# IP remote Access

How connections to remote stations can be established securely
which cannot be reached directly because they are e.g.
in mobile networks, behind a NAT router or on a DS-Lite connection

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# Motivation

An important question when connecting security systems to control centers is:

*How can the required IP connections between protected objects and control centers be established as easily and securely as possible?*

# Options

- Port-Forwarding: simple, but also open to hackers
- VPN: secure, but complex to configure
- Hardware solutions: take up space and are expensive
- IPrAcc: simple software based solution
- Do you know other solutions?

# VPN – pros and cons

- VPN is very secure, but not easy to configure if, for example, many remote stations are to be connected, as is typically necessary with control centers.

- If connections are established to several customers with different VPN clients, there is a risk of unwanted network coupling and address conflicts, which can lead to critical systems malfunctioning.

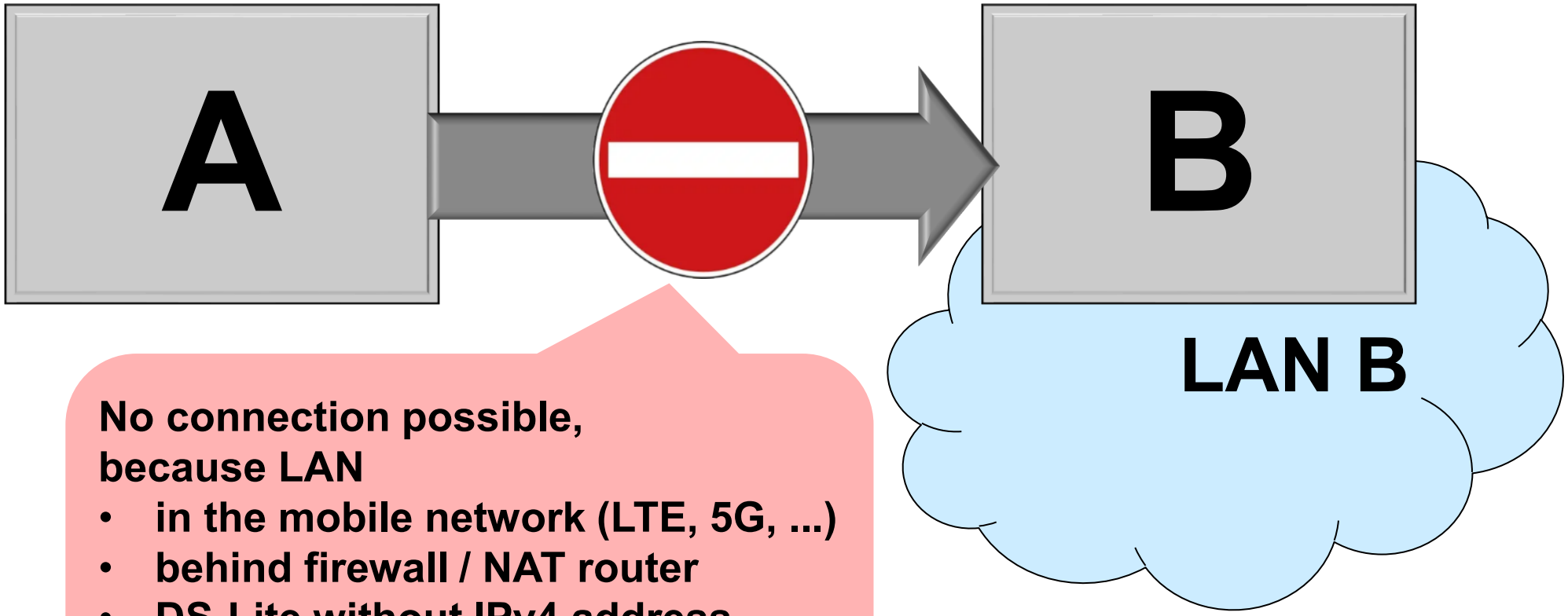
# Hardware – pros and cons

- There are ready-made, pre-configured hardware solutions that are easy and safe to use.
- Hardware is expensive, requires space and power, has to be set up and maintained on site, and quickly becomes obsolete - which is why the trend is towards solely software-based solutions.

