



SPANNING BACKUP



Customer Managed Encryption Keys

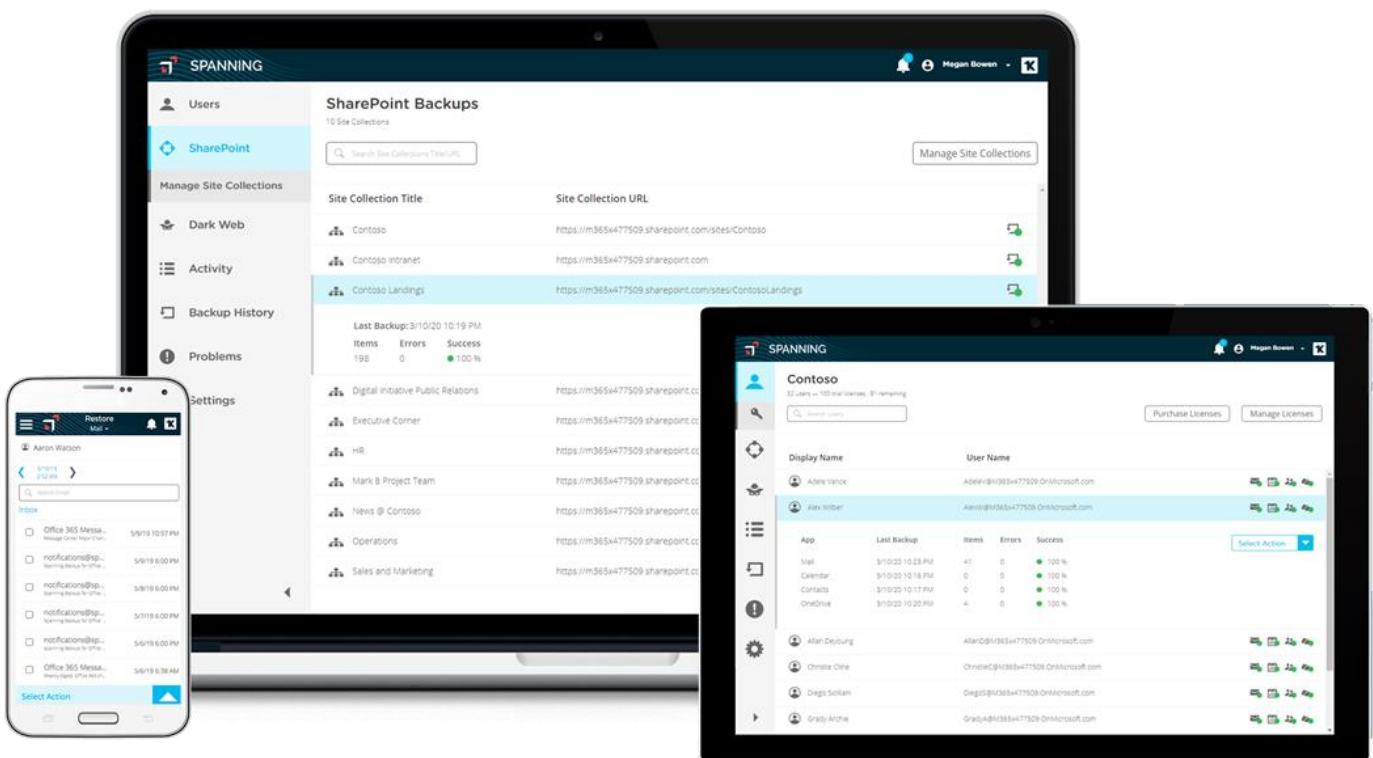


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Welcome

Thanks for selecting Spanning Backup! Our mission is to ensure your organization's data is well protected and always available for rapid restore, keeping your business operational and your employees productive. We empower end users to correct their own mistakes, and give application administrators, IT leadership and audit teams the confidence and proof that your data is appropriately backed up, safe and ready for recovery.

