



VOICETHREAD

VoiceThread, LLC

Report on Controls at a Service
Organization Relevant to
Security

SOC 3SM Report

For the Period February 1, 2022 to April 30, 2022

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Independent Service Auditor's Report

To the Management of VoiceThread, LLC ("VoiceThread"):

Scope

We have examined VoiceThread's accompanying assertion titled "Assertion of VoiceThread Management" ("assertion") that the controls within VoiceThread System (the "system") were effective throughout the period February 1, 2022 to April 30, 2022, to provide reasonable assurance that VoiceThread's service commitments and system requirements were achieved based on the trust services criteria relevant to security (applicable trust services criteria) set forth in TSP Section 100, *2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy* (AICPA, Trust Services Criteria).

Service Organization's Responsibilities

VoiceThread is responsible for its service commitments and system requirements and for designing, implementing, and operating effective controls within the system to provide reasonable assurance that VoiceThread's service commitments and system requirements were achieved. VoiceThread has also provided the accompanying assertion about the effectiveness of controls within the system. When preparing its assertion, VoiceThread is responsible for selecting, and identifying in its assertion, the applicable trust service criteria and for having a reasonable basis for its assertion by performing an assessment of the effectiveness of the controls within the system.

Service Auditor's Responsibilities

Our responsibility is to express an opinion, based on our examination, on whether management's assertion that controls within the system were effective throughout the period to provide reasonable assurance that the service organization's service commitments and system requirements were achieved based on the applicable trust services criteria. Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform our examination to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

Our examination included:

- Obtaining an understanding of the system and the service organization's service commitments and system requirements;
- Assessing the risks that controls were not effective to achieve VoiceThread's service commitments and system requirements based on the applicable trust services criteria; and,
- Performing procedures to obtain evidence about whether controls within the system were effective to achieve VoiceThread's service commitments and system requirements based on the applicable trust services criteria.

Our examination also included performing such other procedures as we considered necessary in the circumstances.

Inherent Limitations

There are inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls.

Because of their nature, controls may not always operate effectively to provide reasonable assurance that the service organization's service commitments and system requirements were achieved based on the applicable trust services criteria. Also, the projection to the future of any conclusions about the effectiveness of controls is subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

In our opinion, management's assertion that the controls within VoiceThread's VoiceThread System were effective throughout the period February 1, 2022 to April 30, 2022, to provide reasonable assurance that VoiceThread's service commitments and system requirements were achieved based on the applicable trust services criteria is fairly stated, in all material respects.

BARR Advisory, P.A.

Fairway, KS

May 23, 2022



Assertion of VoiceThread Management

We are responsible for designing, implementing, operating, and maintaining effective controls within VoiceThread's VoiceThread System (the "system") throughout the period February 1, 2022 to April 30, 2022, to provide reasonable assurance that VoiceThread's service commitments and system requirements relevant to security were achieved. Our description of the boundaries of the system identified the aspects of the system covered by our assertion.

We have performed an evaluation of the effectiveness of the controls within the system throughout the period February 1, 2022 to April 30, 2022, to provide reasonable assurance that VoiceThread's service commitments and system requirements were achieved based on the trust services criteria relevant to security (applicable trust services criteria) set forth in TSP Section 100, *2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy* (AICPA, Trust Services Criteria). VoiceThread's objectives for the system in applying the applicable trust services criteria are embodied in its service commitments and system requirements relevant to the applicable trust services criteria. The principal service commitments and system requirements related to the applicable trust services criteria are presented in Section III entitled "VoiceThreads Description of the Boundaries of Its VoiceThread System".

There are inherent limitations in any system of internal control, including the possibility of human error and the circumvention of controls. Because of these inherent limitations, a service organization may achieve reasonable, but not absolute, assurance that its service commitments and system requirements are achieved.

We assert that the controls within the system were effective throughout the period February 1, 2022 to April 30, 2022, to provide reasonable assurance that VoiceThread's service commitments and system requirements were achieved based on the applicable trust services criteria.

VoiceThread, LLC

May 23, 2022



VoiceThreads Description of the Boundaries of Its VoiceThread System

Systems Overview

Services Provided

VoiceThread (the “company”) was founded in 2006 and provides an online toolset for voice, video, and text communication around media. VoiceThread’s core product, the VoiceThread System (the “system”), is a Software as a Service (SaaS) solution that includes the following services:

- Asynchronous lecture delivery with an option to allow student questions and comments;
- Discussion boards allowing for interaction with other students and static multi-media content instead of text only; and,
- Formal assessment and third party Learning Management System (LMS) gradebook integration.

