Contents

Chapter 1. About this publication

IBM StoredIQ Deployment and Configuration Guide provides information about how to plan, deploy, and configure the IBM StoredIQ product.

Contacting IBM StoredIQ customer support

For IBM StoredIQ technical support or to learn about available service options, contact IBM StoredIQ customer support at this phone number:

1-866-227-2068

Or, see the Contact IBM web site at http://www.ibm.com/contact/us/.

IBM Knowledge Center

The IBM StoredIQ documentation is available in IBM Knowledge Center.

Contacting IBM

For general inquiries, call 800-IBM-4YOU (800-426-4968). To contact IBM customer service in the United States or Canada, call 1-800-IBM-SERV (1-800-426-7378).

For more information about how to contact IBM, including TTY service, see the Contact IBM website at http://www.ibm.com/contact/us/.

IBM StoredIQ product library

The following documents are available in the IBM® StoredIQ® product library.

- *IBM StoredIQ Overview Guide*
- *IBM StoredIQ Deployment and Configuration Guide*
- *IBM StoredIQ Data Server Administration Guide*
- *IBM StoredIQ Administrator Administration Guide*
- *IBM StoredIQ Data Workbench User Guide*
- *IBM StoredIQ Policy Manager User Guide*
- *IBM StoredIQ Insights User Guide*
- *IBM StoredIQ Integration Guide*

Chapter 2. IBM StoredIQ components

The IBM StoredIQ solution consists of these components: the application stack, the gateway, the data server, and optionally the Elasticsearch cluster.

Solution components

IBM StoredIQ provides three solution components: the gateway, data servers, and application stack (AppStack).

Gateway

The gateway communicates between the data servers and the application stack. The application stack polls the gateway for information about the data on the data servers. The data servers push the information to the gateway.

Data servers

A data server obtains the data from supported data sources and indexes it. By indexing this data, you gain information about unstructured data such as file size, file data types, ³le owners.

The data server pushes the information about volumes and indexes to the gateway so it can be communicated to the application stack. Multiple data servers feed into a single gateway..

Data servers can be categorized in two types: DataServer - Classic and DataServer - Distributed. A data server of the type DataServer - Classic uses the embedded PostgreSQL database for storing the index. With a data server of the type DataServer - Distributed, the index is stored in an Elasticsearch cluster. Data servers of this type also provide better performance in search queries. They can manage much larger amounts of data than data servers of the type DataServer - Classic, thus making the IBM StoredIQ deployments more scalable..

You can have both types of data servers in your IBM StoredIQ deployment..

In addition to completing standard administrative tasks, administrators can deploy the IBM StoredIQ Desktop Data Collector and index desktops from the data server.

Application stack

The application stack provides the user interface for the IBM StoredIQ Administrator, IBM StoredIQ Data Workbench, IBM StoredIQ Insights, and the IBM StoredIQ Policy Manager products.

The synchronization feature for integration with a governance catalog is also part of the application stack.

Elasticsearch cluster

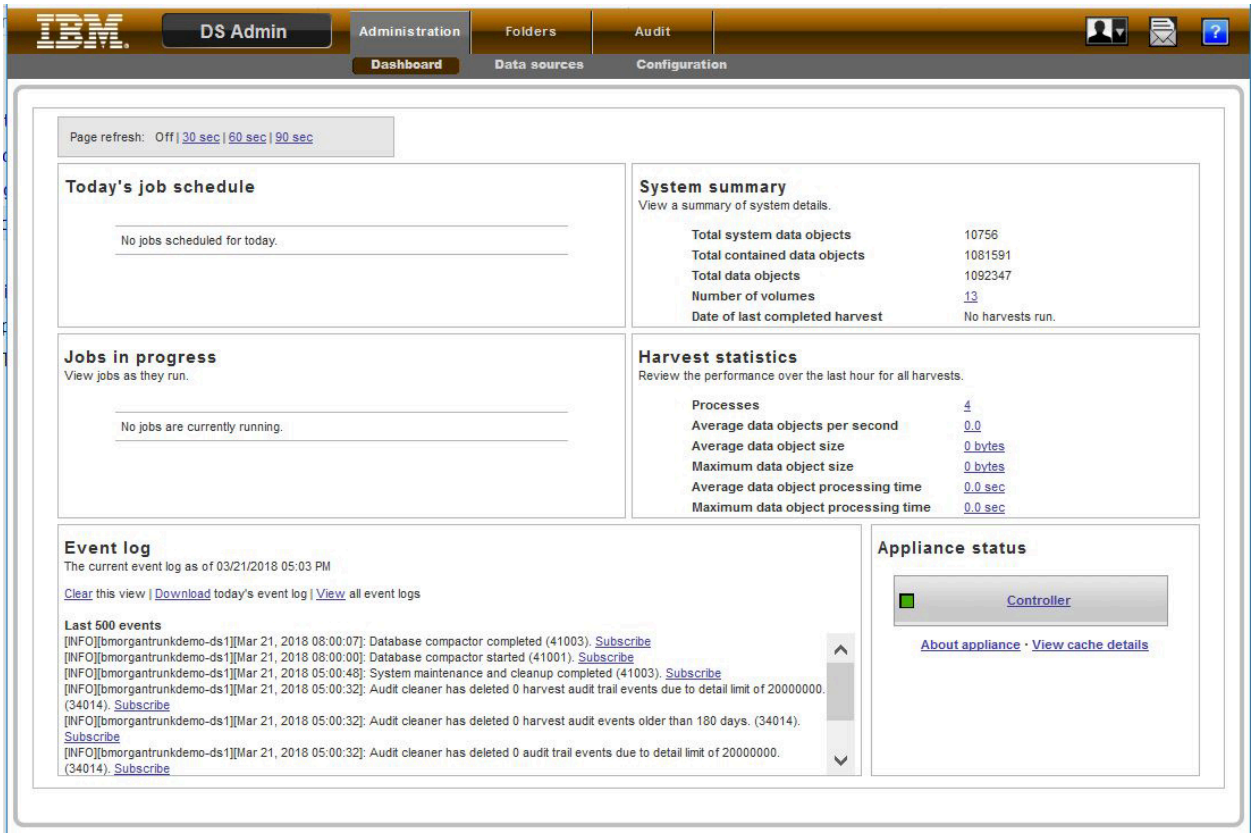
The Elasticsearch cluster attached to a data server of the type DataServer - Distributed provides a single data store for all metadata and content of harvested objects. Indexed data is distributed automatically across the nodes in the cluster. Indexing and queries are load-balanced across all nodes. Nodes can be added dynamically without downtime and the indexing process can use these newly added nodes without further setup.

Applications of IBM StoredIQ

IBM StoredIQ provides interface applications that help fulfill its solution goals.

IBM StoredIQ Data Server

IBM StoredIQ Data Server user interface provides access to data server functionality. It allows administrators to view the dashboard and see the status of the jobs and system details. Administrators can manage information about servers and conduct various configurations on the system and application settings.



