

IP PBX and ENUM

Tomi Gačnik
tomi@teletech.si

Agenda

- Teletech's profile
- Background
- ENUM
- Teletech's Infrastructure ENUM solution
- Teletech's User ENUM solution
- Teletech's U/I ENUM
- Q&A

Teletech's profile

- Vision: to be team of experts which transfers knowledge and experiences in courageous and innovative way not only to fulfil but to exceed customer expectations!
- Culture: inter-disciplinary team, individual capabilities development, flat organization, high level of information flow, exceeding expectation care for share&stake holders
- Strategy: invest in knowledge, discover and play on new ITC playgrounds, challenge the un-challenged

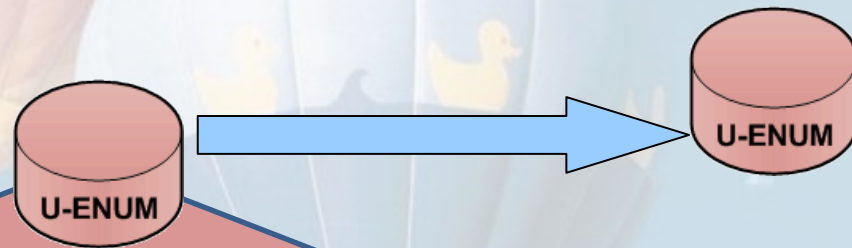
Background

- NP CDB solution provider since 2006
- Active role in inter-operator problem solving
- Desire for “all E-164 number” national DB
- First question (where is the number) is not good enough in All-IP world
- One system for all forthcoming questions, like:
 - How to get to this number
 - Which services are available and how
 - Dynamic call routing paradigm

ENUM

- **tE**lephone **NU**mber **M**apping
- Defined in RFC-3761 and
- Uses well proven DNS hierarchical model
- New type of record: NAPTR
- E-164 number as primary key to IP services
- Part of IMS core topology
- Manly known versions are User and Infra ENUM
- One system – Teletech's combined U/I ENUM

