

# The consequences of poor cable management and inefficient IT workflows

How to keep a network rack tidy and organized in the long-term and make IT work easy and efficient

[sales@patchbox.com](mailto:sales@patchbox.com)

+43 1 99 71 96 0

[www.patchbox.com](http://www.patchbox.com)



# About us

PATCHBOX was founded in 2015 with the goal to simplify and accelerate the everyday life of network management. Inventor & Co-Founder Alexander Geng worked as an IT Technician and knows the problems in the industry and their consequences. Tangled cables in messy network racks are not only an unpleasant sight, they also slow down maintenance, lead to long downtimes and affect hardware performances. It's a vicious cycle that only makes the problems worse. If a network component breaks, it must be replaced as quickly as possible as downtimes are costly. Under time pressure, IT technicians are supposed to replace the hardware. However, this requires getting the tangled cables out of the way, significantly slowing down the work. Inefficient workflows and a shortage of skilled workers are two of the biggest problems in the industry that PATCHBOX wants to tackle.

**2015**

PATCHBOX is founded

**2016**

First PATCHBOX went into series production

**2017**

Cabling Installation & Maintenance Gold Award

**2018**

Release of the Setup.exe

**2019**

New headquarters in Vienna

**2020**

Cabling Installation & Maintenance Platinum Award

**2021**

20.000th customer

**2022**

CNB Capital invests in PATCHBOX





# The consequences of an untidy network cabinet are very costly. Yet often ignored.

A messy network closet is a ticking time bomb that can go off at any time. The consequences are fatal and costly. Yet many of these problems, and especially their financial implications, are mostly unknown to companies and largely ignored. Whether it's loss of data, worse hardware performance or even downtimes lasting several minutes – the implications of these problems that are put off can quickly reach several thousand euros. It's time to face these problems and know the consequences of poor cable management, especially its financial consequences. Below you will find a list of various problem areas and scenarios that IT technicians, companies and even customers encounter daily.



## Regular patch cables ...

As patch cables are only available in standard lengths, you have to deal with the implications of overlength.

## ... are the root of all evil.

Regular patch cables take up space in a rack. They are heavy, bulky, stiff and on top of that, create a lot of packaging waste.

## Initial setup

Wiring a new rack is very time-consuming. Yet this task is unsustainable. Keeping a network rack tidy is unfeasible.

## Conventional cable management

The solution to this problem? Nope. While vertical cable managers are often too small, horizontal cable managers take up 1 RU each, and the cables still get tangled with the implications of overlength.

## People accept the mess

Despite acknowledging it, technicians start accepting the mess, making it worse with every add and change.

## Technical problems

Tangled cables lead to tension, causing stress on the ports, leading to loose connections.

## Troubleshooting

Maintenance takes longer, leading to high staff costs and expenses. Wouldn't it be great to save that money & time?

## Replacing a switch

With a heavy cable harness in front of the rack, replacing switches is a time-consuming & stressful task. Sometimes requiring partial re-wiring.

## Downtime

The list of costly consequences is never-ending: production is at a standstill, services can not be offered, webshop/software is offline, etc.

## High costs

Longer time spent on maintenance results in higher expenses for companies and also in damages, such as missing revenues.

## Unsatisfied staff

Downtimes are also frustrating for your staff – from stressed-out IT technicians to your employees not being able to work.

## Bad customer experience

Customers writing bad reviews after a bad experience, leading to a bad reputation. In worst cases, even demanding refunds.



# Network racks with conventional cabling



## Long & costly Downtimes

According to Gartner, a survey from 2014 showed that the average cost of IT downtimes is \$5,600 per minute.



## Restricted or even no Overview

Up to 70 percent of network issues are caused due to poor cabling practices or poor components. The lack of overview and tangled cables make maintenance difficult, but also lead to many other problems.



## Bad Airflow

Due to bad airflow networking hardware can easily overheat. Constant tension from heavy cables clutters, and high temperatures in the server cabinet also lead to expensive hardware breaking faster.