Spanning strives to build real relationships with our customers and deliver exceptional service. If you ever have a question or need additional assistance please contact us at support@spanning.com or search our Knowledge Base at <http://support.spanning.com/>.

Why should you self-manage your Encryption Keys?

Based on recommendations by the CSA (Cloud Security Alliance) and the requirements of CJIS (Criminal Justice Information Services) Security Policy, it is a best practice for enterprise organizations to use SaaS data protection solutions that support the self-management of encryption keys.

Some of the organizational use cases for Spanning Backup Customer Managed Encryption Keys include:

- **Increased control over corporate data.** Security teams want to be able to understand and control cloud providers' level of access to their data, and they want the ability to suspend or shut off access at any time, thereby mitigating some risk related to data security. With Spanning Backup new encryption key self-management feature, organizations can revoke the encryption keys used for their data stored in Spanning, giving them the control.
- **Compliance and regulatory controls.** Many organizations must meet client contractual compliance and regulatory requirements which include encryption key self-management. This is especially true for legal, financial, and consulting firms who are required to maintain full control over client data at all times.
- **Internal policies and contracted policies.** If an organization has corporate or legal policies directing the control of access to cloud and SaaS data, or if contracted partners or customers have these policies, Spanning Backup can now support those directives.
- **Control and transparency regarding access to encrypted data.** Encryption key self-management provides data access transparency into how keys are used, as well as greater control via best practices in limiting key access.

The CSA recently wrote, "It is highly recommended that organizations maintain their own keys or use a trusted cryptographic service from a source that currently maintains such as service." In addition, CJIS (Criminal Justice Information Services) Security Policy compliance requires organizations to manage their own encryption keys when any CJI data is stored outside of an on-premises data

center. In support of these recommendations, Spanning Backup will now allow organizations to manage their own encryption keys using the Amazon Key Management System (KMS).

With Spanning Backup Encryption Key Self-Management, customers can get full control over Spanning backup data. Customers can manage their own encryption keys using Amazon Web Services (AWS) Key Management Service and revoke access to their data whenever needed. And with this new feature, Spanning solidifies its leadership position as the enterprise-class backup and restore solution.

How do Customer Managed Encryption Keys work?

Spanning Backup offers encryption key management using Amazon Web Services - Key Management Service (KMS). Once you configure AWS KMS by following the steps listed below, Spanning will use your encryption keys at the time of backup for all data stored in Amazon S3. Customers have the ability to revoke key access at any time using AWS KMS, rendering all encrypted data unreadable. Please note that if you choose to revoke access by disabling the key or deleting the key, it will severely impact or completely prevent recovery of your data.

AWS KMS also offers you the ability to rotate encryption keys and view API logs using CloudTrail. You can enable these services directly from within your AWS account. Note: your organization will be responsible for managing the AWS account and all costs associated with the services utilized on AWS.

