

Overview

About Certified Istio Administrator by Tetrade (CIAT) Exam

Certified Istio Administrator by Tetrade exam certifies the user has the skill, knowledge, and competency to perform Istio service mesh installation and configuration as well as configure traffic management, resilience and fault injection, and use security features of the Istio service mesh.

CIAT has been developed by Tetrade, to help certify individuals as Certified Istio Administrators. This exam is an online, proctored, performance-based test that consists of a set of tasks (problems) to be solved in a command line and a set of multiple-choice questions. The exam is currently based on Istio 1.13.1 running on Kubernetes, and candidates have 2 hours to complete the tasks.

Who is this certification for?

This certification is for Istio service mesh administrators, operators, and other IT professionals responsible for configuring traffic routing, security, and other service mesh features for cloud native workloads running in and outside of Kubernetes.

Scope of certification

Tetrade offers a certification program that allows users to demonstrate their competence in a hands-on, command-line environment.

Certified Istio Administrators can install and configure Istio service mesh resources for workloads running in and outside of Kubernetes clusters. A CIAT can define and configure Istio resources that control traffic routing, service destinations, inject failures and use resiliency features as well as secure workloads and bring external and non-Kubernetes workloads into an existing service mesh.

For exam security, candidates must verify their identity and are monitored by a proctor during the exam session via video, audio, and screen sharing. The screen sharing allows proctors to monitor candidates' desktops during the exam. Certification is issued when the candidate passes the required exam.

The exam assumes knowledge of, but does not test for, basic containers and Kubernetes. The successful candidate will be comfortable using:

- Kubernetes CLI
- Istio CLI
- Linux command line

Detailed competencies

Istio Installation, Upgrade & Configuration (7%)

- Use IstioOperator to install a basic cluster
- Use IstioOperator to customize and configure Istio components installation
- Use overlays to customize Istio component settings

Traffic Management (40%)

- Understand and control sidecar injection and configuration using Sidecar resource
- Use Gateway resource to configure ingress and egress gateways
- Understand how to use ServiceEntry resource for adding entries to internal service registry
- Understand traffic routing and how to configure routing between different service versions
- Define traffic policies using DestinationRule
- Configure traffic mirroring capabilities

Resiliency and Fault Injection (20%)

- Understand and configure outlier detection
- Use resiliency features
- Configure failure injection

Securing Workloads (20%)

- Understand security features of Istio
- Set up Istio authorization for HTTP/TCP traffic in the mesh
- Configure mutual TLS on mesh, namespace, and workload level

Advanced Scenarios (13%)

- Understand how to onboard non-Kubernetes workloads to the mesh
- Customize Envoy configuration using Envoy Filters
- Troubleshoot configuration issues

Candidate Requirements

Exams are conducted online and closely monitored by proctors via webcam, audio, and remote screen viewing.

Candidates must provide their own front-end hardware to take exams, including a computer or a laptop with: - Chrome or Chromium browser - Reliable internet access - Webcam - Microphone

The workstation on which the hardware (i.e. desktop or laptop) is placed must, aside from the required hardware, reveal a clean surface with no obstructions overhead or underneath. Candidates should ensure that their webcam is capable of being moved in case the proctor requests that the Candidate pan their surroundings to check for potential violations of exam policy.

Candidate Identification and Authentication

Prior to taking the exam, the candidates will have to verify their identity through our partner Examity.

You will need to build your profile on Examity, upload your identification document, and set your security questions. Proctors will use this information on your profile to verify your identity on the exam day.

You can access your Examity profile from the Candidate Portal by clicking the Examity button on the exam card as shown in the image below.

Account Information

From the Examity Dashboard, click the **My Profile** tab to start building your profile.

1. Under **Account Information**, click the **Edit** button
2. Update the **Time Zone** you will be testing in and your **Phone Number**
3. Click **Save** to save the changes

Upload your identification document (examiSHOW)

Next step is to upload a picture of a valid ID (drivers license, ID card or passport). You can take a picture of your ID using your phone or webcam and upload it to Examity. Follow these steps:

1. From the **examiSHOW** section, click “Choose File”
2. Select the picture of your identification document
3. Click the **Upload** button

Set your security questions (examiKNOW)

You will also have to select three security questions with corresponding answers. This is used to verify your identity before you take the exam. To select the security questions and update the answers, click the **Edit** button.

