




Guide For Selecting A Salesforce Backup & Restore Partner

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Do I need a Salesforce backup?

Many assume that Salesforce, as the world's leading CRM provider, is responsible for maintaining a full backup of each company's data. Technically this may be true, but there are severe limitations to Salesforce's backup and restore process.

	<u>Salesforce</u>	<u>3rd Party Provider</u>
How far back can I go?	90 days	 Varies
What is the wait time for recovery?	Minimum of 6-8 weeks	
What is the cost of recovery?	\$10,000 + time to load CSV's	
Is metadata included?	No	

Reference:

- ⦿ FAQs on Data Recovery Service and cost
<https://help.salesforce.com/articleView?id=000003594&type=1>
- ⦿ Recover or restore lost or deleted records and data
<https://help.salesforce.com/articleView?id=000004037&type=1>

If you have 8 weeks or longer to wait for Salesforce to return CSV files, and you are a dataloader wiz, you may not need an independent backup. For the rest of us, a Salesforce backup is a necessary and critical part of ensuring long term data viability.

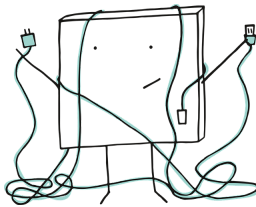
Believe that a backup is unnecessary? Think again....

Scenario: A developer deployed code against production. The code had been tested, but clearly not well enough because..... Upon deployment, the code corrupted a field. One field. The problem: This field was featured on every one of the company's 2 million contact records.

The solution: In order to recover the data, the company requested the CSV files from Salesforce, then applied the corrections with data loader. Salesforce is never static, so during the wait, employees continued to enter data and updated the corrupted field on multiple contact records.

Now the development team had two problems to solve:

- ⊙ Determine which records needed to be corrected.
- ⊙ Use data loader to restore the fields that were not correct.



What should have happened: The mistake was realized by the development team 30 minutes after the deployment when the head of sales noticed that he had a junk phone number for a key contact on the company's highest dollar opportunity. After a flurry of apologies, the head of development quickly restored the field back to the state that it was in prior to the deployment. Since the company had a good backup vendor, this process took a mere 20 minutes. Problem solved.



What about the weekly export?

One potential way to backup Salesforce data is through the weekly or monthly Salesforce Data Export. This manual method returns CSV files up to once per week but the process can be delayed based upon the traffic load on Salesforce's infrastructure. The CSV export method may be sufficient for very small, simple organizations but has many limitations such as not including all Salesforce tables. In addition, the restore process from CSV's is difficult and time consuming, and a simple restore of an account along with related lists can easily consume days of admin time. A third party provider is necessary for a reliable and timely Salesforce backup and restore solution.

Heavy traffic can delay an export delivery. For example, assume that you schedule a weekly export to run until the end of the month, beginning April 1. The first export request enters the queue, but due to heavy traffic, the export isn't delivered until April 8. On April 7, when your second export request is scheduled to be processed, the first request is still in the queue. So, the second request isn't processed until April 14.

https://help.salesforce.com/articleView?id=admin_exportdata.htm&type=0

Choosing the Right Vendor

There are two primary approaches for a Salesforce backup:
Hosted vs. On-Premise

We will discuss the benefits of each method along with key limitations, concluding with several key points that should be considered regardless of the backup location.

Hosted (Cloud) Backup

The top benefits of a hosted solution are short term IT time and space savings. In addition, a cloud solution adds little burden to your company's infrastructure because the computers, storage, security policies, accuracy, and timeliness of your Salesforce backups are managed by the hosting provider.

The solution can be accessed globally and upgrades are simple. A cloud backup is scalable, so data size can increase over time without requiring intervention.

Verification

The downsides of a hosted based backup hinge upon the risks inherent in any cloud based data service. Backup data is not stored locally, it can be difficult to verify the accuracy of the backup and ensure if the data set is complete. You can minimize the risk by selecting a provider that allows for some or all data to be downloaded on-premises for verification as well as an option to push backup data to a Salesforce sandbox. Access to logging files in order to note data changes can also be key, however, without a local view on your data, it is hard and potentially impossible to substantiate the provider's claims of a full backup.

Data Accessibility

Rapidly accessing the data stored in a hosted backup comes with a variety of limitations driven by the fact that the backup data is stored in the cloud in a proprietary format. Unlike a traditional database backup, a hosted backup is not designed to be used except for data recovery. For example, hosted backups are not typically designed to provide an environment where business analytics, cross segment marketing surveys, or difficult reporting can be performed. Hosted backups are not designed to build targeted training sets or develop test environments. Hosted backups are designed to do one thing well - off load the process of backing up Salesforce to a 3rd party.

