



# NGN Technologies and Solutions

**16<sup>th</sup> March 2007**  
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**NEC Corporation**

**U can change.**

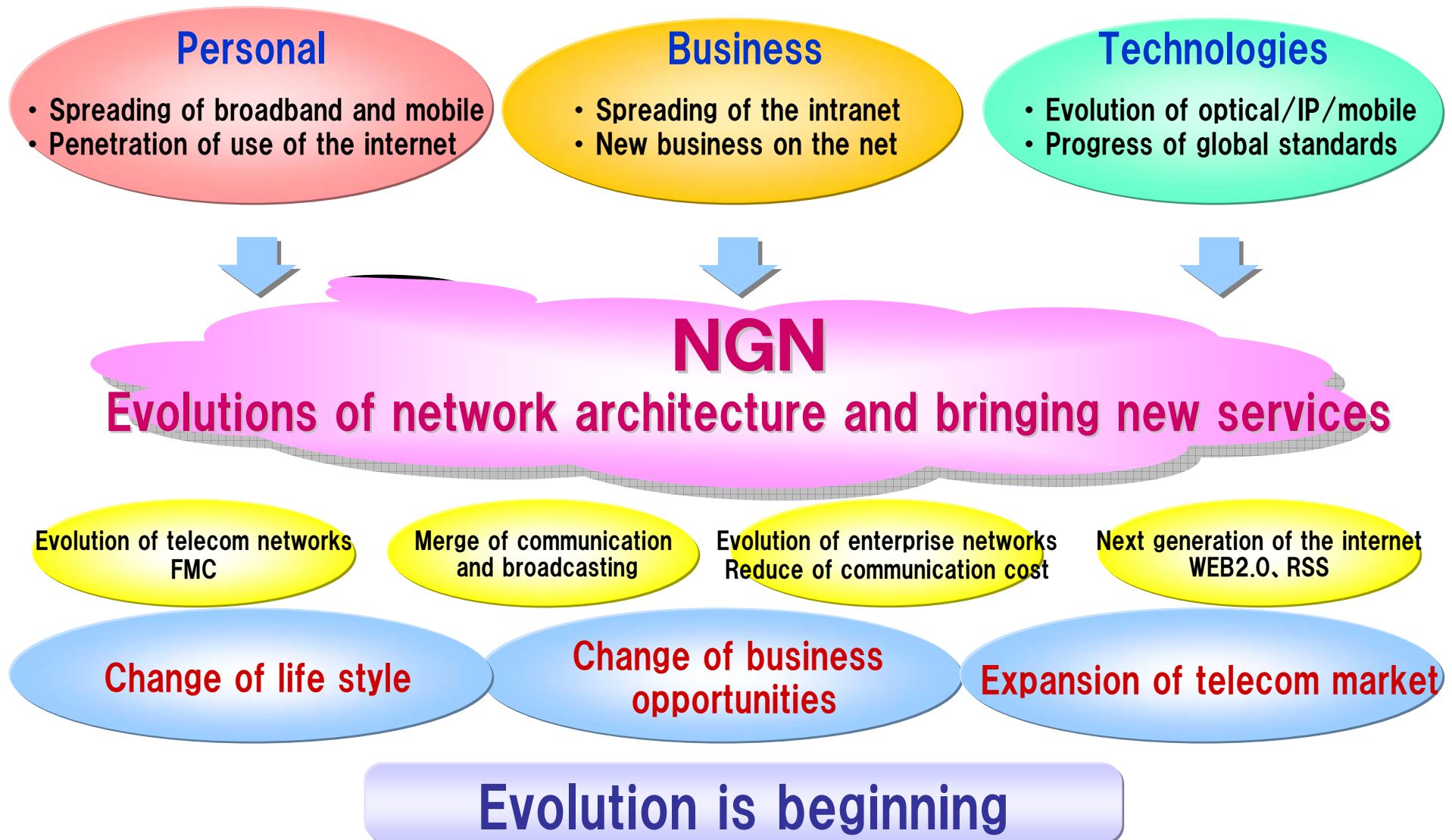


# Overview of NGN





# ERA of NGN





# Expectations of NGN



## From personal

### Easier usage

- ◆ Various services
- ◆ Safe and easy
- ◆ Simple and cheap

## From enterprise

### Base of business expansion

- ◆ Effective work flow
- ◆ New solution for new business
- ◆ High reliability and low cost

## From carrier

### Re-configuration of carrier business

- ◆ Make a new revenue
- ◆ Improve CAPEX/OPEX
- ◆ Expand business area



**NGN makes it possible**

**Big change of life-style,  
enterprise and carrier business**



# Requirements for NGN



The key feature has been changed from "connectivity" to "services"

## NGN

Independent of access method and media type  
High speed, Seamless, Safe  
**IP based multi-service platform**

### Requirements for NGN

- 1: Safe and easy
- 2: Support various services and quick introduction of new services
- 3: Compliant to the global standard and implement of open interfaces



