

TSM 7.1.1 and FCM 4.1.1



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TSM 7.1.1 and FCM 4.1.1 Announcement

- http://www-01.ibm.com/common/ssi/ShowDoc.wss?docURL=/common/ssi/rep_ca/4/64SA14-0664/index.html&lang=en&request_location



IBM Tivoli Storage Manager for Virtual Environments 2014

What's New

Simplified individual file level recovery for VMware

Fully automated VM mount to enable help desk file level recovery models

Expand single-pass hypervisor support to Hyper-V

Incremental Forever Backup

Restore of full virtual machines and Individual files from image backup

Auto discovery of VMs; auto-management of VM migrating between hosts

UI integrated with vSphere Web Client

Great for VMware administrators using the same UI for data protection

Role-based access control to limit access by datacenter

Optional integration with FCM for Windows

Off-host data movement

More efficient recovery from local snapshot

Client Benefits

Vastly improved user experience with simplified file level recovery – automates manual steps, increases administrator efficiency

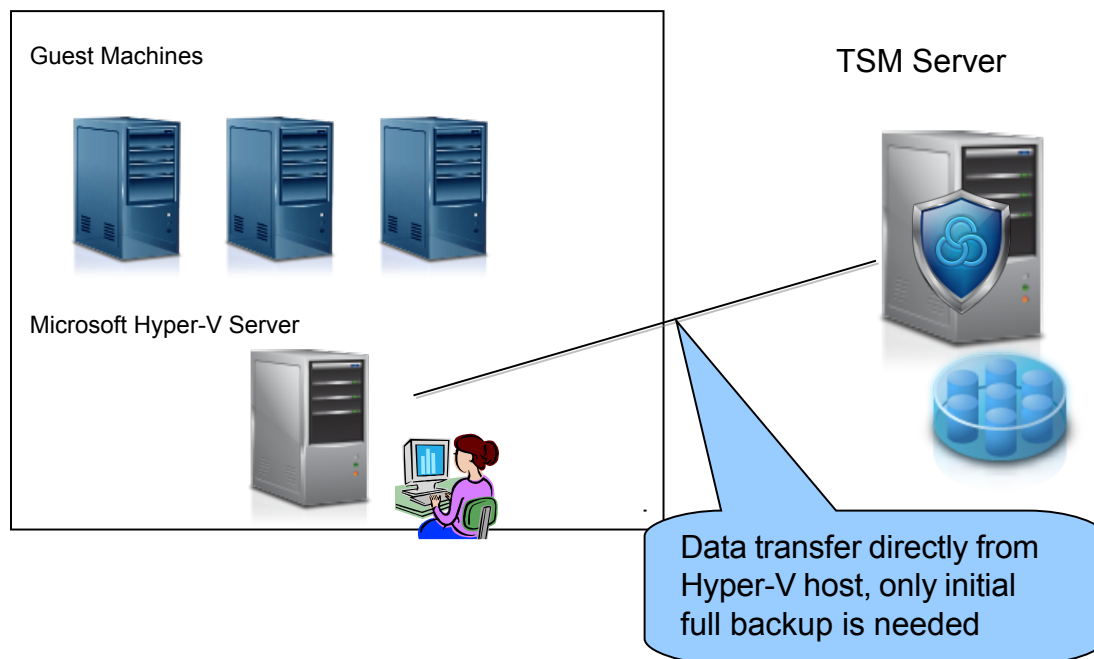
An interface that is **familiar and comfortable** for VMware admins

Simplifies the management of the backup and restore processes for virtual machines in a **Hyper-V** environment

Greatly **improved efficiency** with incremental forever for **Hyper-V** and fast recovery from local recovery points with FCM



Hyper-V Incremental Forever Backup



	Existing Hyper-V Support	7.1.1 Hyper-V Support
Full VM backup	Y	Y
Incremental Forever	N	Y
Mount snapshot for individual file restore	N	Y

Customer Benefits:

- Reduced backup time
- Simplified management – no need to deploy agents on guest machines
- Reduced backup space requirements by up to 95% with incremental forever and deduplication*

**Results seen in IBM lab, improvement may vary depend on your environments*





TSM for VE 2014: Simplified File Level Recovery






Data Protection for VMware Getting Started Backup **Restore** Reports Configuration barsik ▾ ? ▾ IBM

Restore Points | Instant Access/Restore Status | Mount Status

Restore Points




Deselect all 

- ☒ ARC Lab
 - ☐ devesx02
 - ☐ kepler
 - ☐ kepler
 - ☒ rh6vm
 -  solete
 -  traveler
 -  wombat
 - ☒ tsmveesx2
 -  TSMVEESX2VM21
 -  TSMVEESX2VM21_LVM

Restore Point	Template	Backup Type	Location
<input checked="" type="checkbox"/> March 28, 2014 12:14:49 AM PDT	No	IFFULL	ORION.STORAGE.USCA.IBM.COM

