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?

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Options

- Port-Forwarding: simple, but also open to hackers
- VPN: secure, but complex to configure
- Hardware solutions: take up space and are expensive
- Peer-to-peer solutions (P2P): restricted to single manufacturer
- IPrAcc: software solution based on open IP standard
- Do you know other solutions?

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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.

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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.
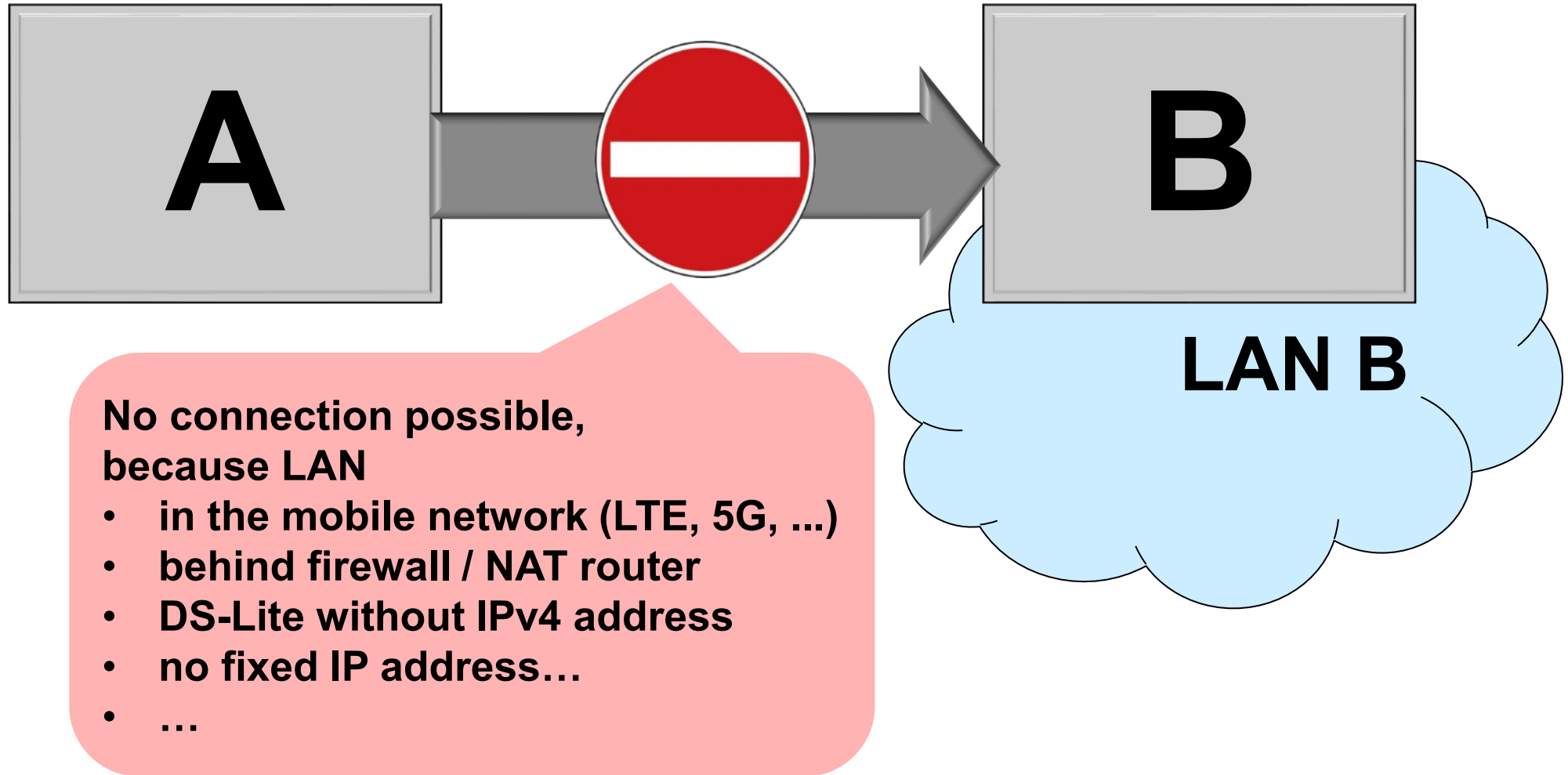
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P2P – pros and cons