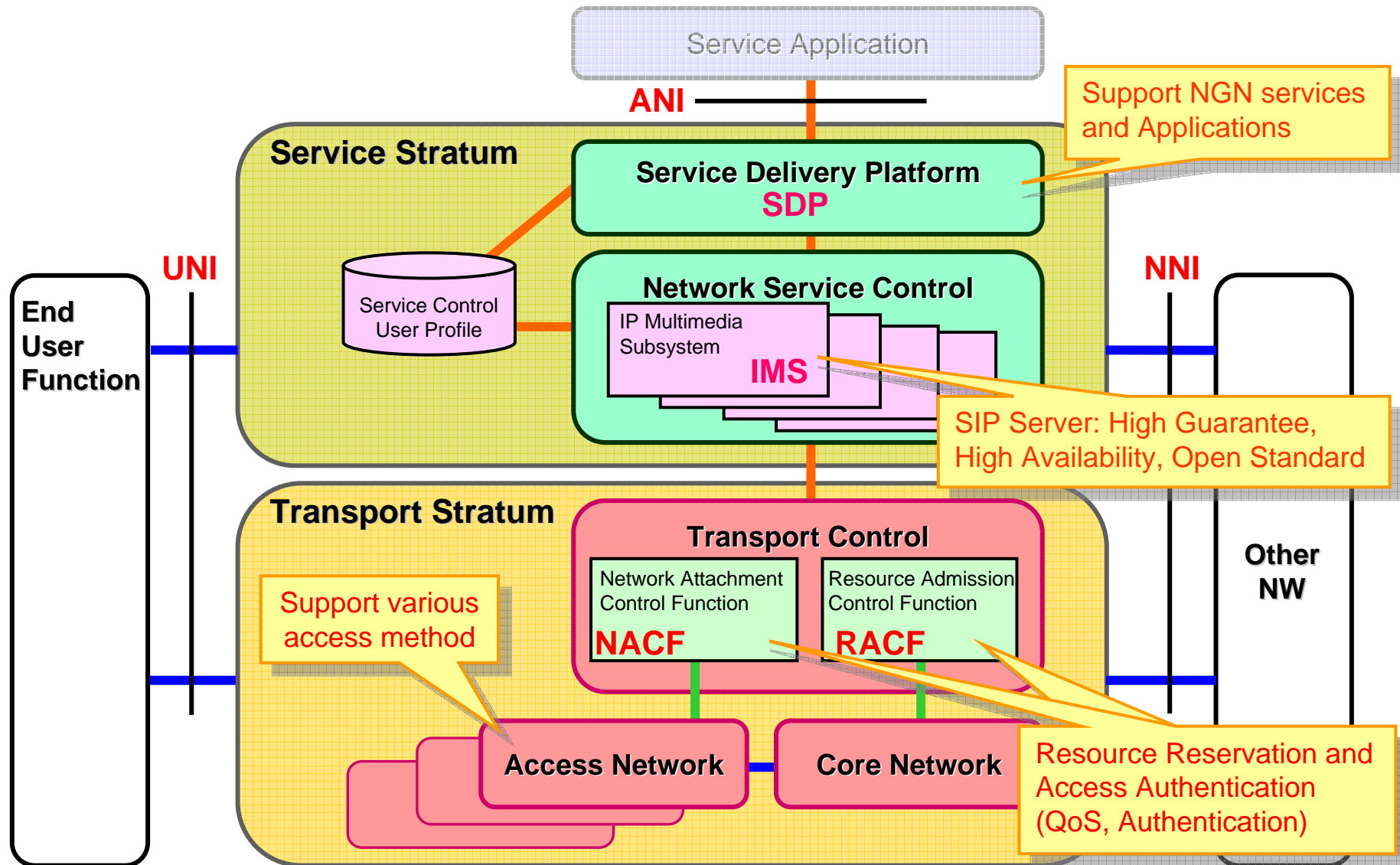
# Solutions of Service PF



**U can change.**



# Key Technology of NGN Architecture





# NEC's Advanced Technology for NGN



Service Application



## Service Stratum

SDP  
(Service Delivery Platform)

IMS  
(Network Service Control)

## Transport Stratum

Transport Control Platform

Optical IP Transport

Mobile

WiFi  
WiMAX

xDSL

FTTH

### SDP: NC7000 Series

- ▶ Providing effective development of service and operation
- ▶ Call Control, Messaging, Presence, Media Resources
- ▶ Supporting aTCA, UNIX (Not depend on Hardware)

### IMS: NC9000 Series

- ▶ SIP Server with High Capacity and Reliability
- ▶ Realized reliability of 99.9999%
- ▶ Supporting aTCA, UNIX (Not depend on Hardware)



### RACF/NACF: NC5000 Series

- ▶ High Quality, Security & Reliability for Transport Control
- ▶ Guarantee of bandwidth and priority with NC9000
- ▶ Supporting aTCA, UNIX (Not depend on Hardware)

