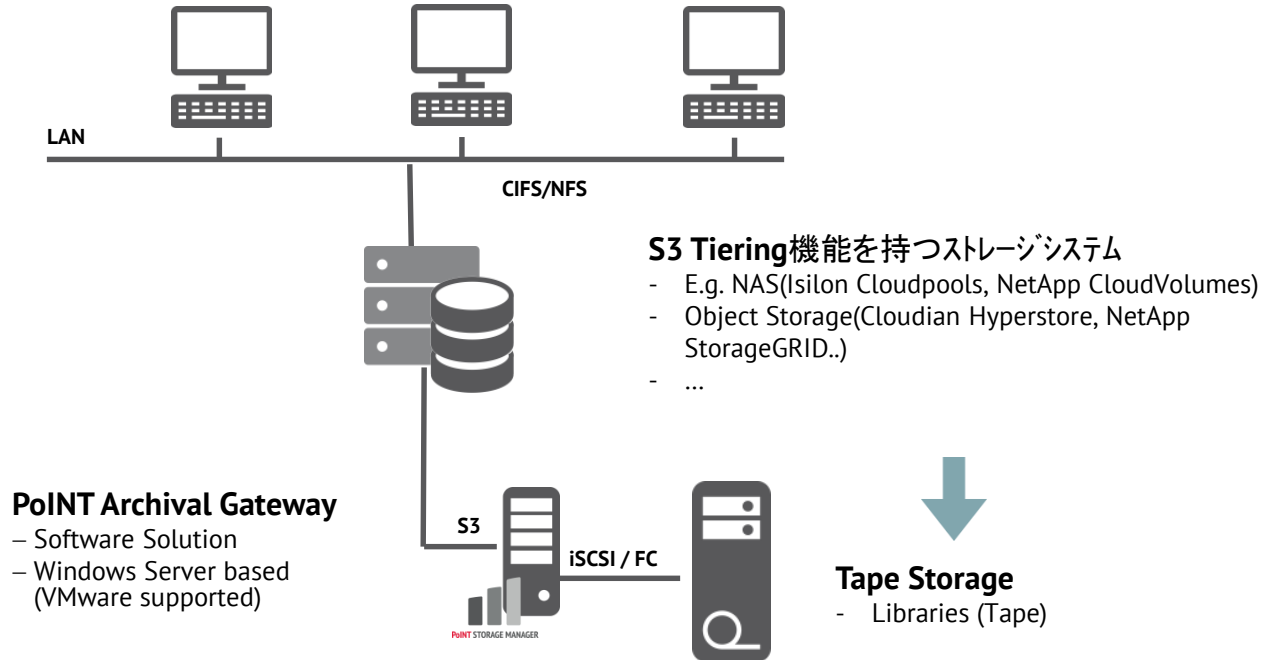


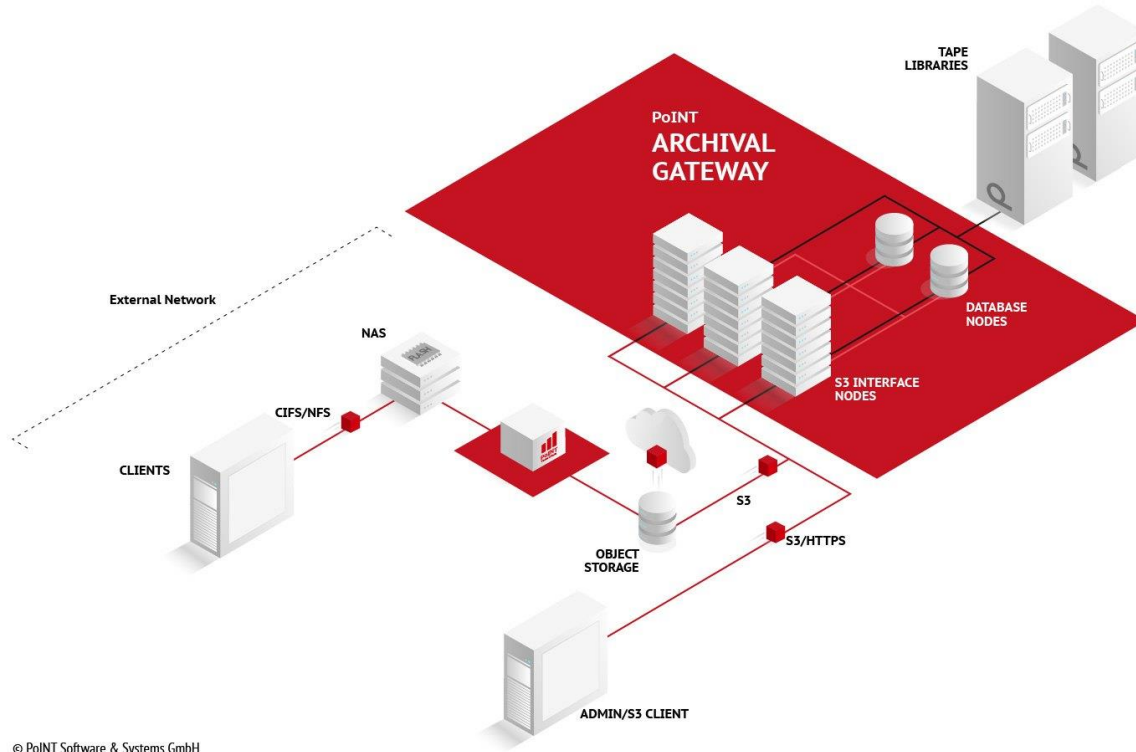
PoINT Archival Gateway

S3 Gateway for Tape

Solution Overview

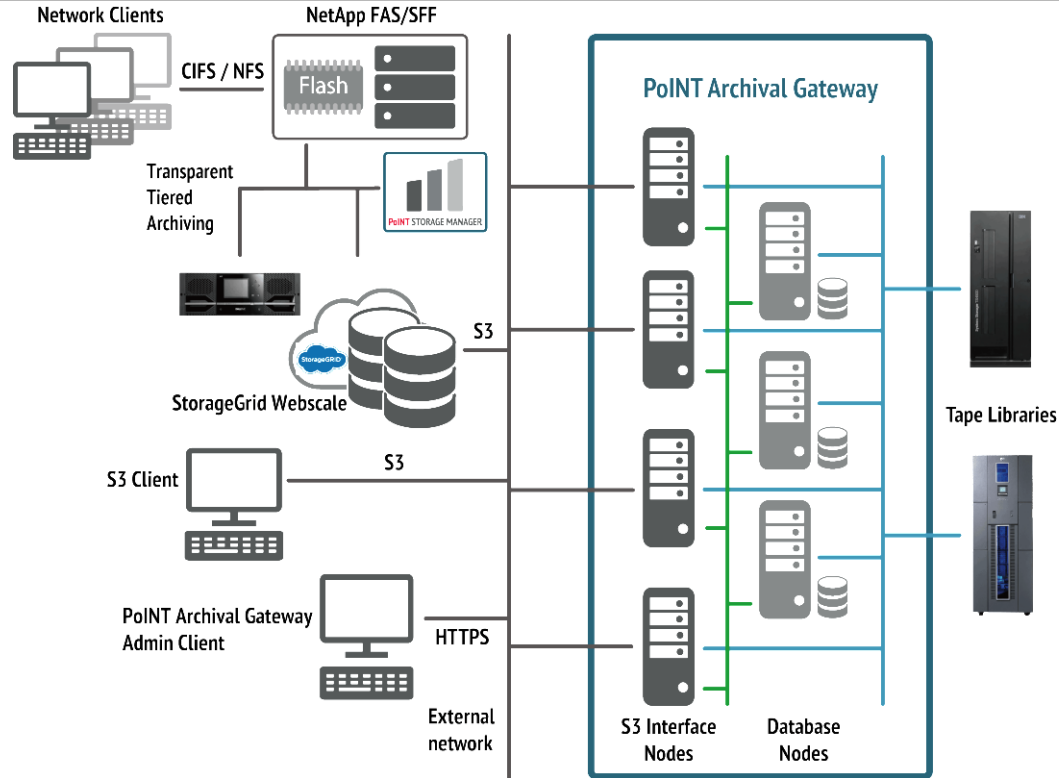
Configuration Overview



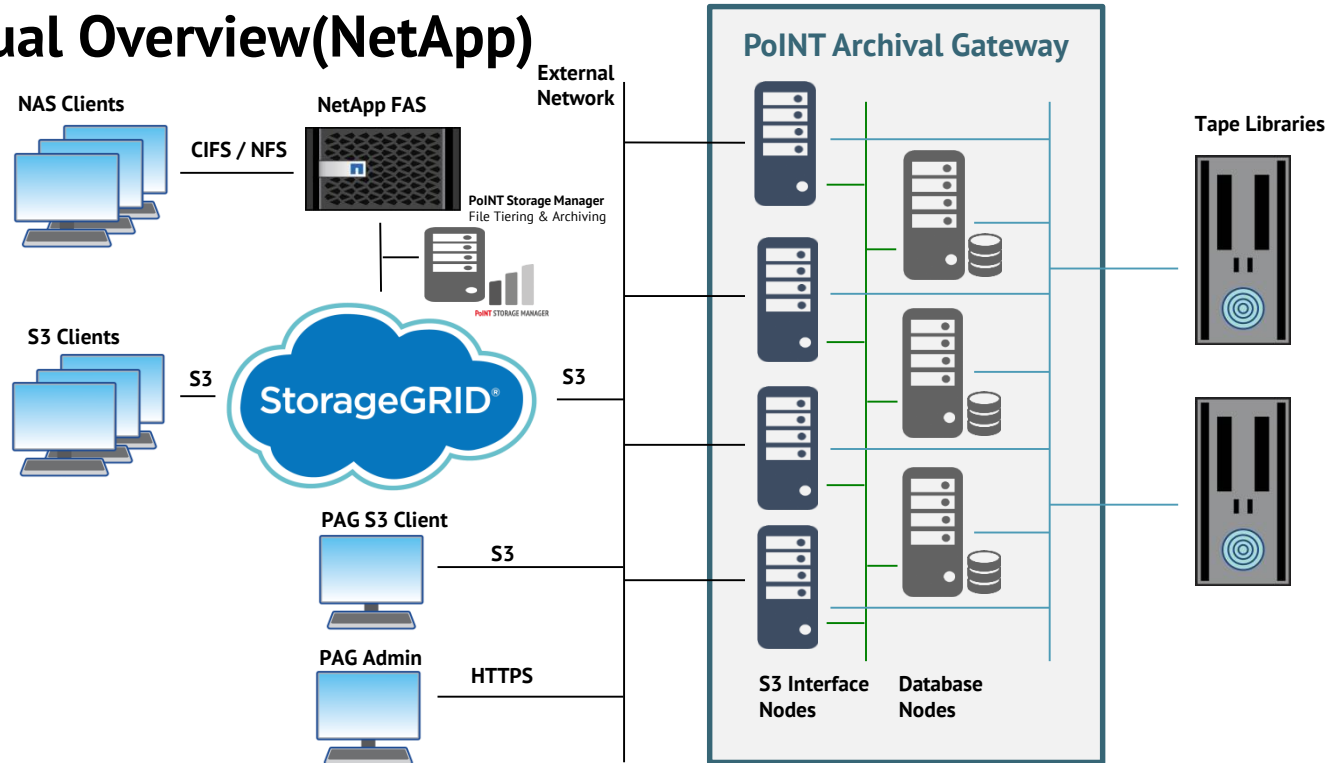


© PoINT Software & Systems GmbH

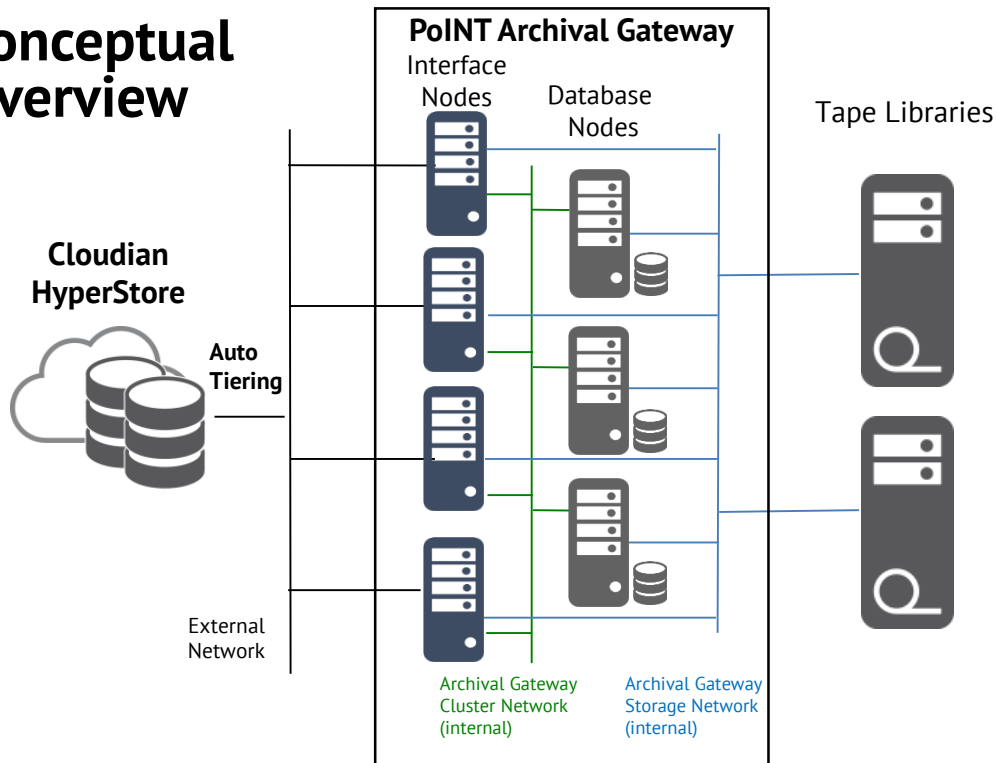
Configuration Overview 2



Conceptual Overview(NetApp)



