

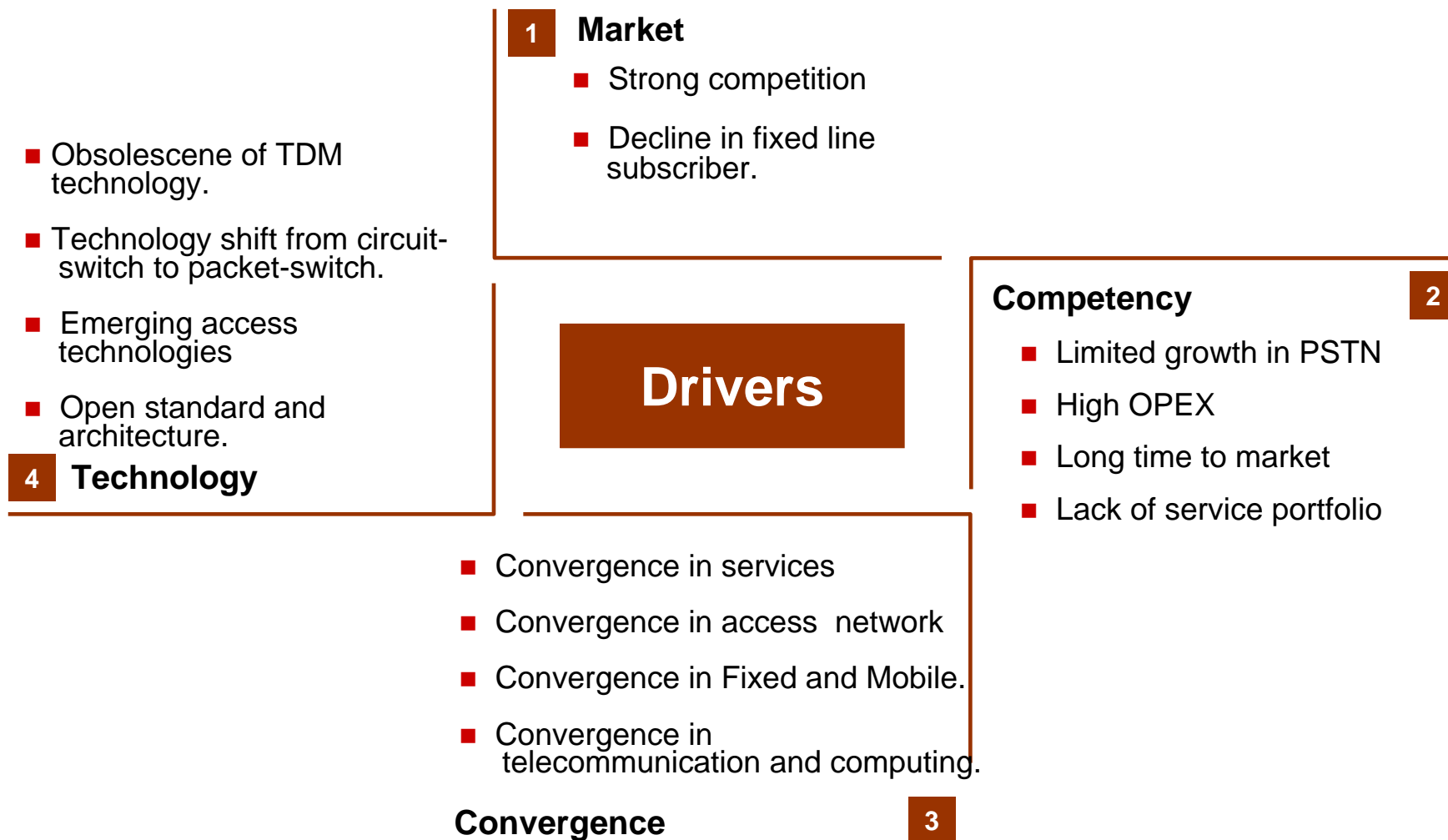
# Insight of NGN Deployment

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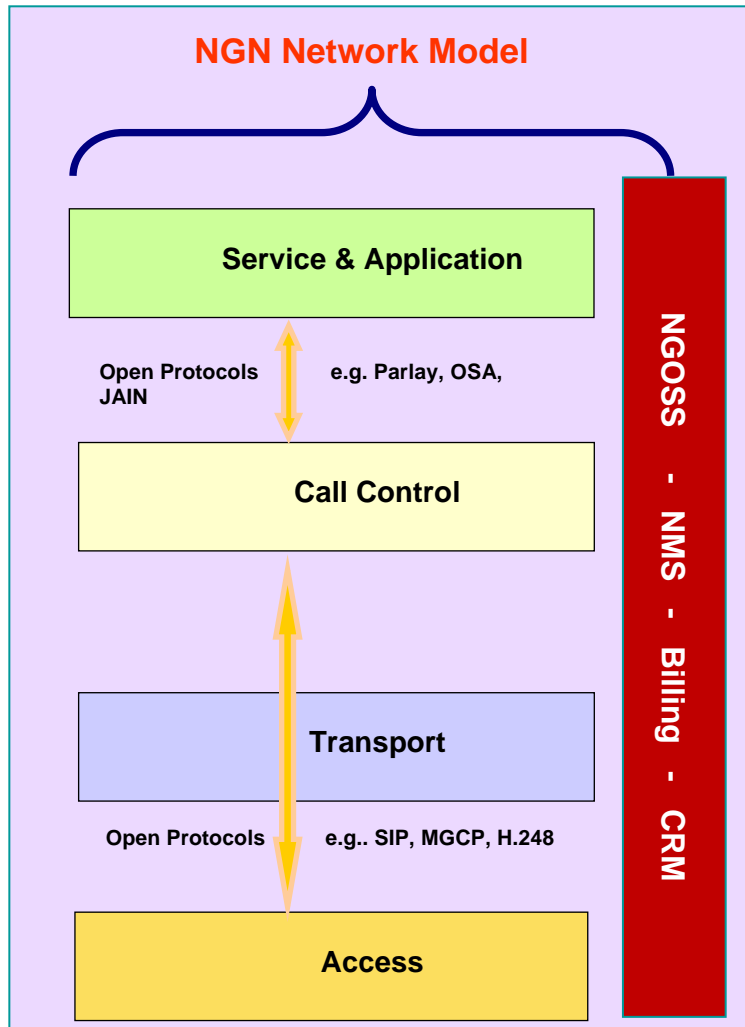
# Content

