AVIXA

CTS **RU** Provider

Renewal Unit (RU) Provider Handbook and Application

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

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AVIXA

**Audiovisual and Integrated Experience
Association**

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Table of Contents

Renewal Unit Provider Program Guidelines and Requirements for All Levels of Certified Technology Specialist (CTS) Renewal Units

Contents

This handbook is separated into three parts:

1. Information on how to apply for approval to provide renewal units (RUs) for your audiovisual related educational programs as well as other general guidelines.
2. Background information for RU providers to understand the scope of the renewal process, how RUs are awarded, ways for CTS holders to earn RUs, and the value of renewing. For more information, see the Certification Renewal Handbook located at www.AVIXA.org/ruprovider.
3. Appendices: The RU Provider application and exam content outlines to begin the submission process.

For assistance completing the application or for any questions related to the process, please email us at certification@AVIXA.org or call 703-273-7200 and ask for the Certification Department.

Renewal Overview

The AVIXA Board of Governors established an independent AVIXA Certification Committee (referred to as the "AVIXA Certification Committee") to provide oversight for development and administration of credible Certified Technology Specialist certifications (CTS, CTS-D, and CTS-I), and to ensure the credentials meet high standards of ethical and professional practice for the audiovisual industry that assures 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 reflects that commitment and as such, meets the ISO/IEC/17024 accreditation requirements as administered in the United States by the American National Standards Institute (ANSI).

All levels of CTS certifications are awarded for a period of three (3) years. Individuals wishing 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 provides certified audiovisual specialists the opportunity to demonstrate their ongoing efforts to enhance the knowledge, skills and abilities required to perform their jobs in the field. The program facilitates 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. Commitment to uphold and abide by the CTS Code of Ethics and Conduct is also a requirement for maintaining and renewing certification.

Renewal programs are revised and approved by the Renewal Committee. Renewal programs are approved for a period of two years or, in the case of significant program changes, prior to that timeframe.

The AVIXA Certification Committee does not endorse, accredit, approve, or sanction any particular course. The renewal units awarded are based upon documented guidelines and supporting materials provided during the application process.

PART ONE – Becoming a Renewal Unit Provider

Program Applications for Awarding of Renewal Units

In all cases, the Renewal Unit Provider Application should be received in the AVIXA Certification Office **a minimum of 30 days prior to the start of the course**. The application and documentation will be reviewed and notification will be made within 10 business days of receipt of the application. For further questions contact the AVIXA Certification Office at certification@AVIXA.org or 703-273-7200.

Defining Manufacturer vs Non-manufacturer course content

Within the RU Provider Program, course length of time is identified on the type of course content – manufacturer or non-manufacturer.

Manufacturer courses have content pertaining to specific company products, services and/or are sales-focused.

Non-Manufacturer courses have content that is strictly educational and do not include product and /or service specific content. References to multiple products and services are allowed only when they are used as educational examples.

RUs are awarded based upon the following general guidelines:

For manufacturer course content, RUs are offered in half (0.5) units per 1-hour of contact time (excluding breaks); a minimum of 45-total minutes is required to receive RUs.

For non-manufacturer course content, RUs are offered in half (0.5) unites per 30-minutes of contact time (excluding breaks); a minimum of 30-total minutes is required to receive RUs.
Renewal units are awarded and referenced to specific certification levels and the corresponding Exam Content Outline Domain area using the manufacturer or non-manufacturer guidelines in this handbook. (See Content Outlines in Appendix A for CTS, Appendix B for CTS-I, Appendix C for CTS-D).

Renewal units awarded for educational programs or activities are approved until the program changes or for a two-year period, whichever comes first.

RU Provider Logo

AVIXA's distinctive RU Provider logo, as seen on the cover of this handbook, may be used by approved Renewal Unit Providers in conjunction with the marketing or advertising of AVIXA RU approved programs or activities. Approved programs may contact certification@AVIXA.org for a digital copy of the logo and usage guidelines.

The following are suitability guidelines for awarding of renewal units as regards to various educational session formats. The Renewal Unit Provider Application found in the appendices of this handbook and online at http://www.AVIXA.org/ruprovider must be completed and emailed, faxed, or mailed to the AVIXA Certification Office a minimum of 30 days prior to the first course offering.

A: All Non-Manufacturer Onsite or Online Courses

Non-Manufacturer courses have content that is strictly educational and do not include product and /or service specific content. References to multiple products and services are allowed only when they are used as educational examples.

Requirements for Determining Suitability of Session for RUs

1. **Instructor Credentials** – The instructor must provide a 50 - 100 word biography showing clear evidence of substantial experience in the session topic or recognized industry credentials. For multiple instructors please list names, titles, years of experience, and brief bio.

2. **Learning Objectives** – At least three (3) clearly relevant learning objectives must be stated. A learning objective completes the phrase, "At the end of this program, the learner will be able to…"

3. **Session Topic and Content** – An abstract must be submitted to show how the session relates to one or more Exam Content Outline domain areas as found in Appendix A, B, or C in the Renewal Handbook or at www.AVIXA.org/renewal

4. **List of Relevant Exam Domains –** Relevant exam domains must be provided with your course submission. Please refer to Appendices A-C for a complete list of domains.

5. **Evaluations** – Participants at an **onsite course** should be evaluated in some manner from instructor/student interaction by the instructor. Each **online course** or **recorded webinar** participant must satisfactorily complete an online assessment tool (quiz, etc.) and obtain a certificate to receive RU credit – a grade of 80% or above is required. Each person who satisfactorily completes a course must receive a certificate. Once participants have completed the RU-approved course, they can upload their certificate of completion to their AVIXA transcript through AVIXA University.

6. **Course Delivery Method -** Delivery methods available are in-person seminars, webinars (live or recorded) and asynchronous online. At least one (1) delivery method must be selected. All applicable delivery methods should be selected at time of initial application submission. Any alterations or additions to course delivery methods AFTER course approval is required to submit a new application for approval.

Determination of RUs:

1. One RU is awarded for each 60 minutes of scheduled class time.
2. Instructor must evaluate student's accomplishment of the learning objectives as noted above and notify AVIXA of any student who the instructor feels does not satisfactorily complete the course.
3. A certificate must be awarded to each attendee who successfully completes the course and any required evaluation component.

Did you attach the following?

❑ Copy of course description including; allotted length of time, learning objectives, and related Exam Content Outline domain areas (see appendices) and course delivery method(s)
❑ Copy of instructor biography
❑ Copy of program abstract
❑ Copy of any evaluation component (questions used for an online course or recorded webinar quiz)
❑ Sample certificate

B. All Manufacturer Onsite or Online Programs

Manufacturer courses have content pertaining to specific company products, services and/or are sales-focused.

Requirements for Determining Suitability of Sessions for RUs:

1. **Instructor Credentials** – The instructor must provide a 50-100 word biography showing clear evidence of substantial experience in the session topic or recognized industry credentials. For multiple instructors please list names, titles, and years of experience. Note: For organizations with more than 10 instructors, please contact the Certification Office for special assistance.

2. **Learning Objectives** – At least three clearly relevant learning objectives must be stated. A learning objective completes the phrase, "At the end of this program, the learner will be able to:…"

3. **Session and Topic Content** – An abstract must be submitted to show how the session and topic relates to one or more Exam Content Outline Domain areas as found in Appendix A, B, or C in the Renewal Handbook or at www.AVIXA.org/renewal.

4. **List of Relevant Exam Domains** – Relevant exam domains must be provided with your course submission. Please refer to Appendices A-C for a complete list of domains.

5. **Evaluations –** Participants at an onsite course should be evaluated in some manner from instructor/ student interaction by the instructor. Each online course or recorded webinar participant must satisfactorily complete an online assessment tool (quiz, etc.) and obtain a certificate to receive RU credit – a grade of 80% or above is required. Each person who satisfactorily completes a course must receive a certificate. Once participants have completed the RU-approved course, they can upload their certificate of completion to their AVIXA transcript through AVIXA University.

6. **Course Delivery Method** - Delivery methods available are in-person seminars, webinars (live or recorded) and asynchronous online. At least one (1) delivery method must be selected. All applicable delivery methods should be selected at time of initial application submission. Any alterations or additions to course delivery methods AFTER course approval is required to submit a new application for approval.

Determination of RUs:

1. One RU is awarded for each 120 minutes of program time.
2. Instructor must evaluate student's accomplishment of the learning objectives and notify AVIXA of any student who the instructor feels does not satisfactorily complete the course.
3. A certificate must be awarded to each attendee who successfully completes the course and any required evaluation component.

Did you attach the following?

❑ Copy of course description including; allotted length of time, learning objectives, and related Exam Content Outline domain areas (see appendices) and course delivery method(s)
❑ Copy of instructor biography
❑ Copy of program abstract
❑ Copy of any evaluation component (questions used for an online course or recorded webinar quiz)
❑ Sample certificate

C. Obtaining RUs for an Industry-Related Book with Successful Completion of an Evaluation Tool

These must be submitted to AVIXA for pre-approval and, once approved for RUs, the link to the sponsoring organization or author where the online test is found and certificates are issued must be provided. Contact AVIXA Certification Office for assistance with the evaluation component or certificate template. Once approved, the submission(s) will be listed on the approved Renewal Units page on the www.AVIXA.org/renewal website.

Requirements for Determining Suitability of Sessions for RUs:

1. **Author Credentials** – A 50-100 word biography for the author must be provided showing clear evidence of substantial experience in the subject area and/or recognized industry credentials.

2. **Learning Objectives** – At least three clearly relevant learning objectives must be stated. A learning objective completes the phrase, "At the end of this book, the learner will be able to…"

3. **Content** – An abstract must be submitted to show how the book relates to one or more Exam Content Outline Domain areas as found in Appendix A, B, or C in the Renewal Providers Handbook or at www.AVIXA.org/renewal

4. **List of Relevant Exam Domains –** Relevant exam domains must be provided with your course submission. Please refer to Appendices A-C for a complete list of domains.

5. **Evaluations** – A copy of an appropriate evaluation tool (such as a quiz) must be submitted with application. For assistance with providing this requirement please contact the Certification Office.

6. **Link** – Sponsoring organization or author must provide a link to a site with information about the evaluation, scoring and awarding of certificate process.

6. **Certificate** – A certificate must be awarded to each individual who successfully completes the evaluation. Contact Certification Office for a sample certificate template if needed.

Determination of RUs:

1. Renewal units awarded will depend upon the size/time requirements related to the particular book but will not exceed 2 RUs
2. A certificate must be awarded to each participant who successfully completes the evaluation process.
3. Once approved, the book will be listed on the (www.AVIXA.org/renewal) website with the link to the approved organization or author's webpage and access to the evaluation tool.

Did you attach the following?

❑ Copy of author credentials and validation of industry acceptance
❑ Learning objectives and related relevance to Exam Content Outline Domain areas
❑ Copy of abstract or summary of the book
❑ Copy of the evaluation tool (quiz questions)
❑ Sample certificate
❑ Location of the webpage where information about the evaluation tool, scoring, and awarding of certificate information is found. (Contact Certification Office for assistance)

Program Renewal Units Application and Deadlines

The Application for Program Renewal Units can be found in this handbook and online at www.AVIXA.org/ruprovider. The application must be completed and faxed, mailed, or emailed to the AVIXA Certification Office a **minimum** of 30 days prior to the first course offering.

Please use the following contact address and/or fax:
AVIXA
Certification Office
11242 Waples Mill Road, Ste 200
Fairfax, VA 22030
+1-703-273-7200
Fax +1.703.991.8259
certification@AVIXA.org

PART TWO: Renewal Program Overview – Individual Renewal

A. How Renewal Units (RUs) Are Awarded

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

All renewal unit programs 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, Appendix C for CTS-D). Note: Tasks are included in the Exam Content Outlines simply to clarify the domain areas. (i.e., Course ABC is approved for 2 RUs at the CTS-I Domain A using manufacturer or non-manufacturer guidelines as noted in this handbook.)

Note: See specific listings of approved renewal units online at www.AVIXA.org/renewal

For manufacturer course content, RUs are offered in half (0.5) units per 1-hour of contact time (excluding breaks); a minimum of 45-total minutes is required to receive RUs.

For non-manufacturer course content, RUs are offered in half (0.5) units per 30-minutes of contact time (excluding breaks); a minimum of 30-total minutes is required to receive RUs.

Policy Clarification Notes:
a. A general CTS holder must have 30 RUs from general CTS, CTS-I or CTS-D approved RU programs.

b. A single specialty credential holder (CTS-I or CTS-D) must have a minimum of 50% (15) of their RUs from programs approved for RUs in the specialty credential that they hold, with the remainder of the required RUs coming either from general CTS approved program RUs or from other CTS specialty level RU approved programs." Example- someone with a CTS and CTS-I must have 15 RUs from CTS-I approved programs, the remaining 15 RUs from either general CTS RU approved programs or from CTS-D approved programs.

c. Multiple specialty credential holders (CTS-D and CTS-I) must have a minimum of 50% (15) of their RUs from programs approved for RUs in each specialty credential that they hold." Example- someone with a CTS-I and CTS-D must have 15 RUs from CTS-I approved programs, the remaining 15 RUs from CTS-D approved programs.

A listing of courses approved through the Certification Committee for RUs are posted and regularly updated online at www.AVIXA.org/renewal

B. Ways to Earn Renewal Units

- Non-Manufacturer programs may be approved for 1 RU per hour of class time (minimum 30 minutes of course time). The same course may only be used once every 24 months for the purpose of submitting renewal units.

- Manufacturer programs may be approved for 1 RU per two hours of class time (minimum 45 minutes of course time). The same course may be used only once every 24months for the purpose of submitting renewal units.

- 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.

- Instructors teaching for AVIXA or other programs approved for renewal units may receive up to 1 RU for each contact hour taught, and 1 RU for preparation time 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 3 RUs (2 RUs for the course contact hours and 1 RU for the preparation) and is presented at three regional meetings during the same 6-month period, the presenter may only count 3 RUs toward renewal in that 6-month period.

- 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 each volunteer capacity actively served in. Examples of recognized certification program support activities include active participation as a subject matter expert, serving on a certification related committee, industry standards committee, AVIXA Board or committee, or similar activities. Certificants who submit RUs under this category are subject to verification of active participation through AVIXA records. The individual must document their participation and identify the areas in which they have made a significant contribution to the certification program.

- Individuals who write an article or white paper related to an area addressed in one of the CTS Exam Content Outlines may be awarded 2 RUs if the article or white paper is published in an AV trade media or industry related technical book. 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.

- 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 http://www.AVIXA.org/renewal website). Renewal Units awarded will depend upon the size/time requirements related to the particular book, but will not exceed 2 RUs per book.

Chart of Renewal Units Options

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

C. The Value of Renewal

The renewal program has many benefits to the individual, including but not limited to the following:

- Maintaining an ISO/IEC 17024 international standard accredited credential through ANSI
- Providing an online searchable registry of those certified at any CTS level
- 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
- 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
- Offering continuously updated listing of current renewal unit approved programs and opportunities, many of which are free
- Providing a quality, professional certificate, pocket card, CTS pin, and trademark protection

Renewal Unit Provider Annual Renewal Fees

RU Provider Application Fees 2020				
Membership Status	USD	EUR	GBP	AUD
AVIXA Member	275	250	205	400
Non-Member	330	300	250	480
*Please note that the fee is per application				

RU Provider Course Name Change Request Form

The AVIXA certification office allows Renewal Unit providers to change course titles upon completion of the following name change request form. Please carefully consider a name change request and how it will impact students who may have already taken your course. All requests will be processed in approximately 7-10 business days.

Provider (Company) Name: _____

Point of Contact Name: _____

Point of Contact Email: _____

Date of Request: _____

Current Course Title: _____

Desired Course Title: _____

Is course in activation period? ____YES ____NO*

*If course is expired, provider is required to submit a standard renewal unit application for evaluation. Please complete the online application, located at www.avixa.org/training-certification/certification/ru-provider-program

RU Provider Name Change Pricing Options:

Pricing Option 1 - **Merger & Acquisition** - FREE - no fee assessed <u>with proper documentation</u> (press release)

Pricing Option 2 - **Unlimited** - $300 USD Per Year - allows Provider to change the name of courses (not the course content) unlimited times annually.

Pricing Option 3 - **Limited** - $100 USD Per Year – Provider may change the course title for one course only.

Option selected: _____

I authorize the AVIXA Certification program to update my organization's current course title to the desired course title listed above. I hereby certify that I am the designated representative for submitting training on behalf of my organization and that the information provided above is correct to the best of my knowledge. I understand that it is the responsibility of my organization to provide students with updated certificates of completion with the correct course title and to provide updated course information to students so that they are not negatively impacted while tracking their Renewal Units.

Signature: _____ Date:_____

Appendix A: General CTS Exam Content Outline

The CTS exam specifications were developed by combining the importance, criticality, and frequency data obtained from the Job Task Analysis study conducted in 2012. 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 http://www.AVIXA.org/cts under "CTS Resources".

Domains/Tasks	% of Exam	# of Items
Domain A: Creating AV Solutions	**61%**	**61**
Task 1: Conduct site survey	6%	6
Task 2: Gather customer information	6%	6
Task 3: Evaluate site environment (acoustics, lighting, seating, finishing, etc.)	6%	6
Task 4: Maintain awareness of changes to the site environment (acoustics, lighting, seating, finishing, etc.)	6%	6
Task 5: Develop a functional AV scope	8%	8
Task 6: Design AV solutions	12%	12
Task 7: Sell AV solutions	5%	5
Task 8: Conduct vendor selection process	4%	4
Task 9: Provide AV solutions	8%	8
Domain B: Operating AV Solutions	**16%**	**16**
Task 1: Operate AV solutions	6%	6
Task 2: Conduct maintenance activities	5%	5
Task 3: Manage AV solutions/operations	5%	5
Domain C: Conducting AV Management Activities	**11%**	**11**
Task 1: Project Manage AV projects	5%	5
Task 2: Perform AV Finance and Job Costing Activities	6%	6
Domain D: Servicing AV Solutions	**12%**	**12**
Task 1: Troubleshoot AV solutions	7%	7
Task 2: Repair AV solutions	5%	5
Total	100%	100

Appendix B: CTS-D Exam Content Outline

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 http://www.AVIXA.org/ctsd under "CTS-D Resources."

CTS-D Exam Content Outline	% of Exam	# of Items
Domain A: Conducting a Needs Assessment	**15.2%**	**19**
Task 1: Identify stakeholders/decision-makers	1.6%	2
Task 2: Identify skill level of end users	1.6%	2
Task 3: Educate the AV client	0.8%	1
Task 4: Review client technology master plan	1.6%	2
Task 5: Identify clients' procurement processes	0.8%	1
Task 6: Research clients' business process	0.8%	1
Task 7: Research clients' business environment	0.8%	1
Task 8: Define AV needs (absolutes)	2.4%	3
Task 9: Identify scope of work	2.4%	3
Task 10: Identify regulatory requirements and project certification goals	2.4%	3
Domain B: Collaborating With Other Professionals	**25.6%**	**32**
Task 1: Review A/E (architectural and engineering) drawings	4%	5
Task 2: Coordinate architectural/interior design criteria	3.2%	4
Task 3: Coordinate structural/mechanical criteria	3.2%	4
Task 4: Coordinate electrical criteria	3.2%	4
Task 5: Coordinate lighting criteria	3.2%	4
Task 6: Coordinate IT and network security criteria	4%	5
Task 7: Recommend acoustical criteria	2.4%	3
Task 8: Coordinate life safety and security criteria	2.4%	3
Domain C: Developing AV Designs	**49.6%**	**62**
Task 1: Create draft AV design	10.4%	13
Task 2: Confirm site conditions	8%	10
Task 3: Produce infrastructure drawings	10.4%	13
Task 4: Produce AV system documents	11.2%	14
Task 5: Produce AV build documentation	9.6%	12
Domain D: Conducting Project Implementation Activities	**9.6%**	**12**
Task 1: Participate in project implementation communication	2.4%	3
Task 2: Perform system verifications	4%	5
Task 3: Conduct system close out activities	3.2%	4
Total	**100.0%**	**125**

Appendix C: CTS-I Exam Content Outline

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 http://www.AVIXA.org/ctsi under "CTS-I Resources."

CTS-I Domains/Tasks	% of Exam	# of Items
Domain A: Conducting Pre-Installation Activities	**22%**	**22**
Task 1: Review Audiovisual Project Documentation	4%	4
Task 2: Conduct Technical Site Survey	4%	4
Task 3: Prepare for Audiovisual Installation	4%	4
Task 4: Evaluate Overall Facility Conditions	3%	3
Task 5: Maintain Tools and Equipment	3%	3
Task 6: Prepare Site for Installation	4%	4
Domain B: Conducting Site Rough-In/First-Fix	**11%**	**11**
Task 1: Deinstallation of Existing Equipment/cabling	3%	3
Task 2: Pull Cable	4%	4
Task 3: Mount Substructure	4%	4
Domain C: Installing Audiovisual Systems	**37%**	**37**
Task 1: Conduct Off-site Fabrication	3%	3
Task 2: Prepare Audiovisual Rack	4%	4
Task 3: Wire the Audiovisual Equipment Rack	4%	4
Task 4: Distribute Audiovisual Equipment	3%	3
Task 5: Mount Audiovisual Equipment	4%	4
Task 6: Terminate Cables	4%	4
Task 7: Configure Network Attached Components (ISDN, IP, POTS, etc.)	4%	4
Task 8: Load Control Programs	3%	3
Task 9: Test the Audiovisual Equipment	4%	4
Task 10: Calibrate Audiovisual Equipment	4%	4
Domain D: Perform Systems Close Out	**11%**	**11**
Task 1: Demonstrate to Client or Client's Representative that System Performs to Specifications	4%	4
Task 2: Obtain Project Completion Sign-Off from Client or Client's Representative	3%	3
Task 3: Provide Training on Equipment Operation	4%	4
Domain E: Conducting Ongoing Project Responsibilities	**19%**	**19**
Task 1: Perform Site Clean-up	3%	3
Task 2: Complete Daily Progress Reports	3%	3
Task 3: Coordinate with Other Contractors	3%	3
Task 4: Conduct Field Engineering	4%	4
Task 5: Repair Audiovisual Systems	3%	3
Task 6: Maintain AV Systems	3%	3
Total	**100%**	**100**