Infrastructure

The system is hosted in Amazon Web Services (AWS) in a virtual private cloud (VPC) environment which protects the network from unauthorized external access. The network topology includes segmented VPCs and access control lists (ACLs). VoiceThread employs automated monitoring tools within the production environment to identify and alert members of the development team of any events that exceed pre-existing thresholds. Security groups are configured to restrict access to the production environment and enforce system boundaries. User requests to VoiceThread’s web-based systems are encrypted using Transport Layer Security (TLS) using certificates from an established third party certificate authority. Remote system administration access to VoiceThread web and application servers is available through a virtual private network (VPN) or SSH connection. VoiceThread is responsible for managing the development and operation of the VoiceThread platform including infrastructure components such as servers, databases, and storage systems.

Software

The VoiceThread System is a SaaS application developed and maintained by VoiceThread’s in-house development group. The development group enhances and maintains the VoiceThread System to provide services for educational institutions (K-12 and higher education) and businesses.

The VoiceThread System is a media player that has an interactive discussion space that allows users to upload pictures, videos, presentations, and other educational or business related documents. Once uploaded, users are able to have real-time discussions and obtain feedback based on the media uploaded within the VoiceThread System through the different features made available through the educational or business platforms.

K-12 and higher education:

It provides a platform where students are able to develop critical thinking, communication, collaboration, and creativity skills through the following features:

- **Creating:** Instructors and students are able to create a new voicethread, similar to a slide deck, by adding editable media for classroom presentations.



- **Sharing:** By default, all new voicethreads are private. The sharing option allows end users of the system to distribute the contents with selected contacts along with the levels of access desired (e.g., view, comment, edit). The sharing option also enables end users to embed a live, interactive voicethread inside of a webpage.
- **Annotating:** Provides an interactive and engaging functionality to draw on a given voicethread during a presentation.
- **Commenting/Comment moderation:** Provides a method for instructors or classmates to communicate in-slide via text, telephone, microphone, webcam, or file upload. When enabled, the comment moderation function allows an instructor to vet and ultimately decide what and when certain comments are revealed on a given slide.
- **Speaking and listening:** Provides self-paced learning/participation experiences.
- **Timed presentations:** Provides an asynchronous format for students to present a given thread under a specified time, resulting in a more focused speaker and engaged audience.
- **Course instruction:** Provides instructors with the capability to administer courses in a remote environment and collaborate the steps necessary to resolve each task with students.
- **Massive online open courses (MOOC):** Allows instructors of open courses to create topics and associated assignments in a clear, consistent, and organized manner, regardless of the number of students enrolled.

Business:

VoiceThread provides a platform where businesses are able to effectively communicate and collaborate through the following features:

- **Creating:** Business employees are able to create a new voicethread, similar to a slide deck, by adding editable media for work-related presentations.
- **Sharing:** By default, all new voicethreads are private. The sharing option allows end users of the system to distribute the contents with selected contacts along with the levels of access desired (e.g., view, comment, edit). The sharing option also enables end users to embed a live, interactive voicethread inside of a webpage.
- **Annotating:** Provides an interactive and engaging functionality to draw on a given voicethread during a presentation.
- **Commenting/Comment moderation:** Provides a method for business employees to communicate in-slide via text, telephone, microphone, webcam, or file upload. When enabled, the comment moderation function allows the content owner with the capability to vet and ultimately decide what and when certain comments are revealed on a given slide.
- **Meetings:** Provides an alternative to traditional in-person or web-based meetings by delivering a full-spectrum human presence in an unscheduled and easy-to-use format. It allows business employees to send out a voicethread with commentary included for a response by other participants once their schedule allows. This provides the participants of the meeting to take additional time to reflect resulting in a higher quality output.
- **Interviews:** Provides an on-demand interview framework efficiently removing the hassle of scheduling interviews. This feature additionally allows the interviewer to share and discuss interview responses amongst peers and allows a business to archive the interview process.



People

VoiceThread has a staff of approximately 30 employees organized in the following functional areas:

- **Corporate:** Responsible for overseeing company wide activities, establishing and accomplishing goals, managing investors and finances, and overseeing objectives.
- **Product Management:** Responsible for setting trajectory and priority of development projects, developing specifications, and managing the development pipeline.
- **Accessibility:** Responsible for ensuring all aspects of the product meet inclusivity standards and compatibility requirements for all VoiceThread users.
- **Sales:** Responsible for initial contact and product demonstration to potential customers.
- **Billing:** Responsible for invoicing new sales and renewals, and accounts receivable.
- **HR:** Responsible for employment onboarding, offboarding, payroll, and tax documents.
- **Development:** Responsible for product development and maintenance. This includes oversight of the internal vulnerability, risk, and incident management programs. Members of product management may also assist with these responsibilities. Additionally responsible for provisioning and deprovisioning of user access.
- **Information Security:** comprised of the members of the development team and the information security officer who is responsible for directing the information security of the organization.
- **Marketing:** Responsible for the design and content of VoiceThread promotional materials.
- **Support:** Responsible for customer success, issue resolution, and external communication with clients and third parties.
- **Consultants:** Responsible for answering questions and assisting in projects as requested by VoiceThread management.