- **NGN Network Transformation**
- **NGN Network Migration**
- **Evolution From PSTN to IMS**
- **Case Studies**
  - Brunei Telbru: World First Commercial NGN Deployment
  - Singapore SingTel: From C5 Consolidation to ALL IP
- **Summary**

# Drivers for Network Transformation



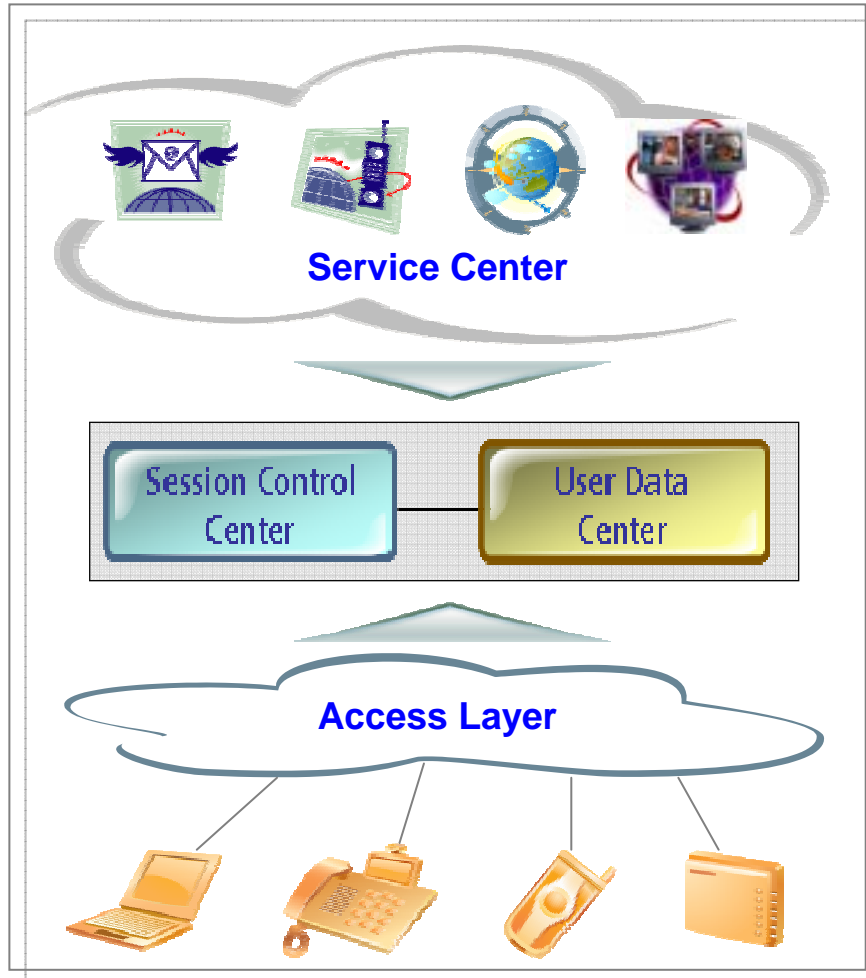
# What is the Outcome?



- New Service Opportunity
- New Network Architecture
- New Business Competency
- New Network Flexibility
- New Transport Efficiency
- New Network Operation
- New Organization Structure

# Requirement of Network Transformation

## A Resilient Network Architecture



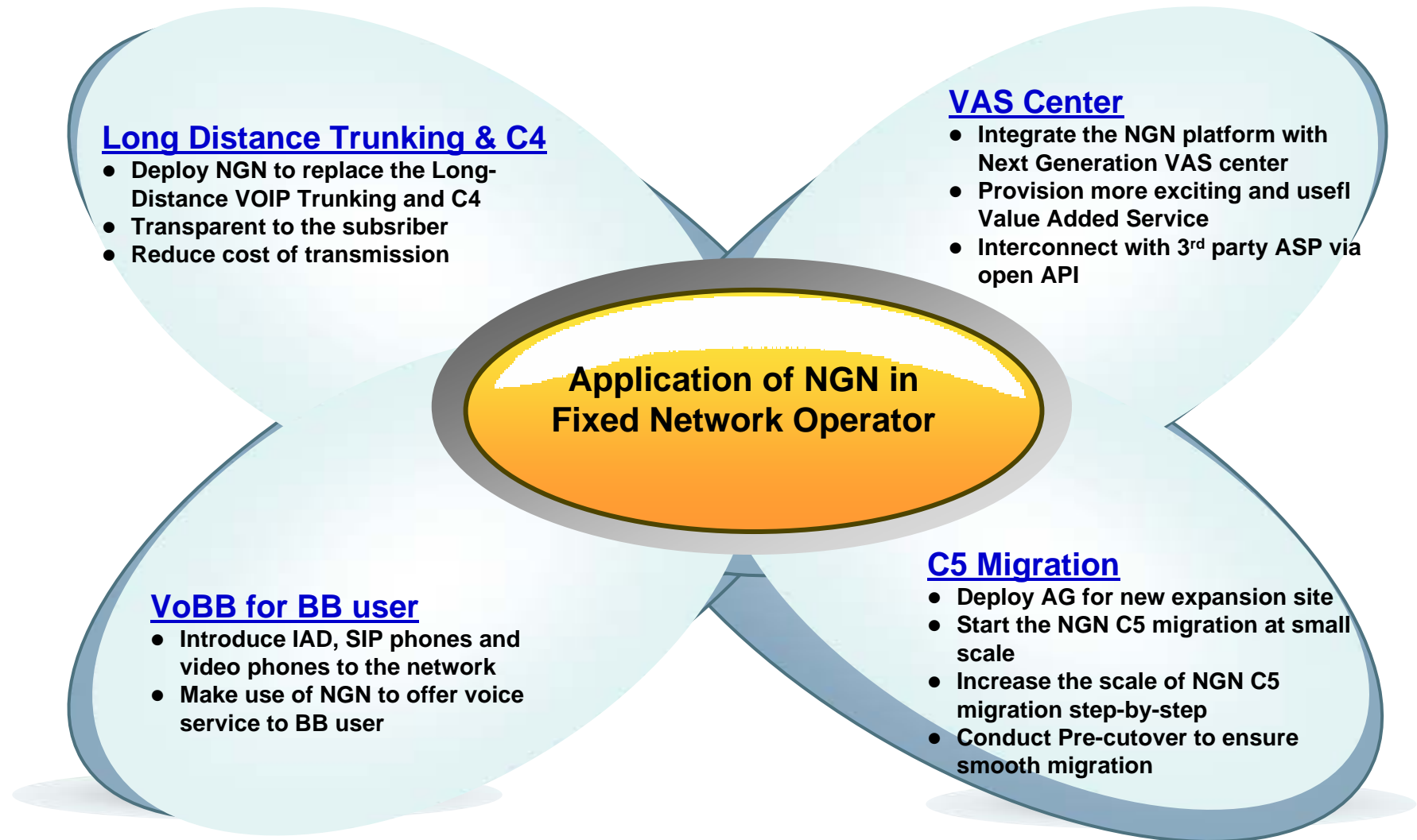
## Requirements of Transformation

- Fully inheritance of PSTN features
- Separated call/session control and service center
- Central subscriber data center, fast service roll out
- Open service enter for rapid service creation

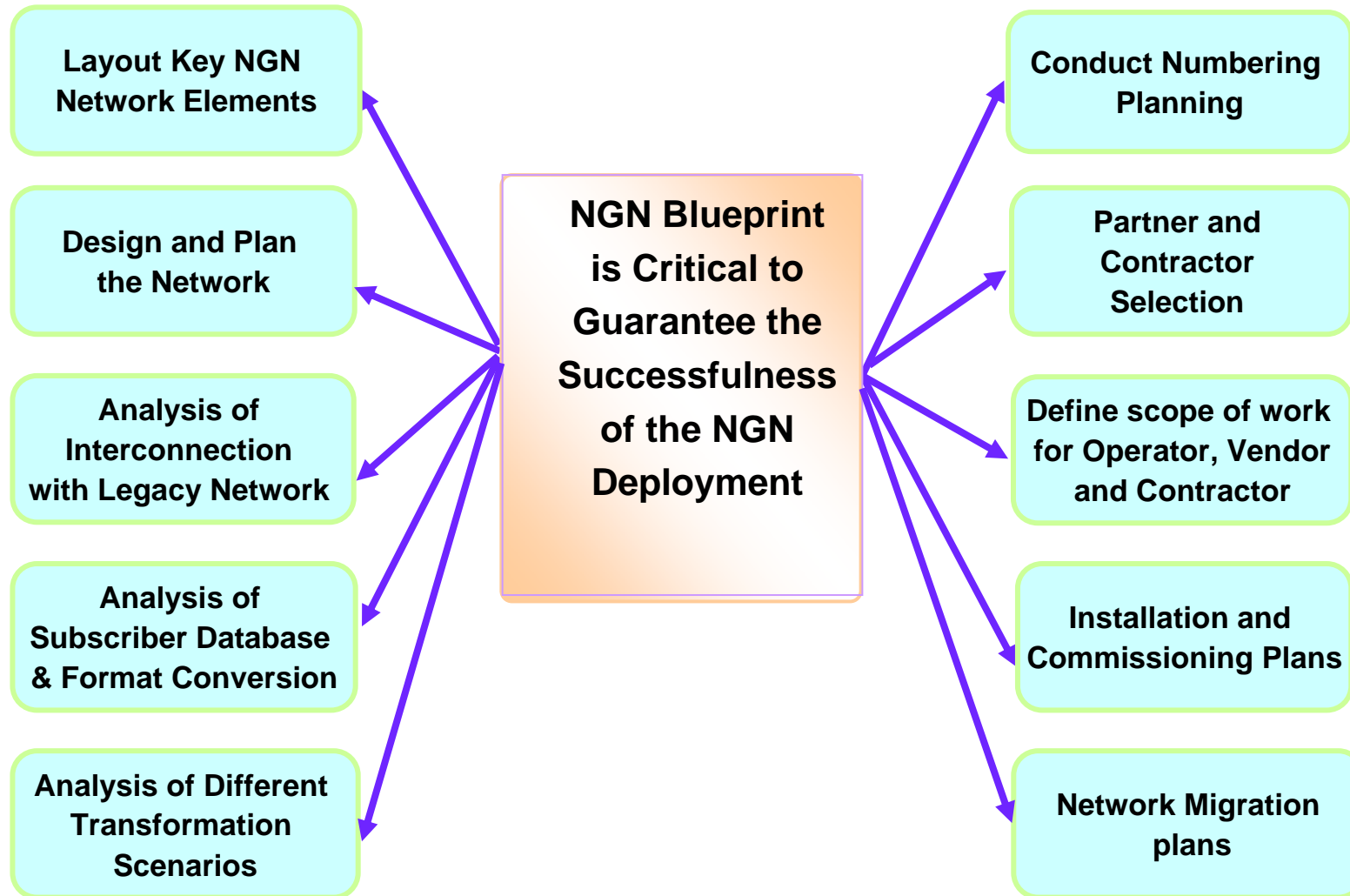
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# Application of NGN