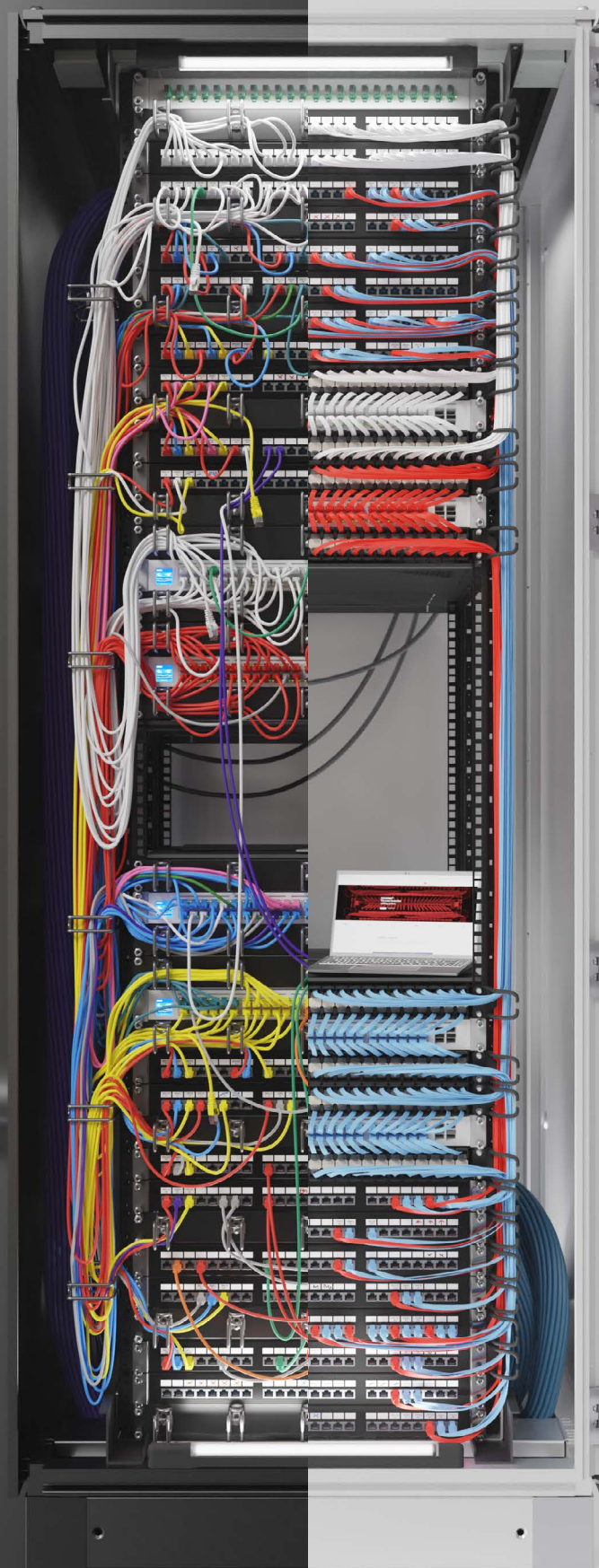
## Maintenance takes long

Many IT System Administrators complain about the lack of time, with strict deadlines and problems requiring an urgent response, as downtimes are costly.



## No IT security

Cable clutters often prevent the server cabinet door from being closed. This is a big security hazard for companies as hardware can be stolen and people can easily intrude the network.



# Network racks with patchbox.one



## Shorter Downtimes

Downtimes are very costly. The use of a patchbox.one can already pay off from one downtime onwards, as it keeps maintenance and therefore downtimes short.



## Up to 50% more space

In comparison to conventional cabling up to 50 % more rack space is available when using a patchbox.one.



## Better Airflow

Less cable overlength means fewer blockades for the airflow, ensuring your active components can breathe in fresh air and will last longer.