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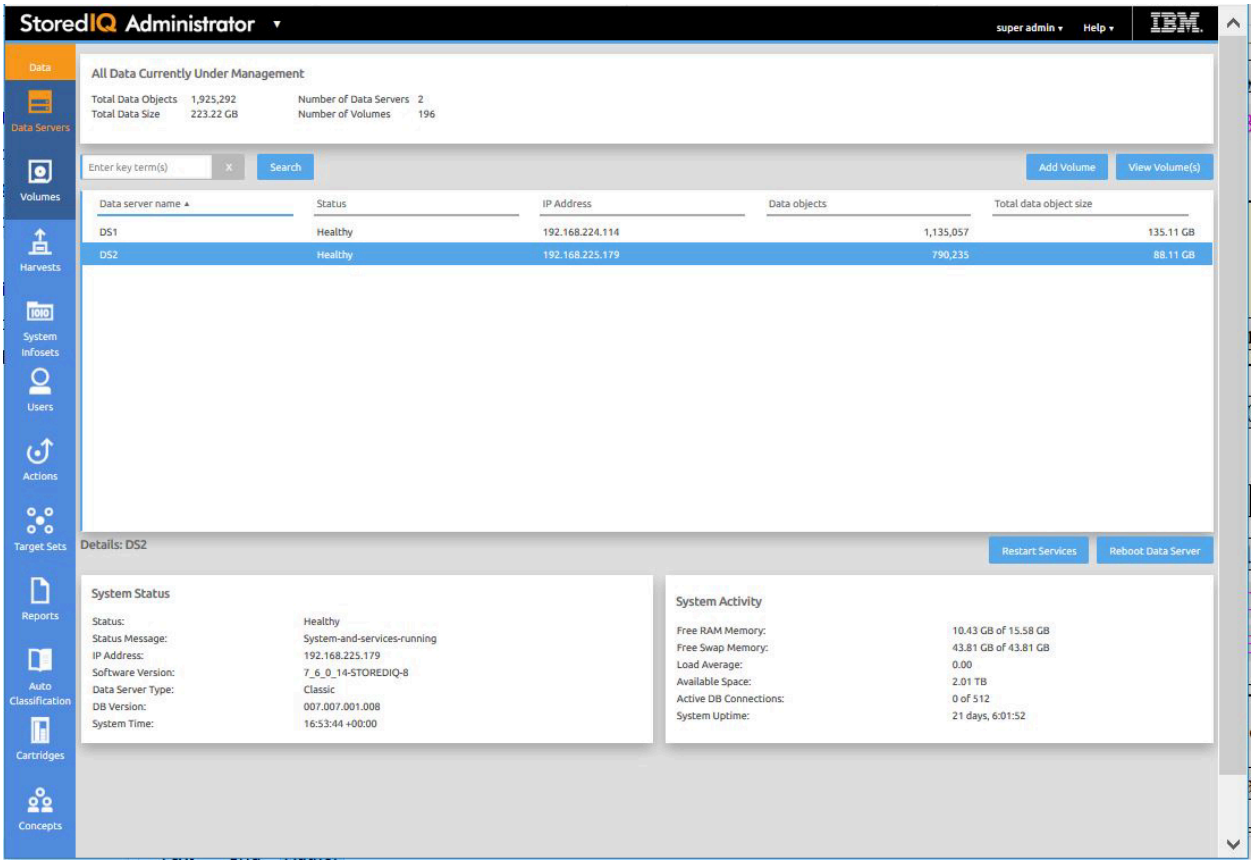

IBM StoredIQ Administrator provides at-a-glance understanding of the different issues that can crop up in the IBM StoredIQ environment. These views are unique to the IBM StoredIQ Administrator application as they provide an overview of how the system is running. They allow access to various pieces of information that are being shared across applications or allow for the management of resources in a centralized manner.

The administrator is the person responsible for managing the IBM StoredIQ. This individual has strong understanding of data sources, indexes, data servers, jobs, infosets, and actions. This list provides an overview as to how IBM StoredIQ Administrator works:

- **Viewing data servers and volumes:** Using IBM StoredIQ Administrator, the Administrator can identify what data servers are deployed, their location, what data is being managed, and the status of each data server in the system. Volume management is a central component of IBM StoredIQ. IBM StoredIQ Administrator also allows the Administrator to see what volumes are currently under management, which data server is responsible for that volume, the state of the volume after indexing, and the amount and size of information that is contained by each volume. Administrators can also add volumes to and delete volumes from data servers through this interface.

If IBM StoredIQ is con³gured for integration with Information Governance Catalog, the Administrator can also manage which volumes are published to the governance catalog.

- **Scheduling harvests:** Harvesting, which can also be referred to as indexing, is the process or task by which IBM StoredIQ examines and classifies data in your network. Using IBM StoredIQ Administrator, harvests can be scheduled, edited, and deleted.
- **Creating system infosets:** System infosets that use only speci³c indexed volumes can be created and managed within IBM StoredIQ Administrator. Although infosets are a core component of IBM StoredIQ Data Workbench, system infosets are created as a shortcut for users in IBM StoredIQ Administrator.
- **Managing users:** The user management area allows administrators to create users and manage users' access to the various IBM StoredIQ applications
- **Configuring and managing actions:** An action is any process that is taken upon the data that is represented by the indexes. Actions are run by data servers on indexed data objects. Any errors or warnings that are generated as a result of an action are recorded as exceptions in IBM StoredIQ Data Workbench.

  Note: Actions can be created within IBM StoredIQ Administrator and then made available to other IBM StoredIQ applications such as IBM StoredIQ Data Workbench.
- **Managing target sets:**Provides an interface that allows the user to set the wanted targets for specific actions that require a destination volume for their actions.
- **Reports:** IBM StoredIQ Administrator provides a number of built-in reports, such as summaries of data objects in the system, storage use, and the number of identical documents in the system. You can create custom reports, including Query Analysis Reports for e-discovery purposes, and automatically email report notifictions to administrators and other interested parties.
- **Auto-classification:** Automated document categorization, what IBM StoredIQ refers to as auto-classification models, integrates the IBM® Content Classification's classification model into the IBM StoredIQ infoset-generation process. Data Experts can use IBM Content Classification to train a classification model, which is then registered with IBM StoredIQ Administrator. The registered classification model can be applied to an existing infoset in IBM StoredIQ Data Workbench to generate new metadata for the objects in the infoset. Metadata can be used in rule-based filters to create new infosets
- **Cartridges:** Cartridges are compressed ³les that contain analysis logic. When you add a cartridge to IBM StoredIQ AppStack, it can detect new data in documents during indexing and make these new insights searchable. For example, a sensitive pattern cartridge can enable IBM StoredIQ to detect passport numbers, phone numbers, and other IDs.

