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# Future Broadband Trend and Myanmar Landscape



*Present by:*

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**RedLink Communications**

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# Key Indicators of Myanmar 2013

## Economic

GDP (PPP) total	:\$ 111.120 billion
GDP (PPP) Per capita	:\$1,711
GDP (nominal)total	:\$59.427 billion
GDP (nominal) Per capita	:\$915
Inflation rate	:5.8
GDP Growth	:6.5
Current Account Balance (share of GDP)	:-4.2
Currency	:
Consumer Price	:10%
Imports & Exports	:18.9% : 55.5 %

## Population

2013 estimate	62.9 Million
Population growth rate	2.0 %
Sex ratio: Male/Female	99:100

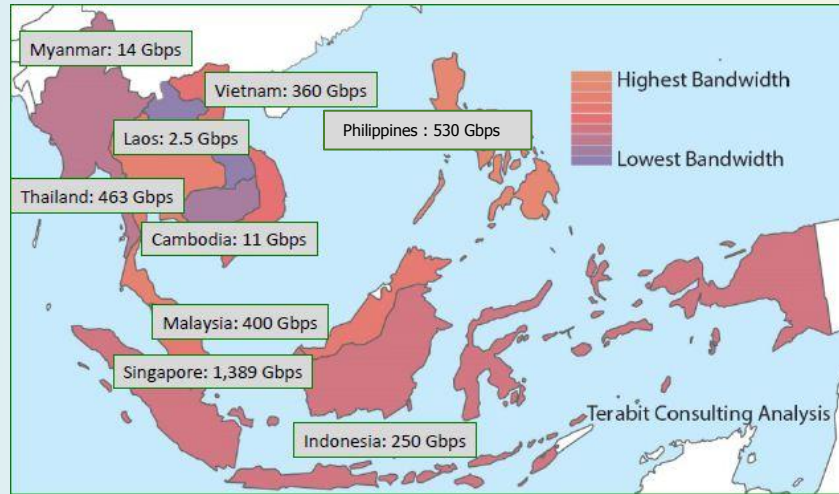
## Social - Education

Working Population	: 47.1%
Unemployment rate	: 6 %

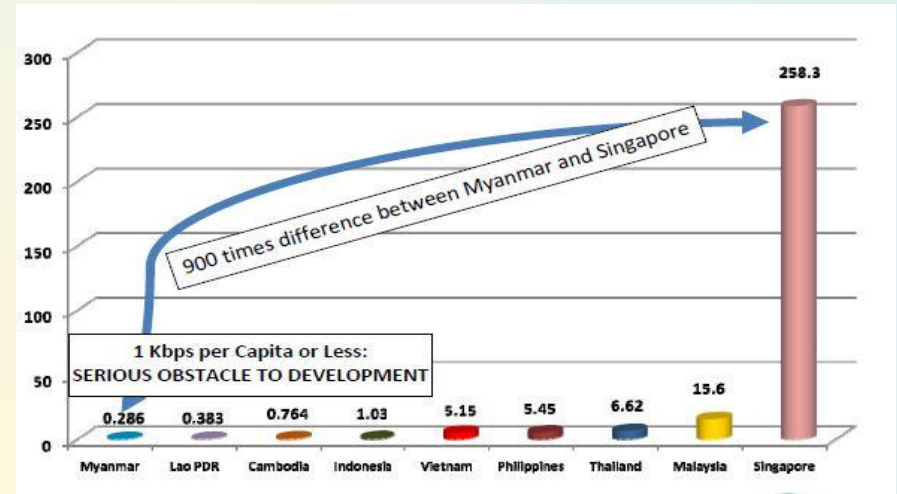


# Broadband Infrastructure in ASEAN Region

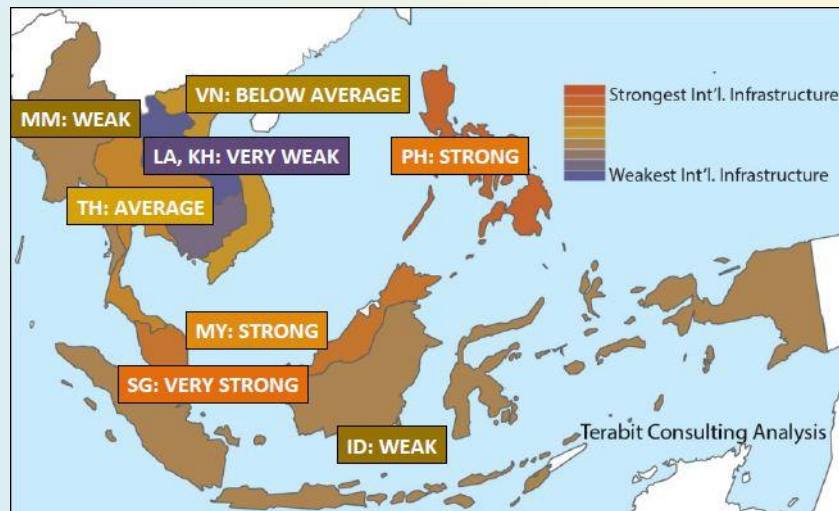
## International Internet Bandwidth, 2012



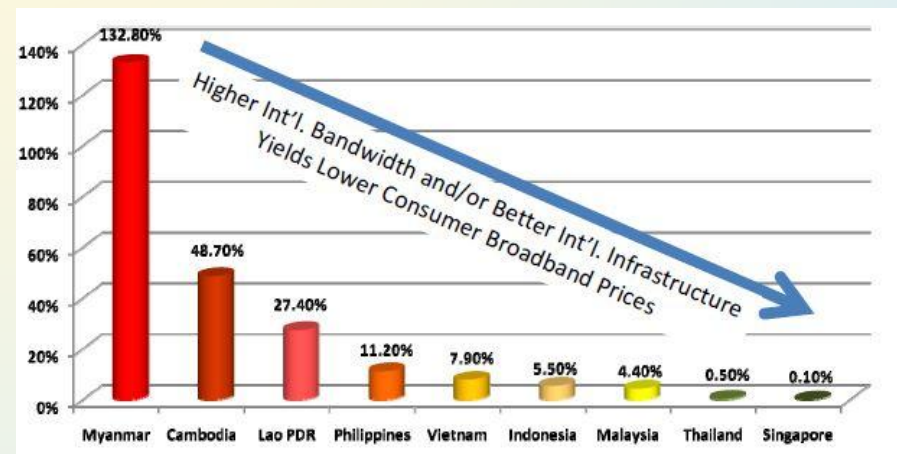
## International Internet Bandwidth Per Capita (kbps)



## Internet Bandwidth Infrastructure



## Weak int'l bandwidth impacts consumer pricing



# Overview of the Broadband Status (2012)

	GDP per Capita, YE 2012 (PPP, USD)	Int'l. Bandwidth per Capita (Kbps)	Int'l. Connectivity	Domestic Connectivity	IP Transit Price	Competitiveness of Telecom Market	Fixed and Mobile Broad-band Infrastructure	Annual 1 Mbps Broadband Subscription + Installation as % of Nominal GDP per Capita
<b>Cambodia</b>	\$2,400	0.8	Weak	Adequate	Very Expensive	Reasonably Competitive	Very Limited	48.7%
<b>Indonesia</b>	\$4,900	1.0	Weak	Adequate	Expensive	Competitive	Growing	5.5%
<b>Lao PDR</b>	\$2,900	0.4	Weak	Limited	Very Expensive	Less Competitive	Very Limited	27.4%
<b>Malaysia</b>	\$16,400	15.6	Excellent	Adequate	Reasonably Priced	Reasonably Competitive	Relatively Strong	4.4%
<b>Myanmar</b>	\$1,900	0.3	Weak	Limited	Very Expensive	Uncompetitive but Planned Liberalization	Very Limited	132.8%
<b>Philippines</b>	\$4,300	5.5	Excellent	Relatively Strong	Very Expensive	Less competitive	Growing	11.2%
<b>Singapore</b>	\$59,500	258.3	Excellent	Very Strong	Inexpensive	Reasonably Competitive	Very Strong	0.1%
<b>Thailand</b>	\$9,240	6.6	Average	Relatively Strong	Very Expensive	Reasonably Competitive	Average	0.5%
<b>Vietnam</b>	\$3,550	5.2	Somewhat Weak	Limited	Expensive	Less Competitive	Limited	7.9%

