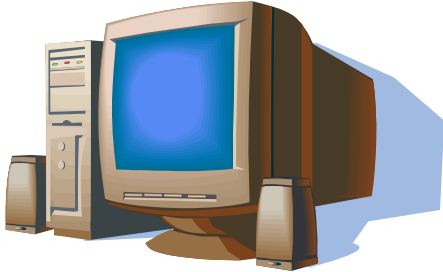


SIP TAPI

**A click2dial application, based on
asttapi and eXosip2
Klaus.Darilion@enum.at**

Scenario

1.



→ dial callee's number in TAPI application (e.g. Outlook)

2.



→ caller's phone rings, pick up!

3.

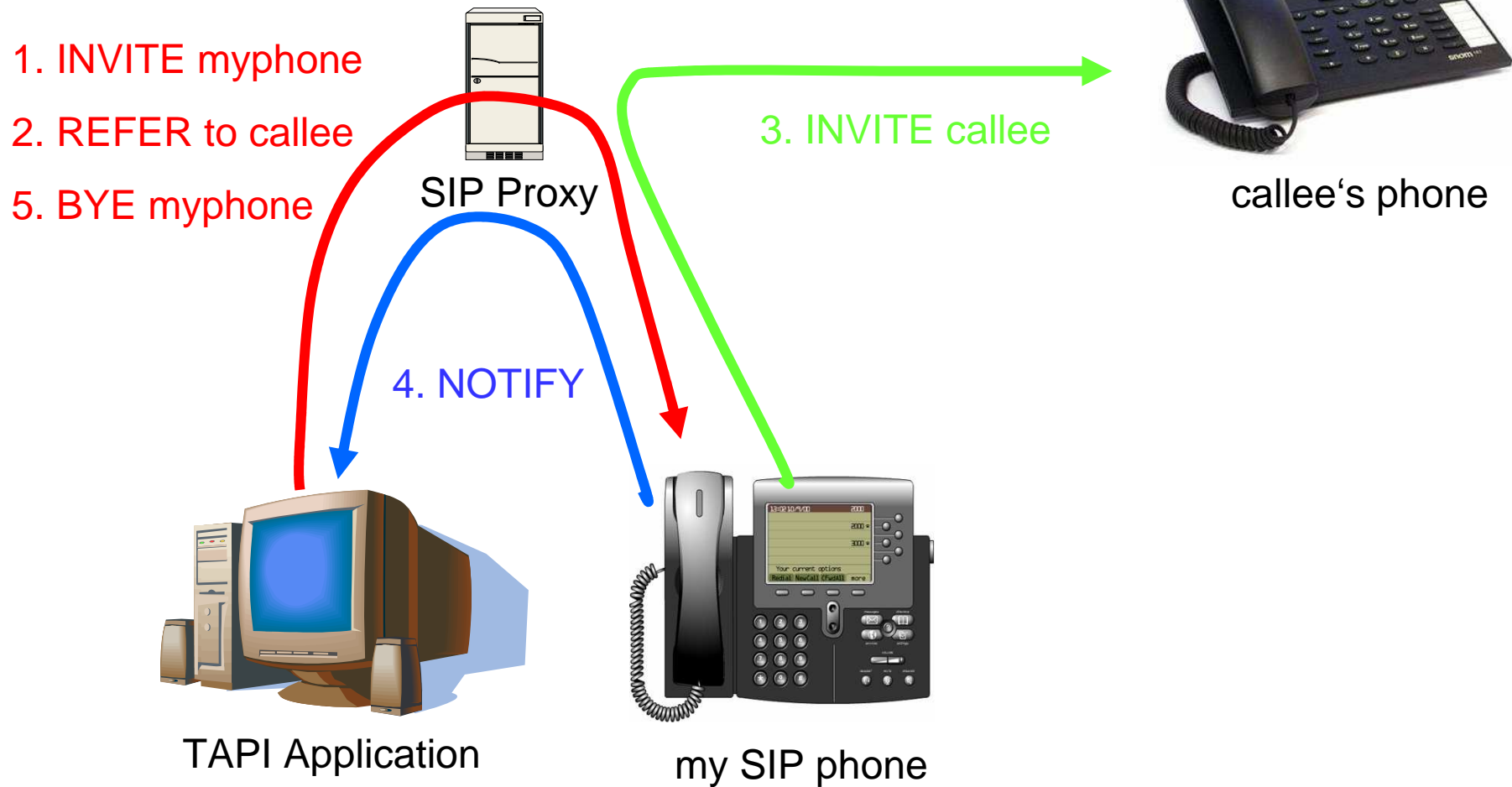
→ caller's phone INVITEs callee

4.

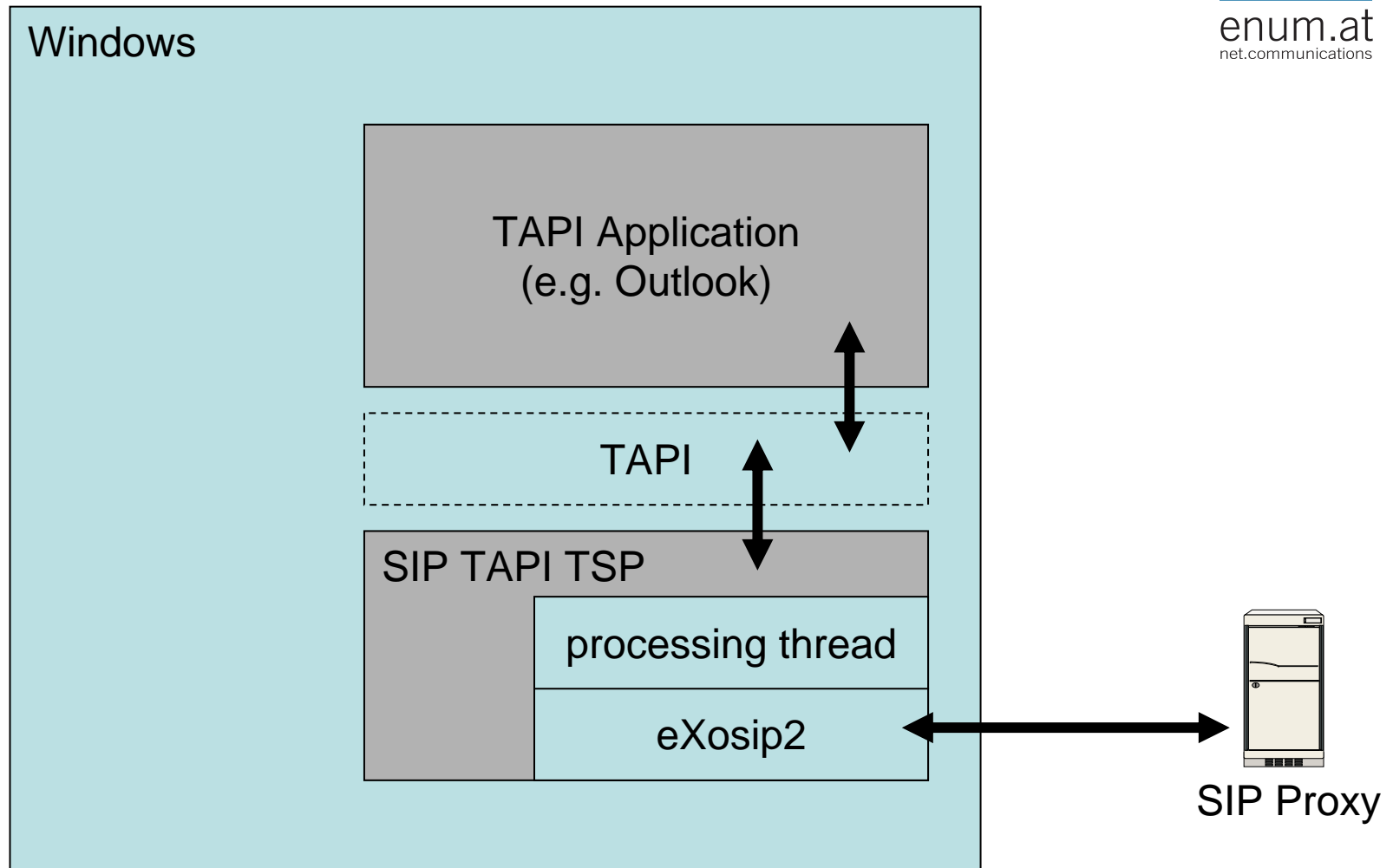


→ callee's phone rings

Call Flow

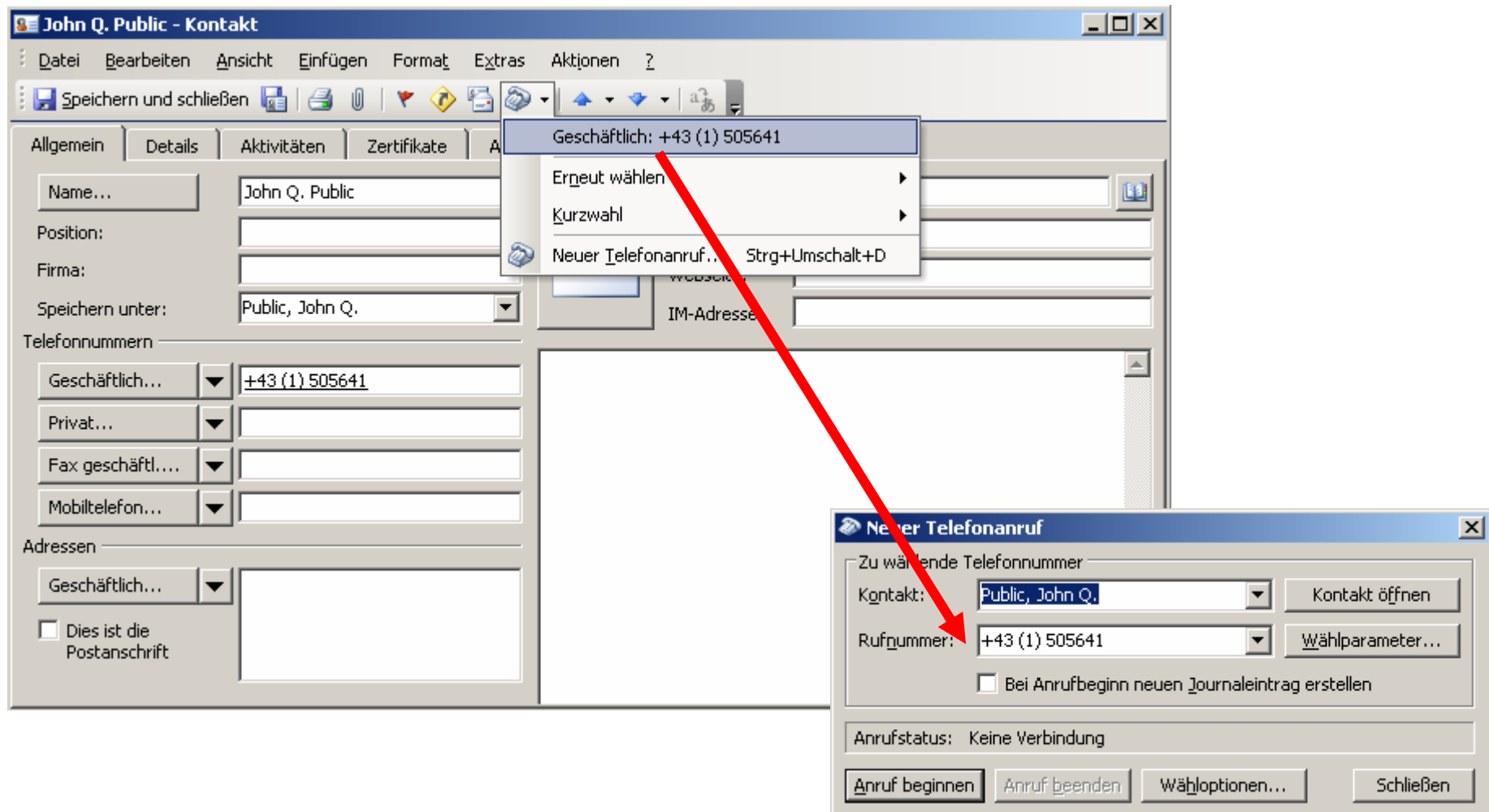


TAPI structure



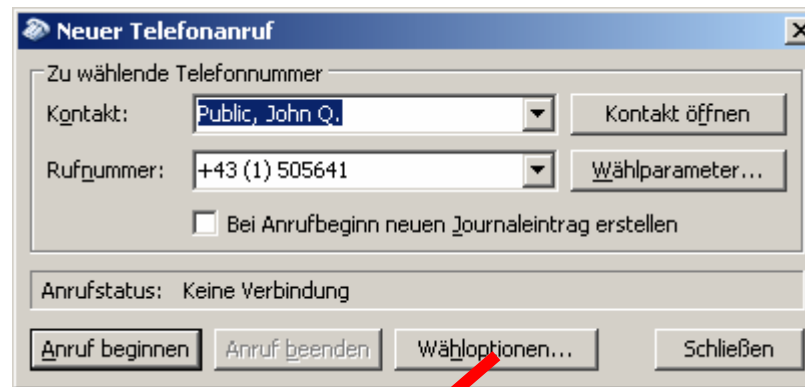
TAPI dialing

- e.g. Outlook



TAPI dialing

- e.g. Outlook



Neuer Telefonanruf

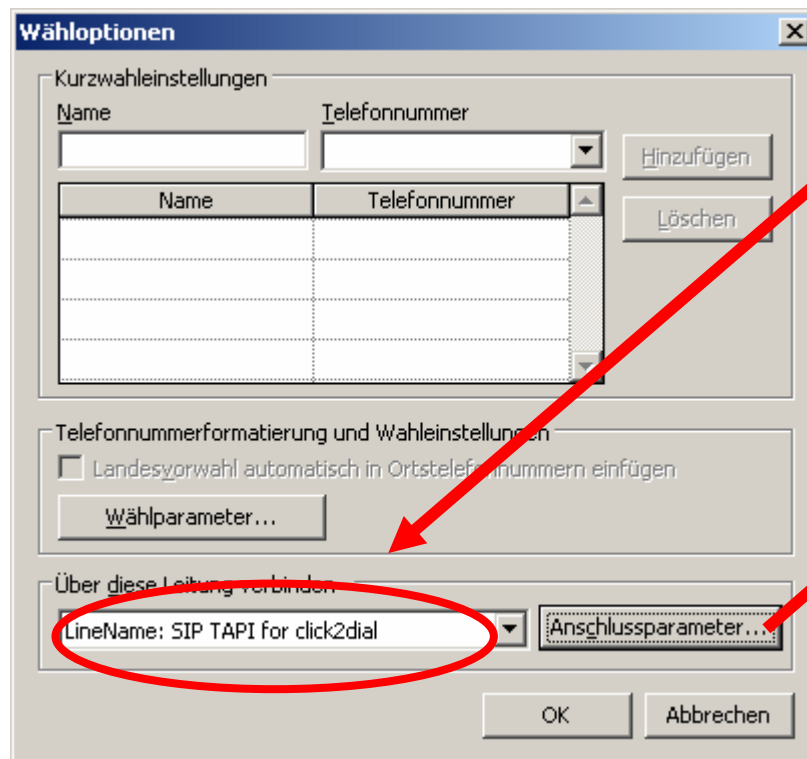
Zu wählende Telefonnummer

Kontakt:

Rufnummer:

☐ Bei Anrufbeginn neuen Journaleintrag erstellen

Anrufstatus: Keine Verbindung



Wähloptionen

Kurzwahleinstellungen

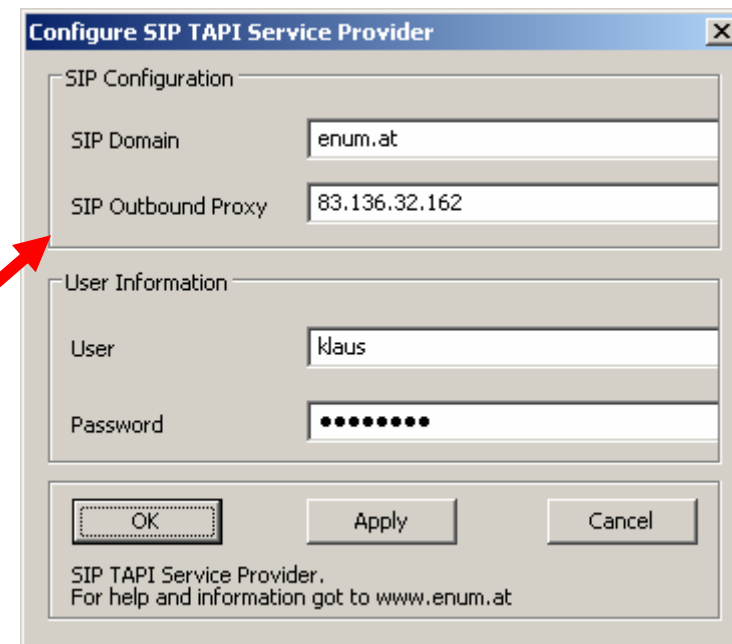
Name	Telefonnummer
<input type="text"/>	<input type="text"/>
<input type="button" value="Hinzufügen"/>	
<input type="button" value="Löschen"/>	

Telefonnummerformatierung und Wahleinstellungen

☐ Landesvorwahl automatisch in Ortstelefonnummern einfügen

Über diese Leitung verbinden

LineName:



Configure SIP TAPI Service Provider

SIP Configuration

SIP Domain:

SIP Outbound Proxy:

User Information

User:

Password:

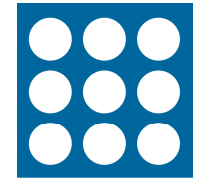
SIP TAPI Service Provider.
For help and information got to www.enum.at

Technology



- Microsoft TAPI
<http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnanchor/html/tapitspimspi.asp>
- asttapi – TAPI provider for asterisk
<http://sourceforge.net/projects/asttapi/>
© Nick Knight
- eXosip2/osip – SIP stack + high level API
<http://www.gnu.org/software/osip/osip.html>
<http://savannah.nongnu.org/projects/exosip/>
© Aymeric Moizard

Limitations



enum.at
no. communications

- no STUN support → NAT traversal requires SIP proxy with NAT traversal or outboundproxy (rport supported)
- no SRV support, resolves only A records (no problem if the outboundproxy performs SRV)
- probably buggy TAPI implementation
- some TAPI applications require strange phone number formats, e.g. Outlook: +43 (1) 505641
→ *+country code (local area code) number*

ToDo

- STUN
- SRV
- ENUM
- check sipfrag response code in NOTIFY
- allow regexp applied to phone number

how to get it



- www.enum.at → Using ENUM → siptapi
- License: GPL
- Installation:
 - copy siptapi.tsp into the windows\system32 directory
 - ControlPanel → PhoneAndModemOptions → Advanced → Add → SIP TAPI Service Provider
 - SIP TAPI Service Provider → Configure...
 - configure your username, password, SIP domain and outboundproxy
 - debug using Sysinternals DebugView:
<http://www.sysinternals.com/ntw2k/freeware/debugview.shtml>

Configuration

Configure SIP TAPI Service Provider

SIP Configuration

SIP Domain:

SIP Outbound Proxy:

User Information

User:

Password:

SIP TAPI Service Provider.
For help and information got to www.enum.at

Telefon- und Modemoptionen

Wählregeln | Modems | **Erweitert**

Folgende Telefonieanbieter sind auf diesem Computer installiert:

Anbieter:

- Dienstanbieter für Universalmodem 5
- Microsoft H.323-Telefoniedienstanbieter
- Microsoft HID-Telefon-TSP
- Microsoft Multicastkonferenz-TAPI-Dienstanbieter
- NDIS-Proxy-TAPI-Dienstanbieter
- SIP TAPI Service Provider**
- TAPI-Kernelmodus-Dienstanbieter