





## Certification Renewal Handbook

Certification Renewal Program Guidelines and Requirements for all Levels of Certified Technology Specialist (CTS®)





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#### Contents

This handbook is separated into two parts:

- Part One contains information on how to meet renewal requirements for CTS certified individuals
  wishing to renew and maintain their certification status. Renewal candidates must strictly
  observe all policies and procedures in this handbook.
- Part Two contains Appendices.

#### Purpose of Renewal

The AVIXA Board of Directors established an independent AVIXA Certification Committee (referred to as "the AVIXA Certification Committee") that is responsible for providing oversight to the development and administration of credible Certified Technology Specialist TM certifications (CTS®, CTS-D®, and CTS-I®). This is to ensure the credentials meet high standards of ethical and professional practice for the audiovisual industry and is to assure the proficiency and competency of AV professionals.

Continuing education is an important component in demonstrating a personal and public commitment to maintaining competency within a professional certification program. The AVIXA Certification Committee renewal program for the CTS certification program is designed to reflect that commitment as well as in meeting the ISO/IEC/17024:2012 accreditation requirements as administered in the United States by the ANSI National Accreditation Board (ANAB). All levels of CTS certifications are awarded for a period of three years. Certificants who wish to maintain their CTS, CTS-D and/or CTS-I designations must meet the renewal requirements of the AVIXA Certification Committee in order to maintain their certification(s).

The renewal process is designed to provide certified audiovisual specialists with the opportunity to demonstrate their ongoing efforts to enhance the knowledge, skills and abilities required to perform their jobs in the field. The program has been designed to facilitate continued competence through participation in a variety of learning experiences, each of which may be linked to the current competency requirements of the certification examinations. Continuing to uphold and abide by the CTS Code of Ethics is also a requirement for maintaining and renewing certification.

The awarding of renewal units by the AVIXA Certification Committee does not mean that the Certification Committee endorses, accredits, approves, or sanctions any particular course. Renewal units awarded are based upon documented guidelines and supporting materials provided during the application process.

# PART ONE: Requirements and Guidelines for the Renewal of Any CTSCertification Level

#### A. Summary of Individual Renewal Guidelines

Certified individuals applying for renewal at any CTS level:

- Must have completed thirty approved (30) renewal units (RUs) within the three-year certification period. (Note: each specialty level of certification over the basic CTS level must be renewed separately, however the general CTS does not have to be renewed if the individual maintains a higher specialty level of certification (CTS-D or CTS-I).
- Must sign and agree to continue to abide by and uphold the CTS Code of Ethics and Conduct (included in the renewal application).
- Must agree to continue to use any CTS designation in an authorized and appropriate manner. Only
  those individuals who maintain their CTS certification requirements may continue to use the CTS
  designation.

The AVIXA Certification Office will send email renewal reminders at intervals of 1 year, 6 months, 3 months and 1 month prior to the certificant's renewal expiration date. It is important for certificant's to maintain current contact information with the Certification Office; however, it is ultimately the responsibility of the individual to maintain renewal requirements.

Note: Multiple specialty credentials are renewed at the rate of 15 RUs each (see examples below).

All levels of CTS certified individuals have the option to renew by taking the current certification exam corresponding to their existing renewal credential(s) instead of through the RU process. Those who fail the exam must retake and pass the exam using the current retake policies prior to the renewal deadline. Once the "renew by testing" option is chosen, the certified individual must continue to renew through retesting, and adequate time should be planned for this.

Certificants must either renew through the RU renewal process or optional retesting as of their scheduled renewal date in order to maintain their certification status. (Note: There is a process available for requesting an extension of renewal for a period up to 120 days)

An individual certified at only the general CTS level may not apply for renewal at any time prior to 6 months before the scheduled renewal date.

Each certified individual is responsible for maintaining their own record of the number of hours of continuing education that have been accrued during the 3-year renewal cycle, including dates and supporting documentation. AVIXA provides an online transcript of AVIXA registered courses only renewal units earned by certificants at <a href="www.AVIXA.org/renewal">www.AVIXA.org/renewal</a>, which can be printed as documentation for those courses completed. For other courses, individuals will need to maintain and submit a copy of the course completion certificate along with the renewal application.

Annual reporting of RUs earned to AVIXA is not required or suggested. The individual is responsible for maintaining the required documentation to be submitted at the time of renewal.

A listing of courses and opportunities pre-approved through the Certification Committee for RUs are posted and regularly updated online at <a href="https://www.AVIXA.org/certification">www.AVIXA.org/certification</a> under Renewal.

Only those certificants in good standing (no active sanctions and renewal accomplished within timeline) with the Certification Committee will remain listed in the online Directory of Certified CTS AV Specialists.

#### B. Earning Renewal Units (RUs)

Courses and other renewal unit activities are reviewed and RUs granted at the discretion of the Certification Committee based upon the requirements and guidelines contained within this Renewal Handbook.

