

# IBUS

## National Workshop on Neutral Digital Connectivity Infrastructure (DCI) in Buildings

Technical Session-I:  
DCI, Technology & in-building solutions (IBS) and Standards

06-Mar-2014

## About Us

- iBUS is a connectivity technology company.
- iBUS is committed to solving the digital divide in India by offering scalable connectivity solutions
- We are Make in India, for the World.



We offer **digital infrastructure solutions** to businesses and institutions.



We provide **cellular and non-cellular, licensed and non-licensed connectivity solutions** to enable networks for our clients.

# Leading the Change as Market Leaders



## Leading Player with

### No. 1 Market Share

Largest market share in **In-building** solutions and **Managed Wi-Fi** services



## Active

### 1 Billion Sq. Ft. Area

iBUS IBS covers over **1 Billion Sq. Ft.** area and Wi-Fi delivers high-speed coverage for **2+ million Sq. meters**

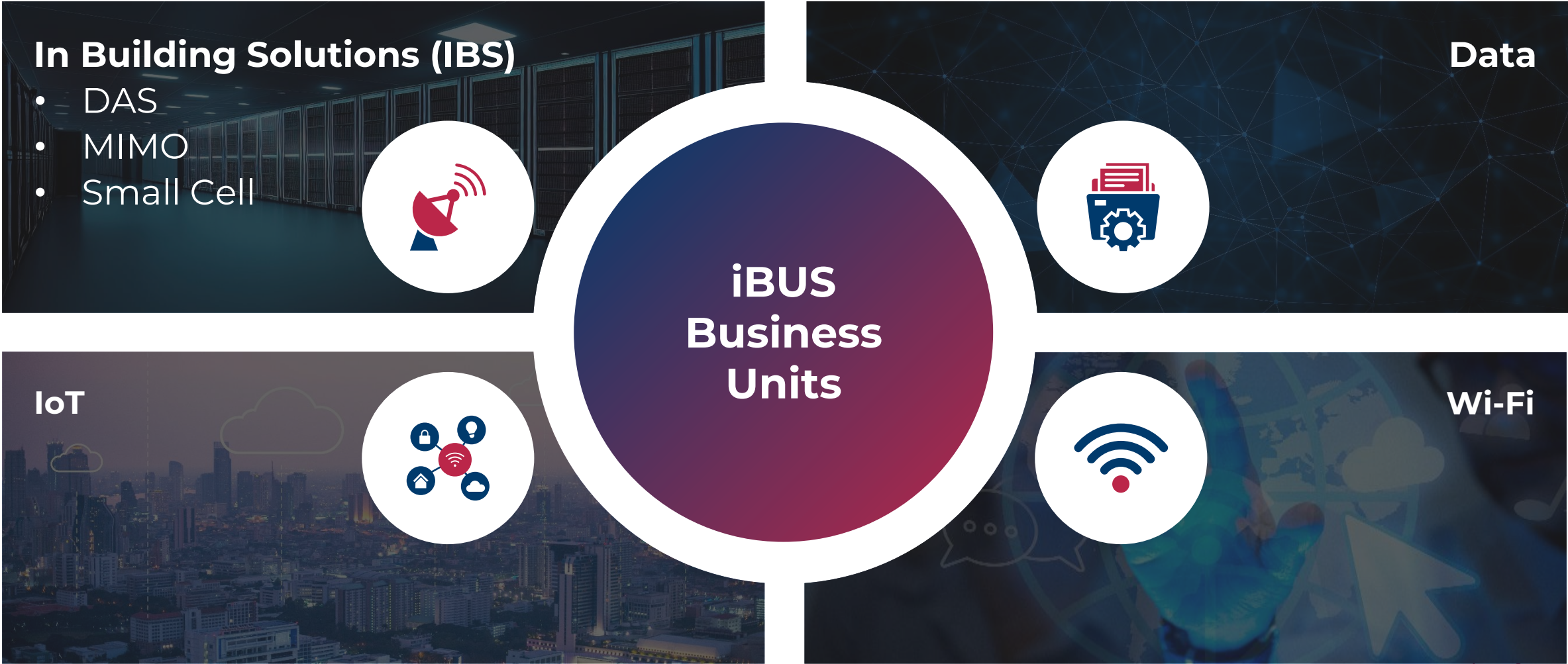


## Among Global

### Top 100 Companies

Amongst the Four telecommunications companies, recognized by Red Herring Global Awards

# Our Strategic Businesses



# Diverse Industries using DCI In-building

## Commercial & Enterprise



**Malls**



**Tech Hubs**



**Hospitality**



**Healthcare**

## Govt & PSUs



**Public Transport**



**Education**



**Public Healthcare**



**Airports**

# Options for DCI In-building

## Individual Operator Model

- Operators have been building & operating their own IBS through DAS or, indoor small cells
- However, this trend has been changing for the last 5 years as buildings require a solution that is workable with all TSPs
- It takes up huge space in vertical shafts already clogged and horizontal space in cable trays
- However, with 5G now deployment of MIMO (multiple Input & Multiple Output) independently would not be business viable & challenging, especially in operational projects
- Maintain / manage networks and compete for customers.