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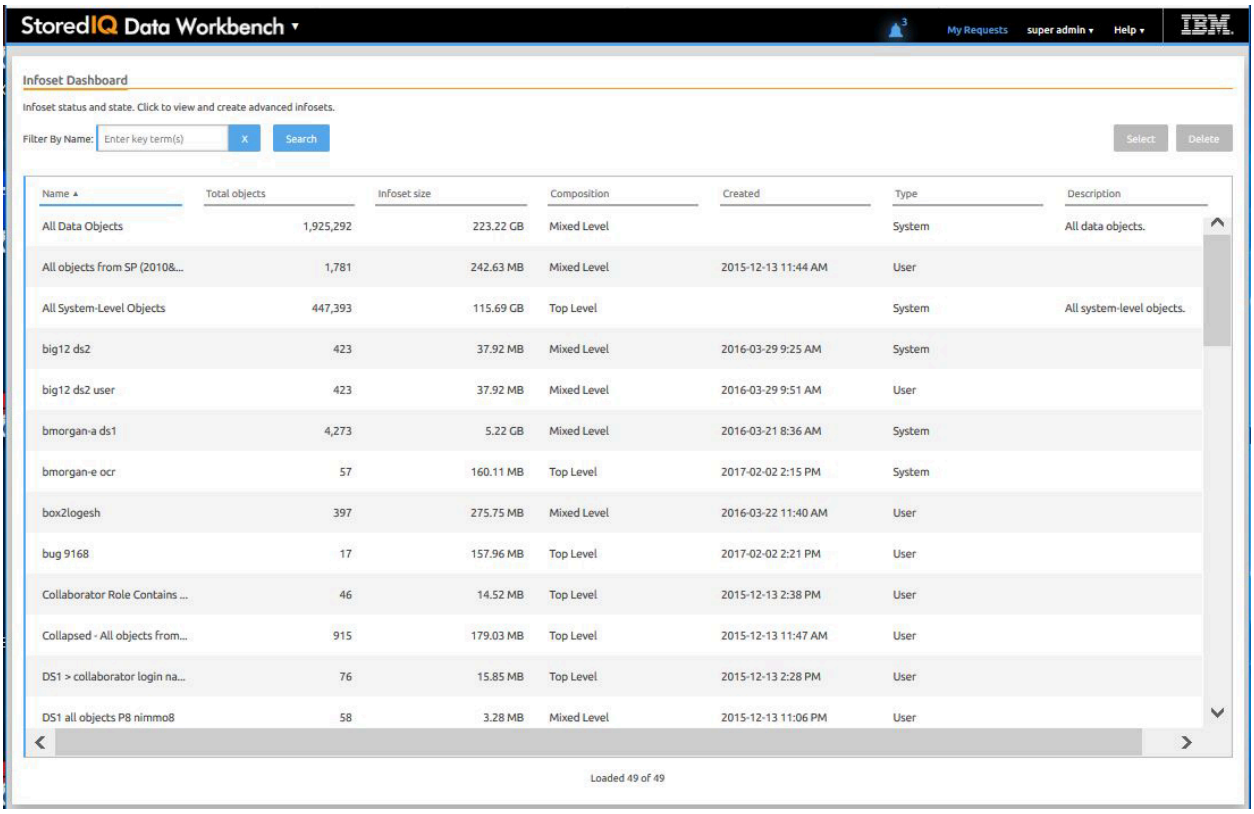
- **Connector API SDK:** A connector is a software component of IBM StoredIQ that is used to connect to a data source such as a network ³le system and access its data. Using IBM StoredIQ Connector API SDK, developers of other companies can develop connectors to new data sources outside the IBM StoredIQ development environment. These connectors can be integrated with a live IBM StoredIQ application to index, search, manage, and analyze data on the data source.

IBM StoredIQ Data Workbench

Big data is a pervasive problem, not a one-time occurrence. It is easy for most companies to realize that big data is problematic, but it is hard to identify what problems they have. Big data is all about the unknown, but the unknown cannot be off limits. IBM StoredIQ Data Workbench can help you learn about your data, make educated decisions with your most valuable asset, and turn your company's most dangerous risk into its most valuable asset.



IBM StoredIQ Data Workbench is a data visualization and management tool that helps you to actively manage your company's data. It helps you to determine how much data you have, where it is, who owns it, and when it was last used. When you have a clear understanding of your company's data landscape, IBM StoredIQ Data Workbench helps you take control of data. You can make

informed decisions about your data and act on that knowledge by copying, copying to retention, or conducting a discovery export.

Here are just some examples of how you can use IBM StoredIQ Data Workbench.

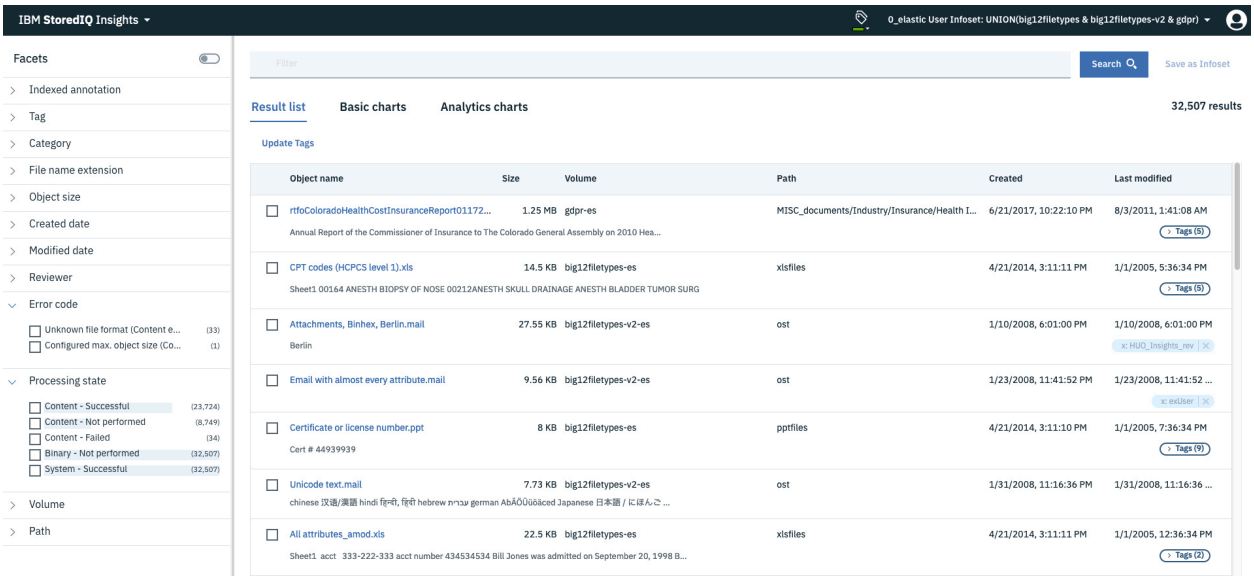
- You need to find all company email that is sent from or received by Eileen Sideways (esideways@thecompany.com). You can use IBM StoredIQ Data Workbench to find all email and then copy that data to a predefined repository. You can also use IBM StoredIQ Data Workbench to find all of the esideways@thecompany.com email that occurred between specific dates and then make that email available for review
- As an administrator, you want to rid your networks and storage of unused data. You can use IBM StoredIQ Data Workbench to find all files that were not modi³ed in more than five years.
- You want to find all image ³les that are created in 2007. Not only can IBM StoredIQ Data Workbench find all image files that were created in 2007. It also shows how much space they occupy on your network.
- A user needs to understand how data about Windows is being retained. Using IBM StoredIQ Data Workbench, you can provide that user with a visual overview of the number of objects that are retained and a breakdown of files per data source. Additionally, you can apply overlays to show the user if those files contain forbidden information such as credit-card numbers or Social Security numbers.
- If IBM StoredIQ is configured accordingly, you can select the infosets and filters that are published to the governance catalog for uni³ed governance of structured and unstructured information. When integrating with Information Governance Catalog, you can also analyze and classify the data governed by IBM StoredIQ based on the data classes that are synchronized from the governance catalog.

IBM StoredIQ Insights

IBM StoredIQ Insights provides dynamic and interactive filtering for your data with easy access to all metadata and instant plain-text preview of document content for full-text indexed volumes.

Faceted search lets you drill down to re³ne your search results as needed. In addition, you can apply any valid IBM StoredIQ filter query. Tags let you categorize the data for easier management. Visual representations of search results help you gain further insights into your data. Several chart types let you look at and explore data from different perspectives, thus helping you identify patterns and relationships very quickly.

With IBM StoredIQ Insights, you can search data that is managed and indexed by a data server of the type DataServer - Distributed. In mixed deployments that have classic and distributed data servers, only the content from distributed data servers will be searchable.



IBM StoredIQ Policy Manager

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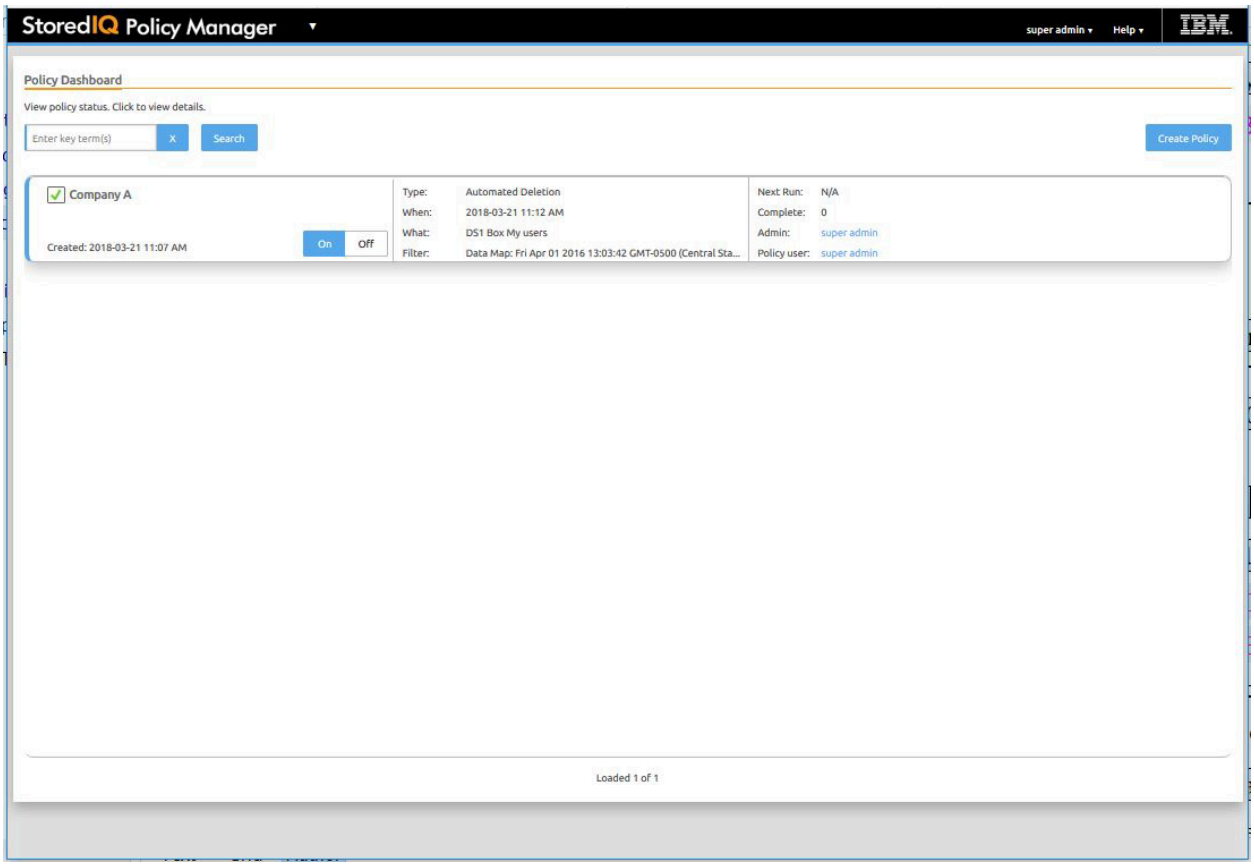

The users can de³ne and run systemwide policies, focusing on the execution of the process rather than understanding or reviewing affected data objects. Additionally, with reports of IBM StoredIQ Policy Manager, you can record what actions were conducted, when they were conducted, and what data was affected by the policy's execution.

IBM StoredIQ Desktop Data Collector

IBM StoredIQ Desktop Data Collector (also referred to as desktop client indexes desktops as volumes. The volumes appear in IBM StoredIQ Data Server and in IBM StoredIQ Administrator, where they can be used like any other data source.

The data server maintains an index using the information sent by the desktop client. After indexing, desktops - even offline or unreachable ones - can be viewed, searched, or targeted for later policy action.

Chapter 3. Open Virtual Appliance (OVA) configuration requirements

IBM StoredIQ is deployed as virtual appliances and is supported in VMware ESXi 5.0 (all ³x pack levels) or VMware ESXi 6.0 (all ³x pack levels) environments. You must have a virtual infrastructure that meets the IBM StoredIQ hardware requirements.

Application stack

- vCPU: 2
- Memory: 4 GB
- Storage:
  - - Primary disk (vmdisk1): 21 GB
  - - Data disk (vmdisk2): 10 GB

Gateway server

- vCPU: 4
- Memory: 8 GB
- Storage:
  - - Primary disk (vmdisk1): 100 GB
  - - Data disk (vmdisk2): 75 GB
  - - Swap disk (vmdisk3): 40 - 100 GB

DataServer - Classic

- vCPU: 4

  Even though increasing the number of vCPUs increases performance, the actual bene³ts depend on whether the speci³c host is oversubscribed or not.
- Memory: 16 GB

  While the minimum value works under light-load condition, as the load increases, the data server quickly starts using swap space. For high load situations, increasing RAM beyond 16 GB can bene³t performance. Monitoring swap usage can provide insight.
- Storage:
  - Primary disk (vmdisk1, SCSI 0:0):

    Default is 150 GB This virtual disk has an associated VMDK that contains the IBM StoredIQ operating code. Do not change its size.

⚠ CAUTION

If you delete the primary disk, you delete the operating system, and the IBM StoredIQ software; the virtual machine might need to be scrapped.

- Data disk (vmdisk2, SCSI 0:1):

  Default is 2 TB This virtual disk can be resized according to expectations on the amount of harvest data to be stored. For purposes of estimation, the index storage requirement for metadata is about 30 GB per TB of managed source data. Full-text indexing requires an extra 170 GB per TB. Therefore, the default data disk size is targeted for managing 10 TB of source information.
- Swap disk (vmdisk3, SCSI 0:2):

  Default is 40 GB When under load, the data server can use much RAM; therefore, having ample swap space is prudent. The minimum swap size is equal to the amount of RAM con³gured for the virtual machine. For best performance under load, place this disk on the highest speed data store available to the host.

The general size limits for a data server are 150 million objects or 500 de³ned volumes, whichever limit is reached ³rstN Assuming an average object size of 200 KB equals about 30 TB of managed storage across 30 volumes of 5 million objects each, the index storage requirement for metadata on ~30 TB of storage that contains uncompressed general office documents is ~330 GB (11 GB per TB). Add 100 GB per TB of managed storage for full-text or snippet index. For example, to support 30 TB of storage that is indexed for metadata, you need 8 TB indexed for full-text search and extracted text (snippet cache) of 8 TB for auto-classification. A total of 1.9 TB of storage is required (metadata: 330 GB, full-text: 800 GB, snippet cache: 800 GB).

Data-server performance is impacted by the IOPS available from the storage subsystem. For each data server under maximum workload, at least 650 IOPS generally delivers acceptable performance. In the situations where there is a high load on the system, the IOPS that is used can reach up to 7000 with main write operations.

DataServer - Distributed

- vCPU: 4
- Memory: 16 GB
- Storage:
  - - Primary disk (vmdisk1, SCSI 0:0): Default is 150 GB
  - - Data disk (vmdisk2, SCSI 0:1): Default is 2 TB
  - - Swap disk (vmdisk3, SCSI 0:2): Default is 40 GB

If you deploy this type of data server, you must also deploy an Elasticsearch cluster with at least one node. If you deploy a cluster with more nodes, each of the Elasticsearch nodes must meet the listed requirements.

Each Elasticsearch node

- vCPU: 1

- Memory: 32 GB
- Storage:
  - - Primary disk (vmdisk1): 100 GB
  - - Data disk (vmdisk2): 1 TB

The required memory depends on the index size that is handled by the data node. For a better performance, consider increasing the memory. The total memory available to the node must be distributed between the host operating system, the Elasticsearch java heap space, and the kernel ³le system caches. For example, if the system has 32 GB memory, 2 GB must be allocated for the host operating system, 15 GB for the java heap space, and the remaining 15 GB for the ³le system caches.

The data disk (vmdisk2) can be resized according to expectations on the amount of harvest data to be stored.