All renewal units applied for and awarded must be referenced to specific certification levels and the corresponding Exam Content Outline Domain area (see Appendix A for CTS, Appendix B for CTS-I). (Ex. Course ABC is approved for 2 RUs at the CTS-I Domain B level.)

Renewal units may be awarded for the following activities at the designated rates

**Note:** See specific listings of pre-approved renewal units online at www.AVIXA.org/certification under Renewal. You may want to refer to the chart of Renewal Unit.

- Courses approved for more than one specialty certification level may only be used for renewal at one
  of the levels (i.e., Course XYZ is approved for 2 RUs at the CTS-D or CTS-I level the 2 RUs can
  only be used for renewing either the CTS-D or the CTS-I, not both. You will be able to split the RUs,
  for instance, course XYZ is approved for 2 RUs at the CTS-D and CTS-I, you can use 1 RU for each
  domain area).
- 2. Non-Manufacturer programs may be approved for 1 RU per each hour of class time. The same course may only be used only once every 24 months for the purpose of submitting renewal units.
- 3. Manufacturer programs may be approved for 1 RU per each two hours of class time. The same course may be used only once every 24 months for the purpose of submitting renewal units.
- 4. Approved college level courses of 3-4 semester hours may be awarded up to 10 RUs. Such courses must be obtained from an accredited institution and courses must relate specifically to the work of the appropriate CTS certified technician level being renewed and must directly enhance the knowledge or skill level of the certificant for the certification being renewed.
- 5. Instructors who are teaching for AVIXA or other programs approved for renewal units by the Certification Committee may receive up to 1 RU for each contact hour taught, and allowance for instructor preparation time of 1 RU for every 2 hours of contact time taught. RUs awarded for teaching a course can be counted only once for the same presentation every 6 months. For example, if a program being taught is approved for a total of three RUs (two RUs for the course contact hours and one RU for the preparation) and is presented at three regional meetings during the same 6-month period, the presenter may only count three RUs towards renewal in that 6-month period.

if a program being taught is approved for a total of three RUs (two RUs for the course contact hours and one RU for the preparation) and is presented at three regional meetings during the same 6-month period, the presenter may only count three RUs towards renewal in that 6-month period. Instructors must submit a letter of verification or provide a copy of the course program with their renewal application in order to be awarded RUs.

- 6. Individuals who actively serve as AVIXA volunteers in a capacity that contributes to further development of the AVIXA Certification Committee certification program may claim up to a maximum of 3 RUs per year for their contributions for each volunteer capacity actively served in. Examples of recognized certification program support activities would include active participation as a subject matter expert, serving on a certification related committee, industry standards committee, AVIXA Board or committees related to certification activities, or similar activities recognized by the Renewal Committee for consideration of renewal units. AVIXA volunteer committees, boards, or special interest groups (SIGs) should contact the certification office to request a review and approval of their group's activities for renewal units. Certificants who submit RUs under this category are subject to verification of active participation through AVIXA records. The individual must document on the renewal application their participation and identify the areas in which they have made a significant contribution to the certification program. (See chart page 7)
- 7. Individuals who write an article or white paper related to an area addressed in one of the CTS Exam Content Outlines and the article or white paper is published in an AV trade media or industry related technical book may be awarded 2 RUs. RUs from articles or white papers are limited to three per year, for a total of 6 RUs per 12 months. Articles or white papers must be written and submitted for review within the 3-year certification period. (See chart page 7)
- 8. Reading an industry related book that has been previously submitted and pre-approved for RUs which includes successful completion of an appropriate assessment tool such as a quiz (the link to the sponsoring organization or author will be listed on the approved Renewal Units page on the www.AVIXA.org/certification website). Renewal Units awarded will depend upon the size/time requirements related to the particular book but will not exceed 2 RUs per book with a maximum of three books per year. (See chart page 6)
- 9. Courses with the same completion date for a previously renewed certification are not eligible to be used for a future renewal cycle. Example: Candidate completes a course on October 31, 2021 and then renews certification on the same date. Renewal units for that course cannot be used for renewal in October 2024.
- 10. Courses with the same completion date as candidate's exam pass date are not eligible to be used for a future renewal cycle. Example: Candidate sits for CTS exam on October 31, 2021 and successfully passes the exam. The candidate then takes an RU-approved course on the same day. Renewal units for that course cannot be used for renewal in 2024.
- 11. Renewal units from courses taken prior to obtaining a certification are not eligible to be used for a future renewal cycle. Example: Candidate completes a course on October 1, 2021 that is eligible for renewal units. The candidate then earns the CTS certification on October 31, 2021. Renewal units for that course cannot be used for renewal in 2024.