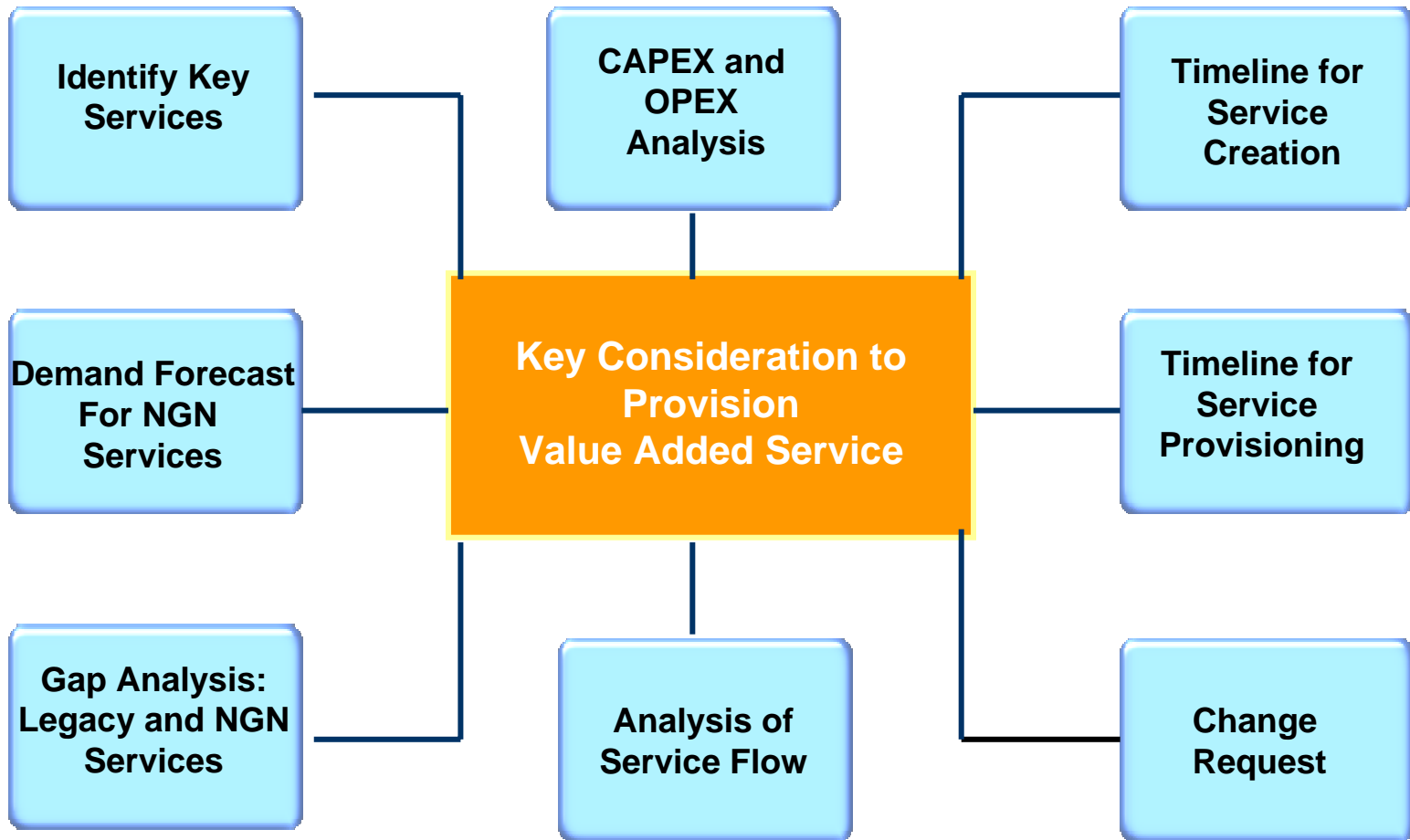


# Defining NGN Blueprint





# Key Consideration of VAS Provisioning in NGN



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# General Migration Principles

## Investment Protection

- Investment protection in fixed voice field
- Least impact on inter-working elements

## Service Inheritance

- Network migration transparency
- Least changes in services usage

## Based on Softswitch Functionalities Reservation

## Smooth Implementation

- Step-by-step deployment
- Minimum project implementation difficulties

## Continuous Development

- Convergent of network resources
- Sharing of network resources

# Tailor-made Network Solutions

## PTSN Transformation

- Mature and stable Voice over IP solutions
- Reduce OPEX by 30%~50% compared to PSTN



## Network Intelligence Solution

- Increase whole network service competence and shorten time to market
- Abundant VAS, such as CRBT, WAC, NP, etc.
- Centralize O&M, reduce OPEX



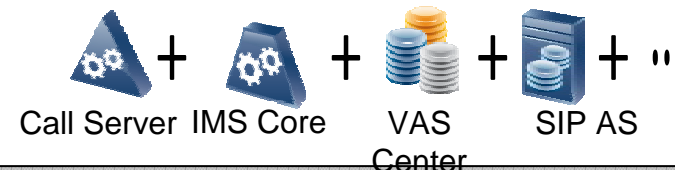
## SIP AS Solution

- Provide MM services, increase revenue, such as video conference, IP Centrex, MRBT, etc.
- Flexible application and services can be introduced with just add on SIP AS



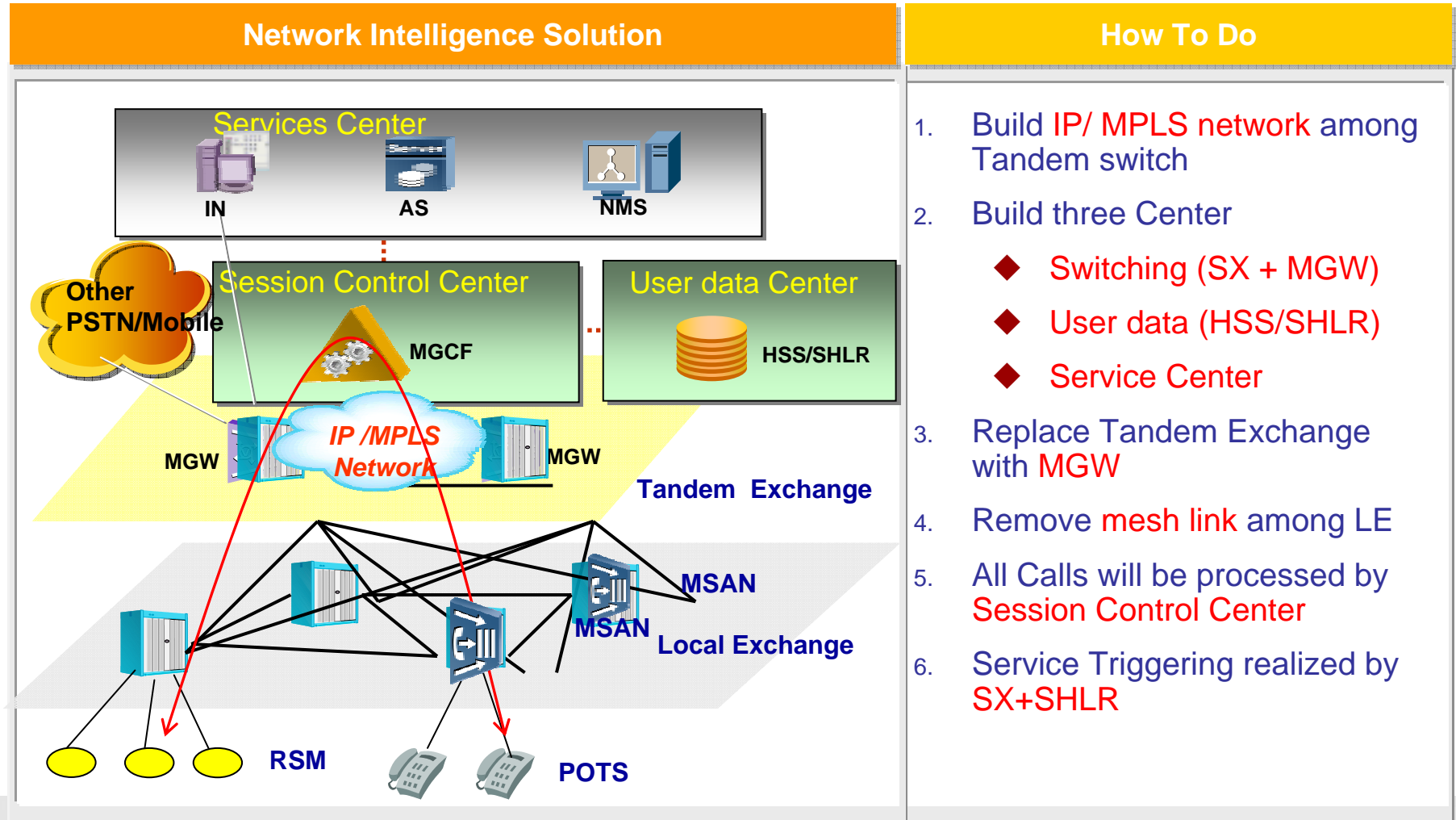
## FMC Solution

- Unified call control center for FMC, convergent applications, such as VCC, etc.
- Provide ICT services, such as IM, Presence, etc..