Conceptual Overview



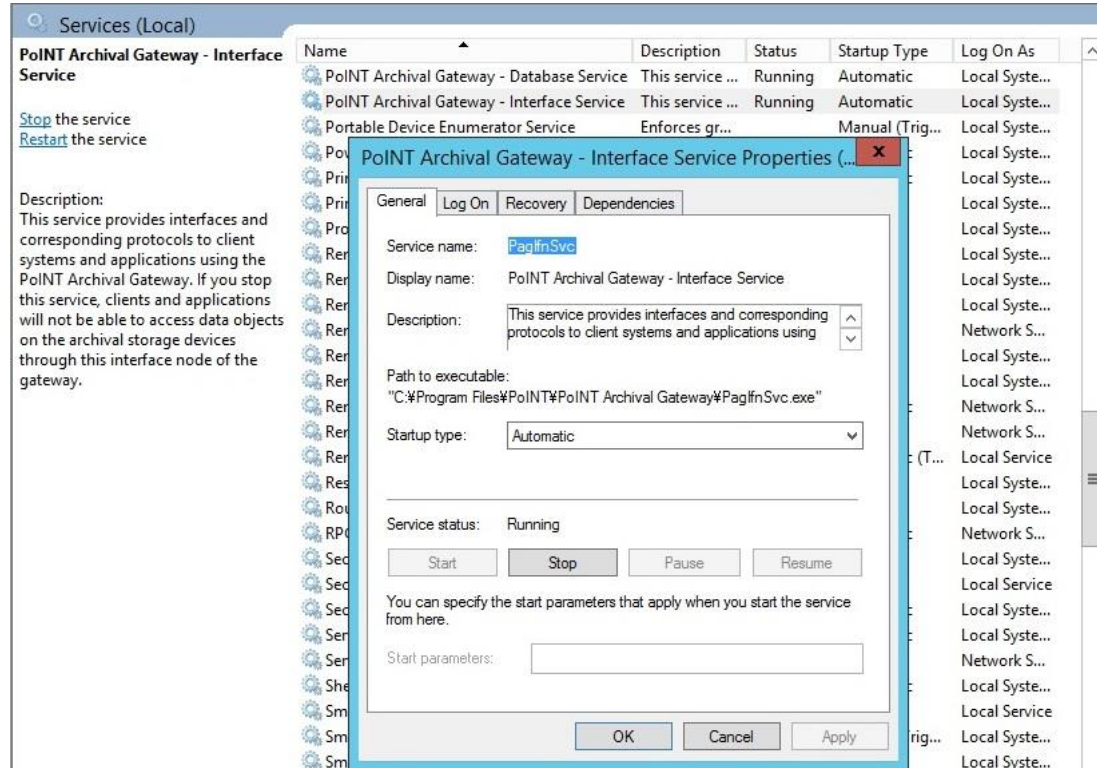
Interface Node

- Webサービス機能 (i.e. S3 REST API, Load Balancer)
- AWS S3 MPU(Multi-Part-Upload)にスケーラブルに対応
- データキャッシュ機能 (i.e. リードと先読みキャッシュ)
- データエンコード機能 (e.g. erasure coding, Hash演算, 暗号化)
- ドライブ管理機能 (LTOドライブを直接制御 read/write)
- メタデータキャッシュ機能 (e.g. object metadataの先読み)
- データベースノードとの通信機能 (メタデータの共有)
- MPUの要件に応じてクラスター構成が可能