User - ENUM

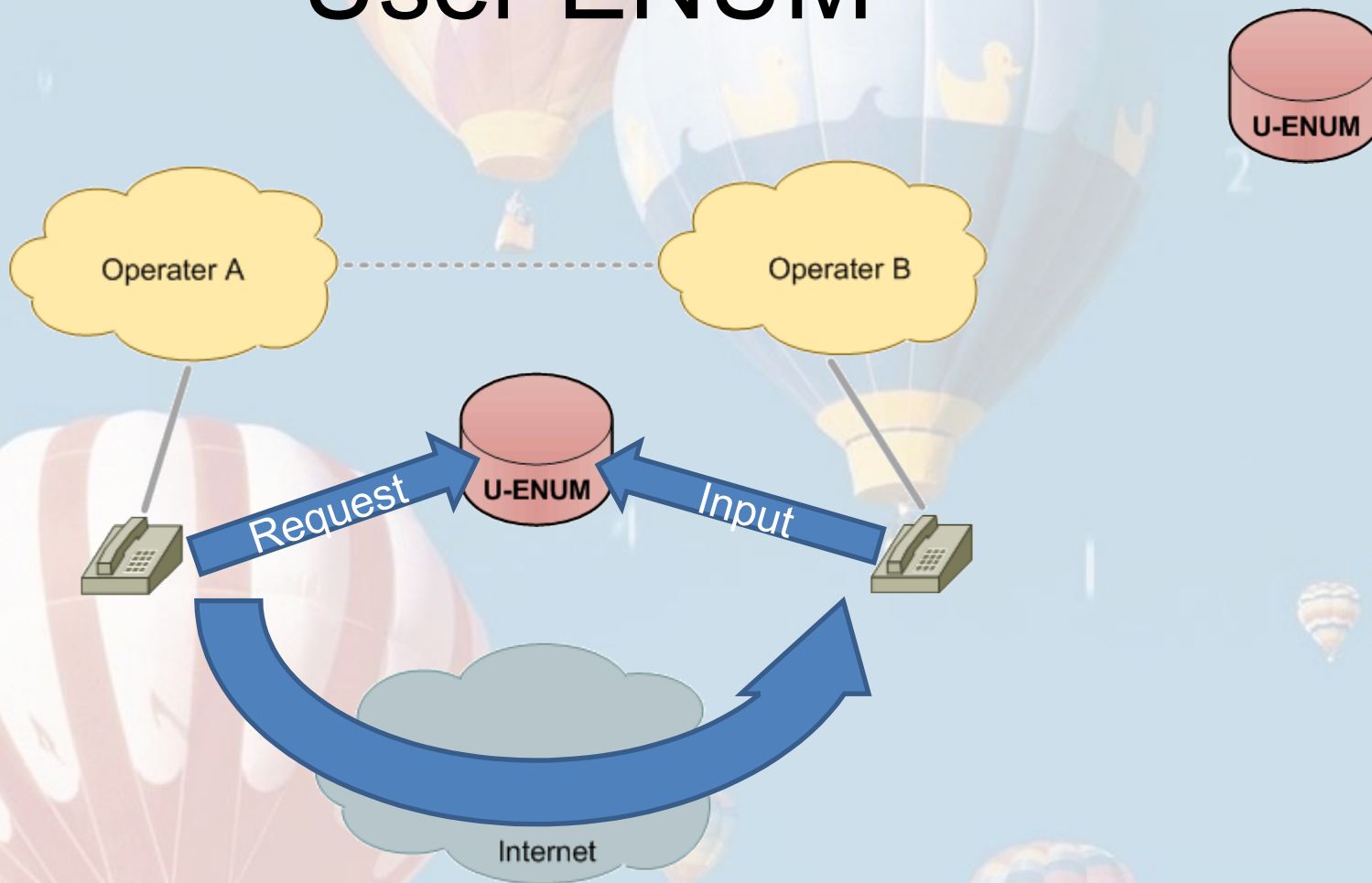


Services

pstn:tel	voice:tel	voicemsg:http	unifmsg:http	ems:mailto
sip	pstn:tel	voicemsg:http	unifmsg:https	xmpp
h323	pstn:sip	videomsg:sip	ical:sched	vcard
fax:tel	lm	videomsg:sips	ical:access	Pres
lfax:mailto	voicemsg:sip	videomsg:http	mms:tel	web:http
sms:tel	voicemsg:sip	unifmsg:sip	mms:mailto	web:https
sms:mailto	voicemsg:tel	unifmsg:sips	ems:tel	Ft:ftp

