



EMPOWERING RURAL MASSES THROUGH WIRELESS CONNECTIVITY

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**THE REPORT ON THE WIRELESS FOR  
COMMUNITIES (W4C) SUMMIT AT 7TH  
MANTHAN AWARD ANNUAL DIGITAL  
FESTIVAL FOR DEVELOPMENT**

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**Organised by**

Digital Empowerment Foundation ([www.defindia.net](http://www.defindia.net))

**DIGITAL  
EMPOWERMENT  
FOUNDATION** &

Internet Society (ISOC) ([www.isoc.org](http://www.isoc.org))



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**Co-presented by:** Digital Empowerment Foundation, Department of Information Technology and Internet Society

## SESSION FOCUS:

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1. Implication of wireless, mobile & broadband since these technologies help transcend traditional infrastructural bottlenecks in rural areas
2. Sharing and showcasing best wireless/broadband based initiatives & implementations where such networks have proved to be highly effective in serving the masses
3. Building connectivity & information platform/tools to keep farm and non-farm villagers updated with latest news & information about their respective occupations
4. Connecting the government and business services that can reach the masses through wireless & mobile networks in local languages and in oral medium

## THEME & METHODOLOGY:

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The main objective of the session is to build a strong case & compelling advocacy for maximizing adoption of wireless technologies for rural empowerment and enable delivery of content and services reach masses. Some of the celebrated pioneers in South Asia will showcase their best practices in using connectivity tools to empower masses. Practitioners will interact with stakeholders from all sectors to share the methods, tools and practices which are proven to effectively connect people across in remote areas. The Moderator will introduce the Chair and Speakers and co-ordinate the session. The Chair of the session will ensure that the interactions lead to a rich compilation of recommendation advisory which shall be shared with relevant government department, industries and associations. A Rapporteur shall note minute by minute proceedings of the session.

The Session will be coordinated Rajnesh D Singh, Head, Regional Bureau for Asia, ISOC

## KEYNOTES:

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- Shri D. K. Jain, Joint Secretary, Ministry of Panchayati Raj, Government of India
- Shri Gaurav Gupta, IAS, Managing Director, Karnataka State Road Transport Corporation
- Mr. Vishwanath Alluri, CEO & Chairman, IMImobile

## CASE STUDY PRESENTATIONS & PANEL DISCUSSION:

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- Chanderi Wireless – Empowering traditional communities: Osama Manzar
- Nepal Wireless – Connecting Rural Nepal to the Global Village: Mahabir Pun
- Air Jaldi – Wireless networks for wired communities: Michael Ginguld

## PANEL FOR DISCUSSION

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1. Mr. Mahabir Pun, Nepal Wireless & Magsaysay Awardee
2. Mr. DK Jain, Joint Secretary Ministry of Panchayati Raj
3. Mr. Michael Ginguld, AirJaldi
4. Mr. Deepak Maheshwari, Expert on Spectrum & Microsoft India
5. Mr. Rajesh Chharia, President, ISPAI
6. Mr. Subho Ray, President, IAMAI
7. Mr. Rajat Kathuria, ICIER
8. Mr. Rajen Varada, CEO, LabourNet
9. Mr. Dharmendra Singh, Director - Technology at Hughes Communications India Limited
10. Mr. Ashis Sanyal, Senior Director, Department of Information Technology
11. Mr. Desi Valli, COO, Net4India
12. Mr. Amitabh Singhal, Board Member at Public Interest Registry

**CONCLUSION:** 10-Point Recommendation for wider advocacy to government and private sector

## INTERNATIONAL WORKSHOP ON 'RURAL EMPOWERMENT THROUGH WIRELESS CONNECTIVITY'

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The major workshop that was organised by ISOC and DEF on the occasion of Manthan Award to capitalise on the crowd and community presence, was a great success as the participants came from all south Asian countries, and from among Indian region, we had got all relevant ministry including Rural Development, Panchayati Raj, Ministry of Communication & IT, NIXI, and at least 100 government officials from across the country. In addition, we had got from all the regions of the country the representatives from Panchayat, and NGOs.