# IPrAcc is a solely software solution

- Can run on existing hardware:
  PC, server, embedded in devices or in the cloud
- Immediately available: download and start in minutes
- For new IP connections, just fill in 3 fields – ready!
- Always up-to-date thanks to software maintenance
- Flexible: extensions easily possible
- Scalable: grows with your requirements

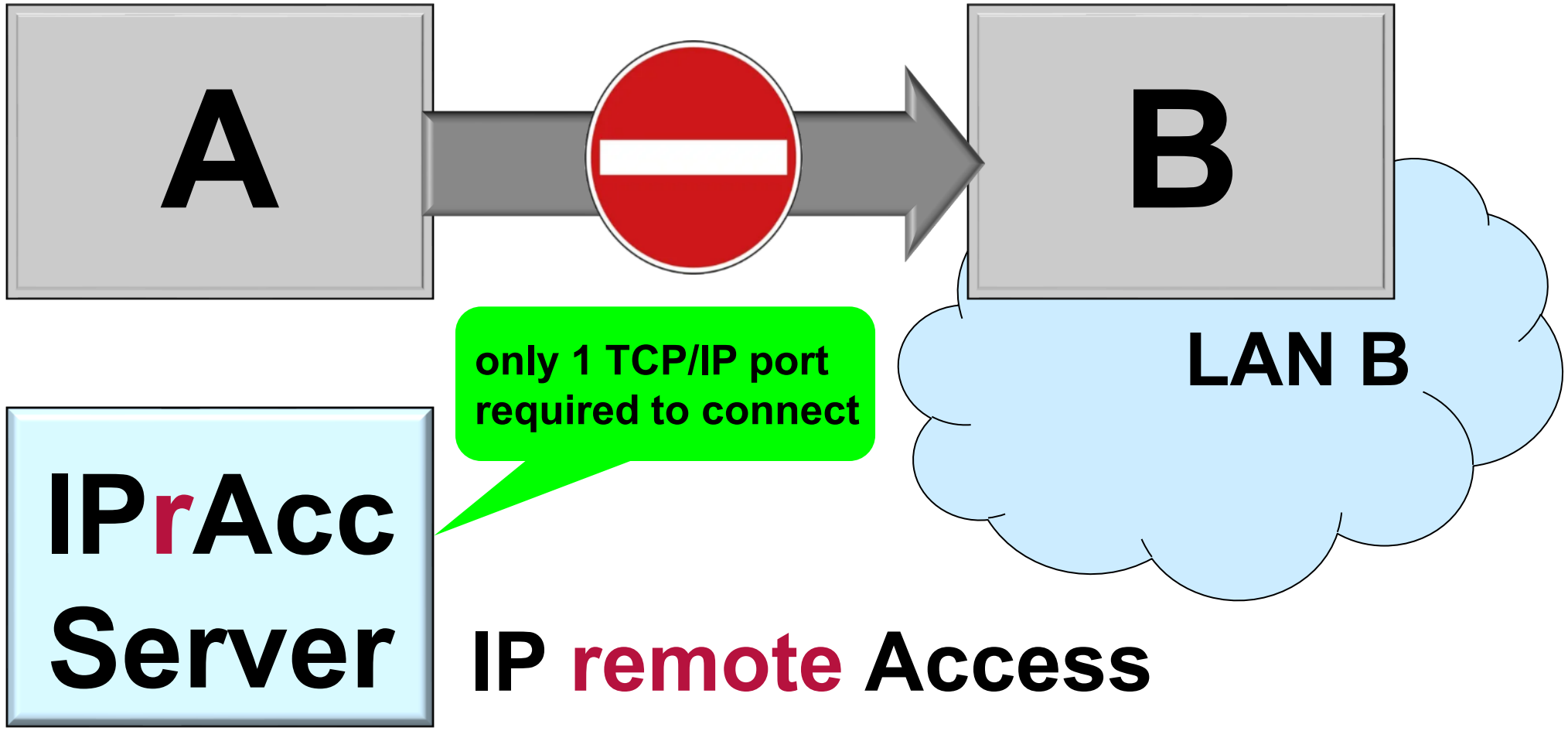
# Task: IP connection from A to B




**No connection possible,**
**because LAN**

- **in the mobile network (LTE, 5G, ...)**
- **behind firewall / NAT router**
- **DS-Lite without IPv4 address**
- **no fixed IP address…**
- **…**