Showing 1 item | Selected 1 item

Restore Mount Filter 

▼ Restore Point Details

Backup Type: IFFULL Backup ID: 2015047184 Datacenter: ARC Lab VMware Name: rh6vm Status: Success TSM Server Name: ORION Base ID: 0	Back End Type: TSM Schedule Start Time: March 28, 2014 12:14:49 AM PDT Host: devesx02 VMware Instance ID: 4225dd9f-ac75-f9aa-b49d-aa70c0a74817 Backup State: Active Data Mover Node: MRATUS_ARC_LAB_2_MP_WIN Versions Since Last Full: 0
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TSM for VE 2014: Simplified File Level Recovery

Data Protection for VMware Getting Started Backup Restore Reports Configuration barsik ? IBM

▼ Task Details

Task Name: Mount (11094)	Task ID: 11094
Source VM: rh6vm	Target VM: rh6vm
Task Type: Restore	Task Creation Time: June 11, 2014 3:01:09 PM PDT
Status: Success	Data Mover Node: MRATUS_ARC_LAB_2_MP_WIN
Actual Start: June 11, 2014 3:01:09 PM PDT	End Time: June 11, 2014 3:02:15 PM PDT
Virtual Machines Processed: 1	Virtual Machines Restored: 1
Virtual Machines Failed: 0	
Mount Path: /tsmmount/	Network Share: yes(! ?)

▼ Progress History

- VM 'rh6vm': Starting the mount operation for file-level restore
- VM 'rh6vm': ANS3155i The Windows data mover is 'OOMP' !)
- VM 'rh6vm': ANS3155i The iSCSI server address used is '1' !)
- VM 'rh6vm': The selected VM is a Linux VM
- VM 'rh6vm': ANS3157i The Linux data mover is 'tsmvesx2vm5' ! (!)
- VM 'rh6vm': The Linux iSCSI Initiator Name is 'iqn.1994-05.com.redhat.3c1363df3581'.
- VM 'rh6vm': Mounting a snapshot of VM 'rh6vm' from disc 'Hard Disk' Please wait...
- VM 'rh6vm': Connecting to the iSCSI targets from the Target Portal ' ? Please wait...
- VM 'rh6vm': Connected successfully to the iSCSI Target 'rh6vm-hard2disk71-20140328001449'
- VM 'rh6vm': Created block device '/dev/sd1' of type 'ext4'
- VM 'rh6vm': Created block device '/dev/sd2' of type 'LVM2_member'
- VM 'rh6vm': Mounting block devices. Please wait...
- VM 'rh6vm': Block device '/dev/sd1' of type 'ext4' is mounted to '/tsmmount/tsm-file-level/rh6vm/2014-03-28-00_14_49/Volume2'
- VM 'rh6vm': Block device '/dev/mapper/vg--tsmvesnap--sd2-lv_roof' of type 'ext4' is mounted to '/tsmmount/tsm-file-level/rh6vm/2014-03-28-00_14_49/Volume3'
- VM 'rh6vm': Linux Share Information
- VM 'rh6vm': Remote Host: 2
- VM 'rh6vm': Path: /tsmmount/tsm-file-level/rh6vm
- VM 'rh6vm': ANS3102i 'rh6vm' mounted successfully and is ready
- VM 'rh6vm': objects examined: 1
- VM 'rh6vm': objects complete: 1
- VM 'rh6vm': objects failed: 0
- VM 'rh6vm': total bytes: 0

Help desk Linux mount steps now handled automatically



TSM for VE 2014: Simplified File Level Recovery

Data Protection for VMware Getting Started Backup **Restore** Reports Configuration barsik ? IBM

Data Protection for VMware Getting Started Backup Restore Reports Configuration barsik ? IBM

Mount Status

Select a datacenter: ARC Lab Select a mount proxy node: MRATUS_ARC_LAB_2_MP_WIN

Deselect

Showing 3 items | Selected 1 item

Mount ID	Start Time	Description Tag	VM Name	Number of Mounted Volumes
3	06/11/2014 15:02:09	tsm-file-level	rh6vm	2
2	06/11/2014 09:04:36	tsm-file-level	TSMVEESX2VM21	3
1	06/11/2014 09:03:37	tsm-file-level	TSMVEESX2VM21	3

Mount Details

Mount ID: 3
Mount Path: /tsmmount/tsm-file-level/rh6vm
Restore Points: 03/28/2014 00:14:49

Mount Proxy host: tsmveesx2vm51.
Mount Proxy host OS: Linux

Mounted Disks

/tsmmount/tsm-file-level/rh6vm/2014-03-28-00_14_49/Volume2
/tsmmount/tsm-file-level/rh6vm/2014-03-28-00_14_49/Volume3

Network Share

Linux Share Information
Remote Host: 9...
Path: 9.../tsmmount/tsm-file-level/rh6vm

Information related to mount path for user or help desk admin to use

Use the same UI that VMware Admins use for data protection



TSM For VE 7.1.1 – Integration with VMware Web Client

Restore submitted, see progress in Recent Tasks area

The screenshot displays the VMware vSphere Web Client interface. The main area shows a list of virtual machines under the 'Virtual Machines' tab. The 'Recent Tasks' panel on the right is highlighted with a red box, showing a list of tasks including 'Create virtual machine snapshot', 'Create virtual machine', and 'Restore virtual machine'. A blue callout bubble points to the 'Related task status posted here' text.

