



FREE REPORT
by Igor Belousov

7

**Crucial things to know
before purchasing LAN cable**

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In our everyday life it is extremely important to know **how to choose the right things**. There are so many offers and so many different flashing sales. A high price doesn't always guarantee you the best quality while a low price usually means there is something wrong with a specification that can possibly affect your network.

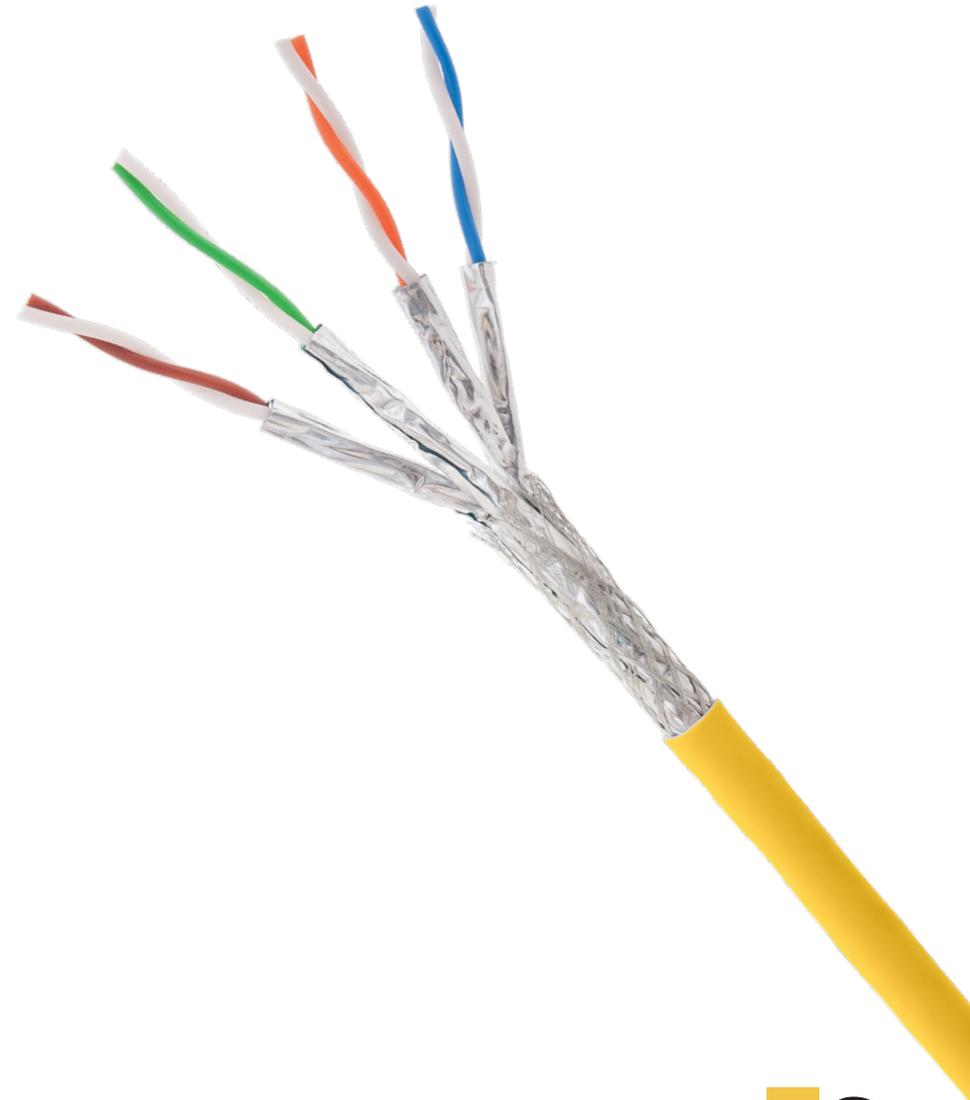
HOW TO MAKE THE RIGHT CHOICE?
HOW NOT TO PAY MORE BUT TO CHOOSE
REASONABLE CABLE AT THE SAME TIME?