Chapter 4. Applications of IBM StoredIQ

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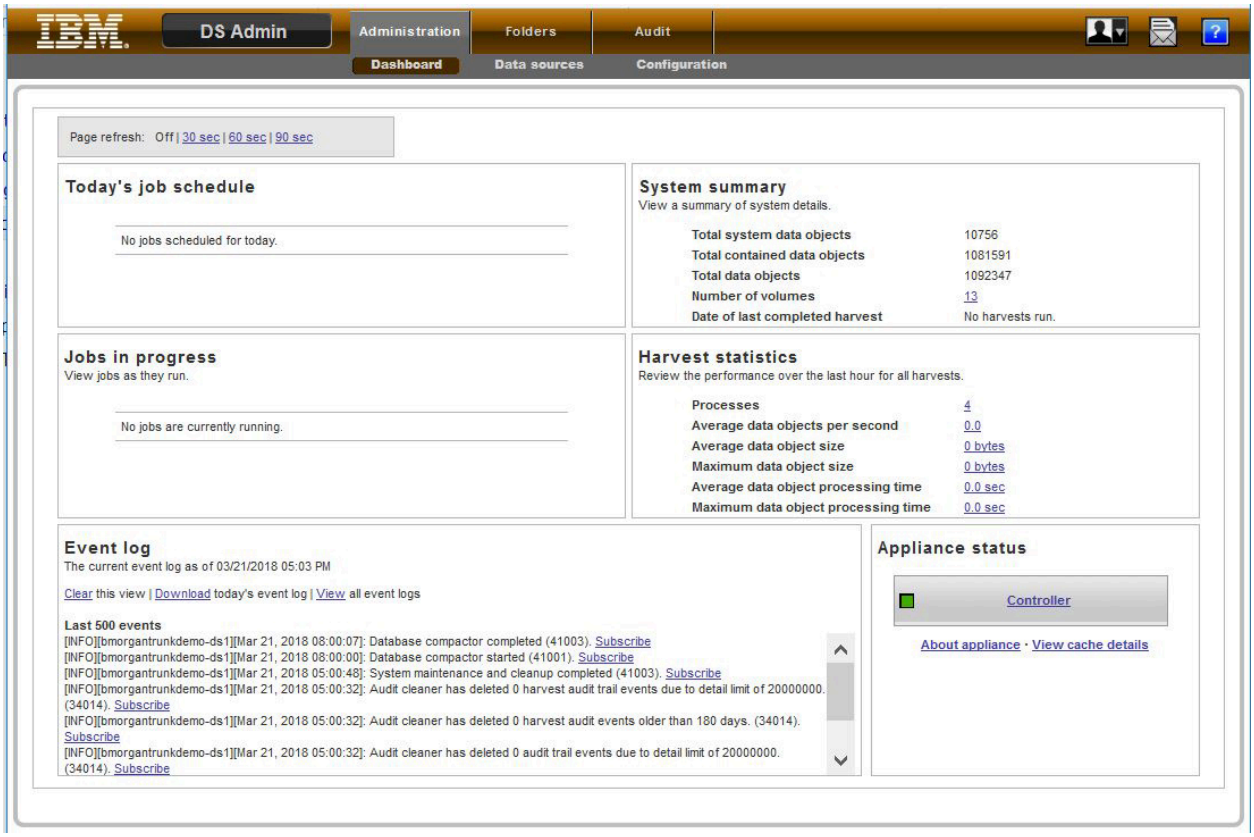

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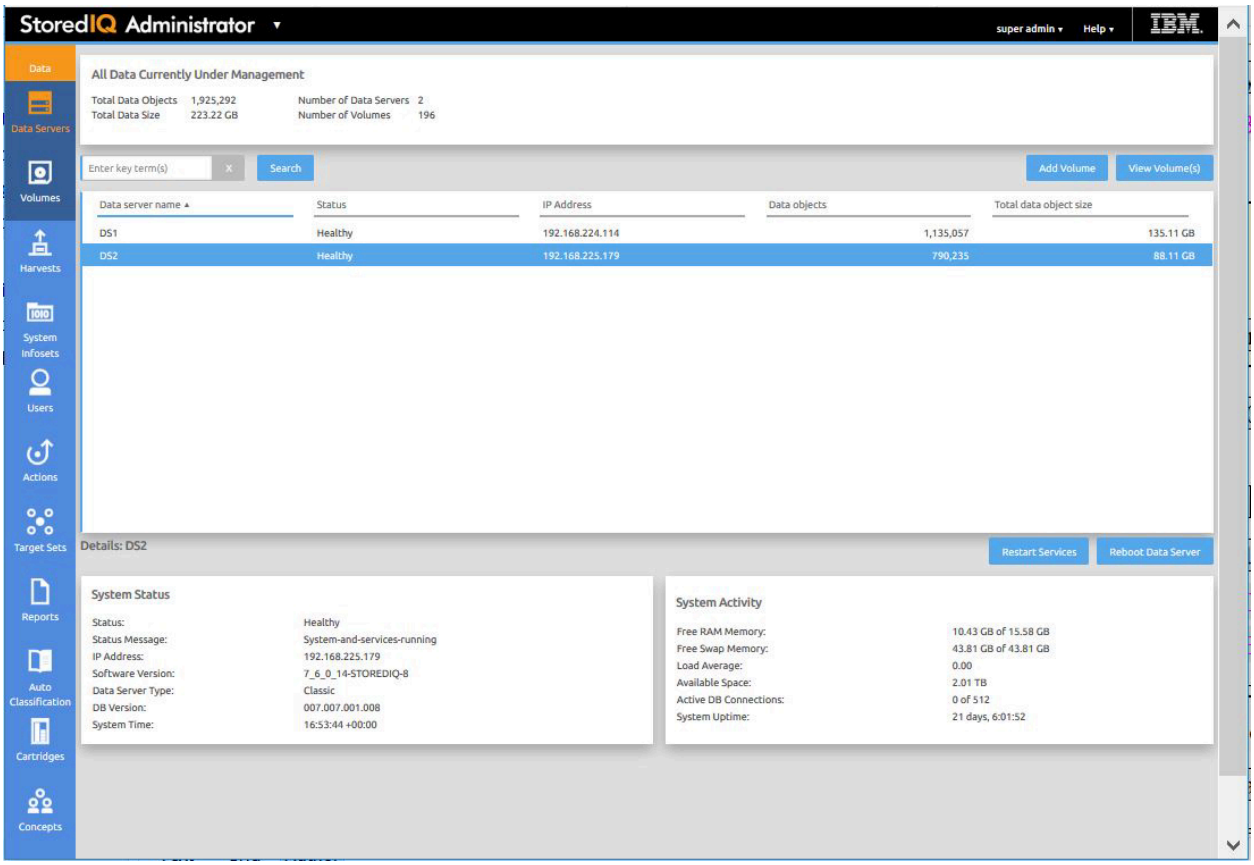