You will be asked to answer the security questions before taking the exam.

Typing your name (examiKEY)

Finally, you will have to type your first name, and your first and last name (without spaces) under the **examiKEY** section. To do that, click the **Edit** button.

Certified Istio Administrator by Tetrade

Tetrade



Schedule



Take Exam



Scheduled 2021-04-30



Contact Support for this Assessment

Your scheduled time has passed.

You must update your Examiy Profile before completing this assessment.

EXAMITY

Figure 1: Examiy

Account Information

First Name	Peter	Last Name	SampleCert
Email	.	Phone Number	+1-(425)-222-2222
Time Zone	Pacific Time (UTC-07:00:00)		

Figure 2: Account information

examISHOW[®]

- Take a picture of your photo ID using a smartphone, camera or webcam.
- Save the image of the picture to your PC.
- Upload the image from your PC to Examyty.

No file chosen

Figure 3: examiSHOW

examikNOW[®]

This information will be used for future verification. Please select questions that you can accurately remember.

Security Question #1	: What is the middle name of your oldest child?
Answer	: answer1
Security Question #2	: In what city or town was your first job?
Answer	: answer2
Security Question #3	: What is your mother's maiden name?
Answer	: answer3

Figure 4: examiKNOW

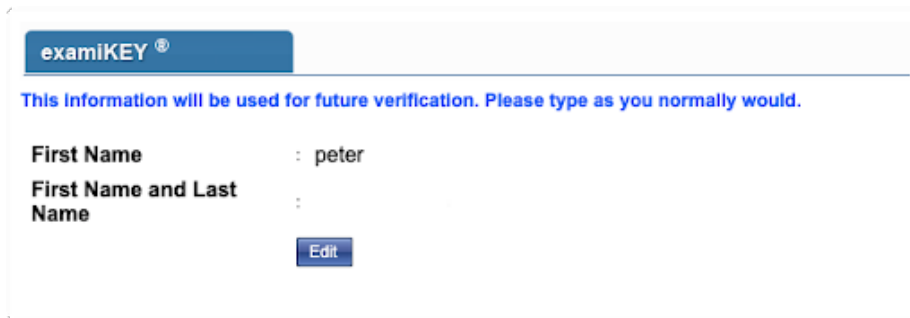


Figure 5: examiKey

To check your profile is complete, ensure there is a green checkmark at the top of the page under the **Exam Requirements** section.

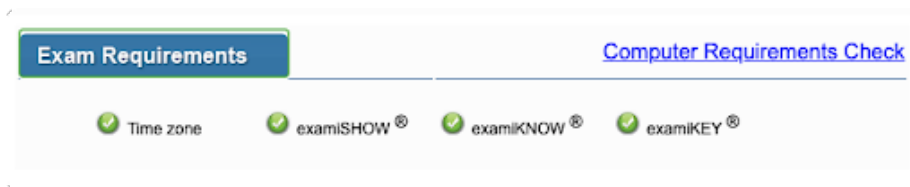


Figure 6: Examiy Requirements

Computer Requirements Check

You should also run a computer requirements check by clicking on the **Computer Requirements Check** link at the top of the Dashboard page. The computer requirement check will ensure your webcam, microphone, operating system, browser, and your internet speed are acceptable for testing.

To ensure technical success, you must meet the following system requirements: - Desktop computer or laptop - Tablets (Android, iOS, Microsoft) and Chromebooks are not supported - Webcam and microphone - Connection to network with sufficient internet speed: at least 2 Mbps download speed and 2 Mbps upload speed - Operating systems: Windows Vista or newer, Mac OS X 10.5 or newer. Linux and Chrome OS are not supported. - Browser with pop-up blocked disabled: Google Chrome v39 or later, Mozilla Firefox v34 or later, Internet Explorer v8 or later, Microsoft Edge, Apple Safari v6 or later - Configure your browser to allow pop-ups

You will be required to use Zoom to connect with your proctor.