- Some manufacturers offer so-called peer-to-peer solutions (P2P) for their products
- Connections run via the manufacturer's servers
- Require registration and account at the manufacturer
- Easy access via IDs to all registered devices
- Only works with products from this manufacturer
- Data security and availability depends on the provider
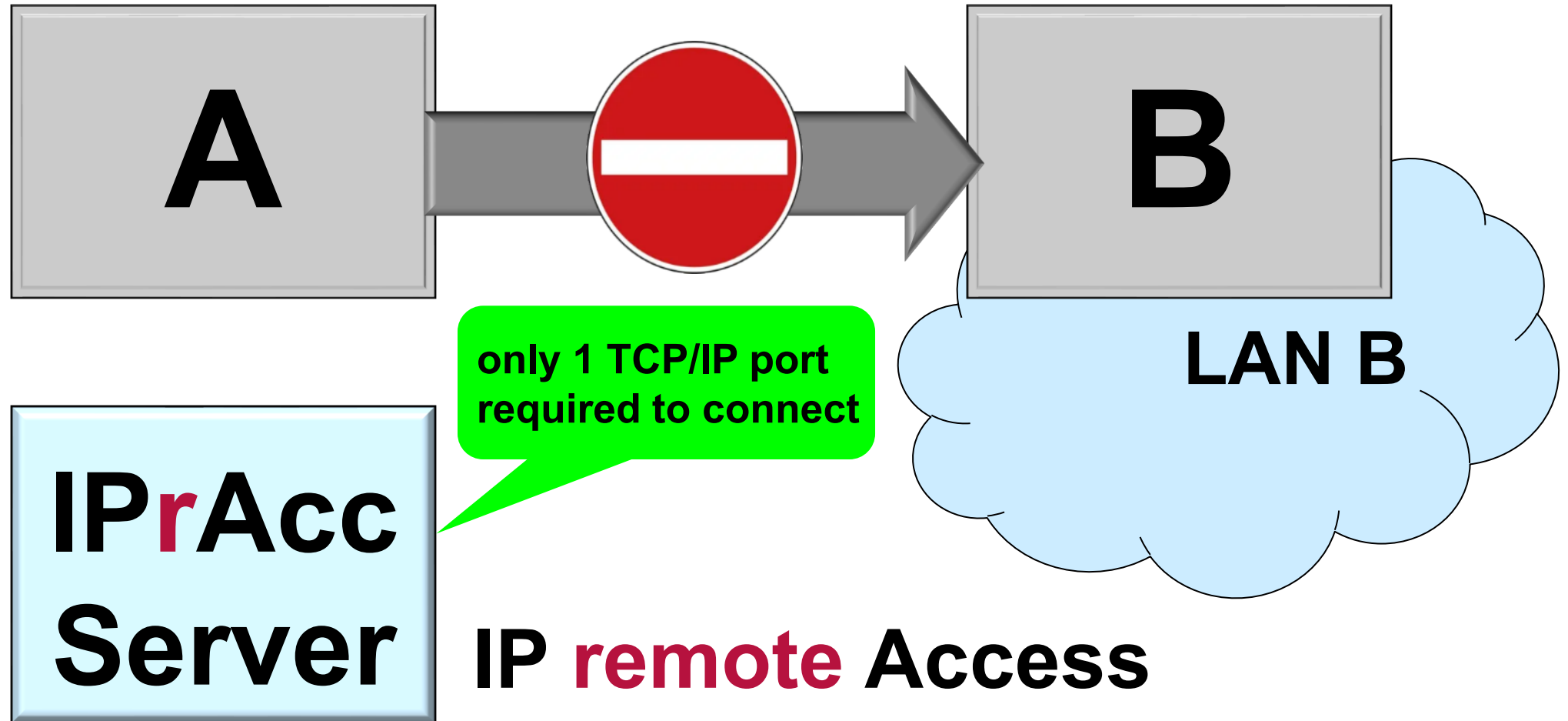
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IPrAcc is an open pure software solution

- Can run on existing hardware:
  PC, server, embedded in devices or in the cloud