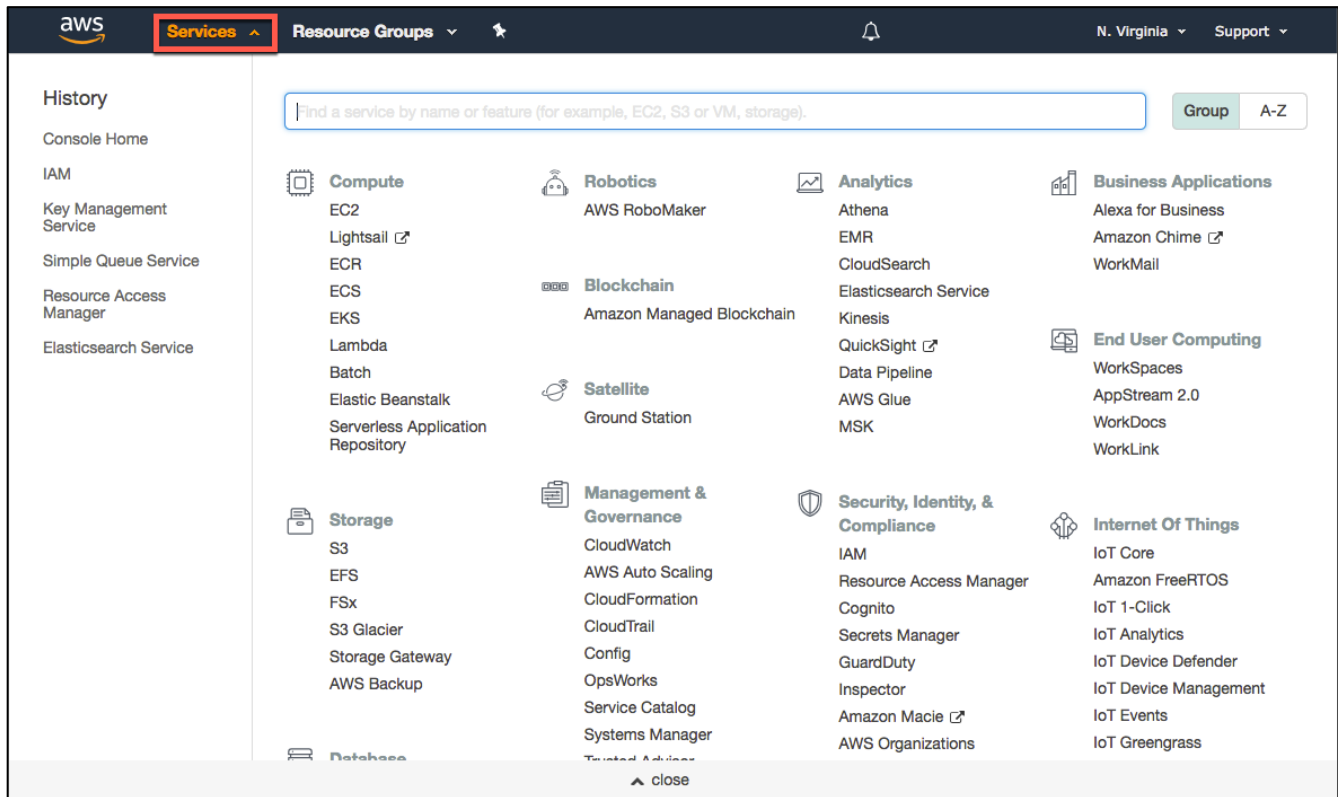
Configuring AWS Key Management Service

Please follow the steps below to configure Amazon Web Services Key Management Service to manage your encryption keys for data backed up by Spanning Backup.