#### Renewal Units Options Chart

AVIXA Certification Renewal Unit (RU) Options Chart*				
Activity	RUs Available	Maximum RUs Allowed		
Approved Non-Manufacturer Onsite or Online Course, Webinars	1 RU per 1 hour of contact time	30 RUs No limit (Only once per 24 months for the same course)		
Approved Manufacturer Onsite or Online Course	1 RU per 2 hours of contact time	30 RUs No limit (Only once per 24 months for the same course)		
Approved Book and Evaluation Tool	·			
Writing an approved Industry Related and Published Article or White Paper	2 RUs per published article or white paper	6 RUs per 12 months (Maximum of 3 articles or white papers per 12 months)		
Industry Related College Course of 3-4 Credit Hours	10 RUs per course	30 RUs No limit (Only once per 12 months for same course)		
Teaching an RU Approved Course  1 RU per course hour and 1 RU for preparation per every 2 course hours		30 RUs No limit (Only once per 6 months for same course)		
AVIXA Volunteer	3 RUs (per 12 months) for each active volunteer capacity served	3 RUs (per 12 months) for each active volunteer capacity served		

30 RUs required in a 3-year period.

RUs are offered in half (.5) units, based on 30 minutes of contact time rounded to the nearest 30 minutes. For example, 35 minutes = .5 RUs; 45 minutes = 1 RU; and 1 hour and 40 minutes = 1.5 RUs

#### C. Renewal Deadlines

CTS certifications have a renewal date of 3 years from the date of original certification or most recent renewal date with the exception of multiple specialty certifications. (See examples below for multiple specialty certifications). General CTS certified individuals may not apply for renewal at any time prior to 6 months before their scheduled renewal date; however, the renewal must be completed as of the required renewal date in order to maintain certification status.

#### D. Renewal Units Required

There are 30 renewal units required within each 3-year certification period (exception being multiple specialty credentials- see examples below). The 30 RUs may be obtained through a variety of training and educational methods as detailed in the preceding section. The renewal units applied to a renewal must be earned during the renewal period itself. Renewal units must be from categories as detailed within the Renewal Unit Option Chart (see page 6)

#### E. Renewal Testing Option

An individual certified at any level of CTS may elect to renew by taking their certification level current exam(s) instead of through RUs. Those who fail the exam must retake the exam and pass using the current retake policies. Renewal through retesting or through RUs must occur by the scheduled renewal date in order to maintain certification status. Those choosing this option should consider adequate time for scheduling exam appointment and possible retesting prior to renewal date. Once a certificant chooses to renew by testing, s/he must complete the renewal by retesting, as may be required.

#### F. Renewal Fees

The renewal fee, payable by check or credit card, is \$175.00 (USD) for the general CTS. There is a separate renewal fee and application documentation required for each specialty certification level renewed. If the individual chooses the option of renewal by taking the current level examinstead of by renewal units, the current exam fee will apply. See examples below. The Renewal Application Fee is payable by credit card or by check as found on the application form.

#### G. Multiple Certification Level Renewals

- Each specialty level over the General CTS requires a separate renewal in order to maintain certification. For example, an individual certified as a CTS-D and CTS-I must renew in both categories to maintain their respective certifications. (See below for multiple specialty certifications chart).
- An individual who holds the general CTS, and the CTS-D or CTS-I is required to renew their
  certification at the specialty level only by earning a total of 30 RUs for which a minimum of 15 RUs
  are at the specialty level, with the remaining RUs at the general CTS level.
- Individuals who should elect to not renew their specialty certification(s) must renew the general CTS
  certification (with the 30 RUs) in order to remain certified as a general CTS.

- Individuals holding more than one specialty credential are required to submit 15 RUs per specialty
  area for renewal. The RUs must relate to the content of the specialty credential per the examination
  content outline as found in Appendix A or Appendix B of the Renewal Handbook and may not "cross
  over". (See next bullet)
- When one course meets the RU requirements of multiple designations, certificants may apply the
  course renewal units once toward only one designation. For example: Course XYZ is approved for 2
  RUs for CTS-I- Domain 2 and/or 2 RUs for CTS-D- Domain 1 certified individuals. The individual
  certified both in CTS-I and CTS-D can only claim 2 RUs for that course and apply them to renewal of
  either the CTS-I or the CTS-D, not both.

#### Multiple Specialty Credential Renewals Chart

When an individual already holds one valid specialty credential level (CTS-D or CTS-I) then earns a second specialty credential, the original specialty level's renewal date changes to the same renewal date of the newly obtained specialty credential. In the future, both specialty certifications held would then have the same renewal date but each will incur its own renewal fee.

#### Example:

CTS-I is earned in June 2021, with an expiration date of June 2024, the additional CTS-D is earned in August of 2022 with a renewal date of August 2025. The previously earned CTS-I will have its expiration date automatically updated to August 2025, so both the CTS-D and CTS-I will have the same expiration date from then on. At the time of renewal in August 2025, each credential will need to be renewed with 15 RUs approved for that certification level, for a total of 30 RUs, and a separate renewal fee for each.