Name	State	Status	Provisioned Space	Used Space	Host CPU	Host Mem	Guest Mem - %
3250test_ljm	Powered Off	Normal	6.21 GB	6 GB	0 MHz	0 MB	0
3250test_kg	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
3250test_kg_2014-08-04_09-08-17	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
3250test_test	Powered On	Normal	6.11 GB	6.11 GB	0 MHz	60 MB	0
3277_custom_attr	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
3277_custom_attr_1	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
3277_custom_attr_2014-07-02_15-0...	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
3277_test1	Powered Off	Normal	6.21 GB	1 GB	0 MHz	0 MB	0
asdasdsddddddddddddd	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
Citrix XenServer 2.0 (disconnected)	Powered On	Unknown	366.56 GB	68.58 GB	0 MHz	0 MB	0
dsadsad	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
dsadsd	Powered Off	Normal	12.21 GB	8.23 GB	0 MHz	0 MB	0
dssasdasd	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
rest_3250test	Powered Off	Normal	6.21 GB	6 GB	0 MHz	0 MB	0
rest_3250test1	Powered Off	Normal	6.21 GB	6 GB	0 MHz	0 MB	0
sdadsds	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
sdsasdasds	Powered Off	Normal	12.21 GB	8.21 GB	0 MHz	0 MB	0
sdsad	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
sdsadsadsad	Powered Off	Normal	5.21 GB	5 GB	0 MHz	0 MB	0
test (disconnected)	Powered Off	Unknown	44.23 GB	40 GB	0 MHz	0 MB	0
test1 (disconnected)	Powered Off	Unknown	5.23 GB	1 GB	0 MHz	0 MB	0
test3250	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0
test3259111	Powered Off	Normal	5.21 GB	1 GB	0 MHz	0 MB	0

Related task status posted here

TSM For VE 7.1.1

Custom privileges by datacenter

vmware vSphere Web Client

Updated at 1:42 PM | Administrator@tsmvt.local | Help | Search

Roles provider: immortal.storage.tucson.ibm.com

Roles

Usage Privileges

All Privileges

- Alarms
- Datacenter
 - Create datacenter
 - IBM Data Protection** ← New custom privilege
 - Move datacenter
 - Network protocol profile configuration
 - Query IP pool allocation
 - Reconfigure datacenter
 - Release IP allocation
 - Remove datacenter
 - Rename datacenter
- Datastore
- Datastore cluster
- Distributed switch
- ESX Agent Manager
- Extension
- Folder
- Global
- Host
- Host profile
- Network
- Performance
- Permissions
- Profile-driven storage
- Resource
- Scheduled task
- Sessions

Description: All Privileges

Recent Tasks

All Users' Tasks More Tasks

Work In Progress

Alarms

svc_xiv_1 Datastore usage on disk

ds4700_svt1 Datastore usage on disk

ds4700_svt1 Datastore usage on disk

svc_xiv_3 Datastore usage on disk

VM administrators access only datacenters for which they have been authorized

IBM Tivoli Storage Manager 7.1.1

DR / Replication and Security

What's New

Policy differentiation for replicated data

Different policies for retention time and number of versions can be defined on the source and target TSM servers

Repair files/volume for source server from replication server

Node replication DR that enables a simplified approach to local recovery of files that have been damaged on the source server

Improved performance for small workloads

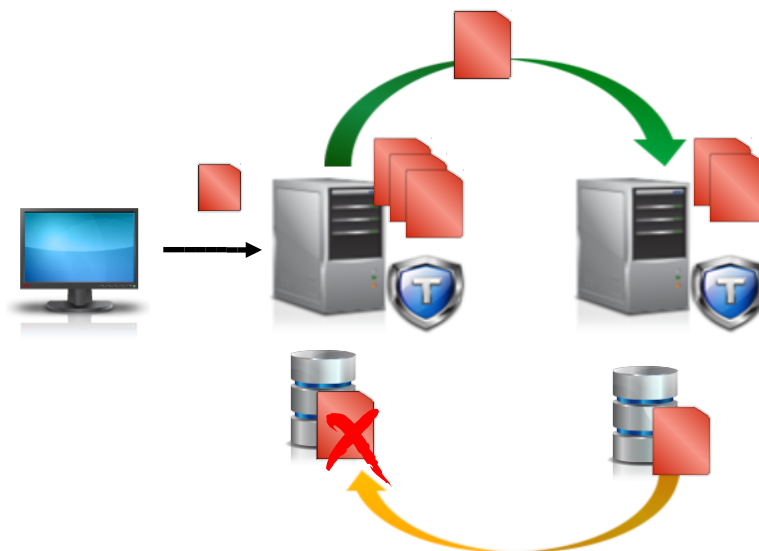
256-bit AES data encryption and NIST SP800 compliance

Client Benefits

Faster, more **robust** DR that protects against localized failures and large-scale disasters. This could be used to replace local copy storage pool tapes, reducing total cost of ownership.

