

4-1/2010-NT

Government of India
Ministry of Communications & IT
Department of Telecommunications
Room No. 308, Sanchar Bhawan, 20-Ashoka Road, New Delhi
Networks and Technologies Cell

Dated 10th March 2011

Minutes of Meeting

Sub: Meeting with Service Providers for IPv6 Policy Implementation

The Department of Telecommunications released the National IPv6 Deployment Roadmap in July 2010 according to which all Service Providers have to migrate to IPv6 by December, 2011. Therefore, to review the readiness for IPv6 implementation so far by the various Service Providers a meeting with the Service Providers and Lead Organizations of IPV6 Task Force was held on 1st March, 2011 in Sanchar Bhawan under the Chairmanship of Advisor (T), DoT. It was attended by the representatives of the Service Providers and the Leads of working groups. Shri R.M. Agarwal, DDG (NT), DoT welcomed all the distinguished participants and explained about the need for the meeting. The important discussions that took place in the meeting are given below.

2. Sh. R M Agarwal informed all participants that an IPV6 implementation Task force has been created in December, 2010 and is having the following three layers:

a. Oversight Committee

b. Steering Committee

c. 10 Working Groups

3. He informed all that all the Working Groups have been holding regular internal meetings and are progressing on their plans. Further, a Steering Committee meeting on IPV6 Policy Implementation was held on 28th February, 2011 and oversight committee meeting **is proposed to be held in the last week of March, 2011**. He also informed that this meeting has been convened to discuss and review the progress and plans of all the Major Service Providers.

4. Shri N.K. Srivastava, Sr. DDG (TEC) in his address mentioned that this meeting is a follow up of the various meetings that have happened over the period of time. He informed that the IPV6 standards shall be released by March, 2011. He further mentioned that TEC would like to extend its support wherever required so that all the stakeholders meet the timelines given in the IPV6 Deployment roadmap. He mentioned that one letter has been sent to all the Service Providers to send their requirements for their future rollouts. Inputs have been sought from Service Providers for their future plans so that TEC can plan accordingly for GRs and IRs to be taken up in 2011-2012.

Sh. R.M. Agarwal further mentioned that the IPV6 standards and specifications had been circulated earlier. Some changes were suggested by the DCC Members. The new draft with the recommended changes will be circulated soon. He requested all stakeholders to submit their feedback on the same.

5. Shri J Gopal, Advisor (T) mentioned that this was the second meeting of the Service Providers. He stressed that only 9-10 months are left for achieving the first milestone which is Service Providers to make the Network IPV6 compliant. Therefore there is no time to waste and all service providers have act fast for timely implementation of IPV6 Policy of the Government. He hoped that this meeting will be very useful. Further, he was happy to see such an active participation from all Service providers.

6. With this, all Service Providers were invited to discuss their presentations and the "Assessment of IPV6 Readiness" Questionnaire that had been circulated earlier.

(i) Sh. Amit Tank, Senior Manager, Vodafone, first started with a presentation on Vodafone's IPV6 Readiness. He mentioned that they already have MPLS based VPNs to handle IPV6. The network that they currently have is on Juniper. 6 PE Configuration will help to provide IPV6. They are also in a position to provide IPV6 to clients immediately.

(ii) Sh. Ashok Chhoker, Senior Manager, HCL Infinet Ltd., presented his company's readiness by discussing the questionnaire circulated earlier. He mentioned the need for security in the IPV6 scenario. To this point, Sh. R.M Agarwal mentioned that in the August 2010 meeting of Service Providers a need for a Security Group was mentioned. Such a committee has now been formed and the nominations are invited from all stakeholders.

(iii). Sh. Rajesh A. Shinde, Head, Data Planning & Engineering, Reliance Communications then presented his company's readiness by discussing his presentation. He mentioned the need for a knowledge sharing among different groups created. To this point Sh. R M Agarwal mentioned that a Working Group called the " Knowledge Resource Management Group " has been created and it is the mandate of this group to create a knowledge base and share the same.

(iv) Sh. Shinde also mentioned that Government needs to provide some special incentives like subsidies and tax incentives to further encourage the adoption. To this point Sh. RM Agarwal asked for a proposal to be submitted by Reliance on what exactly are the requirements and how the same can be implemented.

(v). Sh, R.K. Mehta, Head Regulatory Division, Quadrat Televentures Ltd, then presented his company's readiness by discussing the readiness questionnaire. He concluded by mentioning that they will be ready to launch the IPV6 services by December, 2011.

(vi). Lt. Col (Retd.) M.M Pattnaik, Director & CTO then presented his company's readiness by discussing his presentation. He mentioned that Cisco has updated all routers and they also have IPV6 training available. With this he started discussing the readiness questionnaire and mentioned that they are on track to launch the IPV6 services by December, 2011.

