



# Edge Cache Deployment Towards The Edge

**APRICOT Singapore**  
**25-28 Feb 2013**

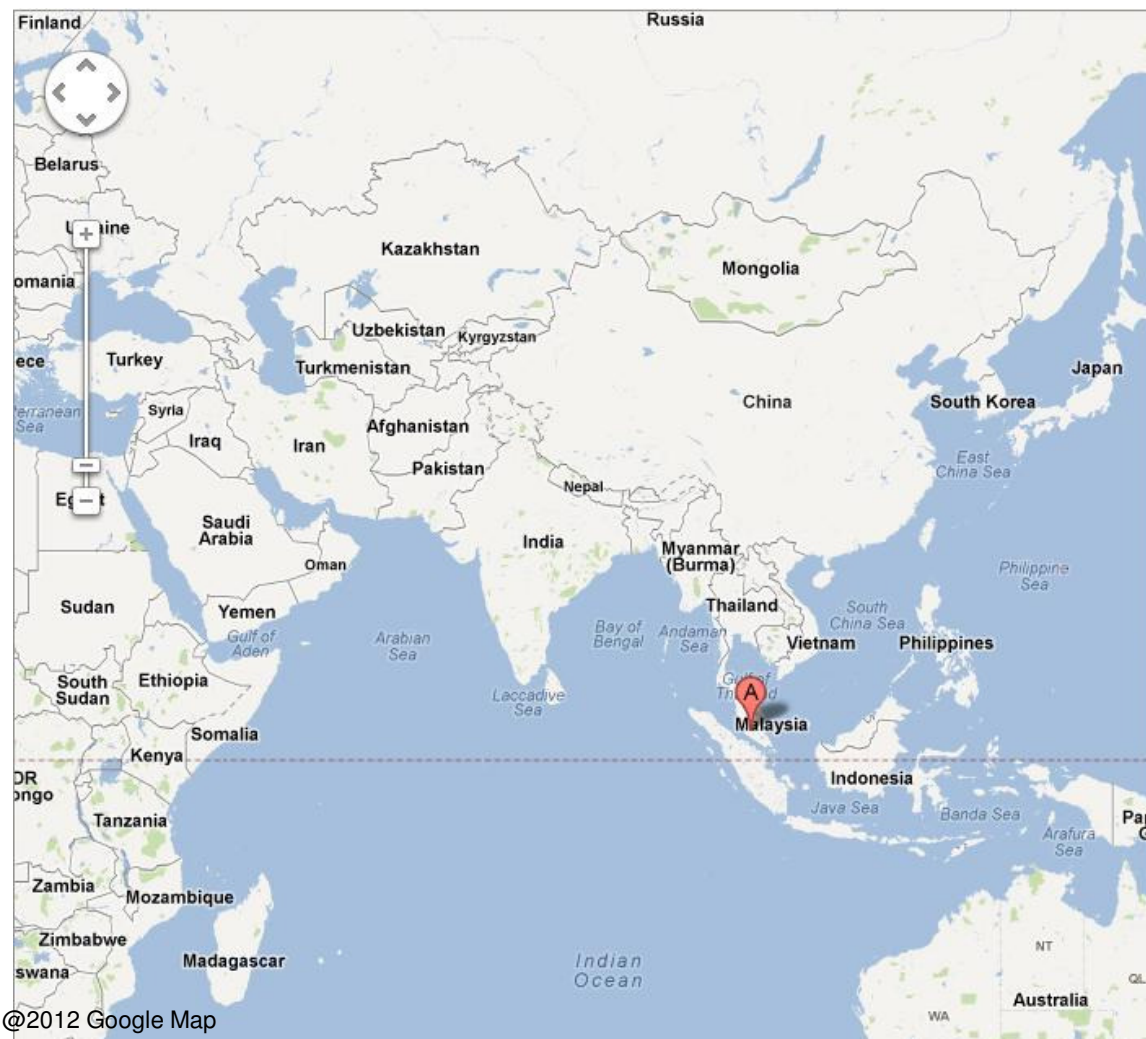
*Noraini Ayop*  
*Telekom Malaysia*  
*[www.tm.com.my](http://www.tm.com.my)*