### Wireless Access System

- ▶ PASOLINK for GSM, 3G, HSDPA
- ▶ W-CDMA System, LTE, WiMAX







## Requirements for NGN services

Using NGN characteristics and feature

QoS

Safe and Easy

Ubiquitous

Reduce CAPEX/OPEX for supporting and introduction of service

Speedy introduction

SOA

SaaS

Collaboration with business partner to develop new service and new value

Using carrier asset

Long tail

IT/NW integration

## SDP Characteristics

① NGN Standard IF

② Common components for multiple services

③ Open IF for service applications



# SDP characteristics 1<sup>st</sup> : NGN standard IF

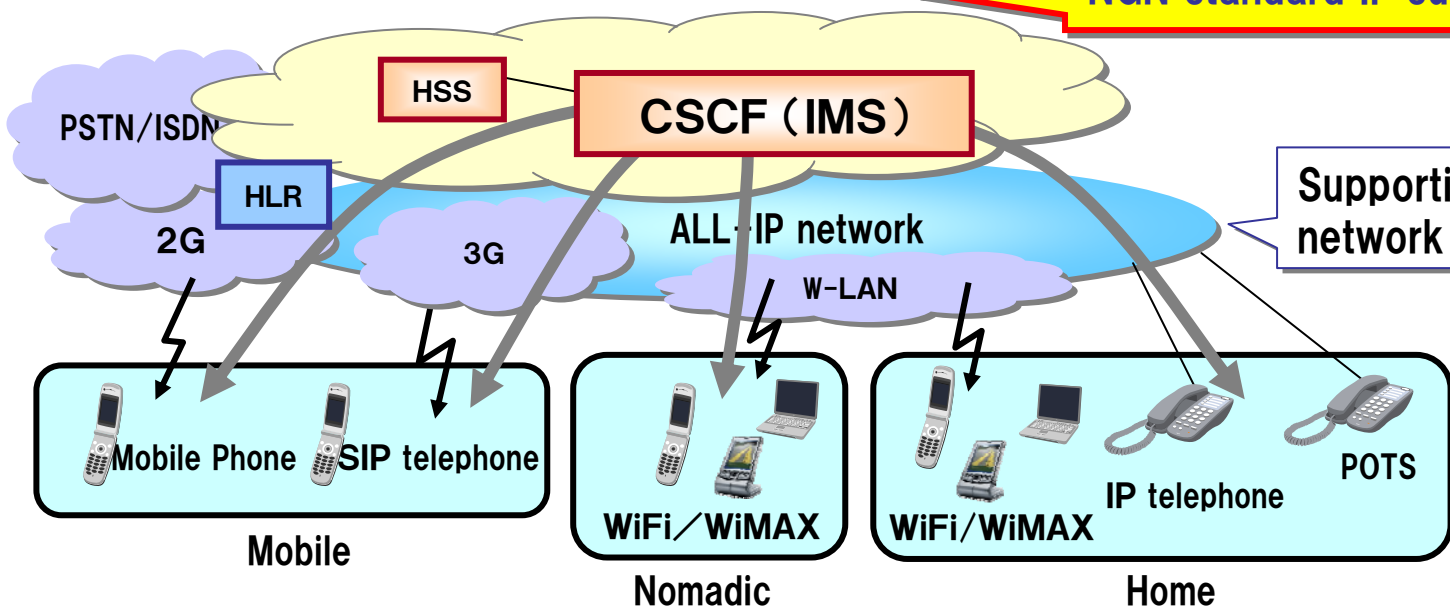


Using NGN characteristics and features through simplified IF provided by SDP

**SDP** Service Delivery PF supporting NGN services and applications

Simplified IF to hide complicated NW control functions

