IPv6 Development in China

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National IPv6 Policy
Present IPv6 status in China
Bottleneck & Driving Force
National IPv6 Policy

Early 2012, seven ministries jointly issued the ‘Next Generation Internet’ development plan about IPv6.

1. Small-scale commercial pilot of IPv6 network & DNS system
2. New business support IPv6 basically

1. Mobile Internet, cloud computing and other new business use IPv6;
2. The new terminal support IPv6 entirely.

- 2013: 8 Million IPv6 user
- 2014: 2015: 25 Million IPv6 user
Main telecom operators started to apply big blocks of IPv6 from 2011, the addresses of three operators has reached /20 each.

<table>
<thead>
<tr>
<th>Organization</th>
<th>IPv6 Block ( /32 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Telecom</td>
<td>4099</td>
</tr>
<tr>
<td>China Mobile</td>
<td>4098</td>
</tr>
<tr>
<td>China Unicom</td>
<td>4098</td>
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<tr>
<td>CNNIC members</td>
<td>2272</td>
</tr>
</tbody>
</table>
Present IPv6 status in China(2)

1. Telecom operator -- China Telecom

China Telecom’s plan is to develop the commercial pilot. In 2013, China Telecom undertakes CNGI project, and promote the IPv6 network coverage. From 2014 to 2015, with upgrading the existing network, China Telecom will focus on several cities network in eastern provinces to promote commercial IPv6 deployment. The number of IPv6 user will be 3 Million.
Present IPv6 status in China(3)

2. Telecom operator -- China Mobile

China Mobile’s IPv6 development is divided into three stages. In the start-up period, China Mobile will carry out the tasks assigned by the State; From 2014 to 2015, the entire network will be upgraded. From 2016, large-scale users will use IPv6. China Mobile will establish IPv6 pilot in ten cities, and develop 3 million IPv6 users. China Mobile also promote IPv6 deployment combined with their own characteristics in 3G and 4G mobile internet.
Present IPv6 status in China(4)

3. Telecom operator -- China Unicom

China Unicom mainly follows three basic principles: the First is a smooth transition. ensure the existing IPv4 users are not affected when carry out the transition to IPv6; the Second is technological innovation. Not only have adopted dual-stack as the main mode of transition, but also focus on new technologies; The Third is business-driven. Ensure all services can be a smooth transition to IPv6 and business be also increased.

in 2013, China Unicom accelerates the IPv6 deployment. Ten cities network will complete upgrading to IPv6, which achieved 3 Million IPv6 users end of this year.
4. Major ICP—Tencent

As we know, Tencent is a very famous internet company and its product named QQ has the maximum IM users in the world. These years, Tencent has cooperated with operators in researching IPv6 transition. Tencent has made IPv6 transformation on their some internet application such as Tencent net and Friend net. They keep on upgrading existing business to support IPv6 even if facing many problems. Their plan is that IPv6 transformation will keep on until 2017.
Bottleneck & Driving Force

IPv6 commercial step has many bottlenecks. The largest one is the cost for telecom operators. They need consider the cost of whole network transformation. They must protect and make full use of their historical investment.

There are two main driving forces,
• IPv6 development progress depends on the national more specific and more powerful policy to promote.
• The whole industry chain should push IPv6 to go on.
Thank you!