



## Self-Study Overview: MEF-SDCP (June 2022)

You are destined to become the next MEF SD-WAN Certified Professional!

This overview incorporates the references required to prepare for the \*NEW\* MEF-SDCP (June 2022) certification exam. A majority of those who have passed the MEF-SDCP certification exam have utilized these resources for self-study.

If you desire a formalized self-study programs there are a number of MEF Accredited Training Providers to choose from. If you are interested in their specific course materials please visit: <https://www.mefprocert.com/training> to view the descriptions of available options.

### Brief Overview:

This exam has 50 multiple choice questions and is approximately 90 minutes long.

An individual who self-studies and takes the exam will typically utilize our on-line proctor services. When you register for your exam you will receive details on the scheduling of your exam.

This new MEF-SDCP (June 2022) exam incorporates MEF 70.1 which replaces the MEF 70 standard, and now includes MEF 88 Application Security for SD-WAN and MEF W105 Performance Monitoring and Service Readiness.

### Topic areas:

#### ✔ SD-WAN Concepts, Business Benefits and Value Proposition

Demonstrate knowledge of the SD-WAN terminology, concepts, and Service Attributes, understand infrastructure and operational benefits in contrast to legacy solutions and provide implementation and migration strategies.

#### ✔ Planning, Design, and Architecture

Understand and apply SD-WAN application flow specifications, underlay connectivity, Internet Breakout, virtual topologies and policies for planning, design and architecting SD-WAN services based on business requirements.

#### ✔ Deploy, Optimize, Maintain

Demonstrate knowledge of IP Addressing and IP Routing , validate and define the assignment of policies to application flows, tune SD-WAN service attributes and/or UCS selection to address service problems, determine appropriate performance metrics and values, and Identify service improvements .

#### ✔ Securing an SD-WAN Service

Identify and understand security threats, middle box function use cases, appropriate security functions to mitigate threats, use of 'allow' and 'block' lists and determine whether an application flow's security requirements are met.

#### ✔ Monitoring an SD-WAN Service

Understand the Service Readiness requirements for an SD-WAN Service, monitor the performance metrics, use of threshold crossing alerts and troubleshoot issues.

[See Exam Blueprint](#)



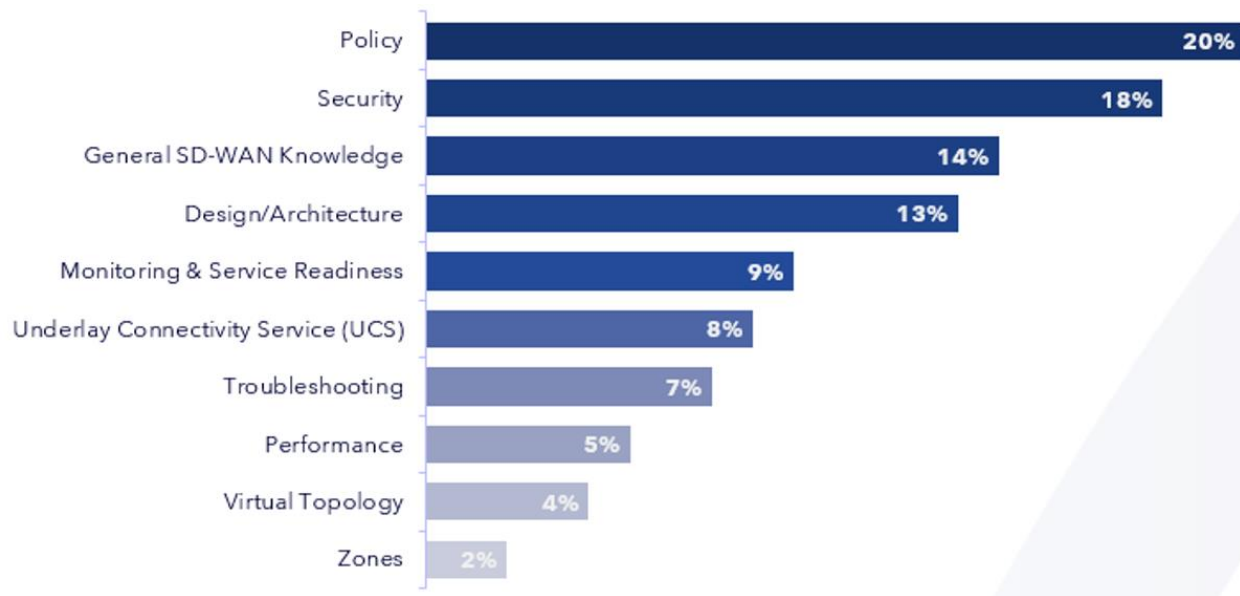
Study area details



In those topic areas are a significant number of updates to this exam including, but not limited to: SD-WAN Virtual Connection (SWVC) Zones, virtual topologies, performance and policy criteria, SD-WAN UNI routing protocols, UCS UNI, UCS end-point service attributes, performance metrics etc. MEF 88 adds SD-WAN Security functions, policies supporting application flows, middle box functions, certificate authority and validation functions, Transport Layer Security (TLS), IP, DNS, URL filtering, Malware detection/removal, then MEF W105 adds SD-WAN performance measurements, monitoring, service readiness, Measured Information Rate for application flows, zones, but there's much more.

### Learning Areas:

To help you focus your study efforts we also weight each exam question by learning areas.



### Primary References:

- [MEF-SDCP Blueprint B](#)
- [MEF 70.1](#) SD-WAN Service Attributes and Service Framework,
- [MEF 88](#) Application Security for SD-WAN Services and
- [MEF W105](#) Performance Monitoring and Service Readiness Testing for SD-WAN are the primary study references.
- The [MEF self-study portal](#) which provides some additional self-study assistance.

All other references are secondary and may assist in providing a broader perspective related to SD-WAN.

### Additional reference:

[RFC 2764](#) A Framework for IP Based Virtual Private Networks

[MEF 55.1](#) Lifecycle Service Orchestration (LSO): Reference Architecture and Framework

White Paper: A deep dive into SD-WAN troubleshooting and monitoring, TechTarget.com ([A deep dive into SD-WAN troubleshooting and monitoring.docx](#))

White Paper: What to expect with SD-WAN management, intent and usability, TechTarget.com ([What to expect with SD-WAN management, intent and usability.docx](#))

White Paper: SD-WAN For Dummies 2nd VMware Special Edition by Sanjay Uppal, Steve Woo and Dan Pitt ([Software-Defined WAN For Dummies.pdf](#))

White Paper: MEF 3.0 SD-WAN Services - White Paper, MEF Marketing White Paper ([MEF-3.0 SD-WAN-Services-White-Paper.pdf](#))

White Paper: Limitations and Differences of using IPsec, TLS/SSL or SSH as VPN-solution, Ole Martin Dahl ([Limitations-and-Differences-of-using-IPsec-TLS-SSL-or-SSH-as-VPN-solution.pdf](#))

Please note that on occasion some content may change to reflect the most up-to-date and accurate information at the time.

### **Cognitive Complexity Approach:**

The exam questions are designed around a cognitive complexity approach. Cognitive complexity, or rather, the nature of thinking required, relates to how a person remembers, understands, analyzes the questions being asked and the correct response to the question. MEF exam developments utilize an approach includes three levels of cognitive complexity (see table below). It's good to keep this in mind as you prepare for your exam. *MEF exams include a substantial number of scenarios-based questions. Scenarios often require all three cognitive approaches to determine the correct answers.*

<b>Cognitive Level</b>	<b>Description</b>	<b>Item Characteristics</b>
1. Remember	Retrieve relevant knowledge from long-term memory	No scenario – knowledge-based question where the answer could be directly found in a resource
2. Understand/Apply	Construct meaning from information, demonstrate comprehension of concepts or processes, apply processes or procedures.	May have a short scenario – candidate must use knowledge to answer the question.
3. Analyze/Evaluate	Break material into parts, determine how parts relate to one another or overall structure, make judgments based on criteria.	Detailed scenario – candidate must make some kind of decision using several pieces of information provided in the scenario (think 4-6 details in the scenario)

### **Sample questions:**

Here are some sample questions to assist in orienting you to the exam. These questions are provided for illustration and not actual exam questions:

The aeronautics and space agency is evaluating SD-WAN technology for two specific applications:

- Mission-critical data during rocket launches
- End-user access to administrative and office software

What should be considered to support the mission-critical data application in an SD-WAN solution?

- A. Resiliency and availability characteristics of the SD-WAN Service
- B. UCS metered cost of the SD-WAN Service
- C. Reporting capabilities of the SD-WAN Service
- D. Choice of ISPs used to provide the connectivity of the SD-WAN Service

A company uses an SD-WAN to connect its branches. All branches are connected with two public UCS and a private UCS. The company uses a public video conferencing service.

The video conferencing service is not working because the SD-WAN Edge forwards the traffic over the private UCS only.

What is causing this issue?

- A. Policy disallows forwarding traffic over a Public UCS
- B. Private and Public UCS are not provided by the same Service Provider
- C. Private and Public UCS are provided by the same Service Provider
- D. Load-balancing is configured between the Public and Private UCS

What is the purpose of Local Internet Breakout in an SD-WAN service?