Make sure you complete the above requirements at least one day before your scheduled exam time.

Starting the exam

To start the exam, go back to the Examity Dashboard and click the **Begin scheduled exam** button.

If you've already installed the prerequisites, you can click the **Connect to Proctoring** button to launch Zoom and connect with the proctor.

From this point on, the proctor will guide you through the identity verification.

Accommodations for Special Needs

If a candidate has special needs that need to be taken into account during exam administration, they must notify Tetrate by filling out this form at least two (2) weeks prior to the exam, so any accommodating measures can be arranged. We will try to accommodate your request as much as possible. However, there might be situations where we may not have the ability to make all accommodations you mention. We will continue to ramp up to be able to create the best exam experience for everyone.

Statement of Non-Discrimination

Tetrate endorses the principles of equal opportunity. Eligibility criteria for certification as a Certified Istio Administrator by Tetrate (CIAT) is applied equally to all individuals regardless of age, race, religion, gender, national origin, veteran status, or disability.

Certification and Confidentiality Agreement

Candidates have to agree and accept the full terms and conditions before starting the exam. Excerpts regarding confidentiality are available below:

Tetrate and its licensors and service providers own all right, title and interest in and to the CIAT Exam including but not limited to all documents and materials pertaining to the Exam, the Exam and the results of the Exam, in all forms and formats, along with all websites, all modifications, alterations and derivatives thereof and all intellectual property rights therein (collectively, "**CIAT Exam Materials**"). You are granted only a limited CIAT personal license to access and use the CIAT Exam Materials for the sole purpose of becoming a CIAT (or renewing your certification).

You agree: (a) the CIAT Exam Materials are Tetrate, its licensors and service providers' confidential and proprietary information; (b) to use your best efforts to keep the CIAT Materials confidential; and, (c) except as Tetrate gives you written permission, you will not disclose, use, publish, reproduce or transmit the CIAT Materials to anyone or any entity, in any form or format, for any purpose, at any time.

Exam Registration

The candidates can purchase the Certified Istio Administrator by Tetrade exam through the Tetrade Academy (<https://academy.tetrade.io/>). Purchasing the exam gives users the ability to accept the invitation, schedule and then take the exam. Purchasing and accepting the invitation does not equal scheduling. Candidates have to accept the invitation, register for the exam and then schedule to take the exam.

The Certified Istio Administrator by Tetrade program includes the following: - CIAT practice exam - CIAT exam and one free re-take of the exam

After purchasing the Certified Istio Administrator by Tetrade program, the candidates will receive email invitations to schedule both the CIAT practice Exam and the actual CIAT exam. The exam is conducted through the partner company Trueability. Before candidates can accept the exam invitation, they will have to register and create an account on the Trueability platform. Accepting the invitation, scheduling, re-scheduling and other exam-related actions will be done through the Trueability platform.

CIAT Practice Exam The CIAT practice exam gives candidates the ability to get familiar with the environment as well as get a feel for the type of performance items they will be solving during the actual exam. Passing the CIAT practice exam does not constitute a certification. Scheduling and going through the CIAT practice exam is **optional** and is not required to register nor to take the actual exam.

Note that same rescheduling and cancelation policy applies to the CIAT practice exam as to the actual exam.

Exam Fees and Payment

The cost per exam is \$299 USD. You can use any major Credit Card for payment of exam fees.

Volume discounts are available for companies with multiple candidates. Please contact the Tetrade Certification team for more information: certifications@tetrade.io.

Refund Policy

Candidates have up to three (3) business days following payment of exam registration fees, or at least 48 hours before the scheduled exam, to request a full refund of exam registration fees, whichever is the earliest. Note that we won't be able to refund exam registration fees if the candidate has already taken the practice or actual exam.

Refunds will not be given and rescheduling will not be allowed in the event of no-shows or if an exam is terminated early or could not be

started on time due to exam misconduct.