Certified Level(s)	Renewal Date	Renewal Units (RUs) Required	Fee
CTS	3 years from original date of certification	30 RUs from any combination of CTS, CTS-D, or CTS-I approved RUs	\$175.00 (USD)
CTS & CTS-D	Renew CTS-D only 3 years from original date of specialty certification (CTS is automatically renewed when CTS-D is renewed)	30 RUs total with a minimum of 15 RUs approved for the CTS-D level and the remaining RUs from any combination of CTS, CTS-D, or CTS-I approved RUs	\$200.00 (USD)
CTS & CTS-I	Renew CTS-I only 3 years from original date of specialty certification (CTS is automatically renewed when CTS-I is renewed)	30 RUs total with a minimum of 15 RUs approved for the CTS-I level and the remaining RUs from any combination of CTS, CTS-D, or CTS-I approved RUs	\$200.00 (USD)
CTS-D & CTS-I	Original credential has renewal date changed to the same renewal date of the new specialty credential. In the future, both specialty credentials will need to be renewed on the same date	Renew both the CTS-D and CTS-I using 15 RUs approved for each certification level (30 total). Requires separate renewal fee for each.	\$275.00(USD) (\$137.50 USD per specialty credential renewal)

<sup>\*</sup>Based on current Exam Content Outlines as found online at www.AVIXA.org/certification.

Note: Renewal Units submitted on the Renewal Application must be from categories as detailed within the Renewal Unit Option Chart

#### H. Renewal Application

The renewal application for any level of CTS certification must be completed online through the AVIXA transcript when paying via credit card or AVIXA gift card. Paper renewal applications will only be accepted if paying via check or wire transfer.

AVIXA provides an online transcript to assist in the tracking of RUs, which can be found on your dashboard at <a href="https://login.avixa.org">https://login.avixa.org</a>. AVIXA courses will automatically be added to this transcript. Courses from RU providers must be manually uploaded to the AVIXA transcript by the certification holder. Visit <a href="https://www.AVIXA.org/HowtoaddRUs">www.AVIXA.org/HowtoaddRUs</a> for instructions on uploading RU Provider courses to the transcript.

Payment and documentation of RUs is required at the time of renewal application submission.

Paper applications, along with required supporting documentation and the current renewal fee, may be submitted via email, mail, or fax:

AVIXA
Certification Office
11242 Waples Mill Road, Ste 200
Fairfax, VA 22030
fax +1.703.991.8259
certification@AVIXA.org

#### I. Auditing

Certification Committee guidelines require random auditing of 5% (1 of each 20 received) of all renewal applications received for the CTS program. Audits will be performed by certification staff on behalf of the Certification Committee. Renewal applications found through an audit to be incomplete will require the individual to provide any required incomplete documentation within 30 days of notice from the Certification Office. After 30 days, if the individual has not provided complete information the certification will be suspended. If an individual is suspected of fraudulently filing misinformation, the case will be referred to the CTS Ethics and Disciplinary Committee for review and resolution, which may include sanctions.

#### J. Appeals

Requests for an appeal in the case of a denied renewal must be made to the Certification Office no later than 30 days after the notification to the applicant of denied renewal. Appeals are reviewed by the Director of Certification to determine if the appeal is a valid appeal. Should the appeal be found invalid, the Director of Certification shall notify the candidate of the reason(s) the appeal is not valid. The Director of Certification shall also notify the candidate if additional information is needed, or if the appeal is being forwarded to the Renewal Committee for review.

Within 60 days of the receipt of the written appeal, the Renewal Committee must conclude its deliberations.

Decisions of the Renewal Committee can be appealed to the Appeals Committee. Requests for appeal to the Appeals Committee must be made no later than 30 days after the Renewal Committee decision. Within 60 days of the receipt of the written appeal, the Appeals Committee must conclude its deliberations. All decisions of the Appeals Committee are final.

NOTE: Applicants and stakeholders should download the most up-to-date free edition of the Renewal Handbook that may include important policy and procedure updates by going to the AVIXA website at www.AVIXA.org. Date of this version is 11/13/23 ©2023 AVIXA®

#### K. Extensions Due to Extenuating Circumstances

In cases where Certificants, due to extenuating circumstances, cannot obtain the required renewal units by the required renewal date, a request for an extension should be sent in writing to the Director of Certification. The policy for granting an extension allows for the Director of Certification to grant up to a 120 day extension of the renewal requirements when:

- The extension request is in writing and is based upon extenuating circumstances
- The extension request includes a written plan as to how the individual will obtain the missing renewal units within no more than a 120-day extension period

When the renewal requirements are met during the extension period, the date of next renewal will continue to be the original date of renewal. Extenuating circumstances would include such conditions as active military duty, extended illness, or limited availability of renewal units in a particular area.

Note: Those choosing this option should allow adequate time for scheduling exam appointment and possible retesting prior to renewal date.

#### L. Agreement to the CTS Code of Ethics and Conduct

Agreement to abide by and uphold the CTS Code of Ethics and Conduct is required as a part of the Renewal Application.