- A. To split the IP and Ethernet traffic at the UNI
- B. To create a backup UCS between UNIs
- C. To forward traffic directly to the public Internet
- D. To allow another UCS operated by a different ISP

Which SD-WAN component provides dynamic maps of the topology to help troubleshoot SD-WAN issues?

- A. SD-WAN Edge
- B. SD-WAN Controller
- C. SD-WAN Gateway
- D. Service Orchestrator

**Item/Question Stem:**

A company has multiple branches and two data centers connected by an MPLS service. The users at the branches access the Internet using Internet Access Services at the data centers.

To address the continual growth of Internet access for SaaS applications, the company has had to upgrade both the MPLS service and the Internet Access Services several times. Access to the SaaS applications now exceeds internal corporate traffic.

The company wants to use an SD-WAN Service with a public UCS and a private UCS at all locations.

What is the recommended SD-WAN design at each branch?

**Responses**

- A  • Public UCS bandwidth is greater than the Private UCS bandwidth
  - INTERNET-BREAKOUT = *Disabled*
  
- B  • Private UCS bandwidth is greater than the Public UCS bandwidth
  - INTERNET-BREAKOUT = *Disabled*
  
- C  • Private UCS bandwidth is greater than the Public UCS bandwidth
  - INTERNET-BREAKOUT = *Enabled*
  
- D  • Public UCS bandwidth is greater than the Private UCS bandwidth
  - INTERNET-BREAKOUT = *Enabled*

**Item/Question Stem:**

A company has five remote sites and a data center migrating to SD-WAN with the following characteristics:

- Each remote site has a 200 Mbps connection to an MPLS service, and the data center has 1 Gbps connection to the MPLS service
- The MPLS connections will not be disconnected
- All locations require Local Internet Breakout
- There is a forecast for 150 Mbps of business-critical traffic needing resiliency and 50 Mbps of non-critical Internet traffic

Which minimum additional UCS option meets the requirements?

**Responses**

- A  A 300 Mbps MPLS UCS at the data center and the remote sites
- B  One additional 200 Mbps MPLS UCS at all locations, one additional 50 Mbps Internet UCS at each remote site
- C  One additional 150 Mbps MPLS UCS at the data center, one 50 Mbps Internet UCS at each remote site
- D  A 200 Mbps Internet UCS at each remote site and a 1 Gbps Internet UCS at the data center

**Item/Question Stem:**

An SD-WAN Subscriber and an SD-WAN Service Provider have different threat database contents for a particular Security Function. The Service Provider's database matches a specific Application Flow to a security threat. The Subscriber's database does not.

The Subscriber does not view the application as a threat. How is this situation handled?

**Responses**

- A  • The Provider's classification takes precedence and the Application Flow will be blocked
  - The Subscriber accesses the Provider's threat database and removes the application
  
- B  • The Subscriber's classification takes precedence and the Application Flow will be allowed
  - No changes are necessary
  
- C  • The Provider's classification takes precedence and the Application Flow will be blocked
  - The Provider must request a change using a predefined process
  
- D  • The Provider's classification takes precedence and the Application Flow will be blocked
  - The Subscriber must request an update using a predefined process

**Item/Question Stem:**

A company wants to deploy an SD-WAN Service with UCS Type Service Attribute = *Public*. The UCS is a MEF IP Service.

What are the required values for the IPVC Service Attributes?

**Responses**

- A  • IPVC Topology Service Attribute = *Internet Access*, **or**
  - IPVC Cloud Service Attribute with Cloud Type parameter = *Cloud Access*
  
- B  • IPVC Topology Service Attribute = *Internet Access*, **and**
  - IPVC Cloud Service Attribute with Cloud Type parameter = *Cloud Access*
  
- C  • IPVC Topology Service Attribute = *Cloud Access*, **or**
  - IPVC Cloud Service Attribute with Cloud Type parameter = *Internet Access*
  
- D  • IPVC Topology Service Attribute = *Cloud Access*, **and**
  - IPVC Cloud Service Attribute with Cloud Type parameter = *Internet Access*

**Item/Question Stem:**

A finance company uses an SD-WAN Service to connect all its locations. Each location has one Public UCS and one Private UCS.

The company asks the IT manager to increase the security of the SD-WAN Service.

The IT manager enables all Security Functions at all SD-WAN Edges using the web portal. After this, users at the branches complain about a significant increase in delay accessing finance applications in the head office.

How can the IT manager address this issue?

**Responses**

- A  Disable all Security Functions at all branches and depend on encryption for security
  
- B  Increase Private UCS bandwidth of complaining branches
  
- C  Increase Public UCS bandwidth of complaining branches
  
- D  Enable only the Security Functions appropriate for the company's applications

If you have any questions, please contact Kirby Russell [kirby@mef.net](mailto:kirby@mef.net)