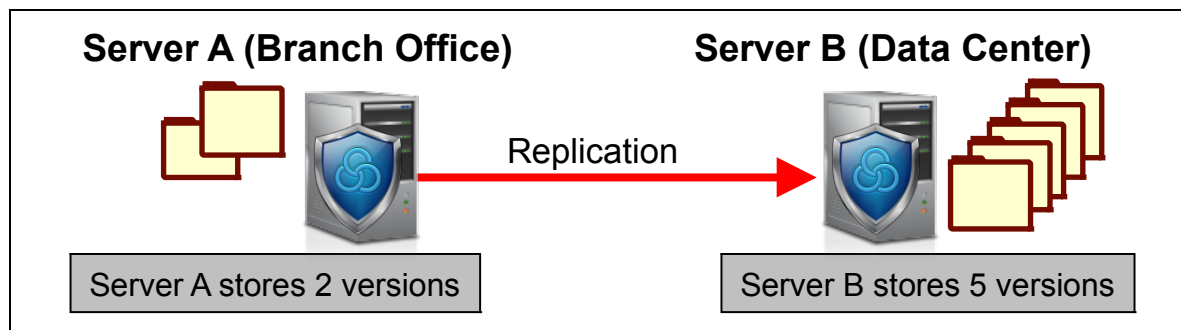
Target customers that would like tapeless solution for DR initiative -
This capability greatly simplifies DR, using the target in a replication relationship to automatically repair data at the source

Stronger encryption capability for customers with requirements to implement strong encryption for personal sensitive data
NIST SP800 compliance enables continuous selling into government

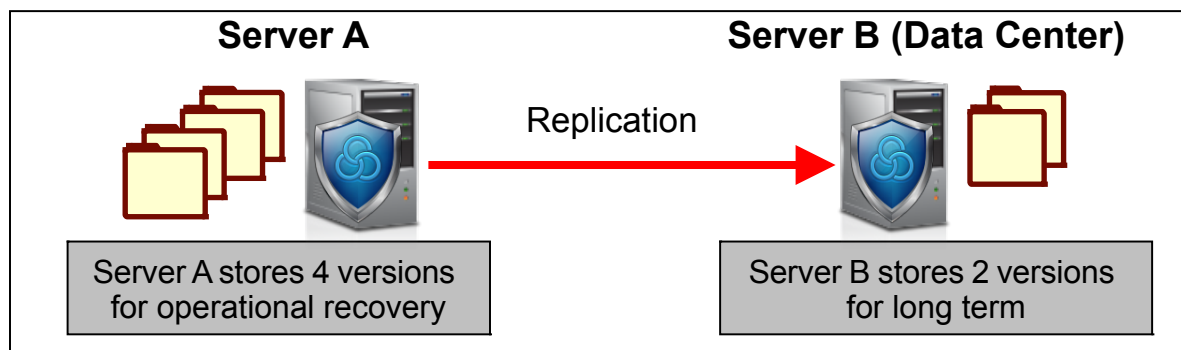


Policy Driven Remote Replication – Dissimilar Policies

Use case:
Branch office with
limited storage for
fast recovery



Use case:
Remote site with
fast recovery SLA
requirements and
data center that's
for archiving