Refund Process If candidates are eligible for a refund per the refund policy, they can contact certifications@tetrade.io and provide the order number from the purchase as well as the email address used to complete the purchase.

Scheduling the Exam

As part of your purchase, you should have received two (2) separate emails - one inviting you to the practice exam and the other one inviting you to the actual exam.

The emails will be sent from **TrueAbility** (*no-reply@trueability.com*) and will have the following subjects:

- **Real exam:** “Schedule your Certified Istio Administrator by Tetrade exam”
- **Practice exam:** “Optional: Your invite to the Certified Istio Administrator by Tetrade Practice exam”

Each email will contain a link with an invitation code allowing you to redeem it on TrueAbility’s platform. The invitation code is tied to the email you used to purchase the exam with.

Don’t lose or share the invitation code as that is your ticket for scheduling and taking the exams.

If you haven’t received the emails within the first 24 hours from the purchase, please contact us at certifications@tetrade.io.

To register for an exam (either the practice exam or the real exam), you need to do the following:

1. Create a user account on TrueAbility
2. Confirm your account
3. Redeem the invitation code
4. Schedule the exam

Create a User Account

1. Navigate to <http://app.trueability.com/signup> (or click the link in the invitation email)
2. Enter your first name and last name
3. Enter your email address - make sure you use the same email address that was used to receive the invitation
4. Enter your password
5. Select your time zone
6. Click the **Sign-up** button