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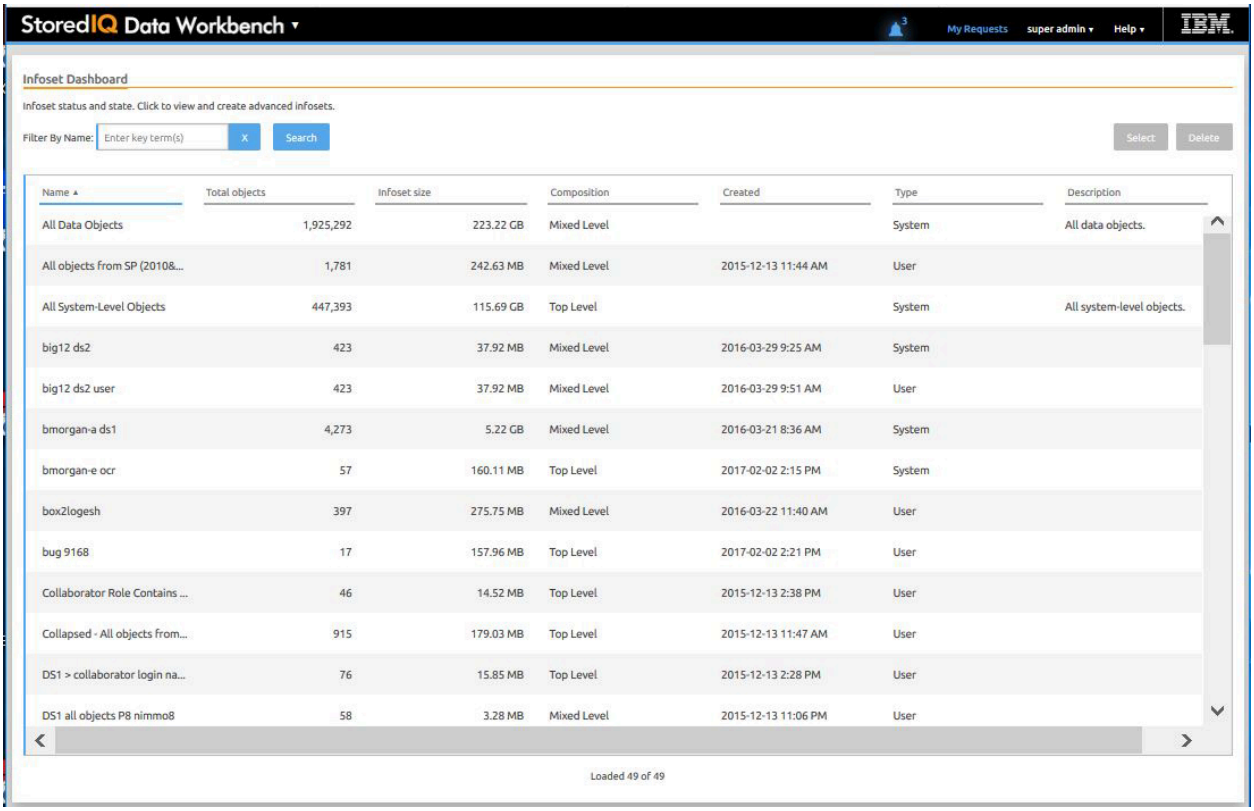

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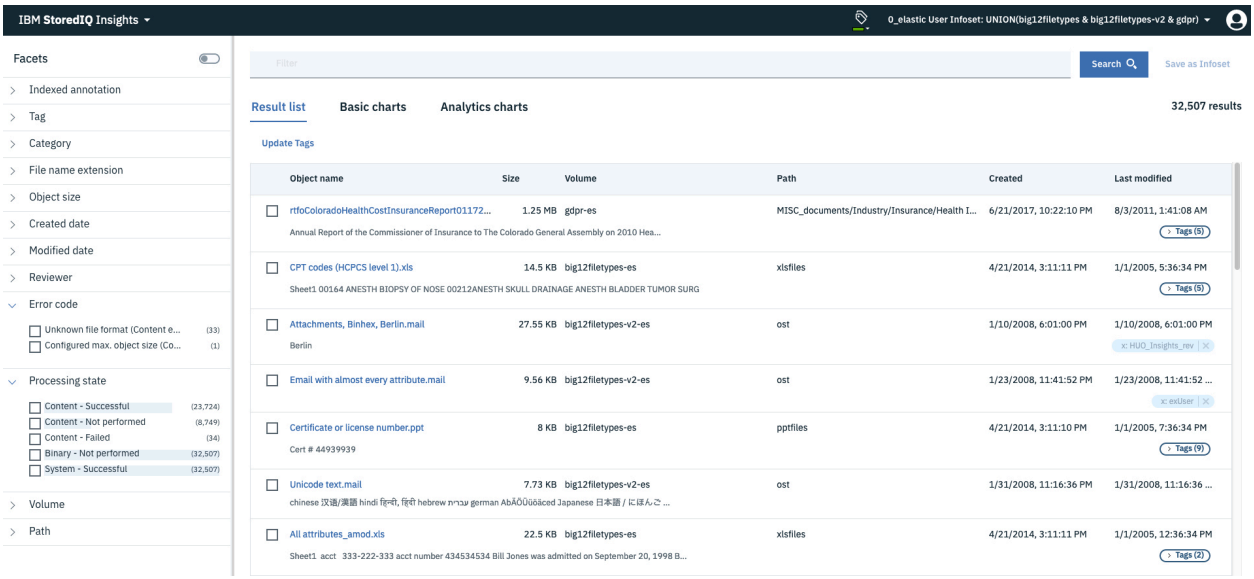

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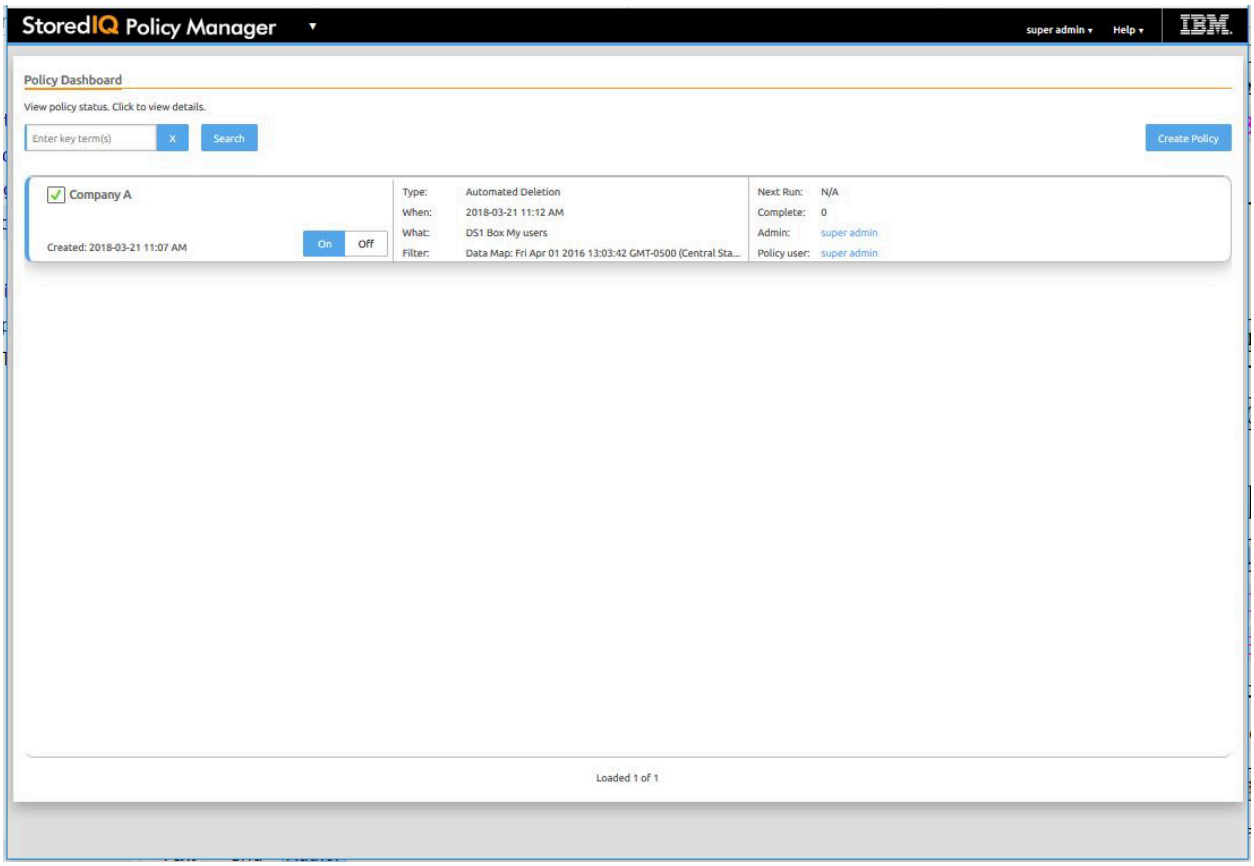

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The data server maintains an index using the information sent by the desktop client. After indexing, desktops - even offline or unreachable ones - can be viewed, searched, or targeted for later policy action.