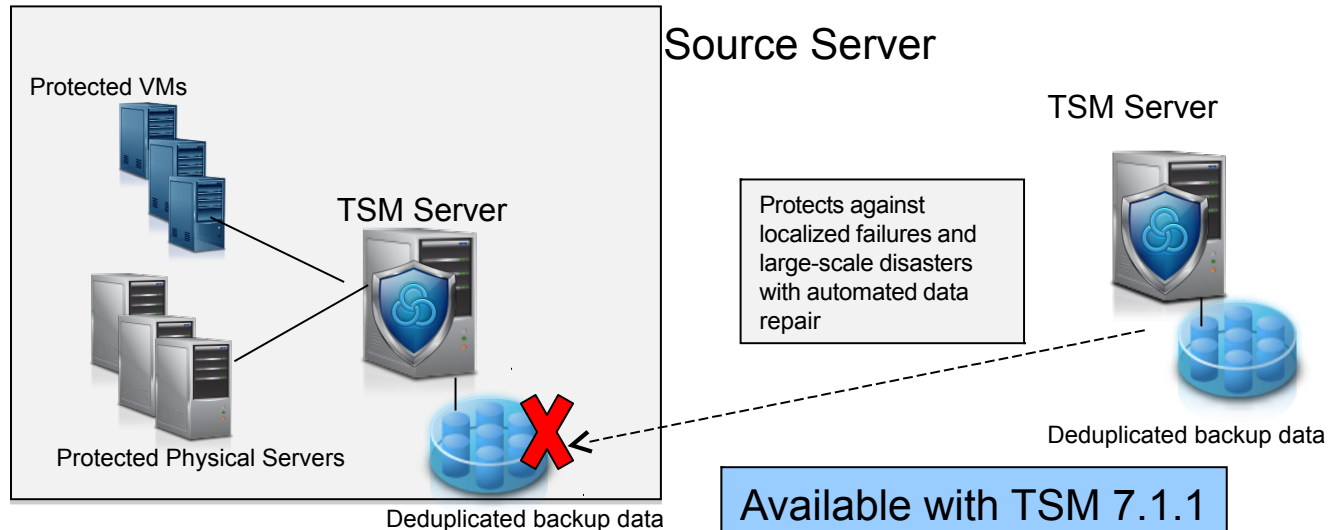
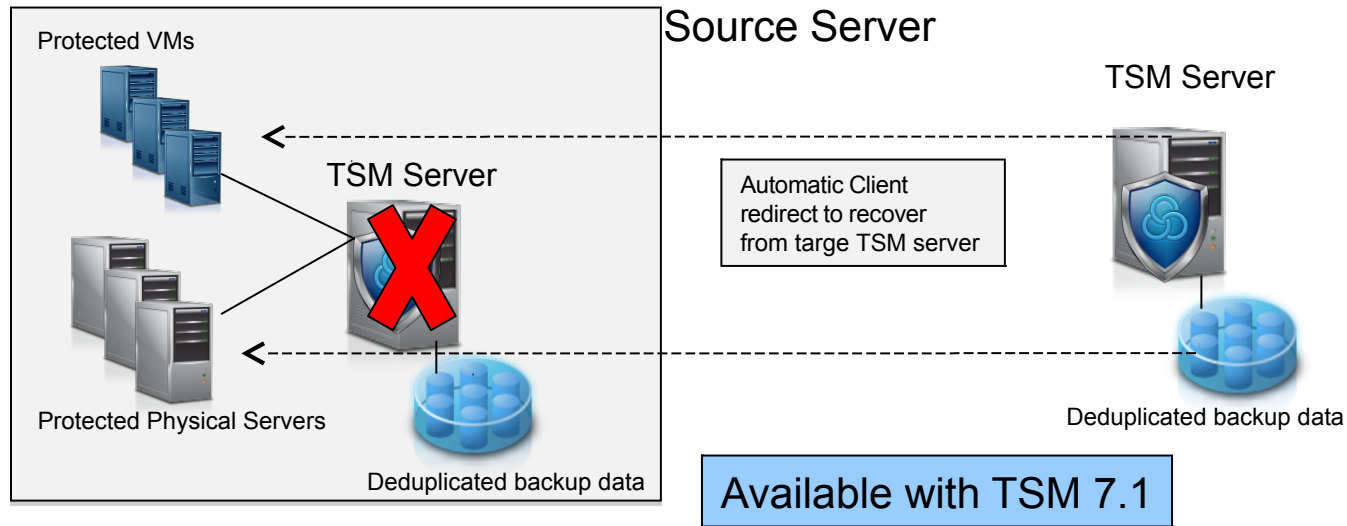
What's New

- Different policies for retention time and number of versions can be defined on source and target TSM servers
- Expiration runs independently on each server, deleting objects based on policies in effect for that server

Customer Benefits

- **Flexible management** of replicated data at different sites
- **Optimal use** of resources
- **Granular option** for hybrid cloud scenario, can be used to replace tape

Disaster Recovery Made Easier with Automated Recovery and File Repair



TSM Operations Center

What's New

Schedules

- View client schedules
- Create/modify client schedules
- Associate existing policies
- View server maintenance schedules

Services

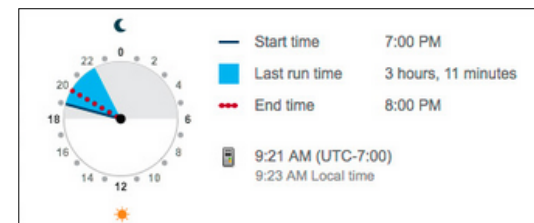
- View policy details
- View active policy sets

Usability enhancements

- Email report on client coverage, status, overall TSM server health
- Configure and manage alert definitions
- Client management services for fast, easy diagnosis of backup-archive client errors and failures

Storage pools

- Configure migrate/reclaim actions
- Edit storage pool properties
- View volume information



Daily Data Protection Report
Operations Center
May 1, 2014 at 11:48 PM (Last 24 hours)

Executive Summary

Backup Success Rate **92.6%** ↓ TSM Server Availability **100%**
♥ At risk 1,477 of 19,907 Clients ✓ All available of 9 Servers

Protected Clients **19,907** ♥ At Risk 1,477

Applications 2,637 ♥ At Risk 60 (2%) Virtual Machines 3,971 ♥ At Risk 457 (12%) Systems 13,299 ♥ At Risk 960 (7%)

Servers and Storage **9** ✓ All available

Inventory Storage Pools Storage Devices
 Databases Active Logs Archive Logs Primary Disk Primary Tape Copy Primary Disk Primary Tape Copy