## Up to 10x faster

Maintenance, as well as installation, is up to ten times faster with the patchbox.one, saving lots of time and money.



## Toolless, fast & easy

Installation of the patchbox.one is fast and easy. No tools are required and the cables are stored inside the cassette, which makes lack of storage room for cables a problem of the past.



## 10-Year Warranty

We offer a 10-year manufacturer's warranty on the patchbox.one – which also applies to the cables.



# patchbox.one

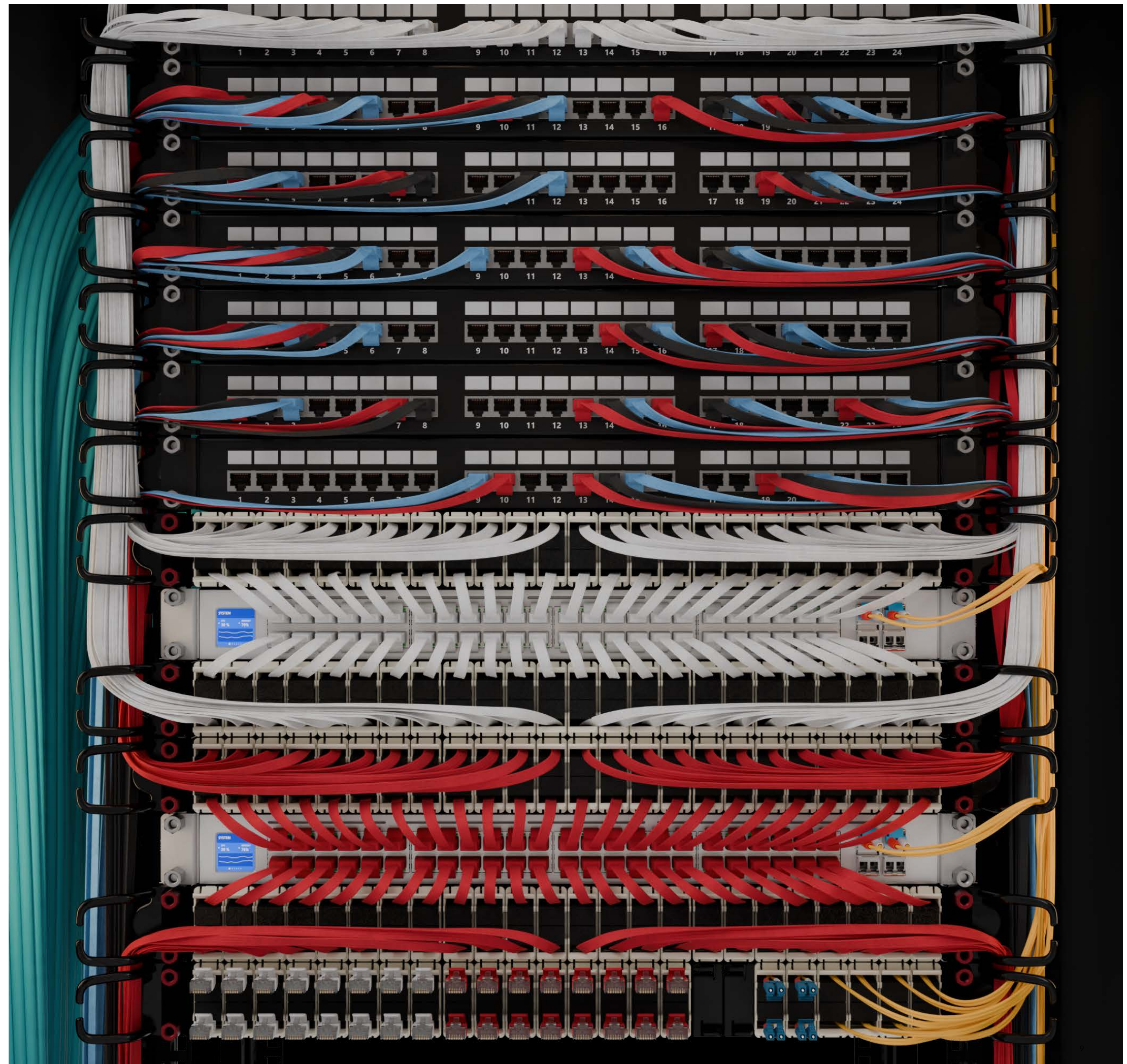
To avoid tangled cables and improve network cabling, we came up with the patchbox.one. A patented all-in-one cable management solution for 19" racks with retractable patch cables. The cables are stored inside cassettes, which means that no further storage rooms are needed. They also don't need to be crimped or shortened by hand - they are ready for immediate use.