#### M. The Value of Renewal

The current renewal fee is \$175.00 (USD) every three years per required certification renewal level. This equates to less than \$60.00 a year. The renewal program has many benefits to the individual, including but not limited to:

- Maintaining an ISO/IEC 17024:2012 international standard accredited credential through ANAB
- Providing an online searchable registry of those certified at any CTS level
- Actively pursuing those who would falsify the use of the credential
- Investigating and sanctioning those certified who are found to have violated the CTS Code of Ethics and Conduct
- Promoting and educating a wide variety of stakeholders to the benefits of holding the various
   CTS level credentials
- Providing ongoing extensive marketing efforts of the credential on an international basis
- Providing an individual a transcript of courses and renewal units (RUs) obtained through AVIXA sponsored training
- Maintaining an internationally recognized and respected credential that meets the highest professional standards

#### **PART TWO: Appendices**

**General CTS Exam Content Areas (Domains)** 

**CTS-D Exam Content Areas (Domains)** 

**CTS-I Exam Content Areas (Domains)** 

**Renewal Application for Any Individual CTS Level Certification** 

#### Appendix A: General CTS Exam Content Outline

The AVIXA CTS job description as established by the Job Task Analysis is as follows:

A Certified Technology Specialist performs general audiovisual tasks by creating, implementing, supporting, and servicing audiovisual solutions that meet the client's needs.

The CTS exam specifications were developed by combining the importance, criticality, and frequency data obtained from the Job Task Analysis study conducted in 2022. The resulting data were converted to percentages and the percentages were used to determine the number of questions related to each domain and task that should appear on the multiple-choice CTS examination. The test specifications in the table below list how many questions are included in each Domain and Task and the percentage of the test included in each domain. The Job Task Analysis Final Report can be downloaded at <a href="https://www.AVIXA.org/cts">www.AVIXA.org/cts</a> under "CTS Resources".

Duties and Tasks	% of Exam	# of Items
Duty A: Creating AV Solutions	35%	35
Task 1: Conduct A Customer Needs Analysis	7%	7
Task 2: Conduct Site Survey (e.g., lighting, access, acoustics, seating, finishing, architectural features, dimensions, logistical constraints)	9%	9
Task 3: Develop an AV Project Scope (e.g., AV solution, components)	9%	9
Task 4: Design AV Solutions (e.g., drawings, program report, bill of materials)	10%	10
Duty B: Implementing AV Solutions	30%	30
Task 1:Integrate AV Solution (e.g., systems verification, supply installation)	15%	15
Task 2: Managing AV Integration (e.g., training, schematics, warranties, operations manual, as-built drawings)	15%	15
Duty C: Supporting AV System Operation	15%	15
Task 1: Provide AV Support (e.g., troubleshoot, remote assistance, live event support, in-room operation, training)	15%	15
Duty D: Servicing AV Solutions	20%	20
Task 1: Supervise AV Operations	4%	4
Task 2: Conduct Maintenance Activities (e.g., preventative maintenance, firmware upgrades, equipment upgrades)	8%	8
Task 3: Troubleshoot and Repair AV Solutions (e.g., analog vs digital, break/fix)	8%	8
Total	100%	100

For a detailed breakdown of the knowledge and skills for each job task, please see the full Job Task Analysis available on the CTS Exam Resource page of AVIXA's website at <a href="https://www.AVIXA.org/cts">www.AVIXA.org/cts</a>

#### Appendix B: CTS-D Exam Content Outline

The AVIXA CTS-D job description as established by the Job Task Analysis is as follows: A Certified Technology Specialist Designer:

- Assesses client needs and designs audiovisual solutions.
- Coordinates, communicates, and documents ongoing design responsibilities and activities.
- Conducts system verification and project closeout activities.

A recommended 3-4 years' of audiovisual design experience accompanies the theoretical and practical competencies.

The CTS-D exam specifications were developed by combining the importance, criticality, and frequency data obtained from the Job Task Analysis study. The resulting data were converted to percentages and the percentages were used to determine the number of questions related to each domain and task that should appear on the multiple-choice CTS-D examination. The test specifications in the table below list how many questions are included in each Domain and Task and the percentage of the test included in each domain. The Job Task Analysis Final Report can be downloaded at <a href="https://www.AVIXA.org/ctsd">www.AVIXA.org/ctsd</a> under "CTS-D Resources.

Duties and Tasks	% of Exam	# of Items
Duty A: Conduct a Needs Assessment	20%	20
Task 1: Identify functional requirements (e.g., user stories, user experience, benchmarking, client expectations)	7%	7
Task 2: Review or formulate client technology master plan	7%	7
Task 3: Generate and/or Review the Program Report	6%	6
Duty B: Coordinate with Other Professionals	28%	28
Task 1: Coordinate with architectural/interior design professionals	6%	6
Task 2: Coordinate with structural professionals	4%	4
Task 3: Coordinate with mechanical, electrical, and plumbing professionals	6%	6
Task 4: Coordinate with IT and network security professionals	4%	4
Task 5: Coordinate with acoustical professionals	4%	4
Task 6: Coordinate with life safety and security professionals	2%	2
Task 7: Coordinate with site or project specific professionals (e.g., content creators, theatrical, exhibit designer)	2%	2
Duty C: Develop and Document AV Designs	38%	38
Task 1: Create conceptual AV design	11%	11
Task 2: Revise conceptual design to be compatible with site conditions and/or A&E drawing package	7%	7
Task 3: Produce final design and drawing package	10%	10
Task 4: Finalize project documentation (e.g., bill of materials, bid spec, drawings, scope of work)	10%	10
Duty D: Deploy AV Designs	14%	14
Task 1: Support project execution activities	5%	5
Task 2: Verify system performance	5%	5
Task 3: Conduct project close out activities (e.g., as-builts, system manuals, training, programing information)	4%	4
Total	100%	100