At Risk Clients

19

Name	At Risk	Server	VM Type	VM Owner
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP
EXCHANGE-3	Missed	DC1SRV01	VMWare	ESXAPP

Client Benefits

The continued evolution of intuitive administration

- Email reporting enables more **efficient** report distribution and **visibility at all levels** of management
- Moving from visibility of the environment to **control over the environment** with management of schedules, policies and alerts



Tivoli Storage Manager

Operations Center automation



Create Schedule

Name




Service

Time

Clients

Summary

Name

Name

Service

Time

Create a new schedule to automate client protection tasks. [Learn more](#)

Server

DC1SRV100

Domain

STANDARD

Type

Application

Subtype

Microsoft SQL Database

Name

* MACYS_DAILY|

Description

Lorem ipsum dolor sit amet, nonummy
 olutpat hac integer nonummy. Suspendi
 cies, congue etiam tellus, erat libero, ni
 fend, mauris pellentesque. Suspendisse
 r praesent vel, integer gravida mauris,
 vehicula lacinia non

Next

Cancel

Create Client Schedule

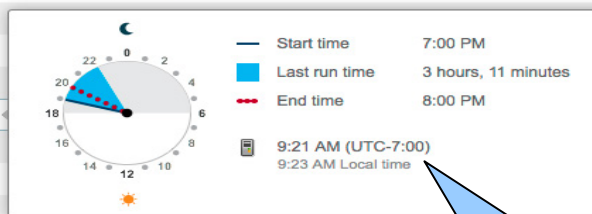
Wizard ☒ Applications ☒ Hypervisors ☒ Systems



IBM Tivoli Storage Manager - Client Schedules

See all your client schedules in your backup environment

Add new schedules or drill down and update existing schedules



Quick looks into start, end, and duration over-run times

Easily visualize client activity to quickly identify bottlenecks and optimize workloads

IBM Tivoli Storage Manager - Server Maintenance

Tivoli Storage Manager																Overviews	Clients	Services	Servers	Storage Pools	Storage Devices	BUDAYA						IBM																			
Maintenance																Schedule Details																Filter															
Server		Last Run		History												Task		Initiated By																													
FUSION		8 minutes		<div><div>✓</div><div></div><div>✓</div><div>⚠</div><div>✖</div><div>✓</div><div></div><div></div><div>✓</div><div>⚠</div><div>✓</div><div>✓</div><div>⚠</div></div>												repl node HSM_GROUP1 wait=yes		Automatic																													
FUSION		3 hours		<div><div>✓</div><div></div><div>✓</div><div>⚠</div><div>✖</div><div>✓</div><div></div><div></div><div>✓</div><div>⚠</div><div>✖</div><div>✓</div><div>✓</div></div>												repl node VEGROUP1 maxsess=15 wait=yes		Command																													
FUSION		11 hours		<div><div>✓</div><div></div><div>✓</div><div>⚠</div><div>✖</div><div>✓</div><div></div><div></div><div>✓</div><div>⚠</div><div>✖</div><div>✓</div><div></div></div>												repl node SQL_GROUP1 wait=yes		Command																													
FUSION		1 hour		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div></div>												backup db t=f devc=LTO5DEV nums=3 wait=yes		DAILY_DBB																													
FUSION		2 minutes		<div><div>✓</div><div>✓</div><div></div><div></div><div></div><div>⚠</div><div>✓</div><div>✓</div><div></div><div>✓</div><div></div><div>✓</div><div></div></div>												expire inventory dur=120 re=40 wait=yes		DAILY_EXPIRE																													
SS2_ADSM_GROU...		4 minutes		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div></div>												run daily_maint		DAILY_MAINTENANCE																													
SS2_ADSM_GROU...		1 second		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>⚠</div><div>✓</div><div>✓</div><div></div><div>✓</div><div>✓</div><div>✖</div><div>✓</div><div>✓</div></div>												delete volhist tod=today-7 type=dbb		DELETE_DBVOL_HIST																													
SS2_ADSM_GROU...		1 day		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✖</div><div>✓</div><div>✓</div><div>✓</div><div></div><div></div><div></div></div>												delete volhistory todate=today-15 type=all		DELETE_VOL_HIST																													
FUSION		2 seconds		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div></div><div>✖</div><div></div><div></div><div>✓</div><div>✓</div><div>✖</div><div>✓</div><div></div></div>												del volh t=dbb tod=today-2		DEL_VOLH_DBB																													
SS2_ADSM_GROU...		Running		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>▶</div></div>												prepare planp=/adsmlog/		DRM_PREPARE																													
SS2_ADSM_GROU...		5 hours		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div></div>												run testfinderror		FIND_TAPE_ERROR																													
q actlog msgno=2166 begintime=now-01...																																															
if (rc_ok) update drive 3494lib rmt0 online...																																															
FUSION		Running		<div><div>✓</div><div></div><div>✓</div><div>⚠</div><div>⚠</div><div>⚠</div><div>⚠</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>▶</div></div>												ID dup deduppool2 numpr=2 dur=600		ID_DUP_DEDUPPOOL																													
SS2_ADSM_GROU...		Running		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>▶</div></div>												run MAINTENANCE_PLAN		MAINTENANCE																													
FUSION		10 minutes		<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div><div>✓</div></div>												reclaim stg deduppool1 th=20 dur=180 wait=yes		RECLAIM_DEDUPPOO																													