# Solution: Server reachable from A and B



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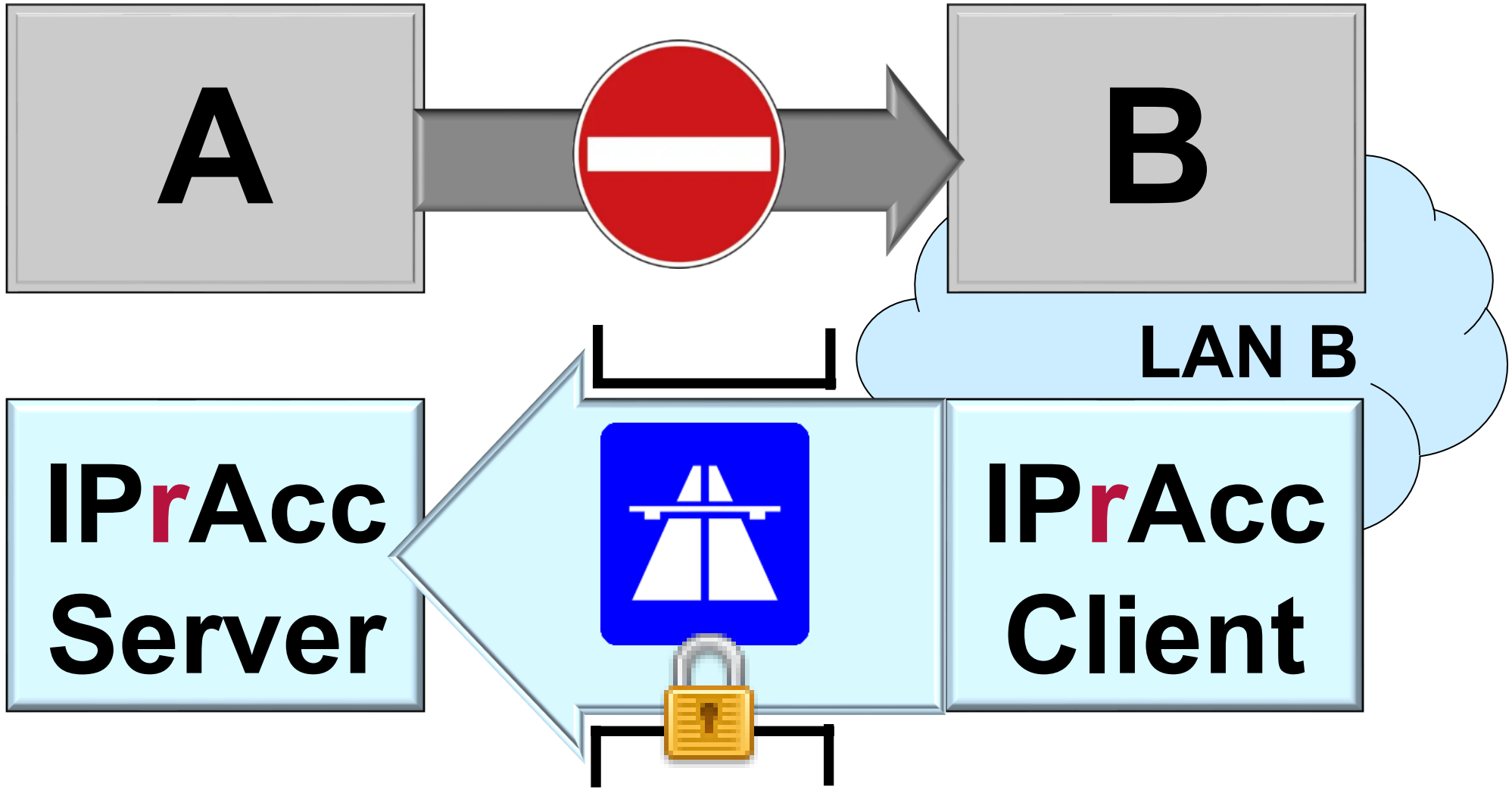
# IPrAcc Client establishes bridge to server