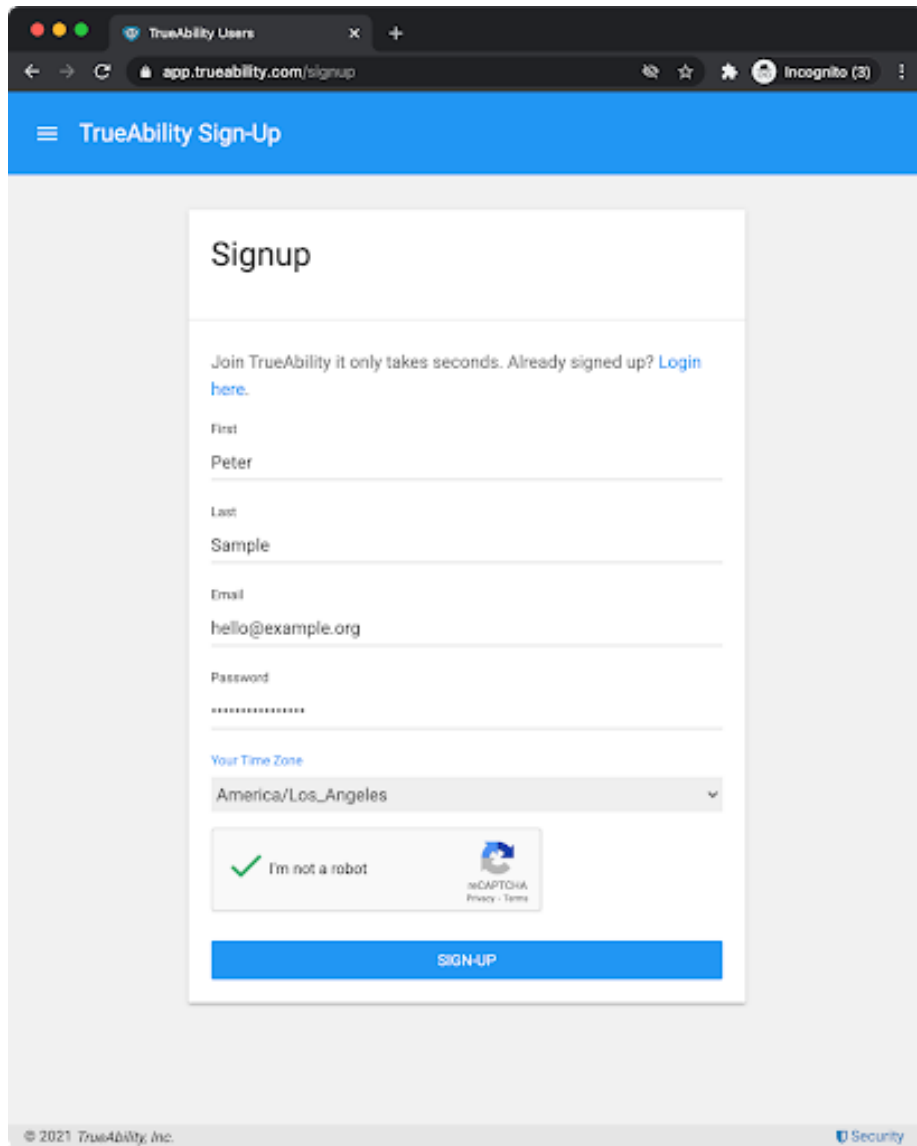


Figure 7: Trueability - Signup

You will receive an email from TrueAbility asking you to activate your account. You can do so by clicking the link in that email.

Redeem an Invitation Code

1. Sign in to your TrueAbility account from <http://app.trueability.com/signin> or click the link from the invitation email.
2. On the Candidate Portal you will see the exams and invitation codes you can redeem.
3. To redeem the invitation code, click the **Redeem** button - make sure you redeem the invitation for the correct exam (either Preview or the real exam).
4. Confirm the invitation code again by clicking the **Redeem** button

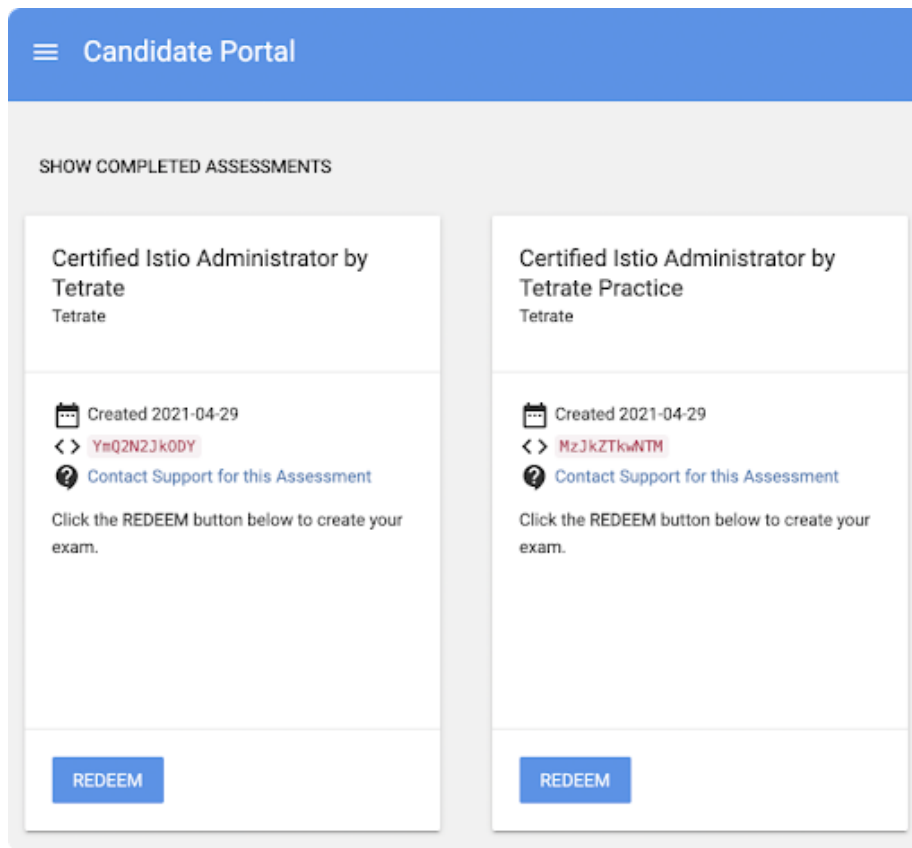


Figure 8: Trueability - Redeem

Schedule the Exam

Once you've redeemed the invitation, you can schedule your exam.

