Lessons learned at the TowerXchange Meetup Asia 2014

Several key Asian markets migrate toward independent towerco business model

When independent towercos enter a market and build towers for, or acquire towers from, MNOs, the towerco assumes responsibility for the procurement of passive infrastructure equipment and services.

The independent towerco business model originated in India. India is therefore a mature market with two thirds of the country's 450,000 towers owned by towercos, and almost all the new build undertaken by towercos. The Indonesian towerco market is similarly well established, 51% penetrated, and highly lucrative.

The phenomenon of independent towercos building and acquiring towers is newer elsewhere in Southern and Southeast Asia. Most noteworthy is the greenfield rollout in Myanmar, where the ~1,800 towers owned by MPT and the additional 250-400 being built by Huawei for MPT notwithstanding, all the new towers being rolled out by newly licensed international operators Telenor and Ooredoo will be built and owned by independent towercos. TowerXchange forecast that 85% of Myanmar’s towers will be owned by independent towercos by 2018.

The independent towerco business model is starting to take root in several new countries, driven by the launch of Axiata’s towerco, edotco. edotco owns 13,000 towers across Malaysia, Bangladesh, Sri Lanka and Cambodia, plus 12,000km of fibre and plans to build towers in Pakistan. There are also small local towercos in each of these markets, as well as in Vietnam.
**Appendix 1: Summary of estimated tower count and penetration of the independent towerco model in Southern and Southeast Asia**

<table>
<thead>
<tr>
<th>Country</th>
<th>Est # of towers in country</th>
<th>Est % of towers owned by towercos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>26,000</td>
<td>20%</td>
</tr>
<tr>
<td>Cambodia</td>
<td>4,500</td>
<td>33%</td>
</tr>
<tr>
<td>India</td>
<td>450,000</td>
<td>66%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>72,000</td>
<td>51%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>20,000</td>
<td>33%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>4,400 today</td>
<td>60% today</td>
</tr>
<tr>
<td></td>
<td>17,300 by y/e 2017</td>
<td>85% by y/e 2017</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>7,000</td>
<td>31%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>30,000</td>
<td>~10%</td>
</tr>
</tbody>
</table>

—I thank you and your team for organising such a wonderful professional event from which we all benefited

- **Mohammad Razaul Karim Rizvi, Teletalk**
## Appendix 2: Key players represented at the TowerXchange Meetup Asia 2014

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
<th>Representative(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apollo Towers Myanmar</strong></td>
<td>Deploying 1,001 towers in the initial phase of rollout for Telenor</td>
<td>HB, Head of Corporate Finance</td>
</tr>
<tr>
<td><strong>Axiata</strong></td>
<td>One of Asia’s leading MNOs</td>
<td>DB, Advisor to the CEO</td>
</tr>
<tr>
<td><strong>Common Tower Technologies</strong></td>
<td>Malaysian towerco, operating over 250 towers in the country</td>
<td>MH-M, CEO</td>
</tr>
<tr>
<td><strong>Digicel Myanmar Tower Company</strong></td>
<td>Rolling out 1,250 towers in the first phase for Ooredoo</td>
<td>OC, CEO</td>
</tr>
<tr>
<td><strong>edotco Group</strong></td>
<td>Axiata’s carve out towerco. Owns over 12,000 towers across Malaysia, Sri Lanka, Pakistan, Bangladesh and Cambodia</td>
<td>SS, CEO, ThR, CFO, NE, COO, WZA, CMO, JM, Founder, GK, Director, Group Strategy and Commercial</td>
</tr>
<tr>
<td><strong>edotco Bangladesh</strong></td>
<td>edotco recently completed a transaction with Robi in Bangladesh, where they market 5,300 towers</td>
<td>DS, Country Managing Director, AS, Director, Business Development</td>
</tr>
<tr>
<td><strong>edotco KH</strong></td>
<td>edotco markets around 1,500 towers in Cambodia</td>
<td>PW, Country Managing Director</td>
</tr>
<tr>
<td><strong>edotco Malaysia</strong></td>
<td>edotco owns over 3,500 towers in Malaysia, carved out from Axiata’s local opco Celcom</td>
<td>HHZS, Country manager – Malaysia, CWL, Specialist, Marketing Communications, MSBM, Key Account Manager</td>
</tr>
<tr>
<td><strong>edotco Pakistan</strong></td>
<td>edotco owns 12,000km of fibre in Pakistan and is building a towerco organically</td>
<td>MRF, Head of Business Development</td>
</tr>
<tr>
<td><strong>edotco Sri Lanka</strong></td>
<td>edotco markets 2,150 towers in Sri Lanka, acquired from Dialog</td>
<td>MV, Country Managing Director</td>
</tr>
</tbody>
</table>

"It was indeed a pleasure to be part of TowerXchange Meetup Asia 2014. Please accept my heartiest congratulations for bringing the who’s who of the Asian telecom ecosystem under one roof and for flawlessly executing an event of this scale. Perhaps, it wouldn’t be an overstatement to term it as the first of its kind in Southeast Asia. I would look forward to such events organized by you across emerging markets including Latin America, Eastern Europe, Africa and of course Asia."