Database Node

- データベース管理機能
 - オブジェクトとメタデータのサービス
 - 動作設定のデータベース
 - Includes synchronous replication, backup and caching
- ライブラリー管理機能
 - ライブラリーのメディア移動の管理
- システム動作の監視と管理
- システム動作設定の管理(管理用Webサーバー)

Interfaceノードとdatabaseノードはサービスとして稼動します。最小構成として、1台のサーバーで同時に稼動します。

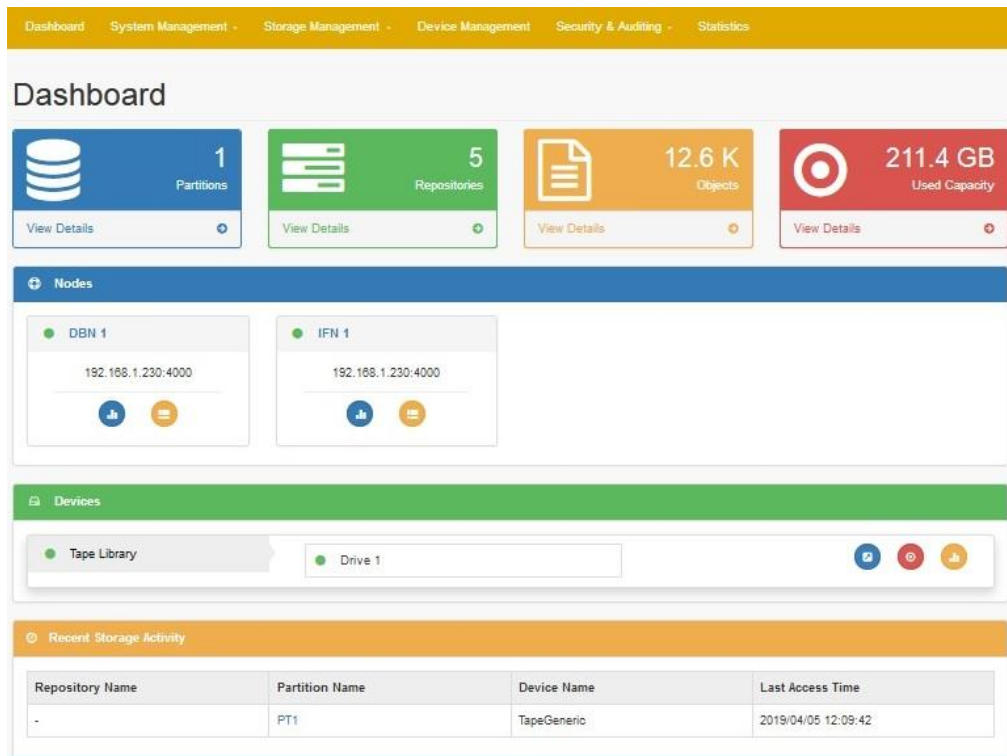


管理Webのスクリーンショット

管理WebはIISのアプリケーションとして稼働します。

System Cluster Nodes						
Database Nodes						
Name	Role	Address	Status	Logs	Statistics	Remove
DBN 1	Active	192.168.1.230:4000	Up			

Interface Nodes						
Name	Role	Address	Status	Logs	Statistics	Remove
IFN 1	Active	192.168.1.230:4000	Up			



The screenshot shows the PoINT management web dashboard. At the top, there is a navigation bar with the following menu items: Dashboard, System Management, Storage Management, Device Management, Security & Auditing, and Statistics. The main content area is titled "Dashboard" and features four summary cards:

- Partitions:** 1 (blue card)
- Repositories:** 5 (green card)
- Objects:** 12.6 K (orange card)
- Used Capacity:** 211.4 GB (red card)

Below these cards is a "Nodes" section with two node cards, both showing the IP address 192.168.1.230:4000:

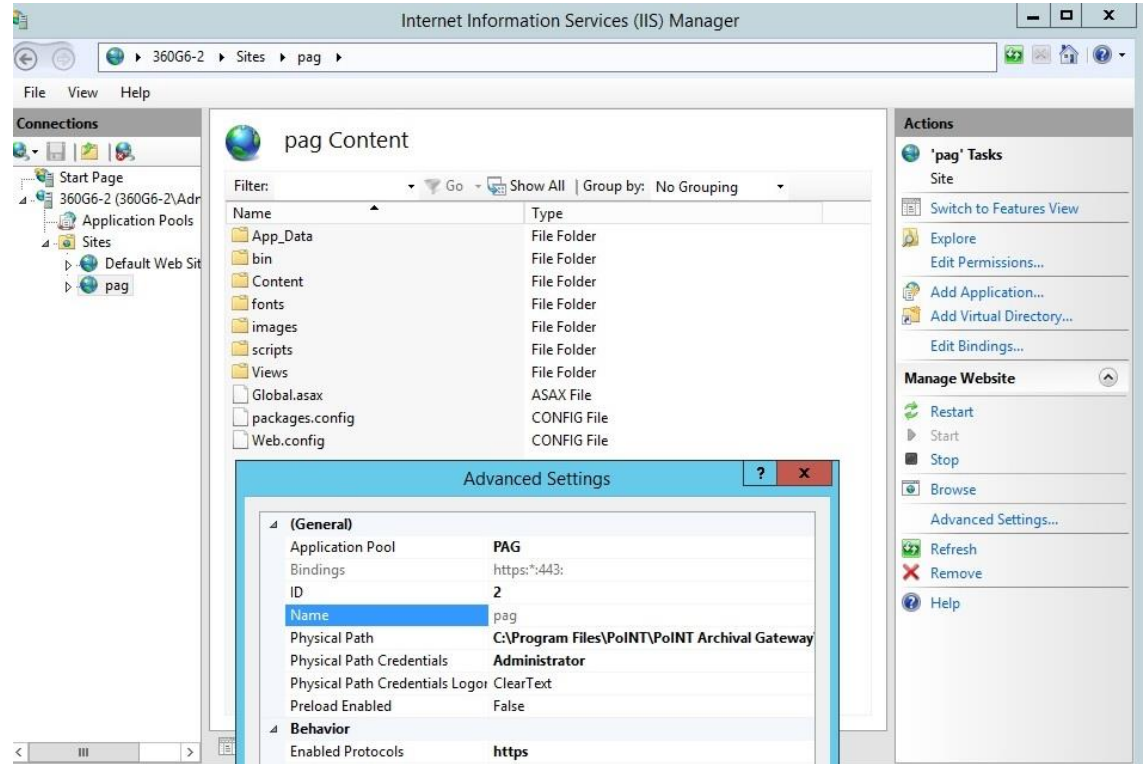
- DBN 1:** Database Node
- IFN 1:** Interface Node

The "Devices" section shows a "Tape Library" and a "Drive 1".

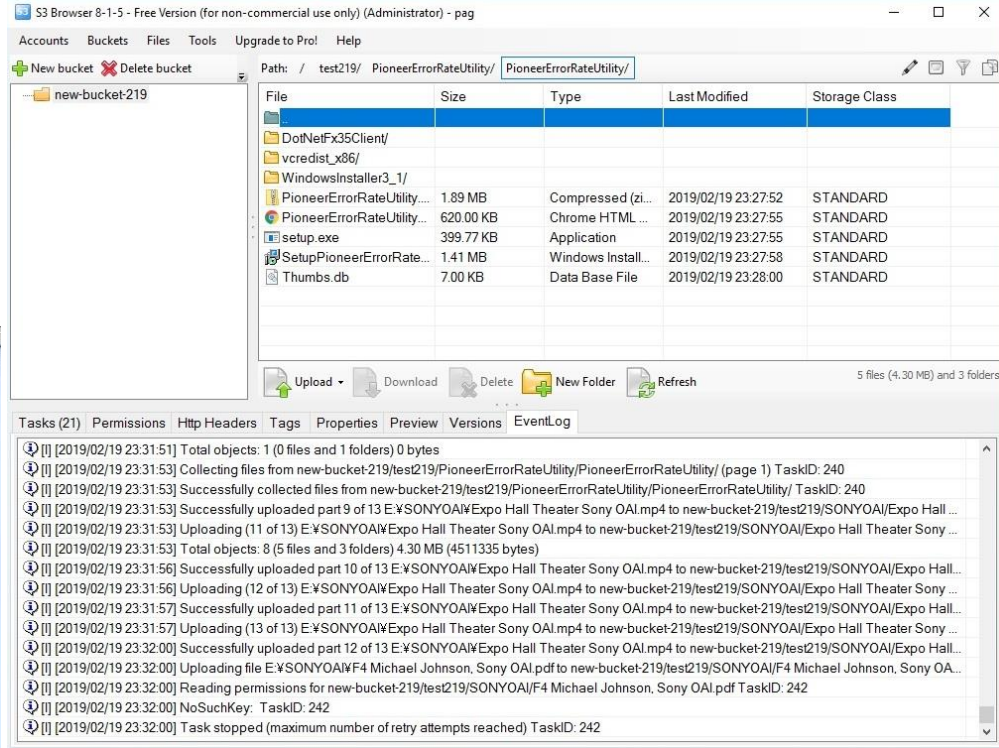
At the bottom, there is a "Recent Storage Activity" table:

Repository Name	Partition Name	Device Name	Last Access Time
-	PT1	TapeGeneric	2019/04/05 12:09:42

管理WebはIISのアプリケーションとして稼動します。



S3クライアントからPAG/INTノードへの接続



S3 Browser 8-1-5 - Free Version (for non-commercial use only) (Administrator) - pag

Accounts Buckets Files Tools Upgrade to Pro! Help

Path: / test219/ PioneerErrorRateUtility/ PioneerErrorRateUtility/

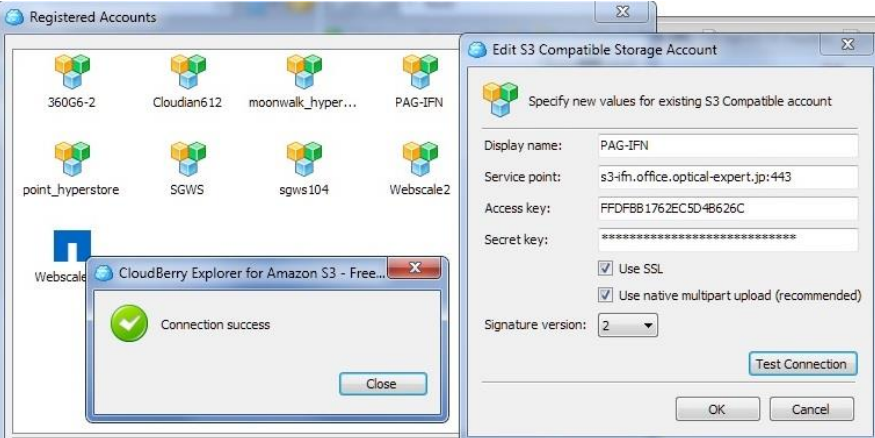
File	Size	Type	Last Modified	Storage Class
DotNetFx35Client/				
vcredist_x86/				
Windowsinstaller3_1/				
PioneerErrorRateUtility...	1.89 MB	Compressed (zi...	2019/02/19 23:27:52	STANDARD
PioneerErrorRateUtility...	620.00 KB	Chrome HTML ...	2019/02/19 23:27:55	STANDARD
setup.exe	399.77 KB	Application	2019/02/19 23:27:55	STANDARD
SetupPioneerErrorRate...	1.41 MB	Windows Install...	2019/02/19 23:27:58	STANDARD
Thumbs.db	7.00 KB	Data Base File	2019/02/19 23:28:00	STANDARD

Upload Download Delete New Folder Refresh

5 files (4.30 MB) and 3 folders

Tasks (21) Permissions Http Headers Tags Properties Preview Versions EventLog

- [2019/02/19 23:31:51] Total objects: 1 (0 files and 1 folders) 0 bytes
- [2019/02/19 23:31:53] Collecting files from new-bucket-219/test219/PioneerErrorRateUtility/PioneerErrorRateUtility/ (page 1) TaskID: 240
- [2019/02/19 23:31:53] Successfully collected files from new-bucket-219/test219/PioneerErrorRateUtility/PioneerErrorRateUtility/ TaskID: 240
- [2019/02/19 23:31:53] Successfully uploaded part 9 of 13 E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall ...
- [2019/02/19 23:31:53] Uploading (11 of 13) E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall Theater Sony ...
- [2019/02/19 23:31:53] Total objects: 8 (5 files and 3 folders) 4.30 MB (4511335 bytes)
- [2019/02/19 23:31:56] Successfully uploaded part 10 of 13 E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall ...
- [2019/02/19 23:31:56] Uploading (12 of 13) E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall Theater Sony ...
- [2019/02/19 23:31:57] Successfully uploaded part 11 of 13 E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall ...
- [2019/02/19 23:31:57] Uploading (13 of 13) E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall Theater Sony ...
- [2019/02/19 23:32:00] Successfully uploaded part 12 of 13 E:\SONYOA\Expo Hall Theater Sony OAI.mp4 to new-bucket-219/test219/SONYOA/Expo Hall ...
- [2019/02/19 23:32:00] Uploading file E:\SONYOA\F4 Michael Johnson, Sony OAI.pdf to new-bucket-219/test219/SONYOA/F4 Michael Johnson, Sony OA...
- [2019/02/19 23:32:00] Reading permissions for new-bucket-219/test219/SONYOA/F4 Michael Johnson, Sony OAI.pdf TaskID: 242
- [2019/02/19 23:32:00] NoSuchKey: TaskID: 242
- [2019/02/19 23:32:00] Task stopped (maximum number of retry attempts reached) TaskID: 242



Registered Accounts

360G6-2 Cloudian612 moonwalk_hyper... PAG-IFN

point_hyperstore SGWS sgws104 Webscale2

CloudBerry Explorer for Amazon S3 - Free... Connection success

Edit S3 Compatible Storage Account

Specify new values for existing S3 Compatible account

Display name: PAG-IFN

Service point: s3-1fn.office.optical-expert.jp:443

Access key: FFDfBB1762EC5D4B626C

Secret key: *****

Use SSL

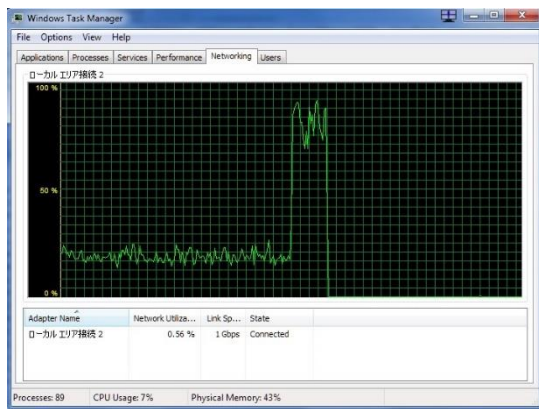
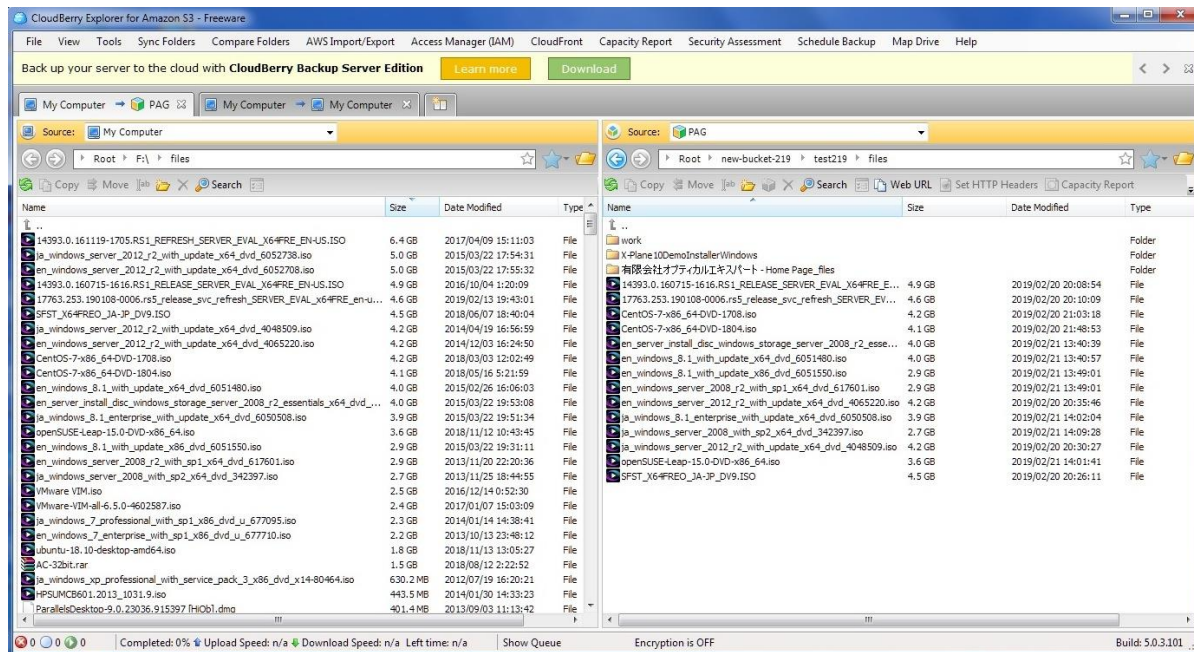
Use native multipart upload (recommended)