This innovative and intuitive system makes installation up to ten times faster. One of the biggest problems in network cabling is the cable overlength, which is very often bulked in front of the hardware or on the sides of the 19" rails. This leads to suboptimal thermal conditions in the server cabinet. But the cable harnesses also slow down maintenance and make IT technicians' tasks more difficult. The patchbox.one stores this overlength where it does not bother you: inside the cassette. Thanks to this, the network rack stays tidy, and tasks like exchanging hardware are easier and faster.

Buy now

*"Putting all the cables in there ad hoc would have been a disaster, but with the patchbox.one patching the cabinets was as easy as if the patchbox.one would have been made just for this emergency situation."*

– TRG Datacenters






# The problems of IT hardware installation that need to be tackled.

On the one hand, IT technicians have to react quickly in emergencies and replace defective hardware within the shortest possible time - which is often not even possible due to poor cable management. On the other hand, it's a job for two. Due to a shortage of skilled workers, one IT technician often has to do the work of two, which only complicates and slows down the tasks. Heavy and expensive hardware

must be balanced in tight spaces and uncomfortable positions - a danger for the hardware, which can fall off at any time, and just as much a danger for the employee, who can easily injure their back. The longer work also has economic consequences, such as longer maintenance during the replacement of defective hardware or the reduced number of IT tasks that the IT department can complete.



Now that you know all the problems, it's time to think about resolving them.

**Turn over to the next page to find out how.**

# Setup.exe

The IT sector has one major problem: a lack of skilled workers, despite the huge demand. Because of this, IT technicians often end up having to do the work of two employees. They are under constant time pressure to get the company back online and to keep downtimes short. Most of the time IT technicians have to work in uncomfortable positions, trying to balance and mount heavy and expensive hardware. How about an assistant who can help with such tasks? A colleague who is never on sick leave? One that carries the 50,000\$ hardware while the IT technician can easily mount it? In 2018 we released the PATCHBOX Setup.exe, an innovative hardware installation tool. It has been a customers' favourite since and even impressed the jury at the 2020 Cabling Installation & Maintenance Innovators Awards, where PATCHBOX was recognized as a Platinum honoree in the category „Distribution and Routing Equipment“.

*„The Setup.exe makes installation of equipment so much easier now that I have two hands to work with.“*

– C>Ways, IT Solution Provider





The Setup.exe can carry up to 50kg (110lbs), holding onto expensive hardware until it is securely mounted. It can be mounted facing inwards to help with guiding hardware easily into the network rack, or it can be faced outwards of the cabinet. By doing that, the rubberized side on top acts as a shelf to carry your laptop safely. The sides of the Setup.exe provide you with holes to mount velcro, cable ties and spare cage nuts.

