

Welcome to Dorothy Stanley Chair 802.11 (Wi-Fi), IEEE

T.V. Ramachandran
26th August, 2019



PART - I

ABOUT BIF

**Think Tank for Digital
Transformation**

ABOUT BROADBAND INDIA FORUM (BIF)



VISION

Empowering Consumers with Efficient and Economical Broadband



MISSION

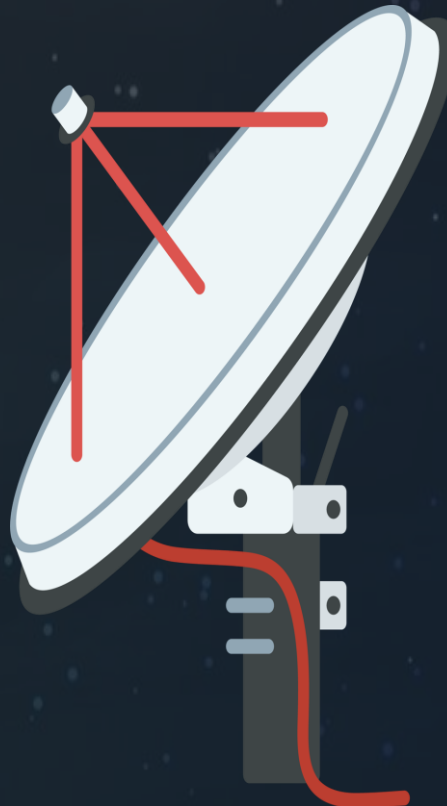
To support and enhance all policy, regulatory & standards initiatives for the proliferation of high quality broadband in the country in a technology-neutral and all-inclusive manner



OBJECTIVE

Functions as a policy forum and think-tank that works for the development & enhancement of the entire broadband ecosystem

Participation from all stakeholders including Technology Providers, Internet Service Providers, Value-Added Service Providers, Satellite Operators and service providers, Broadcasters, MSOs, Startups, Academia & Research Institutes and professional entities as well as seasoned Industry professionals who are familiar with different technologies, operations, regulations and policies.



MEMBERS

Patron Members



Apple

facebook

Google

HUGHES



nelco

Qualcomm



STL



SPACE TELE INFRA PVT. LTD.

VIACOM 18

Viasat



BROADBAND INDIA FORUM

"Think Tank for Digital Transformation"

Corporate Members



Startup & Professional Members



Academia/ Research Institution



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"Think Tank for Digital Transformation"

CORE LEADERSHIP TEAM



Shyamal Ghosh
IAS (Rtd.)

Former Secretary -
Telecom &
IT Govt. of India and first
Administrator of the USO
Fund, Chairman Emeritus,
BIF



M F Farooqui, IAS
(Rtd.)

Former Secretary –
Telecom of the Govt. of
India
Chairman, BIF



T V
Ramachandran

Founder & CEO,
advisory@TVR &
President, BIF



Anil
Prakash

Director General, BIF



Ashwani Rana

Vice President , BIF



Parag Kar

Vice President , BIF



S N Gupta

Treasurer, BIF

NOTABLE LEADERS WHO LEND THEIR KNOWLEDGE AND ACUMEN TO BIF



C S Rao

Chief Mentor -
Technology



Arun Seth

Chief Mentor



Umang Das

Chairman, WG on
GPR



Ravi Kant

Principal Adviser
Former Member
(S), DoT

PANEL OF PRINCIPAL ADVISERS



**Abhishek
Malhotra**



**Air Cdre S
S. Motial**



**A K
Bhatnagar**



**B K
Syngal**



**D P
Singh**



**Dr. B M
Baveja**



**Dr. Kuldip
Singh**



**Dr. Mahesh
Uppal**



**Rajesh
Mehrotra**



**J V
Ramamurth
y**



**K V
Seshasayee**



**P K
Garg**



**Pranjal
Sharma**



**Sudhir
Gupta**

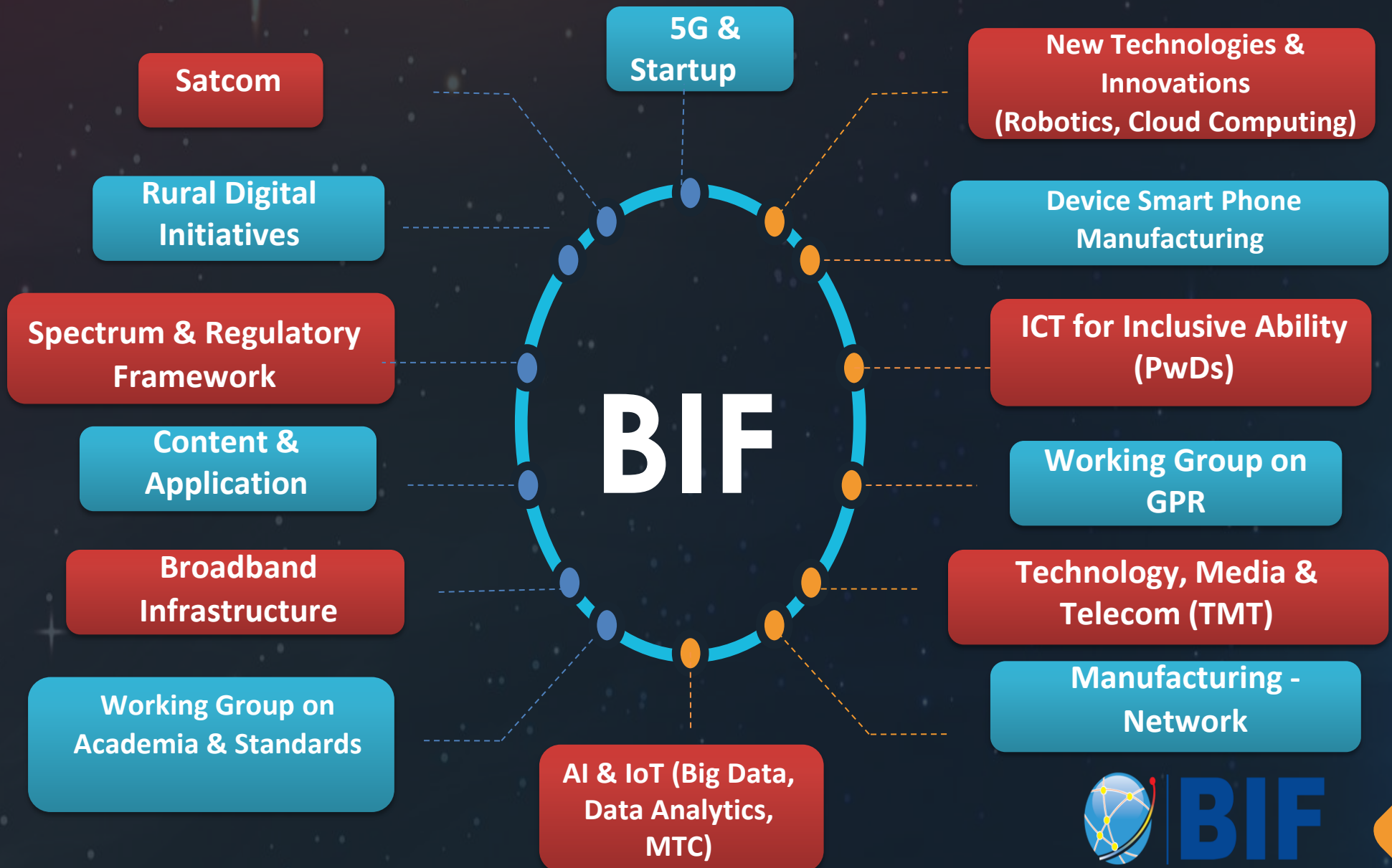


**Valsa
Williams**

Panel with Distinguished Background in Public and Private Sector including Policy Making, Administration and Regulation

All right reserved 2019 @ Broadband India Forum

SPECIALIST COMMITTEES



ACTIVITIES OF BIF

01

Coordinating, promoting and formulating expert opinion on topical subjects related to Broadband

02

Acting as a credible and reliable platform for Industry, Government, Regulatory and Standards Agencies

03

Writing research papers and white papers in collaboration with reputed research institutes such as ICRIER, IIM Bangalore and Counterpoint Research

04

Conducting Conferences, Seminars and act as a Knowledge Partner for relevant Conferences.

Think-Tank for
Digital Transformation

05

Running awareness campaigns within the highest echelons of Government's policy makers on several issues

06

Releasing media articles on issues currently pertinent to telecom in India

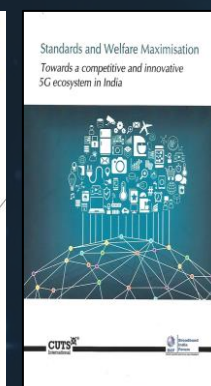
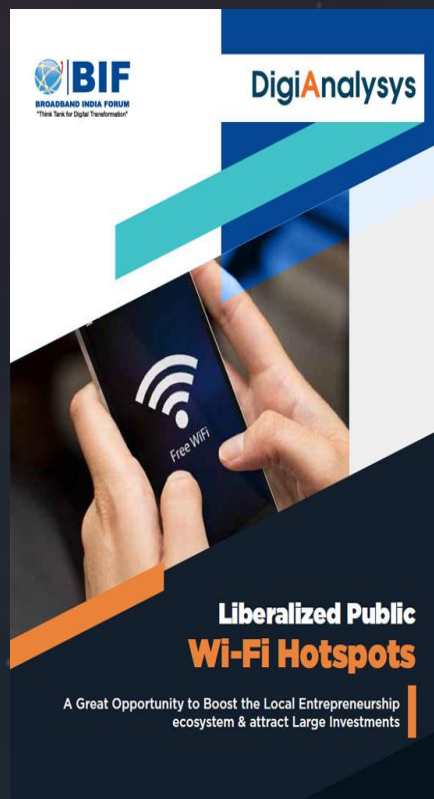
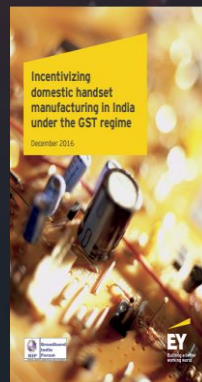
07

Conducting R&D Projects as part of an overall Consumer Awareness Program

08

Supporting and participating in work related to policy, regulation and harmonized standards

BIF REPORTS & WHITE PAPERS



PARTNERSHIPS AND ENGAGEMENTS



Co-operation Agreement with CUTS



Co-operation Agreement with Institution of Engineering & Technology (IET)



MoU signed with ETSI



MoU signed with TSDSI



Engagement with 5GIA



Engagement with IEEE



MoU signed with ESSCI



3GPP's Market Representation Partner. Participation in Standardisation Activities- ITUWP5D, APG Prep Meeting for WRC-19 & 3GPP Plenary #79



President, BIF was nominated as member in the "High Level Government Forum for 5G India 2020"



Engagement with Macquarie University



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PART - II

WiFi and BIF

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PUBLIC WIFI IN INDIA

- ❑ Public Wifi hotspots has grown from ~ 31,550 in 2016 to a little over 3,50,000 hotspots today
- ❑ As per TRAI Report , the Global Average was one in 150 (hotspot/persons) in 2016
- ❑ For India to reach 2016's Global average of 1 hotspot for 150 persons, it was estimated that 8Mn (80 lakh) hotspots would be required

***DEMOCRATISATION OF WIFI HOTSPOTS TO
ENSURE BROADBAND FOR ALL***



LIBERALISATION OF PUBLIC WIFI

- ❑ BIF believes that it is extremely difficult for only few players to create 8Mn hotspots
- ❑ This can only happen with Full Liberalisation of Public Wifi
- ❑ BIF has been consistently working both with the Regulator & the Govt and the Niti Aayog to make it happen