Security

You will also need to verify that the cloud provider meets your company's global security guidelines and that your data is stored securely both at rest and during the backup process. Data may also need to be stored within a specific country's borders per law. Security policies change and will require periodic review to ensure that they stay in-step with your company's requirements.

Provider

A final consideration is the relationship between your company and a cloud backup vendor. Depending upon your compliance requirements, this is likely to be a long term relationship, so it is critical to select a vendor with a long history of satisfied customers and a service level that meets your needs. Look for a partner that specializes in Salesforce backup as the largest piece of their business. Consider how to recover your data if your cloud backup provider goes out of business. Will it be difficult to transition to another vendor or an on-premises solution if business requirements change?

On-Premises Backup

The beauty of an on-premises backup is that it is easily verifiable and available because the backup is stored in a relational database that you own. Business intelligence and analytics are made simple by utilizing Salesforce data in a local database. Marketing can use the data to answer questions that are difficult within Salesforce such as “which customer has purchased product A but not product B”. An on-premise backup can also be verified by populating Salesforce developer sandboxes with selected production data. A good vendor should be able to populate related records as well, instead of requiring you to create the relationships by hand.

Verification

An on-premises backup is in a regular relational database format and exposes the entire results of the backup process. Any tool you already own, from Excel, Tableau, to raw SQL, can be used for verification. In addition, many companies continuously test their on-premise backups by using them daily for operational reporting and business analytics.

Data Accessibility

An on-premises backup is completely accessible for all the reporting and analysis tools that you use for other databases. The data is at your fingertips and constantly available without a waiting period as opposed to a hosted solution which requires a request - wait - load approach. If you plan to use your backup for anything other than disaster recovery, an on-premises solution is ideal.

Security

An on-premises backup can be encrypted at your discretion and sits behind your company's firewall. You will want to verify if the data is ever at rest in any other location. Compliance concerns are minimized because the data is stored on your machines. You can minimize the risk of data leaks by controlling who has access to the backup. It is also common to create partial backups within separate databases in order to reveal limited data to various teams.

Provider

The downside of an on-premises backup solution is the need for IT to set up and maintain the database where the backup is stored. Space requirements can be a concern if your Salesforce contains large numbers of space-hogging files and attachments. Look for a product that runs headless and can sit in the background, sending status notifications if necessary. Similar to a cloud provider, ensure that the vendor is a long term player in the Salesforce ecosystem and consider the relationship as a long term partnership.

Every Solution

Regardless of your decision to select either an on-premises or a hosted backup provider, there are several items that should be considered. A more exhaustive checklist can be found at the end of this article, but these are the top 5.

1) **How hot do you need your backup?**

Some vendors only allow a certain number of backups per week or per day without additional cost. If you need to have your Salesforce data backup within close timestamp proximity to production, choose a vendor with options for incremental, frequent backups.

2) **Does the solution require intervention when structure changes?**

Add a new custom object? Change a field definition? Unless your Salesforce is static, you will want a solution that automatically detects and applies structural changes and is able to backup the metadata. Metadata versioning is also a consideration if you want to be able to restore a piece of metadata, say a view, to the state that it was in prior to an unpopular change.

3) **What do you need to backup?**

If a backup provider claims to backup “everything,” ensure that this statement can be supported factually. Certain items are very difficult to backup, such as BigObjects, and some tables have extremely restrictive requirements. If a provider supports metadata, ask how changes across API versions are managed.

4) Define “restore”.

This is a key topic if you plan to utilize the backup to populate Salesforce sandboxes. Make sure that “restore” does not mean that the vendor provides CSV files and expects you to perform the restore process using a data loader approach. Why?

Let’s take a look at a simple restore. A user deleted an account from our production Salesforce, and the deletion was not discovered until after the recycling bin was emptied.

We need to restore the account along with the related attachments, cases, contacts, and opportunities. This sounds simple, but completing the restore manually requires 12 steps. Just for fun, they are listed below....