# Rank of the Broadband (2012)

Country or area	Fixed Subscriptions				Mobile Subscriptions			
	Number	Rank	%	Rank	Number	Rank	%	Rank
Japan	35,556,075	3	27.9	25	144,077,507	3	113.1	2
South Korea	18,354,447	8	37.6	9	51,810,697	8	106.0	4
Vietnam	4,535,696	21	5.0	104	17,378,598	17	19.0	73
Thailand	4,182,458	22	6.2	97	95,940	119	0.1	145
Indonesia	3,030,983	29	1.2	136	79,225,759	4	31.9	54
Malaysia	2,447,906	33	8.4	88	3,945,130	44	13.5	84
Philippines	2,308,994	35	2.2	125	3,969,394	43	3.8	116
Singapore	1,396,352	50	26.1	29	6,600,483	29	123.3	1
Cambodia	30,653	121	0.2	158	1,032,781	70	6.9	100
Myanmar	6,004	1256	0.0108	184	15,830	136	0.0292	147

# Broadband Penetration in ASEAN Region (2012)

Country Name	Population	GDP per capita (PPP int \$)	Number of subscriptions	Penetration rate
Brunei Darussalam	412,238	45,979	19,849	4.81%
Cambodia	14,864,646	2,150	29,734	0.20%
Lao PDR	6,645,827	2,522	93,200	1.40%
Malaysia	29,239,927	14,775	2,459,900	8.41%
<b>Myanmar</b>	<b>60,000,000</b>	<b>1,700</b>	<b>22,000</b>	<b>0.04%</b>
Philippines	96,706,764	3,803	2,146,600	2.22%
Singapore	5,312,400	53,266	1,371,000	25.81%
Thailand	66,785,001	8,459	4,357,398	6.52%
Vietnam	88,775,500	3,133	4,446,600	5.01%

