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## **INFORMATION COMMUNICATION NETWORK COMPANY OF MONGOLIA**

The trend in telecommunications is for the infrastructure now to be organized and regulated separately and for use of infrastructure to be open to all parties. This enables the best use of the existing network assets and creates more incentive for efficient infrastructure sharing while ensuring new companies to enter the retail market on equal ground and to compete effectively.

Separation enables the sector to better meet the objective of efficient investment in widely available networks and more competition for customer services.

The network and service separation in incumbent telecommunications firms has been considered and discussed in many countries, and now it has already been implemented in many countries to lower or larger extent. As looking at the progress of discussing the separation in many countries, some countries believe that the separation is the solution to create much more competitive environment in the telecom sector, but some countries are still in doubt if it needs to be implemented in their countries. Some countries are blaming the vertical integration of incumbent operators for the slow rate of competition in telecoms market.

The bundling of infrastructure and services together tends to enable a party controlling near monopoly infrastructure to defeat competition at the services level by denying access to essential infrastructure. The fact that networks must be open access will ensure that network construction is driven by the demands from customers. The split between networks and services will reduce the cost of entering the services market and ensure a highly competitive service business.

Vertical separation implies that each layer of the entire service can be provided by different sets of actors. These may be telecom companies, companies from other industry sectors or public organizations. Service providers are able to offer their services to their customers without having their own network facilities, and infrastructure providers do not need to engage in service provision to end-users, but can lease facilities to network operators or service providers. This allows for the use of a wide range of new business models in the telecom sector.

Telecom sector was dominated by national or regional monopolies controlling all levels of the value chain. Considerable changes have been occurred in the vertical structure of telecom and the market has become much more disintegrated structure since the 1980s. Now different levels in the value chain may be controlled by different companies due to the rapid technological change in the telecom sector such as digital technologies and IP protocols, service level convergence as well as network convergence. Number of new players have entered the telecom market and providing their services through the use of leased infrastructure or establishing own networks due to barriers to the entrants.

If the provision of services is separated from the infrastructure, an important barrier to entry on the telecom service market is removed, and a more competitive market for telecom services can be created.

Thus the international trend in information communication development is for both technology and economics to encourage the separation of telecommunications networks and services

The network and service separation approach is being considered and discussed progressively and so we expect that many countries will do some kind of separation in the coming years.

Internationally, there are 4-5 types of separation are being considered and implemented at different stages. These are the structural and ownership separation, functional or operational separation, virtual separation and accounting separation.

In Mongolian case, the structural separation, which is a full break up was done in the Fixed Line Incumbent operator in 2007.

Considering all the above benefits and the international approach of network and service separation, and studying OECD report “Structural Separation in regulated Industries” by the Secretariat, Mongolia has supported the trend, and decided to implement the restructuring of the network and service separation in the telecommunications sector, and implemented it in 2006 by EBRD funded project support.

Mongolia is a large country with a small population. It cannot afford to over invest in low return assets. Accordingly, the Government of Mongolia (GOM) has resolved to move its telecommunications sector into an unbundled framework. s

The telecommunications industry in Mongolia is characterised by large investment in the wire network. The Fixed Line Incumbent operator, Mongolia Telecom company, which was partially privatized in 1995 with 40 percent of its shares sold to Korean Telecom. The company has been strong incentives to exercise market power. It has the opportunity to use both price and non-price factors to create barriers to competition that will have the effect of reducing the options available to end-users.

The dominant enterprise has huge incentives to use its position to degrade competitor services in order to maintain its market share. It may deploy delays and discriminatory practices in negotiating terms of access to the lines through delays in negotiating interconnection arrangements, impose excessive fees and offer inducements to subscribers to transfer to the incumbent.

Bundled privatisations need strong (and costly) ongoing regulatory intervention in order to ensure that their telecommunication markets operate competitively, including allowing access to customers for new entrants and to prevent anticompetitive behaviour. A bundled company has a large incentive to deny access to competitors and a bundled monopoly has no incentive to provide good service.

As a network and service separation, a Network company shall have every incentive to maximise access. Service companies will need to maintain antenna for any changes in customer demands.

Vertical separation makes it possible also for new local infrastructure providers to emerge. These may be founded by local citizens or municipalities, or by providers of other types of infrastructures, such as cable television operators or electricity companies. Such actors can make important contributions to improving local connectivity. It is crucial for the viability of such initiatives that access to the core network and to services on fair terms is ensured.