The workshop was designed to have one keynote by the joint secretary of Panchayati Raj Ministry, Mr DK Jain as they cover 250,000 villages of India representing all the rest of the villages. After the keynote, there were three best case studies presented at the international workshops as mentioned in Point No. 8: AirJaldi, Nepal Wireless and Chanderiyaan where the deployment of the wireless network has just been done under this project of ISOC-DEF.

The third component of the workshop was to have 4 split round-tables on 4 different topics and have the entire panellist divided into 4 with additional involvement of the desirous audience. As expected the 4 roundtables were extremely interactive and result oriented.

Each of the round tables had been given the topic as mentioned below and their job was to come out with recommendations per topic per round-tables further explained below.

## TOPIC: EMPOWERING COMMUNITIES THROUGH WIRELESS NETWORK

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### ROUNDTABLE 1 TOPIC & OUTLINES: POLICY & REGULATIONS

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- What's the "Current Framework"
- What's the "Bottlenecks"
- What could be the "Future Policy Suggestions"

### ROUNDTABLE 2 – TOPIC OUTLINES: CONTENT & APPLICATION

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- Could "Cloud" technology or "Cloud" computing be an alternative to develop contents and application?
- What about issue of "Localization" in developing Content & Applications?
- How to make sure that all content & applications would be "Secure" & what about "Standardization"?

### ROUNDTABLE 3 – TOPIC & OUTLINES: INDUSTRY & GOVT. COLLABORATION

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- Ideas & Scale: How to work on innovative ideas and scale them up in collaboration
- PPP: Why PPP model could not be a success and be scaled up widely?
- Major initiatives like MSME Cluster: Major collaboration is required to create entrepreneurship, ICT enablement cluster after cluster targeting MSMEs – How?

### ROUNDTABLE 4 – TOPIC & OUTLINE: CAPACITY BUILDING

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- "Government Level": In order to create wireless networking as a great alternative connectivity medium, then government level capacity building is must, but how?
- "Industry Level": Since wireless networking is not widespread and especially wireless mesh networking as cheap alternative medium is not common, there is a serious need of capacity building at the Industry level and allow a sustainable market to be created.
- Local Level: Deployment of wireless networking is a last mile activity and involvement of community and local level resources is a great source of strengthening the local economy and community ownership.

### OUTCOME OF ROUNDTABLE 1: TOPIC: POLICY & REGULATIONS

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The observations, outcome and recommendations of the Roundtable 1 with the topic of Policy & Regulation are:

- Licensing issues – scope of activities under ISP license still restricted with regard to Internet Telephony, which needs attention. VoIP is a demand generator for Broadband and hence makes no sense to restrict, especially when UASL licensees are allowed unrestricted telephony, but don't provide it. Issue for ISPs is they cannot connect their network to PSTN network. The bottom line is that Licensing issues are crucial for connecting rural areas ;
- Second issue with regard to Licensing that needs serious consideration is – after removing the 'C' category licenses for ISPs, TRAI should have recommended and the government should have allowed anyone to provide access to Internet in 'C' category areas, without licensing. This would help develop a system where locals created their own access network and generate demand locally.
- Device Costs – an impediment to the robust demand for internet has been the cost of access devices. For most common people in India, investing in a computer does not seem to be a cost effective means of enhancing their economic situation. Price to benefit ratio still eludes them. Hence, efforts are required to make computers cost much less, so as to grow the demand for computers, with internet access exponentially. In other words, devices (Terminal Devices) , like laptops and desktops need to proliferate for which costs have to be very low . Also, advised for mix use of technologies for quicker proliferation of networks . As an infrastructure issue, the Power provision is a biggest issue, thus advised that either Government fund it or provide one time establishment cost for Alternative Energy and then maintenance could be on usage and users;
- Content – Another long standing constraint for slow Internet growth is attributed to lack of local language and locally relevant content. Literacy factor is another compounding factor on top of it. Efforts are therefore required to create content with emphasis on video based programming, which will act as a demand generator from a larger section of the population and will also boost broadband penetration.