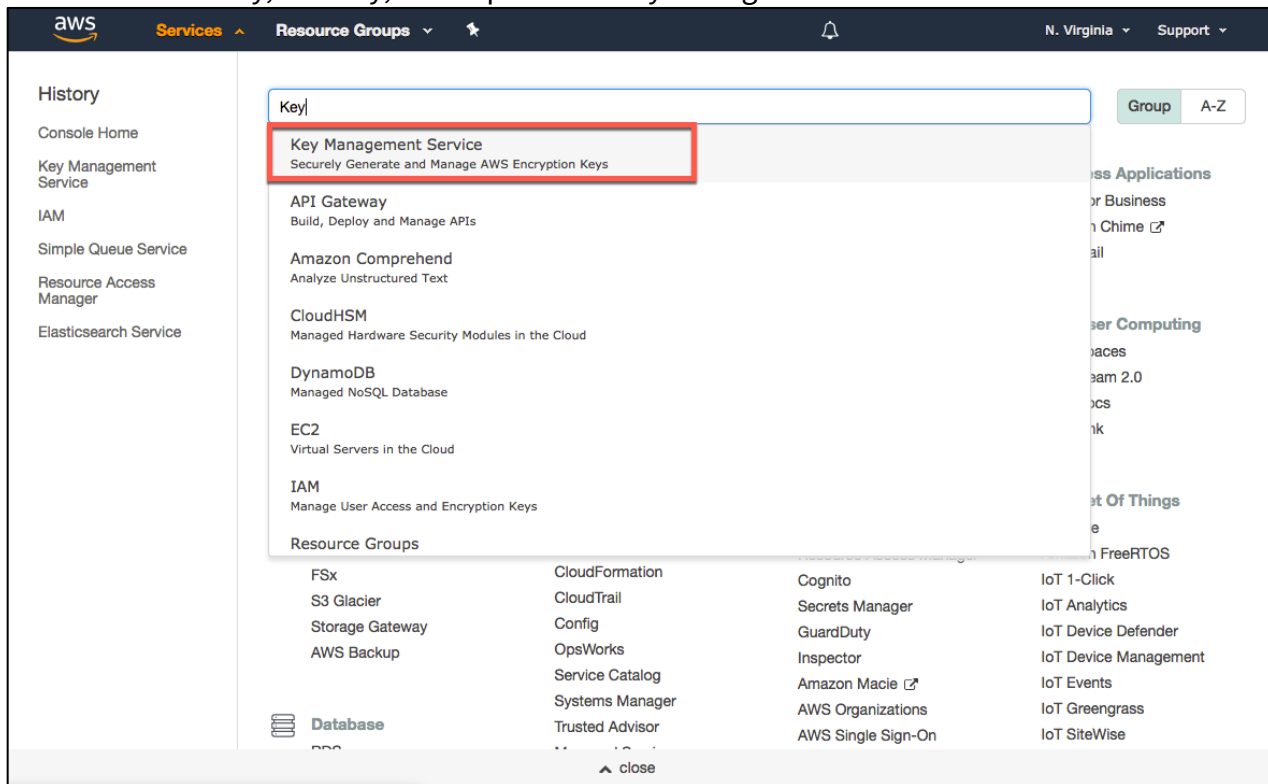
1. Login to your Amazon Web Services (AWS) account. The URL is specific to your account and should look like this: <https://yourcompany.signin.aws.amazon.com/console>

If you do not have an Amazon Web Services (AWS) account, create one by signing up at <https://aws.amazon.com/account/>