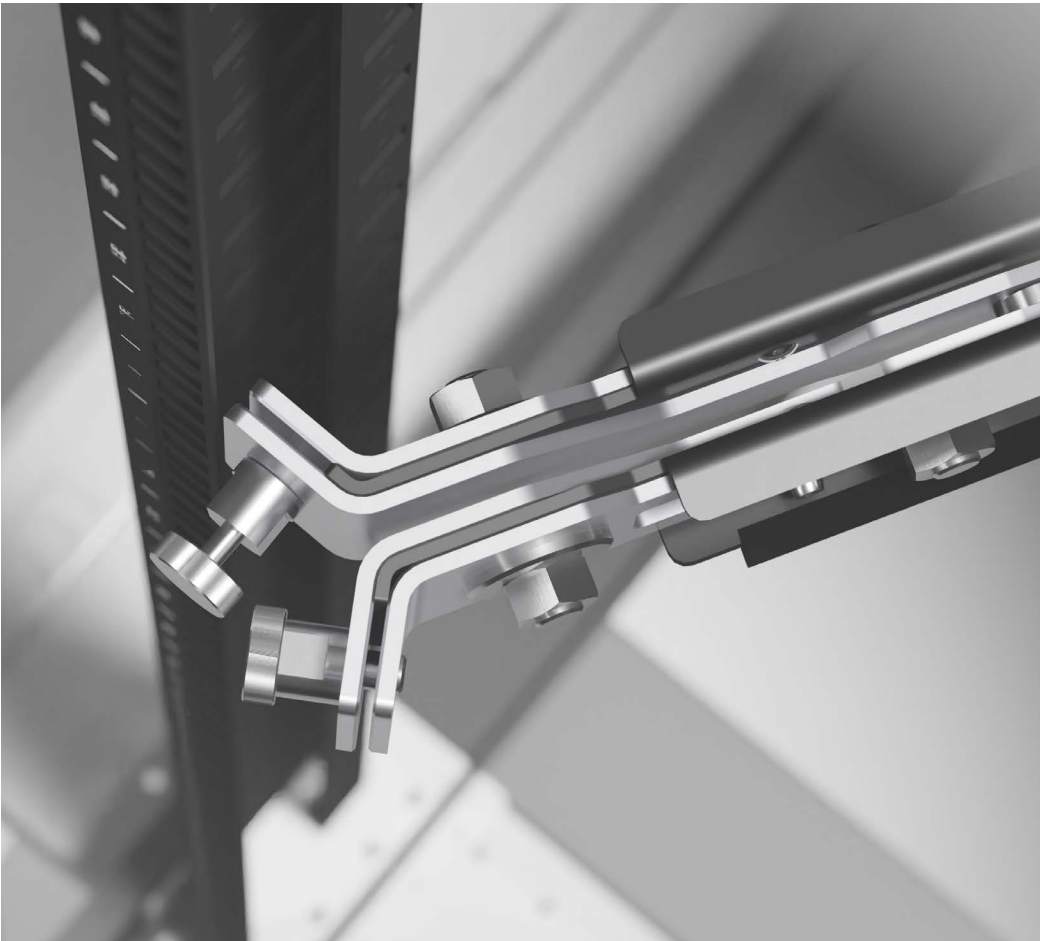
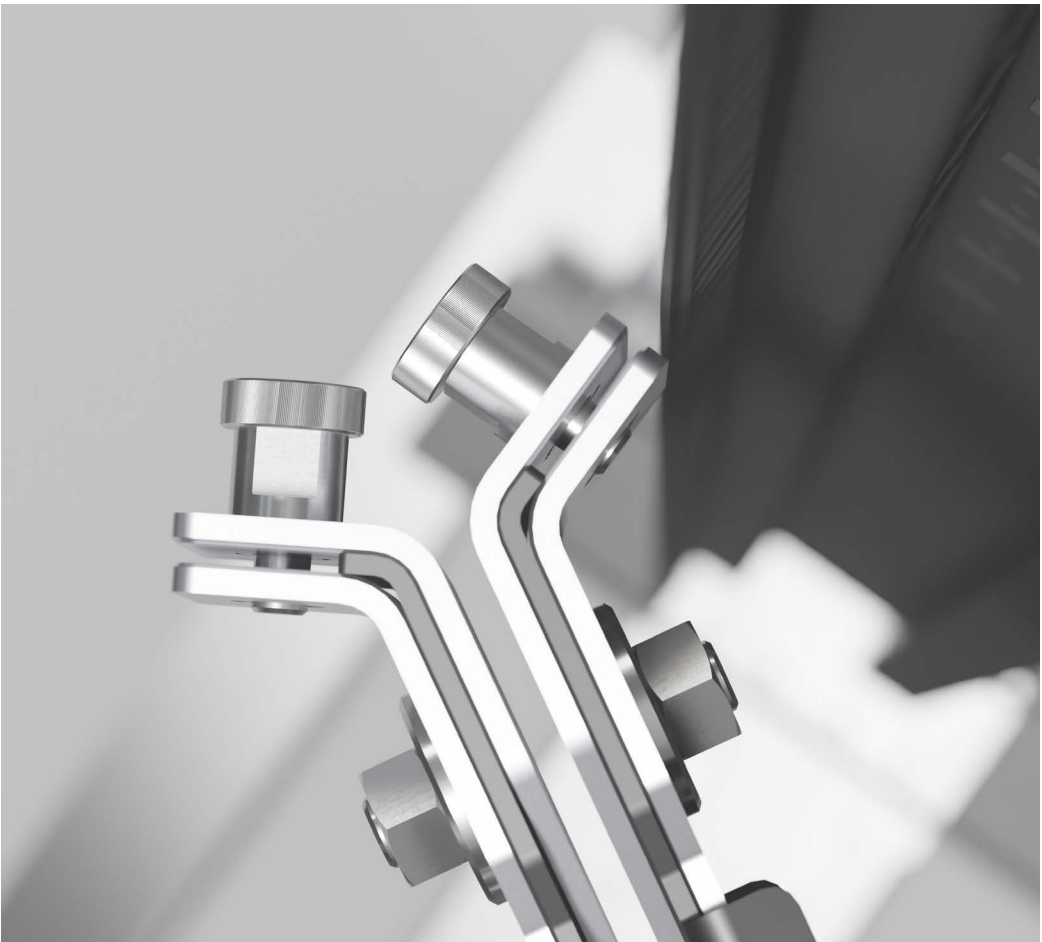
No more balancing heavy and expensive hardware in uncomfortable and dangerous positions.