- **Umang Das, Viom Networks**
Appendix 2: Key players represented at the TowerXchange Meetup Asia 2014

Globacom
One of Africa’s fastest growing MNOs, with licenses in Nigeria, Ghana, Benin and Cote d’Ivoire
Representative(s):
AG, CTO

Global Tower
Operator-led towerco carve-out from Turkey, where they own 20,000 assets. Owned by Turkcell. Also has a subsidiary, UkrTOWER, in Ukraine, where they own 500 towers
Representative(s):
CNB, General Manager
ET, Director

GTL Infrastructure
Indian towerco, where they operate 29,432 towers.
Representative(s):
TK, VP, Strategic Initiatives

Hutchison 3
Majority owned by Hutchinson Whampoa, Hutchinson 3 operates in Australia, Austria, Denmark, Hong Kong, Macau, Indonesia, Ireland, Italy, Sweden, and the United Kingdom
Representative(s):
FK, Site Sharing Roll-Out Manager

Indosat
One of Indonesia’s ‘Big Four MNOs
Representative(s):
FP, Division Head Tower Commerce - Tower Management Group
TF, DH Administration and Compliance

Indus Towers
World’s largest towerco, operating 114,101 towers across India
Representative(s):
BD, COO
MS, Management Officer
SS, CSMO

Irrawaddy Green Towers
Rolling out 1,500 towers in phase one for Telenor Myanmar
Representative(s):
PT, Chairman
AK, Vice Chairman
KD, CFO

KDDI Summit Global Myanmar
Japanese operator and Sumitomo Bank injected around US$2bn into incumbent Myanmar operator MPT earlier in 2014
Representative(s):
TN, Manager

Komet Infra Nusantara (KIN)
Building an interesting Indonesian towerco one acquisition at a time. Current tower count is around 500
Representative(s):
DB, CEO

Ooredoo
Ooredoo launched services in Myanmar in August 2014, with coverage available to 7.8mn citizens in 71 cities, attracting a million subscribers in its first three weeks of operation
Representative(s):
NS, Chief Strategy Officer
SW, Senior Director and General Counsel

I would like to thank you and TowerXchange for organising such an effective conference for the various operators, investors and vendors within the Asian tower space to meet and exchange ideas and discuss trends. We hope TowerXchange will be organising another Asian conference next year and Macquarie will certainly be interested to participate

- Tharma Kunaratnam, Macquarie
Appendix 2: Key players represented at the TowerXchange Meetup Asia 2014

**Protelindo**
Leading towerco in Indonesia, where they operate 10,300 towers. Protelindo is also involved in Pan Asia Tower in Myanmar, where they are rolling out an initial 1,250 towers for Ooredoo

**Representatives:**
- SW, CFO

**Robi**
MNO from Bangladesh – recently divested towers to edotco

**Representative(s):**
- MK, Board Member

**SACOFA**
Independent towerco from Malaysia, where they own over 700 towers

**Representative(s):**
- SO, CEO

**PT Solusi Tunas Pratama (STP)**
Third largest towerco in Indonesia with ~7,000 assets. Recently announced major transaction with XL

**Representative(s):**
- NT, President Director
- JG, Finance Director
- EAS, Operations Director

**Tata Communications International**
Indian mobile network operator

**Representative(s):**
- AS, Head of Sales, Asia Pacific

**Teletalk**
Bangladeshi operator

**Towershare**
Operates 400 towers across the Middle East and Southern Asia, including in their original market of Pakistan

**Representative(s):**
- RH, President & CEO
- SG, Legal Counsel
- FM, Manager Strategy and Investments
- IS, Director
- BK, VP Business Development

**Tower Vision**
Operate 8,600 towers in India

**Representative(s):**
- MS, Founder and Director

**Vimpelcom**
One of world’s leading MNOs with opcos in Bangladesh and Pakistan

**Representative(s):**
- AM, Business Development Director
- FK, Business Development Executive

**Viom Networks**
Operate 43,000 towers in India

**Representative(s):**
- UD, Chief Mentor

**Vodafone**
The world’s second largest mobile network operator

**Representative(s):**
- SK, Principal Category Manager, Energy & Network Sites Infrastructure

**Young Investment Group**
Owner of Eco Friendly Tower Pte., newly formed towerco in Myanmar

**Representative(s):**
- TA, Chairman
Meetup Asia 2014 - Country Breakdown

Meetup Asia 2014 - Seniority Breakdown

“Congratulations on putting together a truly world class event - Pankaj Agrawal, Capitel Partners”