BUILDING AND RUNNING YOUR NETWORK CAN BE AS EASY AS 1-2-3

Learning from Mother Nature to Deliver Successful Networking Projects

Observers of nature are familiar with the concept of cycles. For instance, water evaporates from the oceans, forms clouds which precipitate rain that runs off the land into rivers and eventually back to the sea. It's not surprising then that the principle of cycles applies equally to man-made entities, and this includes IT and communications networks projects. To illustrate this, let's look at building a house.

When you build a house, you don't just nail some boards together, making it up as you go along. At least, not if you want your house to last. First, you invest time in planning. How large is it going to be? What amenities do you require? How does it integrate with the existing landscape? When does it need to be built by? And these are just a few of the factors you would consider. Once you've answered all these questions, you can draft a plan of construction that sees the project to completion in an orderly and managed way. But, as any homeowner knows, there are always ongoing repairs or changes to improve the home even after it is built.

And so it is with a networking project. It's never as simple as just selecting a device, installing it, then walking away—expecting it hum along nicely in harmony with what's already in place. As with the house, before you start you need to answer a number of questions about what you are trying to accomplish and how the network (not just your new device) should perform once the project is complete. You draft a high-level design, select the right equipment, configure it, and finally install and test it. And once it's up and running, you need to operate it on a day-to-day basis, analyze how it's performing in the network, and optimize it to obtain the maximum return on your investment.

It is our opinion at Juniper Networks that a systematic approach based on the concept of a networking lifecycle and encompassing three phases—Plan, Build, and Operate—greatly improves the probability of a networking project being successful. This is the philosophy behind our Customer Services and Support organization, and our experience and expertise are available to assist you in every phase of the lifecycle so you can feel assured that nothing is overlooked.

Let's take a look at how we approach each of the three phases of the networking lifecycle.

PLAN
Assess, design and plan your network.

BUILD
Deploy your new or upgraded network and security system.

OPERATE
Keep your network up and running.

JUNIPER NETWORKS®

The Plan Phase:

This includes initial assessments of your current environment, your desired environment, and evaluations of what needs to happen to move from where you are today to where you want to be. In this phase we develop the high-level architecture designs as well as the detailed design of network devices, configurations, and interconnections. It's at this point that you choose exactly what equipment you plan to invest in. And this is where the initial project planning occurs—detailing dates, responsibilities, and dependencies. Decisions made now impact not only how your network is implemented, but also how flexible it is, how well it can evolve, and how easy it is for you to manage.

The Build Phase:

As the name suggests, this phase focuses on the deployment of products in the test and production environments. This includes migration from the existing environment to the new environment, installation and configuration, system test, and system bring-up. There is also likely to be a lot of activity to integrate the management of the new equipment into your existing administrative structures. And of course, there is the excitement and tension of the cutover into production, the point where all of the work of the Plan and Build phases comes together.

The Operate Phase:

This is generally the longest of the three phases, lasting many years as the products are used on a daily basis. It requires activities that are both reactive (resolving faults and issues) and proactive (upgrading software, doing preventative maintenance). A fundamental element of this phase of the lifecycle is optimization. As your business grows and changes, new services and applications are added and some are removed; and new subscribers, clients, and user groups are brought on board. Then there is the challenge of ever-increasing usage volumes. It's essential during the Operate phase that you continually reassess your network to ensure it continues to meet these changing requirements. This can lead to new software, new hardware configurations, or new equipment. Or, if the environment has changed substantially, a new architecture which, of course, loops us back to a new Plan phase of the networking lifecycle.

In conclusion, structure and rigor are the hallmarks of a successful project and, as this paper highlights, the best outcomes are achieved when you consider the whole lifecycle. Juniper Networks has worked with thousands of customers and partners on networking and security projects around the world, and our conclusion is that early engagement with our experienced services team enables you to deliver the best results at each stage of the networking lifecycle.

This is the first paper in a series of five short papers on how to effectively manage your network project lifecycle. When published the series can be viewed here www.juniper.net/uk/en/serviceprovider/customer-services/

Juniper Networks Customer Services and Support

The Juniper Customer Services and Support team consists of more than 1,800 Juniper support personnel and over 1,000 consultants within our partner community. Our global Professional Services team alone consists of more than 200 senior-level consultants, each with an average of over 10 years' networking experience within multiple industries. For more information, visit: www.juniper.net/us/en/ products-services/services/technical-services.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at **www.juniper.net**