The Setup.exe holds the hardware for you, while you can easily guide it into the rack and mount it.

The Setup.exe can carry up to 50kg (110lbs) for you. On the one side it holds your hardware, on the other your laptop.

Our Setup.exe will last your entire life.  
Enjoy the lifetime warranty.

Buy now





# Every Network Engineer knows and feels the pain of conventional cage nuts.

Mounting hardware in a network rack is a difficult task. IT technicians have to balance heavy hardware in uncomfortable positions while trying to fasten them with cage nuts and screws. The slippery nuts can easily fall out of sweaty hands and will most likely end up on the floor, making the task just more nerve-racking. To slow down the process even more, many IT technicians hurt their finger beds with the sharp edges. Mounting hardware is difficult and exhausting, especially when an urgent response is required. The employee needs a lot of patience and precision not to get hurt but also to mount the hardware safely.





# /dev/mount

To accelerate the hardware mounting process and make it safer for IT technicians, PATCHBOX invented the /dev/mount. Our innovative cage nut alternative was awarded Platinum at the Cabling Installation & Maintenance Awards 2023. It holds equipment securely in place before the hex nuts are even fastened. But the technicians' fingers will especially benefit from our cage nut alternative. Our /dev/mount is safer to use than conventional M5 or M6 cage nuts as no sharp edges have to be touched for mounting or dismounting. To fasten hardware fewer pieces and no tools are needed, saving a lot of time and nerves. To make mounting of hardware even easier and faster the /dev/mount comes with long hex nuts. The easier handling of our /dev/mount speeds up the process of mounting 19" equipment and is time and cost-saving.

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## Mounting is faster

As no assembly or tools are required, mounting hardware with the /dev/mount is easier and faster.

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## Doesn't hurt your fingers

Unlike with conventional cage nuts, no sharp edges need to be touched when mounting or dismounting a /dev/mount.