(vii). Sh. Ramesh Chandra, GM (Network), Bharti Airtel Ltd. mentioned that the issue allocating NIR to India by APNIC is being taken up in different forums. He mentioned the need to have IPV6 compliant end user equipments for e.g. absence of IPV6 compliant mobile handsets in market. He further mentioned that Government is taking a lot of initiative so private players need not consider this as liability. He stressed that first let the content and OEMs ready. Then the problems would get simplified for service providers. He further gave the suggestion for creation of

a content provider group. Post this, he discussed the readiness questionnaire and mentioned that Airtel is on track to achieve the IPV6 readiness by December, 2011.

(viii). Sh. A K Seth, Chief Technical Advisor, MTS, mentioned that most of the IPV6 compliant customer premise equipments (CPEs) are quite expensive. He then discussed the readiness questionnaire and concluded by mentioning that MTS is on track to launch IPV6 services by December, 2011.

(ix). Sh. Shyam S Nair, Principal Regulatory Officer, SIFY, discussed the readiness questionnaire and mentioned that SIFY is on track for the launch of IPV6 services by December, 2011.

(x). Sh. Narender, DGM (MTNL) discussed the readiness questionnaire.

(xi). Sh Chandrasekhar, GM (Corporate Technology), Tata Teleservices, mentioned that US has around 50% IP addresses, whereas APNIC has only 23%. This poses a serious problem of the total IP addresses to be available to India. He stressed that the IPV6 Capability on the end devices is very essential. He then discussed the readiness questionnaire and mentioned that they are ready from the network side but it is required that the end user equipment should be ready as well.

(xii). Sh. Naveen Dhar, Manager (IP engineering), Tata Communications Ltd. presented TCL's readiness through a presentation covering the readiness questionnaire. He also suggested that in order to increase the traffic on the IPV6 network, the top 5-10 websites in terms of total traffic handled (for e.g. IRCTC) should be IPV6 enabled.

(xiii). Sh. Parveen Kumar, Sr. Engineer, Hughes Communications India, Ltd. discussed the IPV6 readiness Questionnaire and mentioned that they are on track to meet the deadline of December, 2011 for the launch of the IPV6 services.

7. Post the presentations from all Service Providers, Sh. R.M Agarwal then discussed the various presentation given by the lead organizations in the Steering Committee Meeting held on 28th February, 2011. He first discussed the Presentation on the progress made by WG9: IPV6 implementation in the Government Sector, where DoT is the lead Organization. As there was no representation from BSNL, which is the lead organization for WG1: Training & Awareness, Sh. RM Agarwal updated all on the progress made by this workgroup. Post this, WG6: IPV6 Pilot Project and WG7: Application Support where Tech Mahindra is the Co Lead & Lead respectively discussed the progress made in each of the areas.

WG4: India6 Networking Group where TCL is the Lead presented the progress made so far. At this point, as all the Service providers were also present, they were requested to provide their Pan India Internet Network Infrastructure details. It was then mutually agreed that all such information would be shared with TCL so that they can study the existing Internet Network and come up with the Network Gap report.

8. Finally, there was a vote of thanks by Sh. RM Agarwal thanking all the distinguished guests who had participated in the meeting for having spared time from their busy schedule and made the discussions more fruitful.

9. **Summary/ Actionable Points:**

1. All the major Service Providers to send the soft copy and the hard copy of the completed IPV6 Readiness Questionnaire to DDG (NT), DoT.
2. All the major Service Providers to share the details of their Pan India Internet Infrastructure with TCL, lead WG4 of India IPV6 Task Force for preparing IPV6 infrastructure readiness report of the country.
3. To take up with top Indian website (like IRCTC) for making these sites IPV6 enabled.
4. Knowledge resource Working Group to spread its activities for awareness of IPV6 among masses.
5. Possibility of creation of content provider working group for IPV6 compliant contents.
6. To make available cheaper IPV6 compliant CPEs.(Customer Premises Equipments)
7. To take up for formation of NIR (National Internet Registry) on top priority.
8. All major service providers to submit IPV6 progress report in the given format to DDG (NT) in the first week of following month. Such next report may be submitted by 7th April, 2011.
9. Meeting with the major service providers to be conducted on a monthly basis, next such meeting proposed to be held in 2nd week of May, 2011 in the same venue.

(R.M. Agarwal)

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1. Secretary (T)
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5. Additional Secretary (T)
6. CMD, BSNL

7. CMD, MTNL
8. Sr. DDG, TEC
9. Shri N. Ravishankar, Jt. Secretary, DIT

Copy for information and necessary action to:

1. All Associations for circulating among their members for implementation of above decisions.
2. All lead organizations of India IPV6 Task Force
3. All Service Providers/ Participants