.
			Solution 001: Follow the procedure below and modify parameters to meet the customer requirements. For example, we can require a password to be a minimum of 8 characters, require upper/lowercase/digits/special characters, and expire every 45 days
			# DSI Security Config # Modified by Adam Roth # Date 2/24/2017
			# Append to /etc/pam.d/system-auth # Lockout Policy auth required pam_tally2.so deny=3
			# Length minlength=8 # Complexity
			Icredit=1圈 Sets the minimum number of lowercase characters ucredit=1圈 Sets the minimum number of uppercase characters
			dcredit=1 圈 Sets the minimum number of digits #ocredit=1 圈 Sets the minimum number of "other" aka "Special characters"
			# Append to /etc/login.defs # Age
			PASS_MAX_DAYS=45 # Sets password to expire every 45 days

ID	Date	Title	Details
00532	1/9/2017	UNEXPECTED MESSAGE IN RESULTQ or Fault	Problem:
		in DDDRIVER: STRINGPROTECT @ 096:026D:4 (53446800)	This problem can be broken down into two parts.
		,	Problem 1a: Getting an Unexpected Message in the Resultq. This occurs when the messages passed over
			SSH are returned incorrectly by SSH.
			Problem 1b: There is the DSI Software (DDSUPPORT) that faults on the Seg Array Error causing the String Protect, such as ": STRINGPROTECT @ 096:026D:4 (53446800)". If SSH is fixed, we will not see the problem in DDSUPPORT.
			Explanation: The unexpected message in the Resultq comes when we (DDSUPPORT) are doing reads over SSH and a larger message that requires multiple exchanges gets terminated too early. This happens when reading the ResponseQ we are told there is more data (MORE_FLAG is set). When we get the next message we see Exit Status (which is the last message). We get out of Read mode and another message comes from SSH which gets caught in our ResultQ. This message is unexpected.
			Problem 1b is because the message size is large that DDSUPPORT sees in the ResultQ, when we try and display the buffer in our trace, it blows out the array we use to store the display. This causes the Seg Array Error which shows as a String Protect. This problem has also been fixed (and tested by Lloyds). This fix will be in 9.069W.
			Solution 001:
			Fix from Unisys:
			Component: SSHCLIENT
			Symptoms:
			The DSI Data Domain Support Library trace file contains a trace
00525	12/15/2016	Failed email alert attempts from VTL	Problem: VTL E-mail alerts are not seen by the client.
			Solution 001:
			The VTL e-mail alert method relies on being able to connect to a client SMTP server. You can do this via direct SMTP IP address, or SMTP hostname.
			Solution 002:
			If an SMTP Hostname is used in configuring E-MAIL alerts, the VTL does need valid DNS hosts to resolve the hostname to an IP address.
			Solution 003:
			The routing of VTL E-MAIL alerts is dependent on the SMTP server. If the SMTP server used does not allow an SMTP relay to get out of the local client environment, VTL alerts will be limited to the client network, and not seen outside the client network. Most cases, this is a client security requirement, and VTL alerts may not be allowed outside the client environment.
			Solution 004:
			Most SMTP servers require a 'from' address, and will reject an e-mail that does not have that. Ensure that the VTL E-MAIL alert configuration has a subject, and a from address. In some instances, the VTL Alert mechanism may need to be configured with authentication credentials to allow it to connect to the client SMTP server. In some cases, the 'FROM' field has to be a valid e-mail address recorded and recognized by the SMTP server.

ID	Date	Title	Details
00520	11/22/2016	MCP ODT waiting entry "VTLSUPP:ERROR	Problem:
		11237: Console (root): Failed to get file	When running on a DSI VTL EVO running on v7.5 Build 7375 and looking at the MCP Operator Display
		xxxxx"	Terminal (ODT), a waiting entry can be seen that has an RSVP similar to
			"VTLSUPP:PROGRAMMATICALLY SUSPENDEDâ€☑The display portion might also show something like this
			"VTLSUPP:ERROR 11237: Console (root): Failed to get file /usr/local/vtl/ etc/ /ipstor.dat.cache. @
			50938000 â€☑This waiting entry will be for the name of the library plus an extension of "/ALERTâ€☑So, if
			the name of the library was (DSI)VTL/ALPHA then the Program Name for the waiting entry would be
			(DSI)VTL/ALPHA/ALERT.
			Solution 001:
			This Technical Bulletin explains the occurrence of the waiting entry on the MCP. This problem will be seen when using VTL v7.5 but will not be seen with VTL v8.2.
			Technical Information Bulletin
			DSI VTL 350 EVO Running on v7.5 Build 7375 Symptom:
			When looking at the MCP Operator Display Terminal (ODT) a waiting entry can be seen that has an RSVP
			similar to "VTLSUPP:PROGRAMMATICALLY SUSPENDEDâ€☑The display portion might also show
			something like this "VTLSUPP:ERROR 11237: Console (root): Failed to get file /usr/local/vtl/ etc/
			/ipstor.dat.cache. @ 50938000 â€2This waiting entry will be for the name of the library plus an extension of
			"/ALERTâ€⊡So, if the name of the library was (DSI)VTL/ALPHA then the Program Name for the waiting
			entry would be (DSI)VTL/ALPHA/ALERT.
			Example waiting message: Status of Task 3285/7430 at 10:08:09 Program name: (DSI)VTL/ALPHA/ALERT
			Codefile title: (DSI)SYSTEM/VTLSUPPORT ON DSIPACK Codefile created: Monday, April 25, 2016 (2016116)
			at 13:46:14 Priority: 50 Target Processor Set: 0, Actual Processor Set 0 Origination: Unit 0 Usercode: S031
			Stack State: Waiting on 1 event; waiting for 11188 seconds RSVP: VTLSUPP:PROGRAMMATICALLY
			SUSPENDED Reply: OK,DS Display: VTLSUPP:ERROR 11237: Console (root): Failed to get file /usr/local/vtl/
00519	11/8/2016	Use of .net framework on Windows Based Library Controllers	Question: For security reasons is .net filesystem needed for Windows Library Controllers to run TapeManager/LibraryManager?
			Solution 001:
			Library controllers do not need .net framework to run TapeManager/LibraryManager.
			Caveat
			However if using the Web Interface TapeManager GUI you will need to use .net filesystem.
			The water in asing the was interface rapellianage. Co. you this need to use meetinesystem.
00510	10/00/0016		ref Case 5191
00518	10/22/2016	TM GUI doesn't work correctly with some AV solutions (ie. Norton, Symantec)	Problem:
			In some cases, anti-virus software may interfere with the establishment of named pipes by blocking the
			user from attaching to external drivers. Symantec Anti-Virus, program EDPA.EXE has been found to terminate the named pipe connection without any Windows logging information.
			Solution 001:
			Remove the Symantec AV program, EDPA.EXE to avoid the issue.
			Solution 002:
			Configure Anti-Virus programs (ie. Norton) to allow, or create an exception for the named-pipes connection from the TM GUI on a given computer.
00517	10/18/2016	Informational Alert Message For Dell	Problem:
		MD3800 storage unit	A Dell MD3800 storage unit reports that a Battery Backup Unit or BBU failed during it's regularly scheduled learn cycle.
			Solution:
			The BBU could be failing, the customer may manually trigger another learn cycle if they wish. This process
			will take several hours to complete. More than likely the customer will need to either contact Unisys or Dell
			for further support. Please have them grab a support bundle from the Dell MDSM software GUI prior to
			opening a ticket with these vendors. This will be required and is necessary for further diagnostics.

ID	Date	Title	Details
00516	10/17/2016	Kernel BUG - CPU soft lockup on CPU #2 VTL v8.2	Problem: VTL v8.2 system hangs with a CPU soft lockup on CPU#X message being displayed.
			Solution 01: Reboot the system and apply patch update-is931006 to system.
-			Ref: https://na54.salesforce.com/5010a00000Dhqa
00514	9/26/2016	DSI TM Software Problem - Tape Stacking	Problem: New traces showed that a number of tapes in a Stack request, if two tapes were in sequence by SN, we lost the second tape, resulting in a skipped tape/ Gave the client a workaround, problem verified,
			Solution 001: Permanently fixed in 69V.
00512	9/23/2016	vtlcheck message	Problem: A core dump file is generated by a process or application on the customers VTL system.
			Solution: Core dump files are created when a process or application crashes. Core dump files can be used in conjunction with a program debugger to determine the cause of the failure. This is difficult if not impossible to do unless the state of the system is known. If the customer gets a notification that a core file is generated ask them if they've seen the issue before and if the issue is reproducible.
			If the answer is yes: Instruct them to enable debug though the GUI, either wait for the issue to occur again or reproduce the issue. Once a the issue reoccurs and a new core file is generated then have them provide the core file and x-ray to support. They should also be instructed to disable debug at this time.
			If the answer is no: Instruct them to enable debug for no longer than a week. If the issue happens to occur during this time then have them provide the core file and x-ray to support. They should also be instructed to disable debug at this time. If the issue doesn't occur after one week, then the case should be closed because the issue does not occur regularly and is not easy to reproduce. The is not enough information to properly troubleshoot the issue further.
			Important Note: Debug should not be left on for long periods of time. Leaving it enable will eventually fill the system log and create additional issues.
00511	9/23/2016	VTL 7.5 password complexity settings	Problem: Password complexity may be required at some client sites.
			Solution 001: Follow the procedure below and modify parameters to meet the customer requirements. For example, we can require a password to be a minimum of 8 characters, require upper/lowercase/digits/special characters, and expire every 45 days
			# DSI Security Config # Modified by Adam Roth # Date 9/13/16
			# Append to /etc/pam.d/system-auth # Lockout Policy
			auth required pam_tally2.so deny=3 # Length minlength=8
			# Complexity Icredit=1團 Sets the minimum number of lowercase characters ucredit=1團 Sets the minimum number of uppercase characters
			dcredit=1 图 Sets the minimum number of digits #ocredit=1 图 Sets the minimum number of "other" aka "Special characters"
			# Append to /etc/login.defs # Age
			PASS_MAX_DAYS=45 # Sets password to expire every 45 days
			# make a passwd file for tracking password history:

ID	Date	Title	Details
00510	9/21/2016	Issues connecting to MD3600 storage unit.	Problem: Customer is unsure how to connect to Dell MD3600F storage unit.
			Solution: Customers should download & install the Dell MDSM software. This is usually provided to them during installation, but not always. The MDSM software is part of the associated Resource CD which can be located on the Dell website. Simply select 'support' from their main site and input the service tag, the latest Resource CD image will be listed in the downloads section.
00509	9/6/2016	Unable to update MD3600F firmware	Problem: Applying firmware updates to Dell MD storage failure though the Modular Disk Storage Manager (MDSM) application.
			Solution: Ensure that the customer is using the latest version of the MDSM application. This information is documented the the firmware releases important notes section. Always use the Dell support site with the units service tag to ensure that the latest software is being used. Sources other than Dell tend to be outdated or provide incorrect information.
00508	8/31/2016	Tapemanager did not purge tapes that were expired	Problem: Tests were run and even though tapes were expired they were not purged. This was an issue with the new 69U update using the Volumekind tag. If set to true, it will identify tapes as being Physical or Virtual. Sometimes during the update, some virtual tapes will be set to physical (VOLUMEKIND=1) in the tape identification string. If there are no Physical Tapes to be controlled via TapeManager, then the configuration needs to include the VOLUMEKIND = IGNORE
			Solution 001: Ensure that the following is setup in the TapeManager configuration: TM CONFIGURE OPERATIONS Operations options = Unknown tape = AUTO, Mismatch label = AUTO, Verify PG/SN = TRUE, Scratchpool required = FALSE, Assign serialnumber = SYSTEM, Duplicate volume = IGNORE, Optional selection = NONE, Auto purge = TRUE, Clear comment = FALSE, Retention = BY CREATED, Generations = BY CREATED, Suppress = TRUE, Volumekind = IGNORE
00506	8/23/2016	The DSI Windows-based library controller FIPS-140 compliance.	Issue: Windows SMB & RDP protocols are not set to FIPS-140 compliant encryption on a DSI Windows-based library controller.
			Solution 001: The DSI Windows-based library controller does not use either of the SMD or RPD protocols. Security changes can be made to these systems without affecting software operation.
00500	8/19/2016	Error "Failed to move the tape (VirtualTape-xxxx) to vault. Cannot move virtual tape(s) tape is busy.‮/TL v8.2	Problem: When using the VTL Console, and trying to move a tape from the drive to the vault and the tapes are rewound, the error "Failed to move the tape (VirtualTape-xxxx) to vault. Cannot move virtual tape(s) tape is busy.â€₃s received.
			Solution 001: FalconStor has fixed this problem in update-is931008
			Solution 002: As a side effect of the tapes being purged before the first full write is completed, the tapes will appear in the MCP display as SCRATCH. This works as designed.

ID	Date	Title	Details
00499	8/17/2016	TapeManager Alert Waiting MCP entry after handling problem	Problem: When running SYSTEM/TAPEMANGER/SUPPORT older than 9.069S during a backup, TapeManager will assign a tape to a task and the tape is mounted and TapeManager requests it to be purged which occurs. Meanwhile a second task has requested a tape and MCP sees the newly purged tape and uses it. TapeManager then attempts to purge it again but this rejected so it automatically does an FA to the original task to another tape serial number, which works successfully and the tasks continue. At this point TapeManager puts an operator alert into waiting entries. If there is no operator available, this cannot be handled.
			Solution 001: A fix went into 9.069S that fixed this problem. Specifically, if TapeManager were configured to assign serial numbers and a scratch pool was given, a waiting entry could appear noting that the assigned SN was not to be written to. This is because the MCP does not obey SN assignment when a scratch pool is used. A change has been made, under these circumstances, not to produce the waiting entry.
00495	8/15/2016	V7.5 VTL Active and Passive units are down	Problem: Multiple Fibre Channel ports unexpectedly report as being down or offline though the VTL GUI.
			Solution 001: Review the port configuration & status through relevant Fibre Channel switches. Ensure that ports have not been disabled. Check the status of each port for errors. If an error is indicated, lookup the reported error and determine subsequent action. This can usually be done though the manufacturers website or users guide.
00491	8/12/2016	Release of 9.069U Fixes VTLSUPPORT problem with "UNEXPECTED PROPERTY IN REMCOPY" message	Problem: When running on SYSTEM/VTLSUPPORT older than 9.069U, it is possible to get a message "VTL:UNEXPECTED PROPERTY IN REMCOPY TAPE RESPONSE, PROPERTY = REPOFF @ 53281880â€② While the recognition of the newly implemented verbs (REP_OFF, COMPRESS, and ENCRYPT) were added to the code, the handling of those verbs was not implemented.
			Solution 001: With the release of DSI software 9.069U (now available on our support website) this problem with not recognizing the verb of REMCOPY has been resolved.
00486	8/8/2016	Tape cannot be removed from replication	Problem: After a failover of the production server due to failed backend storage, one tape was stuck in the replication queue and could not be removed by conventional means.
			Solution 001: 1. Please check the storage health and load during the times of replication. 2. For cleanup of the replication queue, please do the following: a. Suspend failover b. Run the following command on command line of VTL-A "vtl restart comm" c. Resume failover
00481	7/27/2016	Tape device or tape library *N failed message on IBMi i log only at hard IPL	Problem: Message which indicated a stalled or incorrect handshake from VTL to IBMi entered on IBMi log with message "Tape device or tape library *N failed"
			Solution 001: Bring patch level of all the customer's VTLs up to at least update-is931005, which directly repairs this issue.
			Ref.
			http://dynamicsolutions.com/support/assets/files/Virtual%20Tape/DSI400/Patches%20&%20Release%20Notes/Release%20Notes/update-is931005.txt
			https://na54.salesforce.com/5010a00000Dhqa
00480	7/21/2016	Export with Stack notification NOT sent to B&L sw	Problem: The return message from the VTL via Agent for Stack Tape completion is not being received back to the MCP, specifically the B&L software. It was found that the information was being mistranslated by VTLSUPPORT that is used in conjunction with Library Manager on an MCP using B&L.
			Solution 001: A Patch to VTLSUPPORT was released with 9.069U.

ID	Date	Title	Details
00478	7/19/2016	Performance Degradation of LT0 5 and LT0 6	Problem:
		Tape Media	There is a noticeable performance hit when reading/writing to LTO 5 and LTO6 tape drives when not attached to a VTL.
			When Writing and Reading many small files to/from tape on the MCP host, there is a possibility for performance problems. This is because with every file comes a filemark. The MCP (and specifically Library Manager) writes a file and then completes that file with a filemark. Now Library Manager does try and streamline the writing of tapes by buffering 100 filemarks before forcing the data to the tape with an unbuffered filemark but when reading back the data from the tape, each filemark causes a perceived start and stop motion for the tape drive. This has become more noticeable over time in the implementation of the last two generations of LTO tape drives. The LTO-5 and LTO-6 drives are seeing these performance problems (even more so with the HP versions of these drives). While the LTO-5 drives are not as slow as the LTO-6 drives, their performance is slowing down when it comes to transferring small files.
			Solution 001:
			The following is only a temporary workaround: In order to cut down on the number of filemarks it is suggested that the many small files be wrapped into a single container file. This container file can then be copied to the tape and copied from the tape and unwrapped somewhere else. It does add an extra step but could speed things along in the long run when you are dealing with many small files.
			Solution 002:
			Unfortunately, there is currently no permanent fix for this behavior on LTO media. The LTO tape drives have been influenced over the years to incorporating a new data manipulation scheme that treats the data on the tape like a disk file system. This new Linear Tape File System (LTFS) was implemented by IBM. While our vendor has suggested that the MCP change its handling of filemarks to incorporate LTFS, it has been decided that the effort to implement such changes would have a severe impact on Library Maintenance (which many use) yet not provide any significant improvement. Therefore (at this time), there are no plans to modify the MCP to change its handling of filemarks.
00476	7/14/2016	Obtain tape barcode on target server for a tape replica without test promote	Problem: Customer needed a way to retrieve the barcode on at target server for a tape replica with going through the test promote evolution.
			Solution 001: 1. Issue this command at the command line # echo print_all_tape_lite \$HOSTNAME >/tmp/.falconstor 2. This will generate a current copy of /tmp/.tape_lite_summary2 3. This file can then be used to find the Replica VID and the original virtual tape barcode.
00475	7/7/2016	ISCON command getclientvdevlist not working in VTL v8.2	Problem: The command getclientvdevlist does not work properly in software version 8.2 prior to patch update-is931005.
			Solution: Patch the VTL server up to latest patch level in order regain this functionality.
			Ref: https://na54.salesforce.com/5010a00000Dhqa

ID	Date	Title	Details
00473	6/28/2016	High process memory or CPU usage on VTL	Problem: The e-mail alert script processchk.pl looks for processes using more than 1GB of memory. In some environments this is acceptable, but should never exceeded 2GB.
			Solution 001: In order to increase the warning threshold to 2GB we will need to modify the following file: \$ISHOME/bin/processchk.pl
			Change the line from:
			$if ($rss > 1000000 \&\& $pname !^{\prime} / (rdereposit PD_rep_server sirrepsrcd sirreptargd)/i) {} \\$
			To:
			$if ($rss > 2048000 \&\& $pname !^{\prime}/(rdereposit PD_rep_server sirrepsrcd sirreptargd)/i) {} \\$
			Solution 002: If the email alerts become bothersome, and there is no other indication of the software environment having any other problems, disable the script in the email alert configuration.
			Solution 003: Command line "# vtl restart comm" will restart the comm module only and release the memory that used by that module.
			Solution 004: Rebooting the VTL will also rebooted the DELL storage array monitor daemon. Since the VTL reboot, the message has not re-appeared
00470	6/20/2016	SNMP community string uses public key found in SCAN	Problem: The SNMP community string was configured to use the public key. This is a potential security issue.
			Solution 001: Change the community string to not us the public key. Suggestion "falcon"
			Solution 002: Disable the SNMP service if the customer is not using it.
			Ref: https://na54.salesforce.com/501j0000000LXEk
00467	6/17/2016	Export fails when initiating TM COPY to back end physical library	- Problem: When attempting to initiate an export from TapeManager proper (TM COPY SN TO BACKEND SN, TapeManager responds that the destination tape is not available, although visible from an inventory of the back-end physical library.
			Solution 001: Fixed in DSI TapeManager level 69T. Averts requirement to use VOLUMEKIND=AUTO.
00468	6/17/2016	Errors with DDS 5 Tape Drives	Problem: Customer is receiving the following messages on their MCP when it tries to verify a DDS 5 tape drive: ************************************
			CTL 11001 FAILED. IT WILL BE CLEARED.
			CTL 11001 HAS BEEN AUTOMATICALLY CLEARED AND RE-INITIALIZED.
			Operation abort, Hrslt=018000 000005, Ctl RD=0200 7000 0800 0000 0010 0000 0000 4800
			CTL 11001 RSLT: Operation abort, Hrslt=018000 000005, Ctl RD=0200 7000 0B00 0000 0010 0000 0000 4800

			Solution 001:
			Customer made the decision to migrate to SDLT320 tape drives and move away from the DDS 5 tape drives.
			Customer made the decision to migrate to SDLT320 tape drives and move away from the