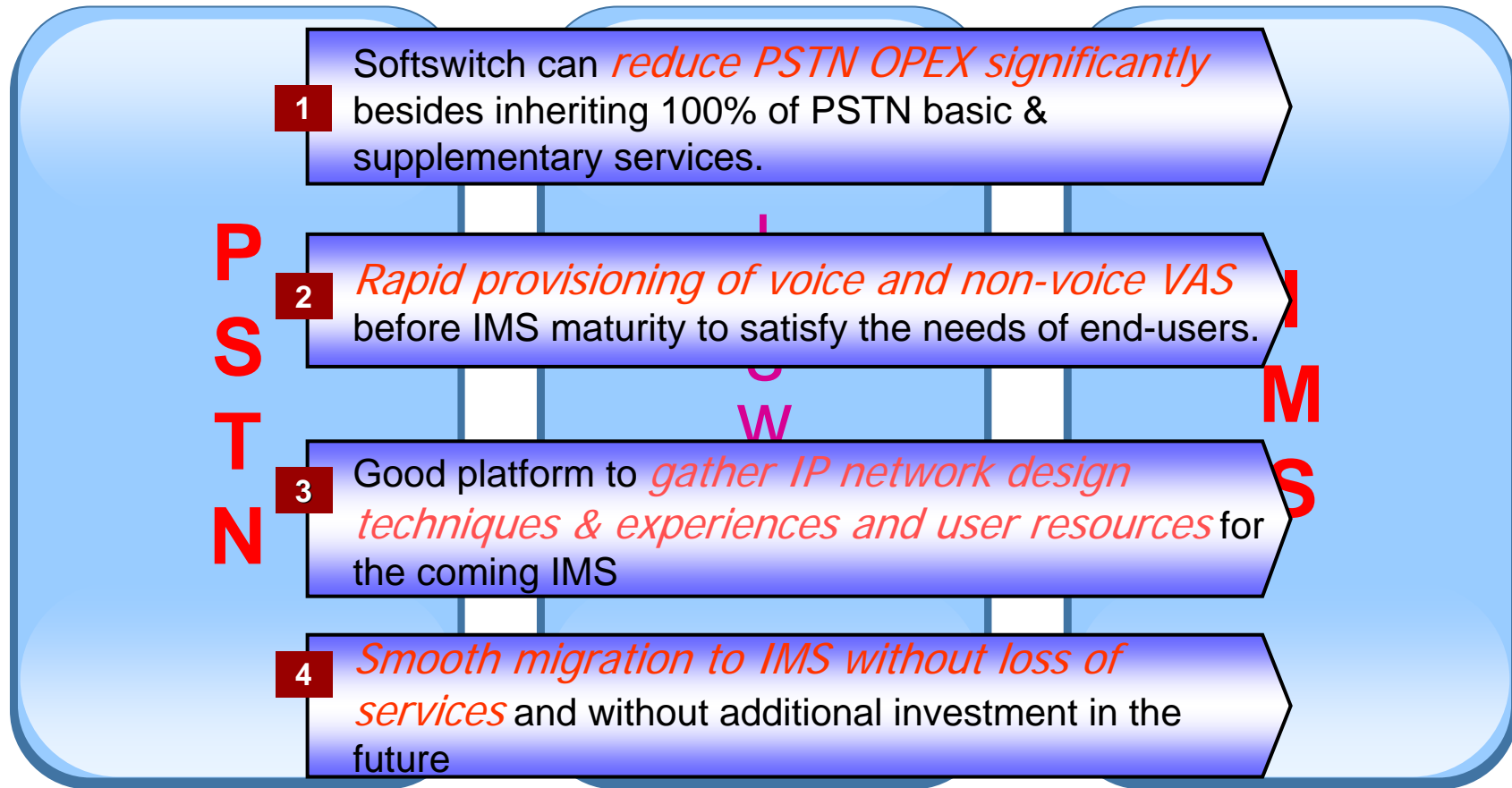


# Where Do We Start Off

Start with from a smooth and cost-effective way

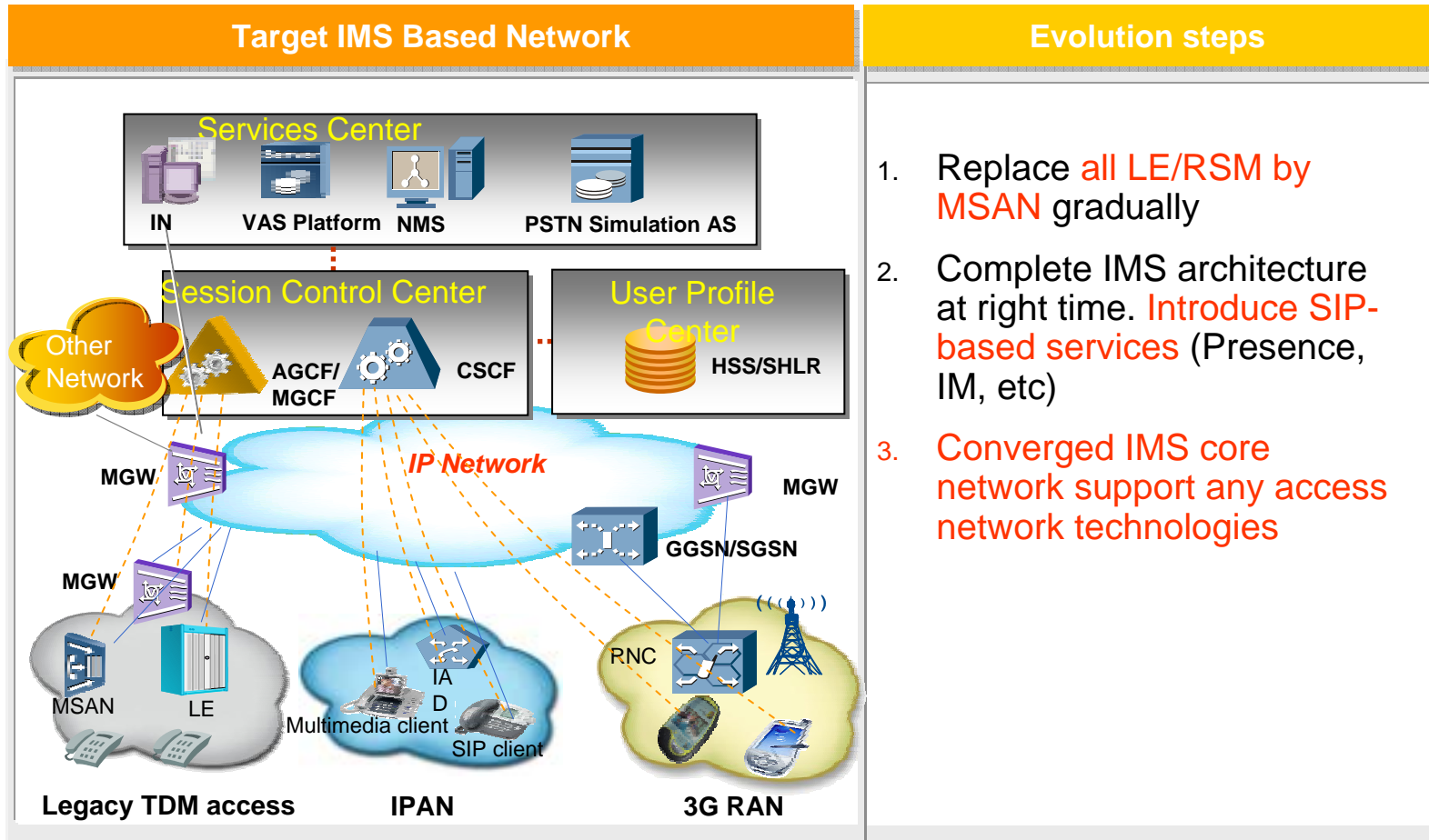


# Softswitch, a Bridge Between the Preceding & the Following

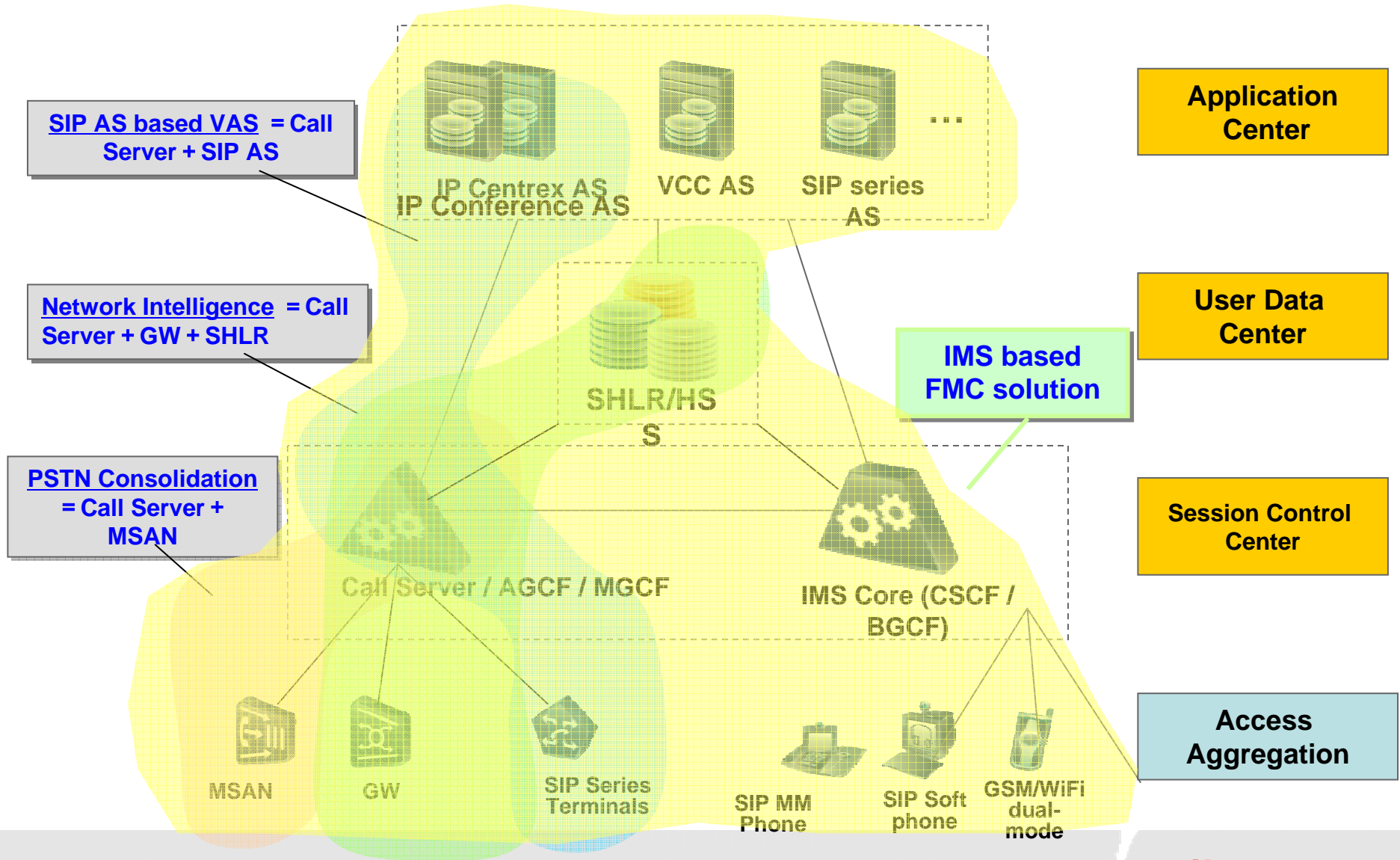


# On the Way to Complete IMS

The ultimate goal of network transformation is IMS-based converged network



# Future-oriented Network Transformation Solution





# Service Innovation based