Signature version: 2

Test Connection

OK Cancel

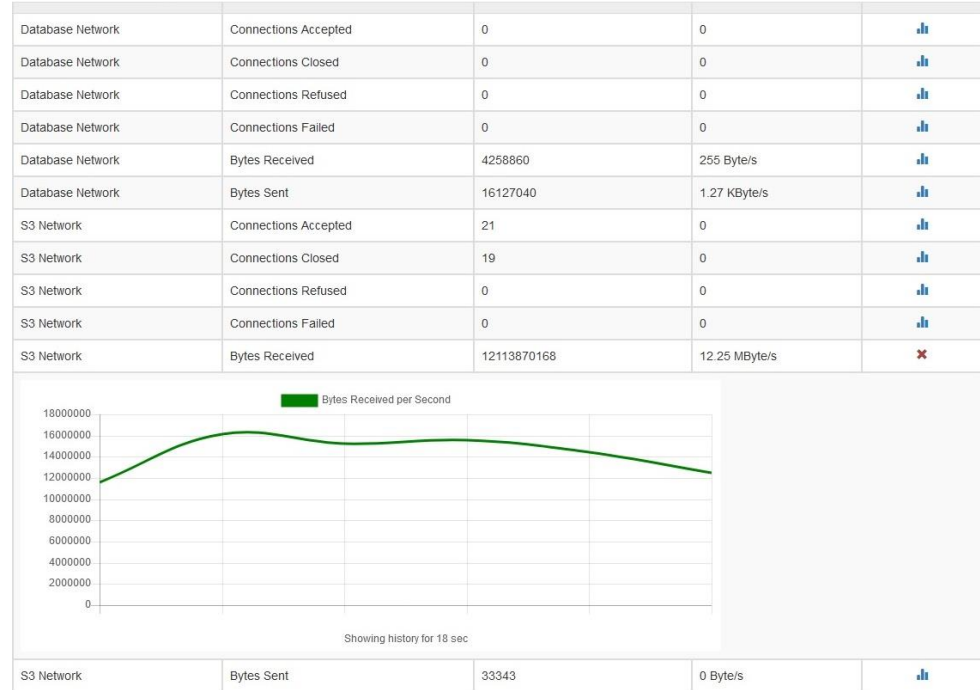
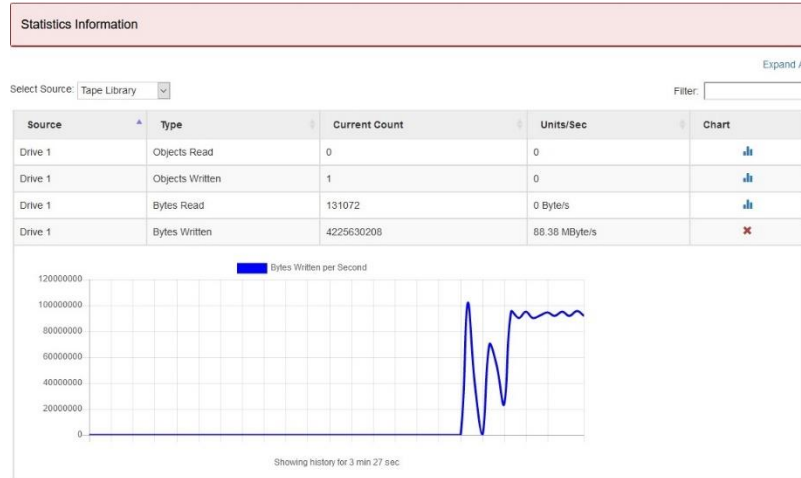
S3クライアント(CloudBerry)からPAG/INTノードへの接続

CloudBerry Explorer for Amazon S3 - Freeware screenshot showing a file list of ISO images. The interface includes a menu bar (File, View, Tools, Sync Folders, Compare Folders, AWS Import/Export, Access Manager (IAM), CloudFront, Capacity Report, Security Assessment, Schedule Backup, Map Drive, Help) and a toolbar with buttons for Back up your server to the cloud with CloudBerry Backup Server Edition, Learn more, and Download. The main window is split into two panes: 'My Computer' and 'PAG'. The 'PAG' pane shows a file list with columns: Name, Size, Date Modified, and Type. The status bar at the bottom indicates 'Completed: 0%' and 'Encryption is OFF'.

Name	Size	Date Modified	Type
14393.0.161119-1705.RS1_REFRESH_SERVER_EVAL_X64FRE_EN-US.ISO	6.4 GB	2017/04/09 15:11:03	File
en_windows_server_2012_r2_with_update_x64_dvd_6052738.iso	5.0 GB	2015/03/22 17:54:31	File
en_windows_server_2012_r2_with_update_x64_dvd_6052708.iso	5.0 GB	2015/03/22 17:55:32	File
14393.0.160715-1616.RS1_RELEASE_SERVER_EVAL_X64FRE_EN-US.ISO	4.9 GB	2016/10/04 1:20:09	File
17763.253.190108-0006.rs5_release_svc_refresh_SERVER_EVAL_x64FRE_en-us...	4.6 GB	2019/02/13 19:43:01	File
SFST_X64FREO_JA-JP_DV9.ISO	4.5 GB	2018/06/07 18:40:04	File
en_windows_server_2012_r2_with_update_x64_dvd_4048509.iso	4.2 GB	2014/04/19 16:56:59	File
en_windows_server_2012_r2_with_update_x64_dvd_4065220.iso	4.2 GB	2014/12/03 16:24:50	File
CentOS-7-x86_64-DVD-1708.iso	4.2 GB	2018/03/03 12:02:49	File
CentOS-7-x86_64-DVD-1804.iso	4.1 GB	2018/05/16 5:21:59	File
en_windows_server_2008_r2_with_update_x64_dvd_617601.iso	4.0 GB	2015/02/26 16:06:03	File
en_server_install_disc_windows_storage_server_2008_r2_essentials_x64_dvd_...	4.0 GB	2015/03/22 19:53:08	File
en_windows_server_2008_r2_with_update_x64_dvd_6050508.iso	3.9 GB	2015/03/22 19:51:34	File
openSUSE-Leap-15.0-DVD-x86_64.iso	3.6 GB	2018/11/12 10:43:45	File
en_windows_server_2012_r2_with_update_x86_dvd_6051550.iso	2.9 GB	2015/03/22 19:33:11	File
en_windows_server_2008_r2_with_sp1_x64_dvd_617601.iso	2.9 GB	2013/11/20 22:20:36	File
en_windows_server_2008_r2_with_sp2_x64_dvd_342397.iso	2.7 GB	2013/11/25 18:44:55	File
Mware-VM.iso	2.5 GB	2016/12/14 0:52:30	File
Mware-VM-all-6.5.0-4602587.iso	2.4 GB	2017/01/07 15:03:09	File
en_windows_7_professional_with_sp1_x86_dvd_u_677095.iso	2.3 GB	2014/01/14 14:38:41	File
en_windows_7_enterprise_with_sp1_x86_dvd_u_677710.iso	2.2 GB	2013/10/13 23:48:12	File
ubuntu-18.10-desktop-amd64.iso	1.8 GB	2018/11/13 13:05:27	File
AC-32bit.rar	1.5 GB	2018/08/12 2:22:52	File
en_windows_xp_professional_with_service_pack_3_x86_dvd_x14-80464.iso	630.2 MB	2012/07/19 16:20:21	File
PSUMCB601.2013_1031.9.iso	443.5 MB	2014/01/30 14:33:23	File
ParallelsDesktop-9.0.23036.915397.h10b1.dmp	401.4 MB	2013/09/03 11:13:42	File

システムの稼動状況はリアルタイムで表示



PAG管理Webから User情報と作成

The screenshot displays the PoINT Software & Systems user management interface. The top navigation bar includes the PoINT logo, a 'Change password for admin' link, and a 'Log off' button. Below this is a yellow navigation menu with options: Dashboard, System Management, Storage Management, Device Management, Security & Auditing, and Statistics. The main content area is divided into two panels: 'Users / point' on the left and 'Users / kadono' on the right. Both panels show a 'Properties' section with various user configuration options. The 'Users / point' panel includes fields for User Name (point), Enabled (checked), Lockout Enabled (checked), Failed Login Limit (5), Allow S3 Access (checked), S3 Access Key (FFDFBB1762EC5D4B626C), S3 Access Secret (Not displayed, click here to create new), Default Partition (store1 Change partition...), Password Expiration (2018/09/04 22:02:17), Last Successful Login, Failed Logins (0), and Locked Until. An 'Apply' button is located at the bottom of this panel. Below the 'Properties' section are two tabs: 'Roles' (No role assigned) and 'Groups' (No group assigned). The 'Users / kadono' panel shows similar configuration options, including User Name (kadono), Enabled (checked), Lockout Enabled (checked), Failed Login Limit (5), Allow S3 Access (checked), S3 Access Key (682DE5DC1BC3B8F7F4BE), S3 Access Secret (3jHPd09qleaN8rfr5T2cGiru9dhg), Default Partition (Change partition...), Password Expiration (2018/10/14 18:19:19), Last Successful Login, Failed Logins (0), and Locked Until. An 'Apply' button is also present at the bottom of this panel.