Chapter 5. Environment sizing guidelines

To size an environment precisely, you must understand the factors such as harvest frequency, complexity of the source, and use case scenarios that drive application use and action execution.

The general design guidelines for IBM StoredIQ are as follows:

- For data servers of the type DataServer - Classic:
  - - One data server for up to 30 TBs of data (which can vary based on the number of volumes, objects per volume, and object types).
  - - Up to 500 volumes per data server.
  - **Tip:** When you're sizing an environment that includes Sharepoint data sources, keep in mind that volumes must be defined at Sharepoint site collection level, not the Sharepoint server level.
  - - Up to 150 million objects per data server.
- One gateway per 50 data servers.
- One application server.
- NFS is slightly faster than CIFS for metadata only, but assume CIFS/NFS even for this exercise.
- Full-content processing of ³le (for example, .ZIP, .RAR, .GZ) and email archive (.PST, .NSF, .EMX) processing are slower as items must be extracted from the archives. If there is a signficant number of these files in the file system and they are not excluded from content processing, the full-content Planning for deployment 13 processing rate can be too high. Until you have an initial index of the ³le system, you do not know how to weigh full-content processing of archives.
- An object/time metric is appropriate for metadata only NOT computing a hash, membership in the National Institute of Standards and Technology (NIST) or enumerating objects that are contained in archives. Converting it to a bytes/time metric is a function of the average object size and might vary tremendously. An average object size of 250 KB was used for the metric that is provided earlier.
- A bytes/time metric is appropriate for metadata-only computing a hash and full-content processing. The object per second rate can vary tremendously depending on the object type and sizes encountered. For example, processing an email or ³le archive is much more expensive than a PDF document.
- Metadata-only not computing a hash, membership in the NIST list, or enumerating objects that are contained in archives is requesting only the file-attribute information from the NAS. Individual ³les are not opened and read. The processing rate is high, but that does not translate into a large amount of data that traverses a network between the NAS and data server. The bytes/time rate does not translate into bytes served by the NAS and sent over the network.
- Metadata-only computing a hash, membership in the NIST list, or enumerating objects that are contained in archives opens and reads the contents of each ³leN The content of all requested ³les traverses the network between the NAS and data server. The maximum load that the data server can place on a NAS is metadata-only processing. It requires all ³le content to be read to compute a hash or enumerate objects that are contained in archives. The bytes/time rate translates into bytes served up by the NAS and network trafficc that must be considered.

- Full-content processing opens and reads the contents of each ³le to extract all text. The content of all requested ³les traverses the network between the NAS and data server. The processing time to enumerate archives, extract text, index words, and extract entities on the data server reduces the rate that data is requested from a NAS compared to metadata-only with full hash. The bytes/time rate translates into bytes served up by the NAS and network traffic that must be considered.
- The interrogator process count on the data server for "metadata only not reading all content indexing" is set to eight for optimal performance.
- The interrogator process count for all other processing that involves reading all content default setting is four per data server.
- The interrogator count can be viewed as the number of client connections that are made to a data source actively requesting data. It is important for capacity planning for the data source.
- The data servers are assumed to be "network close" to the NAS data sources. Network latency under 10 ms with at least 1000 Mbps bandwidth is assumed (connected through local area network). The data servers need a low latency high-bandwidth connection to a NAS data source for acceptable indexing performance.
- The gateway and application stack can be located remotely from the data servers. Network connections with latency greater than 10 ms and bandwidth of at least 2+ Mbps are acceptable.

VMware requirements

- VMware vSphere v5.0 and ³x packs or v6.0 and fixx packs.
- VMware ESXi v5.0 and fix packs, v6.0 and fix packs, or v6.5 and fix packs
- VMware virtual machine hardware version 8.0 or later. For more information, see the VMware product documentation.
- The appropriate VMware license to enable the required processor cores and memory for the virtual machine.

Chapter 6. License usage metrics

Using the IBM License Metric Tool, you can generate license consumption reports that count IBM StoredIQ license usage

Chapter 7. Network and port requirements

For proper communication, the IBM StoredIQ components must be able to connect to each other.

You must enable network connectivity from the following locations:

- The data server IP address to the gateway IP address on port 11103
- The gateway IP address to and from the application stack IP address on port 8765 and 5432
- Ports 80, 443, and 22 from the administrative workstation to the application stack and data server IP addresses
- Port 22 from the administrative workstation to the gateway IP address

TCP: port ranges for the firewall

To ensure the network access for desktop volumes, the following port ranges must be open through a firewall

- 21000-21004
- 21100-21101
- 21110-21130
- 21200-21204

Default open ports

The following ports are open by default on the IBM StoredIQ.

Table 1. Default open ports on the AppStack

Port number	Protocol
22	tcp
80	tcp
443	tcp

Table 2. Default open ports on the IBM StoredIQ data server

Port number	Protocol	Service
22	tcp	PROD-ssh
80	tcp	PROD-web
443	tcp	PROD-https (UI and Web Services APIs)
11103	tcp	PROD-transport (IBM StoredIQ transport services; communication between the gateway and the data server)
11104		

Chapter 8. Security

Plan and implement speci³c security measures to protect the application and the data it manages, especially when you deploy IBM StoredIQ into sensitive environments.

IBM StoredIQ keeps your data secure through encryption, security hardening, and auditing.

Federal Information Processing Standard (FIPS)

FIPS is a standard recommended by the National Institute of Standards and Technology (NIST) and the US Federal Government. It ensures certain security standards are met for software or hardware components deployed at US government sites. Enabling FIPS ensures that the SSL/TLS engine that is compliant with the US Government recommendation is used. IBM StoredIQ supports FIPS Level 1.

Secure gateway communication can be enabled without FIPS. If FIPS is enabled, IBM StoredIQ uses FIPS compliant versions of OpenSSL.

Secure communication and encryption of data in motion

In a production environment, you should con³gure or install certificates on the AppStack to enable HTTPS communication and to enable encryption of data in motion between the browser and the AppStack. You can to this during installation and initial configuration or at any time afterward. For details, see the instructions for configuring certificates.

The gateway handles the communication between the data servers and the application stack. By default, the communication between the gateway, any data servers, and the AppStack is in plain text and is not encrypted. If your enterprise security policy mandates encryption of data in motion, enable secure gateway communication. In this case, secure gateway communication must be con³gured on all three p> IBM StoredIQ components. You can enable secure gateway communication during installation and initial configurtion or at any time afterward. For details, see “Managing the status of secure gateway communication” on page 54.

IBM StoredIQ then uses stunnel to ensure secure communication between the components. If your environment includes data servers of the type DataServer - Distributed, stunnel can also be used to encrypt the communication between the nodes within the Elasticsearch cluster but not for encrypting the communication between the data server and the Elasticsearch cluster.