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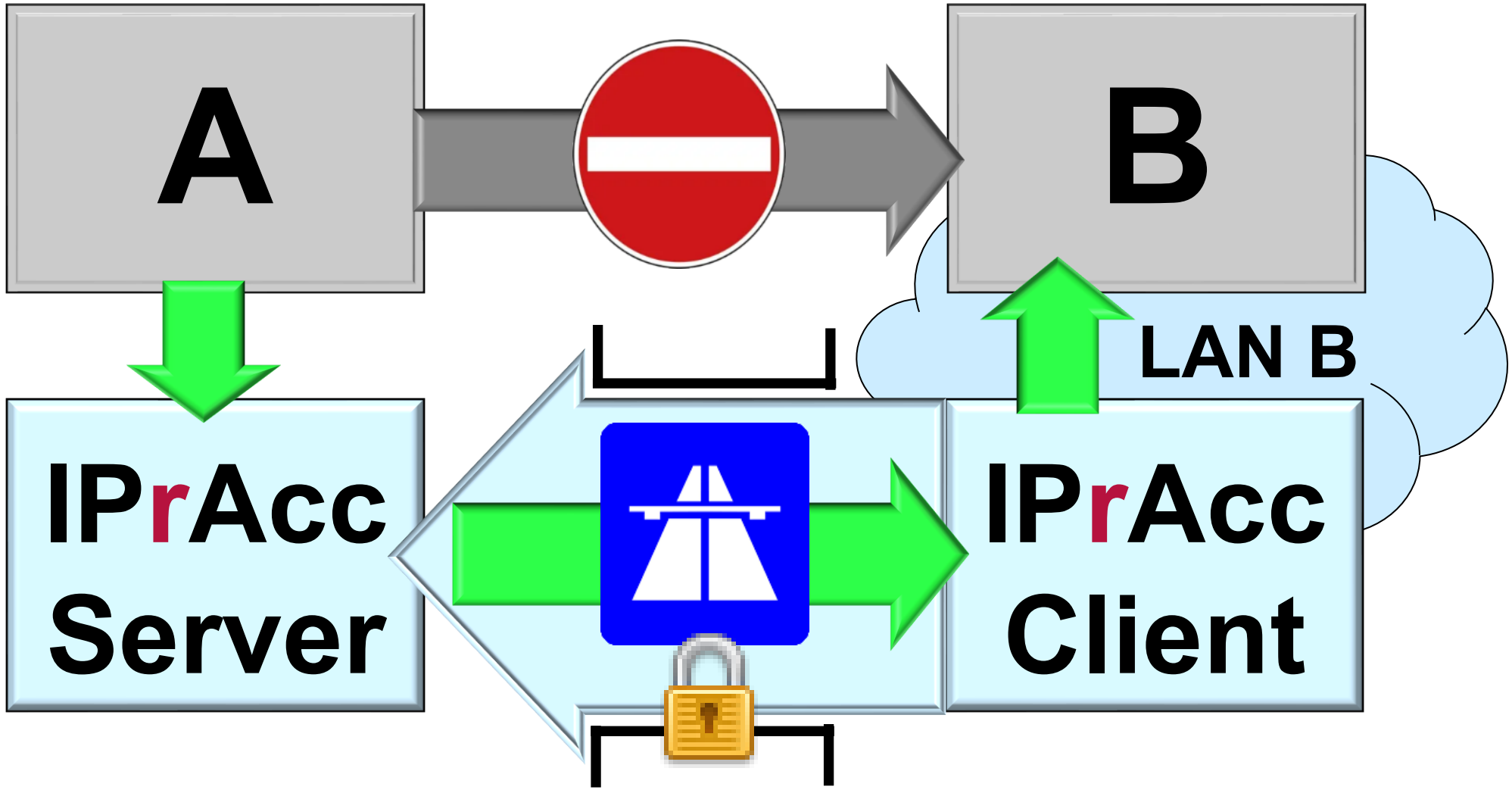
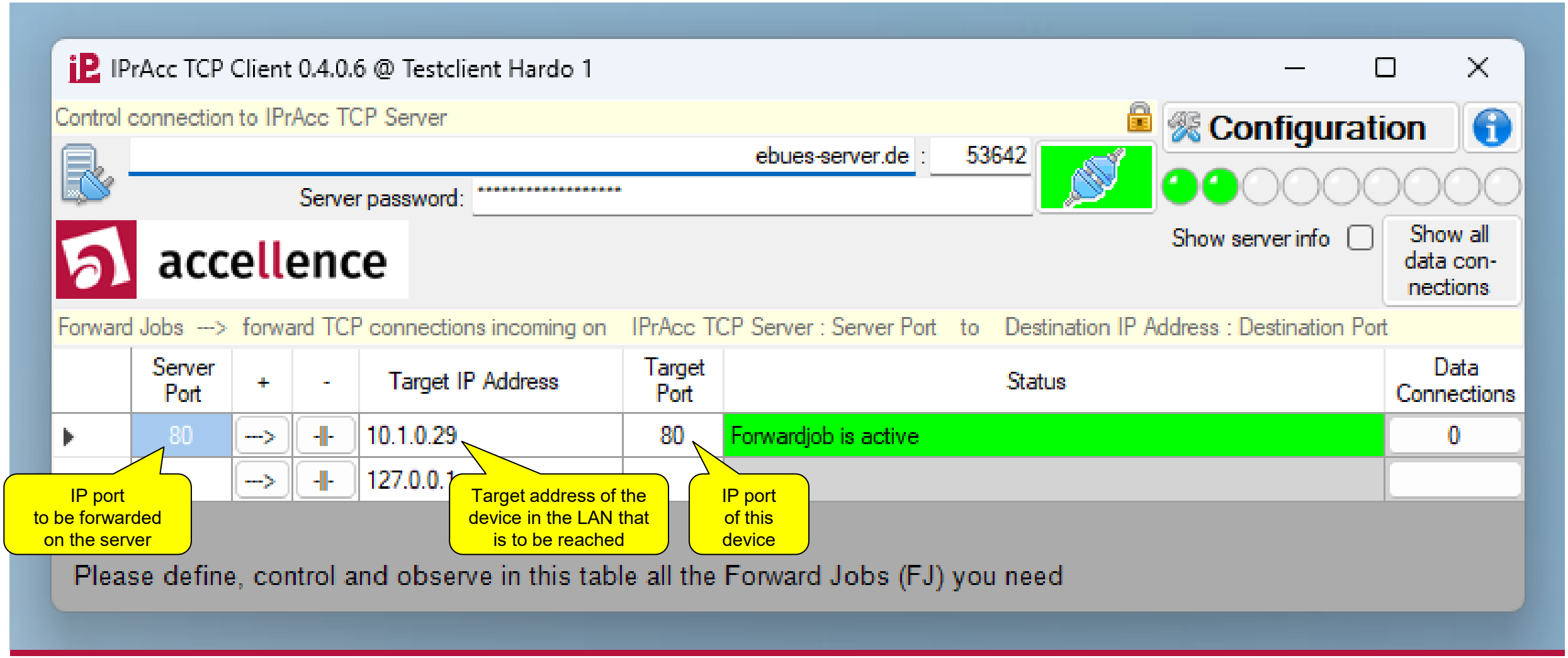
# Bridge enables new IP connections



# Configuration IPrAcc-Client



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# Properties + Possibilities

- All connections between IPrAcc clients and servers are encrypted with AES256
- Connections can be restricted to desired participants using whitelists
- IPrAcc is currently available for Windows
- Porting to other operating systems is possible
- Manufacturers of security technology can license the algorithm and build it directly into their products

# Invitation to information + test

- Comprehensive information
- Download software for tests

→ **www.ipracc.com**

# Contact

If you are interested or have any questions, please don’t hesitate to contact me: