



CompTIA CDIA+ Certification Exam Objectives Exam Number: CD0-001

Introduction

CompTIA's CDIA+ certification is an internationally recognized credential acknowledging competency and professionalism in the document imaging/records management industry. CompTIA's CDIA+ candidates possess critical knowledge of all major areas and technologies used to plan, design, and specify an enterprise content system.

The CompTIA CDIA+ exam will certify that the successful candidate has the knowledge and skills required to explain content management concepts, including business analysis processes, content lifecycle and workflow, and concepts related to integrating a content imaging system with business applications using project management fundamentals. Additionally, a successful candidate will be able to implement scanning technology infrastructure and participate in the design of capture solutions, while addressing security requirements.

The skills and knowledge measured by this examination are derived from an industry-wide and worldwide job task analysis, which was validated through a survey. The results of the survey are used in weighting the domains and ensuring that the weighting is representative of the relative importance of that content to the job requirements of a digital content imaging professional with at least 24 months of experience.

This examination blueprint for CompTIA's CDIA+ examination includes the weighting and test objectives. Example topics and concepts are included to clarify the test objectives and should not be construed as a comprehensive list of all the content of this examination.

The table below lists the domains measured by this examination and the extent to which they are represented in the examination.

Domain	Percentage of Examination
1.0 Enterprise Content Management	20%
2.0 Capture	23%
3.0 Storage and Networking	13%
4.0 Security and Compliance	16%
5.0 Analysis, Design, and Implementation	28%
Total	100%

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****Note:** The lists of examples provided in bulleted format below each objective are not exhaustive lists. Other examples of technologies, processes or tasks pertaining to each objective may also be included on the exam although not listed or covered in this objectives document.

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1.0 Enterprise Content Management

1.1 Explain the proper uses of index, search, and retrieval.

- Taxonomy / business classification schema
- Metadata structure
 - Indices
 - Document classes
 - Attributes
- Application connectivity (ODBC)
- Full text search
- Enterprise / federated search
- Search – fuzzy and Boolean operators
 - and
 - or
 - not
 - <
 - >
 - wildcards
 - *
 - !
 - =
 - ?

1.2 Explain the function and use of workflow.

- Repeatable processes
- Sequential processes
- Parallel processes
- Queues and roles
- Business rules
- Routing
- Timers and alerts/notifications
- Workflow status
 - Metrics
 - Reporting
- Workflow examples
 - Purchase order process
 - Time and expense process
 - Invoice process
 - Employee on-boarding/off-boarding
 - Approval process
 - Escalation process
- Workload balancing
- External rules and external BPM systems

1.3 Explain how collaborative capabilities are used.

- Version history
- User tracking and logging
- Check-in and check-out
- Simultaneous editing / real-time collaboration / co-authoring
- Annotations
 - Redactions (manual vs. auto)
 - Highlights
 - Stamps

- Notes

1.4 Compare and contrast document presentation and output features.

- Document scale
 - Ratios
 - Viewer distortion
 - Output integrity
- Orientation
 - Monitor
 - Page
- Document viewer features
 - Polarization
 - Color correct
 - Zoom / zone
 - Precision measuring
 - Document navigation and pagination (thumbnails)
- Viewer types
 - Web-based (browsers)
 - Plug-ins
 - Vendor specific
 - Universal document viewers
- Remote viewing
 - Bandwidth
 - Peak-query requirements
- Rendition
- File print methods
 - Dot-matrix
 - Inkjet
 - Laser
 - Thermal
 - Print to file
- Print output languages
 - Postscript
 - PCL
 - IPDS
- Email
- Fax

1.5 Explain the purpose of content lifecycles.

- Content purpose and changes
- Content storage and archival (long term preservation)
- Content permissions and changes
- Content retention / deletion
- Audit trails

2.0 Capture

2.1 Given a scenario, select the appropriate input sources and methods.

- Mobile
 - Cell phone
 - Tablets
- Fax
 - Analog

- Digital
- Hot-folder / watch-folder
- Email and email attachments
- Desktop uploads / document import
- Capture at creation / point of origination
- Structured data transferred into another system (EDI)
- ERM
 - Postscript
 - PCL
 - IPDS
- Centralized or distributed capture
- Batch capture
- Barcode readers
- External keyboards
- RFID tag reader
- Screen-scraping to collect index values
- Paper
 - Quality
 - Weight
 - Type
 - Sizes

2.2 Given a scenario, implement document scanning technologies and processes.

- Capture processing steps
 - Document preparation
 - Capture
 - Recognize
 - Validation
 - Verification
 - Quality control
 - Release
- Scanner drivers
 - ISIS
 - TWAIN
- Document preparation
 - Physical preparation of the documents
 - Staple removal
 - Sorting/order
 - Counts
- Scanner settings
 - Brightness
 - Contrast
- Image cleanup
 - Deskew
 - Despeckle
 - Auto-orientation
 - Color dropout
 - Blank page removal
 - Hardware vs. software cleanup
- Automatic document feeder vs. flatbed
- Paper feed detection / paper size detection
 - Simplex vs. duplex
- Speeds
 - ppm

- ipm
- throughput
- Maximum duty cycle / throughput expectation
 - Stated vs. actual throughput
- Embedded vs. external keyboard input
- Endorsing and imprinting
- Scanner types
 - Personal PC attached
 - Workgroup level
 - Network production scanner
 - High volume
 - MFP
 - Specialty scanners
 - Large format
 - Film
 - Hand scanners
 - Cards scanners

2.3 Given a scenario, differentiate recognition methodologies and technologies.

- Barcodes
- Separator sheets
- Cover sheets
- Patch codes
- Intelligent capture
 - ICR
 - OCR
 - IHR
 - OMR
 - MICR
- Attended vs. unattended
- Unstructured forms recognition
 - Recognize
 - Auto-classify
 - Extract
 - Separation
 - Data grouping/clustering
 - Associative matching
 - Export data
- Semi-structured forms recognition
- Structured forms recognition
- Document capture vs. data capture
- Exception processing
- Forms types and metadata validation
 - Database vs. manual
- Quality control
- Registration marks / anchors

2.4 Explain the purpose of metadata file properties.

- Index values
 - Extracted or derived values
 - Time and date stamp
 - Auto defined based on document type
 - Prompted at the device (MFP)
 - XML tags

- Inheritance
 - Folder level
 - Container
- Import file types
 - xml
 - csv
 - txt
 - tsv
 - tagged

2.5 Differentiate between various physical file properties and their impact.

- Estimate storage or network bandwidth needs based on file size and types
- File encryption
- Resolution (dpi)
- File types
 - PDF
 - PDF/A
 - TIFF
 - JPEG
 - WMV
 - BMP
 - DOC
 - TXT
 - XLS
 - MP3
 - MP4
 - WAV
- File sizes
- Compression
 - Lossy vs. Lossless
 - Group4
 - LZW
 - JBIG2
 - JPEG2000
- Color
- Grayscale (bitonal)
- Black and white

3.0 Storage and Networking

3.1 Explain the various storage media types and their associated properties.

- Magnetic disk
- Tape
- Optical disk
- Microform
- NAND flash memory
- Media degradation
- SSD

3.2 Explain appropriate storage methods and their features.

- SAN/NAS
 - Performance

- Flexibility
 - Size
 - Redundancy
 - Bandwidth
- RAID
 - I/O speeds
 - Redundancy
 - Failover
- SSD
 - Access speed
 - Durability
- WORM (Write-once read many)
- Cloud
 - Scalability
 - Remote
 - Cost
 - Accessibility
 - Support
 - Storage-as-a-service
- Microforms
 - Eye readable format
- Direct-attached disk / local drive

3.3 Compare and contrast various storage strategies.

- Clustering
- Tiered storage
 - Online
 - Offline
 - Onsite
 - Offsite
- Metrics and reporting
 - Frequency of use
 - Date of creation
 - Type of data
 - Date of modification
- Hybrid storage
- Hierarchical Storage Management

3.4 Explain the basics of network connectivity and hardware solutions.

- Network connectivity
 - Connectivity types
 - Modems
 - DSL
 - ISDN
 - T1
 - T3
 - 3G
 - 4G
 - 802.11 a/b/g/n
 - Client-server network
 - Shared bandwidth
 - Security
 - Wireless vs. wired
 - LAN vs. WAN

- Hardware solutions
 - Workstation/server hardware considerations
 - Processing power
 - Memory
 - OS
 - Storage
 - Virtualization
 - Clients
 - Thin client
 - Thick client

4.0 Security and Compliance

4.1 Explain the basics of records management.

- Records value
- Digital retention requirements
- Legal holds
- Physical archival requirements
- Disposition process
- Awareness of governmental regulations and policies
- Awareness of industry standards and best practices

4.2 Explain different access security methods.

- Authentication vs. authorization vs. audit
- Single sign-on
- Two factor authentication (card swipe and pin/password)
- Role-based access
- Biometrics
- Group policy