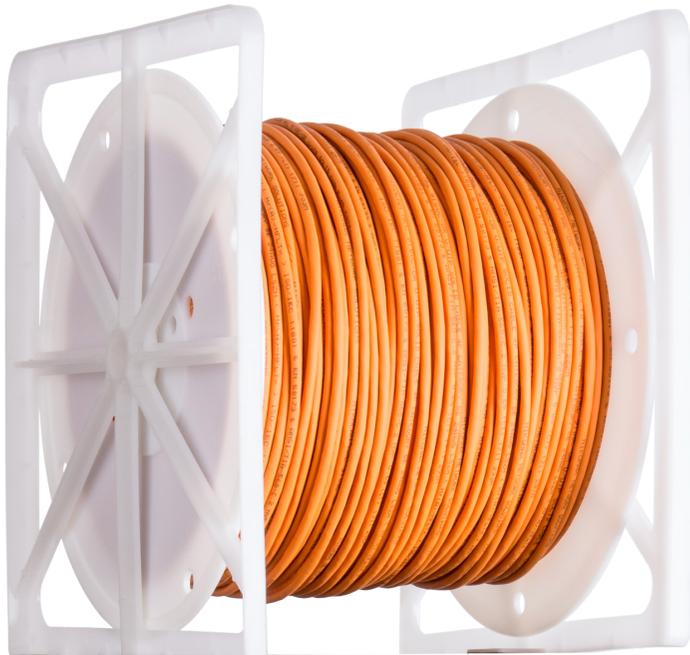
#1 LAN cable is a key component of your network

Does it surprise you? Do you think that hi-end network switch or server are the key points?

Let me explain. The switches and servers are responsible for your network performance. It is worth mentioning that most of their features we haven't even known and haven't used them as well. But the **LAN cable is a cornerstone of your system**. If the cable is of a bad quality, your expensive servers, computers and switches will just not function well.

So #1 must know is to have really good network's base, which is LAN cable.





#2 LAN cable replacement due to its' quality issues is very expensive

Look at the foundation of the building. Is it easy to replace?

The same issue arises with LAN cables. You can relatively easily replace any switch, server or computer for upgrade or technical service, but **it is extremely difficult to replace the cable** because it is typically installed in walls, in trunking systems, below the floor or above the ceiling.

To do anything with the cable is almost equally troublesome as renovation of your office and causes a lot of expenses.

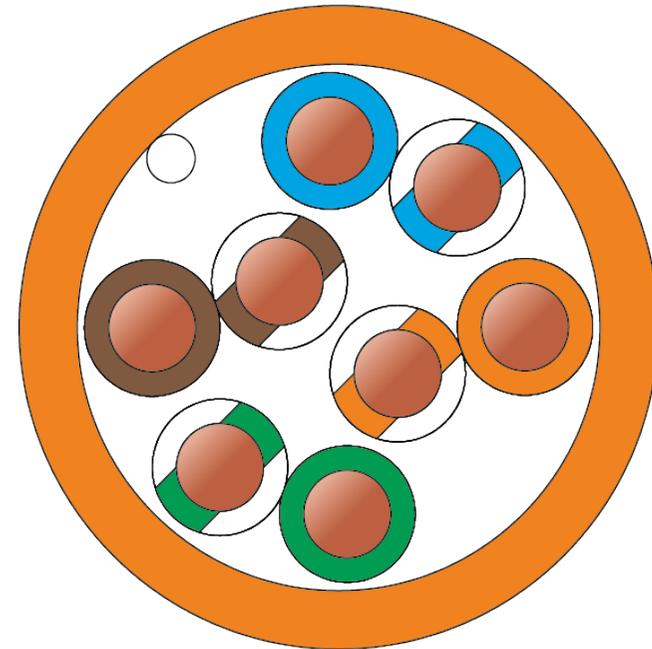
So #2 must know is to purchase the cable you will never need to maintain.

#3 LAN cable must perform for a very long time

If you have moved to a new new office or are going to extend a network in your current one you may face the need to choose LAN cable. How long are you going to work in this office? If this is your own office – probably, quite a long time. Perhaps, a decade or longer. If you rent the office, you probably have signed a 1-2 years contract. But it doesn't mean you are going to move out after it expires, does it?

Researches have shown that rented offices' lifetime is around 5-10 years before network renovation, for own office the lifetime is up to 25 years. That means that network infrastructure including LAN cables must be able to work quite a long time.