1. Select the date for your exam
2. From the dropdown list, select the time for your exam
3. Confirm your location and timezone are correct and update them if necessary by clicking the **Update your location** and/or **Update your timezone** buttons
4. Click the **Schedule** button
5. On the dialog, confirm the date and time and click **OK**

Congratulations! You have scheduled your exam.

You will also receive an email confirmation informing you that you scheduled your exam. The email will also contain the link to the Candidate Portal where you can start your exam.

Rescheduling policy

Exams can be rescheduled to be taken at a different time at least 48 hours before the originally scheduled time.

Exam Description

CIAT exam requires the candidate to use the command line to demonstrate their competencies across the specified domains. The exam is delivered entirely online and closely monitored by proctors via webcam, audio, and remote screen sharing. This gives candidates the freedom to take their exam at the place and time of their choosing (subject to conditions in the Candidate Requirements section).

Exam Scoring and Notification

Exams are scored automatically, within 24 hours of completion. Results will be emailed to the candidate and available on the Candidate Portal.

Passing the Exam

Upon passing an exam and if all other requirements for certification have been met, candidates will be granted the Certified Istio Administrator by Tetrat certification.

Formal notice of successful certification will be emailed within 24 hours of meeting program requirements.

Candidates will be able to access the certification badge and the PDF copy of the certificate by clicking the **Open Badge** link on the certificate card in the Candidate Portal.

The certification page shows the information about the certificate, candidate name, expiration date and the certificate PDF as well as the PNG badge.

Using the social sharing icons on the right side of the page, you can share your certificate on LinkedIn, Twitter, Facebook, and other social sites.

Certified Istio Administrator by Tetrade

Tetrade



Created 2021-04-23



Started 2021-04-23



[Contact Support for this Assessment](#)



[Open Badge](#)

Figure 9: Trueability - Badge

Not Passing the Exam

If eligible per the Retake Policy, candidates who do not achieve a passing score on their first attempt will be granted a free retake. Be sure to review the Retake Policy in full to understand eligibility and deadlines for the free retake. If eligible, the candidates will receive a new invitation for a free retake.

If the free retake has been exhausted or if the exam is not eligible for free retake, candidates may register and pay to take the exam again, with no discount given for such additional retakes.

Exam Rescoring Requests

Though we cannot guarantee the availability of rescoring for an exam, candidates may make a request for an exam to be rescored up to 2 days following the date on which the exam was taken. The fee for rescoring the exam is \$50 and may be paid via Stripe. Rescoring requests should be made via email to certifications@tetrade.io and must include the candidate name, email address, exam title, and the date exam was taken.

If the rescoring results in a change from No Pass to Pass on the exam, the rescoring fee will be refunded.

Retake Policy

For certification exams purchased from Tetrade Academy one (1) free retake per exam purchase will be granted in the event that a passing score is not achieved and candidate has not otherwise been deemed ineligible for certification or retake. Unless otherwise indicated, the free retake must be completed within 12 months of the date of the original exam purchase. After the free retake has been exhausted or the deadline to complete the free retake has passed, candidates may register and pay to take the exam again, with no discount given for such additional retakes.

Exam Rules and Policies

Candidates **MUST** start their exam no later than **30 minutes** after the scheduled time. If a candidate does not start their exam within 30 minutes of the scheduled start time, they will be automatically marked as no-show and **no refund** or **rescheduling** will be allowed.

Before the exam can be released, candidates are presented with rules regarding their testing location and candidate conduct during the exam, and with the policy on warnings and exam terminations.

The proctor cannot release the exam until the candidate has indicated that they have read, understood and accepted these rules.

