FORUM ON NEXT GENERATION STANDARDIZATION

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Converged Service Network

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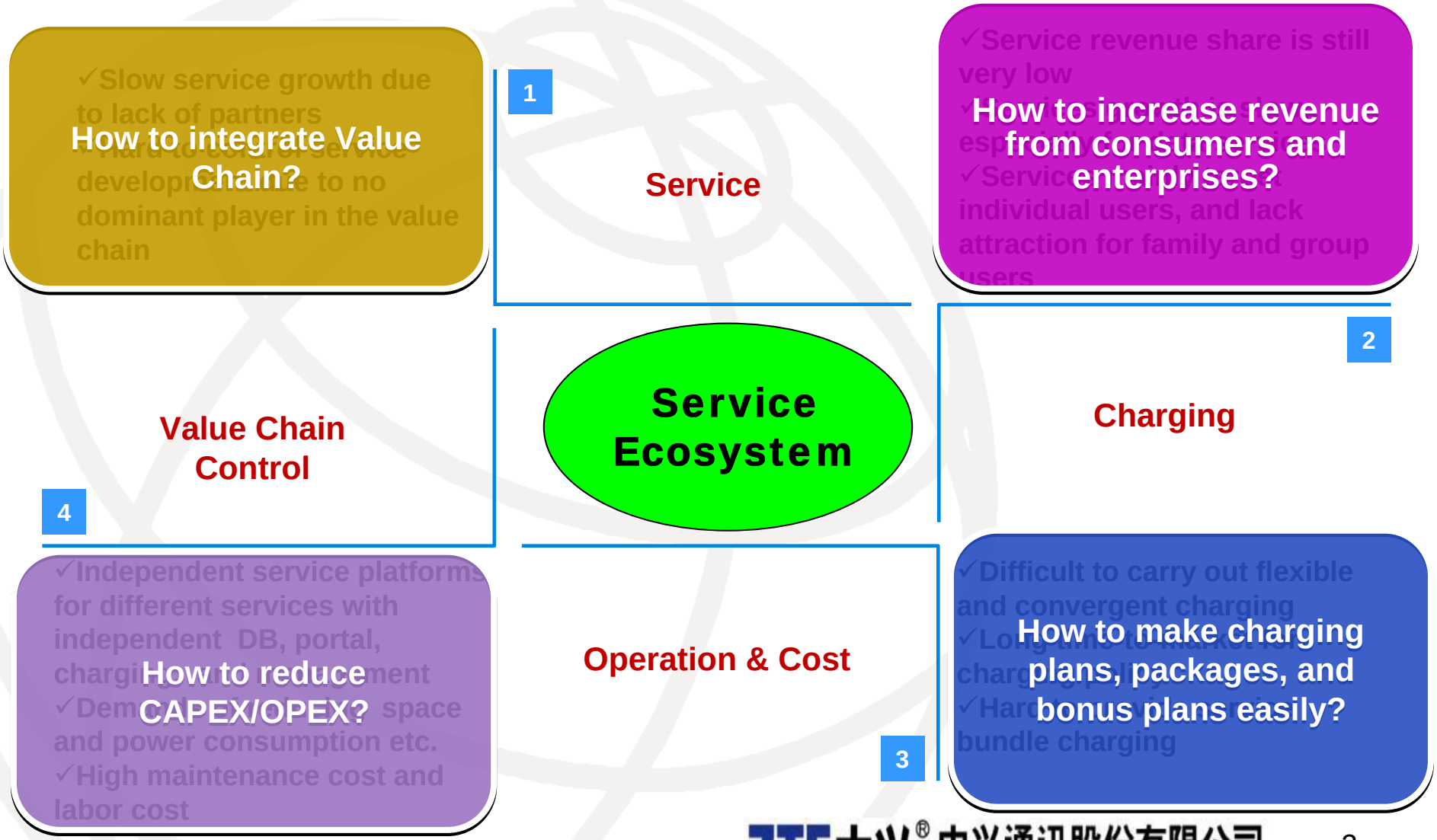
Agenda

- Situation of service ecosystem & platform
- Trends of service evolution
- CSN – Converged Service Network

