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Nabto – Connect simple and secure

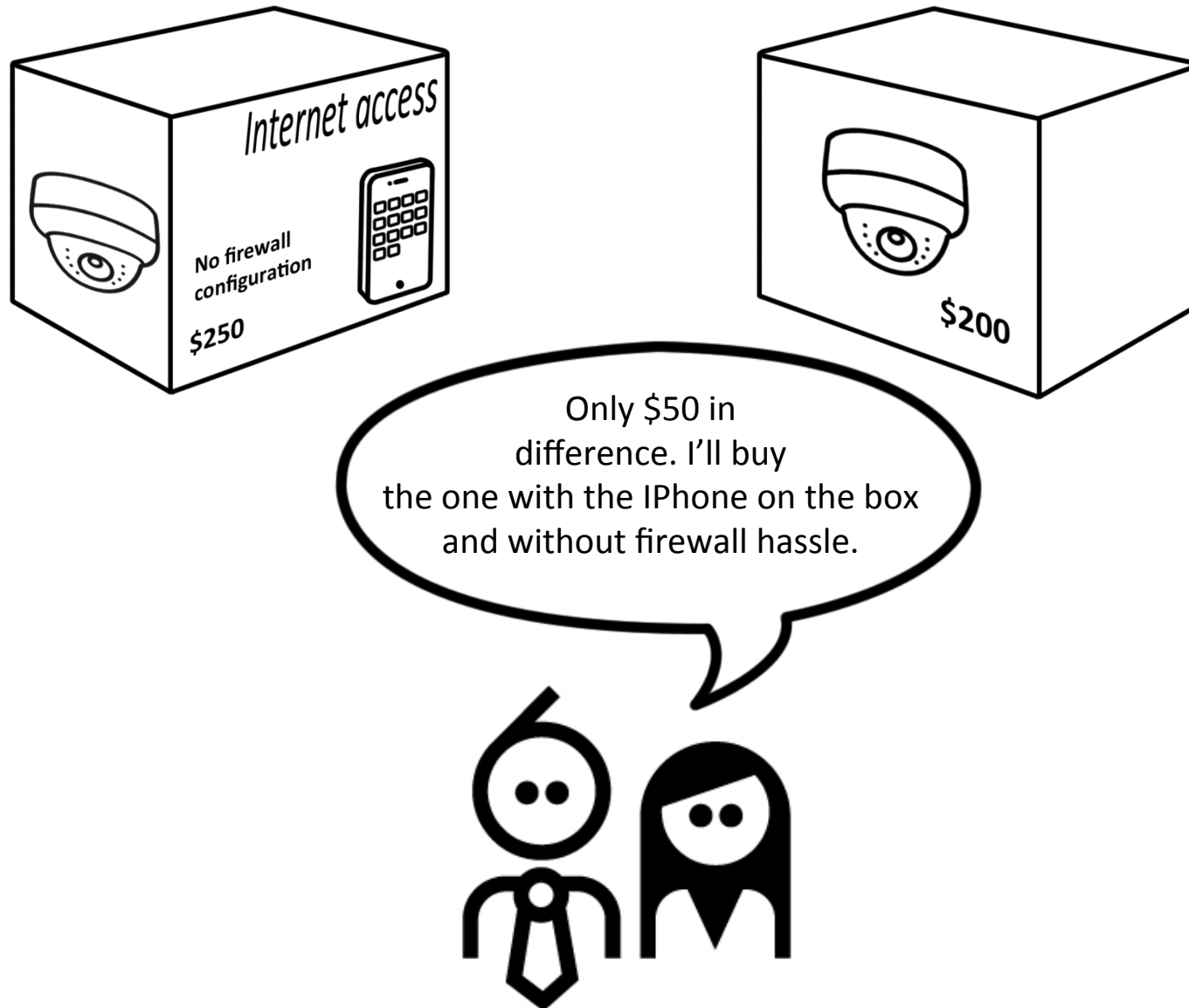
Nabto in Video Solutions



www.nabto.com

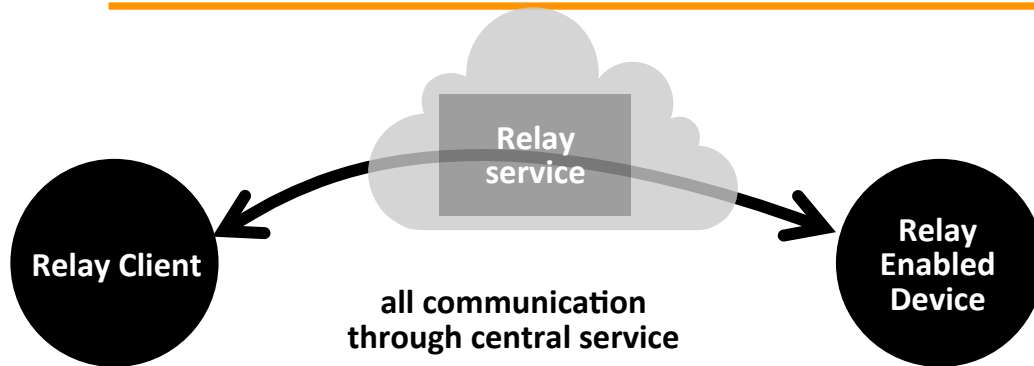
REMOTE ACCESS INCREASES PRICE AND PROFIT

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BENEFITS OF P2P SOLUTIONS IN GENERAL

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Relay

Poor user experience:

- ÷ Increased network overhead
