



Proof-of-Concept Parlay Services

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VON 2001 Development Conference

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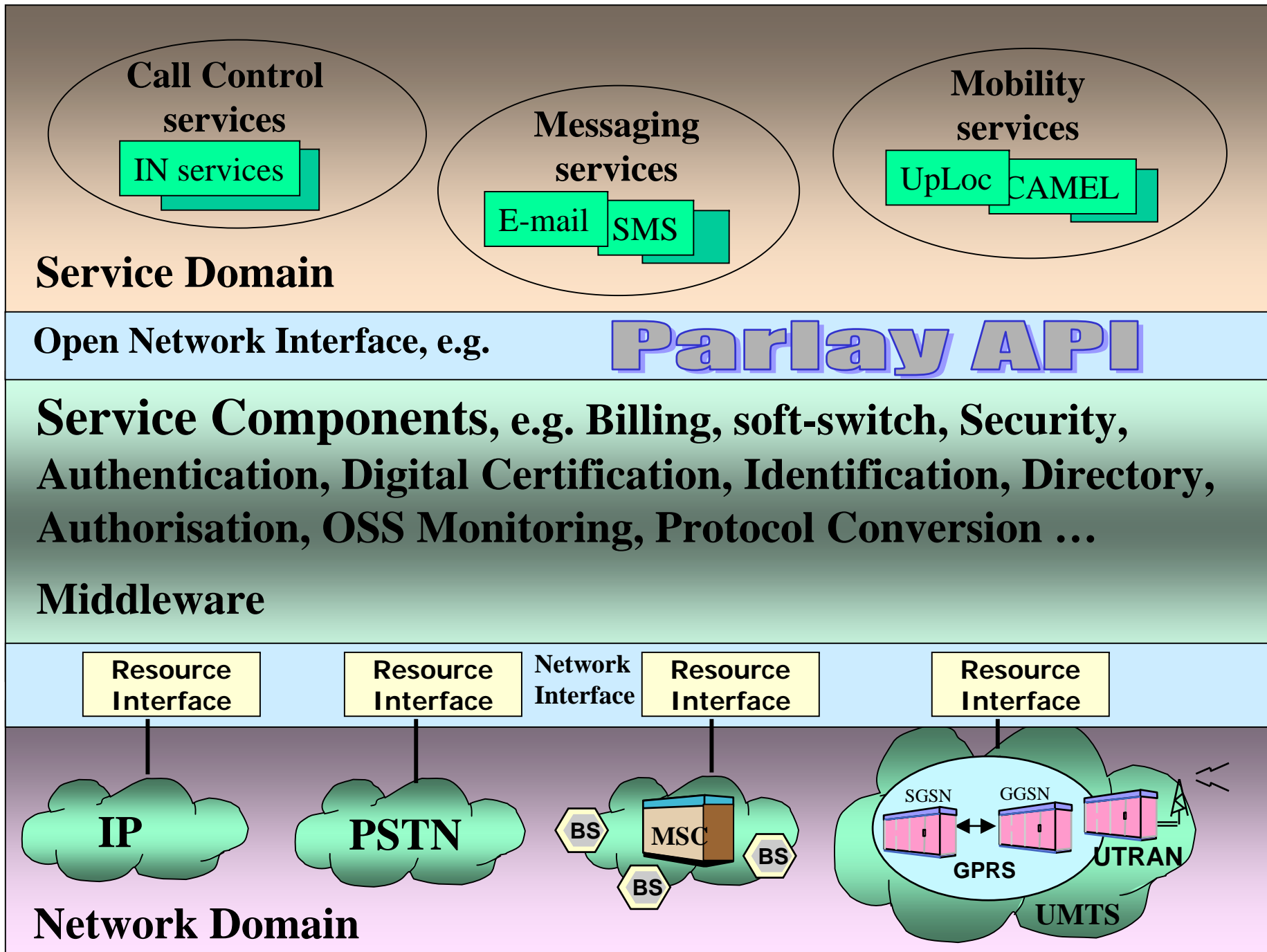
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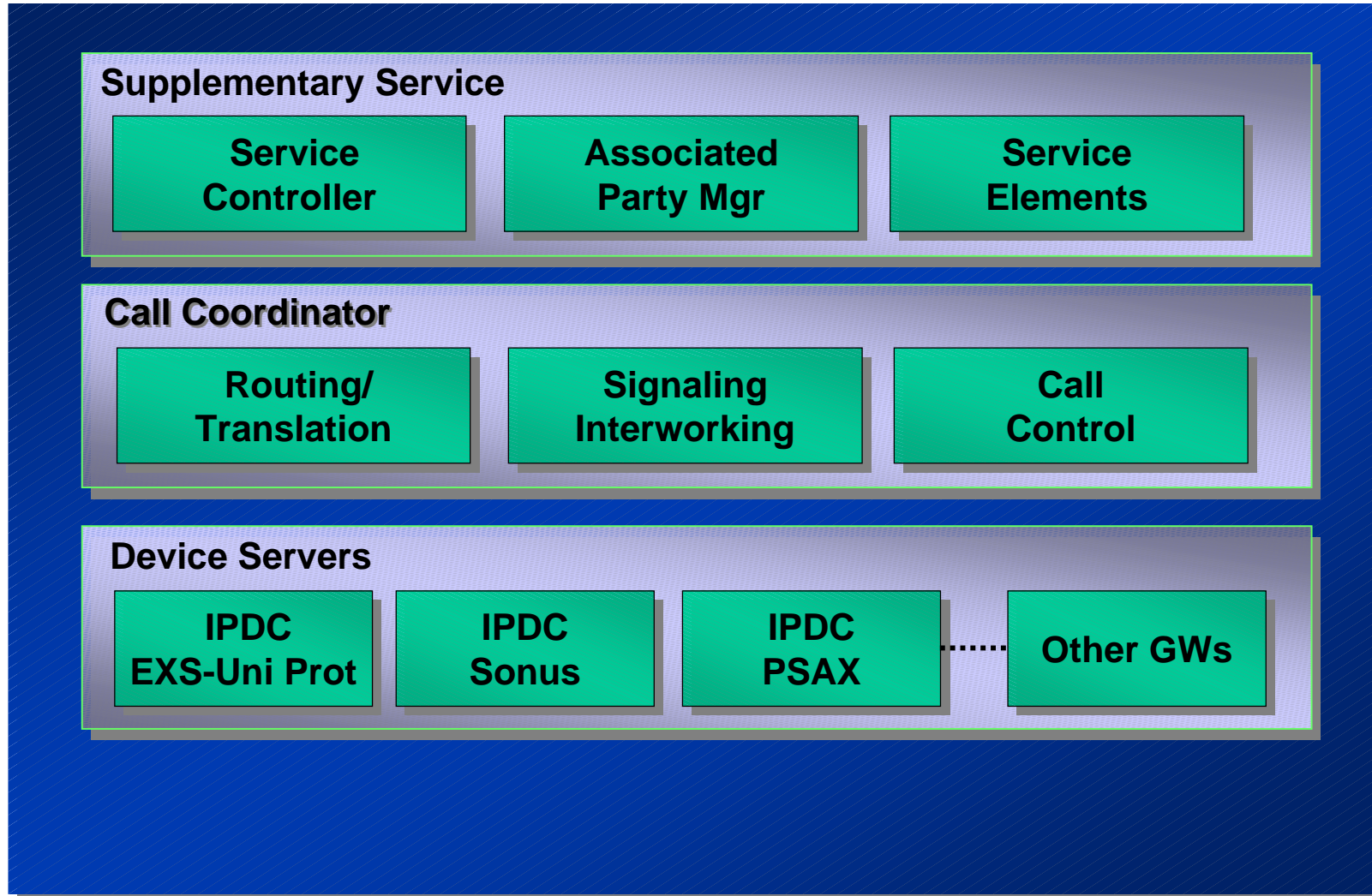


Agenda

- **Short introduction to Lucent Softswitch, LSS.**
- **Service Example 1: a Parlay Number Translation Service on LSS.**
- **Service Example 2: a Parlay Application Initiated Call Service, ‘Click To Dial’, on POTS.**