Current situation of service ecosystem



Limitations of existing service platform

Legacy High OPEX Enterprise-Level SILO Closed

- Most of the existing Service Systems are **LEGACY** systems, hard to satisfy new market requirements, difficult to customize features with high-efficiency.
- Most of the existing Service Systems' maintenance cost is very high, and it goes on increasing with the passage of time. In the current financial crisis, their **OPEX** seems to be particularly **high**.
- Most of the existing Service Systems are **ENTERPRISE-GRADE**, which cannot satisfy smooth expansion requirements brought by current high traffic.
- Most of the existing Service Systems are **SILO** solutions, but nowadays most of the services require convergent solution, which cannot be satisfied by existing systems.
- Most of the existing Service Systems are **CLOSED**, which limits the introduction of 3rd Party (CP/SP) in the service value chain.

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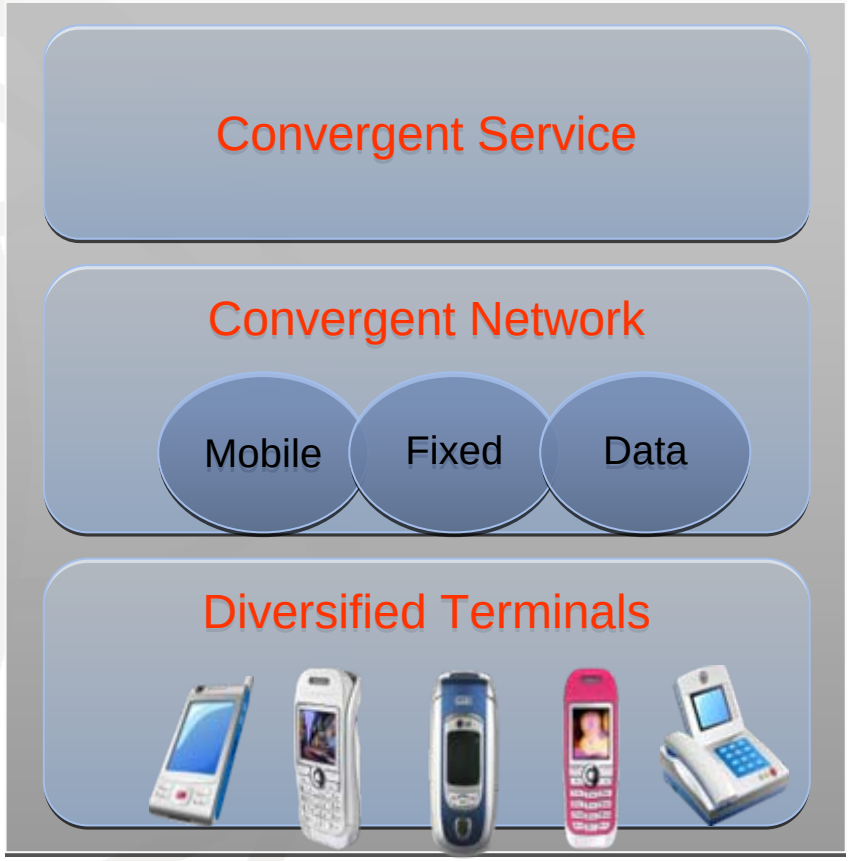
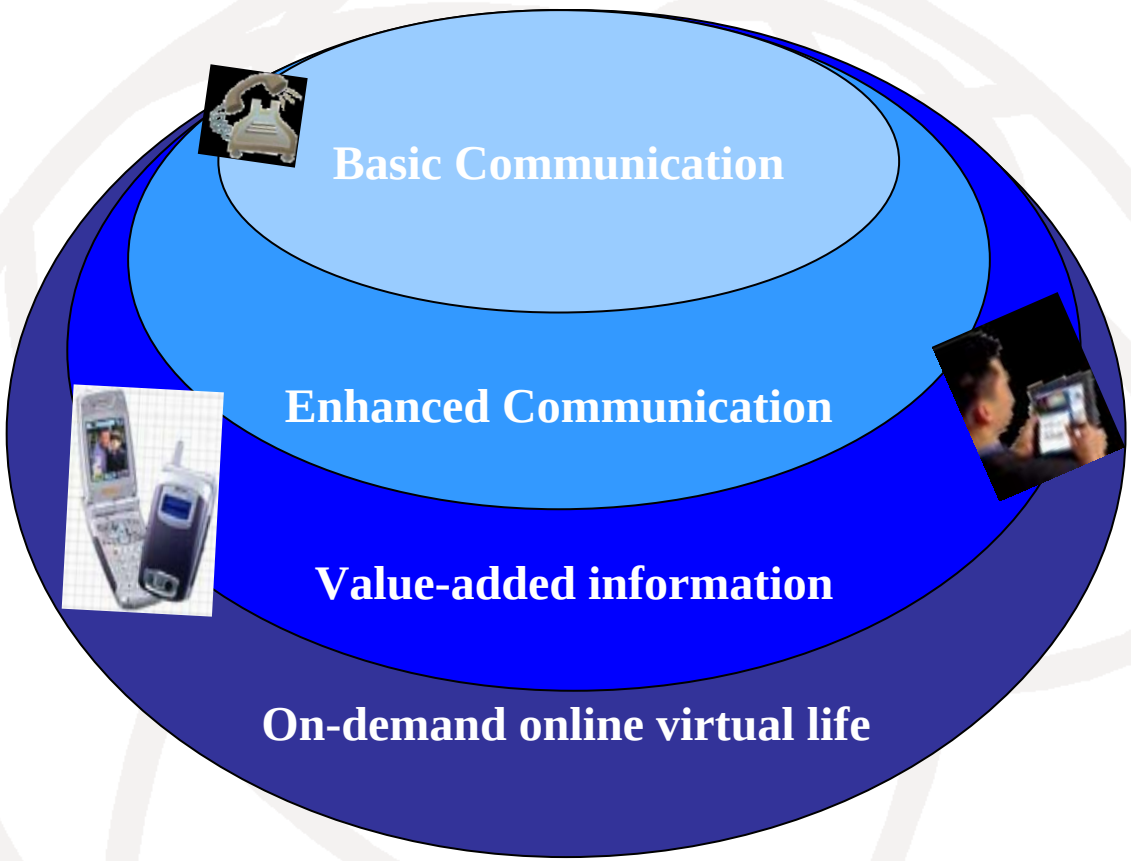
Trends of Telco technology