on FMC Architecture

## Full Convergence

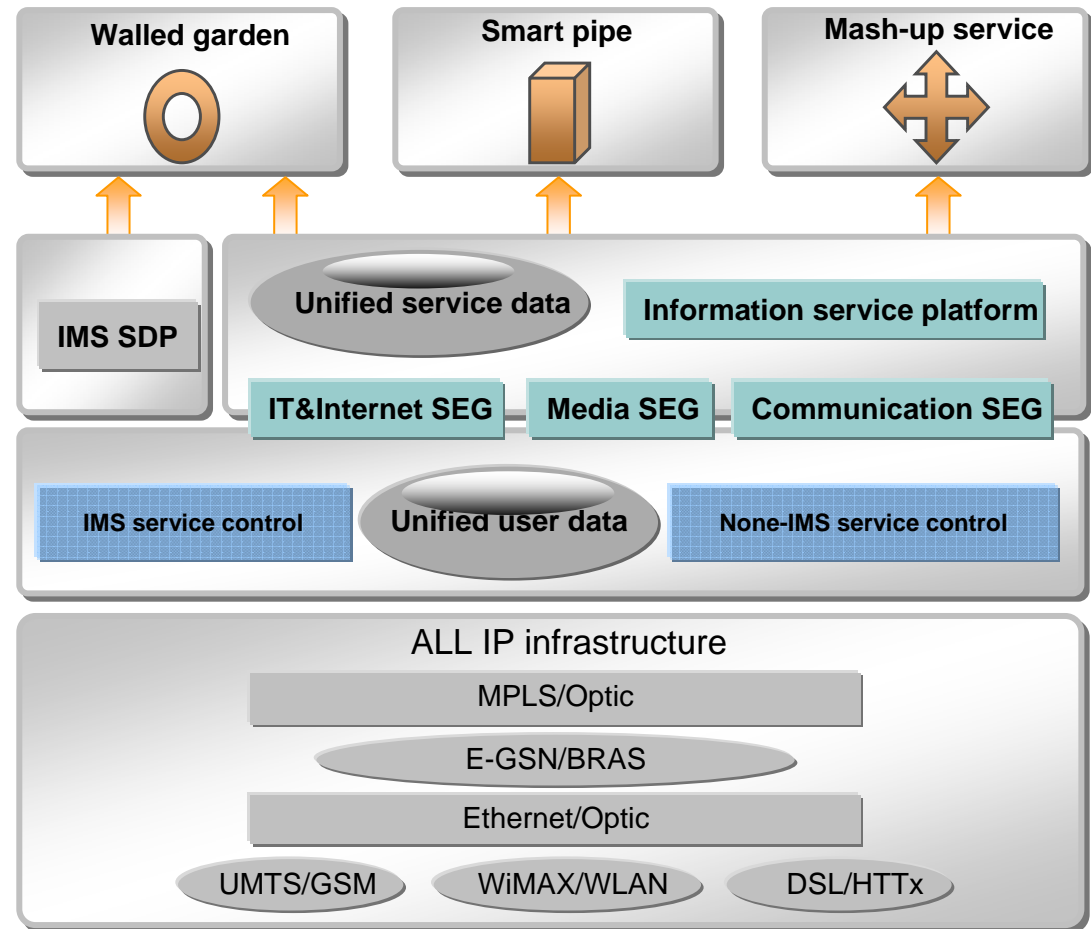
- FME: Fixed Mobile Convergent Experience
- FMI: Fixed Mobile Convergent Infrastructure
- FMN: Fixed Mobile Convergent Network

## Open & Innovative

- Fast tailor made developing
- Standard interfaces
- Open eco-system
- Innovative services

## Smooth Migration Path

- Unified Platform strategy
- Mobile Softswitch migrate to AGCF/MGCF/CSCF
- HLR\SHLR migrate to HSS