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REGULATORY PUSH - TRAI RECOMMENDATIONS FOR LIBERALISED PUBLIC WIFI

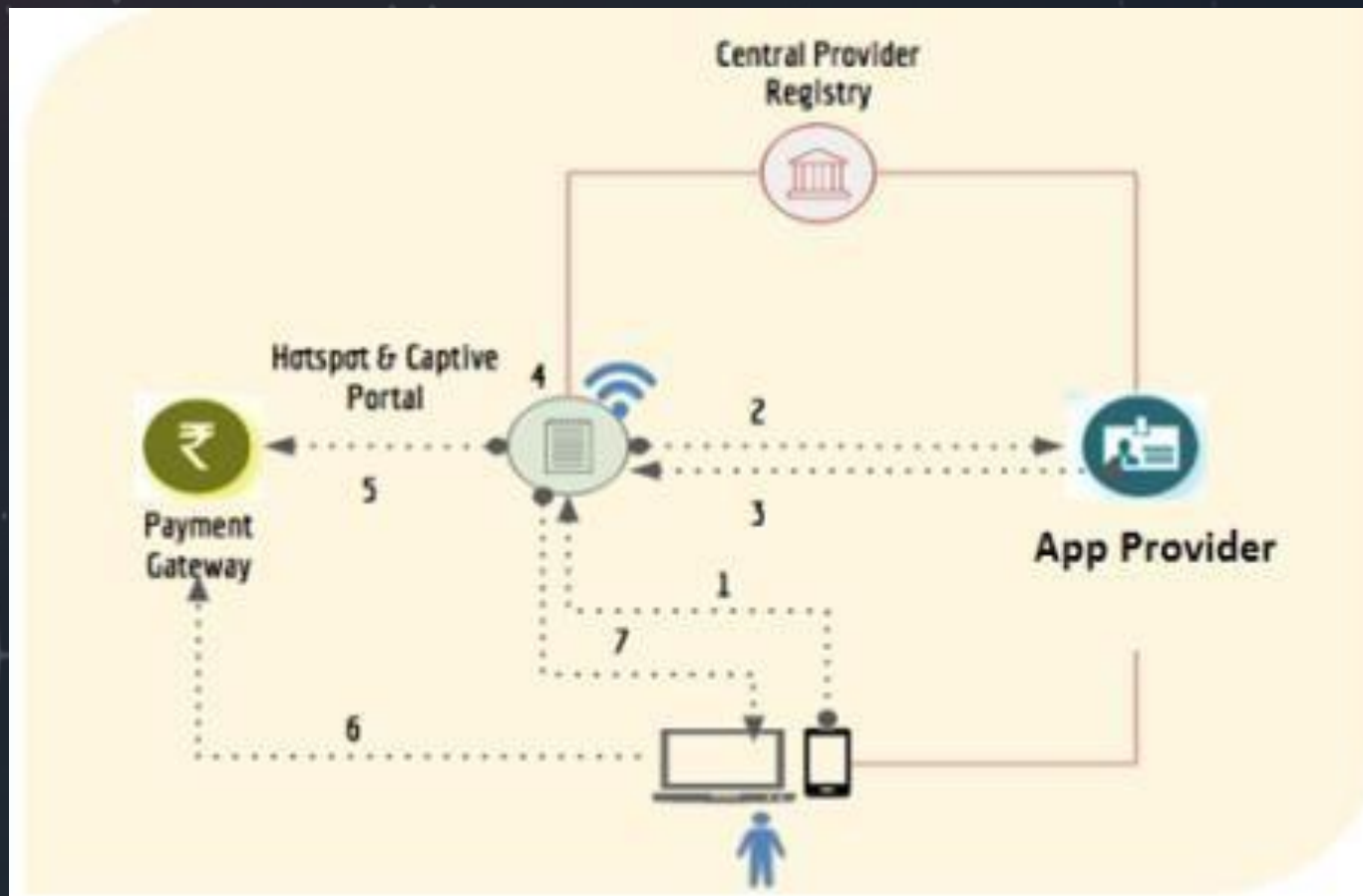
- ❑ Facilitate creation of millions of Public Wi-Fi hotspots.
- ❑ Public Data Offices(PDOs), akin to the earlier PCO, has been enabled w/o any license, through mere registration.
- ❑ This will enable small entrepreneurs like Tea sellers , Mom n Pop stores & Micro-Entrepreneurs to sell Bandwidth along with their other products/services



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Flow Diagram of WANI Architecture – Functioning of PDOA-PDO



WANI Architecture-Benefits

- ❑ TRAI recommended for implementation of PDOA-PDO model using Wireless Access Network Interface (WANI) Architecture, which is an Indigenously developed Open Architecture based Framework
- ❑ Subscribers can roam on Public Wi-Fi from one hotspot to another just like cellular roaming without having to re-login, re-authenticate, refresh the wallet, etc
- ❑ It is indeed India's UPI moment.



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Policy Initiatives taken by Govt

- ❑ NDCP (National Digital Communication Policy) has highlighted the importance of Public Wifi in achieving Digital India
- ❑ 5Mn hotspots by 2020 and 10 Mn by 2022
- ❑ 1 Million Hotspots in urban areas and
- ❑ 2 Million Hotspots in rural areas.
- ❑ 3 Public Wi-Fi hotspots at every Gram Panchayat initially and to be scaled upto 5 later. This translates into creation of 12.5 lakh or 1.25 Million hotspots in rural India.



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Delicensing of 5Ghz

- In October '2018 , Govt decided to license exempt 605 MHz of the 5GHz band
- This is a hugely welcome step forward to obviate the bandwidth crunch for creation of Public Wi-Fi hotspots,
- Total capacity of available delicensed spectrum has increased to almost 12 times the previous capacity
- This measure has led to overcoming one of the potential barriers i.e. lack of availability of sufficient de-licensed Wi-Fi spectrum.



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CONCLUSION

BIF wishes to work together with IEEE to achieve the common goal of increasing the Role of Public WiFi in achieving Digital India



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THANK YOU!

CONTACT INFO:

Broadband India Forum
Suites- 215 & 216
DBS Office Business Centre,
1st Floor, World Trade Tower,
Barakhamba Lane, New Delhi-110001

T:+91-11-45730225 (Direct)

T:+91-11-40509200

F:+91-11-23414740

E: info@broadbandindiaforum.com



www.broadbandindiaforum.com

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