

CASE STUDY

Optimizing Salesforce Storage:

Discover how Comtrade 360 streamlined data management
for enhanced efficiency and cost savings

Author:

Marko Balant, Lead Support Engineer

At a glance:

In the fast-paced world of business, effective storage management in customer relationship management systems like Salesforce is critical. Facing the challenge of excessive storage utilization due to large volumes of data, including email attachments and records, businesses need efficient and cost-effective solutions. This case study showcases our expertise in navigating and resolving complex Salesforce storage issues.

By implementing a strategic combination of native Salesforce tools, custom methods, and third-party solutions, we significantly reduced storage costs while enhancing data accessibility and security. Our approach not only optimized storage use but also provided substantial financial savings, demonstrating our commitment to delivering tailored solutions that align with our clients' operational needs and budget constraints.

About

As a Salesforce (Administration) service provider, we understand that customers who are using Salesforce for their business may sometimes face storage issues. The default Salesforce storage size is determined by the license edition a user has, covering various types of data such as records, attachments, files, emails, and more, depending on the objects and features used within the organization. Some organizations will require extra storage for their business, which will bring extra costs, especially for the Salesforce data storage mostly used by organizations which is also more expensive than Salesforce file storage. For this reason, the organization might think about choosing a different license from the start, which would include 'Unlimited' storage.

Storage Optimization Efforts

Many organizations without an 'Unlimited' Salesforce license that includes unlimited storage are trying to optimize Salesforce storage usage through various methods, such as implementing retention policies, exporting data to external storage, or by not storing certain types of information to free up additional space. However, these actions may lead to challenges when someone needs to access missing, exported or potentially deleted data. In our work, we encountered some of these problems, and we will describe the steps and actions that we performed to resolve the storage issue.

Problem

As mentioned, we were faced with a challenge of reducing Salesforce storage usage on customer side. In our case, we were utilizing **827.8 GB** of the available **44.9 GB** SF Data storage and **2 TB** of the available **1.5 TB** SF File Storage.

SETUP Storage Usage		
Storage Usage		
Your organization's storage usage is listed below.		
Storage Type	Limit	Used
Data Storage	44.9 GB	827.8 GB
File Storage	1.5 TB	2.0 TB
Big Object Storage	1,000,000	0

Current Data Storage Usage		
Record Type	Record Count	Storage
Email Messages	17,658,482	449.5 GB
Tasks	30,616,561	58.4 GB
Cases	18,782,738	35.8 GB
Contacts	12,212,826	23.3 GB
CaseRoutingRequests	11,305,277	21.6 GB
Accounts	11,086,743	21.1 GB
Sender History Comments	10,629,191	20.3 GB
Opportunities	9,758,815	18.6 GB
Interaction Event Notes	8,504,892	12.4 GB
Interaction Events	8,504,892	12.4 GB
QA_AI	5,266,596	10.0 GB
Analytics	5,116,327	9.8 GB
Agent Work	4,845,913	9.2 GB
Cases (Historical)	8,487,684	8.1 GB
AC Contact Trace Records	3,298,693	6.3 GB
AC Agent Performance	2,900,366	5.5 GB
Agent Work Skills	2,221,787	4.2 GB
User Presences	2,197,262	4.2 GB
QA_AI_Feedback	2,126,212	4.1 GB
Error Logs	2,045,534	3.9 GB
Social Posts	1,721,183	3.3 GB
AC Contact Channel Analytics	1,535,704	2.9 GB

Industry

CRM and Salesforce Solutions

Technology

Salesforce
Salesforce App
Apex
SOQL

We faced significant storage over-usage and we were forced to find the best way to resolve the problem.

Actions:

Initially, we attempted to identify the root cause of the excessive data load/usage. We began our investigation by examining the Salesforce data storage, where we identified the problem. Further investigations revealed that Email Messages (on Cases) and their Content Documents (email attachments such as pictures, files, and documents) were the primary contributors to the significant storage utilization in Salesforce. Email messages were utilizing more than half of Salesforce Data Storage (449 GB),

Record Type	Record Count	Storage	Percent
Email Messages	17,656,482	449.5 GB	54%

Content documents were also occupying a large portion (**1.2 TB**) of Salesforce File Storage.

Current File Storage Usage			
Record Type	Record Count	Storage	Percent
Opportunities	9,754,121	38 MB	0%
Knowledge	873	44.8 MB	0%
Suggestions	72	377 MB	0%
Attachments	1,117,884	282.0 GB	25%
Documents	44	423 MB	0%
Content Bodies	4,146,161	1.1 TB	79%
Logfile/Result	18	10.8 MB	0%
Photos	4,839	122.8 MB	0%
Current Big Object Storage Usage			

Steps to reduction

After addressing the issue, the next goal was to find ways to reduce Salesforce storage data usage. Our initial approach was to explore methods or tools that are either free or not too expensive.