Testing Location Rules

- Room must be quiet, private and well lit
- No other than the candidate can be present in the room
- Desk and the room must be clear of all notes and electronic devices

Hardware Requirements

- Candidate's computer has to be connected to a power source
- Candidate may not use a dual monitor setup
- Webcam, speakers, and microphone must remain on throughout the exam
- Candidate is not allowed to wear any electronic device in their ears, on their face or on their body*

__*unless medically necessary__

Candidate Conduct

- Candidate is not allowed to talk during the exam with anyone other than the proctor, this includes reading the questions out loud
- Candidate is not allowed to leave their desk or step out of view of the webcam, unless they have been granted specific permission by the proctor
- Candidate has to remain in view of the proctor for the duration of the exam
- Candidate is not allowed to eat, drink (except clear liquids as per rule below), or chew gum during the exam
- Candidate is permitted to drink clear liquids from a label-free clear bottle or a clear glass
- Candidate is allowed to take one 5-minute bathroom break by notifying their proctor
- Candidates are prohibited from taking screenshots of the exam and/or uploading/downloading content to the test environment
- Candidate must refrain from making excessive and/or repetitive noise
- Candidate must refrain from covering their mouth and/or face
- Candidate is not allowed to write or enter input on anything (whether paper, electronic device, etc.) outside of the exam console screen
- Candidates must comply with any requests from the proctor

Policy on Tools and Resources Allowed During Exams

The following tools and resources are allowed during the exam as long as they are used by the candidate to work independently on exam objectives and are accessed from the shared screen which the proctor can observe (accessing resources which are not visible to the proctor will be treated as a serious violation).

Candidate may:

- Review the exam instructions presented in the browser
- Use the browser to access any of the following websites:
 - <https://istio.io>
 - <https://istio.tetratelabs.io/>

The following resources are forbidden during the exam: - Use of devices other than the exam desktop - Notes or documentation (other than the documentation on the allowed websites mentioned above) - Notepads (other than what's provided within the exam browser tab) - Course manuals - Devices external to computer on which they are taking the exam, including but not limited to: mobile phones, PDAs, wearable computers, smart glasses, smart watches - Exam-specific assets, meaning those created by (or with the assistance of) those with prior exposure to the exam content and for the purpose of providing specific assistance to a candidate taking the exam

Policy on Warnings

Certain kinds of violations will result in a warning from the proctor and will get flagged in the system. If a warning is issued by the proctor, the exam will be paused until the candidate is able to amend or resolve the observed violation.

If the candidate is found to be in violation of the same rule more than twice, the exam will be terminated immediately.

The violations will be reviewed and in case it was determined the candidate did not follow the exam rules and policies, or exhibited cheating behavior, the exam may result in a no pass score.

Exam Misconduct

Candidates engaging in exam misconduct will not receive an exam result. Such candidates may also be barred from taking any other Tetrade Academy certification exam and if applicable, may have their Tetrade Academy certification. Refunds will not be given and rescheduling will not be allowed if an exam is terminated early or could not be started on time due to exam misconduct. Misconduct may, at any time, result in application of sanctions.

Examples of exam misconduct include but are not limited to:

- Failing to comply with the Exam Rules and Policies
- Disseminating actual exam content by any means, including, but not limited to, web postings, format or informat test preparations or discussion groups, chat rooms, reconstruction through memorization, study guides, or any other method, as well as providing exam content or information to any person not expressly authorized by Tetrade to receive such content or information (including but not limited to Tetrade employee who is not part of the certification team).
- Copying or otherwise transferring, modifying, making derivative works of, reverse engineering, decompiling, disassembling, or translating any exam or any part thereof.
- Seeking and/or obtaining unauthorized access to examination materials (this includes using recollections of others of materials from previous

administrations of any exam, braindump material, and/or any unauthorized publication of exam questions with or without answers.

- Using falsified or altered certificates, score reports, or other documents or electronic media to misrepresent certification status
- Allowing another person, or an organization in which you are not actively involved, to use your certification credentials to obtain employment or promotions
- Providing falsified information, documentation or statements as a means of a false identity, false address or solicitation of someone to take a test on another's behalf
- Giving, receiving, or obtaining unauthorized assistance during the examination or attempting to do so
- Making notes or screenshots of any kind during the exam, whether on paper or via digital means
- Possession of non-authorized items during the exam
- Providing or accepting improper assistance on your exam or exams taken by others
- Intentionally or otherwise repeatedly causing a disturbance of any kind during the exam
- Tampering with the exam environment and related infrastructure or attempting to use it for any function other than taking the CIAT exam
- Failing to adhere to any policies, procedures, rules, or instructions provided by Tetrate and/or proctoring partners
- Using profanity, threatening to harm, bully or in any way harass any Tetrate or exam proctoring partner employees or contractors (whether verbally or in writing, including through electronic communications or external web postings)
- Otherwise violating the terms of the Tetrate Certification and Confidentiality Agreement

Certificates and Certification

Certified candidates receive a certificate ID number and a certificate indicating the successful completion of the requirements necessary to achieve the title of CIAT, indicated on their certificate.