6/14/2016		Details
0/14/2016	Library offline and remcopy fails with invalid	Problem:
	command	Remote copy resulted in an error because the Linux system couldn't resolve the IP address. This was
		because the server name sent to the Agent was not the same as the name in the /etc/hosts file.
		Solution 001:
		edit the /etc/hosts file and include the correct IP address of both the local and remote VTLs.
6/13/2016	VTL v7.5 to v8.2 replication does not work	Problem:
	when encryption is configured.	Replication between v7.5 & 8.2 fails with the following message:
		Replication failed for virtual device VID replica status returned EDISCONNECTED
		Solution 001:
		This message is intentionally generated by the software vendor. Replication with encryption between these
		versions of software is not supported. This is per the software release notes for VTL v8.2
6/13/2016	Errors during export to Physical Tape with	Problem:
	more than one Physical Backend Library	Customer received the following error in the VTL Console when selecting the physical tape library to which
		they were exporting to physical tape:
		"There is no qualified physical tape in this physical library.
		Please select another physical tape library."
		Solution 001:
		There is a limitation in FalconStor's VTL v.7.5 with having multiple back-end physical libraries where
		customers are unable to export to physical tape. To alleviate the issue, delete one of the physical libraries
		from the VTL and try the export again.
6/9/2016	Back-end NEO library and / or drive offline.	Problem:
		After a VTL is rebooted the physical back-end library shows as disconnected. This could occur if the library is
		in offline mode while the VTL is re-scanning for FC devices. There are two indications that the library is
		online, the first is that there is no red dot on the drives, the second is when the device is selected the serial number will be populated.
		number will be populated.
		Solution 001:
		Right click the physical drive in the left hand pane of the Console GUI and select Un-assign.
		Rescan the HBA's in case any changes were made.
		Right click Physical Tape Drives in the left hand pane and select Assign and select the appropriate physical
		tape drive to attach.
		perform any necessary tests to verify.
		Solution 002:
		Re-scan all VTL FC HBA(s) two times. The first time select to scan only 'existing' devices. The second time
		select to scan only 'new' devices. After the scan verify if the physical library/drives show under the 'Fibre
		Channel Devices' in the GUI. Next verify that the library & drives show as online under the 'Physical Tape Library' in the GUI.
		when encryption is configured. 6/13/2016 Errors during export to Physical Tape with more than one Physical Backend Library

ID	Date	Title	Details
00456	6/7/2016	Compression information Virtual Tape to	Problem:
		Physical Tape in order to reach Max capacity	Basic compression operation from the VTL to a physical tape has many factors and reaching customer expectations needed further explanation.
			Solution 001:
			"If you will be exporting data to physical tape and you will be using VTL's
			hardware or software compression, you should set the maximum capacity
			to 15% less than the uncompressed capacity of the selected media. (A
			15% reduction is the default value). This is because VTL's compression algorithm can vary depending upon the dataset.
			What this is telling the user, is that the supported method of exporting to physical tape
			is dependant on the initial setup of the virtual tapes in the library, and the
			mindset that these virtual tapes, while in the VTL only, will use compression algoritms
			in order to maximize the space on the VTL.
			Compression to physical tape is not a predictable expectation of using of the export process, and in addition to the
			15% figure above, the user must be mindful of the uncompressed size of the tape, and keep the
			total data exported within that figure so that the database recording the physical tape
			metadata is accurate and the tape of size 1.5 TB will successfully fit on the physical tape. You may have better performance than some users, you may have close to the same performance from
			compression algorithms.
			The VTL compression also works in parallel with compression at the Physical Tape Drive, and because the two vary the figures you can collect will be your rule going forward.
			The bottom line is, you may expect the maximum performance from compression, but it depends on what
00457	6/7/2016	Replication and physical tape export did not occur - IBMi	Problem: Automation of the tape replication and tape export using VTL Conductor did not execute as expected.
			Solution 001: DSI Support Engineer must be tasked with collecting logs: The file DSISYS/MSGLOG, The IBM Event log, an X-Ray from the VTL. Also, verify there were no media class changes, all 'active' flags expected active, and BRMS media records showing volumes in the library and marked for duplication. All of these parameters collected are a start to assisting the developer in his work to resolve the one-off error for this case, but are certainly the parameters to collect for a VTL Conductor analysis.
00455	6/7/2016	Having troubles exporting to tape using VTL	Problem:
		Encryption	When exporting a virtual tape to a physical tape, taking all the defaults during the wizard will force try of writing to a physical tape with a matching barcode to the virtual tape. If there are no physical tape barcodes that match, the job hangs with no warning message nor indication in the log.
			Solution 001: Examine the physical tape library inventory, and determine if the customer's backup strategy includes matching the barcode. Load a tape with a matching barcode if this is the case. If a matching barcode is not desired, cancel the hung job, and start the export tape wizard again, this time clearing the checkmark to match barcodes.
00451	5/26/2016	Failed to update virtual library properties	Problem:
			The customer was attempting to increase the slot count of the library. When the customer did this, they received the error: "Failed to update virtual library properties"
			Solution 001:
			Get an X-Ray from the customer and look at the error messages. If there are errors stating "TLE_ERROR: vDrive 12 has a vtape 10000057 [V00057] [ffff8104114a0400] loaded. Please unload it first before proceeding " then have the customer unload all tapes from all drives and have them try again.
			The above error message is customer specific, actual message will be different in xDrive number and tape barcodes.

ID	Date	Title	Details
00452	5/26/2016	No file tapeset waiting entry with VTL - MCP	Problem:
			If a client is using the Unisys DMS TapeSet methodology for DMSII database backups, they could run into issues where TapeManager will refuse to load a requested input tape, or load the most recent tape it can find. That may not be the desired result in all cases. This typically happens when two hosts use the same tape label constructs, and Tape Manager cannot determine which tape the client actually requires.
			Solution 001:
			The TM OPER CONFIG OPTIONAL SELECTION attribute can narrow down the TM behavior to only look for the same label that was created by the same host, or the same usercode.
			Ref: DSI TapeManager Users Manual, Configuration Section.
00446	5/24/2016	New WWPN on new fiber card for a swapped out backup server.	Problem: Customer replaced a Fibre card neccessitating the need to re-zone the switch and update the SAN Client on the VTL
			Solution 001: Replaced 21-00-00-e0-8b-1d-98-39 with 21-00-00-24-ff-8a-11-2f in customers FC zone. NOTE - These numbers are specific to this particular customer, they will be different at other locations. Updated SAN Client to reflect the new WWPN
00437	5/19/2016	Procedural recommedation for powerdown of HOST(s)	Issue: Customer needs to power down equipment and needs recommendation for correct procedure.
			Solution 001: Recommend doing a SEND TM QUIT before any h/l or p/o. It's all intended to be minding free. With the remote hosting not reconnecting, if it's not a time zone issue then depending on how the hosts are configured the problem may be BNA or TCP/IP. If the connection is by BNA then you have to verify that BNA is really working. I find that too often BNA says it's up but you can't actually do anything with it until you "stimulateâ€∄t first. I use a remote ODT command, say AT DEV WM for your case. If connected by TCP/IP then you should be able to ping each host from the other.
			When you go to verify that every thing is playing, do a TM STATUS HOST to see that you have the other system online. Then do a TM STATUS LIB from the side that's connected remotely to the library. Do a TM LIST INVEN from the remote side too. If you get a bunch of "bin pack missingâ€æesponses look at the library status on the direct attach side to see if there's an issue between the TM sofware and the VTL.
00439	5/19/2016	Contents of stacked tape not shown on physical tape report - TM / TL	Problem: Contents of stacked tape not shown on physical tape report
			Solution 001: Patch was generated that more accurately sends start and end of stack process events. Patch was tested at B&L without issue. Patched in TapeManager version 9.069S.
00443	5/19/2016	VALID TAPEMANAGER/UTILITY SYNTAX GIVES ERROR, BUT DOES WORK	Problem: Using a valid syntax, TM gives an error:
			TAPEMGR:* BATCH PROCESSING ABORTED DUE TO ERROR *
			but does work in the end. This was due to the TM CONFIGURE; line in the WFL

ID	Date	Title	Details
00444	5/19/2016	Updating ROOT certificates on VTL	Problem: Certificates sometimes expire, need to be updated, or appended to trust certificates signed by additional CA's.
			Solution: Gather root certificates from the clients desired CA & install them to the VTL following the below procedure.
			Procedure:
			Two Different Operations: There are 2 operations depending on the version of VTL, for VTL's running 8.1 and earlier (Red Hat/CentOS/ Oracle 5) You will need to update manually. Instructions for this procedure can be found in section 1.1 of this document. For VTL's running 8.2 and later (Red Hat/ CentOS/ Oracle 6) you can use the "Shared System Certificates feature‮utlined in section 1.2 of this document.
			Obtain certificate files: Certificates may come in either a complete cert.pem bundle or individually as a .crt file containing the certificate. You will need to obtain the trusted root certificates from the CA you wish to add to the trusted certificate store, often times these are public from your CA or in case of DoD can be obtained through the PKI management website (https://crl.gds.disa.mil/) or (http://iase.disa.mil/pki-pke/Pages/tools.aspx) by using a CAC card to download the certificates.
			Section 1.1 Modifying trusted root certificates for DSI VTL 8.1 & earlier
00441	5/19/2016	Network RPC issues causing failovers. FS v8.2	Problem: The standby server fails to communicate to the active, RPC failure in sending call(3).
			Solution 001: Patch SP2 resolves this issue.
			Ref: https://na54.salesforce.com/5010a00000Dhqa
00438	5/19/2016	Problem with import of tapes containing compressed data	Problem: When the customer imports virtual tapes from an older system into the VTL 3.5 the data is not compressed written. So the tape will need more than the 1024 MB limit as set on VTL 3.5. But if they write more than 1 GB on the tape, then the minimum incremental size of 5 GB is added and allocated on disk. Customer has seen tapes of uncompressed data of 7 GB in size and then the VTL 3.5 allocates 11 GB on disk. In this way the customer runs out of disk space.
			Solution 001: The customer did not have compression mode enabled on the 'Virtual Tape Library System' Console object.
			After enabling compression mode, everything started working as expected.
00432	5/17/2016	Tape Manager report retains tape info even after it is purged	Problem: Tapes retain pool information after purging when using the MCP SN/PG commands.
			Solution 001: Use TM PURGE rather than MCP SN/PG commands to ensure immediate update of TMGUI reporting.
00435	5/17/2016	Stacking jobs in queue, but don't start VTL version 7.5	Problem: Multiple virtual tapes selected for stacking to a single physical tape create several jobs that are supposed to started automatically, in order, by the VTL. The first job loads the physical tape and enable the "write over" function and start writing the first virtual tapes. The situation is such that the jobs get put into the queue out of order and become "Waiting on tape" indefinitely because the first ordered job is not the original first job.
			Solution 001: Patches update-is737590vtl and update-is737594vtl has been released in order to resolve this issue. Install patch according to instructions referenced below:
			Ref: https://na54.salesforce.com/5010a00000Dhqa