4.3 Explain various elements of network security.

- VPN
- Directory services
 - Active directory
 - LDAP
- SSL/HTTPS
- SFTP
- Encrypted passwords / no clear text
- Data encryption
- PKI

4.4 Given a scenario, implement appropriate document and information security.

- Redaction
- Watermarking
- Document privileges
 - Email
 - Export
 - Print
 - Copy
 - Edit
- Types of deletions
 - Metadata vs. full document

- Secure deletion / forensic deletion
- Secure printing
- Library services
 - Version control
 - Check-in and check-out
- PDF security
- Digital signatures

5.0 Analysis, Design, and Implementation

5.1 Identify the basics of project management.

- Players
 - Champions
 - Stakeholders (IT, HR, end-users, procurement)
 - Executive sponsor
 - Project manager
 - Project management team
- Phases
 - Project initiation
 - Planning
 - Execution
 - Monitor and control
 - Closing
- PM terms
 - Change management
 - Risk management
 - Scope creep
 - Communication plan
 - Mile-stones
 - Project sign-off
 - Pilot
 - Testing
 - Proof of concept
 - Schedule / GANTT
 - PERT chart
 - Cutover
- Document types
 - RFP
 - RFI
 - RFQ
 - SOW
 - MSA
 - NDA
 - SLA
 - BAA
 - Contract
 - Addendum

5.2 Execute appropriate requirement gathering techniques.

- Document client objectives
- Identify operational business needs
- Analyze the process

- Gather metrics
- Document current state (“as is”)
- Identify bottlenecks and issues
- Gather sample documents and current process documentation
- Interviews
- Observations
 - Peak-times
 - Benchmark
 - Number of users
 - Licensing
 - Backlog
 - Backfile
- Targeted surveys
 - Technical survey vs. business survey
- Identify opportunities for process improvement and/or introduction of new technologies
- Understand corporate culture and organizational hierarchy

5.3 Analyze collected data and validate client requirements.

- Data validation
- Requirements validation
- Targeted presentations
- Gap analysis
- Map existing business processes to future state
- Map business requirements to benefits of solution
- Develop return on investment calculation (ROI)
 - Analog vs. digital
 - Shipping documents vs. remote capturing
 - Staff efficiency
 - Managed services vs. in-house
 - Onshore vs. offshore
 - Paper storage vs. electronic storage
 - Green calculation (carbon footprint)
 - Mail vs. electronic distribution
 - Customer service improvements
 - Quality and accuracy of data
- Client sign-off

5.4 Structure a solution design according to specified requirements.

- Develop a solution design plan
 - Quantify alternative solutions when necessary
- Develop functional specification
 - User interface
 - Performance
- Develop technical specification
 - Security/compliance requirements
 - Hardware/software/network interoperability
 - Recommend scanner based on volume
 - Turnaround time
 - File size
 - Throughput
 - Duty cycle
- Develop applicable diagrams
 - High-level workflow diagrams
 - Architecture

- Recommend relevant / current technologies based on customer requirements
 - Customer environment
 - Unique challenges
 - Budget
 - Competitive environment
- Distributed scanning vs. centralized scanning
- Simulation / modeling of core components of the solution
- Consider growth needs and scalability

5.5 Explain business continuity concepts.

- Backup and restoration
- High availability / redundancy
- Disaster recovery plan
- Redundancy of scanner hardware / availability based on SLA, maintenance

5.6 Apply implementation and testing procedures.

- Develop implementation plan
- Installation and configuration guidelines
- Testing plan
- Capture tuning and optimization
- Administrative and end-user training
- Delivery of technical documentation
- Deliverables and acceptance
 - Success criteria and measurement
- Gather on-going metrics and monitoring

CompTIA CDIA+ Acronyms

Introduction

The following is a list of acronyms which appear on the CompTIA CDIA+ exam. Candidates are encouraged to review the complete list and attain a working knowledge of all listed acronyms as a part of a comprehensive exam preparation program.

