Much like running a marathon in high heels, if you are running your network without the right controller, you might be using the wrong tool for the job.

Which Cisco Catalyst Controller is which?

The Cisco® Catalyst® 9800 Series Wireless Controllers are the next generation of controllers, bridging the intent-based networking portfolio and offering deployment flexibility. Powered by Cisco IOS® XE, the 9800 Series controllers are always on, are secure, and can be deployed anywhere.

Understand the basics before you choose a controller.

With a Cisco Embedded Wireless Controller (EWC) on a Cisco Catalyst AP or switch, you might be able to skip the cost of a controller entirely. Embedded on either the Cisco Catalyst 9100 Access Points or the Cisco Catalyst 9000 switch family, these controllers are perfect for small and medium-sized companies.

Do you even need a separate controller?

The EWC on a switch supports slightly more APs and clients (200 and 4000, respectively). Use it when you have SD-Access-enabled distributed branches or an SD-Access-enabled small campus.

When would you use a controller?

If you already own data centers that have leftover capacity to host applications on top of hypervisors, the 9800-CL for the private cloud will be an optimum choice. IT can be hosted on popular hypervisors, such as Linux KVM, VMware ESXi, and Microsoft Hyper-V.

When should you use a private cloud?

There are a lot of reasons why you might need a controller, but it all boils down to one thing: management. With a large wireless network, you're going to want to manage your access points from a centralized location. The wireless controller provides that location.

Why would you need a controller?

The EWC on an AP supports up to 100 APs and 2000 clients. Use the EWC on an AP when you have distributed branches and small campuses. It helps reduce complexity, optimize IT, and lower operational costs by leveraging intelligence and automation.

When would you use a controller embedded on an AP?

Stick with the cloud-based controller if you and your network have made the jump to the cloud. The Cisco Catalyst 9800-CL can be deployed on either a private or public cloud and can scale up to a maximum of 6000 APs and 64,000 clients.

Should my controller be cloud-based or on-premises?

On a public cloud, the 9800-CL can be deployed on Amazon Web Services (AWS) or Google Cloud Platform (GCP). The controller is available on the AWS and GCP marketplaces and can be deployed as per scale requirements.

When should you use a public cloud?

If you have a need for on-premises controller hardware, Cisco Catalyst controllers run the gamut of solutions.

What are your choices?

For a campus deployment that's a little bigger, the Cisco Catalyst 9800-40 is more your speed. It supports up to 2000 APs and 32,000 clients and has 40 Gbps of throughput.

What if your needs skew a little larger?

But no matter what choice you make, you'll be able to finish the race and be assured that all solutions in the Cisco Catalyst Controller family have the same functionality: They're always on, are secure, and can be deployed anywhere.

Read more about the Cisco Catalyst Controllers.

When your network is deployed in a small campus, look at the Cisco Catalyst 9800-L. It supports up to 250 APs and 5000 clients and has 5 Gbps of throughput with two choices of uplinks (copper or fiber).

When do you need a small controller?

For larger campus and service provider deployments, the Cisco Catalyst 9800-80 is the biggest controller we have. Up to 6000 APs and 64,000 clients are supported, with a throughput speed of 80 Gbps.

What if you're in need of something even bigger?

Private

Public

AWS

GCP

Linux

KVM

VMware

ESXi

Microsoft

Hyper-V