This is by far the BEST and the most relevant CCIE lab outline I've ever seen. The outline is based on what we see out there in real world networks, and it will prepare you to handle existing and future networks out there.

I personally LOVE it, almost 60% of the lab remains unchanged to maintain relevance to existing networks out there, and 40% is new to reflect the technology changes and relevance to market trends.

There are two main changes:

a. New technology topics added such as Software Defined Architecture, such as SD-Access, SD-WAN, Automation and Network Programmability, which I think it was necessary to reflect the market trends and demands for new skills.
b. Design skills in addition to implementation, the exam will now cover the entire network lifecycle from planning, designing, implementing, operating, automation and optimizing the networks.

I really love how they have taken this brand and elevated to the next level and more importantly it resonates to what CCIEs do on their job and this change will solidify how CCIEs can bring more value to the businesses.

I recommend reading this FAQ, which answers many questions:

https://www.cisco.com/c/dam/en_us/training-events/training-certification-faqs.pdf

Excellent points:

a. If you pass the current R&S written before Feb 24th, it will qualify you to take the new "CCIE Enterprise v1.0" lab as long as your written is valid. Moreover, I love how they have included incremental recognition for passing the written exam. Now you can get the "Cisco Certified Specialist Certification – Enterprise Core", this allows you to publish your badge in social media, resume, etc. and be able to display every exam you pass alone the journey. For more details, visit:

https://www.cisco.com/c/en/us/training-events/training-certifications/certifications/next-level-specialist.html

b. After Feb 24th, the CCIE Written will be replaced with technology core exam for each track. For Enterprise CCIE, it will be "ENCOR 300-401". Full list in above URL.

c. No "Diagnostic" section, but it may be tested throughout the lab exam within both modules e.g. within design module and implementation/operation module. How will it be tested and what is the format? It remains to be seen.

d. No Troubleshooting section (explicitly), or what I call mis-configuration section. However, similarly troubleshooting will be required as it is an integral skill required by a CCIE and I presume it will be tested implicitly throughout the lab exam within the modules. E.g. within the design and implementation modules.

e. Progressive storyline. I understand from them that there is going to be two modules in the lab exam, and they are:
Design Module (3 hours) and Implementation/operate/optimization module (5 hours). I like how they will continue a single storyboard of a customer networks. Previously, it was difficult as we had to deal with three separate lab technologies within the 8 hours (Dia/TS/CFG)……at least now, it will be one progressive storyboard as we perform the lab.

f. Recertification is no longer every two years, they gave us one additional year, so the re-certification is every three years. There will be NO *Suspended* period anymore so you need to make sure to recertify on time. The best way to tackle the re-certification is to look at continuing education (Highly recommend it), and all you need is 120 credits. For more details please visit:

https://www.cisco.com/go/recertification

Questions:

- Will Cisco add VIPTELA to VIRL?
For both SD-WAN and SD-Access; my understanding is that BU is working towards a solution to add virtualization, or create some solution for learning and development. More details to come.

- Which IOS or IOS-XE version will be used in the lab? Is it going to be a combination of the two?
https://learningnetwork.cisco.com/docs/DOC-36509

- How many routers and switches are we going to have in the lab?
I think it will be similar to what we have today, may be 20 to 30 routers and 4 – 6 switches.

The Lab outline:

Looking at the lab's outline, this is what you see:

Section 1. Network Infrastructure (30%)

    Section 1.1 Switching Campus

        This section is the Switching section and I don't see any changes.

    Section 1.2 Routing Concepts

        Nothing has changed, and we saw the same in the previous version of the lab.

    Section 1.3 EIGRP

        Nothing has changed.

    Section 1.4 OSPF

        Nothing has changed.

    Section 1.5 BGP

        Nothing has changed

    Section 1.6 Multicast

        In this section they have added IPv6 Multicast. This was there in version 4.

Section 2 Software Defined Infrastructure (25%)

        This is all new. Cisco SD Access and Cisco SD-WAN. Excellent product and I am assuming that we will see more of VIPTELA in the real world implementation.

Section 3 Transport Technologies and Solutions (15%)

    3.1 MPLS

Nothing has changed.

3.2.a DMVPN

In this section we can see that redundancy has been added with having dual-hub to DMVPN.

3.2.b FlexVPN

All new section.

4. Infrastructure Security and Services (15%)

Besides the "Device Security on Cisco IOS XE" nothing else to worry about. Some new sections in 4.3.a iii.

Section 4.4 QoS, nothing has changed. Since it is emulated, it can't be as intense as it was in version 4.0 of CCIE lab.

Section 4.5 Network Services, nothing to worry about.

Section 4.6 Network Optimization, nothing to worry about

Section 4.7 Network Operation, nothing to worry about

5. Infrastructure Automation and Programmability (15%)

All new section. Automation and Scripting and API via NETCONF/RESTCONF.

What is Micronics Networking and Training Inc going to provide for this certification:

We will offer Books, Mock labs, online classes and Videos. I will talk about this in details in a Video session.