ID	Date	Title	Details
00433	5/17/2016	TapeManager 68Q will not run on codefile 57.1 upgrade MCP	Problem: The client had updated their MCP levels beyond the current TapeManager codefile levels to run. The issue here is that once TM can no longer run, you lose the ability to do a simple TM INSTALL command to stay upto-date. The client had downloaded/burned an ISO file to CD, had trouble getting the generic 69Q program to run. This is an older Delta machine.
			Solution 001: copy the LEVEL5/57/SYSTEM/TAPEMANAGER/INSTALL file as SYSTEM/TAPEMANAGER/INSTALL, and ran that program to complete the TM upgrade. Client functionality was verified during the assist.
00429	5/16/2016	Unable to connect to Prod VTL through Putty; Offline messages on host	Problem: Customer found that they were unable to communicate to the VTL via HOST, PuTTY and the server appeared to be powered off.
			Solution 001: Due to power off condition when customer observed the back and front panel, DSI advised that a power on action be pursued. VTL ION box has been running normally since this action. X-Ray on file at DSI to further prepare customer for possible actions leading up to power off condition.
00425	5/16/2016	MCP B&L TL REMCOPY completed information not received	Problem: The Remote Copy completed events for Data Domain systems were incomplete or inaccurate sometimes.
			Solution: This has been corrected in the 9.069R release of the LibraryManager.
00427	5/16/2016	SSLv3 Security Vulnerability	Problem: iDrac 6 on the VTL's that use it pose a SSL3 security risk but do not affect TLS traffic.
			Solution 001: The following information from DELL will mitigate security vulnerabilities:
			Until a firmware update is available for these devices, Dell recommends following the best practices as suggested by the browser vendors to disable SSLv3 support on client systems.
			DRAC's are intended to be on a separate management network; they are not designed nor intended to be placed on or connected to the internet. Doing so could expose the connected system to security and other risks for which Dell is not responsible. Along with locating DRACs on a separate management subnet, users should isolate the management subnet/vLAN with technologies such as firewalls, and limit access to the subnet/vLAN to authorized server administrators. No firmware update is planned for the DRAC5 as that platform is End of Life (EOL)
00426	5/16/2016	Marc is hung up. Two of the stacks are locked using tapemanager	Problem: TapeManager software hung due to a TM LOAD LABEL command where the did not exist in the TapeManager database. The customer was using the 9.069N release.
			Solution: This problem had been corrected in the 9.069O release. Customer has been notified to upgrade to the latest TapeManager release.
00421	5/10/2016	BMC (iDRAC) controller reporting invalid CPU sensor temperature errors.	Problem: The BMC (aka iDRAC) generates invalid CPU temperature messages. These get inserted into the Linux system log sometimes causing e-mail alerts to be sent. The error messages are similar to: Server_Administrator: 8136 1054 - Instrumentation Service Temperature sensor detected a failure value Sensor location: CPU1 Temp Chassis location: Main System Chassis Previous state was: OK (Normal) Temperature sensor value (in Degrees Celsius): -96.0
			Solution 001: Upgrade the iDRAC firmware to 2.10.10.10 or newer.

ID	Date	Title	Details
00419	5/9/2016	Stand Alone tape drives - IBMi / iSeries	Problem:
			Customer has multiple partitions on host. During transition, special tracking of all tape drives actively networking with each other results in a better satisfaction that all are varied off, in order to be able to use one tape drive.
			Solution 001:
			The first step in sharing one virtual standalone drive is to make sure all partitions have the virtual standalone drive varied off. The second step is to verify that you are only going to vary on the drive from one partition. Once one partition has varied on the device, no other partition can use that drive until it is varied off.
00418	5/4/2016	Error occurs at end of VTL stacking job to physical tape	Problem: Stacking jobs from the VTL were running close to the end of stacking, but error occurred "communication error" near the end of the stacking job.
			Solution 001: Advise best case solution at this time was to stop and start VTL services, and try the stacking jobs again. Also advised end user to confirm tape usage did not exceed window of usable life, and tape drive had been through cleaning procedures.
00414	5/3/2016	Home slot occupied when trying to move tape from drive	Problem: Customer still needing "root' VTL GUI access to manually move virtual tapes from drives to slots in VTL. They still see home slot as occupied.
			Solution 001: Upgrade to Agent version 22 which will ensure no tapes are moved from the vault to another tapes home slot via the MCP
			Solution 002: Never manually move tapes using the VTL console or command line while there are active jobs using tapes that are currently in drives. Moving a tape into another tapes home slot can prevent normal unloading of tapes at the end of a write session.
			Ref: Similar Solution #00000402 https://na54.salesforce.com/501j0000001IT7s
00415	5/3/2016	Hidden RPC services	Problem: Customer finds there are "Hidden RPC Servicesâ€⊡during a vulnerability scan.
			Solution 001: The portmap (rpcbind) service is only required on if an ACSLS server is attached. Removing that service is recommended.
			# chkconfig portmap off # service portmap stop
00416	5/3/2016	AutoUnstack Feature not working	Problem: TM cannot find a viable scratch tape, and the Auto-Unstack requires operator intervention.
			Solution 001: TMDB needs to be cleaned up. Define substitute scratchpool:
			CONFIGURE SUBSTITUTE SCRATCHPOOL OLD = NEW
			The SCRATCHPOOL option specifies which tape scratch pool should be replaced by a different scratch pool. In this example, all tape requests that ask for a scratch tape with from the pool OLD will be changed to request a tape from the pool NEW.
00408	4/27/2016	REMCOPY issues from PROD to DR - MCP B&L	Problem: Virtual tape replication from VTL to VTL would not start, customer is running B&L software on the MCP
			Solution 001: In this configuration, the VTL virtual tapes must be removed/disabled from any replication status, and their corresponding replica must be deleted. Once that is done, the B&L replication procedure begins and completes successfully.

ID	Date	Title	Details
00407	4/25/2016	Tapemanager purges tapes that are not	Problem:
		expired	Tests were run and even though tapes were not expired they were purged along with expired tapes.
			Solution 001:
			Ensure that the following is setup in the TapeManager configuration:
			TM CONFIGURE OPERATIONS
			Operations options = Unknown tape = AUTO,
			Mismatch label = AUTO,
			Verify PG/SN = TRUE,
			Scratchpool required = FALSE,
			Assign serialnumber = SYSTEM,
			Duplicate volume = IGNORE,
			Optional selection = NONE,
			Auto purge = TRUE,
			Clear comment = FALSE,
			Retention = BY CREATED,
			Generations = BY CREATED,
			Suppress = TRUE.
00406	4/22/2016	Numbering schema incorrect for	Problem:
		createvirtualtape command at command	Numbering schema incorrect for createvirtualtape command at command line with VTL v7.5. GUI tape
		line. VTL v7.5	creation normal
			The numbering schema then utilizing the iscon createvirtual tape command still only follows the 000 to ZZZ
			pattern. The option -t switch does not work.
			The schema is okay via the GUI.
			Solution 001:
			This is fixed with patch version update-is737590vtl
			Ref:
00402	4/10/2016	Vintual tenancian del tendrium consolt unione d	https://na54.salesforce.com/5010a000000Dhqa
00402	4/18/2016	Virtual tapes loaded to drives won't unload / stuck MCP	Problem: Customer used "auto load" from the VTL GUI to mount some tapes. Later on the DSI TM/LM dismounted
		Stuck MCP	some other tapes to the HOME SLOTS of the tapes that were "auto loaded". Then any attempt to unload
			the "auto loaded" tapes failed with slot full messages in the /var/log/messages file.
			the date loaded tapes failed with slot fail messages in the / var/log/messages me.
			Solution 001:
			By selecting a different empty slot(s) the tapes where then dismounted correctly. After getting the tapes
			dismounted. A "TM INIT LIB" command is issued on the MCP to re-sync the library inventories.
			dismodrited. A TWI INT LIB command is issued on the INCL to te syne the library inventories.
			Solution 002:
			Do not load tapes into a drive while active backups are in progress.
			Do not load tapes into a diffe time dotte backaps are in progressi
			Ref: Similar Solution #00000414 https://na54.salesforce.com/501j0000001IUDI
00391	4/15/2016	TapeStack STACK call returned error 132	Problem:
			Tape Stacking fails on Physical tape previously used for stacking. Stacking worked when using a different
			physical tape. Original physical media was bad and had to be retired.
			Solution 001:
			Use a different physical tape to determine if stacking will complete on it, preventing loss of data and
_			determining if original media is bad.
00392	4/15/2016	FW: New Physical Tape Library - changes	Problem:
			1. The new NEO 8 cartridge autoloader cannot be configured to read only 6 character barcodes.
			2. Agent was reading the last 6 characters that included the L6 instead of the first 6 characters that did not
			include the L6.
			Solution 001:
			This was resolved with the release of Agent ver. 2.02.022D
			Calutian 003.
			Solution 002:
			The NEO Tape Library has a new firmware, v.OVERLAND_BL2_R_5_10_3_20e.fbi, that allows the
			configuration to be changed to read 8 characters instead of 6.

ID	Date	Title	Details
00398	4/15/2016	"*****SCSI command Delay****** error - FS v7.5	Problem: The "*****SCSI command Delay****** error results in experiencing write errors whenever writing to more than one tape at the same time and these tapes need to be expanded
			Solution: Findings were that the patch level was at update-is737526vtl and wholly out of date. Patch update-is737539vtl specifically deals with SCSI command timeout problems. The customer was brought up to current patch level.
00399	4/15/2016	Deduplication installation unsuccessful	Problem: Errors such as this evident in the system log: E 08/14/2015 17:38:48 50909 The deduplication client module failed to get the deduplication server configuration; error RDE_ERROR_NOT_ACCESSIBLE: SIR cluster is down or not accessible
			This is due to the following system file was missing from the operating system when deduplication attempted to initialize: /etc/HOSTNAME As a result of the deduplication feature never having successfully initialized.
			Solution 001: Manually create the file with the following procedure:
			 # touch /etc/HOSTNAME # echo \$HOSTNAME > /etc/HOSTNAME Disabled the deduplication feature from the VTL Console by right-clicking on the hostname -> Deduplication -> Disable Deduplication re-enabled the deduplication feature
00400	4/15/2016	â€~Creating Program' or â€~Creating Task' is sometimes incorrect - TapeManager or TM	Problem: Program name or Task name is sometimes incorrect when reporting the creation entity on the MCP
			Solution: Fixed in v9.069R
00393	4/15/2016	Max capacity is 1,024 MB when it should be 348,160 max capacity.	Problem: Tape Max capacity can be reduced significantly by the VTL software automatically if a lack of storage space prevents the tape from expanding. That is, if the storage space available is 10GB and a tape being written with a 348GB max capacity, on an expansion it will reach end of tape and change the max capacity to 10GB.
			Solution 001: Fix the storage issue, add storage, purge tapes, etc.
			Solution 002: To change the MAX CAP to a larger size. It is a four step process.
			 Expire the tape in the DSI TM/LM database (TM MOD SN nnnnnn with expired=true) Delete the tape in the VTL system (Via VTL GUI) Create a new tape in the VTL system (Via the VTL GUI and create with original SN/Barcode) Purge new tape with DSI TM/LM (TM PURGE SN nnnnnn scratchpool=yourpool compressed) Scratch tapes via the backup software (BackupExec, TM, Conductor, etc)
00396	4/15/2016	Email Alerts Automatic Report: FM Table inconsistent <tape id=""> <tape barcode=""></tape></tape>	Problem: Email alerts reported that FM Table inconsistent, essentially the TLE Database, and a readblock failed
			Solution 001: Delete virtual tape mentioned in the message, if it is expired, in order to fix the TLE database.
00395	4/15/2016	v8.2 GUI issue adding tapes to deduplication policies.	Problem: When attempting to add tapes to a deduplication policy in the GUI only the first 100 tapes are shown. The GUI shows artifacts/locks up when trying to display past this.
			Solution 001: GUI patch has fixed the problem. They are now able to scroll through tapes in a Dedupe Policy even when there are more than 100. Patch update-is930906console03vtl needs to be installed
			Ref: Solution # 00000194 https://na16.salesforce.com/501j0000000ykmb?srPos=0&srKp=501