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#### Appendix C: CTS-I Exam Content Outline

The AVIXA CTS-I job description as established by the Job Task Analysis is as follows:

A Certified Technology Specialist Installer:

- Installs, configures, and maintains audiovisual solutions.
- Coordinates, communicates, and documents ongoing installation responsibilities and activities.
- Performs system tests, conducts training, and provides project closeout documentation.

A recommended 3-4 years' of audiovisual installation experience accompanies the theoretical and practical competencies.

The CTS-I exam specifications were developed by combining the importance, criticality, and frequency data obtained from the Job Task Analysis study. The resulting data were converted to percentages and the percentages were used to determine the number of questions related to each domain and task that should appear on the multiple-choice CTS-I examination. The test specifications in the table below list how many questions are included in each Domain and Task and the percentage of the test included in each domain. The Job Task Analysis Final Report can be downloaded at www.AVIXA.org/ctsi under "CTS-I Resources."

Duties and Tasks	% of Exam	# of Items
Duty A: Implement Pre-Installation Activities	17%	17
Task 1: Review AV Project Documentation	6%	6
Task 2: Conduct Site Survey	4%	4
Task 3: Evaluate Overall Facility Readiness	3%	3
Task 4: Prepare for Installation	4%	4
Duty B: Practice Ongoing Project Responsibilities	12%	12
Task 1: Complete Field Reports (e.g., daily, issues, progress, risk, injury)	4%	4
Task 2: Coordinate with Allied Trades	4%	4
Task 3: Address Needed Field Modifications	4%	4
Duty C: Conduct Site Rough-In/First-Fix	12%	12
Task 1: Deinstallation of Existing Equipment and Cabling	2%	2
Task 2: Mount Substructure and Rigging	5%	5
Task 3: Pull Cable	5%	5
Duty D: Install AV Systems	39%	39
Task 1: Assemble AV Rack	2%	2
Task 2: Wire the AV Equipment Rack	6%	6
Task 3: Distribute AV Equipment (e.g., placement of loose equipment, peripherals)	2%	2
Task 4: Mount AV Equipment (e.g., projectors, loud speakers, monitors)	5%	5
Task 5: Terminate Cables	5%	5
Task 6: Configure Network Properties of Equipment	5%	5
Task 7: Configure Control and Device Settings	5%	5
Task 8: Test the AV System	5%	5
Task 9: Calibrate the AV System	4%	4
Duty E: Perform AV Systems Closeout	12%	12
Task 1: Demonstrate to Client or Client's Representative that System Performs to Specifications	4%	4
Task 2: Provide Training on AV System Operation	2%	2
Task 3: Finalize AV Project Documentation (e.g., punch list, programming files, manuals, completion documentation, as-builts)	6%	6
Duty F: Conduct Post Project Activities (e.g., support, warranties, maintenance)	8%	8
Task 1: Maintain AV Systems (e.g., equipment, software, tools)	3%	3
Task 2: Repair AV Systems (e.g., failed equipment, warranty, troubleshooting)	5%	5
Total	100%	100

### Appendix D: Renewal Application







ivame	eDate
Comp	pany
Addre	ess
City/S	State/Country
Email	
Phone	eFax
l am ı	renewing my:
□ G □ G	eneral CTS eneral CTS & CTS-I eneral CTS & CTS-D TS-D & CTS-I
Comp	uctions: blete all sections of this form. An incomplete application may delay your renewal. Please be to check your application. Have you:
	□ Downloaded the most recent application from www.AVIXA.org/renewal?
	□ Printed neatly so your application is legible?
	□ Included copies of required documents?
	□ Signed the application?
	□ Provided current contact information?
	□ Included payment?

#### Ways to earn Renewal Units:

AVIXA Certification Renewal Unit (RU) Options Chart*			
Activity	RUs Available	Maximum RUs Allowed	
Approved Non-Manufacturer Onsite or Online Course, Webinars	1 RU per 1 hour of contact time	30 RUs No limit (Only once per 24 months for the same course)	
Approved Manufacturer Onsite or Online Course	1 RU per 2 hours of contact time	30 RUs No limit (Only once per 24 months for the same course)	
Approved Book and Evaluation Tool	2 RUs per book and completion of evaluation	6 RUs per 12 months (Maximum of 3 books per 12 months)	
Writing an approved Industry Related and Published Article or White Paper	2 RUs per published article or white paper	6 RUs per 12 months (Maximum of 3 articles or white papers per 12 months)	
Industry Related College Course of 3-4 Credit Hours	10 RUs per course	30 RUs No limit (Only once per 12 months for same course)	
Teaching an RU Approved Course	1 RU per course hour and 1 RU for preparation per every 2 course hours	30 RUs No limit (Only once per 6 months for same course)	
AVIXA Volunteer	3 RUs (per 12 months) for each active volunteer capacity served	3 RUs (per 12 months) for each active volunteer capacity served	