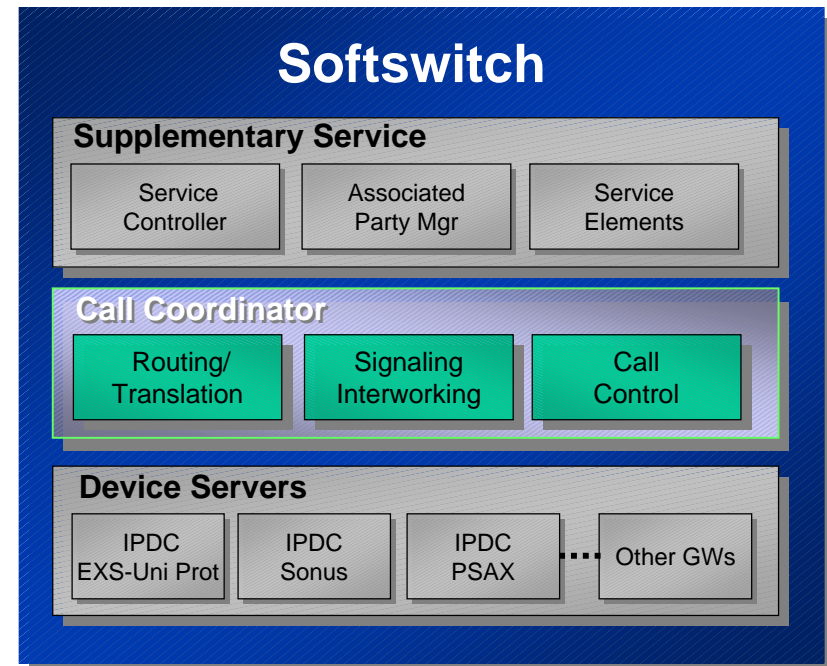


Lucent Softswitch



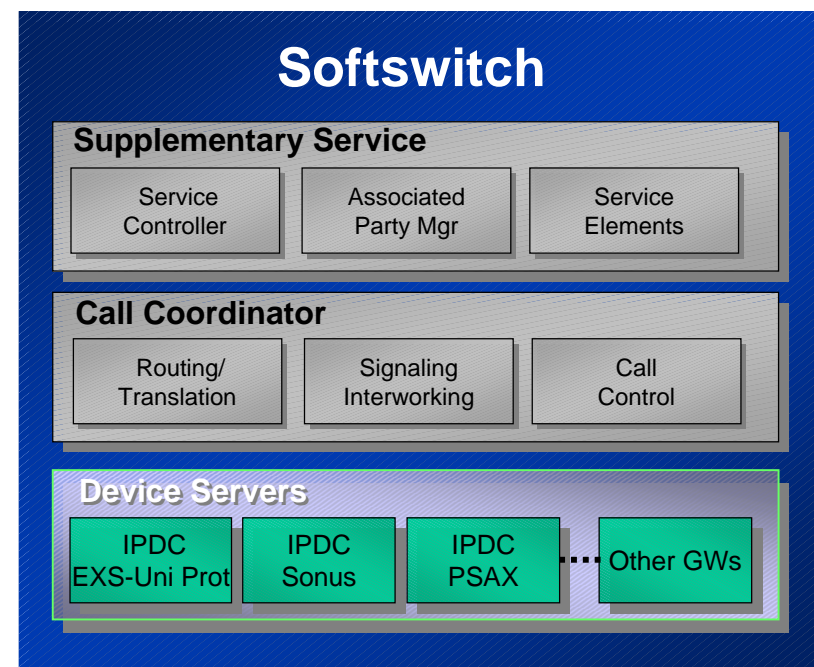
Call Coordinator Features

- General programmability
- Internal call router
 - Advanced call data analysis
 - Diverse routing criteria
 - Combined criteria rules
 - Port selection/hunting or GW selected
- Interworking
- Lawful intercept



Device Server Features

- Signaling interface to gateways, other controllers and PSTN
- Modular design allows new protocols to be easily integrated
- SS7 signaling support
- Packet signaling support
- General programmability by PPL



SS7 Installations

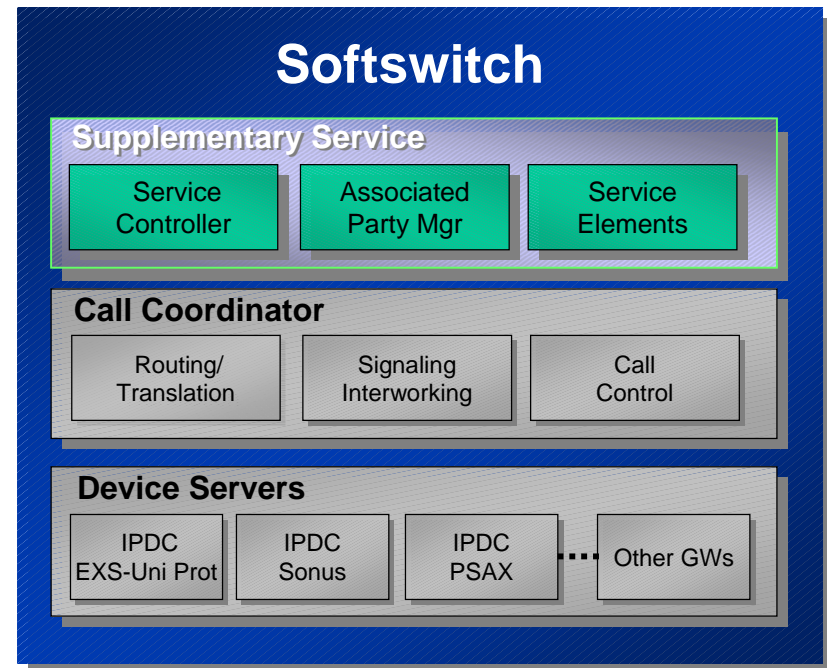
Argentina	ITU-TS - ISUP	Japan	TTC/J-Phone ISUP
Australia	I-ISUP (National)	Korea	ITU-TS ISUP
Austria	Austrian ISUP	Netherlands	ITU-TS – Dutch ISUP
Belgium	ITU-TS – National ISUP	Netherlands	ITU-TS – Dutch ISUP
China	China TUP	New Zeal	ITU-TS ISUP
China	Chinese ISUP	Norway	ITU-TS White Book
China	Chinese TCAP/SCCP	Philippines	ITU-TS ISUP
Costa Rica	ITU-TS National ISUP	Singapore	CCITT Blue Book
Czech Re	ITU-TS ISUP	Singapore	ITU-TS
Germany	DTAG DTAG MTP, ISUP	U.K.	BTNUP – Enh Services Subset
Germany	ITU-TS ISUP	U.S.	ANSI ISUP
Greece	ITU-TS ISUP	US	Sprint C7
Greece	ITU-TS ISUP	US	PACE/TNS ANSI/MTP
Hong Kong	ITU-TS ISUP	US	WorldCom ANSI/ISUP
Ireland	ITU-TS National ISUP	US	Sprint ANSI/ISUP
Japan	TTC/DDI - ISUP	US	Cable & Wireless ANSI/ISUP
Japan	TTC/Tu-Ka - ISUP		

Softswitch Packet Protocols

- IP Protocol Support
 - IPDC v0.12
 - IPDC v0.15, PRI tunneling
 - Support for SALIX and SONUS gateways
 - MGCP
 - SIP-Best current practice (RFC 2543)
 - SIP devices
 - Inter-domain Softswitch communication
 - H.323 Annex G
 - Sapphire (based on UNI 3.1) for PSAX 1250-2300
- Planned
 - Megaco(p) (H.248)

Supplementary Services

- General programmability by PPL
- Subscriber class features
 - 20 basic services
 - Extensible with PPL Tool
- Service controller for managing service element interaction
- Digit matching/translation via Dialing Plan Engine (DPE) tables
- Error treatments via Announcement Tone Treatment Control (ATTC) tables
- Services data server Oracle-based database application for subscriber database



Softswitch Supplementary Telephony Services



Basic end-office (Class-5) features available

Others can be easily developed using PPL

Call Forwarding - Unconditional

Call Forwarding - No Answer

Call Forwarding - Busy

Call Waiting

Selective Call Acceptance

Selective Call Forwarding

Selective Call Rejection

3-way Calling

Speed Dialing

Do Not Disturb

Call Barring - Incoming

Call Barring - Outgoing

Malicious Call ID

Distinctive Ringing

Calling Line ID Presentation

Calling Line ID Restriction

Connected Line ID Presentation

Connected Line ID Restriction

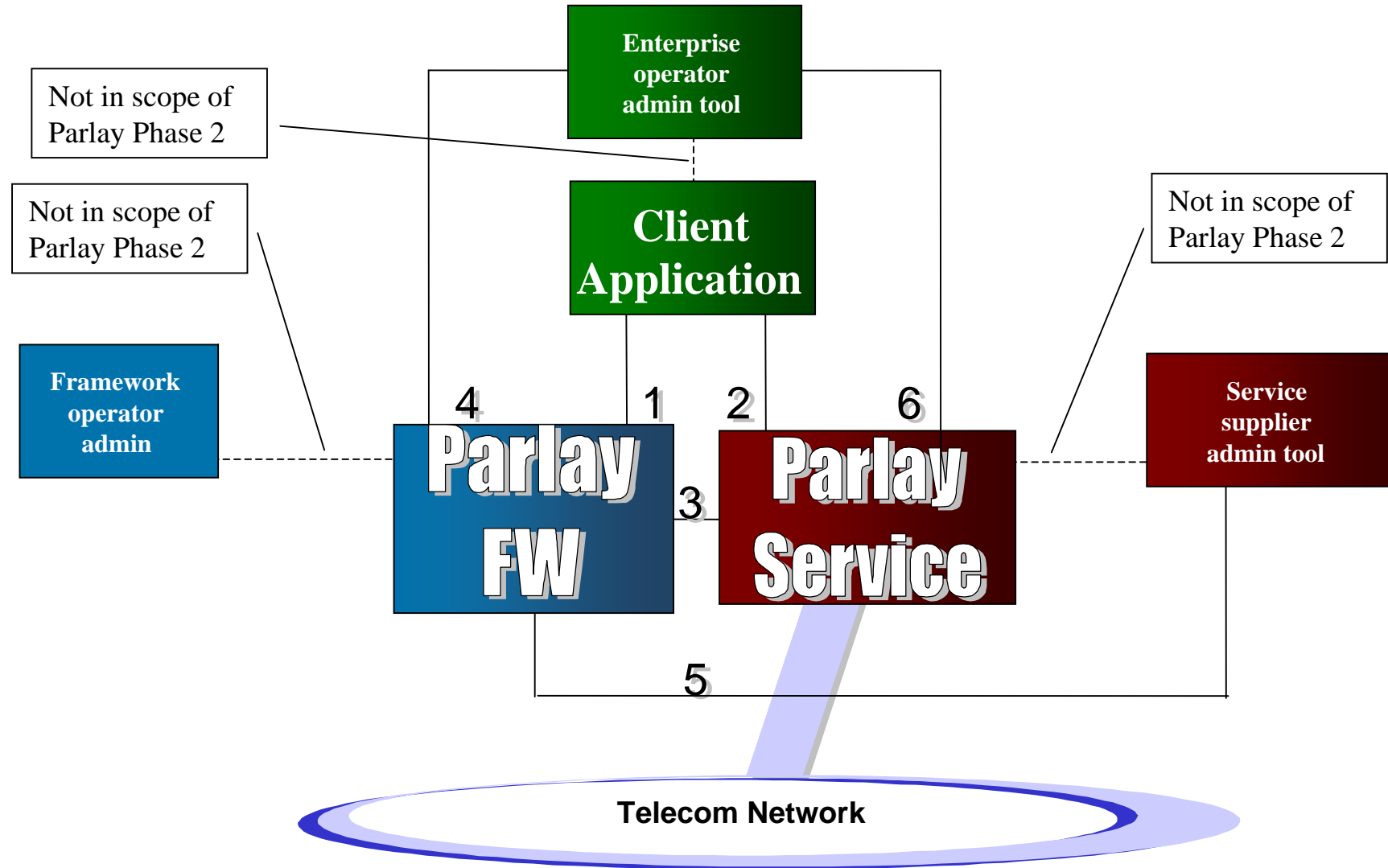
Lawful Authorized Electronic Surveillance