1. Archive Email to case App

The first step to minimize Salesforce (SF) Data Storage involved the use of the Archive Email to Case Salesforce App. This app allowed us to reduce Salesforce data storage space (approximately 150 GB) by archiving old emails (older than 2 years) from the production org that were no longer needed. These archived emails were moved in the SF File storage part which is cheaper in comparison with Data storage part.

This app helped us to release some extra SF storage, but it supports only Salesforce (Case) Emails archiving, while other objects data were also consuming Salesforce storage.

Archive Email-to-Ca...HomeAccountsCasesReportsArchive Case EmailsArchive Case Help

Archive Email-To-Case

Case Emails

Selection Criteria

Selection Criteria

Select the cases selection criteria that cases must meet to Archive or restore case emails.

Archive button to archive cases those meets the case selection criteria.

Restore button to restore archived cases those meets the case selection criteria.

Schedule Archive job button to schedule the archive job.

Re-Archive button to archive archived cases (in a situation org received new emails on archived case).

Archive Emails>Please use this option only for cases where total case emails size is more than the Salesforce heap size governor limit.

Click here to restore a single case Email

ArchiveRestoreSchedule Archive JobRe-ArchiveArchive Emails

Selection Criteria

Type--None--

Status--None--

Case Reason--None--

Case Origin--None--

Case Created older than--None--

Case OwnerUser

Case Closed older than--None--

Frequency--None--

--None--

Preferred Start Time--None--

--None--

Batch Size01

Batch Jobs

SUBMITTED DATE

SUBMITTED BY

2. Custom method for removing 'Duplicate attachments'

After further investigation, we detect that multiple Email messages contain duplicate files for each email thread in SF. This means that for each email interaction duplicate files were created and stored in Salesforce.

SalesHomeAccountsOpportunitiesTasksFilesReportsDashboardsBusiness Development ScorecardsCoaching FormQuizzes Surveys ResponsesCorrespondent DE Names18116781

Files

7 items • Sorted by Last Modified • Updated a few seconds ago

	Title	Owner	Last Modified	Size	Source
1	NMS_20190402_114201	Maria Balant	30/08/2022 07:34	3.11KB	Re: Sandbox Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
2	NMS_20190402_114201	Maria Balant	30/08/2022 07:31	3.11KB	Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
3	NMS_20190402_114201	Maria Balant	30/08/2022 07:31	3.11KB	Re: Sandbox Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
4	NMS_20190402_114201	Maria Balant	30/08/2022 07:28	3.11KB	Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
5	NMS_20190402_114201	Maria Balant	30/08/2022 07:28	3.11KB	Re: Sandbox Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
6	NMS_20190402_114201	Maria Balant	09/08/2022 07:08	3.11KB	Case Number 18116781 [vrf_2020022uvt_80096d6mvef]
7	NMS_20190402_114201	Maria Balant	09/08/2022 07:08	3.11KB	18116781

This was actually a Salesforce issue for which they did not have a solution when we discovered it. Our choice was to write a custom Apex (trigger) method for removing Duplicate files (Content bodies) from the Cases. With this custom method we were able to remove around 200GB of duplicate content bodies (pictures, files, documents). Sometime later, Salesforce announced and released a similar 'Email-to-case' feature called 'Eliminate duplicate email attachments' used to remove duplicate attachments from cases.

3. 3rd party provider(s)

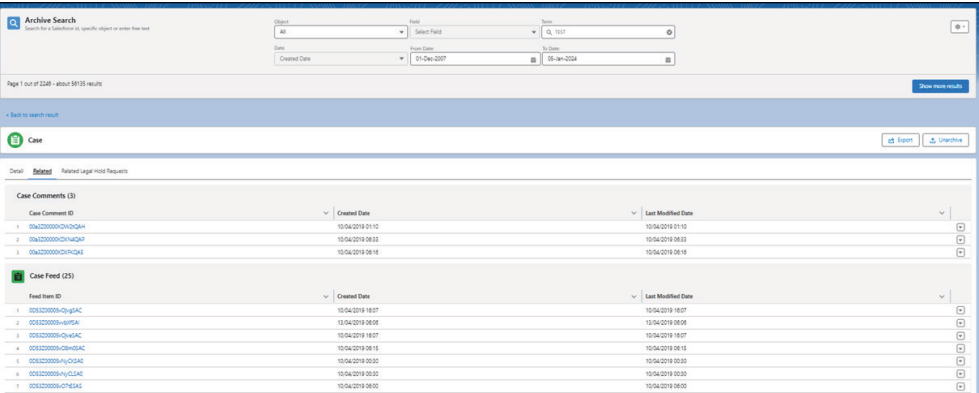
Despite the reduction we achieved, however, this wasn't sufficient to keep the additional Salesforce storage costs sustainable. There was still a huge amount of data that we wanted to remove from Salesforce without keeping it in the storage, and at the same time we wanted that data to remain searchable and accessible through Salesforce.