NGN standard IF such as SIP, Diameter

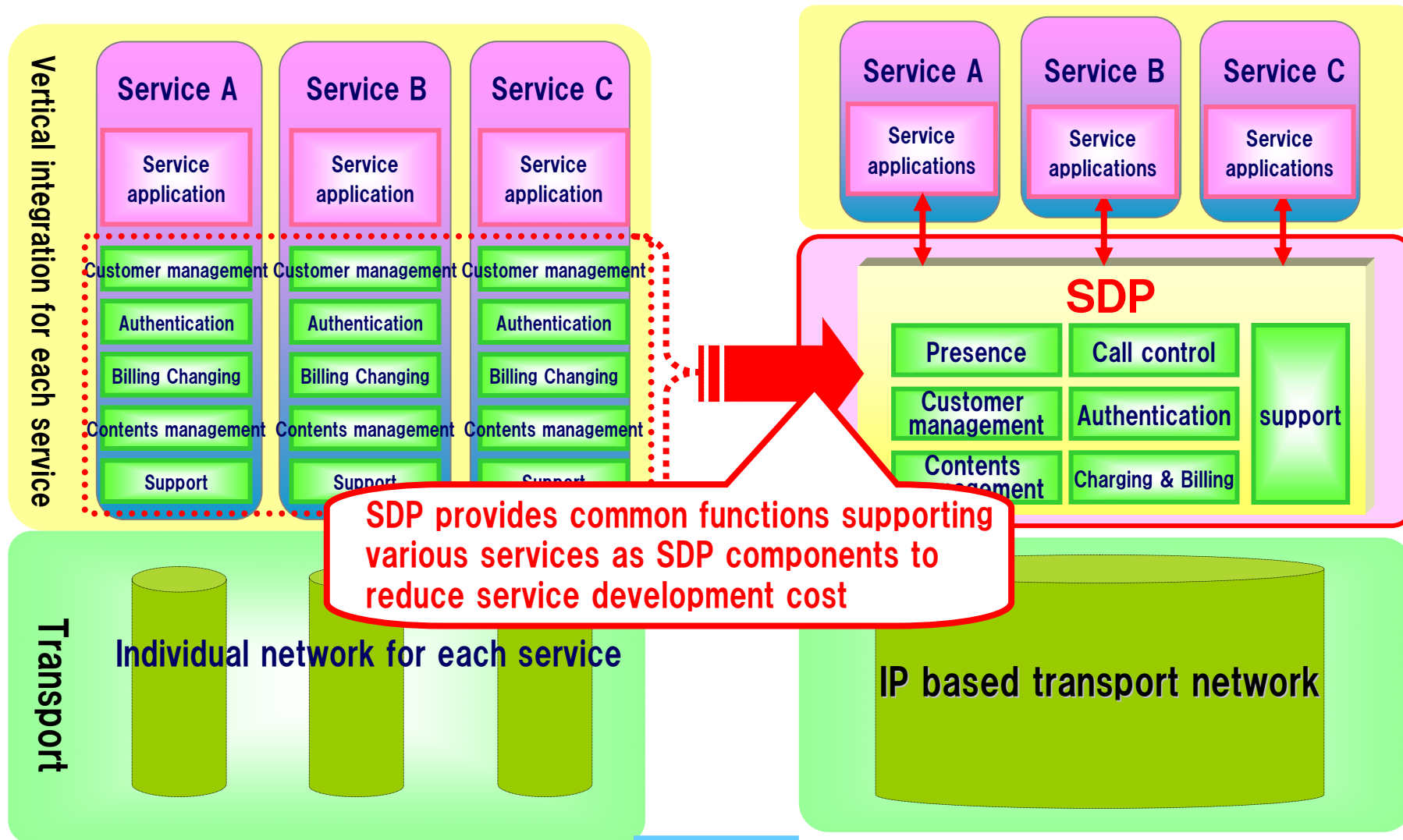


Supporting multiple access network and FMC service



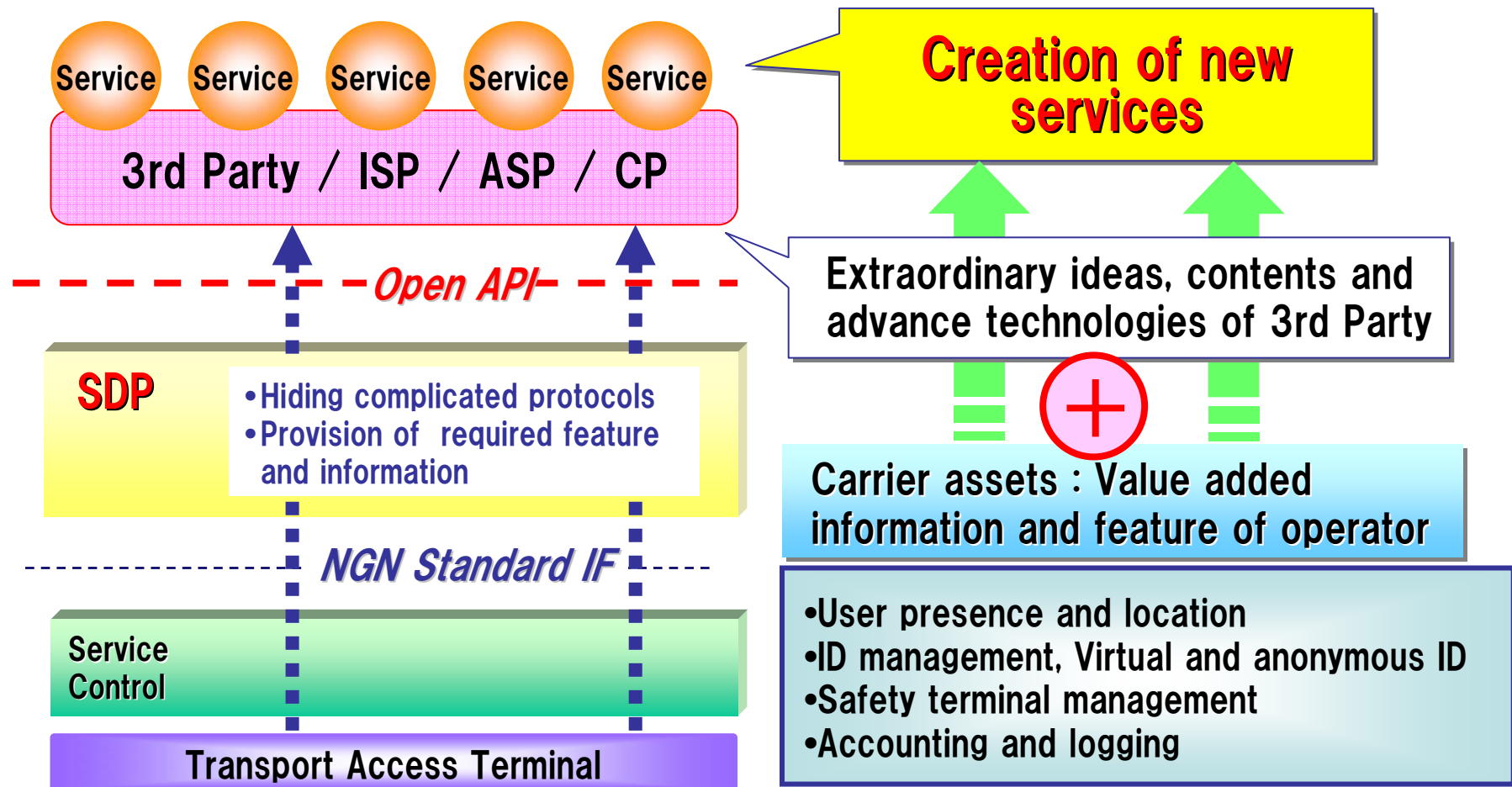
## Conventional approach

## SDP approach



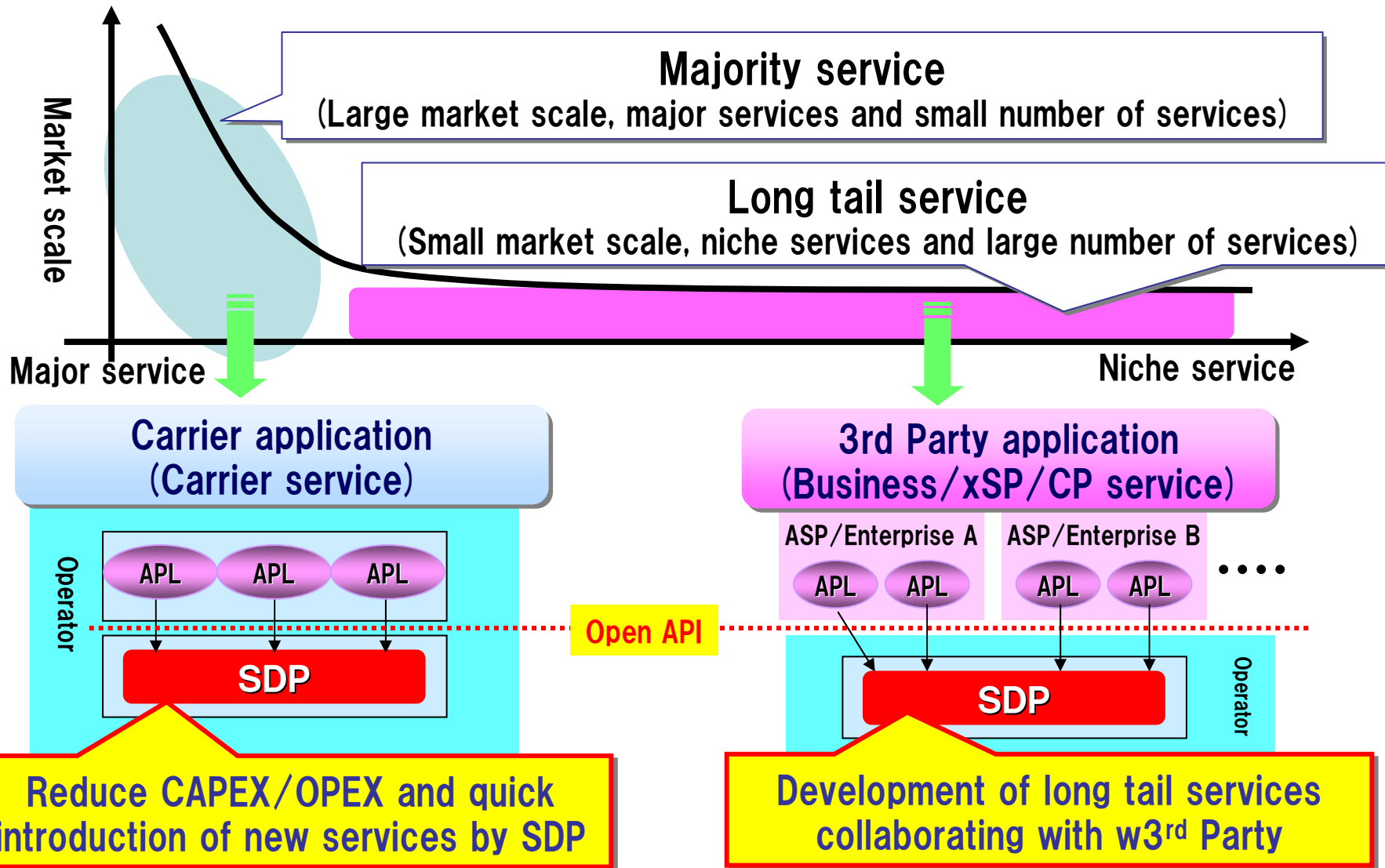


- Quick introduction of new services using simplified API
- Creation of new ICT services by collaboration with IT application and Carrier assets