- ÷ Extra latency prevents real-time interaction
- ÷ Always requires Internet connection

High cost of operation:

- ÷ High traffic cost, all data goes through server
- ÷ Limited amount of connections per server

VS

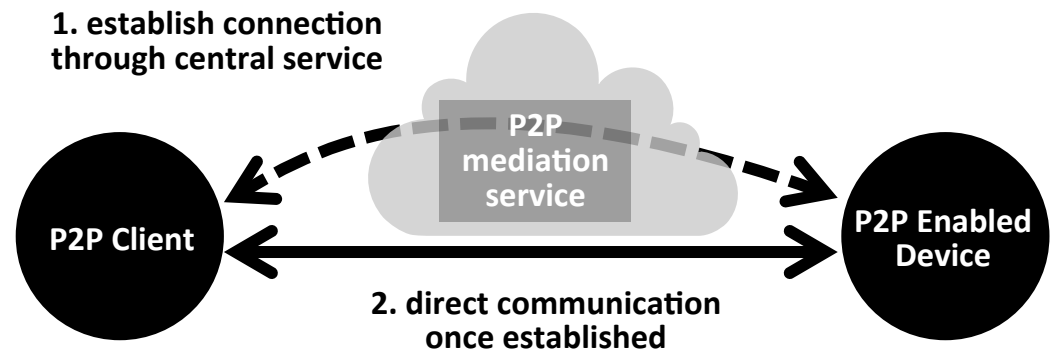
Peer-to-Peer

Better user experience:

- ✓ Lower latency
- ✓ Higher throughput
- ✓ Instant interaction
- ✓ May allow offline operation

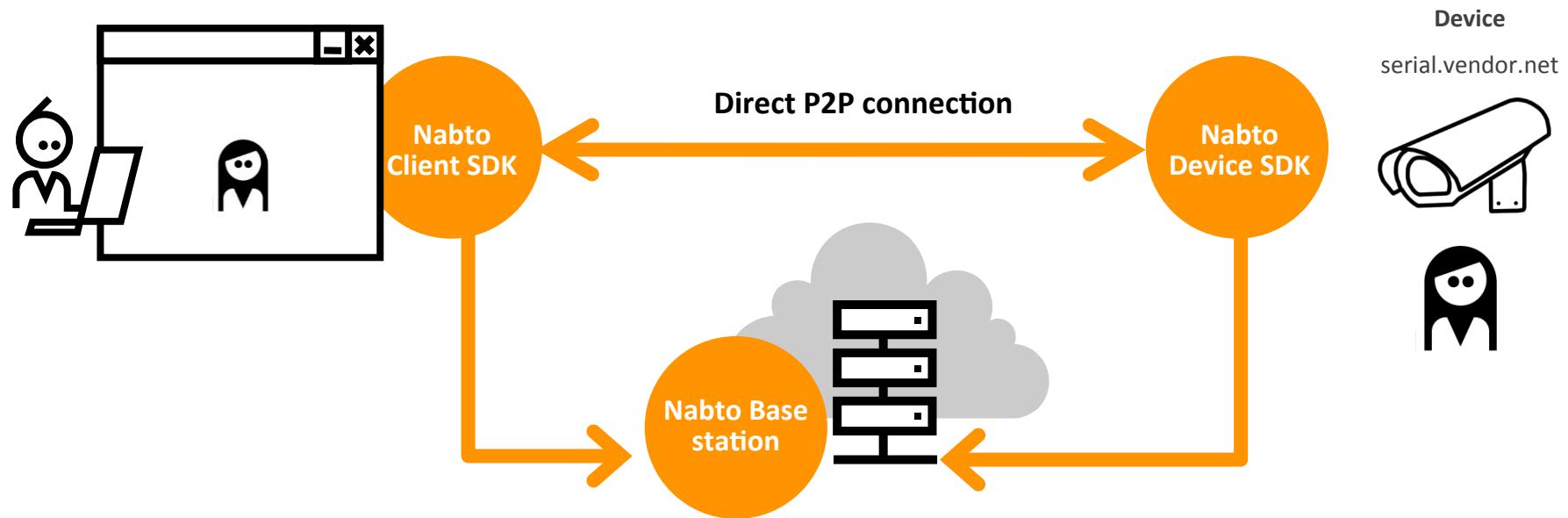
Lower cost of operation:

- ✓ Huge bandwidth savings
- ✓ Less compute resources needed



NABTO'S PEER-TO-PEER SOLUTION

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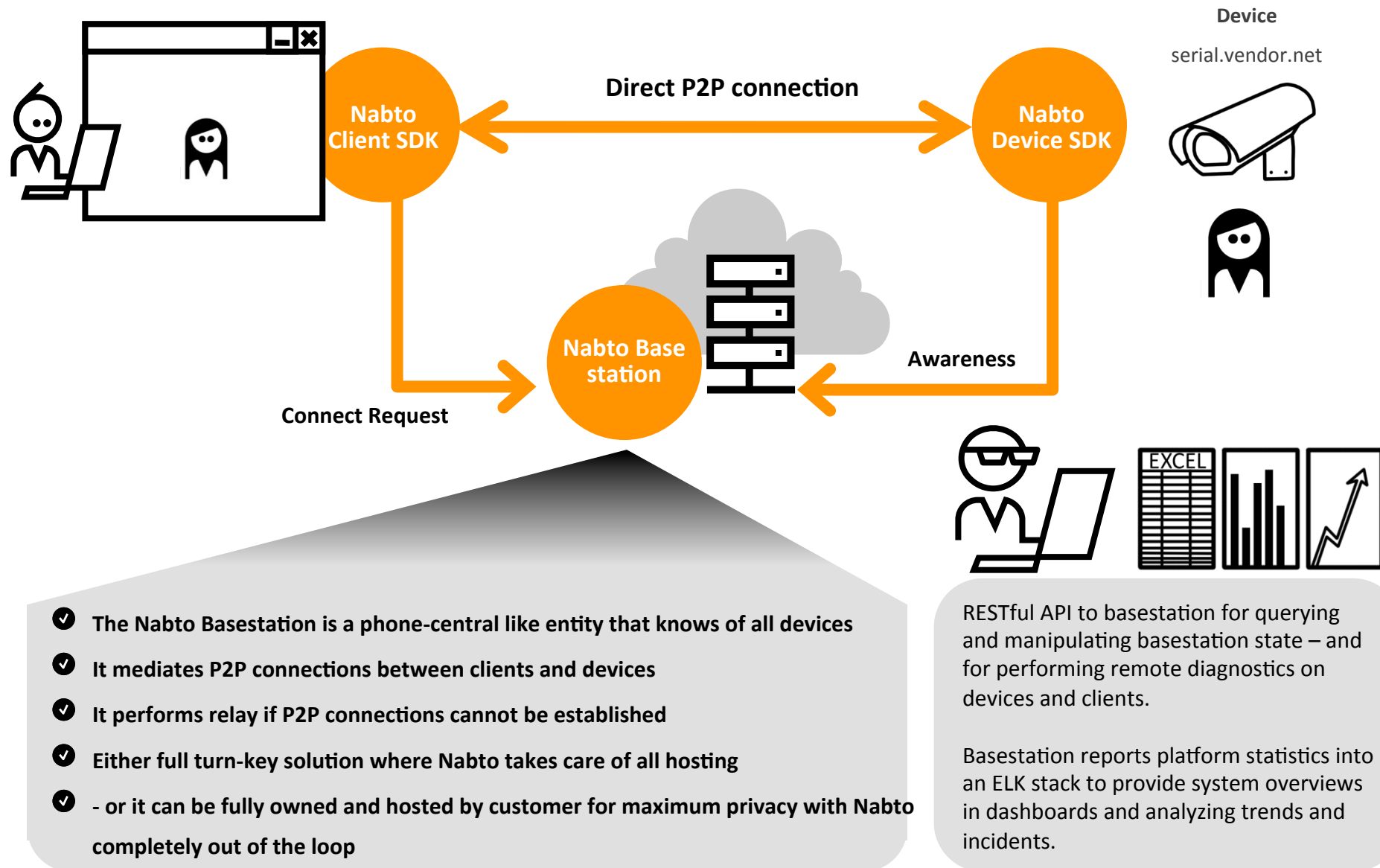