What's New

Single-page view of server maintenance activities (replication, storage pool backup and migration, object expiration, space reclamation) with 2-week history

Visibility to scripted task details

Client Benefit

Time savings with centralized server maintenance management

More administration efficiency with increased visibility to historical activity success

IBM Tivoli Storage Manager

Client Management Services – Client Log Diagnostics

Problem listing
from the last 24
hours

Recommendations for
problem resolution

Consolidation of
multiple client logs
into a single pane

The screenshot displays the IBM Tivoli Storage Manager Client Log Diagnostics interface. The left sidebar contains a navigation menu with the following items: Summary, Properties, File Spaces, Remote Management, and **Diagnosis** (highlighted in blue). The main content area is divided into two sections. The top section, titled 'Recommendations', contains a table with columns: Problem, Status, Description, and Recommendation. The bottom section, titled 'Client Logs', shows a list of log entries with columns: Date/Time, Log Type, and Message.

Problem	Status	Description	Recommendation
Backup Failed	Critical	This error can occur because the amount of memory (RAM) which the TSM scheduler uses can grow with time, until it may reach a point where there is insufficient free memory for scheduled backups to be able to run	Reboot machine
Backup Failed	Critical	If TSM is configured to back up drives or partitions that it cannot see, then scheduled backups will fail. Either the error message itself, or a message preceding or following it, will state which drive or partition is causing the problem.	1. If machine is a Mac, ensure that TSM 6.1.3 or higher is running. 2. If machine is not a Mac, or upgrading does resolve the problem, run TSM and correct your backup domain. If you are running TSM 6.1 or higher, you now need to restart the TSM scheduler.
Backup Failed	Critical	There is a hard limit on the maximum size of file which you can back up.	Exclude the large file(s) from backup.
File Not Found	Critical	TSM could not find a directory that has been nominated in dsm.sys as a virtual ...	Remove the line in dsm.sys or else correct it to point to an ...
File Skipped	Warning	If TSM is having trouble reading certain files, then it could be because they are ...	1. If machine is Windows, in My Computer, right-click on the ...
Schedule Failed	Info	TSM only deems a schedule to have failed if one or more files have been prevented from backup in a certain way - not all file failures cause schedule failures. But Windows in part TSM to call a schedule failed.	Close all files and programs before a backup runs.

Date/Time	Log Type	Message
Apr 2, 2014, 1:59:29 AM	Error Log	ANS231E The management class name was not found.
Apr 2, 2014, 2:23:39 AM	Error Log	ANS232E The drive letter is not an alphabetic character.
Apr 2, 2014, 12:54:26 PM	Error Log	ANS236E On dsmlnit, the owner is not allowed to establish a session when PASSWORDACCESS=generate.
Apr 2, 2014, 10:53:29 AM	Error Log	ANS249E The archive object does not have a copy group.
Apr 4, 2014, 7:37:39 AM	Error Log	ANS1134E Memory used by the TSM API has been corrupted.
Apr 4, 2014, 7:59 AM	Error Log	ANS1069E An error occurred while reading data from the device
Apr 4, 2014, 12:50:05 PM	Error Log	ANS0307I Password generated
Apr 4, 2014, 2:23:19 PM	Error Log	ANS1004W Node has exceeded max tape mounts allowed. operation for FOOBAR will be tried again later.
Apr 4, 2014, 4:52:21 PM	Schedule Log	ANS1029E Communication with TSM server is lost.

Consolidated log views and guidance


- Easily see failures and perform root cause analysis
- Recover more quickly using resolution tips



Tivoli Storage Manager– TSM SUR backend compliance

Tivoli Storage Manager Overviews Clients Services **Servers** Storage Pools Storage Devices

TSM Servers 8

Alerts 75  All available

Spoke Quick Look Details Monitor Spoke Back Up Filter

Name	Status	Clients	Alerts	Database	Active Log	Archive Log	Version	SUR O...	SUR Collected
TUMBLEWEED	Unmonitored								
SCORPIO2	Warning	2,622	14	3.7 TB	119.1 GB	499.1 GB	7.1.1.0	55.26 TB	22 hours ago
CETLIBMGR	Normal	0	0	182.0 GB	75.7 GB	242.9 GB	7.1.1.0	0 TB	4 days ago
VEGUARDIAN	Normal	1,063	160	3.8 TB	119.3 GB	507.2 GB	7.1.1.0	19.8 TB	1 day ago
FUSION	Normal	4,174	2	2.9 TB	509.4 GB	1.2 TB	7.1.1.0	5.04 TB	1 day ago
DAYTONA	Normal	2,623	0	1.6 TB	122.6 GB	548.0 GB	7.1.1.0	104.99 TB	3 days ago
TESLA	Normal	1,364	1	923.0 GB	507.5 GB	499.5 GB	7.1.1.0	30.32 TB	2 hours ago
ION	Normal	2,549	2	1.5 TB	127.2 GB	387.0 GB	7.1.1.0	11.7 TB	1 day ago
SS2_ADASM_GROU...	Normal	446	2	496.0 GB	66.6 GB	153.4 GB	7.1.1.0	25.01 TB	5 hours ago