Source: <http://www.iana.org/assignments/enum-services>

User ENUM



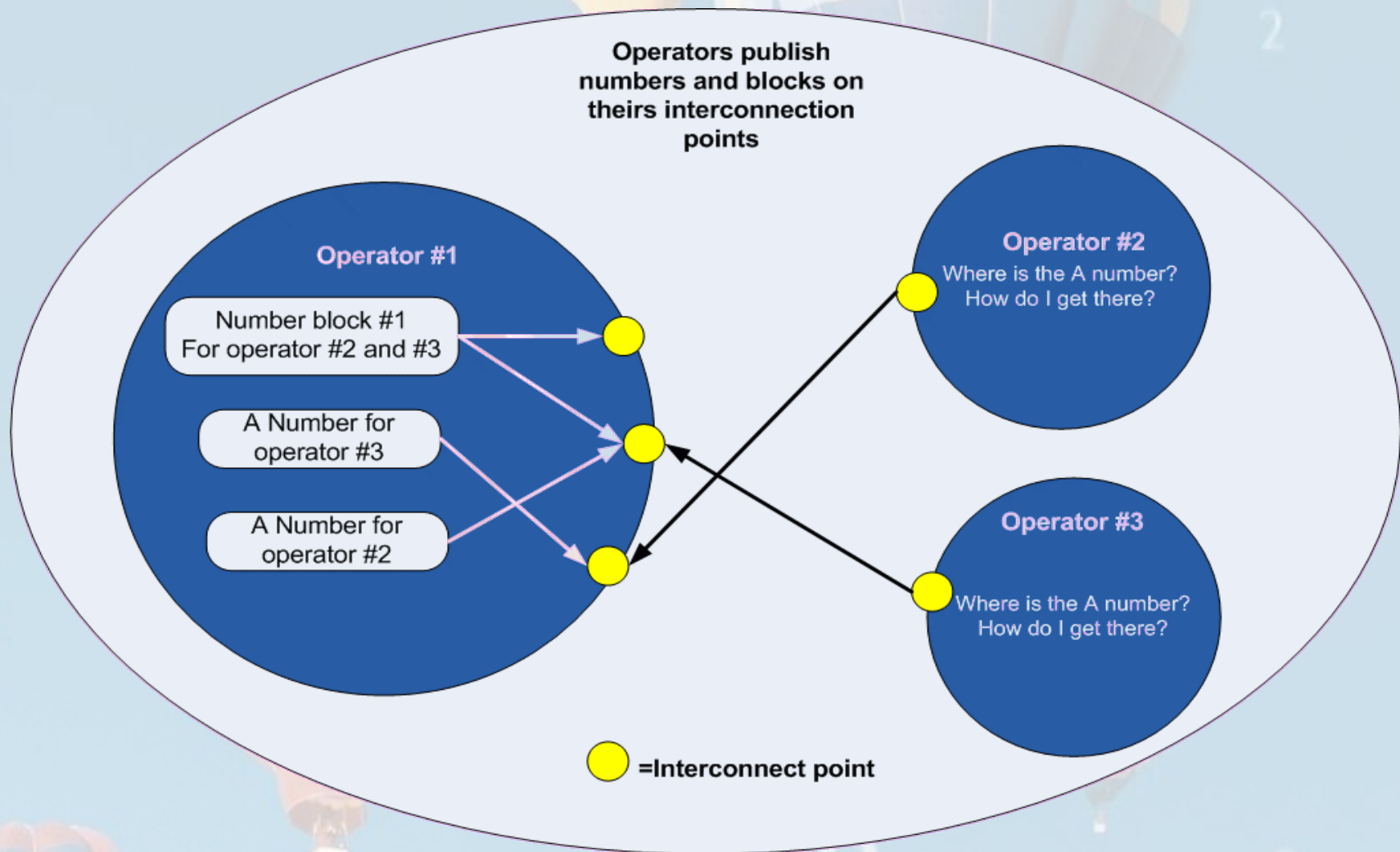
Infra ENUM

- Private
- Developed for operators and enterprises
- Where is the number?
- How can I get there?
- Dynamic routing of calls
- VoIP peering
- LCR – less costs for operators and enterprises
- Basic platform for new services – User ENUM in “Private” world – business customers