30 RUs required in a 3-year period.

RUs are offered in half (.5) units, based on 30 minutes of contact time rounded to the nearest 30 minutes. For example, 35 minutes = .5 RUs; 45 minutes = 1 RU; and 1 hour and 40 minutes = 1.5 RUs

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Renewal Units submitted on the Renewal Application must be within the category guidelines listed above. For a complete list of RU providers and RU approved coursesplease see our online RU Provider list.

I am re	enewing by successfully completing approved (please check all that apply):
	AVIXA onsite or online courses
	<ul> <li>A transcript of AVIXA registered courses taken by individuals</li> </ul>
	may be found atwww.AVIXA.org/renewal.
	Documentation: Attach a copy of your AVIXA Transcript
	Non-manufacturer onsite or online courses
	Documentation: Attach the certificate awarded
	Manufacturer onsite and/or online courses
	Documentation: Attach the certificate awarded
	College level courses of 3-4 semester hours that are related to the CTS certification level(s) I hold.
	<ul> <li>Courses must be obtained from an accredited institution and courses</li> </ul>
	must relate specifically to the work of the appropriate CTS certified
	technician level being renewedand must directly enhance the
	knowledge or skill level of the certificant for the certification being renewed.
	Documentation: Official transcript must be provided
	Teaching for AVIXA or other programs approved for renewal units by the AVIXA Certification Committee.
	<ul> <li>Documentation: Copy of course program indicating instructor, hours, date, etc.</li> </ul>
	Serving as a volunteer in some capacity that contributes to further development of the AVIXA Certification Committee certification program
	<ul> <li>Examples include active participation as a subject matter expert, serving</li> </ul>
	on a certificationrelated committee, industry standards committee, AVIXA
	Board or committee, or similar activities previously submitted to and
	recognized by the Renewal Committee for consideration of renewal units.
	Certificants who submit RUs under this category are subject to verification
	of active participation through AVIXA records.
	<ul> <li>You must document your participation and identify the areas in which you have made asignificant contribution to the certification program.</li> </ul>
	Writing an article or white paper related to an area that is addressed in one of the CTS Exam Content Outlines and is published in an AV trade media or industry related technical book.  • Must be Submitted prior to renewal for approval by the Certification Committee
	Documentation: Copy of the published article or white paper
	Reading a previously approved industry related book with successful completion of an evaluation tool.
	<ul> <li>Documentation: Copy of certificate or successful evaluation results.</li> </ul>

I am applying for renewal of my:
☐ CTS: 30 RUs from any combination of CTS, CTS-D, or CTS-I approved RUs
☐ CTS-D: 30 RUs total with a minimum of 15 RUs approved for the CTS-D level, with the remainder from any combination of CTS, CTS-D, or CTS-I approved RUs
☐ CTS-I: 30 RUs total with a minimum of 15 RUs approved for the CTS-I level, with the remainder from any combination of CTS, CTS-D, or CTS-I approved RUs
☐ CTS-D & CTS-I: 30 RUs total using 15 RUs approved for each certification level.
Please list your activities in the table below:

Activity Type	Activity Name	Date	RUs	Apply to CTS, CTS-D or CTS-I?

#### Certified Technology Specialist Code of Ethics and Conduct

- ▶ As a Certified Technology Specialist, I understand that my personal standards of honor and integrity must, at all times, be above reproach. I must conduct myself in a manner that reflects favorably on my profession. I will strive to create an ethical climate within my organization, my industry, and the community of clients which I serve. I will strive to build honesty and trustworthiness in all my relationships, ensuring my reliability in performing my assigned responsibilities.
- ▶ As a Certified Technology Specialist, I pledge to be truthful and accurate in what I say, do, and write.
- ▶ As a Certified Technology Specialist, I will adhere to the law at all times. I will not reveal facts, data, or information obtained in connection with services rendered without the prior consent of the client or employer except as required by law.
- ► As a Certified Technology Specialist, I will actively encourage and promote the highest level of ethics within the industry.
- ► As a Certified Technology Specialist, I will avoid compromise of professional judgment by acknowledging conflicts of interest.
- ► As a Certified Technology Specialist, I will act in a manner free of bias with regard to age, gender, sexual orientation, gender identity, race, religion, national origin, disability, marital status, and ethnicity.
- ► As a Certified Technology Specialist, I will maintain my knowledge and technical proficiency by fulfilling the recertification requirements.