# 《Utilization of API depending on service characteristics》

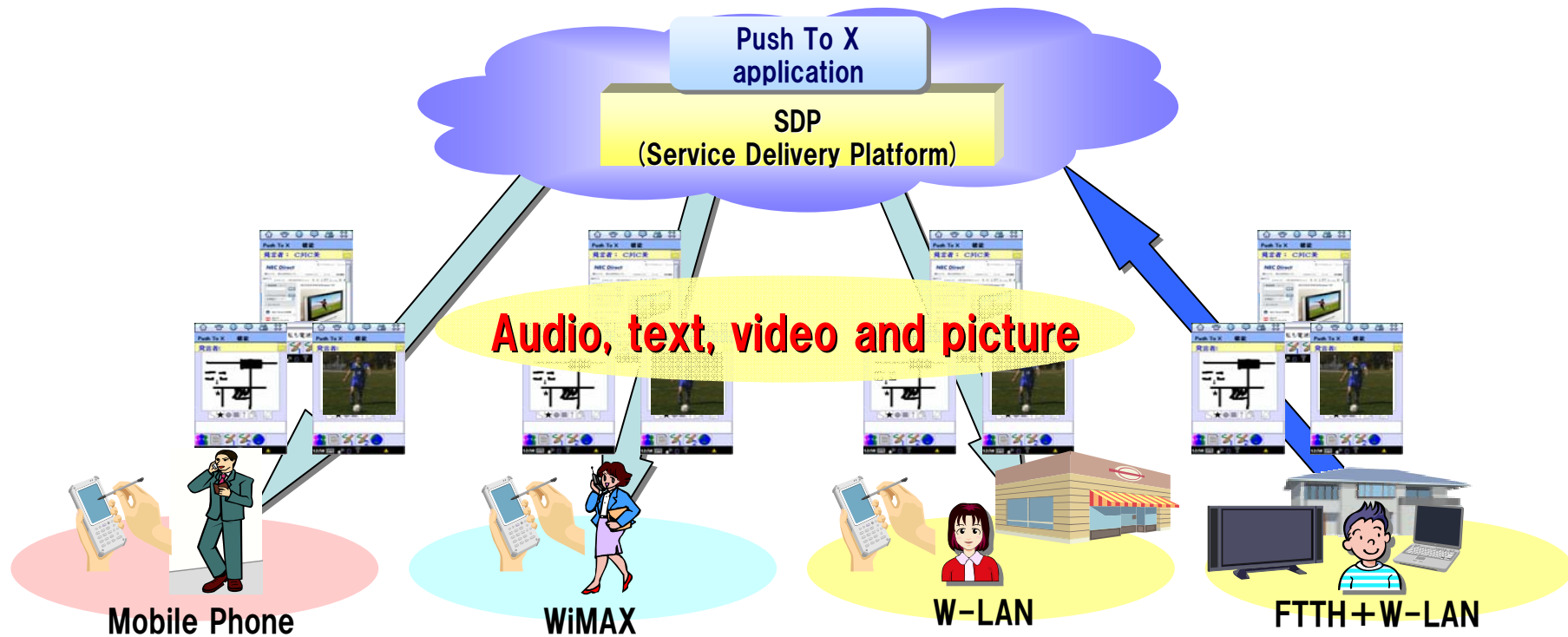




# Services supported by SDP



## Push-To-'X' X=Anything



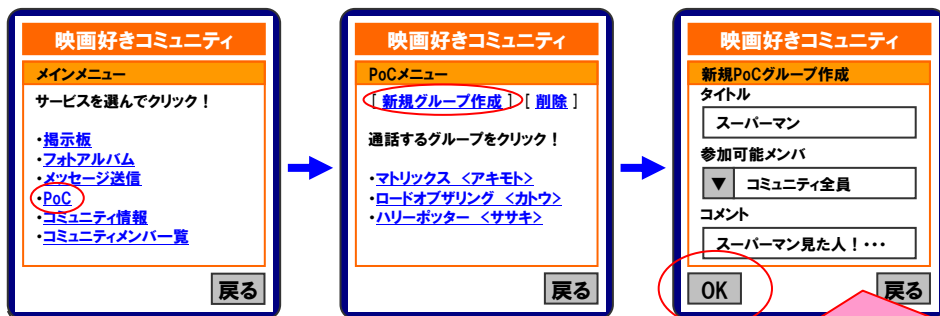
Various communications with one push operation by Push To X application on SDP

- Ubiquitous communication between fixed and mobile terminals
- Real time multimedia communication with audio, text, video and picture
- Group communication among multiple person and articles such as information appliance

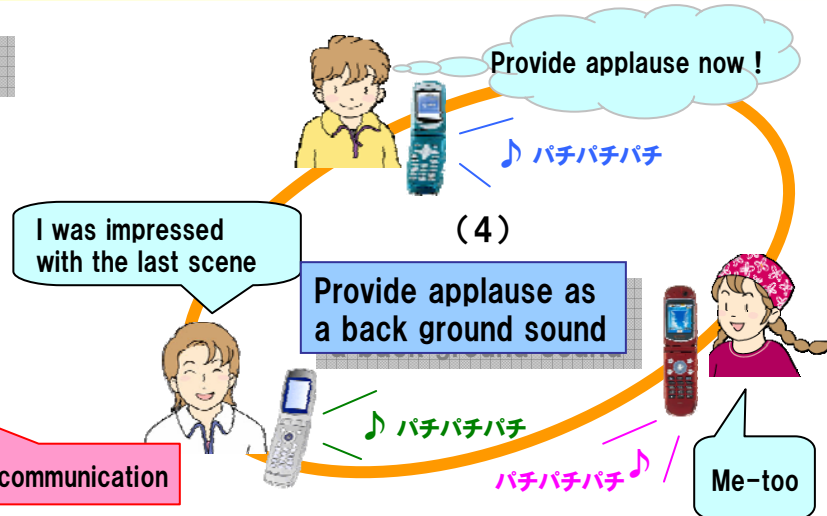
## Using of member lists such as SNS who has same interests