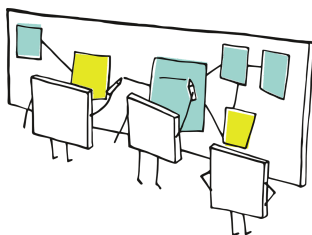
- ➊ Restore records in Account
- ➋ Restore records in Account referenced by Asset.AccountID
- ➌ Restore records in Account referenced by Case.AccountID
- ➍ Restore records in Account referenced by Contact.AccountID
- ➎ Restore records in Account referenced by Opportunity.AccountID
- ➏ Restore records in Contact referenced by Asset.ContactID
- ➐ Restore records in Contact referenced by Case.ContactID
- ➑ Restore Related List Account.Assets in table Asset
- ➒ Restore Related List Account.Cases in table Case
- ➓ Restore Related List Account.Contacts in table Contact
- ➔ Restore Related List Account.Opportunities in table Opportunity
- ➕ Restore Related List Account.Attachments in table Attachment

A good vendor should provide tools to perform this process with mere clicks and restore many more relational layers deep. The ID patching should be performed without manual intervention no matter how complex or twisted the relationships. Test the restore process during a trial by deleting your most complex account from a Salesforce sandbox and try to restore it. To make the process more interesting, delete a nested account along with its parent and try to restore both along with all related data. If this simple task can not be done in less than 5 minutes, you may want to consider a different restore partner.

5) Try before you buy and check for hidden costs.

Every vendor should allow an evaluation period of four or more weeks. Even a small Salesforce organization should take the time to thoroughly investigate a backup partner. Remember that this will be a long term relationship, so the time is well spent.

Special Scenarios



The Full Restore

A common question: What happens if I need to do a full restore of my Salesforce? All data...all metadata. This is an excellent question to pose to any potential backup vendor because the answer is unexpected: *A complete restore of Salesforce is not possible.*

You can not get an exact point in time backup from Salesforce using the Salesforce API.

Some Salesforce tables and metadata are not writable from the API.

Salesforce can not be shut down while a restore replaces all tables, so any data entered by employees may be overwritten.

Metadata restore requires intimate knowledge of the metadata restore order, as the API limits the size of a single metadata deployment.

With a traditional database backup, you can easily disable access and replace the database image with a backup. This approach can put a database into a known state at any desired point in time. This can not be done with Salesforce.

Also, a Salesforce database is never empty. Even an “empty” sandbox contains multiple tables populated with data.

Theoretically the need for a complete restore is possible....thousands of tables, millions of records, and all custom Salesforce configuration. This would, however, indicate that either:

- 1) Your Salesforce governance has suffered a massive failure / breach, or
- 2) The Salesforce infrastructure has failed.

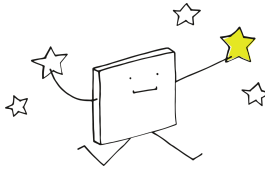
Capstorm's team has yet to see a full restore be necessary, despite partnering with hundreds of businesses, many with multiple production instances.

A sampling of the worst production data disasters...

- ⦿ A Salesforce data center failure lost 6 hours of production updates
- ⦿ A key logger corrupted specific fields over a period of two months
- ⦿ An overzealous programmer deleted a large set of attachments
- ⦿ A mistake in a trigger corrupted a known set of fields

Each of these cases required precise surgical restores to recover specific data. In every scenario the corrupted or missing data could be identified and restored.

When someone claims that they can do a “complete restore” of your Salesforce, ask the important question: How?



General Data Protection Regulation (GDPR) California Consumer Privacy Act

If your business conducts transactions with countries within the European Union or has customers in California, privacy laws must be a consideration factor when choosing a Salesforce backup & restore partner. Both GDPR and CCPA are similar in scope, however, GDPR imposes harsher penalties so the primary focus of this section will be on GDPR compliance as the legislation relates to Salesforce.

The European General Data Protection Regulation (GDPR) will go into effect in May 2018 and while global organizations are required to demonstrate compliance of their security and privacy practices, it goes beyond just the internal organization: the GDPR also extends to the third-party vendors of GDPR-applicable companies.

The problem doesn't end there; organizations can have hundreds to thousands of relevant third parties in scope for GDPR.

While you are working diligently to help ensure your own organization is compliant with GDPR, your organization is explicitly responsible for the readiness and conduct of the third parties that store or process your EU citizen's personal information.

We see that there are three priorities for third-party management: understanding the different roles defined in GDPR; key contract elements to consider for GDPR processors; and assessing the applicable processors for compliance.