comtrade360.com

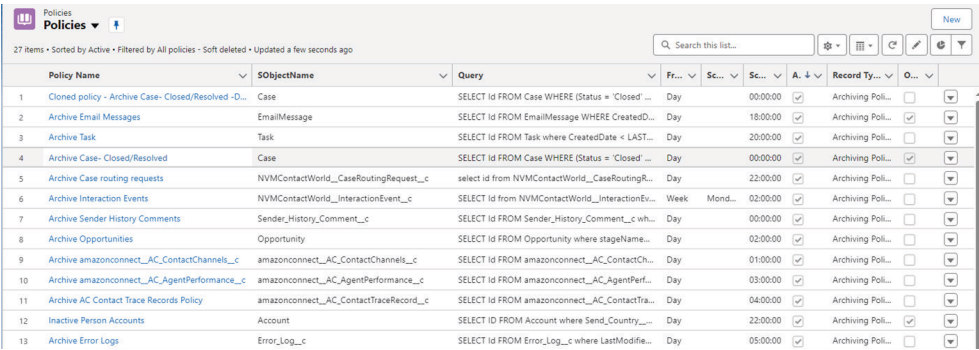
Optimizing Salesforce Storage | 03

Unfortunately, Salesforce did not have any solution or tools which could help us with storage reduction the way we required it. At this point, we began exploring other possible solutions and searched for providers who were offering archiving solutions.

We got in contact with a company which offers backup/restore and archiving features, which was most important for us. After introduction and a few sessions, we were able to test the product features in Sandbox instance. We configured a few archiving policies for different records such as Opportunities, Accounts, Cases, which also included archiving of all related items like Emails, tasks, content documents, and others. After archiving, the accessibility check of Archived data through SF was confirmed and we were able to search and access all archived information and also restore data.



After successful test scenarios we configured archiving policies in the production Instance. Based on our org license configuration and API calls availability (800k per day) we were able to execute many policies at the same time, with huge amount of records. Each day, we were able to archive around 4-5 million records (3-5GB).



The provider also offered an important feature – the full backup and restore of Salesforce data and metadata. Prior to archiving, we ensured the security of entire Salesforce org by creating a full backup in case anything went wrong during the archiving process.

Results

In a couple of months, the Salesforce storage was reduced to 171GB (of 827.8 GB) for Data and 274GB (of 2 TB) for file storage. The archiving process is still ongoing and storage will be released under 70GB ort even more, based on current Archiving policy setting.

Storage Type	Limit	Used	Percent Used
Data Storage	44.9 GB	171.4 GB	382%
File Storage	1.7 TB	274.0 GB	16%
Big Object Storage	1,000,000	0	0%

In comparison, the third-party provider required around 10 times less in financial resources than the additional cost for Salesforce data storage for one year, and it also offered full backup/restore and other useful features. To put numbers into perspective, the cost savings were approximately half a million dollars annually just for the Salesforce storage. The cost of the third-party provider was \$50.000 annually, calculated based on the number of active Salesforce users (650).

Conclusion

In addressing the diverse needs of organizations with respect to Salesforce user license types, storage needs, and other features, it's essential to consider the scale of operations and specific business requirements. This was exemplified in our recent engagement where Comtrade 360 successfully navigated a client's data storage challenges. For organizations like this client, with a significant number of active Salesforce users interacting daily through emails with end-customers, leveraging a third-party provider proved to be the most effective strategy.



By partnering with a carefully selected third-party provider, Comtrade 360 was able to offer the client additional storage, archiving, and backup options that were not only cost-efficient but also enhanced their operational capabilities. This approach is particularly beneficial for reducing storage costs and ensuring robust data backup, a solution that can be advantageous for both large and smaller organizations.



In such intricate scenarios, the expertise of a Salesforce expert or service provider like Comtrade 360 is invaluable. Our team specializes in assessing our clients' unique needs and implementing tailored solutions. In this case, we demonstrated how third-party solutions could offer a more feature-rich and cost-effective alternative to native Salesforce tools, which might not always align with the client's requirements or budget. Comtrade 360's ability to adapt and deliver customized solutions in this manner is a testament to our commitment to solving complex challenges and enhancing our clients' Salesforce experience.



info@comtrade360.com
+1 617-546-7400
comtrade360.com