- ✓ Nabto provides a simple, award-winning P2P solution
- ✓ A solid, secure and high-performing platform – Scandinavian quality software
- ✓ Platform in production since 2009
- ✓ 650.000+ devices deployed on 4 continents as of Q1 2015
- ✓ Extremely simple to integrate and operate
- ✓ Unsurpassed P2P ratio – symmetric NAT traversal yields 96% success in real life deployment

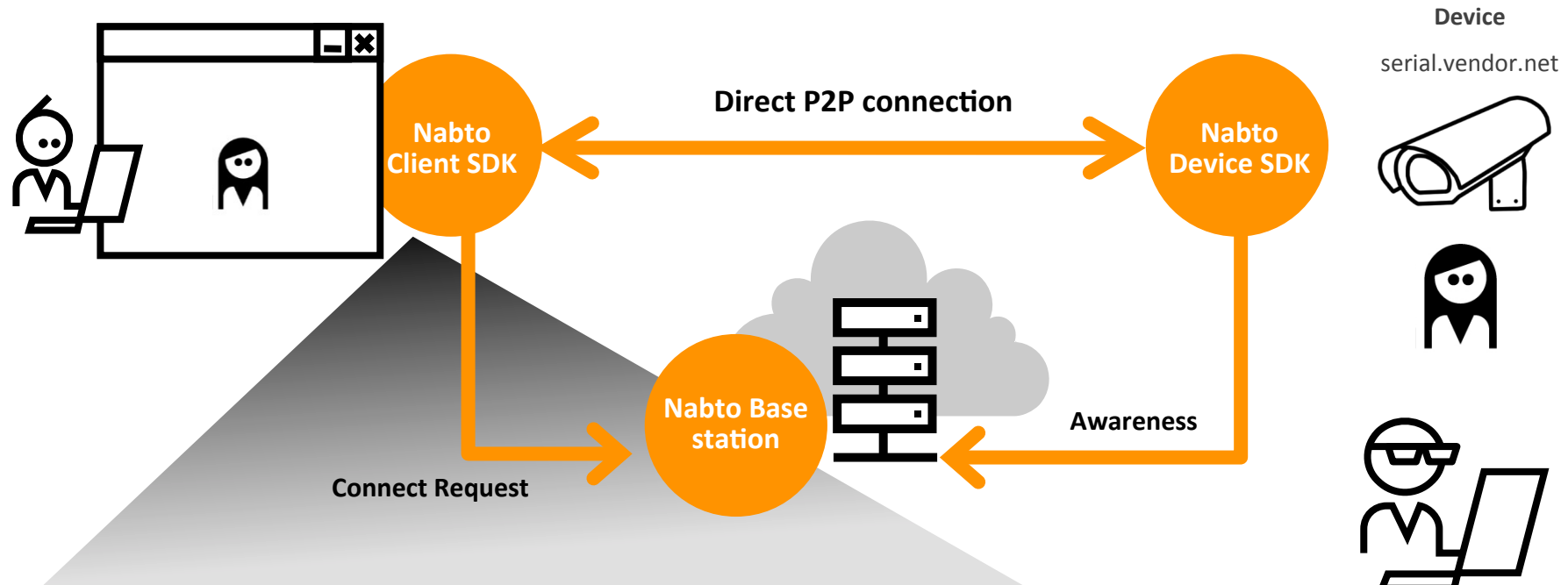
Fluent Technical and Business support in English, Mandarin, German, French and the Scandinavian languages