Object StorageからのS3 Tiering 接続

Clouddian HyperStore7.1.3

Add New Bucket Lifecycle Rule

RULE NAME: tier_pag OBJECT PREFIX: ENABLE TIERING EXPIRE OBJECTS

OBJECT TIERING

SCHEDULE

CURRENT VERSION
 0 DAYS AFTER LAST ACCESS DATE/TIME AFTER DATE: Feb-23-2019 12:32 PM
 PREVIOUS VERSION

OBJECT TIERING BUCKET LEVEL SETTING

DESTINATION TIERING CREDENTIAL Retain Local Copy

Tier to AWS S3 Endpoint: http://s3-pag.office.optical-expert.jp:8080 Days before removing local copy
 Tier to AWS GLACIER
 Tier to Google
 Tier to Azure Access Key: BA77AEB536660C61 Secret Key: 5G0UvFlgVD81P×4Zkf
 Tier to Spectra
 Tier to Custom Endpoint Bucket Name: new-bucket-219

LIFECYCLE RULE BUCKET LEVEL SETTING

Use Creation Date/Time Use Last Access Time

Cancel Save

NetApp StorageGRID11.2 Cloud Storage Pool

NetApp® StorageGRID® Help | Root | Sign

Dashboard Alarms Nodes Tenants ILM Configuration Maintenance Support

Storage Pools

A storage pool is a logical group of Storage Nodes or Archive Nodes and is used in ILM rules to determine where object data is stored.

+ Create Edit Remove

Pool Name	Archive Nodes	Storage Nodes	Used in ILM Rule	Used in EC Profile
All Storage Nodes	0	3	<input checked="" type="checkbox"/>	

Displaying 1 pool.

Viewing Storage Pool - All Storage Nodes

Site Name	Archive Nodes	Storage Nodes
All Sites	0	3

Cloud Storage Pools

You can add Cloud Storage Pools to ILM rules to store objects outside of the StorageGRID system. A Cloud Storage Pool defines how to access an external bucket where objects will be stored.

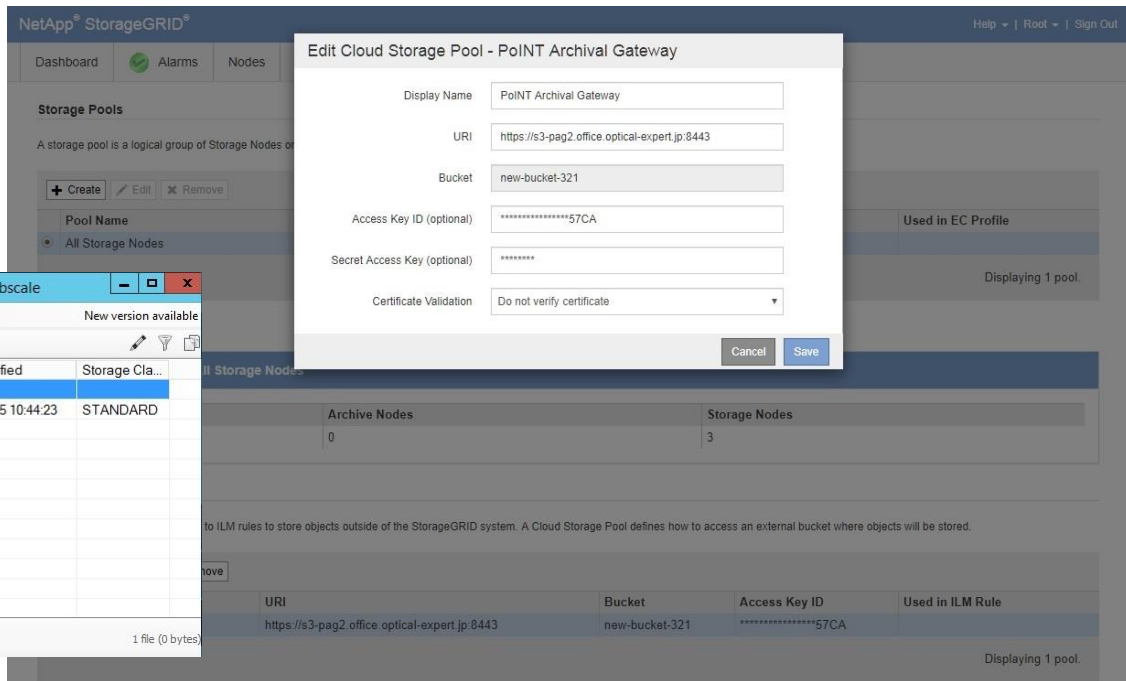
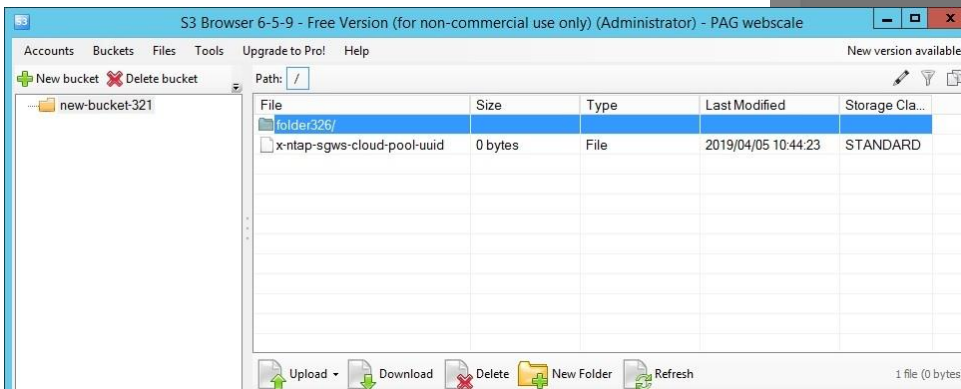
+ Create Edit Remove

Pool Name	URI	Bucket	Access Key ID	Used in ILM Rule
PoINT Archival Gateway	https://s3-pag2.office.optical-expert.jp:8443	new-bucket-321	*****57CA	<input checked="" type="checkbox"/>

Displaying 1 pool.

StorageGRID11.2 Cloud Storage Poolとして稼働

Cloud Storage Poolとして設定されると
x-ntap-sgws-cloud-pool-uuidが作成



StorageGRID11.2 ILM Rule設定

+ Create Edit Clone Remove

Name	Used In Active Policy	Used In Proposed Policy
<input checked="" type="radio"/> Copy_to_PAG2	✓	
<input type="radio"/> Copy_to_PAG		
<input type="radio"/> Make 2 Copies		

← →

Copy_to_PAG2

Tenant Account: hiro (26153200316757331962)
Bucket Name: equals 'bucket322'
Reference Time: Ingest Time
Filtering Criteria:

Matches all of the following metadata:

System Metadata	Object Size (MB)	greater than	1
System Metadata	Ingest Time (microseconds)	equals	0

Retention Diagram:

The diagram shows a horizontal timeline. A vertical line labeled 'Trigger' is at 'Day 0'. A horizontal bar labeled 'Duration' starts at 'PoINT Archival Gateway' and ends at 'Forever'. A blue arrow points from the start of the duration bar to the right.

StorageGRID11.2 ILM Policy設定 -1

NetApp® StorageGRID® Help ▾ | Root ▾ | Sign Out

Dashboard ✔ Alarms Nodes Tenants ILM ▾ Configuration ▾ Maintenance ▾ Support ▾

ILM Policies

Review the proposed, active, and historical policies. You can create, edit, or delete a proposed policy; clone the active policy; or view the details for any policy.

Policy Name	Policy State	Start Date	End Date
<input checked="" type="radio"/> Copy_PAG	Proposed		
<input type="radio"/> Baseline 2 Copies Policy	Active	2019-03-20 21:17:39 JST	

Viewing Proposed Policy - Copy_PAG

Errors in an ILM policy can cause irreparable data loss. Review and simulate the policy carefully before activating.

