

| Radio Frequency Spectrum for 3G

from the Perspective of
Ministry of State Owned Enterprises

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Problem Definition

- Indonesia is relatively overdue in the development of 3G technology, possibly due to licensing and frequency allocation issues.
- Actually, the government has granted 3G licenses and the necessary frequency allocation. However, they are given to new players. Hence, the development of 3G technology in Indonesia has yet to be initiated.
- Meanwhile, existing cellular operators with vast network and customer base in Indonesia are experiencing difficulties in obtaining such license and frequency allocations. This condition could be viewed as the government misplacing its priority on the new players rather than the incumbents.

Pros and Cons

Pros to the policies are:

- opportunity given to new players encourages market competition that will induce more competitors which in turn could reduce prices and enhance services.
- new operators expectedly should bring in new investment to Indonesia, considering the capital intensive nature of the telecommunication industry.

Cons to the policies are:

- the telecommunication industry and the people of Indonesia require credible operators to develop cellular service with 3G technology.
- existing operators with proven technological expertise and vast network are unable to immediately develop 3G technology due to the concerning policies.

Being credible means not only having the interest to the license, but also having the capabilities to provide technological services, develop networks as well as the necessary financial strength.

The Economics

Stand alone 3G operations are not viable:

- There is yet nationwide demand for 3G that would justify significant network rollout.
- The grid plan (no. of BTS required) for a 3G network to be 4x higher than that of GSM is not a problem for existing operators due to their extensive coverage. However, new players are required to build upfront a significant sized network.
- Rolling out 3G as overlay on existing 900/1800 network can save up to 50% of costs as compared to stand-alone roll out.

As economics are unfavorable:

- Current 3G players are unlikely to lead and drive innovation of Indonesia's telecommunication services.
- Current 3G players are unlikely to contribute financially to GoI.

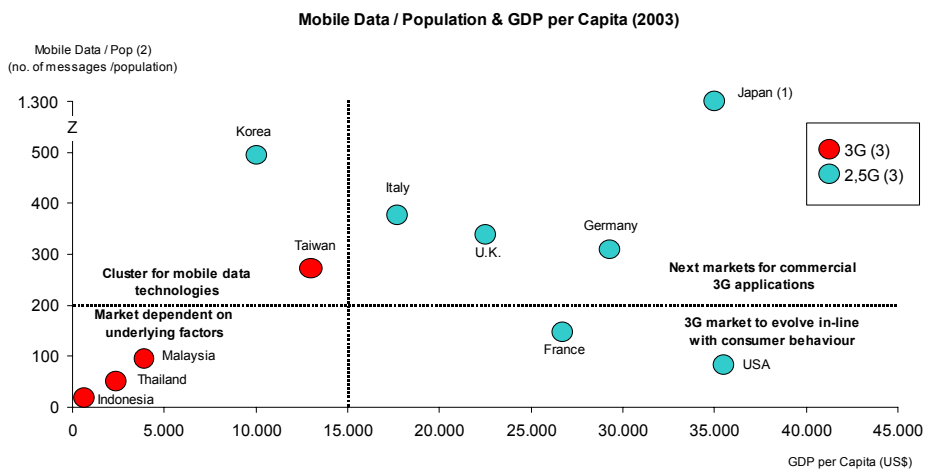
Financial Contribution to Gol

- 3G roll-out by incumbents vs. new foreign players benefits Gol significantly.
- Up to 50% cheaper roll-out directly improves profitability with > 30% of better profitability flows directly to Gol via corporate income taxes.
 - New players will build up a net VAT claim, due to virtually no VAT payable (insignificant revenues) against significant reclaimable VAT for initial investment.
 - Frequency fee is charged per TRX (installed capacity). Incumbents, due to the lower cost, would install earlier and more capacity > higher contribution to Gol.
 - Due to lower installation cost for incumbents, roll out will be more aggressive and reaching more potential subscribers. More subscribers > more revenue > income tax (1% BHP), flowing directly to Gol.
 - Sound profitability of incumbents also benefits Gol via dividends. High profitability (through unlikely) for foreign players does not benefit Gol.

In terms of various taxes, fees, dividends, Gol will always and significantly more benefit from incumbents than foreign players

Source: The 3G Frequency Challenge, March'04

Indonesia: Follower in Mobile Data



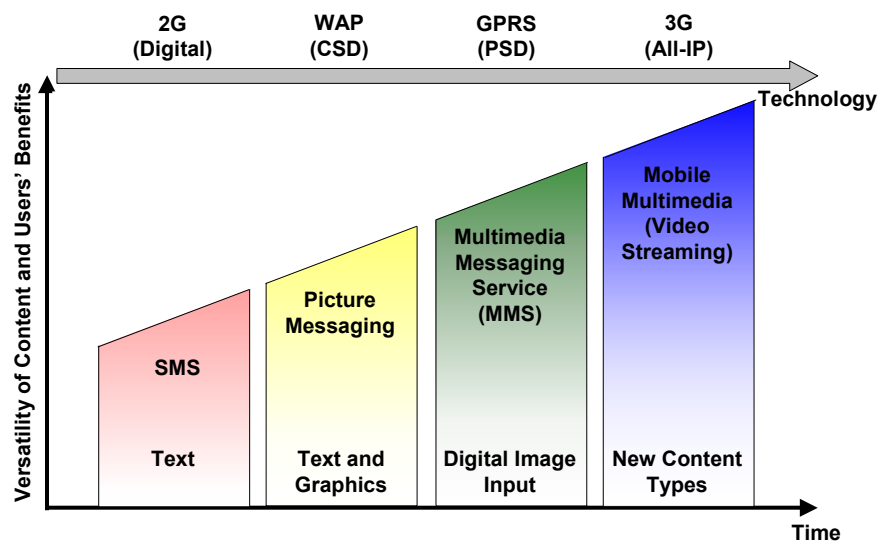
(1) Japan mobile data / sub is -1,370
 (2) Mobile data defined as non-voice and includes SMS, multimedia messaging and other data
 (3) Technology available / launched in 2004
 (4) Indonesia GDP per capita USD877 in 2004 and projected to reach USD1,300 in 2009. Thus, market expected to have simple data needs that is supported by 2.5G
 Source: Ovum, World Bank, IMF, Press Release, Datastream, BCG

Why Auction the Spectrum?

Common Practice:

- Auction
 - Set criteria for bidders.
 - Spectrum block being auctioned based on highest price.
- Beauty Contest
 - Set criteria for selected bidders.
 - Spectrum block given to bidders with highest capabilities to operate 3G services.
- Auction / Beauty Contest Price Determinants
 - Alt.1: Fix rate (upfront/installment).
 - Alt.2: Fix rate + Fee (based on frequency usage per year).
 - Alt.3: No cost.

Technology Advancement & Users' Benefits



Comparison of 3G Roll Out Effort

| 3G by Incumbents | 3G by Foreign Parties |
|--|---|
| Can roll out gradually by using existing BTS in line with developing demand for services. | Need to build a critical mass of new BTS upfront ahead of demand. |
| Due to high speed, transmission requirements for 3G are significant. Incumbents have an existing transmission infrastructure that can be expanded in line with traffic development. | New players have no transmission infrastructure and will have to dimension and build it from scratch. |
| Incumbent operators have a branding and can migrate customers and services naturally to the next technology generation. Critical mass is not so relevant since 3G will be offered in addition to 2G, 2.5G & 2.75G. Minimum risk for unviable business. | New players have no branding and no customers. They will have to fight themselves into the market and establish their brand, which may result in unprofitable business as long as critical mass is not reached. High risk for an unviable business. |

Source: The 3G Frequency Challenge, March'04

Summary

| | 3G by Incumbents | 3G by Foreign Parties |
|--------------------------|--|--|
| Strategically | Telecommunications evolution in national hands. | Evolution depending on foreign players. |
| Penetration and roll out | Due to cost benefits, ability to roll out fast until marginal demand. | Due to unfavorable economics unlike to bring 3G services towards the full potential market. |
| Contribution to Gol | Due to sound and early profitability, significant tax contributions. Significant dividends to Gol: 51% from Telkom 33% from Telkomsel 15% from Indosat | Unlikely to contribute any tax in the first 3-5 years, until break-even. No dividends to Gol. |

Source: The 3G Frequency Challenge, March'04

Chronological Events of Lippo Telecom – Maxis (1/2)

The current cellular operators for GSM 2G and 3G in Indonesia are:

- 2 Generation- Telkomsel (in cooperation with Singtel), Indosat (Singapore Technologies Telemidia)
- 3 Generation – Lippo Telecom (Maxis) and CyberAccess (Charoen Pokphand Group)

Chronological Events of Lippo Telecom – Maxis (2/2)

- The Government has granted two licenses for 3G License (both without tender process):
 - CyberAccess > an un-operated entity (Major Bandwith, 2 x 15 Mhz)
 - Lippo Telecom > an existing minor player (Major Bandwith 2 x 10 Mhz)

These were given based on agreement that the appointed parties would develop cellular business directly and not to be resold. If the appointed parties were proven otherwise, the licenses should be restored to the State.
- After acquiring the license, Lippo Telecom/PT Natrindo sells 51 % stake to Maxis (Malaysia) for an equivalent of USD 100 mn.
- Principally, the license of telecommunication sector should be given to investors who seriously intend to develop the business, not to parties with intention to re-sell the license.

Experience of Other Countries (1/4)

| Country | Issue of Tender/License Awarded | Commercial Launch | License Type | Winners | Total Price |
|---------|---------------------------------|-------------------|----------------------------|--|----------------|
| UK | Completed 04/2000 | Jan 2002 | Auction | <ul style="list-style-type: none"> • TIW (Pound 4.38 bn) • One2one (Pound 4.00 bn) • Orange (Pound 4.09 bn) • Vodafone (Pound 5.96 bn) • BT Celnet (Pound 4.03 bn) | 21.94 bn Pound |
| Germany | Completed 08/2000 | 2002 | Auction | <ul style="list-style-type: none"> • T Mobil (USD 7.7 bn) • Mannesmann (USD 7.65 bn) • E-Plus utchinson (USD 7.62 bn) • Viag Interkom (USD 7.67 bn) • MobilCom (USD 7.6 bn) • Group 3G (USD 7.63 bn) | USD 37 bn |
| France | Completed 06/2001 | Mid 2002 | Beauty contest + fixed fee | <ul style="list-style-type: none"> • Orange (USD 4.5 bn) • SFR (USD 4.5 bn) • Two more to go | N.A. |
| Italy | Completed 11/2000 | 2002 | Auction + beauty contest | <ul style="list-style-type: none"> • IPSE 2000 (\$ 2.02 bn) • Omnitel (\$ 2.03 bn) • Andala (\$ 2.01 bn) • Wind (\$ 2.01 bn) • TIM (\$ 2 bn) | \$ 10.18 bn |

Experience of Others Countries (2/4)

| Country | Issue of Tender/License Awarded | Commercial Launch | License Type | Winners | Total Price |
|---------|---------------------------------|-------------------|----------------------|--|--|
| Norway | N.A. | Completed 12/2000 | Fee + beauty contest | <ul style="list-style-type: none"> • Telenor • Netcom • Broadband mobile • Tele2 | US\$ 92 mn total at \$ 21.5 mn per license & an annual fee of \$ 2.2 mn |
| Finland | Completed 04/1999 | Q1 2002 | Beauty contest | <ul style="list-style-type: none"> • Sonera • Suomen 3G • Radiolinja • Telia | No cost |
| Sweden | Completed 12/2000 | 2002 | Beauty contest | <ul style="list-style-type: none"> • HI3G Access • Europolitian • Orange Sverige • Tele2 AB | \$ 11.02 mn for each license + 0.15% income yearly to the Swedish government |
| USA | September 2004 | N.A. | Auction | • N.A. | N.A. |
| Canada | 2002 (2.5 G in 2001) | N.A. | Auction | <ul style="list-style-type: none"> • Bell Mobility (\$ 0.72 bn) • Rogers Wireless (\$ 0.39 bn) • Telus (\$ 0.35 bn) • W2N (\$ 11.4 mn) • Thunder Bay Telephone (\$ 0.60 mn) | Canada \$ 1.48 bn |

Experience of Others Countries (3/4)

| Country | Issue of Tender/License Awarded | Commercial Launch | License Type | Winners | Total Price |
|-------------|---------------------------------|-------------------|----------------|---|--------------|
| Australia | Mar 2001 | Q3 2002 | Auction | <ul style="list-style-type: none"> Telstra (A\$ 302.02 mn) Vodafone Pacific (A\$ 253.55 mn) Cable & Wireless (A\$ 248.87 mn) Hutchison (A\$ 196.10 mn) Qualcomm (A\$ 159 mn) Array Comm (A\$ 9.45 mn) | A\$ 1.17 bn |
| New Zealand | Jan 2001 | 2002 | Auction | <ul style="list-style-type: none"> Telecom NZ (USD 16.7 mn) Vodafone Mobile NZ (USD 13.2 mn) Clear (USD 11.2 mn) Telstra Saturn (USD 10.3 mn) | USD 59.89 mn |
| Japan | Completed 06/2000 | May 2001 | Beauty contest | <ul style="list-style-type: none"> NTT Docomo Japan telecom DDI corp. | No cost |
| South Korea | Aug 2001 | June 2002 | Beauty contest | <ul style="list-style-type: none"> KTICOM (USD 994 mn) SK Telecom (USD 994 mn) LG Telecom (USD 898 mn) | USD 2.88 bn |

Experience of Others Countries (4/4)

| Country | Issue of Tender/License Awarded | Commercial Launch | License Type | Winners | Total Price |
|-----------|---------------------------------|-------------------|----------------|--|--|
| Hong Kong | N.A. | Q4 2001 | Hybrid | <ul style="list-style-type: none"> Hong Kong CSL Ltd. (\$ 0.28 bn) Hutchison 3G HK Ltd. (\$ 2.39 bn) SmarTone 3G Ltd. (\$ 1.38 bn) Sunday 3G (\$ 0.01 mn) | No auction held |
| Taiwan | Dec 2001 | N.A. | Auction | <ul style="list-style-type: none"> Chunghwa (\$ 270 mn) Taiwan cellular (\$ 373 mn) Yuan-Ze telecom (\$ 270 mn) Taiwan PCS (\$ 240 mn) Asia Pacific Broadband (\$ 281 mn) | \$ 1.39 bn |
| Singapore | May 2001 | End 2003 | Auction | <ul style="list-style-type: none"> SingTel (USD 55.28 mn) M1 (USD 55.28 mn) StarHub (USD 55.28 mn) ?? | USD 165.84 mn |
| Malaysia | July 2002 | ? Late 2003 | Beauty Contest | <ul style="list-style-type: none"> Telecom Malaysia (USD 13.16 mn) Maxis Comm. (USD13.16 mn) | USD 13.16 mn (plus annual fee for each BTS) |

Thank You