- Open IP standard: Works with products from all manufacturers

- 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

- Independent: All system components under your control

- Flexible: extensions easily possible
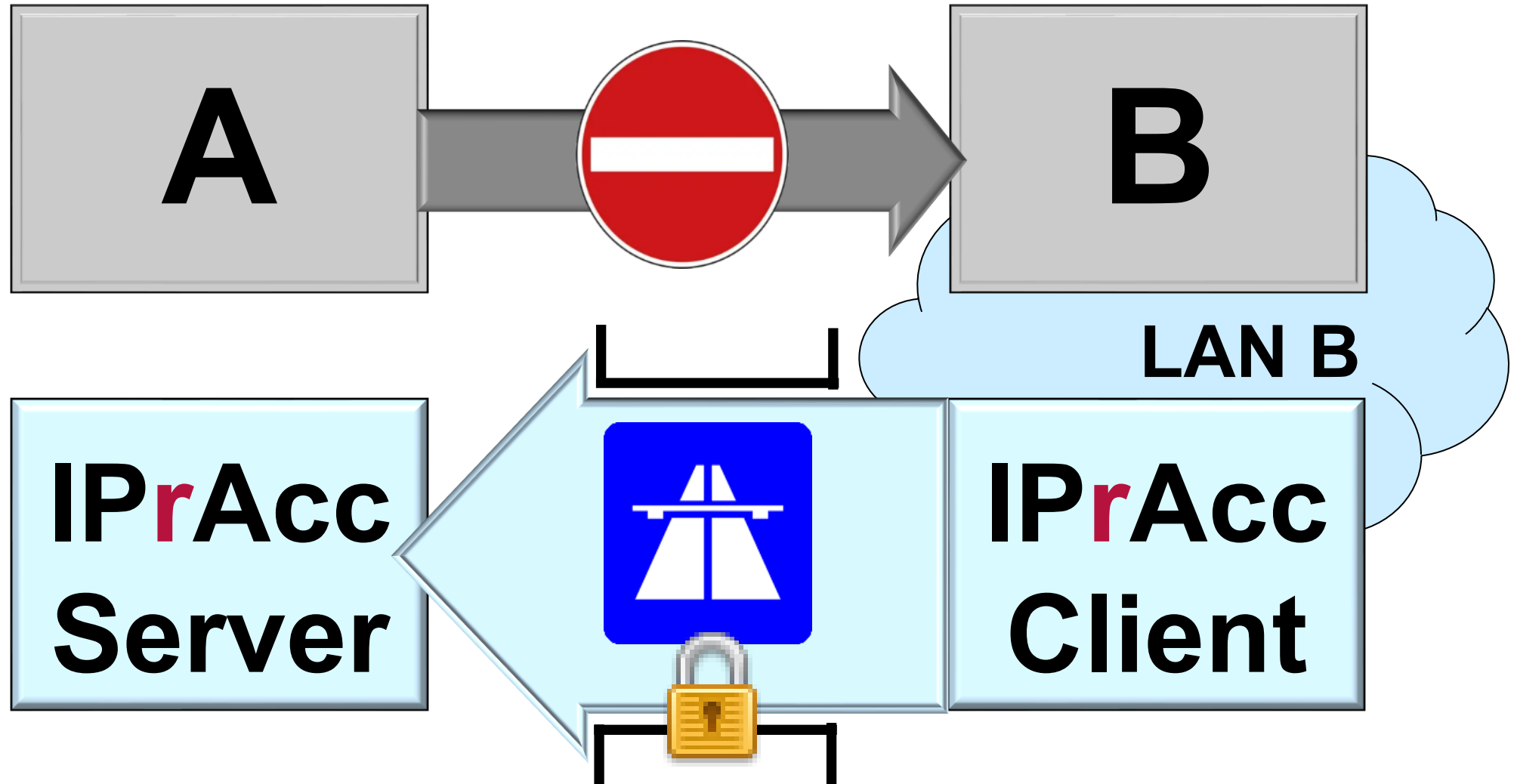
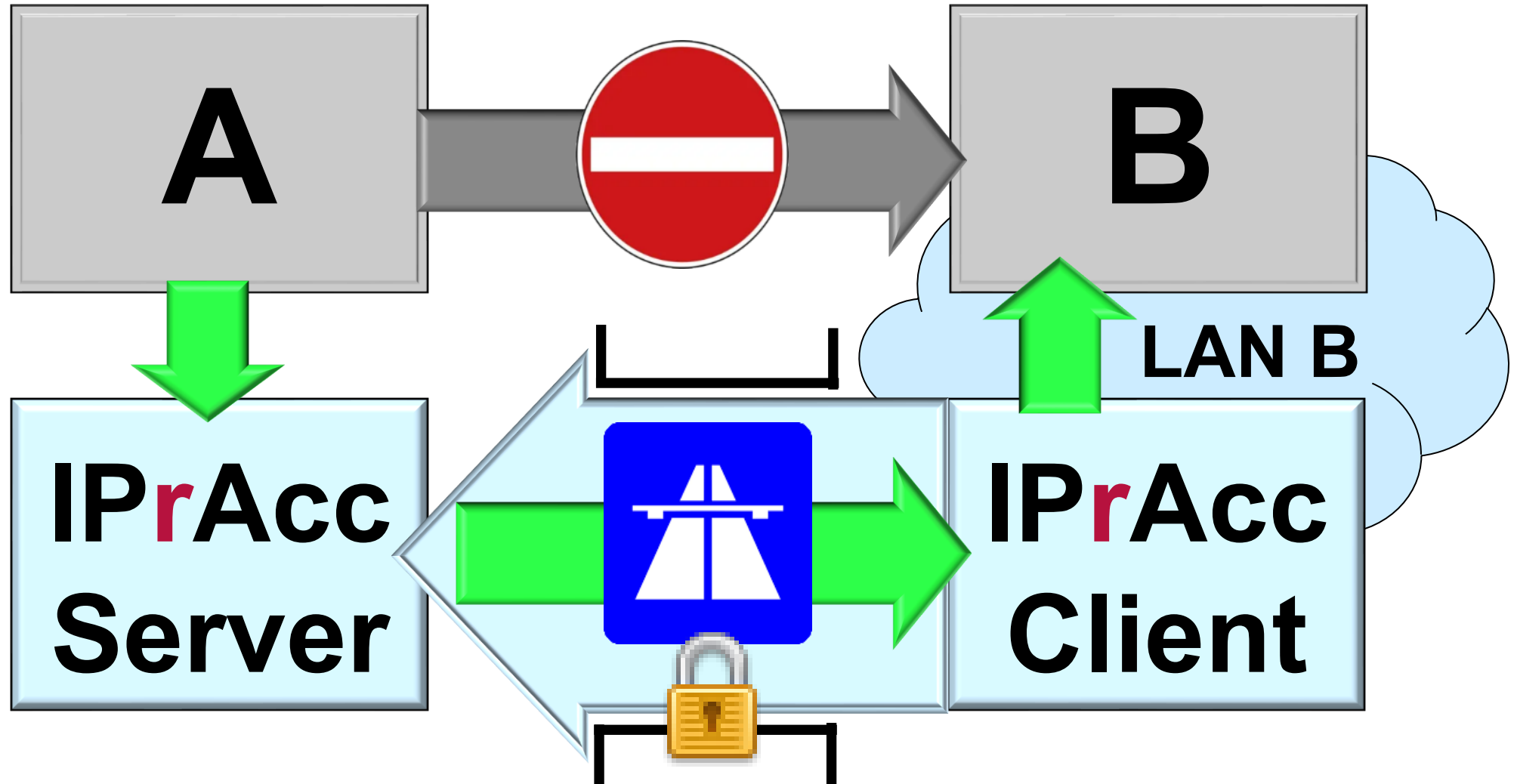- Scalable: grows with your requirements

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Task: IP connection from A to B

A → **B**

LAN 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…
- …

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Solution: Server reachable from A and B

A → ⛔ → B

LAN B

only 1 TCP/IP port required to connect

IP**r**Acc Server   IP **remote** Access

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IPrAcc Client establishes bridge to server

A

B

LAN B

IP**r**Acc Server

IP**r**Acc Client

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Bridge enables new IP connections

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Configuration IPrAcc-Client

Properties + Possibilities

- All connections between IPrAcc clients and servers are encrypted with AES256

- Connections can be restricted to desired participants using whitelists

- Is available for all current Windows versions, porting to other operating systems is possible

- Manufacturers of security technology can license the algorithm and build it directly into their products

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Invitation to information + test

- Comprehensive information
- Download software for tests

→ **www.ipracc.com**

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Contact

If you are interested or have any questions,

please don't hesitate to contact me:

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