ID	Date	Title	Details
00389	4/13/2016	SSH not working due to routing configuration	Problem: VTL reports shared secret error, SSH does not work between VTL's, Ping & traceroute work and appear correct.
			Solution: Add static routes to support communication between DR & Production VTL's following the below information. *** Note route add statement is not persistent through reboots ***
			* Use the route command to show current routing table # route
			Create the file: /etc/sysconfig/network-scripts/route- (i.e.eth0)
			Add route information: GATEWAY0= (i.e.10.20.50.250) NETMASK0= (i.e.255.255.255.0) ADDRESS0= (i.e.10.1.50.0)
			You can add multiple routes in this file for additional networks: GATEWAY1= (i.e.10.20.50.250) NETMASK1= (i.e.255.255.255.0) ADDRESS1= (i.e.10.2.50.0)
			* Run the following command to restart network services # service network restart
00388	4/12/2016	Auto-Save from GUI Console not starting process - VTL v8.2	Problem: Autosave of the configuration as set up in the GUI Console for version 8.2 may not start the process. Specifically, the path statement did not address the operation of Auto-Save, but cannot be altered due to dependencies on the rest of the operation of the VTL
			Solution 001: This is fixed with the update-is931004 patch
00383	4/8/2016	SNMP configuration & VTL specific SNMP guidelines	Problem: Some customers may find the SNMP agent is running on their system using the default community string o "public". The below information is intended to help you and the customer disbale SNMP or modify the configuration to the customers needs.
			Solution:
			SNMP is a service/protocol for sending system information to a central server or for adjusting system configuration for systems running the SNMP agent with supporting mibs. Mibs are a collection of definitions which allow the device to be managed & monitored, for example a printer may have a rule "toner monitor†in its mib that tells you when the ink is low. SNMP traps are messages sent from device agents to a central monitory server listening for these traps.
			SNMP Versions SNMPv1 – basic send & receive of messages SNMPv2 – Better error handling, better SET parameter, and New INFORM command to acknowledge receipt SNMPv3 – Focus on securing the protocol, adds encryption & stronger authentication mechanism
			SNMP Basic Info Port 161 for general messages Port 162 for trap messages Windows Config location % SystemRoot %\System32\Drivers\Etc
			Linux/VTL config locations /etc/snmp/snmpd.conf /usr/local/vtl/etc/snmp/IPStorSNMP.conf

ID	Date	Title	Details
00381	4/8/2016	Issues connecting to iDRAC on passive VTL	Problem:
			Attempts to ping, SSH and browse to the iDRAC IP fail.
			Solution 001:
			Perform an iDRAC reset to re-establish communication with the iDRAC. Command line option # racadm
			racreset
			Solution 002:
			Change the iDRAC ethernet cable to another port on the switch.
00380	4/4/2016	Import TKLM encrypted physical tapes result	
	, ,====	in VTL error "Tape blank or drive needs cleaning	The import of TKLM encrypted physical tapes worked previously, and recently while importing TKLM encrypted physical tapes, customer received the following VTL error: "Tape blank or drive needs cleaning"
			Solution 001:
			Though the error does not state the problem as found, Customer confirmed that the physical tape cartridge
			is bad. That import had to be abandoned as no reasonable resolution is available to retrieve the information on the tape. The import of further tapes worked as expected.
00379	4/4/2016	DSI Library NEO 4000E failing to come	Problem:
		online.	Every so often the physical library will go offline from the VTL even though it says it is online.
			Solution 001:
			Rescanning the HBA's may bring it back online with the VTL and sometimes a power cycle of the library
			before rescanning will be needed.
			Solution 002:
			Unassign the physical tape drives and then the library. Assign the library and then the tape drives. This fixed
			an issue at one customer site.
			Solution 003:
			Review the library logs for any malfunctions, possible replacement of the Tape Drive may be necessary.
			Solution 004:
			Review the Switch logs for any malfunctions.
			Solution 005:
			Physical cables should be investigated for pinched, tight looping and or broken fibre.
			Solution 006:
			Power cycle the physical tape library
00378	4/1/2016	Space on PROD VTL almost used up and	PROBLEM:
000.0	., _, _ = = = =	import jobs fail	User created (7) virtual tapes without TCOD and their maxsize was set for 600GB. Causing the VTL to assign
		F	most the VTL disk space to them.
			The VTL is a DEDUPE system with 5TB/25TB Split. This also caused imports to fail, due to lack of disk space
			SOLUTION #001:
			Deleted the tapes.
			SOLUTION #002:
			Ensure the TCOD is enabled in the VTL library.
			COLUTION #002
			SOLUTION #003:

ID	Date	Title	Details
00377	3/30/2016	Tapemanager Keys on HOST(s) were about to expire or expired	PROBLEM:
			DSI-LIBMGR
			DSI-LIBMGR-UNL
			DSI-TAPEMGR
			DSI-TAPEMGR-UNL
			Are nearing expiration or have already expired
			SOLUTION #001:
			Request new software keys from DSI Sales / Account manager.
			Ref:
			https://na54.salesforce.com/5010a00000137w2
			https://c.na16.content.force.com/servlet/servlet.FileDownload?file=015j0000001e0fx
00373	3/30/2016	VTL gui tape view difference	PROBLEM:
			Left side of GUI shows 2112 tapes in the vault, right side shows 1 tape.
			SOLUTION #001:
			Issue the command "vtl restart comm" to refresh the in memory info that is used by the VTL GUI
	- 1- : 1 : -		
00370	3/21/2016	Stack Info of Physical tapes disappears after	PROBLEM:
		inventory of physical library - ACLS	Stack Info of Physical tapes disappears after inventory of physical library
			SOLUTION #001:
			Agent 2.02.026 changed to not issue the inventory of the ACSLS physical library.
00365	3/17/2016	Received unexpected 'error 18' during	PROBLEM::
		replication	Customer receives numerous e-mail alerts for replication watermark when replicating very small tapes.
			SOLUTIONS #001:
			Apply the patch to reclassify the warning in the VTL. Patch versions listed below:
			Apply patches for applicable VTL:
			8.1 - update-914517
			8.2 - update-931004
			Ref: https://na54.salesforce.com/5010a00000Dhqa
00364	3/17/2016	Fibre port down - Loop Configuration	PROBLEM:
			Restarting the IOP on the MCP host caused port 102 on the VTL fibre card to become non-responsive.
			SOLUTION #001:
			Restart VTL services with #vtl restart all
			SOLUTION #002:
			Reboot the server
			REDUCE THE SELVE
00363	3/16/2016	Fibre channel port not initializing.	Problem:
			VTL fibre channel port goes offline when directly connected to a physical device. The fibre channel port on
			the VTL was 16 Gb/s and the physical device was 2 Gb/s.
			Solution 001:
			16 Gb/s fibre channel is only backwards compatible with 16/8/4 Gb/s devices. Devices that are slower than
			this must be connected though a SAN FC switch.

ID	Date	Title	Details
00362	3/14/2016	Dell storrage error 280D - Expansion	PROBLEM:customer receives email alerts for critical error 280D indicating there is a problem with a specific
		enclosure component failed or removed	enclosure & slot as shown below.
			Date/Time:
			Sequence number:
			Event type: 280D
			Event category: Internal
			Priority: Critical
			Event needs attention: true
			Event send alert: true
			Event visibility: true
			Description: Expansion enclosure component failed or removed
			Event specific codes: 0/0/0
			Component type: Enclosure Component (EMM, GBIC/SFP, Power Supply, or Fan)
			Component location: Enclosure 2, Slot 2
			SOLUTION #001:
			After identifying which attached storage enclosure has the problem you will need to submit a support
			bundle to Dell for further analysis. The support bundle needs to be collected from the Dell MDSM console.
			This issue is likely to be handled under hardware support, so if Unisys holds that contract please involve
			them otherwise continue on by working with Dell Technical support at 1-800-945-3355
			After speaking with Dell, we were advised to upgrade the firmware on the storage array to rule out that as
			an issue. Unfortunately in this case the firmware did not resolve the issue and our next option was to
			replace hardware for the enclosure & slot reporting error's.
			Note**
00359	3/1/2016	Backup Exec - VTL drives go offline during	Problem:
00559	3/1/2016	backup and inventory	New backup server with Symantec Backup Exec 2015 was causing drives to go offline during backup and
		backup and inventory	inventory. Symantec tech support steered them towards us thinking updated Windows drivers were
			needed.
			Solution 001:
			After reviewing their present production system and verifying that the server was able to see the VTL
			(Unknown Medium Changer Microsoft drivers) and drives (Symantec LTO5 drivers), it was suggested that
			the physical connections could be at fault. Checking the fibre card and cables revealed that both the cables
			were bad. Once replaced there were no further issues during backup and inventory.
00354	2/25/2016	Installing TM Updates	Issue:
JU334	2/23/2010	ilistalling rivi Opuates	Updating TapeManager/LibraryManager can be somewhat daunting. These guidelines can help in most
			cases.
			Solution 001:
			By using the unwrap and then the start commands:
			UNWRAP *ALL/= AS (DSI)= OUTOF (DSI)CONTAINER/TMREL FROM PROD TO PROD(RESTRICTED=FALSE)
			Or
			UNWRAP *= OUTOF (DEVMGR) CON";TASKSTRING =
			"0000CAEEA00FDB34557B4A453D8A67DDC95C93BA7CD0CBCC1E413EAB28B6671155BFEA15A372FEA744 10398300BC5D8
			5AECB2BEBEAE2EDC79AD291C2C222CA7C9A06"
			5/12-52-52-51-12-22-57-57-15-25-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57-16-57
			then
			START WFL/INSTALL("(DSI)CONTAINER/TMREL ON PRODâ€頭€❷SIâ€園€图RODâ€與
			The software will be correctly upgraded.
00349	2/24/2016	SAN Send Error Messages / External Storage	Problem:
	, = -, ====	issue	Recieving error messages from storage host:
			Event Message: Virtual disk not on preferred path due to failover
			Solution:
			Redistribute storage LUN(s) to utilize the preferred / correct path using the Modular Disk Storage Manager
			Client (MDSM) software

ID	Date	Title	Details
00348	2/23/2016	DSI debug trace files causing disk space to	Problem:
		become low	Host was running low on disk space on the development host. Upon further review, it was determined that *DSI/DEBUG/TRACE/= ON BLPACK was taking up 97% of disk space on BLPACK
			Solution 001: Actions by B&L Lib can cause TapeLibrary tracing to be set. This will continue to write trace files until is
			turned off.
00040	2/47/2046	DOLLATION IN THE LINE OF THE	TapeManager and TapeLibrary traces are not critical components and can always be removed.
00340	2/17/2016	DSI VTL370 version 7.5 Inline Dedupe Errors	Problem: During tape writing process using in-line dedupe, the tape would reach end of tape prematurely due to the nature of the data being written to the tape was more compressible than the dedupe ratio involved. Solution 001:
			The problem was fixed by FalconStor's VTL patch: 'update-is737588vtl' Reference:
			https://na54.salesforce.com/5010a00000Dhqa
00342	2/17/2016	Requesting assistance to remove security	Problem: Nultiple convits and perceptition on VTI. Through the lifegroup of the VTI, there will be come where there are
		vulnerabilities	Multiple security vulnerabilities on VTL. Through the lifespan of the VTL, there will be cases where there are security vulnerabilities that are identified not previously known about.
			Solution: Update systems with latest FalconStor patches in order to bring the system up to date
			Ref: https://na54.salesforce.com/5010a000000Dhqa
00339	2/12/2016	SNMP Community String Vulnerability	Problem: VTL SNMP public community string has a vulnerability of "Easily Guessed SNMP Community Strings – PUBLICâ€☑
			Solution 001:
			Disable the SNMP service on the VTL.
			- Stop the SNMP module by running vtl stop snmpd.
			Confirm snmpd process does not show after running ps -aef grep snmpd.Rename the file /usr/local/vtl/etc/snmpd to /usr/local/vtl/etc/snmpd.save
			- Start the SNMP module by running vtl start snmpd.
			Note: The service will fail to start and will be marked at stopped, this is as expected.
			Solution 002:
			Update public community string in snmpd.conf file.
			- Stop the SNMP module by running vtl stop snmpd.
			- Confirm snmpd process does not show after running ps -aef grep snmpd.
			If it is still running, run killall snmpd.
			- Backup the \$ISHOME/etc/snmp/snmpd.conf.
			 Modify the com2sec line in \$ISHOME/etc/snmp/snmpd.conf to change the community string from public to, for example, vtl_public:
			com2sec falconRO default public ===> com2sec falconRO default vtl_public
			- Start the SNMP module by running vtl start snmpd.
			Ref:
00222	2/0/2016	Tana managar arrahad TARENACR RUUSS	https://na54.salesforce.com/501j0000000LXEk
00338	2/8/2016	Tape manager crashed - TAPEMGR: DIVIDE	Problem: Tana Manager crashed with a Divide by Zero error
		BY ZERO	Tape Manager crashed with a Divide by Zero error The condition can occur in the singular case where only one audit tape is found in the database. A fix will be
			in 9.069S.
			Solution 001:

ID	Date	Title	Details
00334	2/4/2016	MCP MT drive numbers not matching	Problem:
		anymore.	The MCP host lost the halt/load pack. They rebuilt it okay, but the MT numbers changed in the PCD, from
			what they were before.
			Solution 001:.
			1. Stop the MCP and edit the active PCD, to change the MT unit numbers.
			Solution 002:
			2. Change the DSI system/tapelibrary/configuration file to match the NEW MT unit numbers.
			2.1 Rename the tape drive in the VTL GUI to match the new PCD MT unit numbers
			2.2 Restart DSI TM/LM after editing the config file in step 2.
00332	1/28/2016	Waiting PURGE WFL job	Problem:
			Customer uses a custom WFL called "PURGEIT" to automatically purge tapes. Waiting entries normally will
			occur if you attempt to purge a tape that has a "LIBMAINTDIR" disk file associated with it.
			Solution 001:
			Operator intervention is required as they must decide on the action to take.
00331	1/25/2016	NEO series physical library had a robotic arm	Problem:
		failure message with red light on panel.	NEO physical library had a hardware issue. A robotic arm error on the panel with a red light. Although
			operations were normal, the red light stayed on and was the only indication of a problem.
			Solution 001:
			Power cycle the NEO only. After the power is restored and inventory completed, the red light should not
			reappear.
00330	1/25/2016	Disconnecting a Stand-alone Physical Tape Drive	Issue: Customer wanted to know how to properly disconnect a physical tape drive from his VTL.
			Solution 001: The following is the procedure taken to remove a physical tape drive:
			1) Disable the physical tape drive:
			Log in the GUI
			Go to Physical Drives and right click on the physical tape drive and unassign the drive.
			2) Then power off the drive and under physical resources below.
			3) Re-scan the SCSI Controller (or fibre controller, whichever is appropriate)
			Navigate to: Physical Resources > Storage HBAs and find the appropriate HBA.
			Right click and re-scan and follow the instructions.
			4) Go back to the Physical Tape Drive section and unassign the drive to remove it from the GUI tree

ID	Date	Title	Details
00327	12/30/2015	Network ports are enabled until VTL services start then link lights go out and no connection	Problem: Booting the VTL displayed correct information when running ifconfig, but the VTL was unable to access the network
			Solution 001: Using the Network Configuration document we verified that the configuration files for ETH0 and ETH1 were set up properly. Once that was done the server was restarted and all networking was re-established; Reference: https://na54.salesforce.com/5010a00000137sy
			Sample configurations for the network ports: # Intel Corporation 8257EB Gigabit Network Connection DEVICE=eth0 IPADDR=10.1.50.21 NETMASK=255.255.255.0 ONBOOT=yes MTU=1500 ETHTOOL_OPTS="speed 1000 duplex full autoneg off" HWADDR=00:15:17:5e:30 TYPE=Ethernet GATEWAY=10.1.50.1 BROADCAST=10.1.50.255
			NETWORK=10.1.50.0 BOOTPROTO=none # Intel Corporation 8257EB Gigabit Network Connection
			DEVICE=eth1
00324	12/16/2015	Failover configuration wizard problem while configuring ethxx ports	When configuring an Active-Passive VTL failover the configuration wizard will only prompt the user to configure eth0. The HA wizard does complete fully but never asks about eth1, eth2, or eth3.
			Solution 001: Make sure that the IP Address for eth1 on both the Active and Passive VTLs reside on the same subnet. Same for each ethernet port used.
00321	12/11/2015	DR site seeing even numbered drives only, on the DR and Development separate MCP	Problem: The MCP HOST's were only seeing half of the virtual drives assigned to them.
			Solution 001: The Cisco Switch configuration has two zonesets, One of which included our missing zone, resulting in our missing drives on the DR machine. It appears that the intent would be that the client actual DR implementation requires a SAN switch alternate activation. Up to the client on how to test this.
00320	12/9/2015	Tape drive not ready on PRODUCTION MCP	Problem: A tape drive was not being recognized on the MCP. This was due to a mis-configuration of the Fibre channel ports Initiator> Target associations.
			Solution 001: Assign correct match between Initator and Target within the San Clients and ensure Zoning on the Fibre Switch or direct connect cables are correct.
00315	12/9/2015	VTL seem to hang after applying patch(es)	Problem: After applying a patch, the customer experienced a problem restarting the VTL services. It appears that the services were hung at some point, but that is a misconception.
			Solution 001: After applying some patches, the VTL needs to reconfigure some files while the VTL services are restarting, resulting in what may seem an unusually long start time for the VTL. Stopping the services is not recommended during this time as a corruption or inconsistency in some files may occur. It's recommended that the user wait until all services have started and review the logs for any errors that may have occurred.

ID	Date	Title	Details
00314	12/9/2015	VTL log grew causing cpu on VTL to reach	Problem:
		100% and the GUI to become unresponsive	Attention Required file grew to a size that caused VTL resources to max out at 100% when the GUI Console
			was being started.
			Solution 001:
			What needs to be done to ensure this issue does not occur in the future?
			A more consistent attention to the GUI alerts for the VTL by the customer is suggested, along with clearing
			the messages that have already been addressed by technicians or the operators
00317	12/9/2015	Tapes reported not in library or vault - TM	Problem:
		v69H	Some tapes were not being reported in the library.
			Solution 001:
			Installed Current release 69-O and Agent 2.02.021 to resolve this issue. Installing the latest version of
			TM/TL can alleviate experienced issues with TapeManager / TapeLibrary
00318	12/9/2015	Problems with the cartridges for DEV HOSTS	- Problem:
		B&L	Tapes were failing to mount to a drive and this happened well over 6000 times.
			Solution 001:
			Results were that the VTL database was corrupt and needed to be rebuilt using vendor assistance.
			In order to troubleshoot this issue, we required:
			1. Configuration files for all HOSTS involved
			2. Trace files for the same HOSTS
			3. More details on sequence of events which caused the messages to be generated. In other words what BL/LIB operation or action was being attempted that resulted in these error messages
00309	11/13/2015	Cleaning tape library options - LTO tape drive	
			The main issue is that the Maintenance menu does not have the Clean drive option set and the documentation says:CAUTION: Perform a Clean Drive option ONLY when the library displays a message. How to enable it onsite i.e. without Webtlc and get the Clean drive option visible?
			Solution001:
			From the front panel on the NEO select menu, and then under edit options select library. You must first
			reserve a slot, which will be the last slot in the library, and then enable autoclean. Put a cleaning tape in the last slot in the library.
00308	11/9/2015	Console slow response after changing IP	Problem:
		address - No email alerts	Customer experienced very slow responses from the GUI Console for the VTL. PuTTY commands to the same server showed extreme amounts of CPU and Memory usage. This was the result of Attention
			Required message filling up the queue, to the tune of around 600GB. No email alerts were set up on the machine and if they were the customer would have been notified well in advance of the impending problem.
			Solution 001:
			If the VTL email phone home option is not setup. DSI recommends that it is. You will receive notification of
			problems before they reach extremes levels, causing a VTL outage