Data

Data, as defined by VoiceThread, constitutes the following classification categories:

- **User or organizational account data:** Data pertaining to the identity of the user that is submitted by users or by the organization. This includes but is not limited to: user names, given names, associated email addresses, course and assignment information, and potentially billing information.
- **User uploaded media files:** Data that users submit that can be shared with other users of the platform including video, voice, images, and text media formats that users choose to host on the VoiceThread platform.
- **User access and/or activities metadata:** Metadata about user access or activities within the platform. This includes logs, analytics metrics data, and notifications.

Information assets are assigned a sensitivity level based on the audience for the information. The classification category then guides the selection of protective measures to secure the information.



Processes and Procedures

Management has developed and communicated policies and procedures to manage the information security of the system. Changes to these procedures are performed annually and authorized by senior management. These procedures cover the following key security life cycle areas:

- Acceptable Use
- Asset and Data Management
- Change Control
- Code of Conduct
- Incident Response
- Information Security
- Password/Credentials Usage
- Risk Assessment and Vendor Management
- Software Development Lifecycle
- System Access Control
- Vulnerability Management



Principal Service Commitments and System Requirements

VoiceThread designs its processes and procedures related to the system to meet its objectives. Those objectives are based on the service commitments that VoiceThread makes to user entities, the laws and regulations that govern its services, and the financial, operational, and compliance requirements that VoiceThread has established. The system services are subject to the security commitments established internally for its services.

Commitments to user entities are documented and communicated in service-level agreements (SLAs) and other customer agreements, as well as in the description of the service offering provided online.

Security commitments include, but are not limited to, the following:

- System features and configuration settings designed to authorize user access while restricting unauthorized users from accessing information not needed for their role;
- Use of automated system monitoring tools to identify and alert of potential security attacks from users outside the boundaries of the system;
- Daily vulnerability scans over the system and network, and annual penetration tests over the production environment; and,
- Operational procedures for managing security incidents and breaches, including notification procedures.

Such requirements are communicated in VoiceThread's system policies and procedures, system design documentation, and contracts with customers. Information security policies define an organization-wide approach to how systems and data are protected. These include policies around how the service is designed and developed, how the system is operated, how the internal business systems and networks are managed, and how employees are hired and trained. In addition to these policies, standard operating procedures are documented on how to carry out specific manual and automated processes required in the operation and development of the system.



Complementary User Entity Controls

VoiceThread controls were designed with the assumption that certain internal controls would be in place at customer organizations. The application of such internal controls by customer organizations is necessary to achieve certain trust services criteria identified in this report. In addition, there may be control activities that are not identified in this report that would be appropriate for processing of transactions for VoiceThread customers.

For customers to rely on the information processed through the VoiceThread System, each customer is expected to evaluate its own internal controls to ensure appropriate control activities are in place. The following general procedures and controls should be considered. They should not, however, be regarded as a comprehensive list of all controls that should be implemented by customer organizations.

- User entity is responsible for protecting established user IDs and passwords within their organizations.
- User entity is responsible for reviewing customer access to the VoiceThread System periodically to validate appropriateness of access levels.
- User entity is responsible for approving and creating new user access to the VoiceThread System.
- User entity is responsible for removing terminated employee access to the VoiceThread System.
- User entity is responsible for implementing policies and procedures over the types of data that are allowed to be entered into the VoiceThread System.
- User entity is responsible for sending data to VoiceThread via a secure connection and/or the data should be encrypted.
- User entity is responsible for notifying VoiceThread if they detect or suspect a security incident related to the VoiceThread System.
- User entity is responsible for reviewing email and other forms of communications from VoiceThread, related to changes that may affect VoiceThread customers and users, and their security or availability obligations.
- User entity is responsible for establishing, monitoring, and maintaining controls over the security for system-generated outputs and reports from the system.
- User entity is responsible for endpoint protection of workstations used to access the system.



Complementary Subservice Organization Controls

VoiceThread uses a subservice organization in support of its system. VoiceThread's controls related to the system cover only a portion of overall internal control for user entities. It is not feasible for the trust services criteria over the VoiceThread System to be achieved solely by VoiceThread. Therefore, user entity controls must be evaluated in conjunction with VoiceThread's controls described in Section IV of this report, taking into account the related complementary subservice organization controls expected to be implemented at the subservice organization as described below.

VoiceThread periodically reviews the quality of the outsourced operations by various methods including:

- Review of subservice organizations' SOC reports;
- Regular meetings to discuss performance; and,
- Non-disclosure agreements.

Control Activity Expected to be Implemented by Subservice Organization	Subservice Organization	Applicable Criteria
Logical access to the underlying network and virtualization management software for the cloud architecture is appropriate.	AWS	CC6.1, CC6.2, CC6.3, CC6.5, CC7.2
Physical access to the data center facility is restricted to authorized personnel.	AWS	CC6.4, CC6.5
Environmental protections, including monitoring and alarming mechanisms, are implemented to address physical security and environmental control requirements.	AWS	CC6.4