## About Malaysia

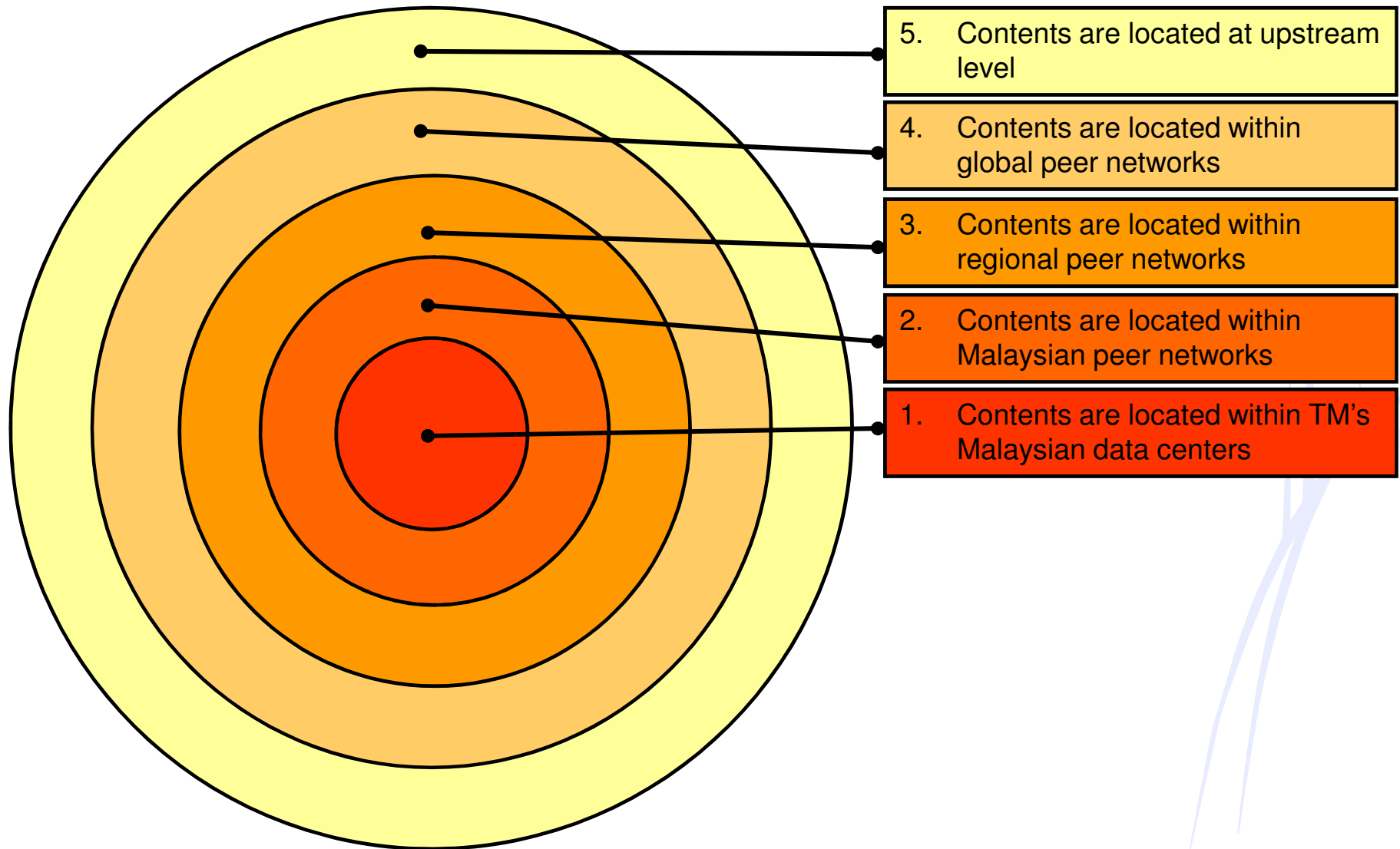
<b>Area</b>	<b>329,847 sq km</b> country comparison to the world: <a href="#">67</a> .
<b>Population</b> (July 2012 est.)	<b>29,179,952</b> country comparison to the world: <a href="#">43</a>
<b>Telephone lines</b> (2010)	4.57mil
<b>Mobile lines</b> (2010)	34.456 mil
<b>Internet users</b> (2009)	15.355 mil
<b>Penetration rate</b> (2011)	63%

Source: CIA Factbook, MCMC



@2012 Google Map

# Getting the contents nearer to the end-users



# Optimizing Content Reachability: To continue with greater effort



5. Contents are located at upstream level

4. Contents are located within global peer networks

3. Contents are located within regional peer networks

2. Contents are located within Malaysian peer networks

1. Contents are located within TM's Malaysian data centers

- To continue with the effort to bringing in more content providers to Malaysia to serve not only Malaysia but also the region connecting via submarine cable and border