- Network Convergence: IMS has become more mature, which makes all-network operation possible.
- Service Convergence: Service platform has evolved from vertical to horizontal architecture. Introduction of SDP leads to service/subscriber DB convergence, portal convergence, charging convergence, and ICT convergence.
- Diversified Terminals: Diversified service support.



Trends of service evolution



Customerized

- User Generate Content
- User Generrate Service
- User Provide Service

Convergence

- Terminal Convergence
- Network Convergence
- Service Composition
- Resource aggregation

Multimedia

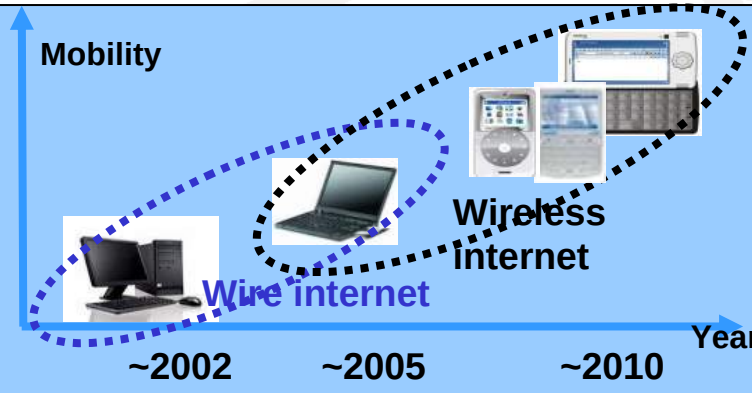
- Rich Media Application

Mobility

- Broadband

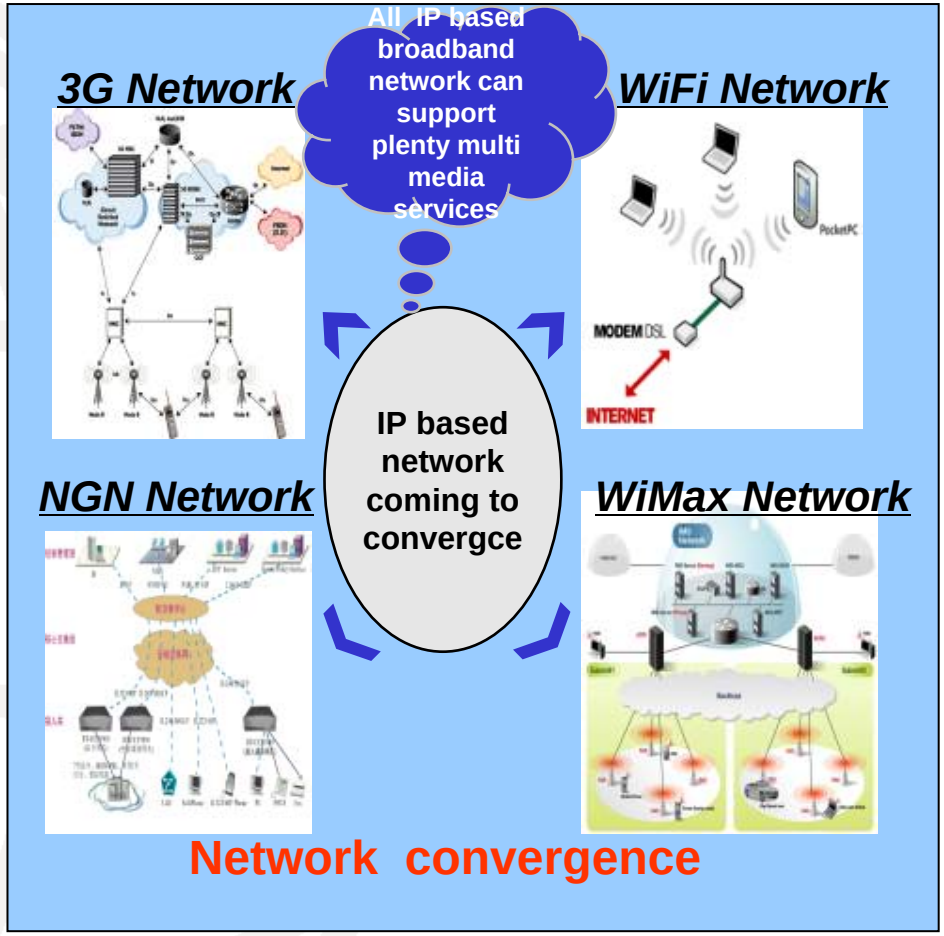
User requirements lead to diversity, high-level and convergent, the focus domain transfers from basic communication to convergent information

Convergence



Terminal convergence

Content and experience coming into consistence



Network convergence

- Converged service network in a continuing evolved environment.