So #3 must know is the cable has to be warranted for a long time work.



4-pair LAN cable in section

#4 LAN cable is really responsible for network performance

Is it another surprise? Did you think that the term «performance» in your network is applicable to servers and computers only?

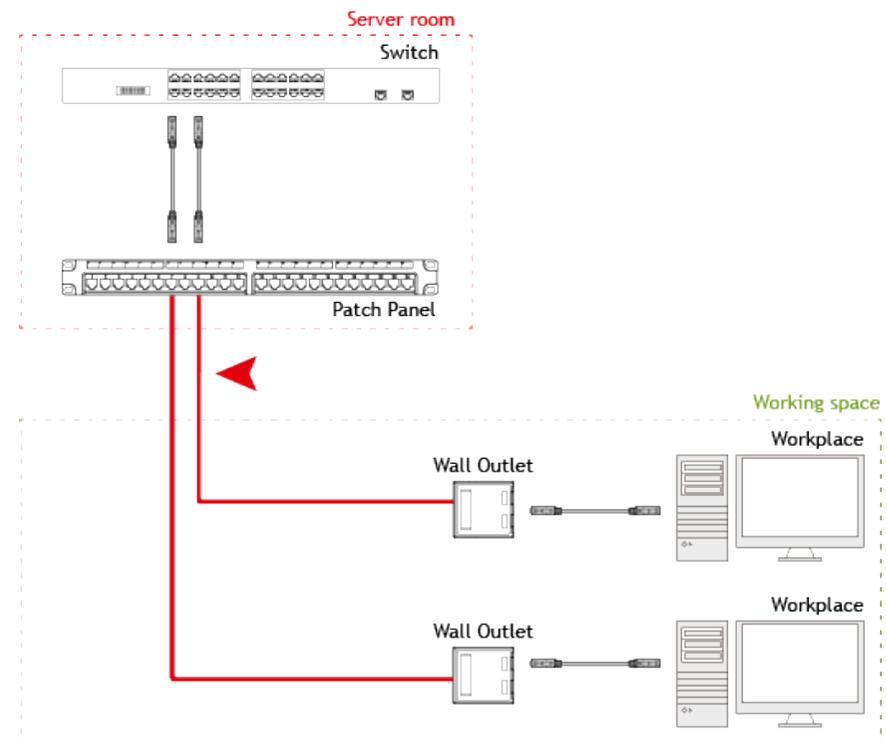
Indeed, your servers and computers have to be powerful to perform well. But if you have a bad cable to connect them, it is like you install Ferrari's engine in a cheap car with a very weak pumping system. Such car is simply not able to give enough power to let a good engine prove itself to you.

How is it related to cables? **Cables connects all active components in your network.** If this connection is not steady, servers, switches and computers cannot communicate with a maximum speed. Even if the connection established at the highest speed for a particular device (e.g. 1Gbps), it doesn't mean that this speed is the whole network's maximum one. It will be much less because of packets and reconnections lost.

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It sounds weird, that the most of system administrators don't even know this. They think that this issue related to an active equipment and deal with it only, but the initial problem remains the same. The problem is in the foundation of the network, to be exact - in the cable.

So #4 must know is if you want stable performance of your network then you.



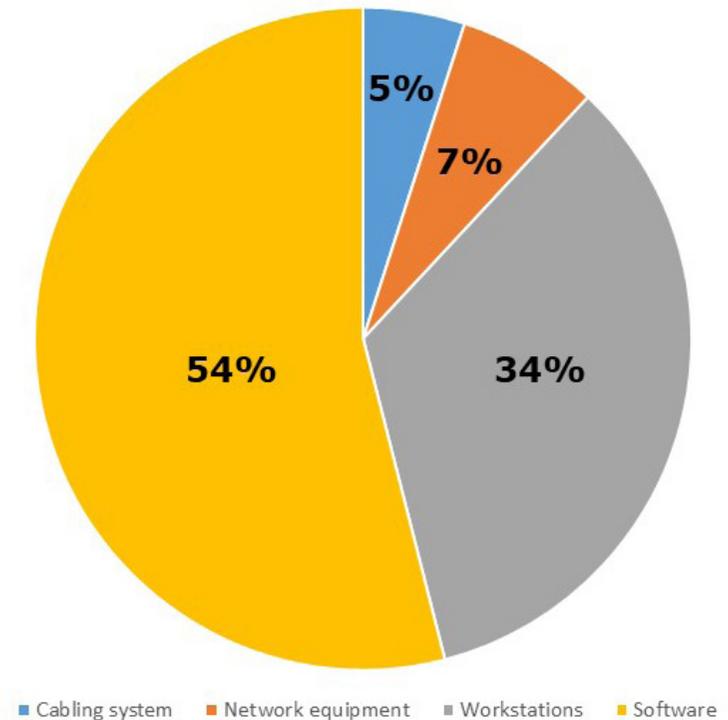
#5 LAN cable plays an important role in budget allocated for network