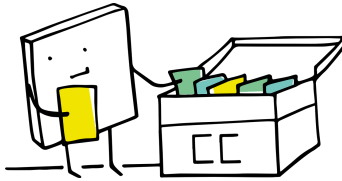
<https://www.infosecurity-magazine.com/opinions/thoughts-gdpr-third-party/>

One solution is to keep data in-house as much as possible, and only share data containing obfuscated personal information. For example, instead of allowing a consultant to view & extract data from Salesforce production, create a test data set for the consultant while transforming sensitive fields. Additional items to consider:

- 1) Is any personal data processing outsourced by a 3rd party? If so, do you know who is accessing the data and if the business is located in a country that follows strict data regulations? Consider the difficulty of complying with a data remove/deletion if you do not know who actually has the data...
- 2) Are contracts in place to lower your liability? Be aware that your business may not be able to completely eliminate your liability even with a contract requiring that the 3rd party follow GDPR regulations.
- 3) How long will it take to get your data from the 3rd party? You have a limited window of time to prove that you have cleansed personal data. Waiting for a 3rd party to return data can quickly consume the response period.
- 4) Is there a simple way to prove that data has been removed or obfuscated? Do you have a view into the 3rd party's databases? One major advantage to keeping personal data in-house is the ease of proving data removal.
- 5) What is the notification procedure in case of a data breach? You may have 72 hours or less to announce the breach under GDPR. Historically, revealing a breach is hard to admit because it throws doubt on the 3rd party's security and credibility. See more below...

Consider Equifax- A data breach was discovered on July 29th. The public was not informed until September 7th. The timeliness of this announcement would likely have impacted Equifax strongly if Equifax was under GDPR regulations. A fine can be up to 20 million euros or 4% of the prior year's worldwide revenue. Ouch.

<http://money.cnn.com/2017/09/08/technology/equifax-hack-ga/index.html>



Salesforce Record Archival

The need for a Salesforce record archival solution tends to come hand-in-hand with the adoption of a Salesforce backup. A backup partner should be able to meet the business' compliance and data retention needs!

Specific Archival Considerations include....

- 1 Data Retention: How long do you need to keep the backup?
- 2 Data Storage: Are there limits? On record size? On retention days? Does this include any archived files/attachments?
- 3 Archival Flexibility: Can you specify retention length on a table by table basis? How about rule based archival? (IE- Retention length for high dollar opportunities vs. retention of deleted tasks)

The concept of Archive lends itself to a wide range of use cases beyond the standard concept of deleted record retention. A few to consider:

- ⦿ Archive to remove extraneous Salesforce records in order to save on data storage.
- ⦿ Archive for legal purposes in order to create tamper proof snapshots of Salesforce records and document changes.
- ⦿ Archived rarely needed data, but maintain visibility into the archive from within the Salesforce platform.

Comparison Checklist

Provider	Yes	No	Notes
Has the vendor been in the Salesforce ecosystem at least 5 years?			
Is the product app-exchange listed? For how many years? Well rated?			
Is Salesforce backup / restore the primary business of the vendor?			
Does the vendor have an easily accessible support team?			
Are response times acceptable for technical questions? (complete response, not "ticket submitted")			
Is a personal demo readily available?			
Is there an evaluation period? How long?			
Does the solution cost fit your budget? (Per user? Data size dependant? Per Salesforce Org. ID?)			

Does the provider stay in step with Salesforce releases and provide seamless updates?			
Are version updates forced? Or on your timetable?			
Is your use case a common one for the vendor?			
Is the implementation difficult? How long will it take?			
Will implementation interfere with ongoing Salesforce activity?			
Is infrastructure investment necessary? If so, what is needed?			
Backup Basics	Yes	No	Notes
Can you verify that the backup is complete? How?			
Is the backup data available? If so, what technologies are in place to ensure this?			

Is the backup always close (timestamp proximity) to the production Salesforce?			
Can the backup be run frequently to pick up incremental changes? How frequently?			
Is it simple to schedule a backup?			
Can you perform on-demand backups manually? Any limits?			
Does the system have an integrated notification system? Who needs to be notified if there is an error?			
Is the solution scalable to huge Salesforce instances?			
Does the API usage requirement fit within your API limits? (A “full” backup will use a hefty chunk of API calls. An incremental backup should not.)			
Is this an on-premises solution?			
If on-premise, can you use a cloud for storage?			

(AWS or similar)			
If on-premises, is a specific operating system required? Specific database type?			
Does the backup adjust to Salesforce structure changes without manual intervention?			
Backup - Beyond the Basics	Yes	No	Notes
Does your company have compliance requirements for the length of time that a backup must be retained? Does the solution meet these requirements?			
Is there a retention option for records that have been deleted in Salesforce? Can you set a retention period or is it dictated?			
Can you set different retention rules for different tables? Different retention based on field values?			
Are individual field changes tracked?			