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## Toolless installation

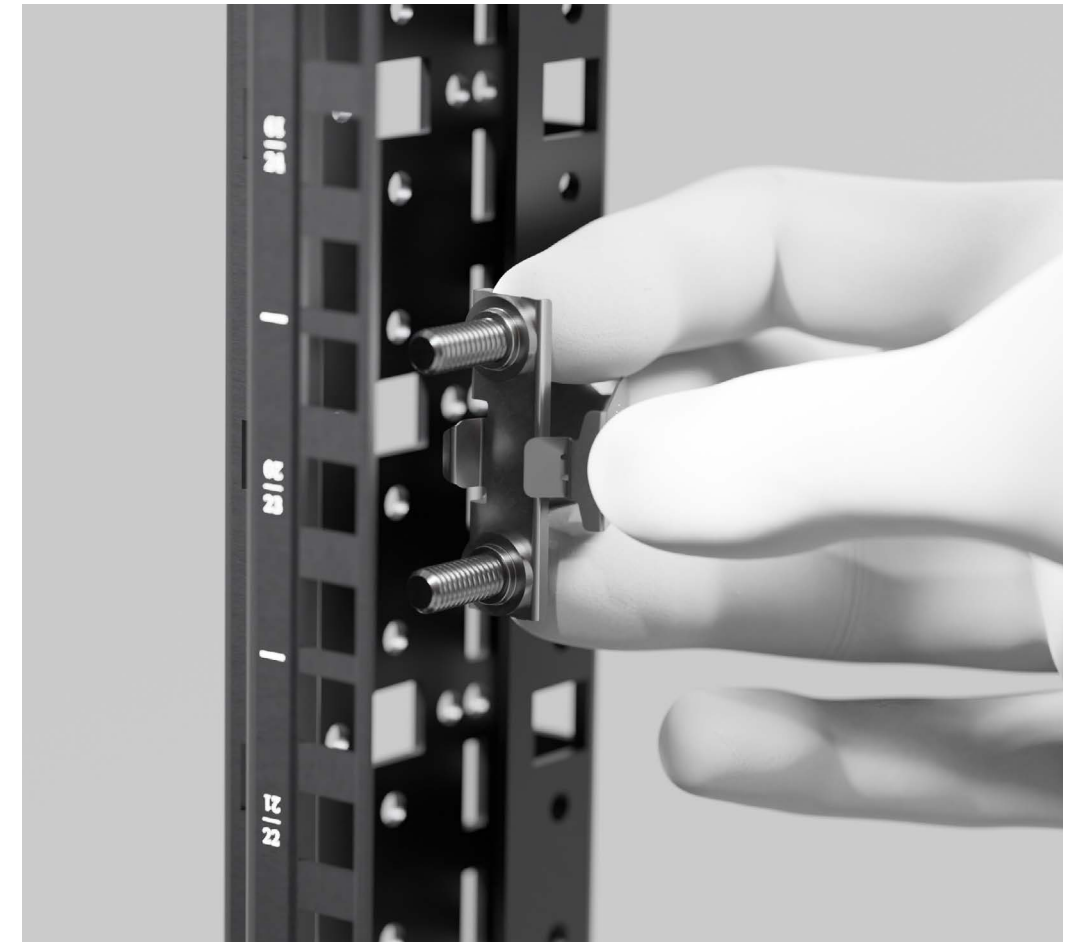
The /dev/mount consists of two pieces: the /dev/mount cage nut alternative and the long hex-nuts - which only need to be fastened by hand.

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## Up to 200kg

Our our innovative and high-quality /dev/mount can hold up to 200kg (440lbs) per rack unit.