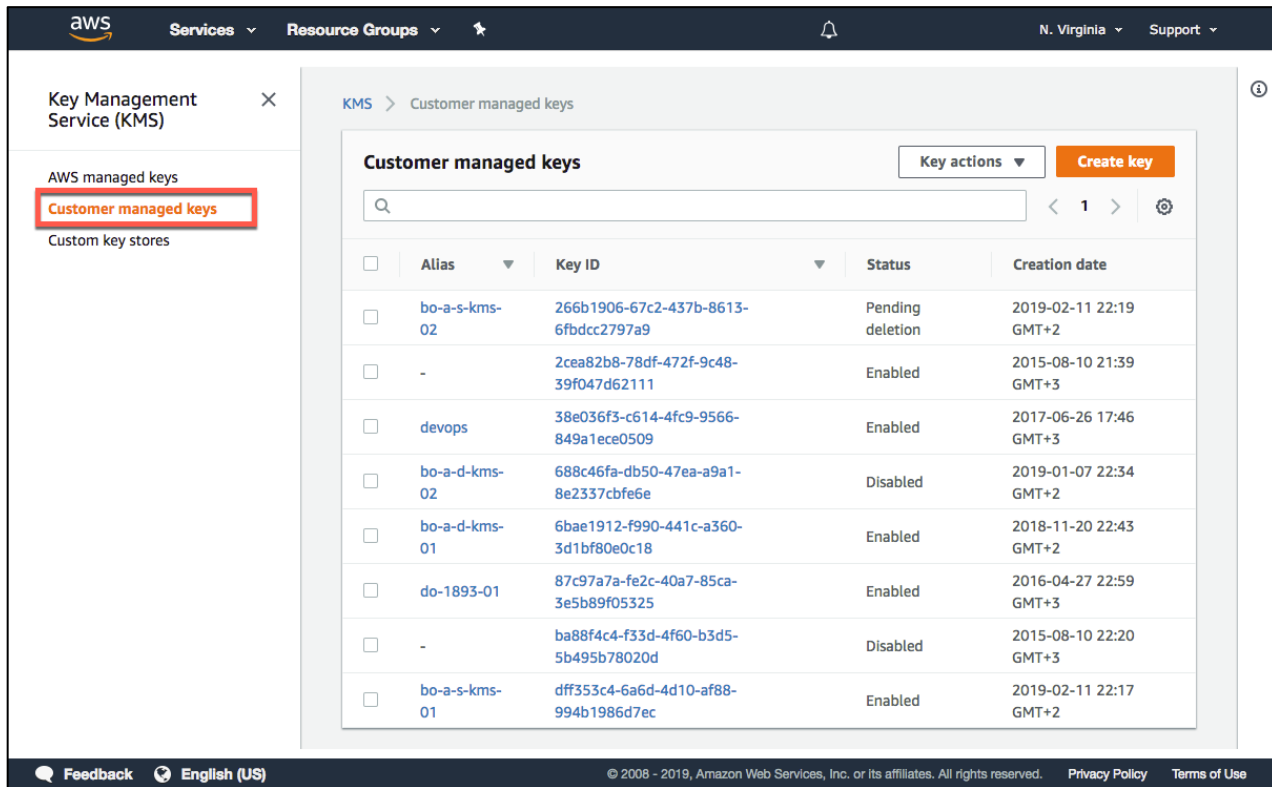
2. Select “Services” from the header after logging into to your AWS account



3. Choose “Security, Identity, & Compliance > Key Management Service”



4. Select “Customer managed keys” from the left navigation.

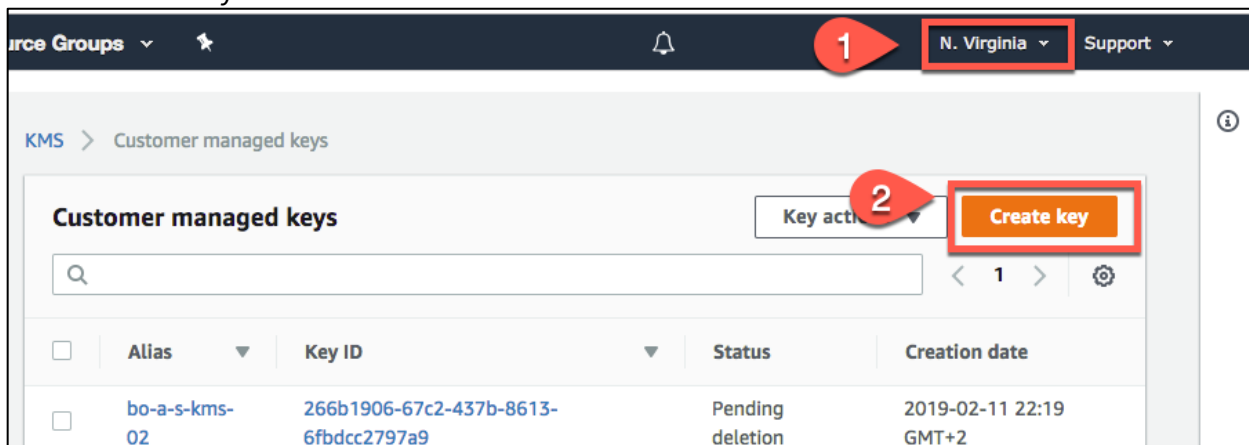


5. Ensure that you are creating the key in the same region where you plan to install Spanning Backup. Choose your region based on your Spanning data center choice:

Spanning Data Center	Data Center Name	Data Center Code
United States	US East (N. Virginia)	us-east-1
Europe	Europe (Ireland)	eu-west-1
Australia	Asia Pacific (Sydney)	ap-southeast-2
Canada	Canada (Central)	ca-central-1
United Kingdom	Europe (London)	eu-west-2

*<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html>

Click “Create Key”.