Service components : Creation of PoC group, Invitation and PoC participation from Web, provision of effect sound and file sharing

### (1) Create PoC group such as SNS (Web) using 3rd-Party-API



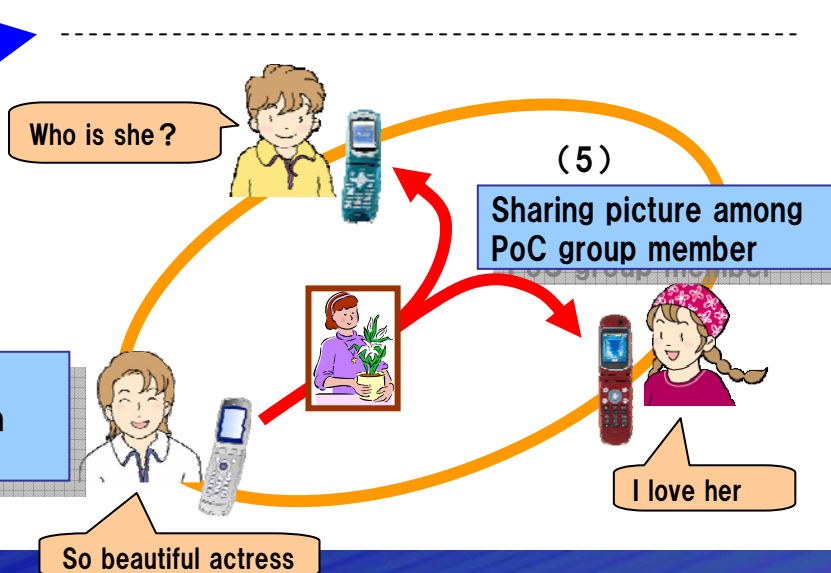
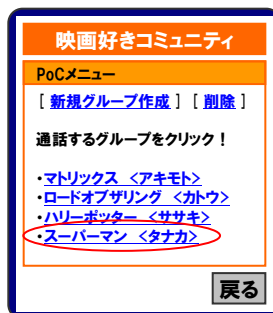
Use of member lists of SNS or community to PoC group communication



### (2) Automatic sending of PoC invitation

Invitation to movie community member from Mr. Tanaka  
 [Subject] Super man  
 [Comment] Hallow members who likes Superman ! Please join at 8PM tonight.

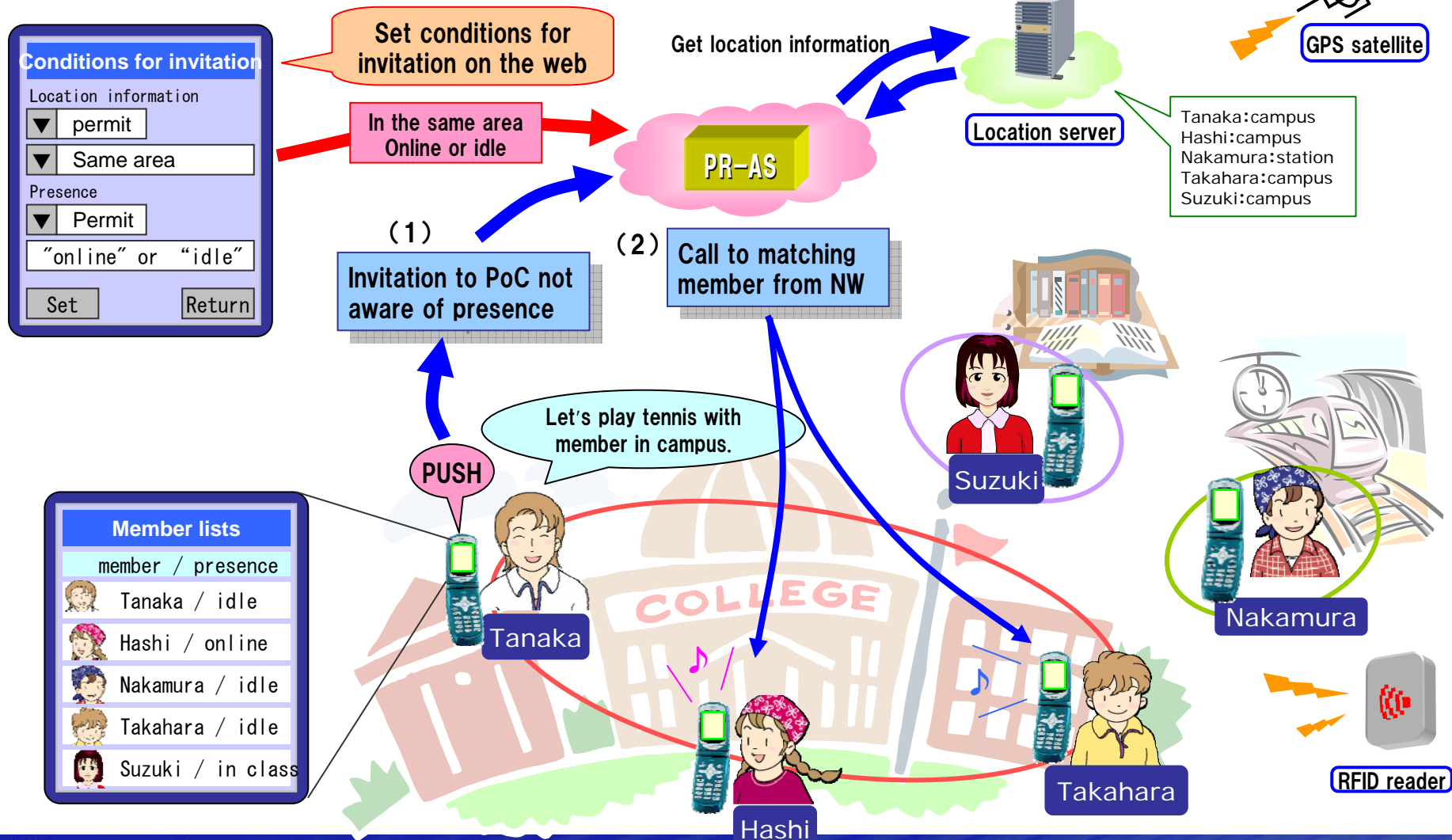
### (3) Participation to PoC group communication from SNS with Click-to-Dial function