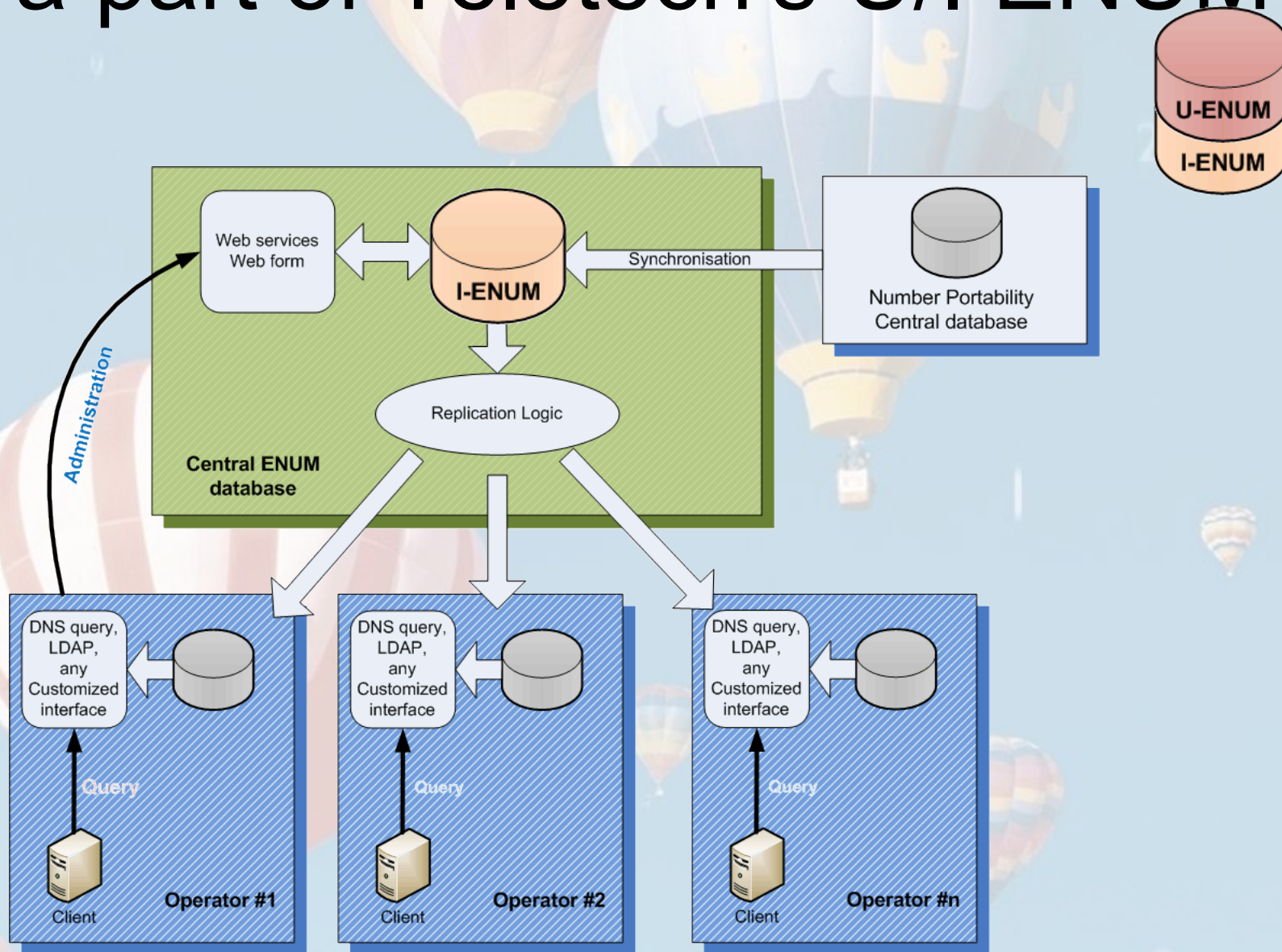
Teletech's specific Infra ENUM

- Basic elements:
 - Operator, entry point, protocol, phone number
- Operators announce numbers on interconnection points
- Synchronisation with number portability
- Local databases
- Vendor specific NAPTR record
- Central database of all numbers

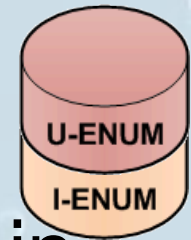
Teletech's specific Infra ENUM



Infra part of Teletech's U/I ENUM



U/I ENUM



- Complete solution enabling new services in proven DNS concept
- Uses established B2B processes with operators applications and systems
- User authentication, operators supervision to prevent fraud
- Freedom for all parties for new development
- Operators can define IP entry points for SME and key customers

Q/A

- Thank's