6. Choose **Symmetric** for **Key type**. Choose “Next”.
7. Give the key the alias “Spanning-KMS” and a description of “Encryption Key for Spanning Backup”. Then click “Next”.

The screenshot shows the AWS Management Console interface for the Key Management Service (KMS). The left sidebar displays the navigation menu with 'Key Management Service (KMS)' selected. The main content area is titled 'Add alias and description' and is labeled 'Step 1 of 5'. It contains a form with two input fields: 'Alias' with the value 'Spanning-KMS' and 'Description' with the value 'Encryption Key for Spanning'. Below the form is a section for 'Advanced options' which is currently collapsed. At the bottom right of the form are 'Cancel' and 'Next' buttons. The footer of the console shows the AWS logo, 'Feedback', 'English (US)', and copyright information for 2008-2019.

8. Add any tags that you want to describe this key. Click “Next”.

The screenshot shows the AWS Management Console interface for the Key Management Service (KMS), specifically the 'Add tags' step, labeled 'Step 2 of 5'. The left sidebar is the same as the previous screenshot. The main content area has a title 'Add tags' and a description: 'You can use tags to categorize and identify your CMKs and help you track your AWS costs. When you add tags to AWS resources, AWS generates a cost allocation report for each tag. Learn more'. Below this is a table with two columns: 'Tag key' and 'Tag value'. The 'Tag key' column has a placeholder 'Add unique key' and the 'Tag value' column has a placeholder 'Tag value'. There is an 'Add tag' button below the table. At the bottom right of the form are 'Cancel', 'Previous', and 'Next' buttons. The footer of the console is identical to the previous screenshot.

9. Define any desired key administrators, and whether or not they should be allowed to delete this key. If you have not configured any users/roles, or do not know what to put here, simply leave it blank. The values can always be modified later, after key creation. Click “Next” to continue.

The screenshot shows the AWS Management Console for the Key Management Service (KMS). The left sidebar shows the navigation menu with 'Key Management Service (KMS)' selected. The main content area is titled 'Define key administrative permissions' and is 'Step 3 of 5' in the 'Create key' process. It includes a search bar for 'Key administrators', a table with columns 'Name', 'Path', and 'Type' (currently empty), and a 'Key deletion' section with a checked checkbox 'Allow key administrators to delete this key.' Navigation buttons 'Cancel', 'Previous', and 'Next' are at the bottom right.

10. Click “Add an External Account” and enter the value 877583873091 which is Spanning’s Amazon account. Then click “Next Step.”

Key Management Service (KMS)

AWS managed keys
Customer managed keys
Custom key stores

KMS > Customer managed keys > Create key

Define key usage permissions

Step 4 of 5

This account
Select the IAM users and roles that can use the CMK to encrypt and decrypt data with the AWS KMS API. [Learn more](#)

< 1 >

<input type="checkbox"/>	Name	Path	Type
Empty Resources No resources to display			

Other AWS accounts
Specify the AWS accounts that can use this key. Administrators of the accounts you specify are responsible for managing the permissions that allow their IAM users and roles to use this key. [Learn more](#)

Add another AWS account

Cancel Previous Next

Key Management Service (KMS)

AWS managed keys
Customer managed keys
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KMS > Customer managed keys > Create key

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Step 4 of 5

This account
Select the IAM users and roles that can use the CMK to encrypt and decrypt data with the AWS KMS API. [Learn more](#)