- ► As a Certified Technology Specialist, I agree to inform AVIXA certification management of any matters that will affect my capability to fulfill my certification requirements.
- ▶ As a Certified Technology Specialist, I will undertake only those assignments for which I am capable, by way of education, training, and/or experience. I will not misrepresent or permit misrepresentation of my own or associates' academic or professional qualifications nor exaggerate my degree of responsibility for any work. Furthermore, I will admit and accept my own errors when proven wrong, refraining from distorting or altering the facts in an attempt to justify my decisions.
- ▶ As a Certified Technology Specialist, I will have due regard for the physical environment, as well as public safety, health, and well-being. If my judgment is overruled under circumstances where the safety, health, property, or welfare of the public may be endangered, I will notify my employer, client and/or such other authority as may be appropriate.
- ► As a Certified Technology Specialist, I understand that the certificate, logo, and marks are the property of AVIXA. I agree to return the certificate to the Certification Committee upon request.
- ▶ As a Certified Technology Specialist, I will follow and uphold all policies and procedures required by the Certification Committee in order to remain in good standing; and I will abide by the CTS Code of Ethics and Conduct.

Failure to abide by the CTS Code of Ethics and Conduct shall constitute grounds for denial or revocation of certification.

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#### Agreement and Signature

By checking the box and by typing or signing my name in the space provided, I agree to the following:

- I authorize the Certification Committee to obtain any background information necessary to verify the accuracy and completeness of my responses to all questions contained herein.
- I understand that the Certification
  Committee may audit renewal applications
  to verify information provided as part of the
  application response. I agree to cooperate
  with such audit and further understand that
  providing false information for verification
  of meeting renewal requirements, or
  having others to do so is a violation of the
  CTS Code of Ethics and Conduct and may
  result in sanctions.
- I hereby certify that I have read all portions of this application and related sections of the CTS Renewal Handbook and believe myself to be in compliance with all policies related to the CTS renewal requirements. The information I submit on this application and any documents I have enclosed or forwarded are complete, true and correct to the best of my knowledge and belief.
- I agree to immediately inform the certification office of all changes to the information included in this application as long as I am certified by the Certification Committee.
- I hereby attest that I, the applicant, am signing, either in person or electronically if by other than mailed application.

- I have read, understand, and agree to be bound by the certification-related policies and procedures and CTS Code of Ethics and Conduct promulgated by the Certification Committee.
- I understand and agree that my failure to abide by the Certification Committee's policies and procedures and CTS Code of Ethics and Conduct shall constitute grounds for rejection of my application or denial or revocation of my certification.
- I understand that, if my renewal is successful, I will be listed in the online professional certification directory; however, if in the future if I should not want to continue to be listed in the online directory, that I should send an e-mail request stating such to <a href="mailto:certification@AVIXA.org">certification@AVIXA.org</a>, or fax/mail the request to the Certification Office. I understand that even if my credentials are not listed in the online directory AVIXA will continue to verify credentials upon request.
- I agree to give the Certification Committee, and its agents and contractors, permission to contact me by U.S. mail, electronic mail, facsimile, or through other media on matters that AVIXA believes may be of importance to me. Should I wish to be taken off the certification mailing list in the future, I will send an e-mail request stating such to <a href="mailto:certification@AVIXA.org">certification@AVIXA.org</a>, or fax/mail the request to the certification office

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☐ I have read, understand, and agree to abide by	the CTS Code of Ethics and Conduct.
Please check the box and personally sign or type name and date below as your electronic signature of agreement if this application is submitted other than by mail.	
Applicant Signature:	Date:

#### **Payment Information**

	USD Member/Non- Member	Euro Member/Non- Member	GBP Member/Non- Member	AUD Member/Non- Member
CTS Renewal	175	170	140	280
CTS and CTS-D Renewal	200	195	160	320
CTS and CTS-I Renewal	200	195	160	320
CTS-D and CTS-I Renewal	275	265	220	440

I am renewing my:		
General CTS General CTS/CTS-I General CTS/CTS-D CTS-D & CT	S-I	
Please indicate payment method:		
$\Box$ I have enclosed a check or money order payable to AVIXA for the amount as listed	ed above.	
OR		
By wire transfer:  Note: Wire transfers are acceptable methods of payment, however, added processi additional bank fees may occur as a result. The applicant is responsible for any bank	•	d
☐ I have sent a wire transfer to AVIXA in the amount of Wire transfer #:	□ USD □ Euro	□ GBP
OR		
☐ I have a certification gift card		
Gift Card #:		<u> </u>
OR	□ USD	
☐ I authorize AVIXA to charge my credit card in the amount of		□ GBP □ AUD
For credit card payments, please complete your renewal online at		

<u>www.AVIXA.org/certificationrenewal</u>, unless otherwise instructed by the Certification Department. AVIXA does not accept credit card numbers via email, all credit card transactions must be completed online using our secured payment portal.

Mail, fax, or email this application to the following addresses:

AVIXA, Attn. Certification Office 11242 Waples Mill Rd., Suite 200, Fairfax, VA 22030 1.800.659.7469 or +1.703.273.7200 +1.703.991.8259 Fax certification@avixa.org www.AVIXA.org