# Myanmar's Telecom Infra

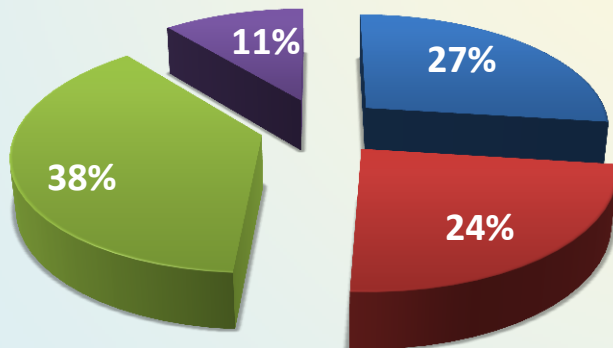
INDICATOR	STATISTIC	INDICATOR	STATISTIC
Teledensity	<ul style="list-style-type: none"> <li>4.74%</li> </ul>	International Gateways:	<ul style="list-style-type: none"> <li>2(NGN-IP-IGW / DMS-300 with IP Trunk 500 E1)</li> </ul>
Total Tele lines	<ul style="list-style-type: none"> <li>2 871 265</li> <li>(fixed lines incl: WLL: 866 084)</li> <li>(mobile lines: 2 276 000)</li> </ul>	International channels	<ul style="list-style-type: none"> <li>4627</li> </ul>
National Backbone	<ul style="list-style-type: none"> <li>Fibre between major cities</li> </ul>	Internet gateway	<ul style="list-style-type: none"> <li>1</li> </ul>
Cross-border Fibre	<ul style="list-style-type: none"> <li>India – Myanmar</li> <li>China – Myanmar</li> <li>Thailand – Myanmar</li> <li>Laos – Myanmar</li> </ul>		
International Links	<ul style="list-style-type: none"> <li>Cable / satellite</li> </ul>	ISPs	<ul style="list-style-type: none"> <li>2 (MPT and Yatanarpon Teleport Co.)</li> </ul>
Last Mile Links	<ul style="list-style-type: none"> <li>Dedicated WBB access</li> <li>MPT satellite BB</li> </ul>	PSTN Exchanges	<ul style="list-style-type: none"> <li>913</li> </ul>
Internet Hosts	<ul style="list-style-type: none"> <li>25 690</li> </ul>	Mobile Exchanges	<ul style="list-style-type: none"> <li>14</li> </ul>
Internet Backbone Bandwidth	<ul style="list-style-type: none"> <li>4.385 Gbit/s</li> </ul>	Transit Exchanges	<ul style="list-style-type: none"> <li>11</li> </ul>
Internet Subscribers	<ul style="list-style-type: none"> <li>52 071</li> <li>FTTN users (6500)</li> </ul>	Microwave Stations	<ul style="list-style-type: none"> <li>340</li> </ul>
Internet Users (% of pop)	<ul style="list-style-type: none"> <li>0.44</li> </ul>	Satellite terminals / stations	<ul style="list-style-type: none"> <li>2 065 (MPT satellite terminals)/ 1 (Intelsat Es) +11 (VSAT Stations)</li> </ul>
Public Access Centres	<ul style="list-style-type: none"> <li>2 500+</li> </ul>		

# Myanmar Broadband Status

- ❖ Very Low Penetration
- ❖ International Bandwidth per Capita 0.3,
- ❖ Weak In Internet Connectivity,
- ❖ Limited Domestic Connectivity,
- ❖ Very Expensive IP Transit Price,
- ❖ Under Planning for Liberalization of Telecom Market,
- ❖ Very Limited Fixed and Mobile Broadband Infrastructure
- ❖ SEA-ME-WE 3, INTELAST 9, MEASAT 3, THAICOM 5 satellite (cross border)
- ❖ Mostly use SEA-ME-WE 3 (only submarine cable system reaching Myanmar)

## Broadband Market Share

■ MPT ■ YT ■ RedLink WiMAX ■ SkyNet MPS

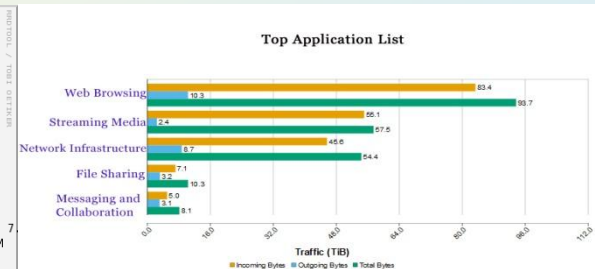
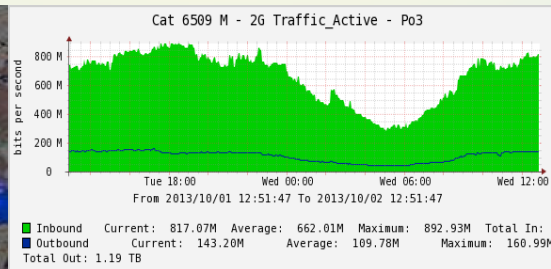


Broadband Market Share		
Service	Subscribers	Market Share
MPT	8,244	27%
YT	7,399	24%
RedLink Wimax	11,881	38%
Sky Net MPS	3,300	11%
Grand Total	30,824	100%



