

## Learning Genie has created a FERPA-Compliant Environment with Amazon Web Service (AWS)

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Learning Genie hosts all data on Amazon Web Service (https://aws.amazon.com/). We follow the best practices recommended by Amazon AWS in the <u>FERPA Compliance on AWS Whitepaper</u>. Below is a checklist of services and tools we use to create a FERPA-Compliant Environment with AWS.

- **Built-in firewalls**: We have configured built-in firewall rules to control access to our Amazon virtual instances. We use AWS VPC (https://aws.amazon.com/vpc/) to physically separate our instance from other virtual machine.
- Authentication and authorization: In the AWS environment, we use IAM to manage the authentication and authorization of our AWS accounts. The AWS account is protected by both password and Multi-Factor Authentication (https://aws.amazon.com/iam/details/mfa/)
- Guest operating system: We control our virtual instances in Amazon EC2 and Amazon VPC. Our instance and database use AWS security group
   (http://docs.aws.amazon.com/AmazonVPC/latest/UserGuide/VPC\_SecurityGroups.html) to
   limit access within our own AWS infrastructure. Our instance only opens the necessary
   port for internal usage. Outside service are completely blocked from access the operating
   system.
- **Storage**: We perform daily backup on our database on AWS. We use security group to control inbound/outbound access within the infrastructure. Outside machines are not allowed to access the database.
- **Private subnets**: We added another layer of network security to our instance through creating the private subnets on AWS.
- Encrypted data storage: Our databases on AWS are encrypted with Advanced Encryption Standard (AES) 256, a secure symmetric-key encryption standard using 256-bit encryption keys.



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- **Perfect forward secrecy**: We use perfect forward secrecy policy and https for our AWS Elastic Load Balancing (<u>https://aws.amazon.com/about-aws/whats-new/2014/02/19/elastic-load-balancing-perfect-forward-secrecy-and-more-new-security-features/</u>) for enhanced communication privacy.
- Security logs: We use AWS CloudTrail to monitor logs of user activity within our AWS account to see which actions are performed on each of the AWS resources and by whom. We use the AWS API call history for security analysis, resource change tracking and compliance auditing. We maintain internal logs to track the provision and operations. We also maintain access logs for our servers on AWS and parse and block malicious attacks from outside.
- **Asset identification and configuration**: We use the AWS Config service to receive alerts on configuration changes and to perform incident analysis.
- **Centralized key management**: We use AWS Key Management Service to create and administer the keys used (to encrypt data) within our infrastructure.
- **AWS Trusted Advisor**: We use AWS Trusted Advisor to monitor AWS resources and receive alerts on security configuration gaps.

Learning Genie is committed to provide the best data security to our customer. If you have any questions, please contact us at <u>help@learning-genie.com</u>.