The certification expires **3 years** (36 months) from the date that a candidate successfully passes their certification exam, unless revoked earlier for cause or the candidate successfully completes certification renewal requirements.

The method for confirming the certifications is through the unique certification page link you can access through the Candidate Portal.

While their certification status is active, CIAT certificants may use the term Certified Istio Administrator by Tetrate to refer to themselves.

Certificate

The PDF copy of the certificate includes the following information:

- Candidates name
- Certificate ID number
- Date certification was completed
- Date certification expires

Digital Badge

In addition to the PDF certification, the candidates are also issued a digital badge. The digital badge follows the OpenBadge standard and is verifiable, portable, and includes the information about the certificate.

Certification Verification Tool

Certificate badge image can be verified on <https://badgecheck.io> website. You can upload the badge image to the verification tool and enter the recipient's email address. Once you click the Verify button you'll get the information that indicates if the certificate is valid or not and if it is assigned to the recipient you indicated.

Certificate Expiration

CIAT certification expires 3 years (36 months) from the date that the program certification requirements are met by a candidate.

Candidates must meet renewal requirements prior to the expiration date of their current certification in order to maintain active certification. If certification renewal requirements are not completed before the expiration date, certification will be revoked.

Certificate revocations

Tetrate will revoke certification if the candidate fails to comply with the certification renewal requirements. In addition, Tetrate may, in its sole discretion, revoke any and all certifications you may have earned, and permanently you from earning future certifications, under any of the following circumstances:

- Candidate threatens to harm, bully or in any way harass any Tetrate employee or exam proctoring partner employee or contractor (whether verbally or in writing, including through electronic communications or external web postings);
- Breaches the terms and conditions of confidentiality agreement
- Is determined by Tetrate to have undertaken or participated in Exam Misconduct

- Has been convicted of a crime that Tetrade deems, in its sole discretion, in any way harms or affects Tetrade or the program's reputation, goodwill or security; or
- Has lost or settled a civil case in which Tetrade is the plaintiff and the claim arose from any alleged damage to Tetrade, its brand, goodwill or reputation.

Certification Renewal Requirements

CIAT certification is valid for 3 years (36 months) and candidates may keep certification valid by completing the renewal requirement option below. Renewal requirements must be completed prior to the expiration of the certification.

Options to meet certification renewal requirements:

- **Retake the exam.** Candidates have the option to retake and pass the same exam to keep their certification valid. The certification will be valid for 3 years starting on the date the exam is retaken and passed.

Appeals

In the event that sanctions are imposed pursuant to the Exam Misconduct and Professional Code of Conduct Violations, or your exam score is invalidated pursuant to the Exam Misconduct Policy, you will have ten (10) calendar days from the date of your notification letter to file an appeal. If you believe you have valid grounds for an appeal, please contact Tetrade Certification Committee at certifications@tetrade.io within the appeals period with details of reasons for challenging the appeal. Incomplete submissions will not be considered nor will requests be received after the ten (10) calendar day period.

You may expect to receive a written response from the Tetrade Certification Committee within approximately thirty (30) calendar days after your submission. Decisions rendered by the Committee are final.

Copyright

All exam questions and performance items are protected by copyright © 2022, Tetrade.io.

Customer Support

For questions regarding the Certified Istio Administrator by Tetrade exam and certification, please review this handbook.

If your question is not answered, you may send an email to certifications@tetrade.io or ask the question in the dedicated Tetrade Community Slack

channel.