# RedLink-About Us

- ❖ RedLink Communications is an ISP providing with WiMAX, WiFi & FTTx
- ❖ Founded Since 2007 , Commercial launched in 2008
- ❖ Over 11,881 subscribers, 38% Broadband Market Share
- ❖ Cover 3 Cities - Yangon, Mandalay & Bagan
- ❖ Frequency - 2.6GHz for WiMAX
- ❖ BTS (50) Stations , Fiber Length - 146 Km, NW Capacity 40,000+
- ❖ Sale Office (7) & Sale Agent (12)
- ❖ # of Employees over 455 & more than 60% are Engineers
- ❖ Stands at Tax payer ranking #162, Top ranking in ICT
- ❖ CSR is important part of how we operate
- ❖ SEA Game Official Technology Partner - Wifi & [www.27seagames2013.com](http://www.27seagames2013.com)



# Telecom Law and Regulation

- ❖ **Telecommunications law promulgated 2013 Oct (8).**
- ❖ **Regulation will be issued 90 days after the Law.**

## **Aspect Area of the Law**

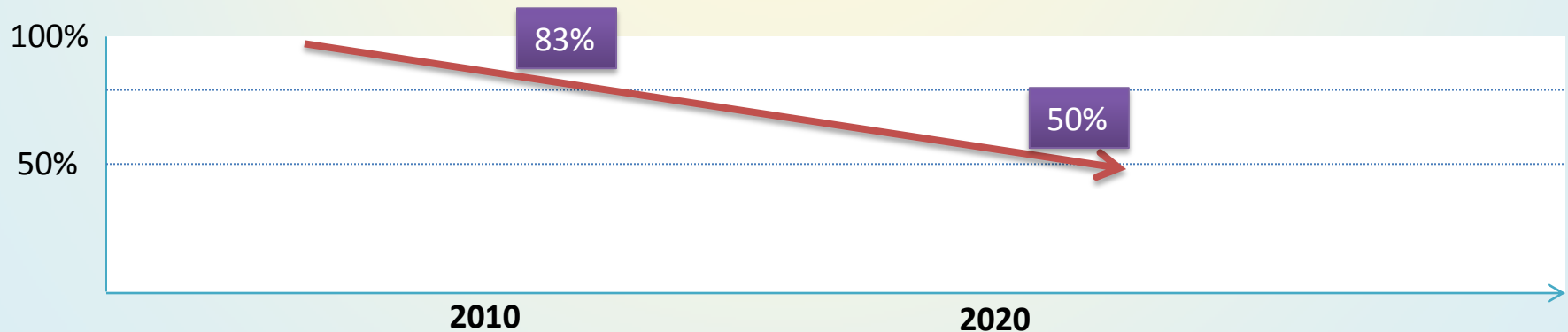
- ❖ **Licensing;**
- ❖ **Frequency / spectrum management;**
- ❖ **Technical standards;**
- ❖ **Consumer protection;**
- ❖ **Competitive practices;**
- ❖ **Universal service;**
- ❖ **Access and interconnection / infrastructure sharing; and**
- ❖ **Transitional arrangements.**

# Future Broadband of Asia Pacific Region

- ❖ Mobile broadband networks are becoming commonplace in Australia and Southeast Asia
- ❖ Anticipated growth of 3G and next-generation LTE networks
- ❖ **Broadband** subscribers in Asia Pacific grew respectively.