Reference to Parlay Documents

- **Parlay Interfaces and Methods used in both examples are covered by:**
 - 1. Parlay APIs 2.1, Framework Interfaces, Client Application View.**
 - 2. Parlay APIs 2.1, Framework Interfaces, Parlay Service View.**
 - 3. Parlay APIs 2.1, Generic Call Control Service Interfaces.**

Architecture of the Parlay APIs

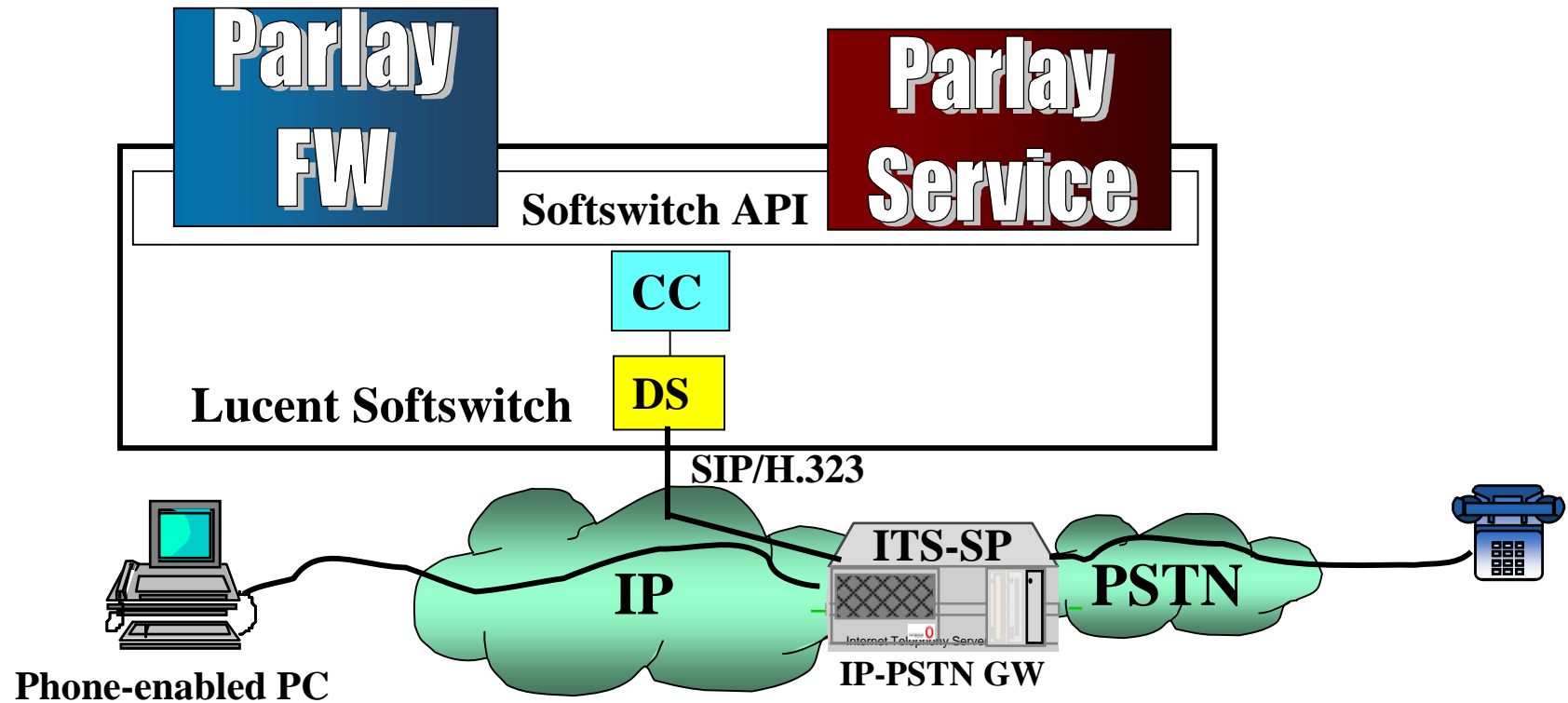
Source: www.parlay.org



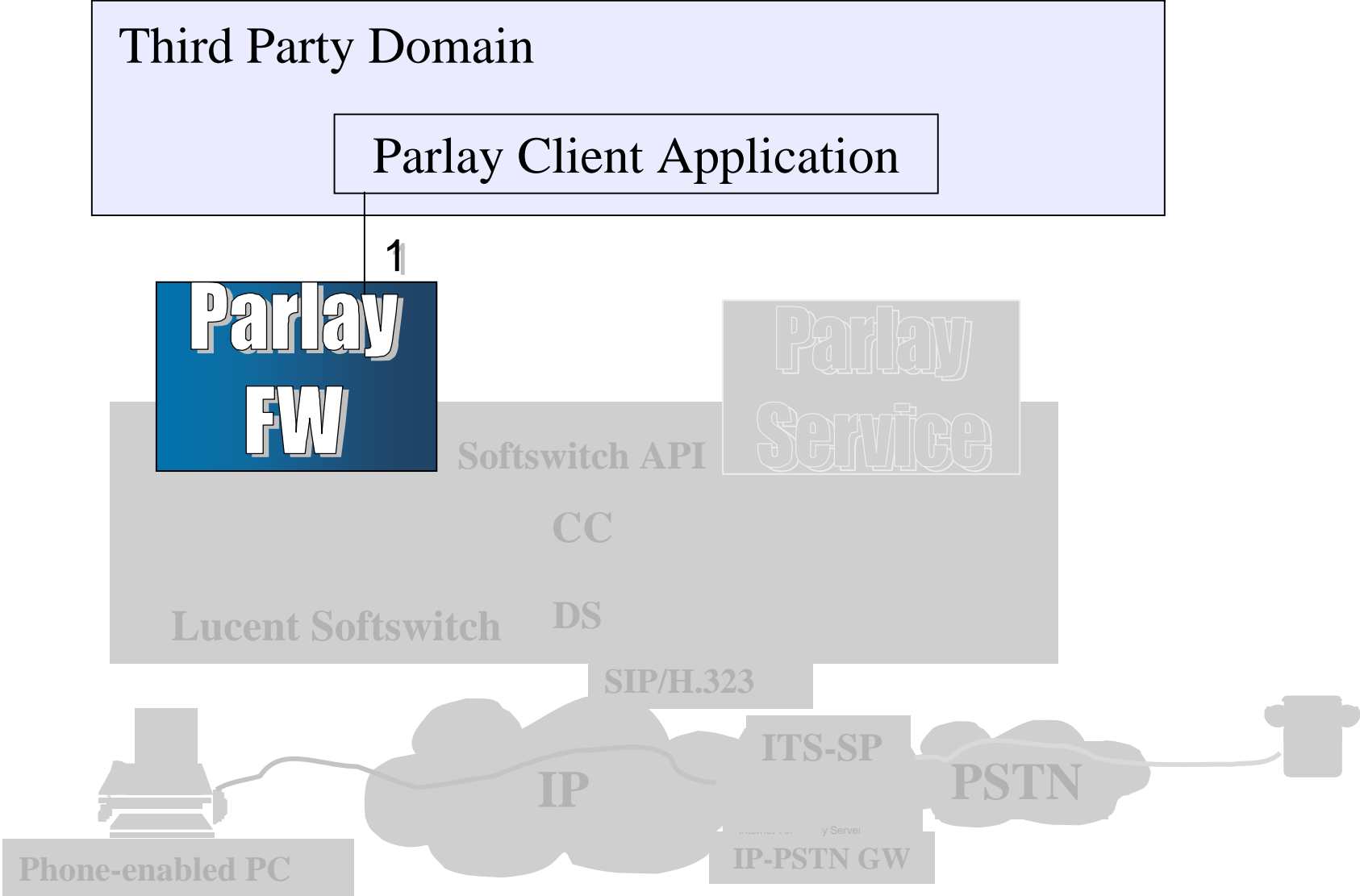
Number Translation

Third Party Domain

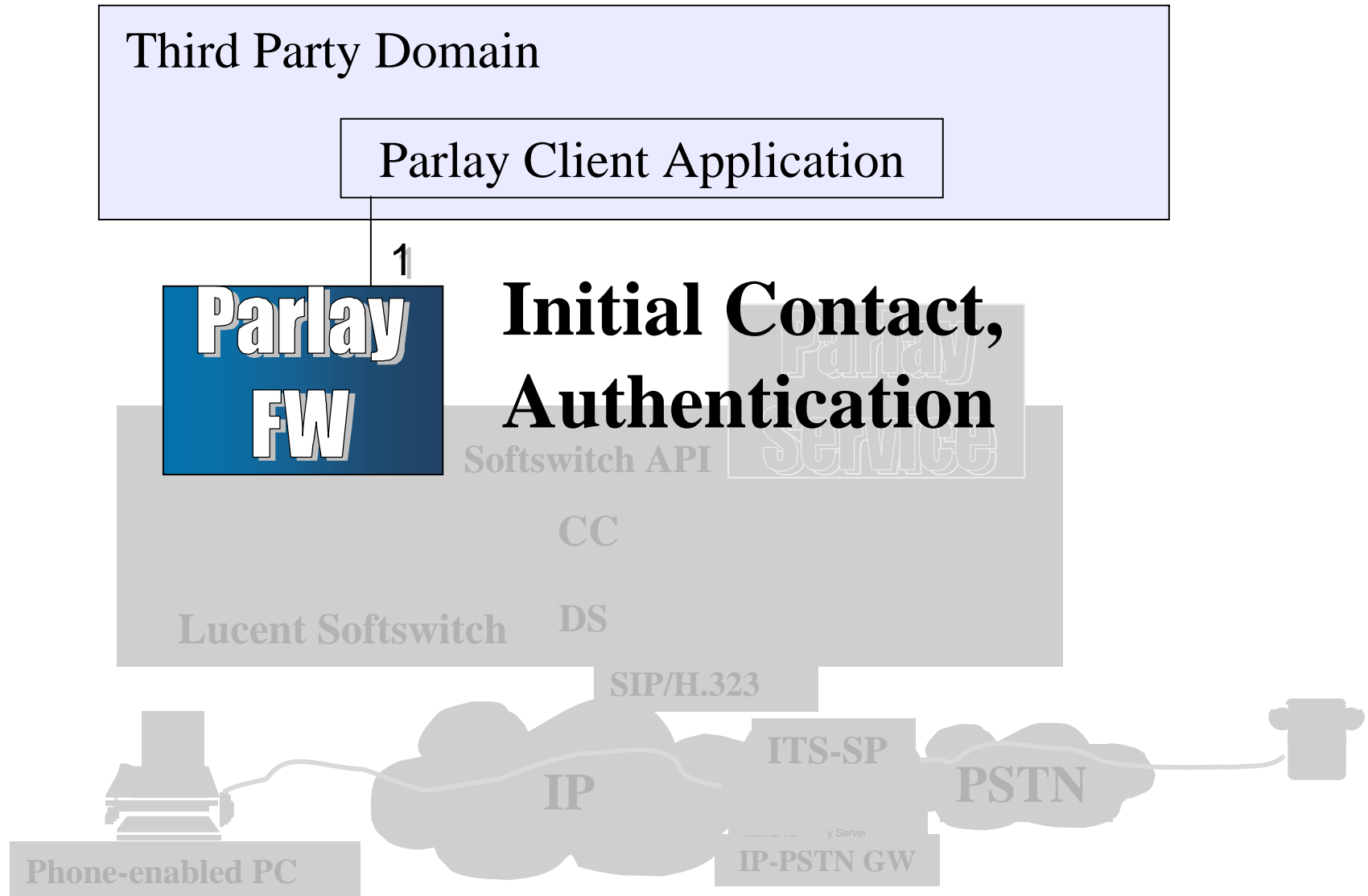
Parlay Client Application



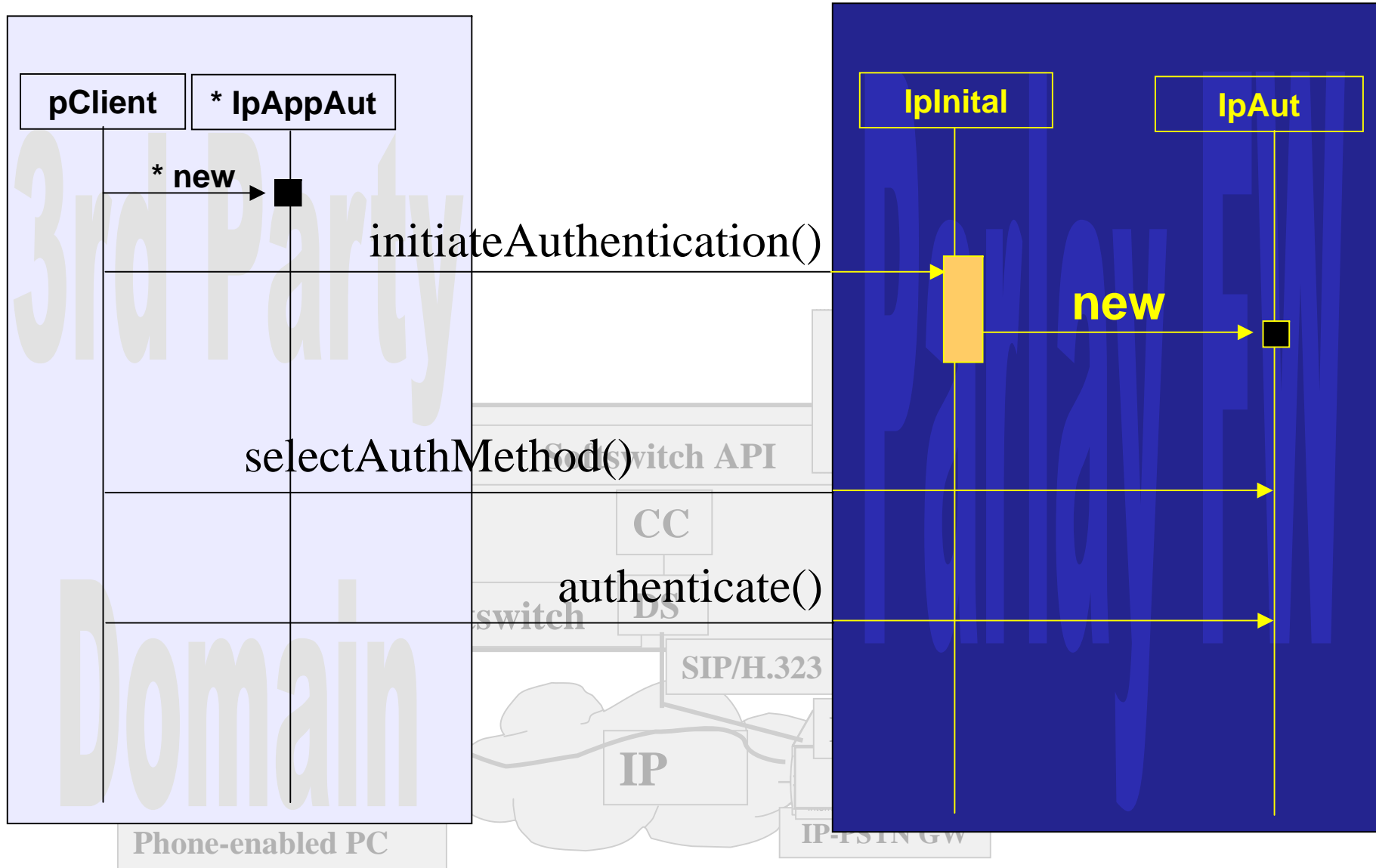
Number Translation



Number Translation

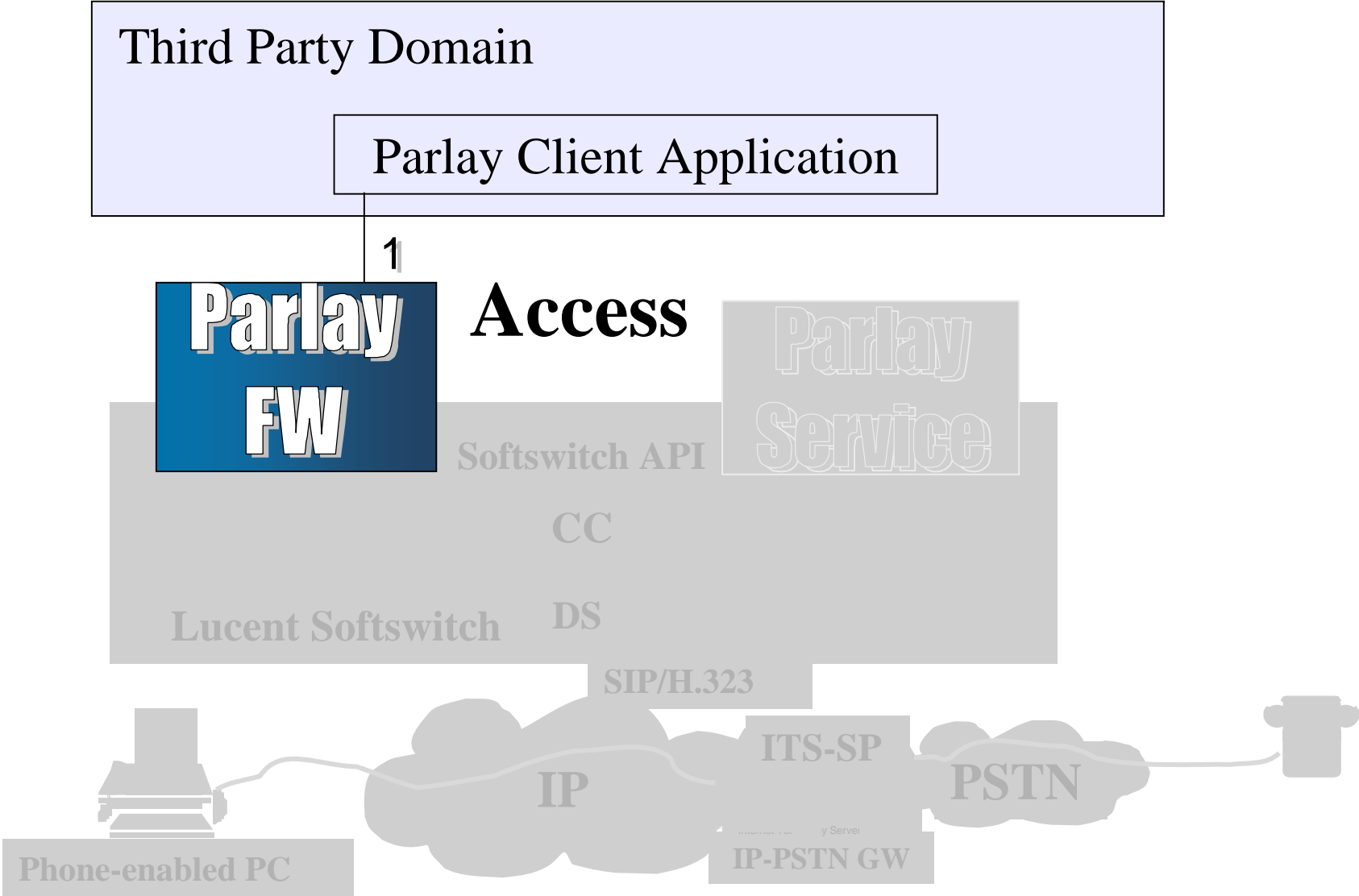


Number Translation

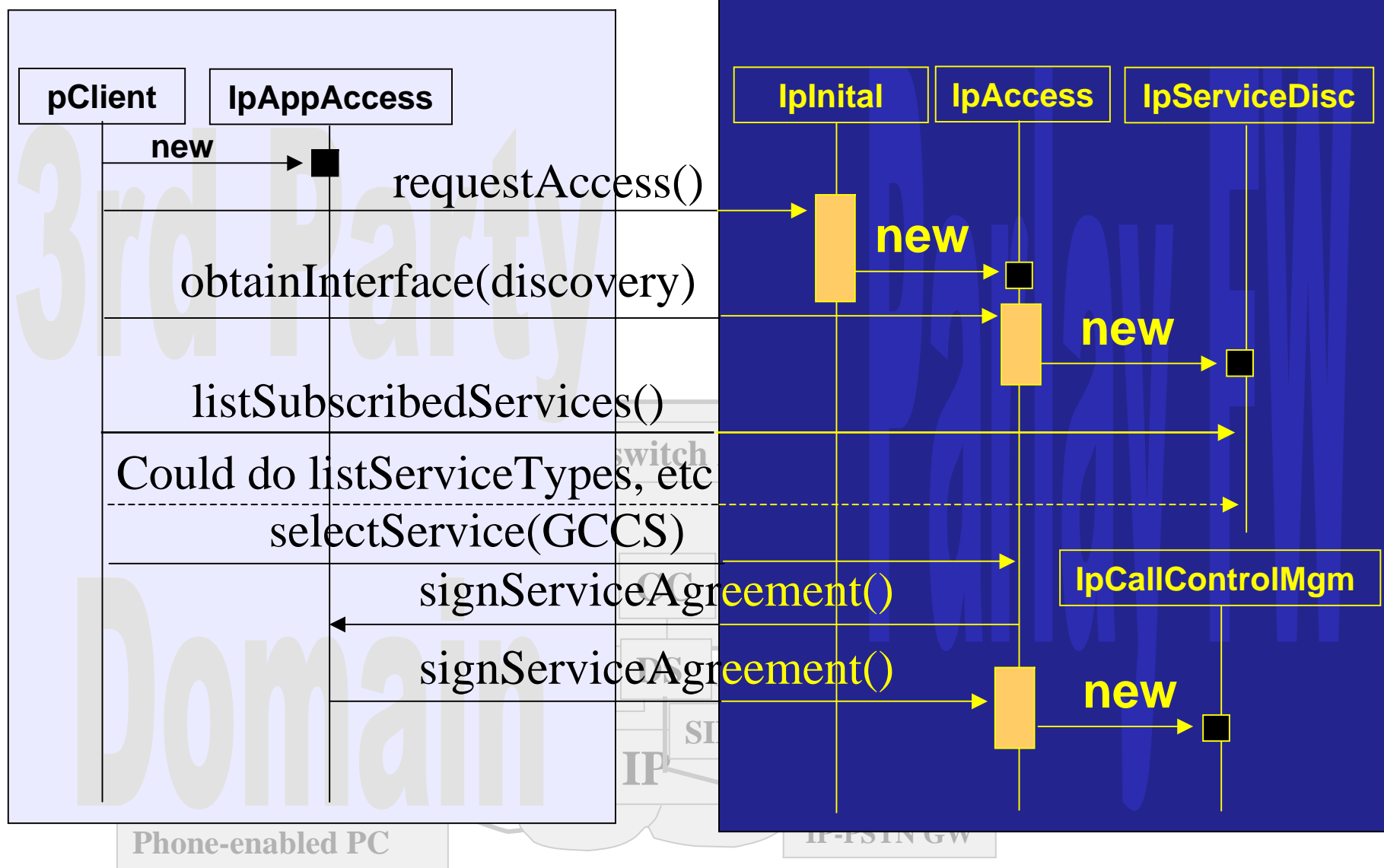


* two-way authentication

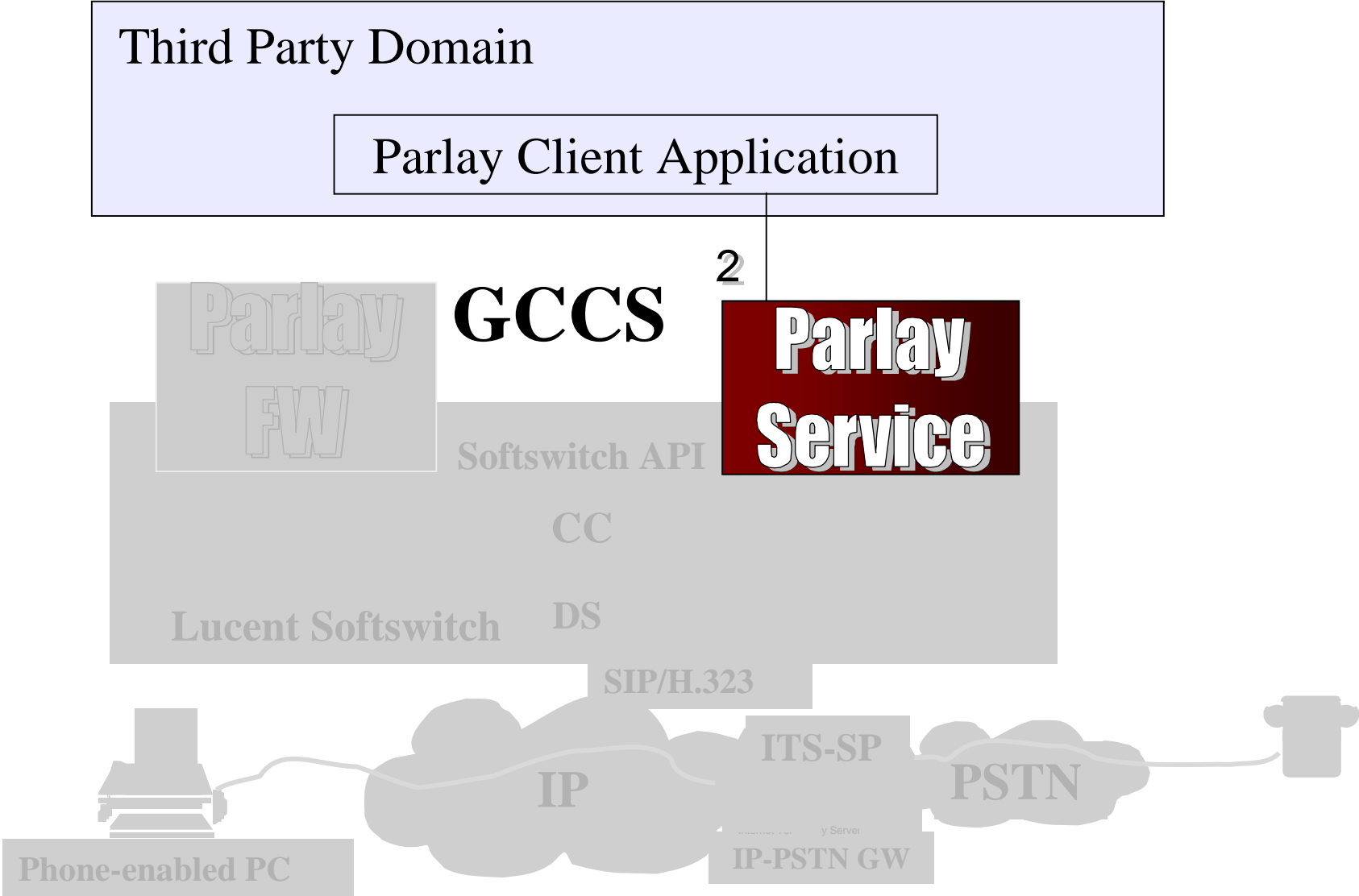
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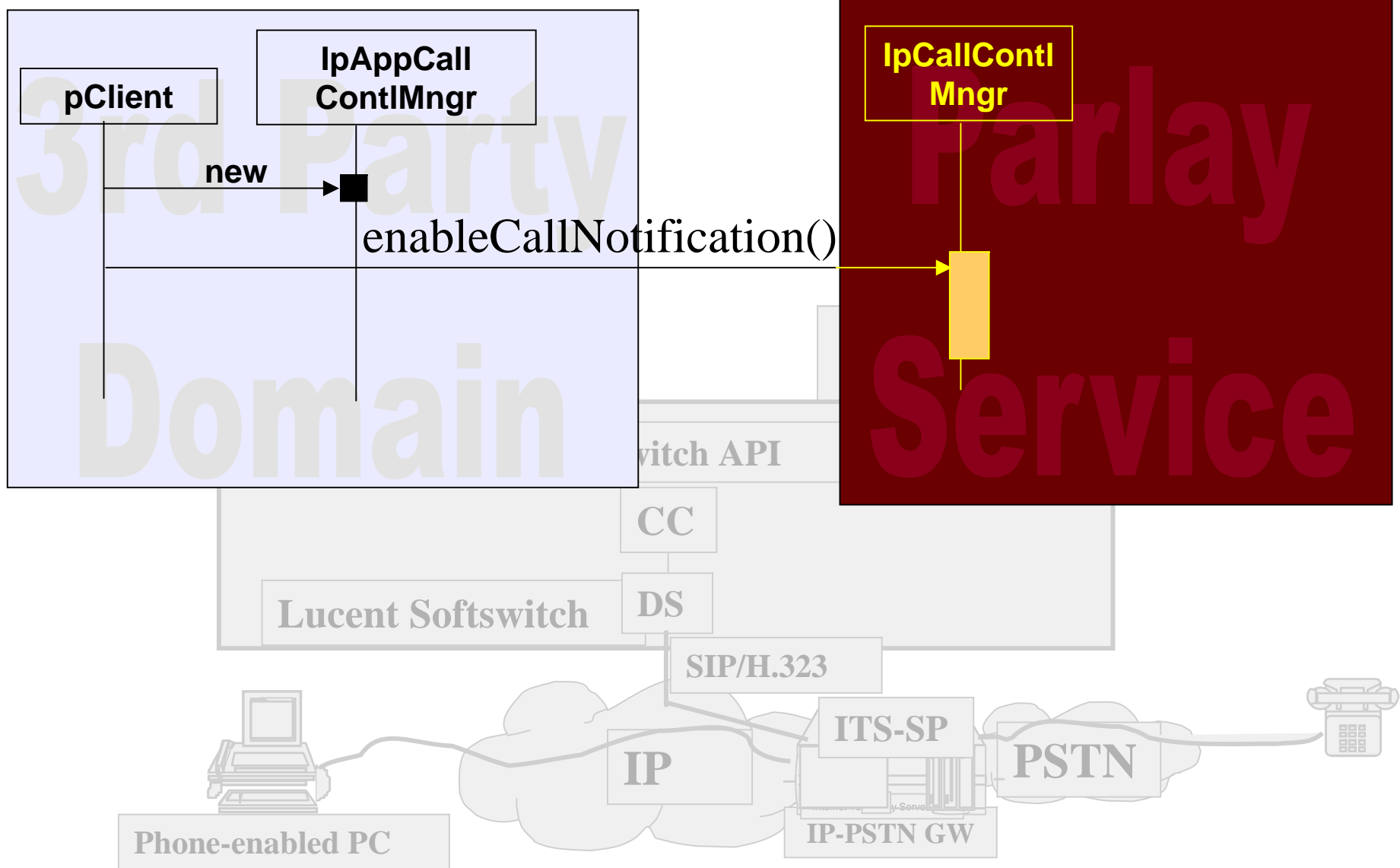
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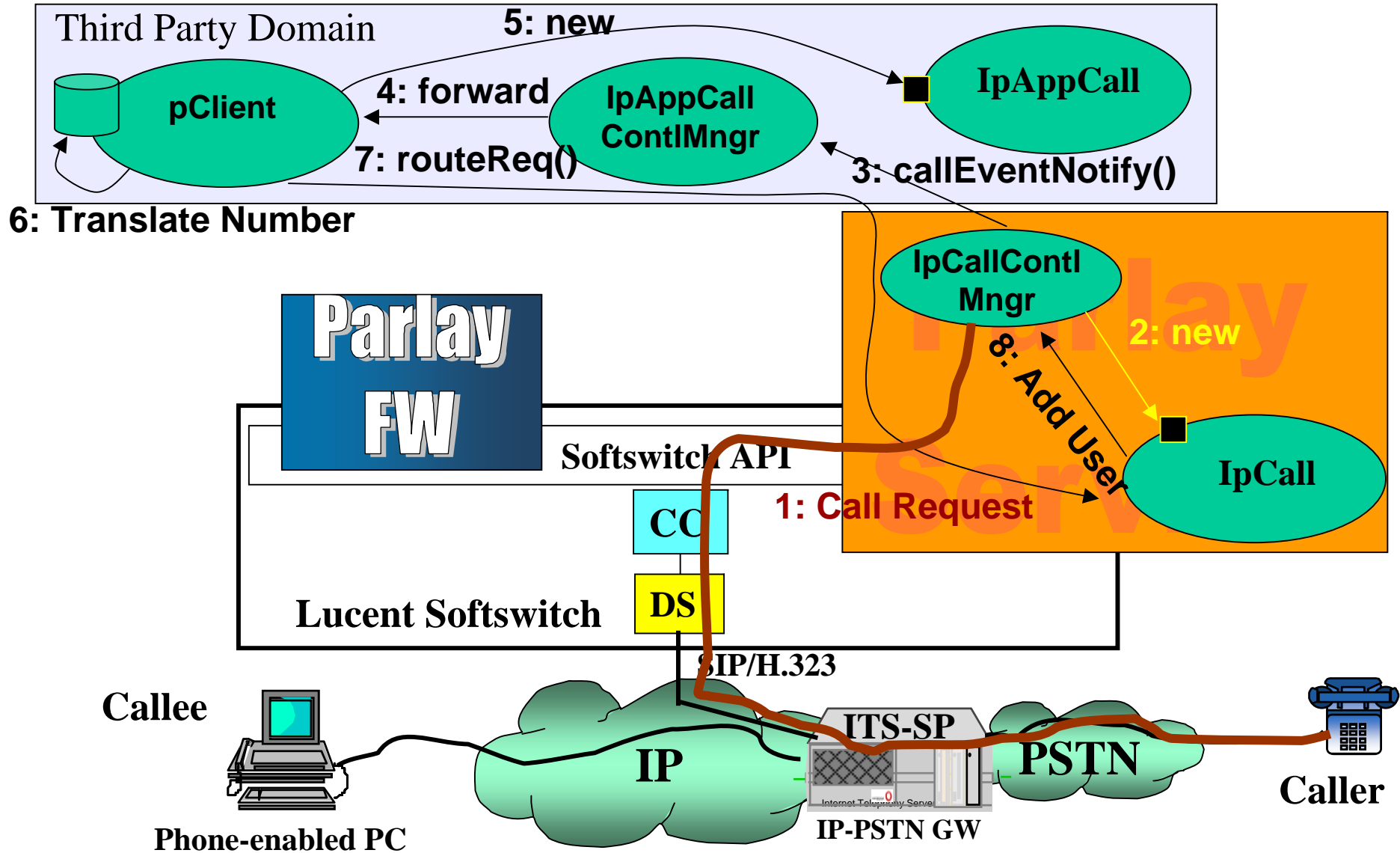
Number Translation



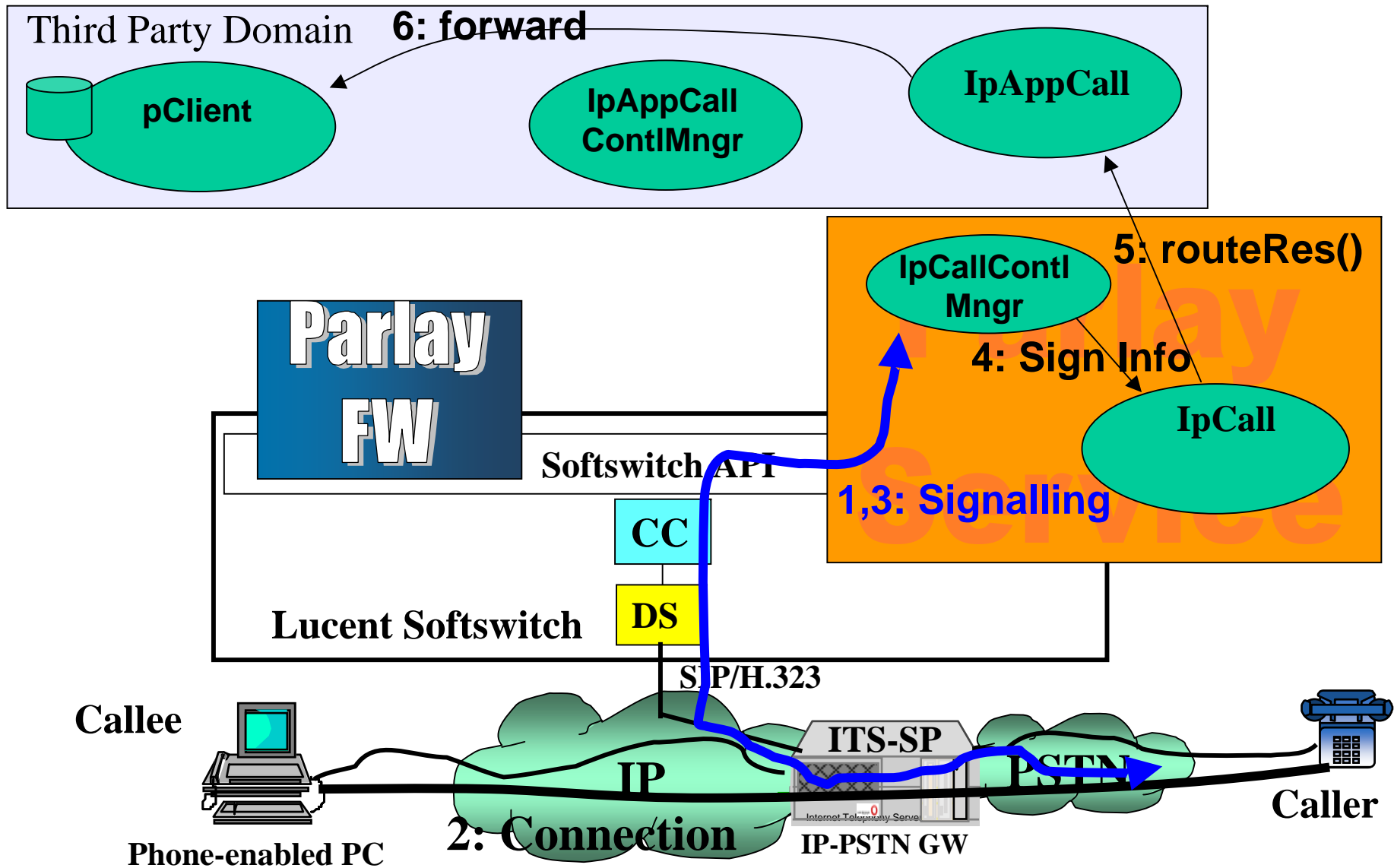
Number Translation



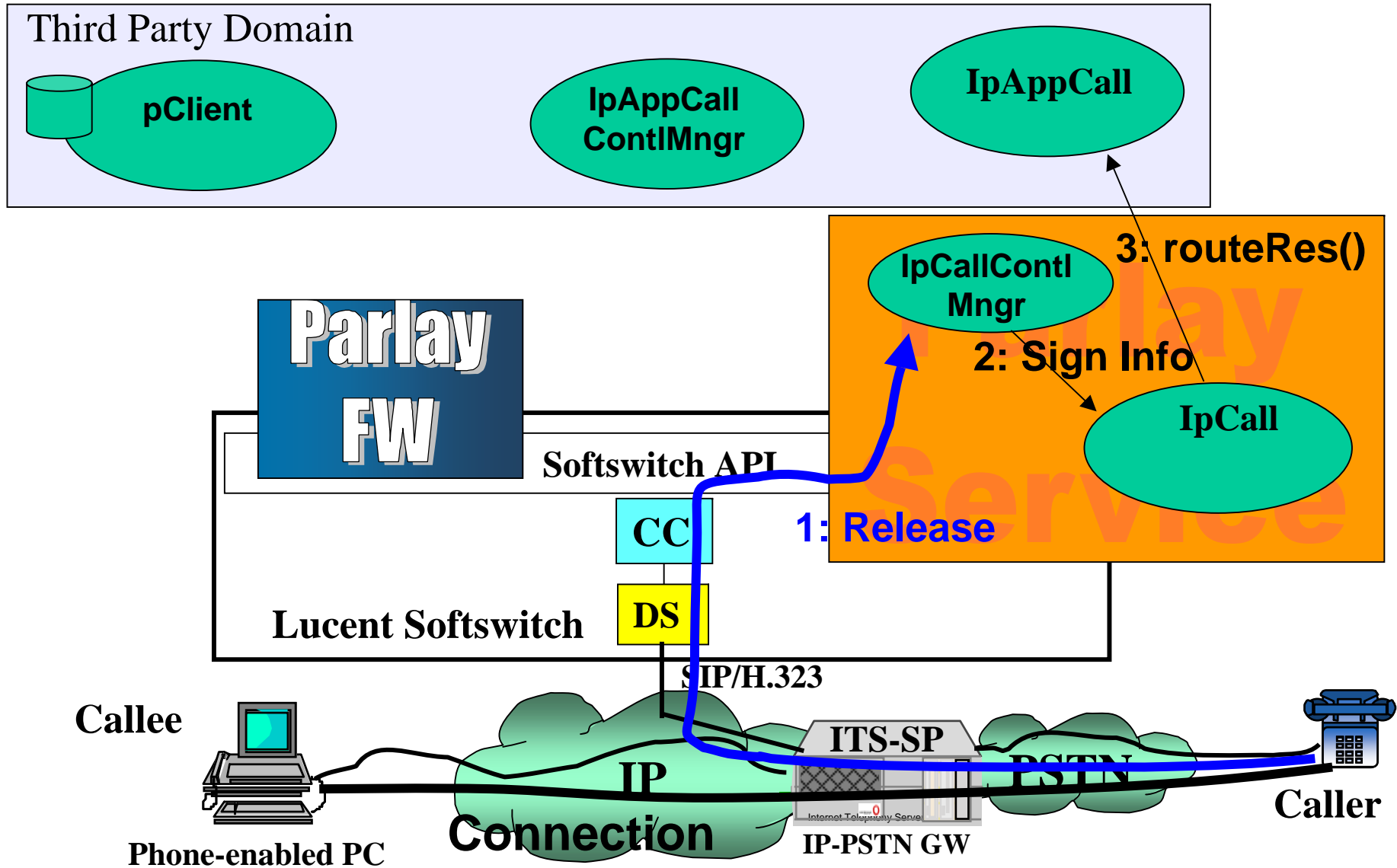
Number Translation



Number Translation



Number Translation



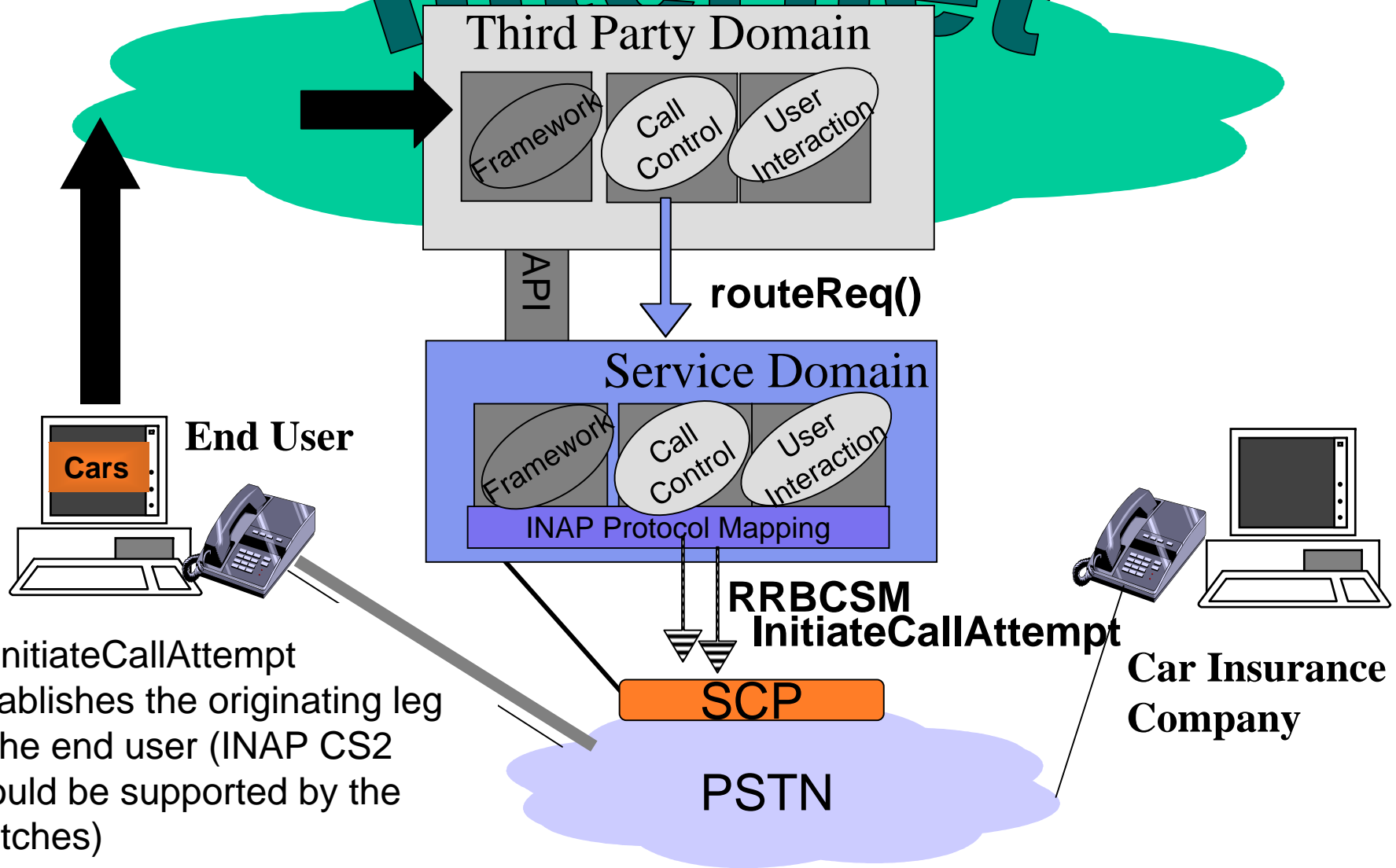
Click To Dial

an Application Initiated Call attempt

- **Assumptions & notes:**
 1. Initial Contact, Authentication and Access has been successfully completed through the Parlay Framework.
 2. This extremely simplified example does not show the call leg handling and the connection of the 1st leg of the call to the IVR.
 3. The core network switches in this example should support INAP CS2 (InitiateCallAttempt).

Click To Dial

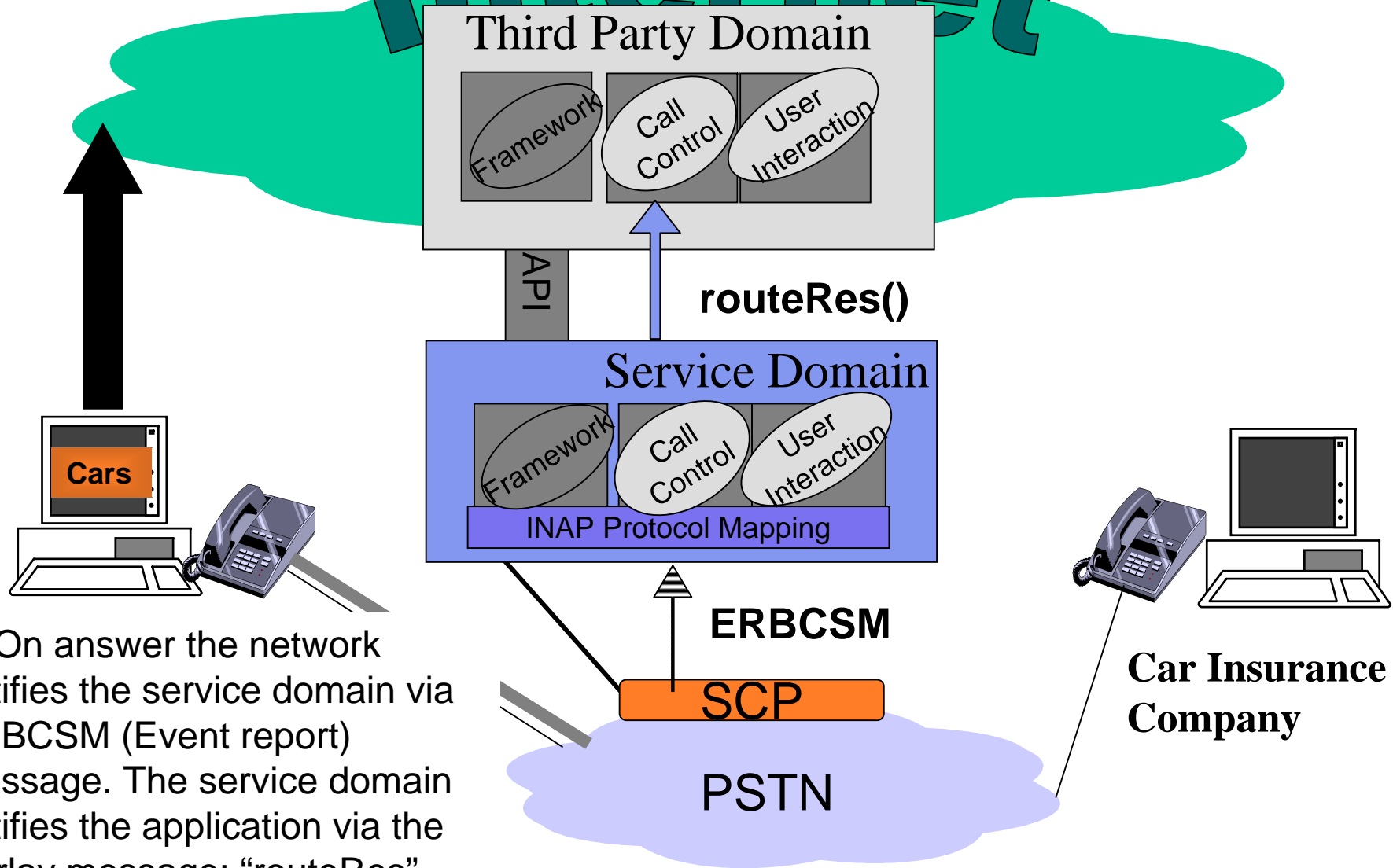
Internet



6) InitiateCallAttempt establishes the originating leg to the end user (INAP CS2 should be supported by the switches)

Click To Dial

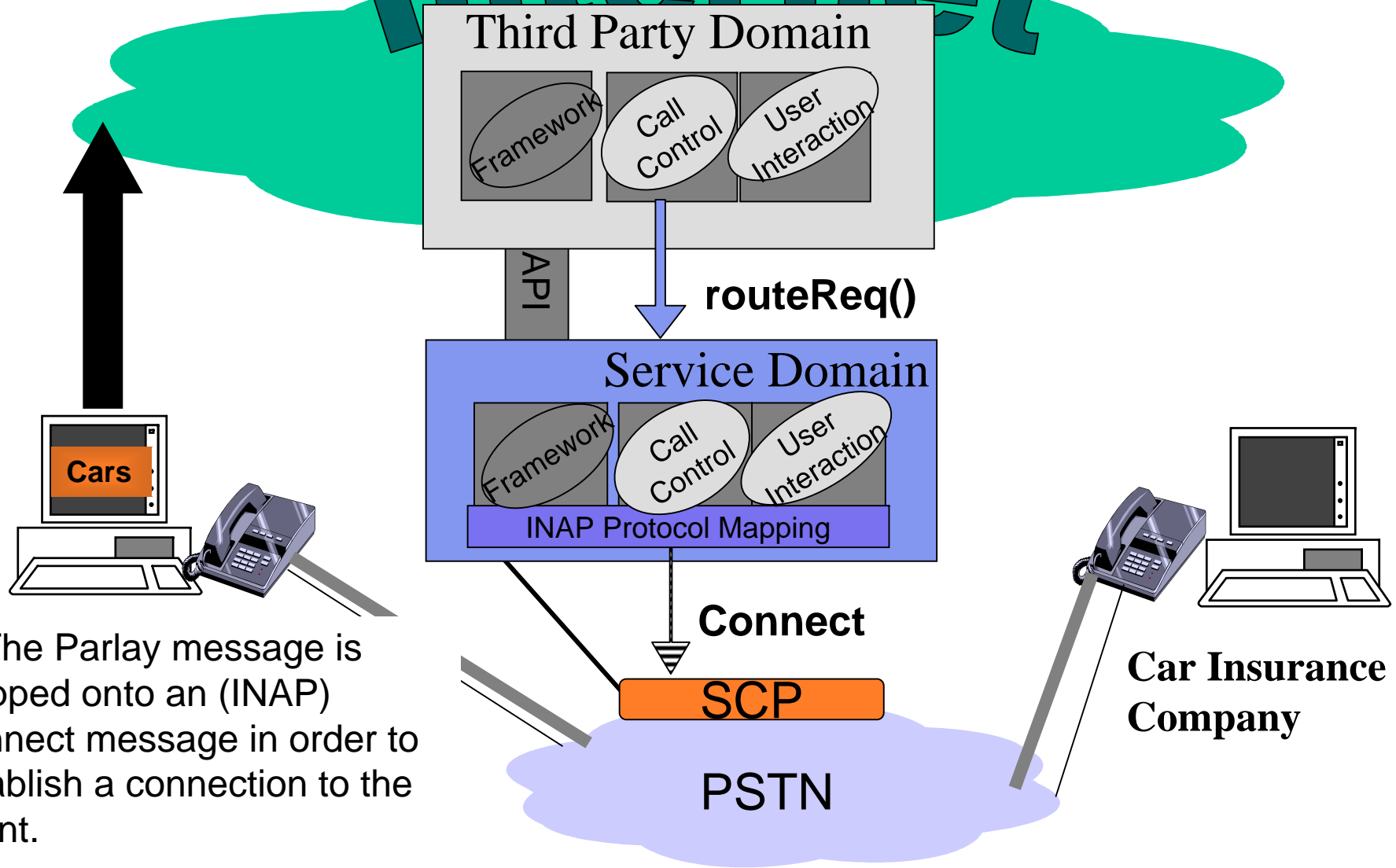
Internet



7) On answer the network notifies the service domain via ERBCSM (Event report) message. The service domain notifies the application via the Parlay message: "routeRes"

Click To Dial

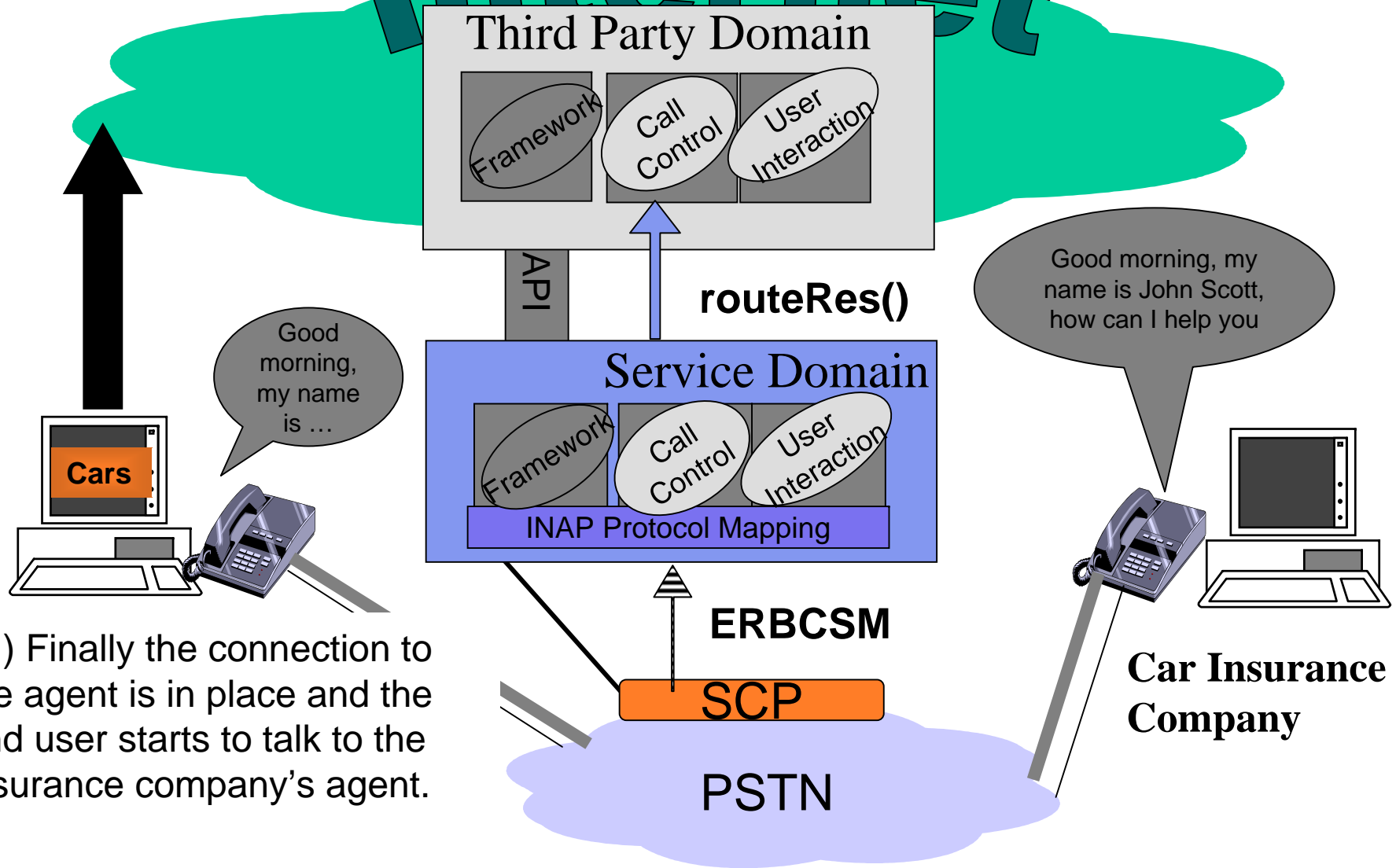
Internet



9) The Parlay message is mapped onto an (INAP) Connect message in order to establish a connection to the agent.

Click To Dial

Internet



11) Finally the connection to the agent is in place and the end user starts to talk to the insurance company's agent.