In implementing the separation trend, the Government of Mongolia has resolved to make a structural separation in the Fixed line Incumbent Operator “Mongolia Telecom” by separating the ownership and operation of telecommunications infrastructure from the competitive services it provides and established a state owned Information Communication Network Company (ICNC), incorporating all monopolistic network transmission assets, including the local loop.

Policy Objectives of Network and Service separation are to:

- enable open access infrastructure to all telecommunications service companies
- create competitive environment in the communication service level
- cease improper way of building parallel networks that causing inefficient costs;
- support the GOM policy goals to reduce tariffs to the customers by reducing infrastructure cost and unit cost

ICNC as a separate “open access” network operator, engages in carrying out operation and maintenance of communication network, deploying and extending new networks and offering the use of these networks to all telecommunications companies / voice operators, mobile operators, ISP providers, banks, insurance companies, security service companies etc/ in Mongolia.

The mission of the Information Communication Network Company is to create nationwide telecommunications access, by providing efficient and effective nationwide information, communication backbone infrastructure that meets all customers’ current and future needs and to provide quality services to all service operators enabling them to offer the lowest possible prices.

### **Basic principle of operation of ICNC**

- ICNC will not now or ever in the future operate telecommunications services in competition with those telecommunications service operators that are its customers using its networks.
- to allow its customers to use its backbone networks on non-discriminatory and equal equal terms for equal services and thereby create the opportunity to increase competition in the sector among service providers
- encourage new types of communication services across the whole of Mongolia and widen the range of the services to remote communities.
- to adhere a principle to build networks without duplicating based on an agreement with other network companies when it builds the most quality transmission network that meets its customers needs,

### **ICNC’s basic operation**

Network company carries out the following basic operations:

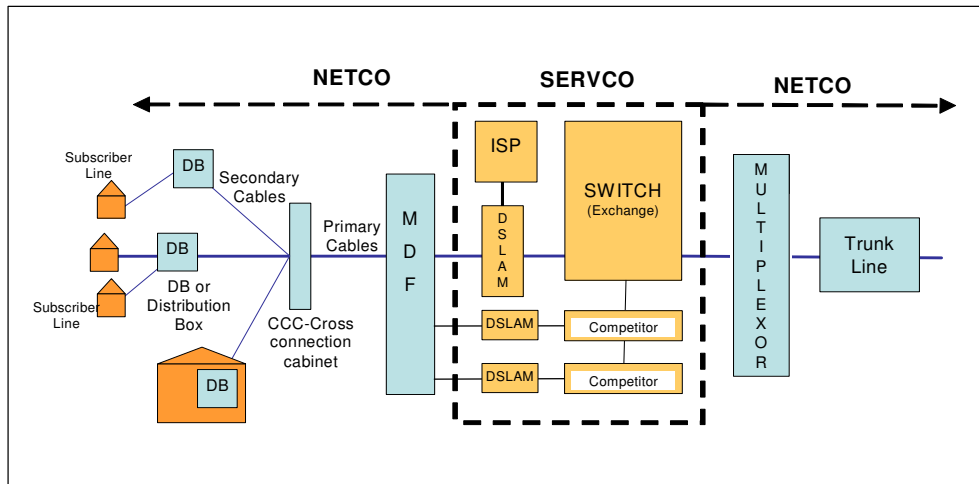
- to own international, long distance and local transmission network, cable network assets (local loops) in the cities, provinces and somons, all the buildings and to carry out operation and maintenance to ensure their permanent and continuous operations.
- To carry out business operation to allow Service companies to lease these assets charged for usage at reasonable prices as per their needs on equal basis.
- To carry out operations to conduct researches and to implement projects such as developing international, long distance transmission and cable networks, introducing new technology to extend and develop its own network assets, increase operation efficiency and create opportunities to allow the use of the networks to all kinds of information communications service companies.

Human Resource of ICNC.

- ICNC has over 1100 employees.
- ICNC has branch offices in 23 aimag/ provinces and total 965 employees in its branches.
- Over 400 employees work in the capital city of Ulaanbaatar

The separation of network and service elements of the fixed-line businesses, which was implemented in Mongolia is set out in a graphical form below.

### **Netco - Servco Split**



Open and non discriminatory access to the backbone network and sub network monopoly elements and local loops is the most effective approach to infrastructure sharing.

*References:*

*Report on Telecom Restructuring in Mongolia by David Butcher and Associates and Guinness Gallagher,*

*The ICT Regulation Toolkit*