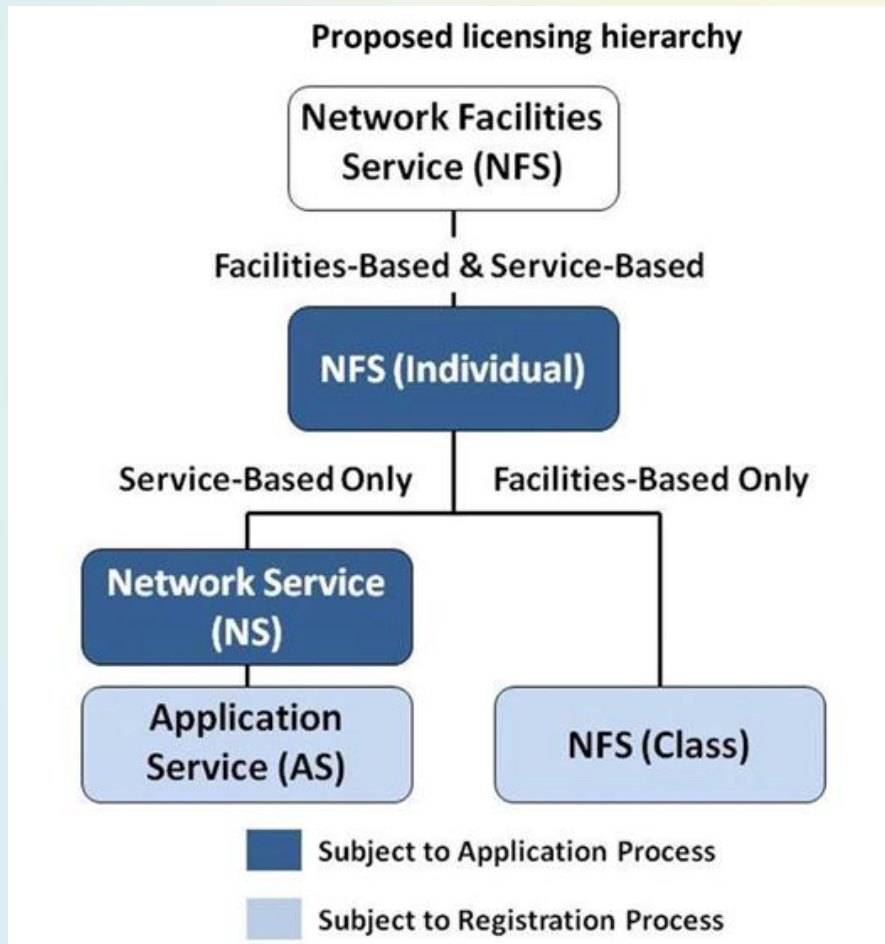


- ❖ **Fixed networks** of Asia Pacific will fall respectively:



# Telecommunications Service Licenses in Myanmar

- (a) Network Facility Service Provider
- (b) Network Service Provider
- (c) Application Service Provider



## Requirements for License Application

### For Inside the Country

- ❖ Grant License such types of service not required approval from the Union Government, grant license by its own decision