THE NABTO BASESTATION (P2P SERVICES)

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VIDEO PLAYER APPLICATIONS – SDK OR APPS



- ✓ Video player applications are built using the Nabto Client SDK
- ✓ Shrink-wrapped ready-to-use apps for turn-key solutions are available
- ✓ Or custom apps can show video feeds through extremely simple integration:
 1. Open Nabto tunnel to Nabto device
 2. Connect RTSP client to local RTSP proxy opened by Nabto SDK
 3. Nabto securely transmits data from RTSP server on device to client player
- ✓ Supports Windows, OS X, Linux, iOS and Android

Integration into custom apps is extremely simple:

```
nabtoStartup();  
s = nabtoOpenSession(userid, passwd);  
tun = nabtoOpenTunnel(s, host, port);  
rtspPlayer.play("localhost", port);  
// voila!
```

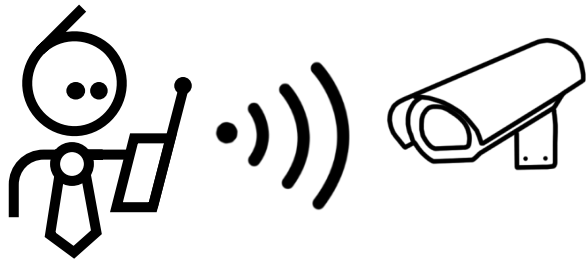
THE NABTO CLIENT SDK - CONNECTING



Scan QR

For the initial connection to device, the user has several options:

- ✓ Scan a QR label on the camera using smartphone camera
- ✓ Discover the device on the local network with a Bonjour™ style mechanism
- ✓ Manually enter the device address printed on the camera



... or discover on local network

60-fc-42.vendor.net

.. or manually enter address

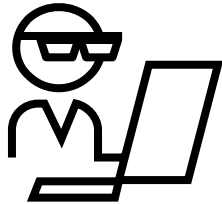
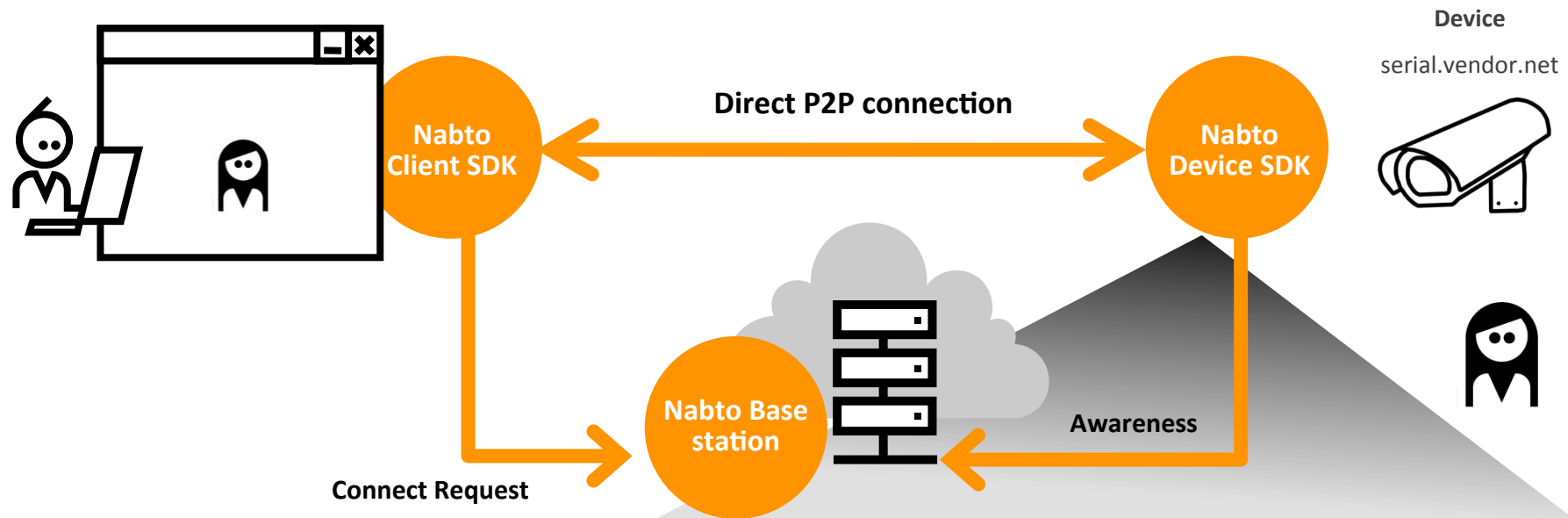


You just need to obtain the device id in some way and pass it to the tunnel open function in the API.

The API has a simple function to get a list of device ids on the same local network.

THE NABTO DEVICE SDK

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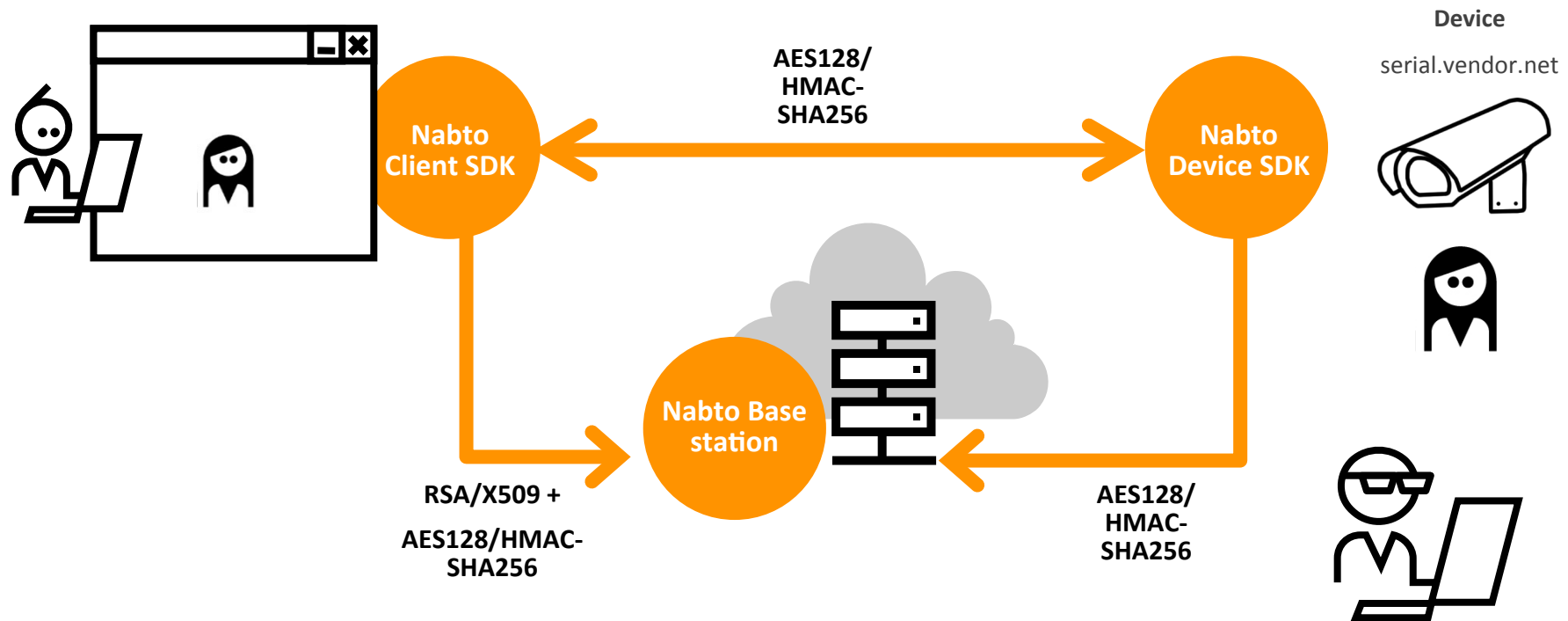
Supports several target platforms out of the box – including all Linux flavors on any architecture with a GCC toolchain.

Nabto is happy to assist to build optimized binaries for your specific platform if you can provide a GCC toolchain.

