
SUCCESSFUL NETWORKS DON'T OPERATE IN A VACUUM

Maintenance is not Enough, You Need to Stay Ahead of the Game

This series of papers, of which this is the fourth, has discussed the Plan and Build stages of the networking lifecycle. Now it's time to examine the phase that usually lasts the longest—Operate. In some ways the lifecycle can be likened to a wedding. Getting ready for the big day involves a great deal of planning—decisions must be made, compromises negotiated, participants agreed, and invitations sent. Finally, everything comes together—the ceremony is done and the party is over. Now you have to live together. It is the same once your network products are deployed. You now have to live with them—keep them up and running, fix them when they break, and make sure they are still working optimally. You also have to look

to the future and plan the long-term evolution, ensuring that your network adapts to new demands and requirements.

Our view is that during the Operate phase there are two distinct but complementary groups of activity— maintenance and proactive activities. *Maintenance* activities cover the day-to-day operations such as configuring and reconfiguring devices, resolving issues, and fixing things when they break. On the other hand, *proactive* activities look to the future, ensuring your network remains robust yet flexible. Typically, this includes preventative maintenance, analysis and evaluation on how best to evolve the network, and decisions regarding hardware and software upgrades.



PLAN

Assess, design and plan your network.



BUILD

Deploy your new or upgraded network and security system.



OPERATE

Keep your network up and running.

Maintaining Your Relationship with Your Vendor

An effective way to do this is to formalize your relationship with your network vendor through a maintenance contract. A maintenance contract is fundamental to your relationship with a vendor—it makes you part of the vendor's core family. Without a support contract, you are on the outside looking in. This is not a good

position when you think about how essential your networks are to your business.

Most vendors' maintenance contracts are similar to the base Juniper Networks support offering called *Juniper Care*. They provide support at the level of the device, software license, or both, providing telephone and online access to

support engineers and a variety of hardware replacement options. But many customers want more, and Juniper adds to this mix software updates and upgrades at no additional charge, and 24x7x365 access to our award-winning, self-service Customer Support Center.

Furthermore, Juniper goes far beyond most maintenance contracts by including, at no extra charge, its innovative service automation tools that perform self-diagnostics and enable you to react to issues faster than ever, plus delivering information that allows you to anticipate issues within your network. The result is greater network uptime. We go into more detail on [service automation](#) in the final paper in this series.

Large and mission-critical networks require mission-critical support at a *network-wide* level, above and beyond per-device support. This includes both in-depth maintenance functions and proactive activities. *Juniper Care Plus* is specifically designed for these networks.

It provides a high-touch personal support manager who acts as your advocate within the Juniper support organization. Your engineers can also have direct access to top Juniper experts, along with training and consulting. These benefits mitigate the risk inherent in all technologies, thereby helping to ensure service and application reliability, reducing your staff's learning curve, and accelerating time to value.

But, as already mentioned, there are two distinct activities in the Operate phase. The proactive element is as important as the maintenance element, and, it could be argued, sometimes is even more so. As services or applications are added or removed, new user groups or clients brought on board, or system usage increases, it is essential to re-examine the network to ensure that it complies with your changing requirements and business objectives. We've built this aspect into the Juniper Care Plus service, too.

Was Socrates Right?

Socrates said, "The unexamined life is not worth living." Perhaps that might be excessive when discussing networks and security, but certainly the unexamined network can be a liability. But the skills, tools, and time to successfully do this are often in short supply in networking teams. In fact, for a number of activities, only the vendor has the tools and information needed to do the job right. For example, let's consider software issues and anomalies—what most of us call bugs. You did know that all software has bugs, didn't you? It is important to understand which issues exist in various levels of product software and what their impact would be in different situations.

Every bug is different, manifesting or not depending on the environment. The details behind each bug are deep in the source code and therefore are not only highly proprietary, they also require very careful interpretation by the product's developers. It is quite understandable why vendors do not make this

information public. However, vendors such as Juniper have tools that allow them to analyze your specific environment. In our case this allows us to pinpoint vulnerabilities, review changes you might be planning so as to identify and advise you on unforeseen problems, and recommend appropriate levels of software for each of the devices involved. Juniper can conduct a product health check on individual devices or even perform a network health check that looks at the interactions among the various devices, and verify the compatibility of the various software levels.

In conclusion, as your business and IT needs evolve, the demands they place on the network require you to stay ahead of the curve. You need to be constantly planning the best ways to evolve your network and mitigate the risks in that evolution. This might require new software, a hardware reconfiguration, or perhaps new equipment. Or, if the environment has changed

substantially, even a new architecture, which restarts the network lifecycle with a new Plan phase. For all of this, developing a close partnership with a strong vendor like Juniper is well worth the investment.

This is the fourth in a series of five short papers on how to effectively manage your network project lifecycle. You can read the other papers in the series at: 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



Corporate and Sales Headquarters

Juniper Networks, Inc.
1194 North Mathilda Avenue
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or +1.408.745.2000
Fax: +1.408.745.2100
www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.
Boeing Avenue 240
1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands
Phone: +31.0.207.125.700
Fax: +31.0.207.125.701

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