ID	Date	Title	Details
00305	11/3/2015	Active/Passive conditions and procedure to	Problem:
		stop takeover	The status of the VTL active and VTL passive were not readily understood by the Customer.
			Solution 001:
			Open Putty To The static IP of each VTL (Not the virtual IP being used for failover condition) and enter the
			following command on each VTL:
			# sms -a
			The control of the co
			The proper condition to find on each VTL under a failover condition was:
			the passive VTL condition was:
			1- up
			and the active was:
			2 - ready failover status active
			In order to get back to the active VTL in a production mode:
			We right-clicked the passive on the GUI console, selected stop takeover. Allowed 5 minutes to pass, The
			proper condition to find on each VTL under a failover condition after entering the command 'sms -a'
			showed on the active:
			1 - up
			and on the passive VTL:
			2 - ready failover status
00299	10/19/2015	Entering license for VTL	Problem:
			Customer needed assistance to enter the VTL license
			Solution 001:
			license .pdf received and instructions received from DSI Support, Console GUI configuration wizard is
			launched from the console GUI 'tools' menu. License information entered and saved. Offline registration
			procedures are then followed in order to enable that license.
			Ref:
			Solution # 00000569
			https://na54.salesforce.com/5010a00000137so
00298	10/17/2015	Issues with EOM backups.	Problem:
00298	10/17/2015	issues with EOW backups.	TM tries to purge newly written tapes
			The thes to purge newly written tupes
			Solution:
			On installation every site should be examined to have SYSOPS TAPEEXPIRATION and TAPEOVERWRITE set
			to FALSE. Otherwise, customers can experience purge attempts on newly written tapes.
00207	40/46/2045	VIII and lighting in an after the given IR	Dealthan
00297	10/16/2015	VTL replication issue after changing IP	Problem:
		address	The customer had made a change to the incoming network port for the DR VTL, effectively removing the
			replication target from the network. This happened during a time when there were replications currently in
			the queue.
			Solution 001:
			Ultimately they had to put the old IP address back in and let replications finish. Afterwards they made the
			necessary IP changes and changed the original tape replication targets to reflect that.
00000	40/0/22:-	B. B	
00281	10/8/2015	Replication Network configuration has	Problem: ETH1 is generally considered to be the replication othernet part on both the production and dr VTI's
		changed on production VTL to ETH0	ETH1 is generally considered to be the replication ethernet port on both the production and dr VTL's.
			In this case, it was changed from ETH1 to ETH0 on the source side of the replication configuration. ETH0
			currently used for iSCSI traffic and Maintenance via GUI Console.
			Even though replication was working this caused significant traffic concerns on the LAN used for normal day to day operations for the customer.
			to day operations for the customer.
			Solution 001:
			Solution 001: When setting up replication for tapes, the source IP address defaults to the ETHO ip address, and must be

ID	Date	Title	Details
00283	10/8/2015	Customer is unable to interact with VTL after software installation/upgrade.	After upgrading Backup Exec software tapes were found to be unavailable in the VTL. All tapes had been moved to the virtual vault, and not available to the BackupExec library. Solution 001: Licensing issues might have been the culprit. Moved tapes back to the Virtual Library, created one 'test' media set, all looks good now Highly recommended to the client that they contact/consult with Symantec on Media Sets (which sets retentions), and consult with them on a continuing backup strategy. Solution 002: Symantec BackupExec did not recognize an STK L700e machine in their HCL list. Per their request, changed the library emulation to an STK-L700. Virtual Library re-assigned to the SAN client, tapes are being re-initialized, this should satisfy Symantec requirements. Symantec licensing required a VTL definition. Changed library style to FALCONSTOR with IBM tape units to match Symantec's HCL. Client tested with 20 new tapes, added 1980 new tapes with positive results.
00286	10/8/2015	Impact of the "Ghost" vulnerability and the DSI VTL product line	Problem: A vulnerability was found in glibc that would allow an attacker to gain access to the system as root. Solution 001: In VTL versions 7.5 and 8.1, patch update-rhel5x06 is required to update glibc to 2.5-123.0.1.el5_11.1 Solution 002: For VTL version 8.2 and higher, patch update-rhel6x02 is required to update glibc to glibc-2.12-1.149.el6_6.5
00289	10/8/2015	VTL Failed power supply	Problem: VTL showing indications of bad power supply. Multiple troubleshooting steps taken to zero in on the power supply being the bad part. Solution 001: Open a case with Unisys to replace the bad power supply. Solution 002: If ION Server hardware support is carried by DSI, refer the case to Hardware to get a replacement part to the customer. Solution 003:
00275	9/28/2015	VTL-Down after Failover on Replication Removal	Open a case with Dell and get a replacement part to the customer through those channels. Problem: VTL systems may become busy if tapes with replication are set with the 'interval' schedule. If attempting to add/remove replication while this schedule is running on many tapes the GUI may appear to timeout. Solution 001: The user may check the status of the replication queue by completing the following steps: From the CLI execute the following commands: (# denotes start of line only, not part of the command) 1. # â€cecho print_rep_queue >/tmp/.falconstor 2. â€cUsing WinSCP copy the file /tmp/.rep_queue_summary to your PC. 3. Open this file with a text editor.
00273	9/28/2015	Intermittent Slow Exports with Large Data	Problem: Tape exports are taking a lot longer after upgrading TM to 9.069.0639. Before the upgrade, a 148GB tape export took 1.5 hours to complete. After the upgrade, a similar tape export is taking over 8 hours to complete. Solution 001: Depending on what the VTL is doing Large Exports may intermittently get a small bandwidth. There is nothing to indicate a problem, with the exception that it just happens on large tapes over 140,000GB.
00269	9/25/2015	Tape Library configuration issue	Problem: VTL drives were unavailable to new MCP during testing. Solution 001: We identified a configuration issue with the Library Manager configuration file. Originally set up to share drives on the VTL, there were 999's where the drive unit numbers should be. These were changed and TM restarted.

00259	9/14/2015	Data Domain is offline	Problem:
			Problem.
			After rebooting Data Domain the library controller will lose connection to the Data Domain system.
			Solution 001:
			Restart the library controller software.
			Solution 002:
			Reboot the library controller
00257	9/11/2015	Adding or Changing server IP for NTP	Problem:
			NTP information is outdated or missing.
			* WARNING - Ensure that backups and/or replications are in progress during these steps
			Solution 001:
			Via the VTL GUI console:
			1. Right click the server and click on 'System Maintenance'
			2. Click on 'Set Date/Time'
			3. Make changes as necessary
			4. The possiblity exists that a system restart may be necessary
			or
			Solution 002:
			1. Enter the following first:
			The command below needs to have the word â€~server' and the ip address in quotes, and basically
			were adding the ntp server address to the ntp configuration.
			# echo "server 10.0.0.3" >> /etc/ntp.conf
			*NOTE change the ip example with your correct ntp server ip address. Leave out the # symbol as it is there
			only to denote the start of the command line.
			2. Restart the ntp services
			# service ntpd restart
			*Note - If the server has changed and there is already a server identified in the configuration file, it will be
			necessary to use a text editor such as 'vi' in order to remove that from /etc/ntp.conf
00250	8/27/2015	Replication cannot proceed error	Problem:
00_00	0, 1., 1010		Customer received an email alert for replication similar to this:
			May 19 12:33:42 DSI300-PROD-A: IPSTOR 1432049622 E 0x0000042b Replication cannot proceed
			unable to connect to replica server %1. 192.168.5.1
			This indicates that the source server (in this case Production) could no longer communicate with the
			replication server (ie. DR).
			Solution 001:
			In this case, the firewall was at fault and prevented replication traffic from leaving the production site.
			Solution 002:
			All networking should be checked from the hardware level through the switches and routers. This is not a
			DSI responsibility, except for verifying that the VTL and controller server have all networking capabilities
			local to those machines.

ID	Date	Title	Details
00244	8/21/2015	Issues accessing physical library via VTL	Problem:
		console	When trying to do a inventory on an Overland NEO, it reports "Cannot inventory physical library"
			The logs report
			E,07/21/2015 21:36:07,12509,Failed to inventory physical library OVERLAND:NEO Series-00348(348).
			E,07/21/2015 21:36:07,40039,Read Element command to Physical Library 348 failed. EC values returned by
			ReadEleStatus are not correct
			The Overland NEO has been rebooted and reset but the issue persists
			It is also causing some other issues with stacking tape jobs but some functions like moving a tapes between
			slots and drives are working correctly
			Solution 001:
			Right click on the library name in the VTL GUI console and select inventory.
			Solution 002:
			Setup a regularly scheduled inventory via a script on the vtl.
			start script
			#!/bin/sh
			/usr/local/vtl/bin/iscon plibinventory -s localhost
			end script
00242	8/18/2015	Replication is Down	Problem:
			Replication is not working and suspect DR down. Possibly have been caused by either power maintenance
			or communication maintenance.
			Solution 001:
			Found that the external storage arrays were still powered down due to the power event. Customer
			powered on the arrays, and verified that they were visible to the the VTL.
			Solution 002: At the DR site the command to restore networking is:
			# service network restart
			Solution 003:
			At the VTL Console GUI, right click the server > System Maintenance > Restart Network.
00233	8/14/2015	Presenting VTL to Open Systems backup	Problem:
		server	Customer's VTL is currently presented to the open systems backup server as an HP device, therefore it
			appears to the backup software (Backup Exec) as physical tape drives. In order to utilize a Virtual Library
			license with unlimited drives it needs to be presented as a VIRTUAL tape library instead.
			Solution:
			Recreated v-library and drives with Falcon designator. Moved tapes from old v-library and changed the
			barcodes to remove 'LT5' from the end of each one (100 tapes). Inventory from BackupExec was successful
			and all backup set information was retained. Disabled old v-library in BE and will be deleted in VTL and from
			BE database when the customer chooses.
00227	8/7/2015	Failed to delete old file config - Auto save	Problem:
		configuration	The VTL was displaying error messages that indicated that it was unable to delete old auto save config files
			such as the following:
			Severity shocks Aug 2 00,00,47 Error Event 11025, Auto save configuration, failed to delete old file config
			'Severity check: Aug 2 00:00:47 Error Event 11036: Auto save configuration: failed to delete old file config-2015-07-28-00-00-10.82.24.95-DSI350EV1-F10WHX1.tar.bz2 from FTP server'
			2015 07 20 00 00 1010212 1155 201030211 1 10111 M2100 11011 1 1 1 301101
			Solution:
			The customer has setup FileZilla FTP server on their Library Controller and uses this to store their auto save
			config files. The problem was that the user account on the FTP server did not have DELETE permissions and
			thus the VTL was unable to delete the old config files. To fix the problem, the DELETE permission was added to the File7illa user account.
00225	8/6/2015	Using the VTL Check utility - Procedure	To fix the problem, the DELETE permission was added to the FileZilla user account. VTL Check
00223	0, 0, 2013	Johns and VII Check duffity - Hocedure	Vtlcheck is a utility that gathers VTL virtual library, virtual tape and TLE database information for support
			review.
			1. sing Putty, log into the VTL
			2. B un the following:
			# vtlcheck -v -x -n > vtlcheck_\$(date +%m-%d-%Y_%H:%M).log
			3. Retrieve the vtlchecklog using WinSCP and then upload or email to DSI Support