When securing the budget for your network system you need to keep in mind that the network foundation, which is **LAN cable, will cost** you around **5-10% of total network system cost**. At the same time if you make a wrong choice it will cost you the whole system performance and a lot of expenses to fix it.

It means that from one point there are no solid reasons to save money on LAN cable. It will give you maximum 1-2% of whole network cost, but it is more important to make a really right choice. If you are really tight on budget it is more reasonable not to buy all active equipment in advance. You will save much more and have a good and stable foundation for your network at the same time.

So #5 must know is to balance the budget for the cable and whole network system.

Network system budget



#6 LAN cable has to be properly installed

LAN cable just looks like it's easy to install. It looks like a regular electrical cable. Many people are mistaken to think that it's enough to lay the cable into walls and the work is done.

If you only pull out cable wrongly from the box or roll, it will affect network performance. If you cut and strip too much or too little of a jacket it will not fit an outlet well.



If you just step on the cable, it will affect the cable performance a lot because the inside conductors can be damaged which is crucial for cable performance.

There are many other things to know for proper installation.

It is extremely important to choose the right Cable Installer to make this work done right. It takes **2 whole days** for the Installer to complete **Authorized Installer course**, where we teach them how to install cables properly. And after the exam is passed successfully the Installer gets the training completion certificate.

You might be surprised but it is easier to find software programmer or IT specialist to tweak your active equipment than a professional cable installer who really has all the required skills. First try to find any cables installation courses in Singapore - are there many of them available?

So #6 must know is to choose the cable installer who really knows how to install.

#7 LAN cable has to be properly manufactured

Copper cable is really a complicated product. Let me name just few things that are extremely important.