Review the rules in this policy. If this is a proposed policy, click Simulate to verify the policy and then click Activate to make the policy active.

Reason for change: PAG is added as Cloud Storage Pool

Rules are evaluated in order, starting from the top.

Rule Name	Default	Tenant Account
Copy_to_PAG2 	✔	hiro (26153200316757331962)

ILM Policies StorageGRID11.2 ILM Policy設定 -2

Review the proposed, active, and historical policies. You can create, edit, or delete a proposed policy; clone the active policy; or view the details for any policy.

+ Create Proposed Policy Clone Edit Remove			
Policy Name	Policy State	Start Date	End Date
<input checked="" type="radio"/> Copy_PAG	Active	2019-04-16 13:57:10 JST	
<input type="radio"/> Baseline 2 Copies Policy	Historical	2019-03-20 21:17:39 JST	2019-04-16 13:57:10 JST

Viewing Active Policy - Copy_PAG

Review the rules in this policy. If this is a proposed policy, click Simulate to verify the policy and then click Activate to make the policy active.

Reason for change: PAG is added as Cloud Storage Pool

Rules are evaluated in order, starting from the top.

Rule Name	Default	Tenant Account
Copy_to_PAG2 	<input checked="" type="checkbox"/>	hiro (26153200316757331962)

Simulate ILM Policy - Copy_PAG

Simulates the active ILM policy or, if there is a proposed ILM policy, simulates the proposed ILM policy. Use this simulation to test the current configuration of ILM rules and determine whether ILM rules copy and place object data as intended.

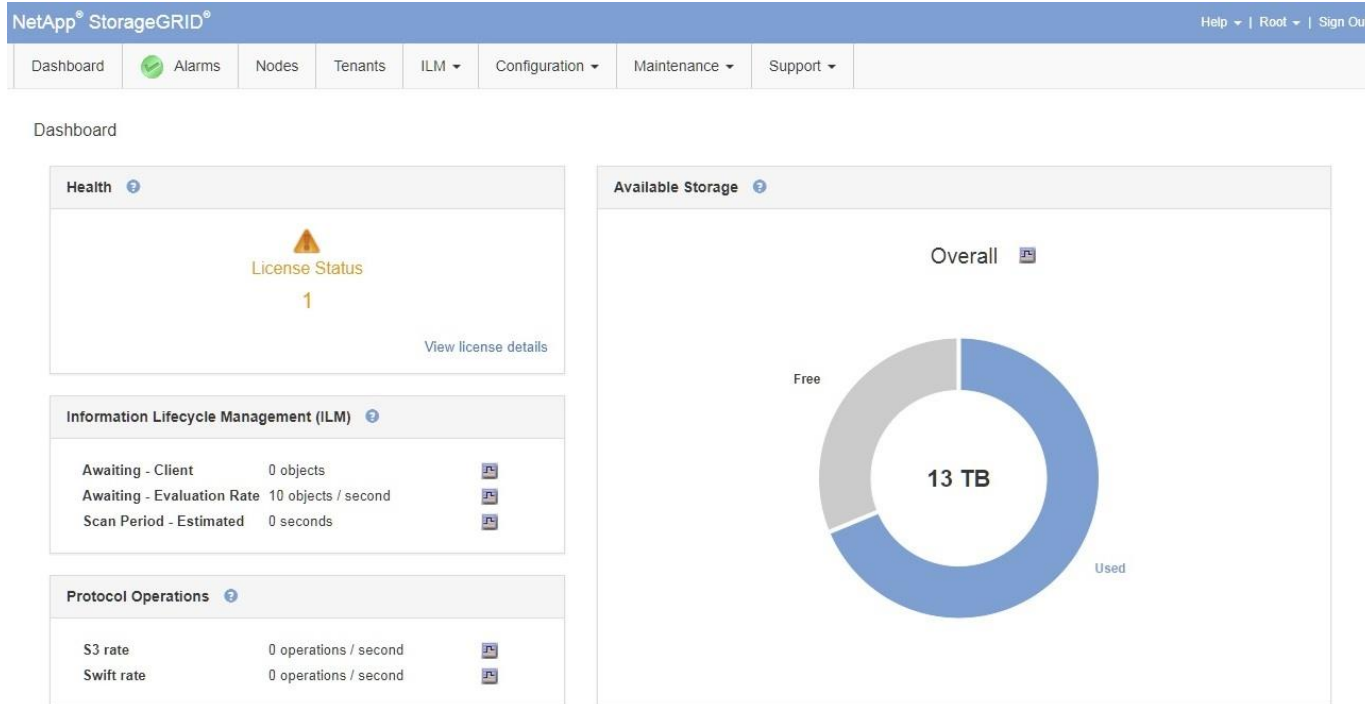
Object [Simulate](#)

Simulation Results

Object	Rule Matched	Previous Match	
bucket322/sgws11/StoragegridWebscale11/StorageGRID_Webscale_1101.zip	Copy_to_PAG2 		<input checked="" type="checkbox"/>

[Finish](#)

StorageGRID11.2 Grid Manager



記録データの暗号化とリテンション(保管期限)の管理機能

Partitions / PT1

+ Create Object Repository 🔍 Show Protected Volume Arrays

General Properties

Name:

Creation Time: 2019/03/02 10:37:22

Modification Time: 2019/04/05 12:09:42

Last Access Time: 2019/04/05 12:09:42

Data Encryption Mode: ▼

- No encryption
- Encrypt using System Key
- Encrypt using Private Key

リテンションは、バケット単位で設定

Partitions / PT1 / bucket307 / Retention Policy

Properties

Creation Time:

Modification Time:

Absolute:

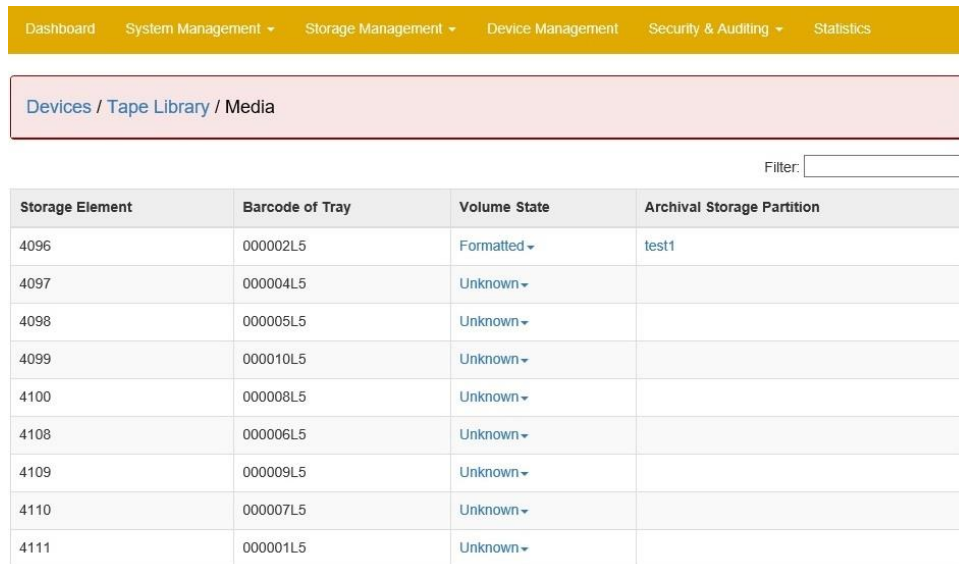
Retention Period: ▼

- Days
- Weeks
- Months
- Years

Auto Destruction:

PoINT Archival Gateway Tape Support

- Drives, Loaders, Libraries
 - Native support
 - IBM, HP, Overland, Tandberg, Quantum, Spectra Logic, StorageTek (ACSLsをサポート)
 - カートリッジのオフライン管理
- フォーマット
 - 独自仕様のテープフォーマット
 - 最初のBlock0にECMA13 volume labelで開始
 - 異なったサイズのメタデータと元データを保存可能
 - ブロック単位のエラーコード



The screenshot shows the PoINT software interface for Tape Library / Media management. The top navigation bar includes Dashboard, System Management, Storage Management, Device Management, Security & Auditing, and Statistics. The breadcrumb trail is Devices / Tape Library / Media. A filter input field is present. The main table displays the following data:

Storage Element	Barcode of Tray	Volume State	Archival Storage Partition
4096	000002L5	Formatted	test1
4097	000004L5	Unknown	
4098	000005L5	Unknown	
4099	000010L5	Unknown	
4100	000008L5	Unknown	
4108	000006L5	Unknown	
4109	000009L5	Unknown	
4110	000007L5	Unknown	
4111	000001L5	Unknown	