#### **OUTCOME OF ROUND-TABLE 2: TOPIC: CONTENT AND APPLICATION**

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The observations, outcome and recommendations of the Roundtable 2 with the topic of Content & Application are:

- Lack of Planning & Sustenance: It was observed that there is a lot of effort goes in bringing forth the content for the first time, but the constant effort to maintain, manage, update and improve is always lacking. For example all government content in public domain is dated, outdated and irrelevant. Among all the planning efforts, the role and importance of content always come at the end. There is a serious need to form proper

policy to work on content, at least for the government departments and the technology should be looked at it to match the need rather than otherwise.

- Partnership & Consortia: It was discussed that Panchayati Raj (PR) being the largest footprint body in the country in terms of reach into the rural India, there is a tremendous amount of information created at PR level, it is important that PR to work with local language media and also grassroots level NGOs.
- Content Generating Apps: Another concern discussed was that of cost of ownership in hosting and dissemination of content. And thus was discussed the option of Cloud Computing and also developing Apps for mobile as well as for Web which could also function as Widgets. The observation was that of secure content also which lead the recommendation that co-owned applications and framework, and hosting could be the future of content development, hosting and usage.
- Localization of Content: It was strongly suggested to respect the medium of the masses as far as India is concerned as most of the population share information in oral medium and also in local languages. Therefore, it is recommended to develop content in oral medium which could be emphasizing in local languages.

### OUTCOME OF ROUNDTABLE 3: TOPIC: INDUSTRY & GOVERNMENT COLLABORATION:

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The observations, outcome and recommendations of the Roundtable 3 with the topic of Industry & Government Collaboration are:

- It has been observed that as far as the ICT industry is concerned, there has been silo development of the industry bodies and their efforts to reach people with their services, infrastructure and content. And Government also do not involve Industry much to work together to get geometric results. It was further noted that whereas Industry has least trust in Government system, Government would prefer to work on their own;
- It has strongly been recommended to create all levels of collaborative efforts with government and industry. The efforts could be at pilot level to showcase some examples for further scale up, and it could also be at scale at various governing level like district level, state level, and even at departmental level with central government entities;
- Another recommendation was that the efforts of industry and government should be complementing rather than overlapping. For example, if the industry is introducing computers and networks, the government should provide them with infrastructure like electricity.
- It was strongly observed that the ratio of population of the country is far disparate to the penetration of connectivity. It is time that Government and Industry work in collaboration to achieve larger connectivity penetration and the collaboration could be: Infrastructural, research & development, devices & equipment and content & services.

## OUTCOME OF THE ROUNDTABLE 4: TOPIC: CAPACITY BUILDING IN GOVERNMENT, LOCAL & INDUSTRIAL ASPECTS

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The observations, outcome and recommendations of the Roundtable 4 with the topic of Capacity Building in Government, Industry & Local Level are:

- Last Mile Capacity: It has been observed that the capacity building of the last mile institutions, leaders, and entrepreneurs is negligible. For example, out of 250,000 Panchayats in India, there are more than 50,000 Panchayats who has been provided computers and large percentage of them does not use them to the best of its ability. And the reason is purely the lack of capacity;
- Last Mile Connectivity: It was also observed that many a time making certain infrastructure available also make people self capacitate, and thus it was strongly suggested that the broadband and wireless must be made available to rural masses as per the institutions. For example, all the Panchayats should get wireless broadband and so do all the 1.3 million government schools;
- It was recommended that capacity building should be the integral part of all the schemes, deployments and services;
- There is a need to create capacity to create YouTube kind of content as India is a oral country and audio-visual medium is best for content consumption and production.
- The huge capacity that is available with BSNL, we do not see them using all of them and making them available; it was recommended that BSNL lines and connectivity could reach many of the remote areas very easily if the last mile problem of wireless connectivity would be adopted.