Limitations?			
Is metadata backed up? Versioned?			
Can you verify if all necessary metadata is in the backup?			
Can you query the backup quickly? (SQL? SOQL?)			
Is the backup speed sufficient for the size of your data? Single or multi-threaded?			
Are there tables in your Salesforce that are unable to be backed up? (Common responses: attachments, knowledge, BigObjects.)			
Are you able to backup managed packages? Limitations? (You may need to verify that you have sufficient permissions with the managed package vendor.)			
Does the solution integrate with other applications? (Such as BI or analytics software)			

Can you utilize the backup for other business purposes?			
Is the solution multi-org compatible?			
Is there a simple way to manage and centralize backups for multiple instances?			
How many Salesforce orgs do you need to backup? (Production? UAT sandbox? Development sandboxes?)			
Does the solution reconnect to Salesforce if a query times out?			
Can you leverage multiple API types? (SOAP, Bulk, Rest)			
Can you make parallel, customized backups? Is this at an additional cost?			
For parallel backups, can you optimize the SOQL query for ideal performance?			

Restore Basics	Yes	No	Notes
Can records and relationships be restored without manual intervention?			
Are there limits to the complexity of relationships that can be restored? If so, to what limits?			
Can the provider restore “difficult” items? (Common “trouble objects”- attachments, chatter, knowledge.)			
Does the solution restore to sandboxes? (Test the process instead of restoring directly to production!)			
Is the granularity of the restore sufficient? Can you restore a whole object? Individual record?			
Can metadata be restored?			
Can personal data easily be obfuscated within production? (Think GDPR compliance)			

Restore - Beyond the Basics	Yes	No	Notes
Is the restore speed sufficient? Single or multi-threaded?			
Are there limits on what type of metadata can be restored?			
Can metadata be restored to a sandbox?			
If so, can metadata be restored to a sandbox associated with an unrelated production instance?			
Can metadata be restored directly from the application? If not, what are the deployment options?			
Can triggers/validation rules/workflows be automatically disabled/re-enabled within the solution?			
Can data be changed within the backup then restored back to Salesforce?			
If so, can data be restored to an unrelated production			

instance? Sandbox?			
Can data be masked upon restore?			
Can you choose the level of obfuscation? Pluggable option?			
Use Cases	Yes	No	Notes
Can the solution be used for record archival?			
Does the vendor include tools for Org to Org migrations?			
Can you use the application to migrate legacy data into Salesforce?			
If so, is there a way to match records other than a Salesforce ID?			
Can other departments benefit from the restore process? (Sample use cases below)			