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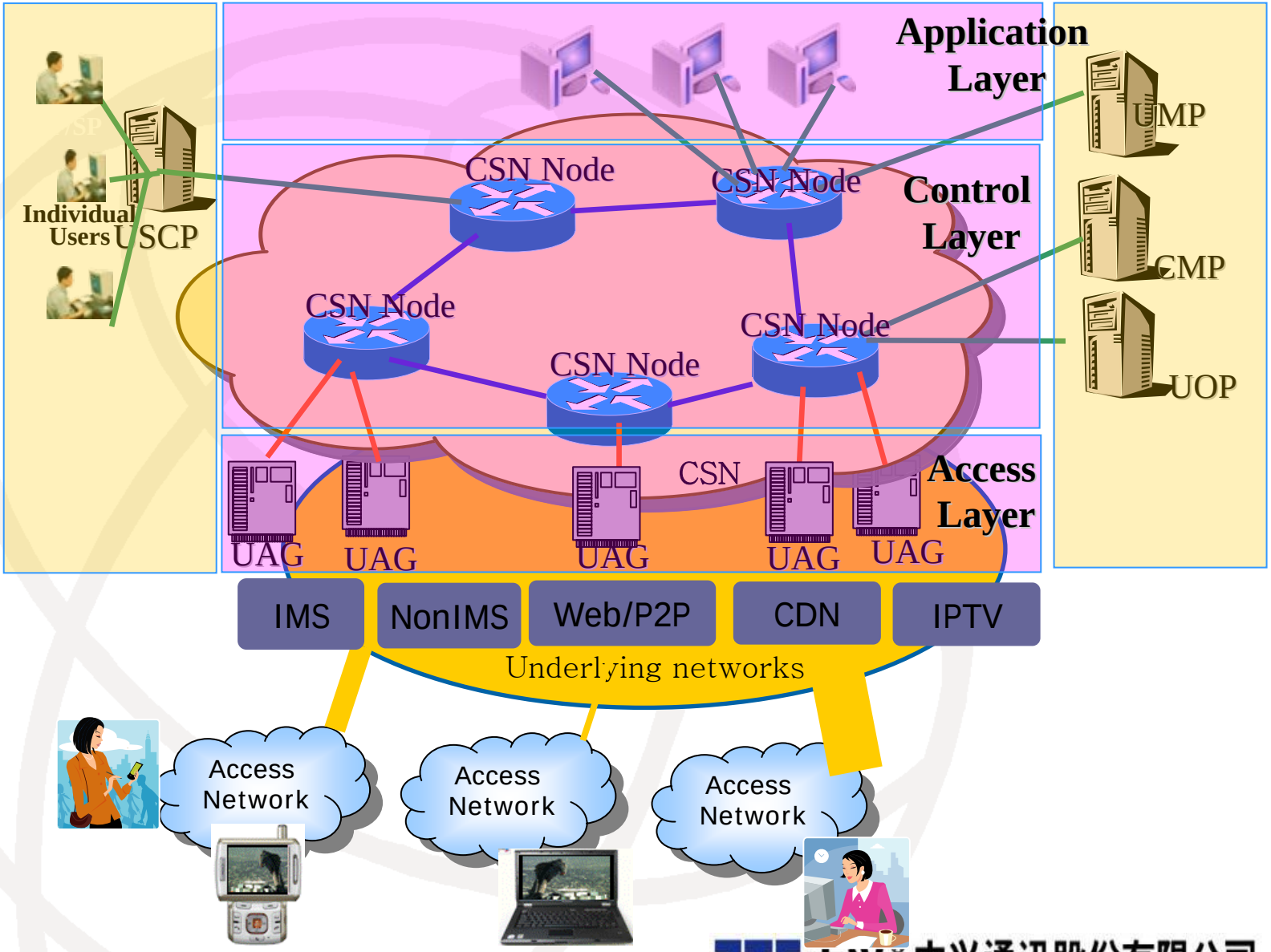
Concept of Converged Service Network

- CSN can converge the service & resource capability of legacy telecom and internet, and provides users with different services, rapidly and agilely, across different domains.
- CSN is a service network, with the capability of self studying and self value-added.

Conceptual architecture of CSN



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Study items

- How to converge the capability from bottom to top, and from legacy telecom network to Internet or even other mini-network.
- How to open the service capability of source & data managed by legacy telecom to the 3rd party of SP and even just an end user.
- What's the optimized solution of legacy service platform converged to the future service network and what's the optimized solution of future SN architecture.
- How to support the personality service capability of telecom operator and service provider.
- How to maintain an unified service providing mode in a converged service network.
- How to design a intelligent service network so the converged service network can able to support the self study and self organization of service capability.

Key issues

- **Globle ID**

  To identify an user's context through an unique identity so that can collect all the information about the user, including but not limited to the terminal information, device capability, network context and service usage and so on.

- **Service, Capability, Resource Addressing**

  To access service capability and resource in an Unified and Semantics way.

- **Open service framework**

  To register, discover and access the network capability (or resource) in a controllable, manageable, chargeable and trusted way and to monitor, trace and statistic the open capability(resource)'s usage.

Key issues (cont.)

- **Unified service creation and execute environment**

  To define the unified network capability (resource) description language and the SCE's basic building block as well as the unified service logic description language to rapidly develop and easily deploy a convergent service.

- **Intelligent policy decision and network adaptation dynamically**

  To define an intelligent and dynamic capability or resource composition and routing (selection) schema according to the .

  service negotiation and conflict detection.

  To define an intelligent and dynamic (re)configure network devices schema depending on the traffic load conditions.