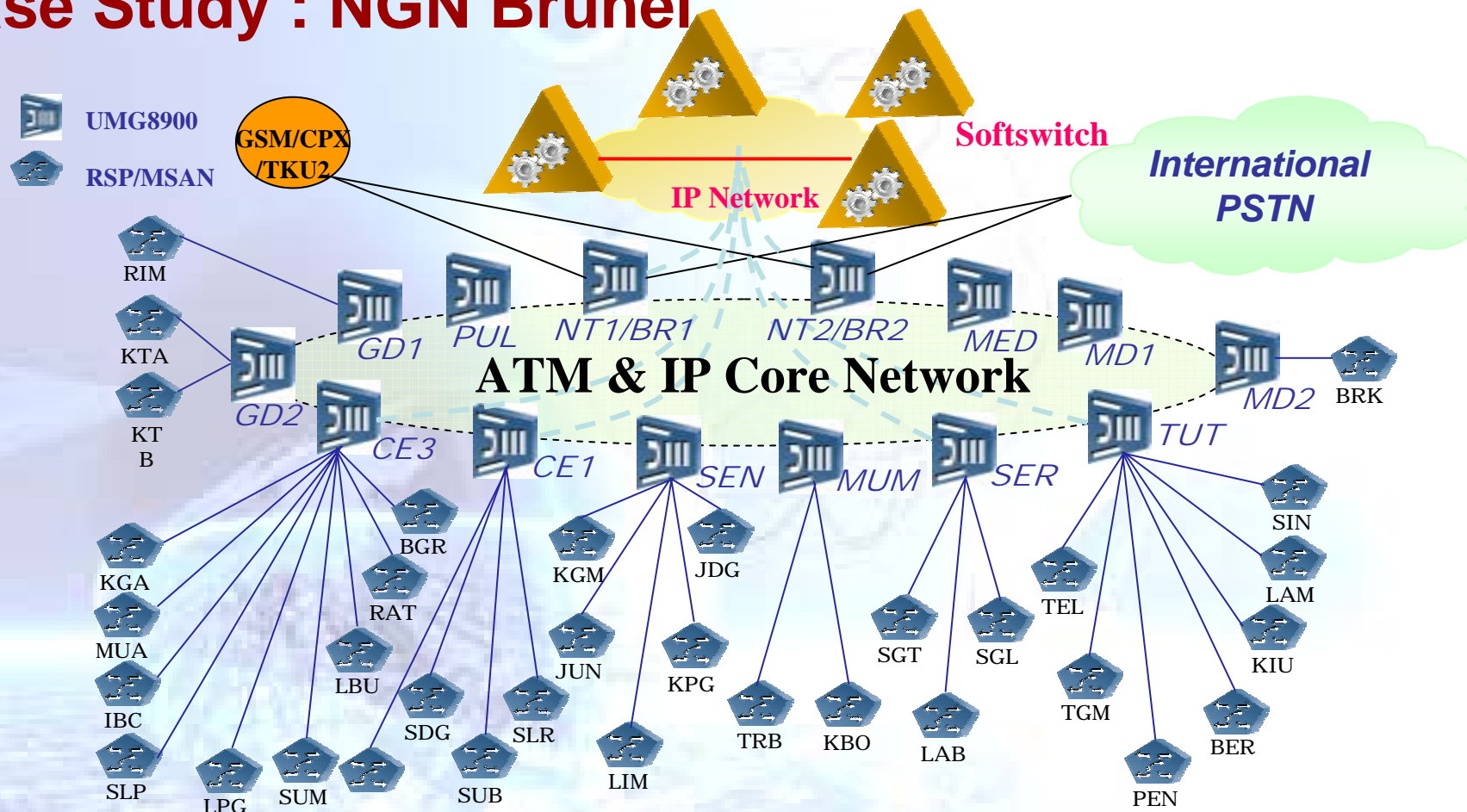


**SEG:** Service Exposure Gateway

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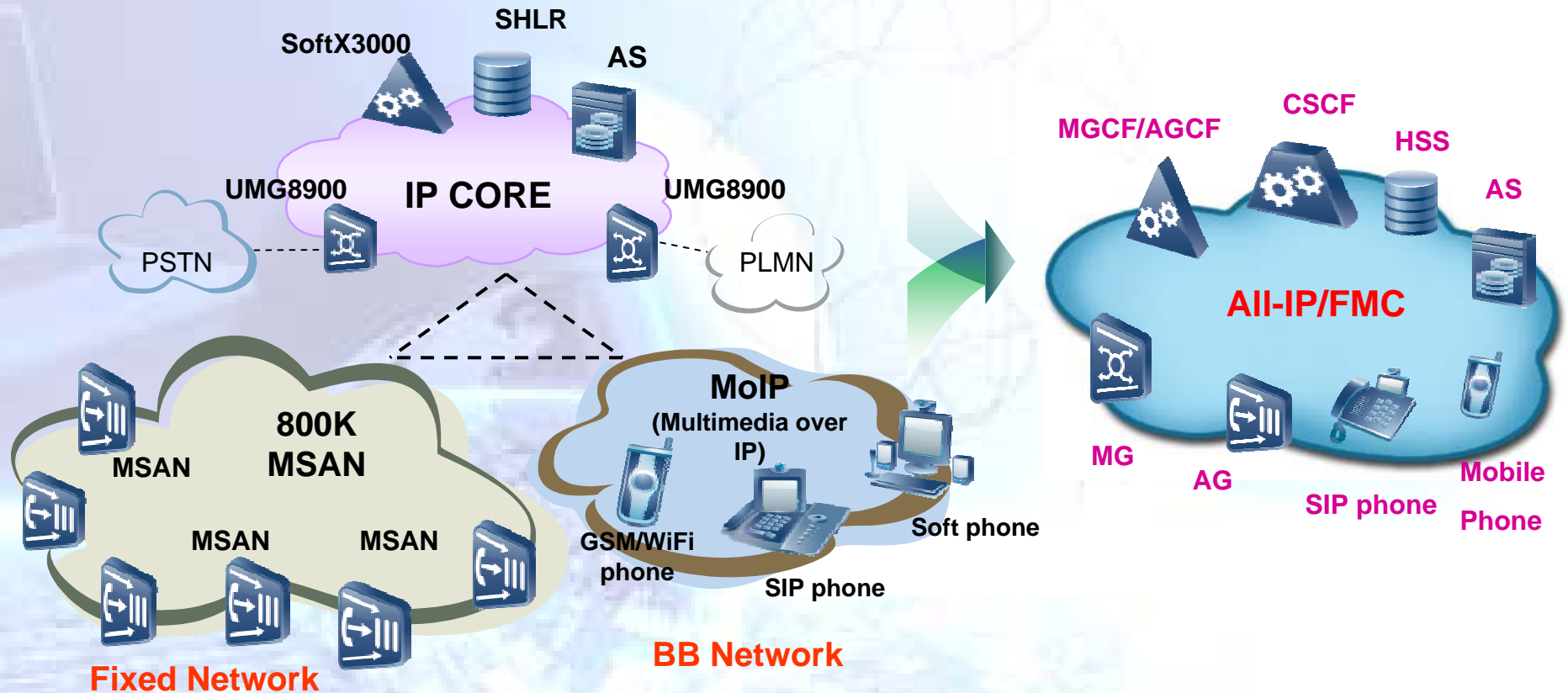
# Case Study : NGN Brunei



- 200,000 subscribers are cut over within 5 months.
- 1 pair of softswitch for C5 domestic network.
- 1 set of softswitch act as SIP server
- 1 set of softswitch act as International Gateway

# Case Study : SingTel

## - From C5 Consolidation to All IP



- Started with 800K MSAN replacement of old TDM switches
- Introduce central user database to enable fast deployment of new VAS

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# Summary

## Can We Ignore NGN?

### Market

- POTS is still the primary revenue generator.
- The most lucrative users still remain in POTS.
- POTS is still popular because it is widely available and affordable.

### Network Platform

- NGN is a reliable and stable platform for network transformation.
- It has passed through 5 years of simulation, testing, trial and upgrade.

### Differentiated Services

- Flexible platform to create and provision a broad array of VAS.
- Various exciting NGN applications are ready to market.

# Summary

## Can We Ignore NGN?

### Business Planning

- The risk of migration has been thoroughly assessed and minimized.
- NGN network transformation is supported by successful commercial business case from established telecoms.
- NGN migration guarantee smooth service continuity and the subscriber data profile can be fully retained.

### Competency

- Reduce the CAPEX and OPEX of the network.
- 100% inherit the traditional PSTN's basic and supplementary services.
- Innovative voice and non-voice services ensure higher quality of experience

- NGN is the most appropriate choice to resolve difficulties currently confronted by operators.
- Network operator's investment in NGN will be protected in IMS smoothly.



# Thank You

## About Huawei Technologies

Huawei Technologies Co., Ltd. ("Huawei") is a world's leader in providing customized products and solutions for telecommunications operators around the world. Specializing in wireless solutions, networking products, application and software, as well as terminals, Huawei's products have been deployed in over 100 countries and has been serving 28 of the world's top 50 operators.

Huawei's contract sales reached US\$8.2 billion in 2005, more than 58% of which was from international markets.

For more information, please refer to our web sites <http://www.huawei.com>