Capacity for TSM SUR backend - no need to run script for license entitlement

NEW! TSM Operations Center Demo on Service Engage

Anyone can be a data protection expert by using the Operations Center! The demo is available externally to customers

Additional Enhancements in TSM 7.1.1

IBM Tivoli Storage Manager B/A client V7.1.1:

- Enhanced security with support of 256-bit AES Encryption.
- Microsoft Windows 2012 R2 support.
- Solaris x86 support

IBM Tivoli Storage Manager for Mail V7.1.1:

- Individual mailbox restore usability and performance enhancements for restoring folders and messages from the mailbox restore browser – 95% improvements*
- Support for Microsoft Exchange role-based access control to limit rights available to backup and restore administrators and automatic validation of permissions during configuration.
- Microsoft Windows 2012 R2 support.

Exchange 2010

FCM	Msg #	original	alternate	.PST file
4.1.0	3K	03:15:49	03:20:21	02:35:03
4.1.1	3K	00:02:45	00:02:33	00:01:24

IBM Tivoli Storage Manager for Databases V7.1.1:

- Microsoft SQL Server 2014 support
- Microsoft Windows 2012 R2 support

Tivoli Storage Manager for Space Management V7.1.1:

- Improved efficiency in handling failed** cluster nodes in large **General Parallel File System (GPFS) Hierarchical Storage Management (HSM)** clusters that enable better cooperation and communication between HSM nodes.
- More control over stub file recall that provides the ability to customize recalls actions and change settings

IBM Tivoli Storage Manager for z/OS Media V7.1.1 and IBM Tivoli Storage Manager Extended Edition for z/OS Media V7.1.1 provide entitlement to:

- Either IBM Tivoli Storage Manager V7.1.1 or IBM Tivoli Storage Manager Extended Edition V7.1.1 for AIX and Linux on System z.
- IBM Tivoli Storage Manager Operations Center V7.1.1.
- IBM Tivoli Storage Manager Media Server V6.3

**Results seen in IBM lab, improvements may vary depend on your environments*



FlashCopy Manager 2014 and FCM Adapters

What's New

FlashCopy Manager Adapters (via 3rd party partner)
EMC and HDS adapters

FlashCopy Manager for Windows:

SQL Server 2014 Support, Windows Server 2012 R2 Support
Exchange – IMR Browser Usability and Performance
Enhancements

FlashCopy Manager for VMware:

Metro Mirror / Global Mirror Integration
UI integrated with vSphere Web Client
Configuration Wizard
SRDF support for EMC VMAX

Storage Device	OS Platform	Target Delivery
EMC VNX (Block)	AIX, Linux, Solaris	April 2014
HDS VSP HDS HUS	AIX, Linux, Solaris	July 2014
NetApp Cluster-mode Filers	AIX, Linux, Solaris	4Q 2014

FCM adapter schedule

Client Benefits

Protect new environments

- Apps on EMC and HDS Storage
- FCM within KVM virtual machine on Linux
- FCM failover scenario in DB2 PureScale

Improved usability experience for Exchange and VMware environments



*Reduce the risk of data loss
with integrated snapshot
management*



TSM Suite for Unified Recovery – Front End v7.1.1

- A bundle of ten Tivoli Storage Manager products offering simplified pricing and licensing with a tiered per Terabyte (TB) Front End Capacity metric.
- A customer may install as many of the individual bundled products as needed for their environment, there is no per server, per install or PVU charge, they are simply charged for front end data protected.
- TSM SUR Entry –Front End – 100 TB max, No more than 2 TSM servers

TSM Extended Edition: Highly-scalable enterprise-class backup/restore, archive and disaster recovery

TSM for Virtual Environments: Advanced protection and flexible recovery of VMware environments

TSM for Databases: Non-disruptive protection of Oracle and Microsoft SQL data

TSM for ERP: Protects vital SAP R/3 system data more efficiently, consistently and reliably

TSM for Mail: Secures Domino and Exchange data; granular restore of Exchange objects

TSM for SAN: Maximizes storage network connections for TSM servers and client computers

TSM for Space Management: Software that moves inactive data to reclaim online disk space

TSM FastBack: Advanced data protection and near-instant recovery for Windows and Linux servers

TSM FastBack for BMR: Restore a Windows or Linux Server Operating System volume within an hour

TSM FastBack for Exchange: Fast and easy recovery of individual e-mail objects



Thank You