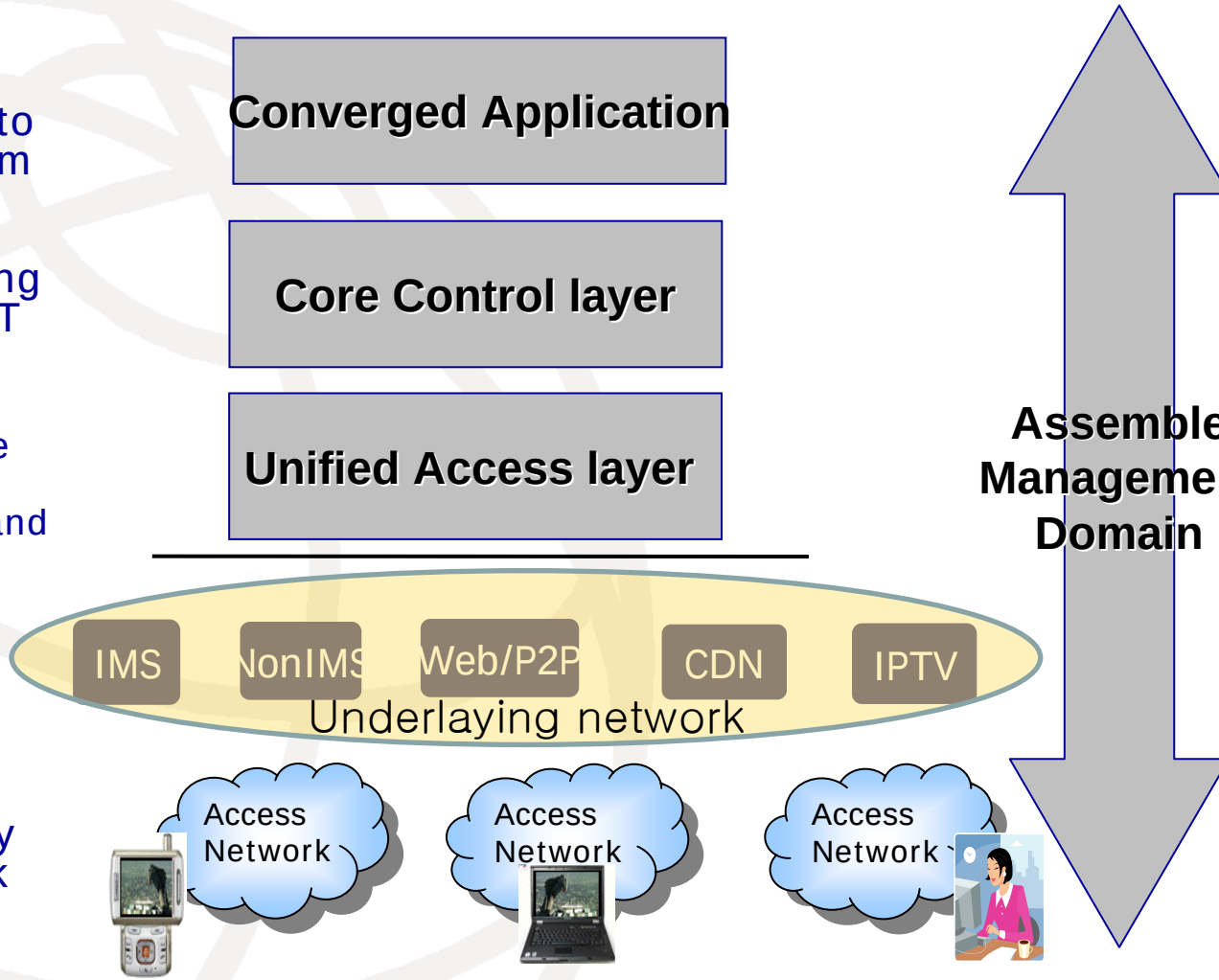
- **Operation supporting based on data mining**

  Analysis of users behavior, extract the characteristics of users to define the user characteristics library modal.

  To monitor the operating quota, status and assessment of operating results and discover the problem by analysis the operating and user usage information and dynamically adjust and optimized.

Work Program for CSN

- The first step of CSN is to study the service stratum convergent framework independent of heterogeneous underlying network such as of IT,CT and Internet.
  - The study of openness
  - The study of convergence
  - The study of controllable, manageable, chargeable and trustable.
  - The study of network optimization
  - The study of user experience optimization
  - The study of Qos and security
- ITU-T Q13/SG13 already has make an initial work program for CSN



Future Converged Service Network Modal

Conclusion

- CSN (Converged Service Network) is the direction of evolution for the service network.
- ITU-T Q13/SG13 already takes it into its work program (Y.NGN-CSN) and contributions are welcomed.

Thank you!

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