[Buy now](#)





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Hamburg

WALT DISNEY  
Parks and Resorts

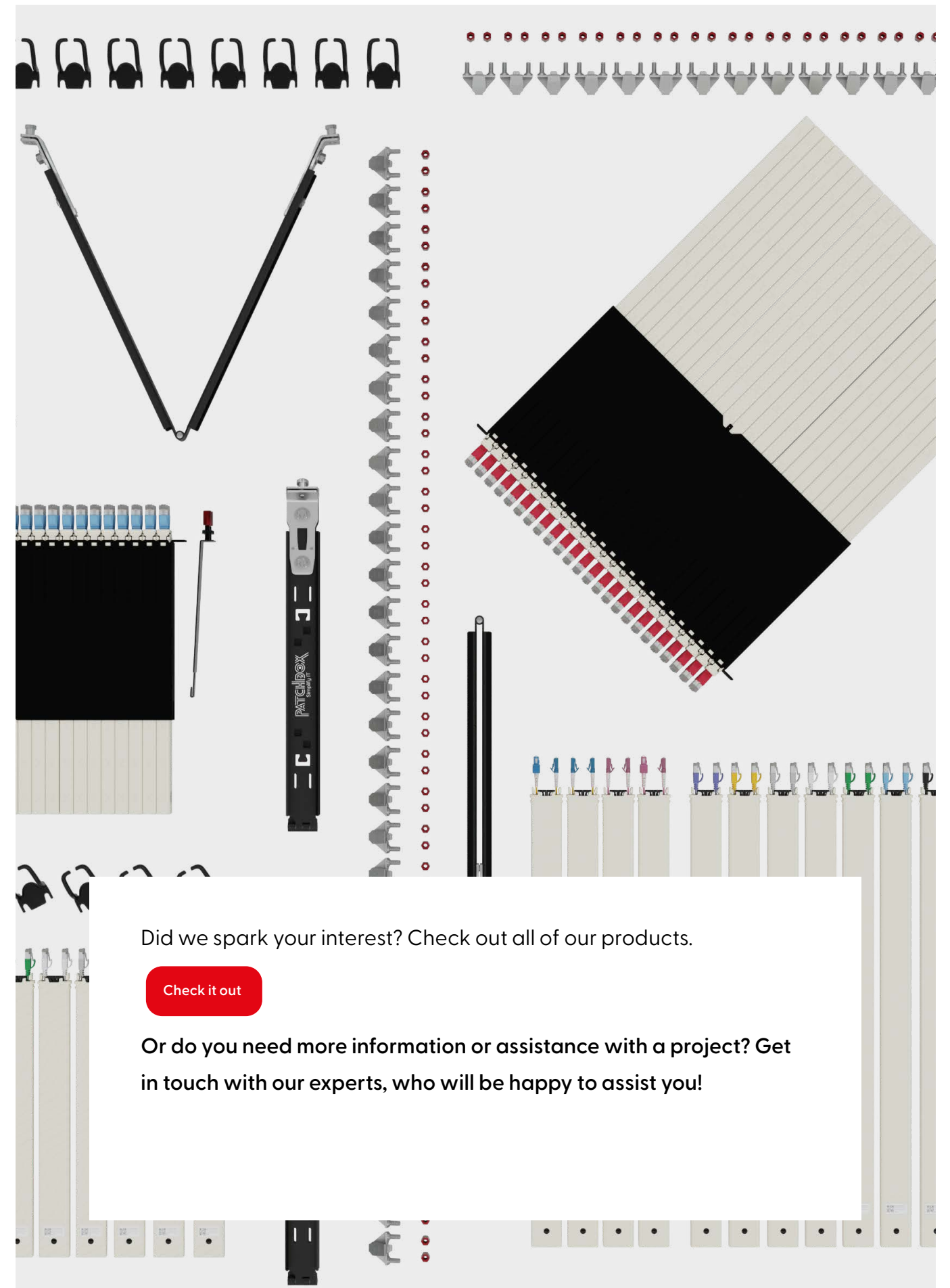


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[sales@patchbox.com](mailto:sales@patchbox.com)

+43 1 99 71 960

[www.patchbox.com](http://www.patchbox.com)