ID	Date	Title	Details
00226	8/6/2015	Support Contact Information	List of Contacts for support associated with DSI equipment.
			Website: dynamicsolutions.com/support/
			Click on "Contact Usâ€☑ in the upper right portion of the screen. Further information is available on the
			support webpage. If you have a login, you can open a trouble ticket from the webpage under "Submit
			Ticketâ€⊡
			E-Mail Support: support@dynamicsolutions.com
			Please provide an explanation of the issue for which you need support along with the procedures leading
			up to the issue.
			Phone Support: (Paid maintenance contract or per incident):
			800.332.9020 (U.S. or Canada)
			(International)
			From Australia - 00 11 1 303 754 2001
	- 1- 1		From UK - 00 1 303 754 2001
00208	8/5/2015	Ghost entries in virtual vault	Problem:
			Ghost tapes are specific to VTL systems and are remnants of an actual virtual tape that is moved back to it's
			slot in the virtual library or has been deleted.
			The VTL COMM module in a hung status can result in ghost tapes
			Soution 001: Restart the VTL COMM module
			# vtl restart comm
			# Viriestart comm
			Results:
			DSI VTL Server v8.10 (Build 9145)
			Copyright (c) 2003-2014 FalconStor Software. All Rights Reserved.
			Stopping VTL CLI Proxy Module [OK]
			Stopping VTL Communication Module [OK]
			DSI VTL Server v8.10 (Build 9145)
			Copyright (c) 2003-2014 FalconStor Software. All Rights Reserved.
			Starting VTL Communication Module [OK]
			Starting VTL CLI Proxy Module [OK]
00217	8/5/2015	Tapes (listed) not logged in VTL log	Problem:
			During a purge or erase procedure from a HOST, the virtual tape is not logged as reducing itself in size.
			Ex. Virtual Tape [00L00020] VID 10001276 has been shrunk to 5120 MB
			Solution 001:
			If the amount of data written to the tape is less than the original tape size (ie. 1GB) then there will be no
			VTL log entry for the tape reducing it's size when purged.
			Customer Education opportunity
00211	8/5/2015	VTL Alert - Offline Fibre Port	Situation: On a VTI with 4 Fibra parts, the VTI warned that one part was offling
			On a VTL with 4 Fibre ports, the VTL warned that one port was offline
			Problem: No problem was indicated, as the VTL was configured to use only 3 of the 4 Fibro ports.
			No problem was indicated, as the VTL was configured to use only 3 of the 4 Fibre ports. Solution 001:
			Customer should be aware of their current configuration and that the VTL software warns of offline Fibre
			Channels as a normal occurrence.
			Solution 002:
			Ensure all unused ports are not configured as target ports
			,
			Solution 003:

ID	Date	Title	Details
00202	8/4/2015	MCP HOST could not move tapes	Problem:
			Apparent VTL problem in that the HOST could not move tapes in the library
			Solution 001:
			1. Verify that the VTL is not hung by using VTL Console GUI and Putty to make sure it is responding.
			2. Check to see that all tapes are available and not 'Red Light'.
			Solution 002:
			 Because the MCP could not move tapes look to the VTL Controller. Restart the controller software through Always-Up
			3. If the Controller software cannot be restarted or Step 2. did not resolve the issue reboot the Library
			Controller server.
			4. After about 4-5 minutes the HOST should be able to move tapes once again.
			REFERENCE - Library Controller Software.
			https://c.na16.content.force.com/servlet/servlet.FileDownload?file=015j00000013fKX
00199	8/4/2015	TapeManager GUI displays drives that	Problem:
			In the TapeManager GUI Console, the customer can see drives on one host that intended for other hosts
		section	but cannot access them.
			Solution:
			The fact that ALL drives in the VTL (even when some may be controlled by other MCP hosts) are displayed
			in LIBRARY OPS is functioning as intended / coded. The "Ignore This Drive‮theck-box is for the
			DriveManager which tracks usage and affects unit assignment. The GUI makes its display from the STATUS MT ALL OF command, which is not affected by DM's IGNORE.
			Wit ALE OF Communa, which is not uncered by binder 3 lowers.
00193	8/3/2015	MCP Not Reading Correct Barcodes going	This problem was caused by two issues.
		through VTL Agent	1. Newer Overland NEO 8 cartridge autoloader (physical tape) cannot be configured to read only 6
			character barcodes. The same applies to Oveland NEO 12 and 24 cartridge libraries.
			2. Agent was reading the last 6 characters that included the L5 or L6 instead of the first 6 characters that
			did not include the designation of "L5" or "L6".
			Solution
			It is recommended that 6 character barcodes be used with the designation of "L5" or "L6" following them
			only. Upgrade to most current version of Agent available at http://dynamicsolutions.com/support/products-
			solutions/software-docs/ VTL-Agent
00191	7/31/2015	Tape not mounting via B&L software on MCP	
		HOST	Mounting a tape via B&L resulting in a wait in excess of 12 hours. This was due to the tape in question not
			being in the slot that B&L thought it should be.
			Suspicions are that tapes were moved via the VTL Console GUI which caused the B&L database and
			inventory to become out of sync.
			Solution 001:
			Performing a library disable and enable through the B&L software worked to re-sync the database to the
			VTL
			Proactive solution:
			Avoid moving tapes via the VTL Console GUI unless directed by a DSI or B&L technician
00188	7/29/2015	Stacked tapes not found by B&L software	Problem:
			Tapes that were stacked by B&L and inventoried were not in the locations expected by the software. This
			stemmed from tapes being moved using the VTL Console GUI to a different virtual library which was not defined in the B&L software.
			defined in the DQL SOftware.
			Solution #001:
			Identify all virtual libraries that tapes can be moved to in the B&L software and perform those moves from
			the host. This way the inventory can be updated as the tapes are moved.
			Solution #002:
			A work around for this situation is to disable the library through the B&L software and then re-enable it.
			This will force a re-inventory. However, if the tapes are in a different library not defined by B&L then the
			tapes will not be available.

ID	Date	Title	Details
00189	7/29/2015	Bad Hard Drive in VTL	Problem:
			VTL sent email alert concerning an appliance error, indicating a bad drive which was experiencing multiple
			read / write errors.
			Solution 001:
			For Dell Systems Call the support line and request a technician to replace the drive.
			Solution 002:
			For systems with Unisys support, contact Unisys and request replacing the drive.
			Solution 003:
			For ION systems without Unisys support, request a new drive be shipped to the customer, and let them
			replace the drive themselves. Removing the old drive, then replacing with the new drive will initiate a rebuild of the raid group.
00186	7/27/2015	Overland NEO physical tape library Offline	Problem:
	7, -1, 7		NEO Physical Tape Library show as offline
			Solution 001:
			Rescan the HBA card that connects the NEO Library to the VTL
			Solution 002:
			Restart the physical library
			Solution 003:
			Verify all cables / connectors correctly and securely attached
			Solution 004:
			Verify zoning is correct on the SAN for the Fibre fabric
			Solution 005:
			Fault showing on front LCD panel, reset is an option, choose to reset.
			Solution 006:
			Broken magazines are the biggest issues with picking tapes out of the autoloader
00184	7/27/2015	Tapes failed during stacking - Error message	
		on MCP	Tapes fail when trying to stack onto physical tape.
			A hardware problem with a stand alone physical drive (not in a physical library) or the physical tape itself
			can prevent completion of a stack tape job. The error "MTxxx FAILED TO COMPLETE AN IO IN A TIMELY MANNER VIA CTL xxxxx" from the MCP will help
			isolate this problem to a hardware issue.
			Solution #001
			Correct the problem with the physical drive or physical tape in order to solve.
00182	7/21/2015	FAQ - Low disk error messages on sytem	Problem:
		with dedup	Customer created large sized virtual tapes on a dedupllication system but didn't add them to the
			Deduplication policy for that library. Writing to the tapes filled up the VTL Landing Zone which is much smaller in size, 6 TB compared to 36 TB.
			Solution 001:
			Adding those newly created tapes to the Deduplication policy and then immediately running the policy
			allowed the data to move from the small VTL Landing Zone to the Dedup Luns freeing up the VTL and stopping the low disk error messages.

ID	Date	Title	Details
00179	7/2/2015	Network problems resulting in replication failure	Problem: Customer had a problem with their network this morning, and communication between their primary and disaster site was lost. LibraryServer submitted three tapes for replication at 4:0x, 5:xx, and 6:XX (MCP Time). We see in the SUMLOG that the command returned a successful result. HOWEVER, the three tapes in question, never replicated, and NO REPLICATION tab was visible on tape, and there was nothing reported in the event log. Additionally, the time on the VTL is 8 hours out of sync. Long Description:
			When the network loses connectivity between the production and DR systems, it presents a problem for the remote copy (replication) of a tape. The command to copy the tape is sent to the local (production) VTL system. The VTL-Agent issues the command to the VTL. The VTL returns a good status which only means that there was no error in the command and the remote copy is queued to be done by the VTL. The "GOOD" response is what is returned to the PRODUCTION system. This doesn't mean that the remote copy is complete.
			But with the network not operational, the Library Manager on the PRODUCTION MCP system also loses its connection to the DR system. Then the Library Manager on PROD then closes its port to the DR VTL and attempts to reconnect to the Agent on the DR VTL. In doing this it initializes its connection and loses track of any remote copies it is waiting for a status.
			The VTL COMM module hung due to the procedure taking place and the loss of network during that time.
			Solution 001: Restart the VTL COMM module # vtl restart comm Solution 002:
00177	7/1/2015	VTL not importing tapes	Problem: Customer imported the Production luns into STL VTL server. After completion of the import, there were n tapes displaying in the vault for the VTL GUI Console interface. Customer then re-scanned the storage HBA's existing LUNs and still 0 tapes showed up in the GUI Vault. After the re-scan, tapectrl shows 2 tapes even though only 0 are displaying in the vault. OKC is having a problem importing production tapes into the old VTL server Customer site.
			Solution: Some tapes were not cleared from the configuration / database prior to importation of foreign LUNS. The exact cause of this issue is unknown at this time, but a procedure to mitigate the issue was provided to & tested by the customer. The procedure is listed below:
			The following procedure should be completed prior to importing foreign LUNS to the system.
			 Open a SSH session to the VTL server Check the number of tapes in each virtual library from the database. #date #echo dt > /proc/tle; cat /proc/tle
			#grep -A3 "TLE_INFO: VID " /usr/local/vtl/log/tlecore.log Ex:
			May 04 15:09:55 TLE_INFO: VID - 24, [FALCON][VTL][3.15] [2M4G50020L] AliasProductID [VTL] May 04 15:09:55 TLE_INFO: Number of Drives: 10 May 04 15:09:55 TLE_INFO: Number of Slots: 678 May 04 15:09:55 TLE_INFO: Number of Tapes: 0
			3. Check the number of tapes in the virtual vault from the database. #echo dv > /proc/tle; cat /proc/tle

ID	Date	Title	Details
00175	7/1/2015	Comm errors between MCP and VTL - Windows Library Controller	Problem: Customer noticed MCP errors regarding TM commands and reports /TM last was ok but TM report would not show live data, had her go to the console but it would not communicate from Remote MCP to Local production VTL. Software Engineers had a few DS (Delete from Schedule) suggestions, then we saw a Work processor running. After a DS on that one the TCP/IP stack hang status became operational again. We then saw the library controller regain connection. TM LIB DISABLE then TM LIB ENABLE got the libraries back to full connectivity. Customer started the STACK job which ran normally.
			Solution 001: Restarted software through AlwaysUp on the Library Controller server which did not work. Solution 002: Restarted controller no effect. Solution 003: Restart TapeManager on the MCP, TM did not fully stop. Solution 004: Review all running processes and found a work processor that was running affecting the operation of TCP/IP and functionality of TM. This process was stopped and TCP/IP functionality returned. For good measure, TM was stopped and restarted.