< 1 >

<input type="checkbox"/>	Name	Path	Type
Empty Resources No resources to display			

Other AWS accounts
Specify the AWS accounts that can use this key. Administrators of the accounts you specify are responsible for managing the permissions that allow their IAM users and roles to use this key. [Learn more](#)

arn:aws:iam::877583873091:root Remove

Add another AWS account

Cancel Previous Next

11. Review the key policy, then click “Finish.”

The screenshot shows the AWS Management Console interface for creating a new KMS key. The left sidebar shows the navigation menu with 'Key Management Service (KMS)' selected. The main content area is titled 'Review and edit key policy' and is labeled 'Step 5 of 5'. It displays a JSON policy with the following content:

```

1 {
2   "Id": "key-consolepolicy-3",
3   "Version": "2012-10-17",
4   "Statement": [
5     {
6       "Sid": "Enable IAM User Permissions",
7       "Effect": "Allow",
8       "Principal": {
9         "AWS": "arn:aws:iam::877583873091:root"
10      },
11      "Action": "kms:*",
12      "Resource": "*"
13    },
14    {
15      "Sid": "Allow use of the key",

```

At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Finish' (highlighted in orange).

12. Select your newly created key from the list shown, then copy the full ARN value and paste it in the Spanning app during the installation & configuration process. The value should look something like “arn:aws:kms:us-east-1:123456789012:key/f64e93e4-3b1c-12fe-80c0-b3717fe9879c”.

The screenshot shows a dialog box titled 'Select Encryption Key Management'. It contains the following text:

Please choose if you would like to manage your own encryption keys.
This setting is permanent and cannot be changed later.

There are two radio button options:

- ☒ **Spanning-Managed Encryption Keys**
No additional configuration required
- ☐ **Self-Managed Encryption Keys**
AWS account and additional configuration required
[Follow configuration steps listed here to setup Encryption Key in your AWS account.](#)

Below the 'Self-Managed Encryption Keys' option is a text input field labeled 'Enter ARN'.

At the bottom left, there is a button labeled 'Continue to Spanning'.

Click “Continue to Spanning” and then click OK on the confirmation prompt.

Revoking Access

You can revoke Spanning's access to the backed up data whenever needed using AWS KMS. You can choose to disable access temporarily or permanently.

Disabling a Key

If you would like to temporarily disable access to your data, you can disable a key by logging into your AWS account and navigating to Encryption Keys as mentioned in steps 1-4 above. **Once you disable a key, backups, exports and restore operations will fail. You can enable the key to resume backups, exports and restores.**

Please note: you will not lose your backed up data if you disable the key.

Deleting a Key

If you want to permanently disable access to your data, you can delete the key by logging into your AWS account and navigating to Encryption Keys as mentioned in steps 1-4 above.

Once you delete a key, the data will become inaccessible and you will NOT be able to recover that data. We highly recommend that you use this option with caution as there will be no way to get the data back after you delete the key. Spanning will not be able to back up any data once the key is deleted.

Please note: you will lose all your backed up data if you delete the key.

Helpful Resources

Knowledge Base

Easily search through a number of articles in our [Knowledge Base](#) to find information on the most common user questions.

Email Support

If you can't find the answer to your question or need further assistance, please don't hesitate to [contact us via email](mailto:support@spanning.com) at support@spanning.com.

Privacy

Spanning takes privacy seriously. Read our [Privacy Policy](#).

Security

Spanning Backup employs multiple layers of operation and physical security to ensure the integrity and safety of your data. Read how we [protect your data](#).

About Spanning

Spanning Cloud Apps, a Kaseya company, is the leading provider of backup and recovery for SaaS applications, helping organizations around the globe protect their information in the cloud. The company provides powerful, enterprise-class data protection for Microsoft Office 365, G Suite, and Salesforce. With data centers located in North America, the EU, and Australia, Spanning Backup is the most trusted cloud-to-cloud backup solution for thousands of companies and millions of users around the world. Learn more at www.spanning.com. Follow Spanning on Twitter @spanningbackup.