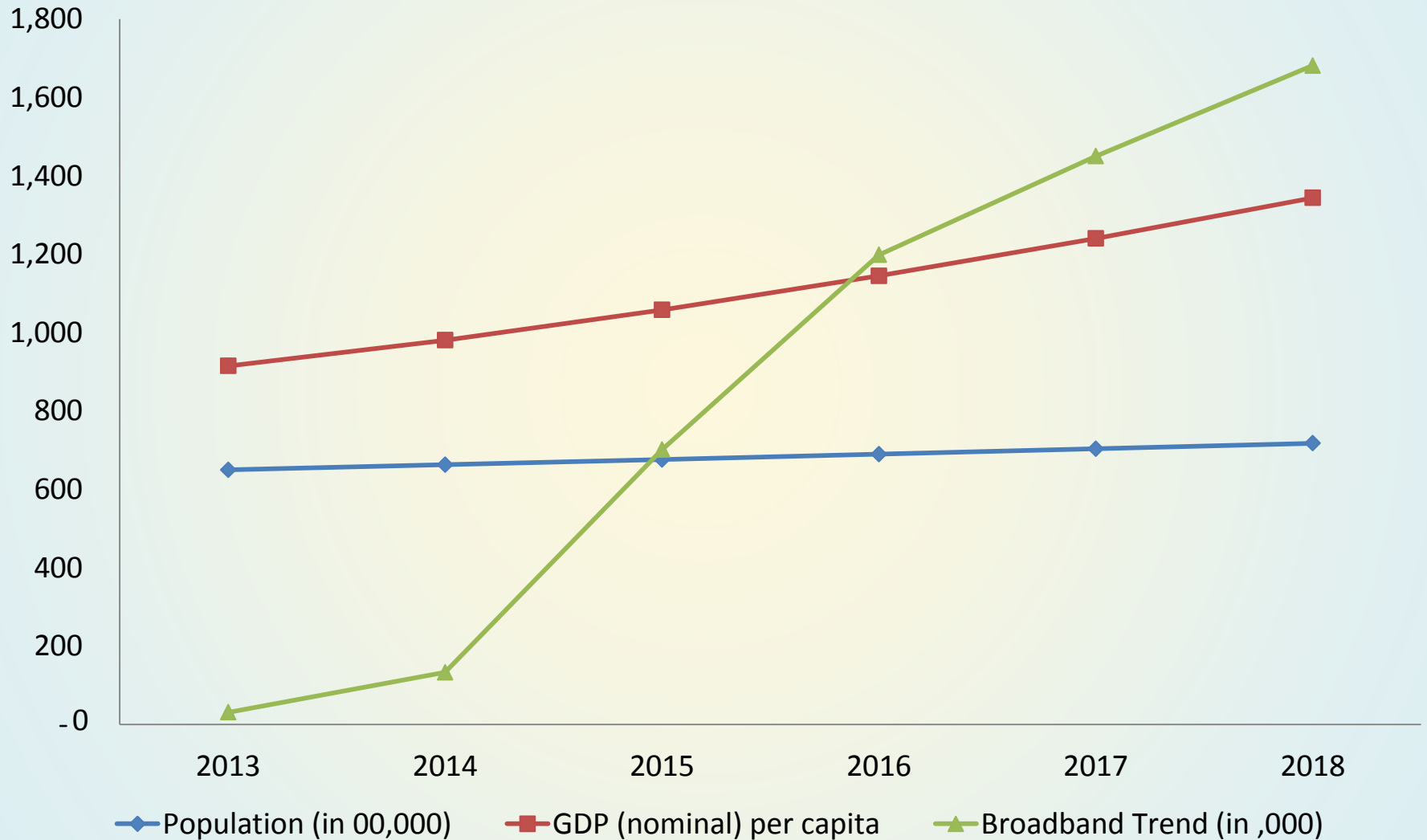
### For Outside the Country

- ❖ Grant License to provide telecommunications service with the approval from the Union Government

### License Period

- ❖ With a license period which may extend from a minimum five years to a maximum twenty years per term

# Forecasting on Myanmar Broadband Trend



# Future Landscape of Myanmar

- ❖ **Highly Investment Opportunity**
- ❖ **Dynamic Competition on new ISP License Holders after the Regulation**
- ❖ **Labor Intensive , Employment Opportunity**
- ❖ **Telecom frontier with least penetration, Huge Market Demand**
- ❖ **Increasing GDP per capita and Growing Penetration Rate**
- ❖ **Driven on the accelerated Technology Trend**
- ❖ **Hard and Soft Infra Development**
- ❖ **Dramatically impact on Socio Economic Growth**



# RedLink's Future Plan

**ISP License**

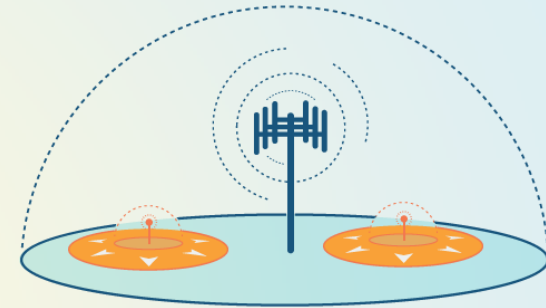
**Nationwide Coverage**

**QOS & Value Added Services**

**Technology Neutral**

**-HetNet, LTE, WiMax, Wifi, xDSL**

**HETNET**



# Questions & Answer



**Thank You!**