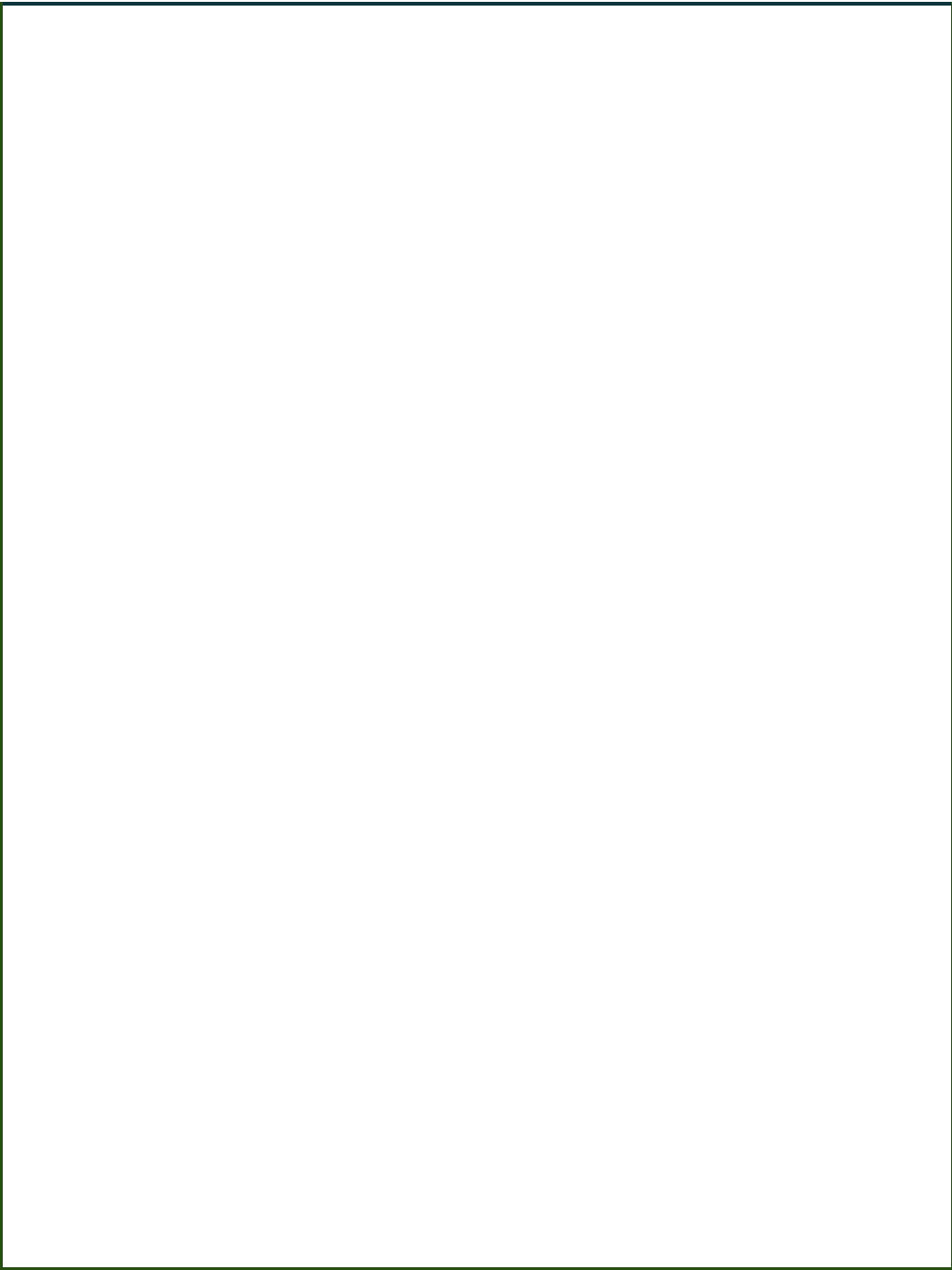
- ⦿ Training - Sandboxes for training that can be easily refreshed. Avoid training on production!
- ⦿ Development - Seeding sandboxes with records & relationships attached. How can seeding be specified? SQL query?
- ⦿ Consultant - Generating test data sets at a minimal cost with obfuscated data. Space to demonstrate new features.
- ⦿ Compliance - Data retention or placing legal holds on Salesforce records without interrupting users.

Security	Yes	No	Notes
Can you control who has access to the backup? If so, how?			
Does the vendor provide adequate encryption for data at rest? In transit?			
Can the backup be encrypted?			
If so, can you select the encryption method?			
Is the data stored following your company's security guidelines?			
Is the data behind your firewall? Equally protected?			

Do you control where the data is stored?			
Does legislation dictate where your company's data can be located?			
Administration (post implementation)	Yes	No	Notes
Is support readily available for questions? What days/times?			
Is the solution simple to use?			
Is there an online training resource?			
What additional training is available? YouTube tutorials? Screenshare training?			
Is access supported for multiple administrators?			
Questions specific to your business	Yes	No	Notes

Notes / Thoughts / Doodles







Salesforce Backup and Restore Experts since 2011

Capstorm is founded upon two core beliefs:

- 1) A Salesforce backup should be fully accessible and easily verifiable.
- 2) A Salesforce recovery solution should be useful for more than just disaster recovery.

These philosophies drive ongoing application development and are key to Capstorm's success as the leading technology in Salesforce backup and restore. CopyStorm is the first of Capstorm's core solutions, allowing for incremental Salesforce backups to an on-premises database. Every CopyStorm created backup is fully accessible and easily verifiable, as all Salesforce data is located on a customer's own machines. This ensures that data is always available and secured to each customer's specifications. Capstorm never sees a customer's data!

CopyStorm/Restore works in tandem with CopyStorm as a full Salesforce disaster recovery solution. CopyStorm/Restore can restore large or small parts of your Salesforce production instance but is most frequently used to populate sandboxes. Capstorm believes that a disaster recovery solution should be useful for more than just a data disaster. Who wants a recovery solution that isn't tested until a disaster occurs?

30 Day Free Trial on www.capstorm.com