## Calling to matching member automatically with presence and location information

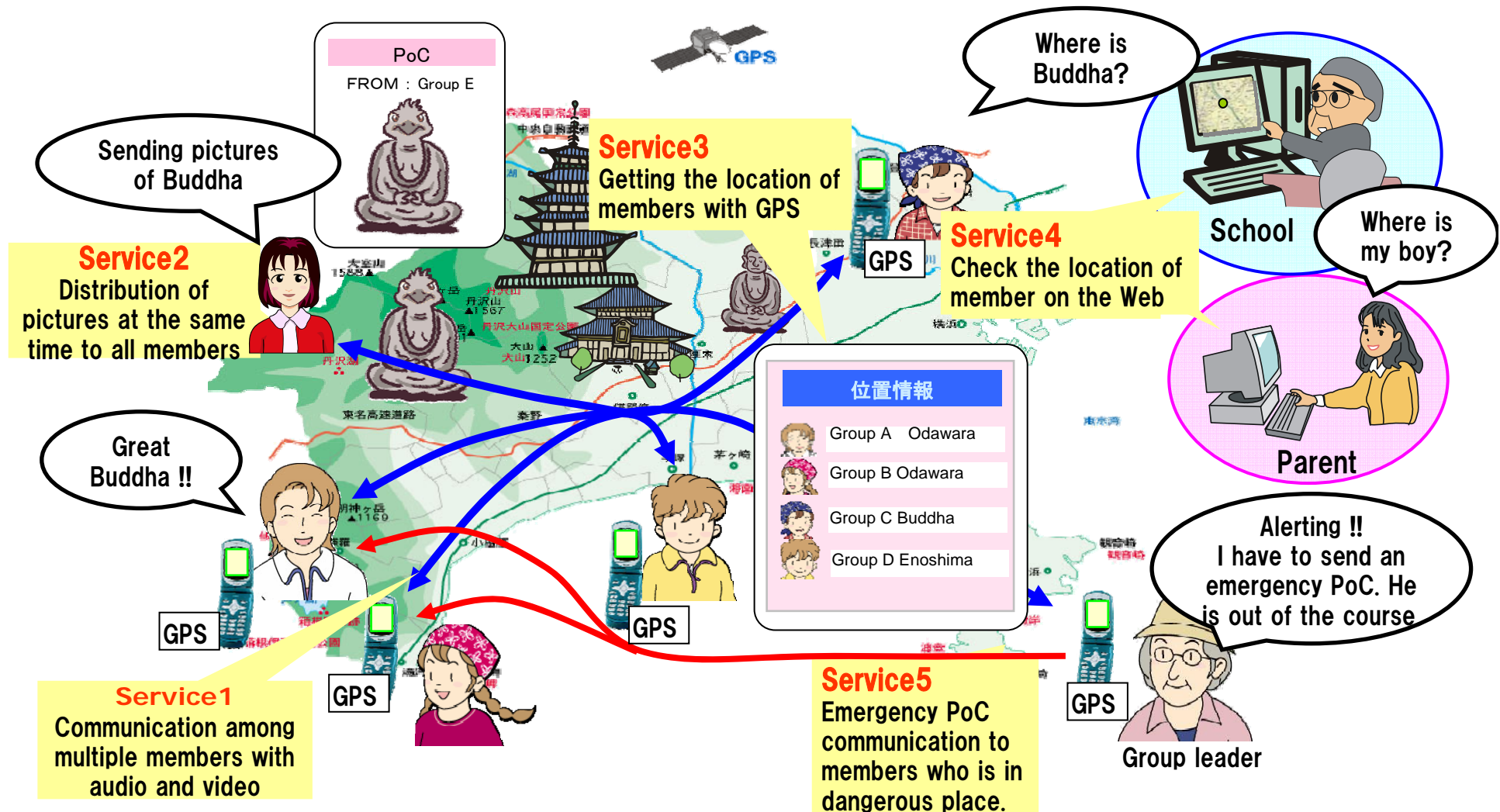
Service components : Creation of PoC group, Setting a policy, collaboration with presence and location information





## Watching the group using PoC and location information

Service components : Group PoC, Location information, Check the location and presence on the web, Sharing files





Empowered by Innovation

**NEC**