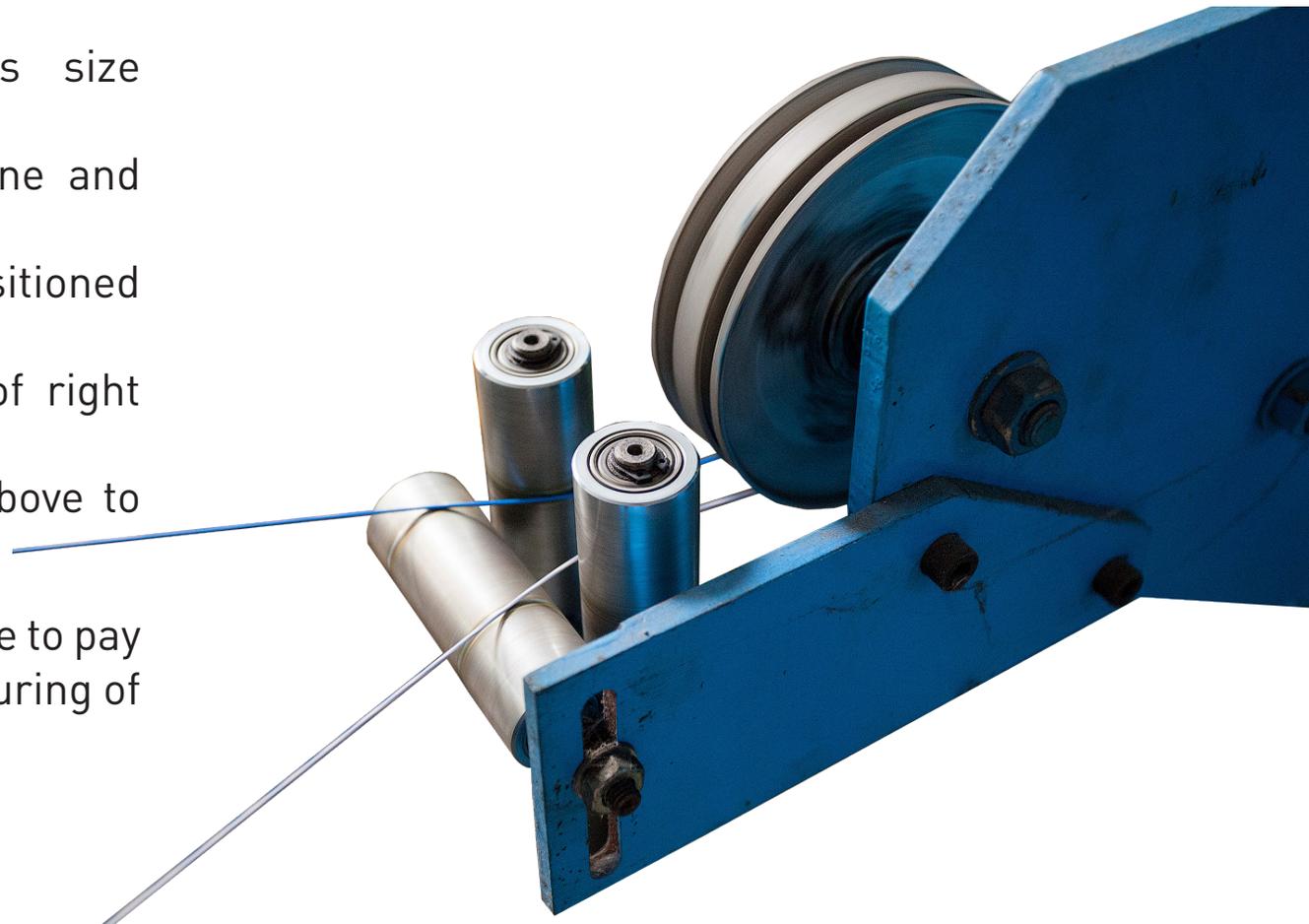
- Conductor material - should be made of pure copper and not recycled
- Conductor diameter - should has size according to the standard
- Pairs Twist - should be properly done and different for each pair
- Pairs Position - should be properly positioned along the cable
- Jacket material - should be made of right material and properly jacketed
- Inner Cross - for Cat 6 cables and above to separate pairs

There are a lot of other things that we have to pay attention to when controlling a manufacturing of LAN cables. **Not all vendors can do this.**

Some of them just have old equipment and some of them try to foolish buyers with some tricks.

All these things affect cable performance and lifetime.

So #7 must know is you need to choose cable from a trustful source.





CONCLUSION

Network cable is the foundation of your network system and **the key component** for steady performance on its' maximum. **The cable must** be able to **work for a long time** with the same performance. It is extremely important to make a choice for the right cable because **it is really difficult and expensive to replace and maintain it** in the future. The cable is subjected to careful consideration while budgeting whole network system.

Copper cables are not easy to produce and install so **it is extremely important to find a trustful source for cable and really skillful and experienced installer** to make reliable network infrastructure.

About the author



Igor Belousov was born in Russia in 1973. He got a degree of an engineer.

As one of the founders and CEO of TAYLE RUS LLC company, he has been developing and distributing networking products across Russia since 1992.

The flagship brand NIKOMAX (Structured Cabling System for copper and fiber optic networks) was launched by Igor Belousov in 2003 and by 2019 it has become trusted, successful and full-featured solution for integrators and cable installers in Russia.

Besides products NIKOMAX offers its' proprietary NIKOMAX Cabling Systems Authorized Course for Cable Installers and Network Designers to help them obtaining and maintaining up-to-date knowledges and skills.

TAYLE RUS has 24 offices across Russia, offering full set of sales, marketing and technical services locally. In 2017 Igor Belousov started international expansion for his business.

Thus he set up representative office in Taiwan and international sales offices in Germany, Hungary, Kazakhstan and Singapore.

These days Igor Belousov personally shares his experience with Singapore market. Being a highly developed economy and a technology center of the whole South-East Asia region, this country can value NIKOMAX as trustful and reliable product.

Do you have any questions?

✉ singapore@nikomax-global.com

☎ +65 6386 2082