Erasure Codingでパラレルに
LTOドライブでデータ記録
3/4では、**3データ**、**1パリティ**

Device Related Properties

Device Type: Tape Library

Erasure Code Rate: 1/1

Media Allocation Strategy: 1/2 ing

Media Pre-Allocation Threshold: 1/3

Media Parallelism: 2/3

Device Allocation Source Priority: 1/4

Device Allocation Source Limit: <No Limit>

Tape Library

Apply

システムの稼働状況の表示

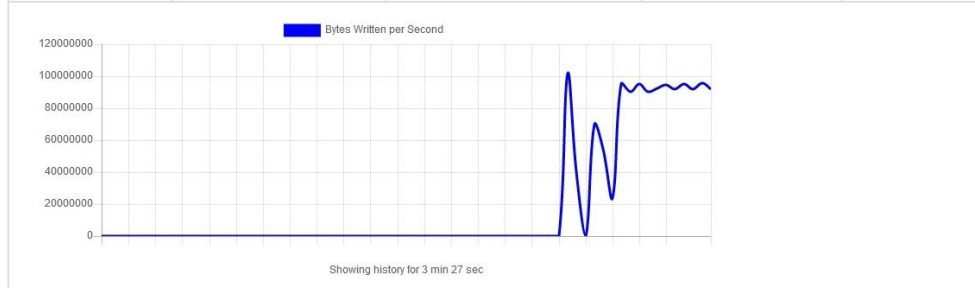
Statistics Information

Select Source: Tape Library

Expand All

Filter:

Source	Type	Current Count	Units/Sec	Chart
Drive 1	Objects Read	0	0	
Drive 1	Objects Written	1	0	
Drive 1	Bytes Read	131072	0 Byte/s	
Drive 1	Bytes Written	4225630208	88.38 MByte/s	



Database Network	Connections Accepted	0	0	
Database Network	Connections Closed	0	0	
Database Network	Connections Refused	0	0	
Database Network	Connections Failed	0	0	
Database Network	Bytes Received	4258860	255 Byte/s	
Database Network	Bytes Sent	16127040	1.27 KByte/s	
S3 Network	Connections Accepted	21	0	
S3 Network	Connections Closed	19	0	
S3 Network	Connections Refused	0	0	
S3 Network	Connections Failed	0	0	
S3 Network	Bytes Received	12113870168	12.25 MByte/s	



S3 Network	Bytes Sent	33343	0 Byte/s	
------------	------------	-------	----------	--

System Cluster Nodes / Log for IFN 1

Download (111.19 KB/fe)

Line Page Top

Line Page End Refresh

2019/04/09 14:02:02:986	Number of logical CPUs: 16
2019/04/09 14:02:03:117	Starting data communication services ...
2019/04/09 14:02:03:120	Database communication client is connected to 192.168.1.230:4000
2019/04/09 14:02:03:120	-----
2019/04/09 14:02:03:120	PoINT Archival Gateway services are running.
2019/04/09 14:02:03:120	-----
2019/04/09 14:02:03:120	Data communication services are running.
2019/04/09 14:02:03:204	Interface communication server failed to listen to 192.168.1.230:4000, network address is
2019/04/09 14:02:03:303	Starting device control services ...
2019/04/09 14:02:03:474	Device control services are running.
2019/04/09 14:02:03:474	Starting metadata caching services ...
2019/04/09 14:02:03:474	Metadata caching services are running.
2019/04/09 14:02:03:474	Starting S3 REST API services ...
2019/04/09 14:02:03:475	S3 REST API is using FQDN "s3-pag2.office.optical-expert.jp"
2019/04/09 14:02:03:480	Drives: IBM ULT3580-HH5 revision F991 connected
2019/04/09 14:02:03:480	Device: IBM 3573-TL serial number 00X2U78Z0863_LL0 (1/23 drive/volume groups) is oper
2019/04/09 14:02:03:516	S3 REST API service is listening to 192.168.1.231:9080
2019/04/09 14:02:03:516	S3 REST API service is listening to 192.168.1.231:8443
2019/04/09 14:02:03:519	S3 REST API services are running.
2019/04/09 14:02:03:707	Device: IBM 3573-TL serial number 00X2U78Z0863_LL0: Drive group 1: ready and operabl

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Line Page End Refresh

System Cluster Nodes / Log for DBN 1

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Display 20 lines per page

2019/04/09 13:58:13:015	-----
2019/04/09 13:58:13:015	PoINT Archival Gateway services are running.
2019/04/09 13:58:13:015	-----
2019/04/09 13:58:13:015	Adding shares for database directories ...
2019/04/09 13:58:13:017	Shares for database directories have successfully been added.
2019/04/09 13:58:13:043	Current license grants temporary use until 2019/04/21.
2019/04/09 13:58:13:043	Starting user management services ...
2019/04/09 13:58:13:044	Database 'C:\Database\HDD\pag-users.db' has been opened.
2019/04/09 13:58:13:047	User management services are running.
2019/04/09 13:58:13:047	Starting metadata caching services ...
2019/04/09 13:58:13:048	Database 'C:\Database\HDD\pag-asp.db' has been opened.
2019/04/09 13:58:13:189	Metadata caching services are running.
2019/04/09 13:58:13:189	Starting device control services ...
2019/04/09 13:58:13:191	Database 'C:\Database\HDD\pag-devices.db' has been opened.
2019/04/09 13:58:13:193	Device control services are running.
2019/04/09 13:58:13:193	Devices: scanning for connected and supported media changer devices ...
2019/04/09 13:58:13:472	Devices: IBM 3573-TL revision F.11 serial number 00X2U78Z0863_LL0 has been detected and updated
2019/04/09 13:58:13:472	Devices: Scan process has successfully been completed.
2019/04/09 13:58:13:473	Database 'C:\Database\HDD\pag-tape-mo.db' has been opened.
2019/04/09 13:58:13:754	Devices: IBM 3573-TL revision F.11 serial number 00X2U78Z0863_LL0 has successfully been started

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ライセンスは、使用するLTOライブラリーのスロット数

- LTOドライブは4台まで
 - メディアのミラーリング
 - メディアのオフライン管理
 - ユーザー管理、DB自動バック機能
- ライセンスの単位
 - 12スロット
 - 32スロット
 - 48スロット
 - 96スロット
 - 280スロット
 - 560スロット

Software License	
Serial Number:	7000100006180503
Configuration Key:	AVKBR-H6X3K-1BTAX
Product Key:	c4e3c02a-e715
License Key:	<input type="text" value="C48Y-CE9A-15XB-7"/> <input type="button" value="Apply"/>
License Period:	Expires on 2019/04/22 8:59:59
License Status:	Valid
Copyright:	© PoINT Software & Systems GmbH 1994-2019 All rights reserved

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192.168.1.49 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.1.49

- gateway
- primary-admin
- storage1
- storage2
- storage3
- vsphere-archiv2
- vsphere-archive1
- vsphere-gateway1
- vsphere-primary-admin1
- vsphere-storage1
- vsphere-storage2
- vsphere-storage3
- WSS2016

localhost.localdomain VMware ESXi, 6.0.0, 2494585

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Users Events Permissions

General

Manufacturer: Dell Inc.
 Model: PowerEdge R610
 CPU Cores: 8 CPUs x 2.393 GHz
 Processor Type: Intel(R) Xeon(R) CPU E5620 @ 2.40GHz
 License: VMware vSphere 6 Enterprise Plus - Licensed for 2 physic...
 Processor Sockets: 2
 Cores per Socket: 4
 Logical Processors: 16
 Hyperthreading: Active
 Number of NICs: 4
 State: Connected
 Virtual Machines and Templates: 13
 vMotion Enabled: N/A
 VMware EVC Mode: Disabled
 vSphere HA State: N/A
 Host Configured for FT: N/A
 Active Tasks: N/A
 Host Profile: N/A
 Image Profile: ESXi-6.0.0-2494585-standard
 Profile Compliance: N/A
 DirectPath I/O: Supported

Resources

CPU usage: **5314 MHz** Capacity 8 x 2.393 GHz
 Memory usage: **37573.00 MB** Capacity 49132.31 MB

Storage	Drive Type	Capacity
datastore1 (2)	Non-SSD	1.81 TB

Network	Type
VM Network	Standard port group

Fault Tolerance

Fault Tolerance Version: 6.0.0-6.0.0-6.0.0 [Refresh Virtual Machine Counts](#)

Total Primary VMs: 0
 Powered On Primary VMs: 0
 Total Secondary VMs: 0
 Powered On Secondary VMs: 0

Host Management

Manage this host through VMware vCenter.

StorageGRID 11.2の稼働状況