

# Avid Education

## Certification Exam Study Guide



## Avid Certified Support Representative MediaCentral

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| Exam                | Avid MediaCentral System Support             |
| Exam Code           | WG453  |
| Type of Exam        | Multiple choice                              |
| Certification Level | Avid Certified Support Representative (ACSR) |
| Duration            | 60 minutes                                   |
| No. Of Questions    | 50 questions                                 |
| Passing Score       | 80%  |
| Exam Language       | English only                                 |

### Target Audience

Technical support staff, technical managers, installers, advanced administrators and others who need to install, maintain, or support Avid MediaCentral systems.

### Exam Preparation

Successful candidates will have extensive experience on the Avid MediaCentral platform. Although course attendance is not required to take the certification exam, Avid highly recommends candidates attend the course(s)

- WG453: ACSR | Interplay Central Services

The WG453 course with its hands on training will help candidates build the skills and competencies required for certification.

Successful candidates must understand the terminology used with the involved Avid products, as well as a thorough understanding of the system's architecture and how the required hardware components and software configurations are integrated. This includes:

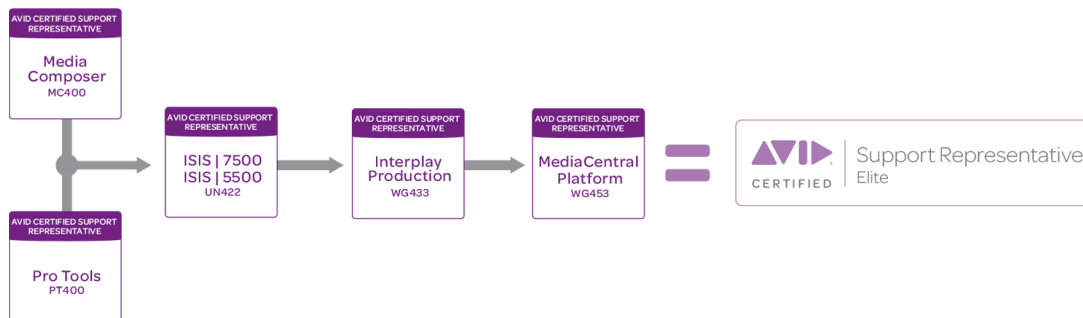
- MediaCentral Platform
- MediaCentral | UX
- Interplay | Production
- Interplay | MAM
- iNews
- Media | Distribute
- Media | Director
- Media Composer | Cloud

Previous Linux experience and comfort with command line interfaces is suggested.



## Certification Path

### Avid Certified Support Representative | MediaCentral



The certification path provides a defined process by which individuals can prepare for the certification exam and, by extension, the role of ACSR | MediaCentral. It is designed to ensure that candidates have sufficient knowledge of and experience with the client and storage systems that will be connected to the MediaCentral system they will be supporting.

Certification as an ACSR | Interplay Production is a prerequisite to taking the WG453 MediaCentral Support exam.

In addition, candidates are recommended to complete one the following course(s):

- WG453: ACSR | Interplay Central Services

Completing the recommended course(s), coupled with hands-on experience will help you build the skills and competencies need to pass the exam. You are not required, however, to complete the training courses prior to taking the certification exam. If you feel you have considerable, real-world experience implementing, installing, administering and troubleshooting Avid Interplay and Avid MediaCentral systems, then you may register and take the exam at any time.

**Next Steps:** This certification is one component in the ACSR | Elite certification path. If you complete this certification without all the preliminary certifications, you may consider completing those next in order to qualify for the exclusive designation of ACSR | Elite.

## Certification Exam Topics

The following topics are included in the certification exam. You should be well versed in the technical and operational details of each:

### Introduction to the Avid MediaCentral Platform

1. Understanding the MediaCentral Platform
  - a. What is Avid MediaCentral | UX
2. Deployment Options
  - a. MediaCentral Platform with iNEWS Only
  - b. MediaCentral Platform with Interplay | Production Only
  - c. Media Central Platform with iNEWS and Interplay | Production
  - d. Media Composer | Cloud Only
  - e. MediaCentral | UX and Media Composer | Cloud (Shared Platform)
  - f. Interplay | MAM (Media Asset Management)
  - g. MediaCentral & Interplay Version Compatibility
3. Hardware Requirements for Deployment Options
4. MediaCentral Platform Hardware
  - a. Supported Servers
  - b. Memory Requirements
  - c. Supported NICs for ISIS Connection
  - d. Redundancy Options
  - e. Horizontal Scale
5. Performing Assessments based on Hardware Configuration
  - a. Media Format Assessment
  - b. Peak Usage Assessment
  - c. Peak Usage Assessment in MAM
6. Caching in MediaCentral Platform Servers

### MediaCentral Platform Services

1. Identify and understand MediaCentral Platform Services:
  - a. Services for MediaCentral | UX with iNEWS only
  - b. Services for MediaCentral | UX with Interplay | Production only
  - c. Services for MediaCentral | UX with iNEWS & Interplay | Production
  - d. Services for Media Composer | Cloud
  - e. Services for MediaCentral | UX and Media Composer | Cloud (Shared Platform)
  - f. Services for Interplay | MAM
2. Examination of MediaCentral Playback Service
  - a. Technical Explanation of Playback Integration
  - b. Playback from ISIS
  - c. Playback in Multi-Rez Environment
  - d. Supported devices for UX playback clients?
  - e. Bandwidth required for each client
  - f. Limitations of and issues that prevent real-time playback

## Certification Exam Topics (cont.)

### Linux Integrations

1. Linux Implementation
  - a. Installing Linux
  - b. Linux Concepts
  - c. Key Linux Directories
2. Linux Command Line
  - a. Commonly Used Linux Commands
  - b. Linux Text Editor (vi)
  - c. Volumes in Linux
3. Console Access

### Installing MediaCentral

1. System Installation
  - a. PAM vs. ICS differences
  - b. Interplay | Production vs. MediaCentral
  - c. Single Server vs. Clustered Deployment in RHEL
2. Pre-Flight Checklist
  - a. Existing Components
  - b. Installing New Components
  - c. Console Access
3. Configuring the BIOS/RAID
4. Understanding License Types
  - a. License types associated with Media Central UX functionality
  - b. Current functionality of dongles and licensing
5. Installing an Image
  - a. Adjusting system settings
6. Initial Configuration of the Media Central Platform

### Running MediaCentral on a Server Cluster

1. Setting Up a Server Cluster
2. Additional Components in a Server Cluster
  - a. File Cache Replication with Gluster
  - b. Cache Contents
  - c. Clearing the Cache
3. Server disk & file system layout
  - a. Useful commands for disks and volumes
  - b. sda2 Volume
  - c. DRBD Volume Mirroring
4. Identification and Location of Server Cluster Services

## Certification Exam Topics (cont.)

5. Linux Cluster Network Topology
  - a. ISIS Zones
  - b. Addressing
  - c. Using Multicast
  - d. Using Check Existing
6. ICS Network Topology in Linux Clusters
  - a. Routing Options
  - b. Using Two Switches
  - c. Configuring Other IPs
  - d. Pingable Address

### Linux Cluster Configuration and Troubleshooting

1. Setting up the Server Cluster
  - a. MediaCentral Post Flight Procedures
  - b. Basic Command Lines
  - c. Cluster-related Commands
2. Troubleshooting
  - a. Cluster Status
  - b. Explanation of crm\_mon output
  - c. Cluster Troubleshooting – Fail Counts and Cleanups
  - d. Shutting Down/Rebooting a Single Node
  - e. Shutting Down/Rebooting an Entire Cluster
  - f. Performing a Rolling Reboot/Shutdown
3. Monitoring and Troubleshooting the Playback Service
  - a. Using Performance Monitoring Scripts
4. DRBD Status & Split Brain Situation
5. DRBD – DRBD Admin Tool
6. Non-Avid Services
  - a. PostgreSQL
  - b. mongoDB
  - c. RabbitMQ
7. Troubleshooting RabbitMQ

## Practice Questions

The following questions are not part of the current WG453 exam but are similar to the questions likely to be asked. Successful completion of these questions does not guarantee a passing score on the exam.

1. What Operating System is required for MediaCentral Platform 2.1?
  - a. Red Hat Linux 6.3
  - b. Red Hat Linux 6.4
  - c. Red Hat Linux 6.5
  - d. Red Hat Linux 6.6
  - e. Any of the above are supported
  
2. What is the client application called in MediaCentral?
  - a. Avid Access
  - b. Avid Assist
  - c. Avid Instinct
  - d. MediaCentral UX
  - e. MediaCentral Platform
  
3. Which of the following mobile devices can be used on MediaCentral Platform?
  - a. iOS
  - b. Android
  - c. Windows Phone
  - d. Blackberry
  - e. A and B
  
4. When building a MediaCentral system what determines how many servers are required?
  - a. Redundancy needs
  - b. Horizontal scale
  - c. Red Hat Linux OS Version
  - d. A and B
  - e. A, B and C
  
5. When determining "usage playback peaks" what should you first consider?
  - a. Number of connected mobile devices
  - b. The type of web browser being used
  - c. Latency between the MediaCentral Platform and UX clients
  - d. Media formats (i.e. resolutions) in your potential workflow
  - e. Compression percentages on the UX clients

## Practice Questions (cont.)

6. What service provides video to the MediaCentral UX?
  - a. MediaCentral Configuration Service
  - b. RabbitMQ Message Bus
  - c. ActiveMQ Message Bus
  - d. MediaCentral Playback Service
  - e. AvidFOS
  
7. How is the video delivered in MediaCentral UX browser and the Media Composer Cloud?
  - a. File Generation & Delivery
  - b. Frame Delivery
  - c. File Delivery
  - d. Any of the above
  - e. None of the above
  
8. If a clip is available on ISIS in AVC100, DVCPPro100, DNxHD145, DV25 and H.264, which one will MediaCentral use to create its proxy?
  - a. AVC100
  - b. DVCPPro100
  - c. DNxHD145
  - d. DV25
  - e. h.264
  
9. Which is the sub-service of the MediaCentral Playback Service that encodes and decodes media?
  - a. avid-fps
  - b. avid-jips
  - c. avid-spooler
  - d. avid-edit
  - e. avid-config
  
10. Why is the average bandwidth required for Cloud less than UX?
  - a. Client side caching is used on the Media Composer
  - b. Media Composer specs are higher than those for a UX client
  - c. The stream for Cloud uses MP3 compressed audio
  - d. The bandwidth for Cloud is not less than what is required for UX.
  - e. A and C

## Practice Questions (cont.)

11. How are requests for playback from UX clients handled by the master node?
  - a. It does not handle the request, the master node only services database traffic
  - b. It distributes the request to available nodes
  - c. It services the initial request itself and passes on queued requests to other nodes
  - d. It passes the request to the slave node
  - e. It transcodes the media for the request and replicates it all other nodes
  
12. Which license types are used for MediaCentral and Interplay?
  - a. Key E (Editor)
  - b. Key J (Central Basic)
  - c. Key G (Central Advanced)
  - d. B and C
  - e. A, B and C
  
13. Which are requirements for installing the MediaCentral Distribution Service?
  - a. Windows 7, Avid Service Framework Client, Isis Client
  - b. Windows 2008, Avid Service Framework Client
  - c. Windows 7, Isis Client
  - d. Windows 2008 or Windows 2012, Avid Service Framework Client
  - e. Windows 7 or Windows 2008 and Isis Client
  
14. Which services work together to detect server and application failures?
  - a. Gluster and DRBD
  - b. Corosync and Pacemaker
  - c. DRBD and Corosync
  - d. Pacemaker and DRBD
  - e. Pacemaker and Gluster
  
15. Does the master node service playback requests from MediaCentral UX clients?
  - a. No, it only services the MediaCentral database
  - b. Yes, but only when the other nodes are all above 30% load
  - c. Yes, but only when the other nodes are all above 50% load
  - d. Yes, but only when the other nodes are all above 90% load
  - e. Yes, but only if you configure it to do so
  
16. Where are the created proxy files stored on MediaCentral servers?
  - a. /cache/metadata
  - b. /cache/download
  - c. /cache/render
  - d. /cache/spooler
  - e. /cache/fl\_cache



## Practice Questions (cont.)

17. Which physical volume are the MediaCentral Databases kept on?
- a. sda1
  - b. sda2
  - c. sda3
  - d. sdb1
  - e. sdb2
18. Which service replicates the MediaCentral databases?
- a. Gluster
  - b. Corosync
  - c. Pacemaker
  - d. DRBD
  - e. None of the above
19. Which services run on all nodes?
- a. MediaCentral Playback Service (ICPS)
  - b. Middleware (IPC)
  - c. Configuration (ACS)
  - d. User Management (UMS)
  - e. None of the above
20. Which zone is recommended for a MediaCentral installation in an ISIS 7000/7500 environment?
- a. Zone 1
  - b. Zone 2
  - c. Zone 3
  - d. Zone 4
  - e. Any of the above

## Answers to Practice Questions

Use the answers below to check your knowledge on the practice questions.

1. C: Red Hat Linux 6.5
2. D: MediaCentral UX
3. E: A and B
4. D: A and B
5. D: Media formats (i.e. resolutions) in your potential workflow
6. D: MediaCentral Playback Service
7. B: Frame Delivery
8. E: h.264
9. D: avid-edit
- 10.A: A and C
- 11.B: It distributes the request to available nodes
- 12.D: B and C
- 13.A: Windows 7, Avid Service Framework Client, Isis Client
- 14.B: Corosync and Pacemaker
- 15.B: Yes, but only when the other nodes are all above 30% load
- 16.E: /cache/fl\_cache
- 17.B: sda2
- 18.D: DRBD
- 19.A: MediaCentral Playback Service (ICPS)
- 20.C: Zone 3