To secure the communication between the data server and the Elasticsearch cluster and the communication within the Elasticsearch cluster likewise, you can enable Search Guard. For more information, see “Securing Elasticsearch cluster communication with Search Guard” on page 51. If you don't want to do that but still want to restrict client access to port 9200 on the Elasticsearch nodes, you can set up the firewall accordingly. For more information, see “Restricting access to port 9200 on Elasticsearch nodes” on page 52.

If FIPS is not enabled, the following cipher suites and encryption algorithm are used for data at rest:

```
TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
```

```
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
```

You can configure these cipher suites in the configurtion files listed in the list of key and certificate files. However, if you run the utilities for enabling stunnel, you might need to make the respective configuration changes again.

Encryption of data at rest

Starting with IBM StoredIQ version 7.6.0.15, the disk volume on which the Elasticsearch indexes are stored is encrypted by default. IBM StoredIQ uses Linux Unified Key Setup (LUKS) for disk encryption. For details about key management, see “Key and certificate management” on page 41.

Optionally, you can encrypt the application data on the IBM StoredIQ application stack. For more information, see “Enabling encryption of IBM StoredIQ AppStack application data” on page 50.

Network isolation

If full-text harvesting and Step-up Analytics actions (cartridges) are applied, Elasticsearch indexes can contain potentially sensitive content. Therefore, you should deploy the Elasticsearch nodes in an isolated location on the network (for example, as an enclave or behind a firewall) that is properly secured according to the sensitivity of the data being harvested. Only the IBM StoredIQ application stack and data servers should be allowed to communicate with the Elasticsearch nodes.

Also, any data servers and the gateway should be deployed in an isolated network location to allow for communication with authorized clients only.

Access control

The following administrative accounts are required. The builder and siqadmin accounts are IBM StoredIQIspeci³c accounts. For more information about these accounts, see “Default user accounts” on page 17.

root and builder accounts on the Elasticsearch cluster nodes

Remote login for root can be disabled. However, local root login is required, either log in as root or use the **su** command to obtain root permissions temporarily.

You set the passwords for the root and builder accounts during the configuration process when you start the VM for the first time. You can change these passwords anytime.

siqadmin account on the AppStack

Administration of the AppStack usually does not require direct root access. For day-to-day administration, the siqadmin account can be used.

You set the password for the siqadmin account during the configuration process when you start the VM for the first time. You can change this password anytime.

Default user accounts

IBM StoredIQ comes with a set of default user accounts.

For security reasons, change the passwords for these default accounts after the installation is complete so that they are unique and different from the default values. The new password must be 8 to 64 characters long and must contain characters from at least three of these categories:

- Uppercase letters: A - Z
- Lowercase letters: a - z
- Digits: 0 - 9
- Punctuation marks or special characters: . : = * ^ / $ # _ + @ & % -

Account	Default password	Description
admin	admin	Administrative account for accessing IBM StoredIQ Data Server. Use this account for the initial setup of the data server and to create further administrative accounts for routine administration. Change the password in IBM StoredIQ Data Server under **Administration > Configuration > Manage users.**
audituser	Passw0rd!	Account for accessing the audit database on the AppStack. Change the password by running the **change_audituser_password** script as siqadmin user on the AppStack.
builder	None. Password is set during initial configuration	Account for setting up and con³guring the Elasticsearch cluster. You can change the password by using the Linux **passwd** command.
reportuser	St0red1q	Account for accessing the report database on the AppStack. Change the password by running the change_reportuser_password script as siqadmin user on the AppStack.
siqadmin	Passw0rd!	Administrative account for managing the AppStack server. For more information, see the administration guide. With new installations, you are prompted for a new password during the initial configuration of the AppStack. In updated deployments, change the password by using the Linux **passwd** command.
superadmin	admin	Administrative account for accessing IBM StoredIQ Administrator and IBM StoredIQ Data Server. Use this account for the initial setup of IBM StoredIQ and to create further administrative accounts for routine administration so that their actions can be audited. Change the password in IBM StoredIQ Administrator: go to **Users** and edit the superadmin account. The superadmin account has access to all IBM StoredIQ applications on the application stack. To switch applications, click the triangle arrow icon and select the application that you want to access from the list of the available applications.

Chapter 9. Stack-provisioning prerequisites

Before a deployment, verify that you meet these prerequisites.

- At least one physical server with sufficient processor, RAM, and hard disk configuration for the planned management project.
- VMware ESX or ESXi on CD/DVD or USB drive.
- IP addresses, cables, and physical switch ports for at least the ESXi/ESX interface, one data server, one gateway server, and one application stack.
- Network connectivity that is enabled from the following locations:
  - – The data server IP address to the gateway IP address on port 11103
  - – The gateway IP address to and from the application stack IP address on port 8765 and 5432
  - – Ports 80, 443, and 22 from the administrative workstation to the application stack and data server IP addresses
  - – Port 22 from the administrative workstation to the gateway IP address.
- Network connectivity that is enabled from the data server IP address to any data sources to be harvested and managed.
- A management station computer or notebook from where the load-management work is done.

Chapter 10. Glossary

A

Glossary

Gateway

Gateway routes traffic to outside network

In enterprises, the gateway is the computer that routes the traffic from a workstation to the outside network that is serving the Web pages. In homes, the gateway is the ISP that connects the user to the internet. In enterprises, the gateway node often acts as a proxy server and a firewall.

Data servers

Platform that delivers database services

Data server is the phrase used to describe computer software and hardware (a database platform) that delivers database services. Also called a database server it also performs tasks such as data analysis, storage, data manipulation, archiving, and other tasks using client/server architecture.

Application stack

Set of applications required by an organisation

The set of applications typically required by an organization. A typical "enterprise" application stack would include the basic office functions (word processing, spreadsheet, database, etc.), as well as a Web browser and e-mail and instant messaging programs.

DataServer - Classic

Regular data servers

Data servers can be categorized in two types: DataServer - Classic and DataServer - Distributed. DataServer - Classic refers to the regular data servers. It uses either the current PostgreSQL or Lucene index as an index.

DataServer - Distributed

Increases the scalability and flexibility of the IBM StoredIQ deployment

The distributed data server uses an Elasticsearch cluster instead of an embedded Postgres database. It increases the scalability and flexibility of the IBM StoredIQ deployment in a way that it can manage much larger amounts of data. Without adding more data servers, data that is managed by the IBM

StoredIQ deployment can be increased by adding new nodes to the Elasticsearch cluster. Search queries perform better on DataServer - Distributed.

Auto-classification

Automated document categorization

Automated document categorization, what IBM StoredIQ refers to as auto-classification models, integrates the IBM® Content Classification's classification model into the IBM StoredIQ infoset-generation process. Data Experts can use IBM Content Classification to train a classification model, which is then registered with IBM StoredIQ Administrator. The registered classification model can be applied to an existing infoset in IBM StoredIQ Data Workbench to generate new metadata for the objects in the infoset. Metadata can be used in rule-based filters to create new infosets

Cartridges

Compressed fileles that contain analysis logic

Cartridges are compressed fileles that contain analysis logic. When you add a cartridge to IBM StoredIQ AppStack, it can detect new data in documents during indexing and make these new insights searchable. For example, a sensitive pattern cartridge can enable IBM StoredIQ to detect passport numbers, phone numbers, and other IDs.

Connector API SDK

Used to connect to a data source such as a network file system

A connector is a software component of IBM StoredIQ that is used to connect to a data source such as a network file system and access its data. Using IBM StoredIQ Connector API SDK, developers of other companies can develop connectors to new data sources outside the IBM StoredIQ development environment. These connectors can be integrated with a live IBM StoredIQ application to index, search, manage, and analyze data on the data source.

Connector API SDK

Provides dynamic and interactive filtering for your data

IBM StoredIQ Insights provides dynamic and interactive filtering for your data with easy access to all metadata and instant plain-text preview of document content for full-text indexed volumes.

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