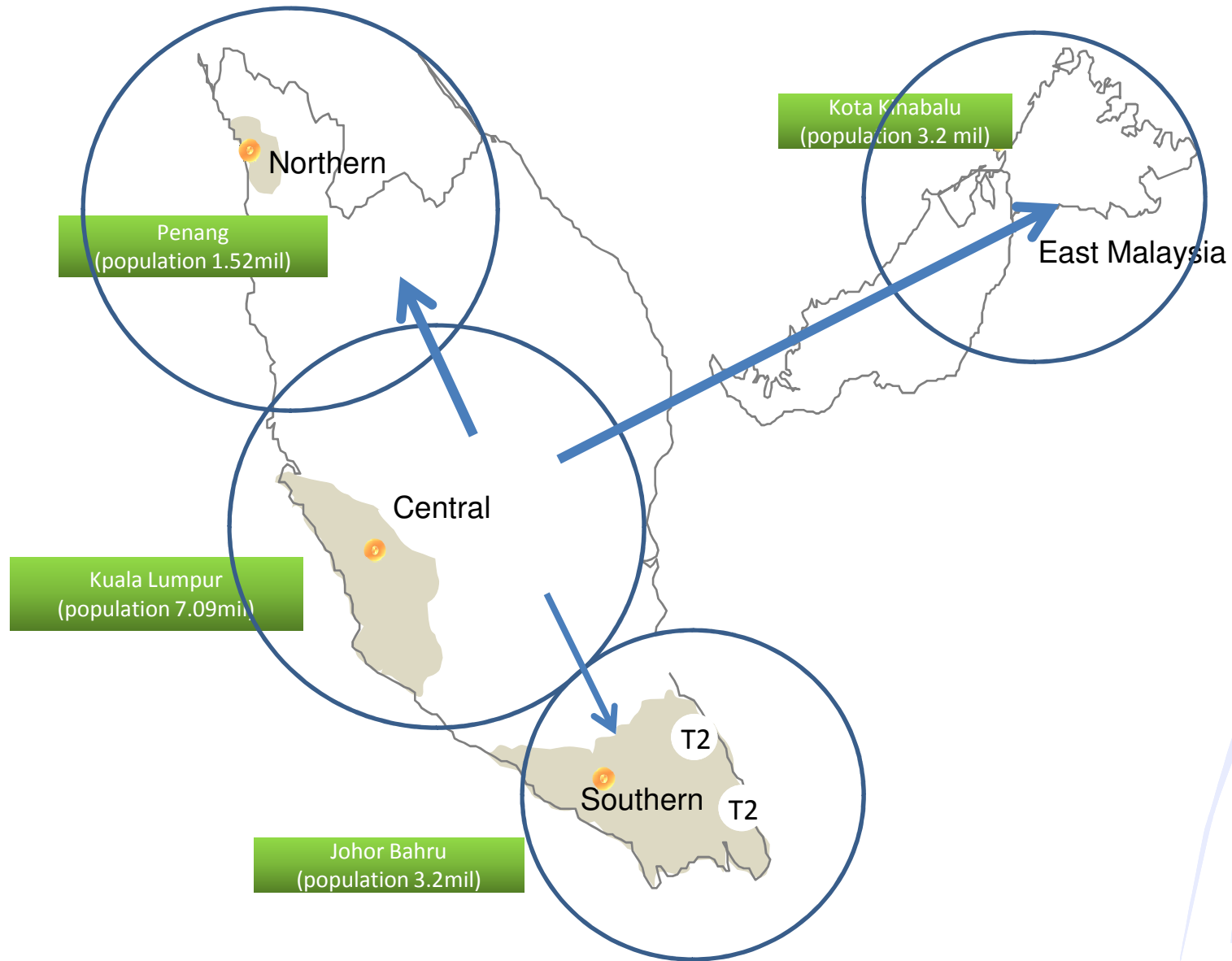
# Bringing contents closer to eyeballs



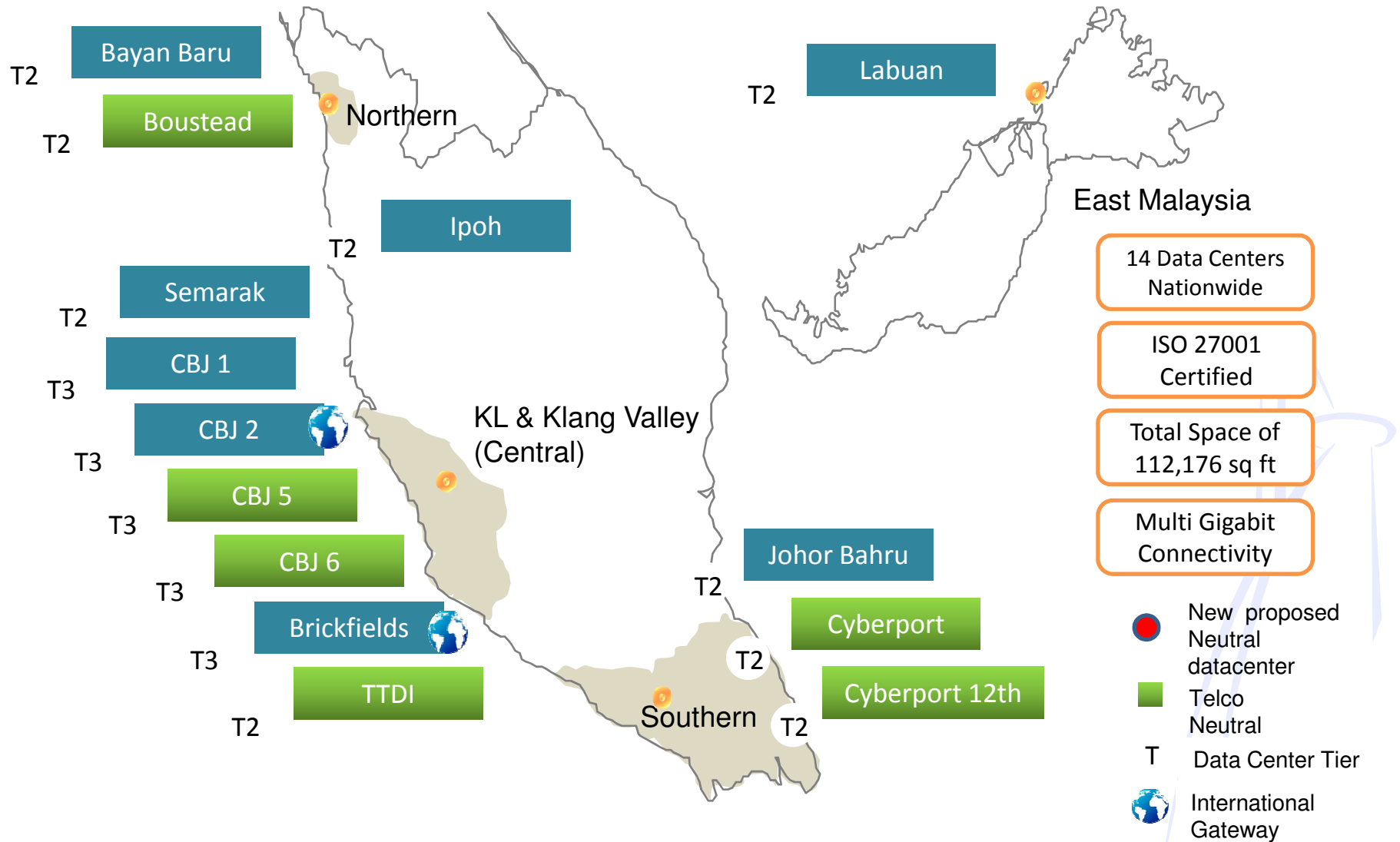
- In 2006 – only 5% content is local. 95% traffic through Asia Pacific peering and upstream in USA and Europe.
- TM deploys edge cache distribution in the network and traffic increase almost double every year.



# Bringing contents closer to eyeballs - next



# Bringing contents closer to eyeballs - next



# Conclusion

- Edge cache distribution provide much better internet experience to the user
- There is always room of further improvement
- Less cost to build transport infrastructure to deliver the content





**Thank you**

**Noraini Ayop**  
**anieayop@tm.com.my**



The screenshot shows the TM website with the following content:

- TM Logo:** Opening up possibilities
- Headline:** Leading the Internet revolution
- Text:** Streamyx is Malaysia's premier broadband service. We've been leading the Internet revolution since the 90s. With connection speeds of up to 4Mbps and a host of value-added services, you can now stay connected with the rest of the world.
- Text:** We offer three categories of Internet solutions. Please choose one below.
- Service Categories:** Three buttons are shown: **Narrowband** (1515, 1525, Eznet 1315), **streamyx**, and **Business Broadband**.
- Browser Status Bar:** Shows "Status: Service-In", "Last: 2009-12-11", "URL: www6.tm.net.my", and "Using IPv6 service of TM".