- ✓ Integration on the camera or DVR/NVR is done through The Nabto Device SDK
- ✓ Extremely simple integration:
 1. Compile the open source Nabto Tunnel, part of the Nabto Device SDK
 2. Install and start the Nabto Tunnel (it acts as an RTSP reverse proxy)
 3. Start the RTSP client as described earlier
 4. Nabto automatically creates a secure tunnel to the RTSP server on the camera

SECURITY IN THE NABTO PLATFORM

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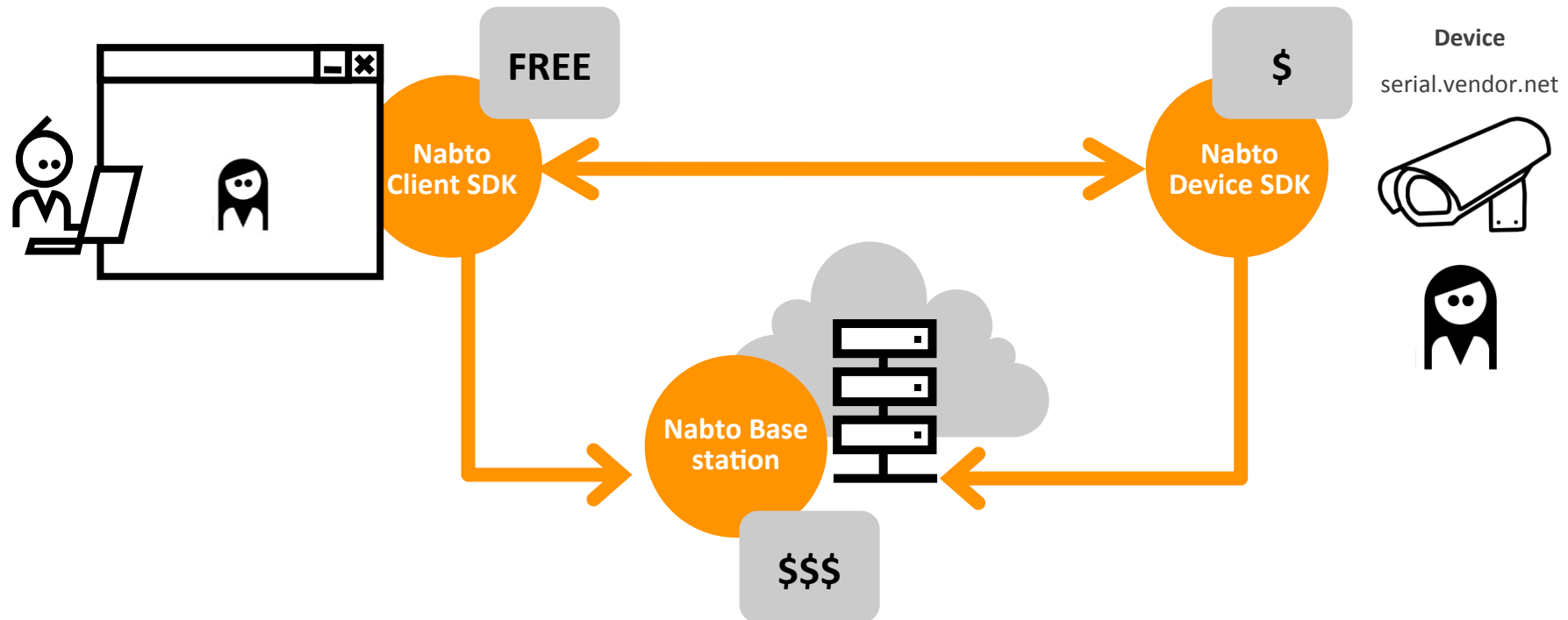
- ✓ The platform has been designed from the ground up with security as a focal point
- ✓ Uses same technology as home banking solutions
- ✓ RSA/X509 authentication of clients and shared secret based auth of devices
- ✓ End-to-end encryption using AES128 and HMAC-SHA256
- ✓ Session key exchanged through basestation

Use Nabto's authorization framework where you maintain Access Control Lists on the device through the Nabto API to control which users can access the device.

Or simply use Nabto as a secure tunnel and use a custom, application level authorization scheme – such as RTSP basic auth towards your own access rules on the device.

BUSINESS MODEL

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- ✓ One-time fee is charged for the basestation (5.000 – 25.000 USD depending on number of devices to handle)
- ✓ Small one-time fee is charged per device (2,00-15,00 USD depending on volume)
- ✓ Above fees include unlimited use of all client libraries and apps
- ✓ Nabto provides optional hosting services – but basestation can be hosted by customer in own datacenter or at a VPS / cloud solution for full privacy and control

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connect - simple and safe



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