ACL	Access Control List
ADF	Automatic Document Feeder
AP	Accounts Payable
B2B	Business to Business
B2C	Business to Customer
BAA	Business Area Analysis
BMP	Bit Map
BPM	Business Process Management
CAR	Computer Assisted Retrieval
CD	Compact Disc
CDC	Change Data Capture
CD -R	Compact Disc Recordable
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
CMIS	Content Management Interoperability Services
CMYK	Cyan, Magenta, Yellow, Black
COLD	Computer Output to Laser Disk
CRM	Customer Relationship Management
CSS	Cascading Style Sheets
CSV	Common Separated Variable
DDS	Digital Data Storage
DLT	Digital Linear Tape
DMS	Document Management System
dpi	dots per inch
DRM	Digital Rights Management
DSL	Digital Subscriber Line
DVD	Digital Video Disc
EBCDIC	Extended Binary Code Decimal Interchange Code
ECC	Error Correction Control
ECM	Enterprise Content Management
EDI	Electronic Data Interchange
ERM	Enterprise Risk Management
ERP	Enterprise Resource Planning
FTP	File Transfer Protocol
GB	Gigabyte

GIF	Graphics Interchange Format
HSM	Hierarchical Storage Management
HTTP	Hypertext Transfer Protocol
HTTPS	Hypertext Transfer Protocol Secure
I/O	Input/Output
ICR	Intelligent Character Recognition
IDE	Integrated Drive Electronics
IHR	Internet Health Resources
IPDS	Intelligent Printer Data Stream
ipm	Images per minute
IRR	Internal Rate of Return
ISDN	Integrated Services Digital Network
ISIS	Image and Scanner Interface Specification
IT	Information Technology
JDBC	JAVA Database Connect
JPEG	Joint Photographic Expert Group
K	Thousand
KB	Kilobyte
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
MAC	Macintosh
MBps	Megabytes per second
MDC	Mobile Data Collector
MDM	Mobile Device Management
MFD/MFP	Multi-functional Device / Multi-functional Peripheral
MICR	Magnetic Ink Character Recognition
MPS	Managed Print Services
MSA	Master Service Agreement
MVNO	Mobil Virtual Network Operator
NAND	Not And
NAS	Network Attached Storage
NDA	Non-Disclosure Agreement
NFC	Near Field Communication
OCR	Optical Character Recognition
ODBC	Open Database Connectivity
ODMA	Open Document Management API
OMR	Optical Mark Recognition
OS	Operating System
PC	Personal Computer
PCL	Printer Control Language
PDF	Portable Document Format
PDL	Page Description Language
PII	Personally Identifiable Information
PKI	Public Key Infrastructure

POP3	Post Office Protocol version 3
POTS	Plain Old Telephone Service
ppm	pages per minute
PS	Postscript
RAID	Redundant Array of Independent Disks
RFI	Request For Information
RFID	Radio Frequency Identification
RFP	Request For Proposal
RFQ	Request For Quote
RGB	Red, Green, Blue
ROI	Return on Investment
SaaS	Software as a Service/Storage as a Service
SAN	Storage Area Network
SCSI	Small Computer System Interface
SFTP	Secured File Transfer Protocol
SLA	Service Level Agreement
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SOW	Statement of Work
SOA	Service Oriental Architecture
SOP	Standard Operating Procedure
SQL	Structured Query Language
SSL	Secure Sockets Layer
TCP / IP	Transfer Control Protocol / Internet Protocol
TFTP	Trivial File Transfer Protocol
TIFF	Tagged Image File Format
TWAIN	The TWAIN Working Group provides a specification that helps scanner and camera vendors
TXT	Text file
USB	Universal Serial Bus
VPN	Virtual Private Network
WAN	Wide Area Network
WAV	Windows Wave
WCMS	Web Content Management System
WMF	Windows Metafile
WMV	Windows Media Video
WORM	Write Once, Read Many
XML	Extensible Markup Language

Suggested Classroom Equipment for CDIA+ Certification Training

**CompTIA has included this sample list of hardware and software to assist candidates as they prepare for the CDIA+ exam. This list may also be helpful for training companies who wish to create a lab component to their training offering. The bulleted list below each topic are a sample list and not exhaustive.

Equipment

- Scanners (multifunctional, desktop and handheld) with ADF
- Hub
- CAT5 Cables
- Switch
- Wireless router
- Laptops
- NAS box
- Basic minitower server (virtual servers)

Spare parts/hardware

- RJ-45 connectors
- Extra cables
- USB cables
- SCSI cables

Tools

- Screw drivers
- Staple removers
- Tape

- Sticky finger
- Glass cleaner

Software

- Scanning software
- Database software
- Image cleanup/capture software
- Sample database files – sample data
- Sample directory structure

Other

- Media types: different types of paper and different sizes
- Sample files: requirement documents, workflow documents, GANTT charts, etc.
- Patch code sheets, separator sheets, cleaning sheets

Version 3.0