## Neutral Host

- IP-1 is key driver for shared digital infrastructure design / deployment & operations
- Single SPOC for builders for any assistance to quality / upgrade / coverage / uptime
- Infrastructure provider ensures neutrality & level playing field
- Use of wide band antenna (700 MHz to 4000 MHz) supporting all existing tech - 2G/3G/4G/5G
- Optimal BTS / vertical shaft & cable tray use & maintenance of aesthetics through shared access for multiple service providers.
- Encourages end users to decide for its service provider rather than the builder.

# What is iBUS IBS ?



- iBUS In-Building Solutions (IBS) enhances mobile networks inside buildings by distributing signals through Passive / Active or Hybrid Solutions.
- We are a leading neutral host with long-term MSAs with all telecom operators.
- Our solutions enable seamless high-speed data and voice coverage indoors.
- We equip buildings with 5G-ready infrastructure for seamless integration with TSPs.



**Secure**



**Interoperable**



**5G ready**

## **DAS**

Distributed  
Antennae  
system

## **MIMO DAS**

Multiple Input  
Multiple Output -  
DAS

## **Small Cell**

# Advantages of DCI

## Attracting Tenants & Customers

### Future-Proof Connectivity

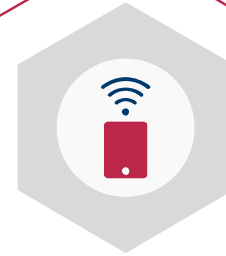


### Enhanced User Experience



### Support for IoT & Smart Building Applications

### Flexibility for Telcos



### Cost Efficiency

## Embrace 5G





## Builders



- Enhanced Marketability & Valuation
- Future-Proofing
- Improved Tenant Satisfaction & Retention
- Flexibility for Multiple Carriers / Optimizing Space in shafts
- Simplified Management and Maintenance with SPOC
- Adherence to revised DCI guidelines & Rating System.



## Operators

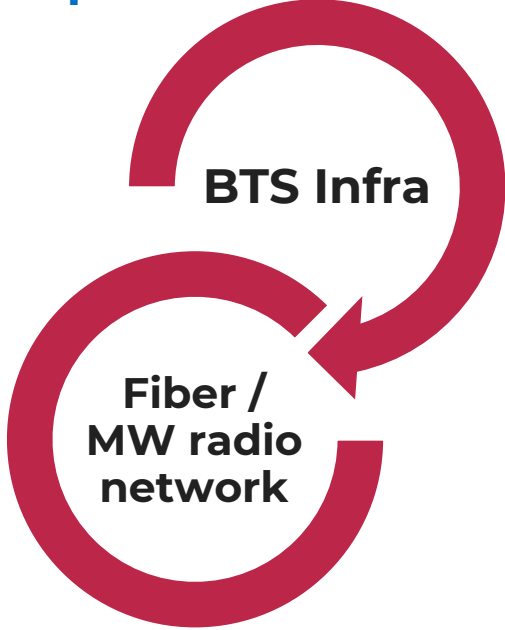


- Focus on Market Reach as per Business Needs
- Access to New Revenue Streams
- Enhanced Customer Experience
- Efficient Network Resource Utilization
- Simplified Deployment and Maintenance
- Flexibility and Interoperability
- Plug & play service with no upfront capex
- Level Playing field

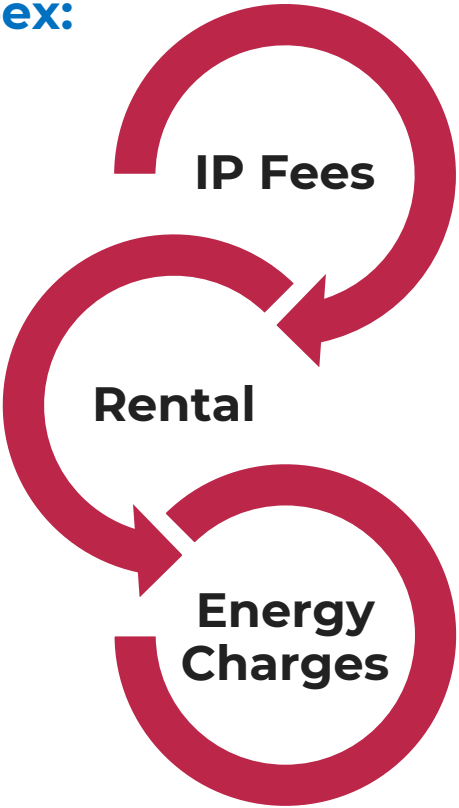
# Cost of Delivering DCI in Buildings by TSPs



Capex:



Opex:



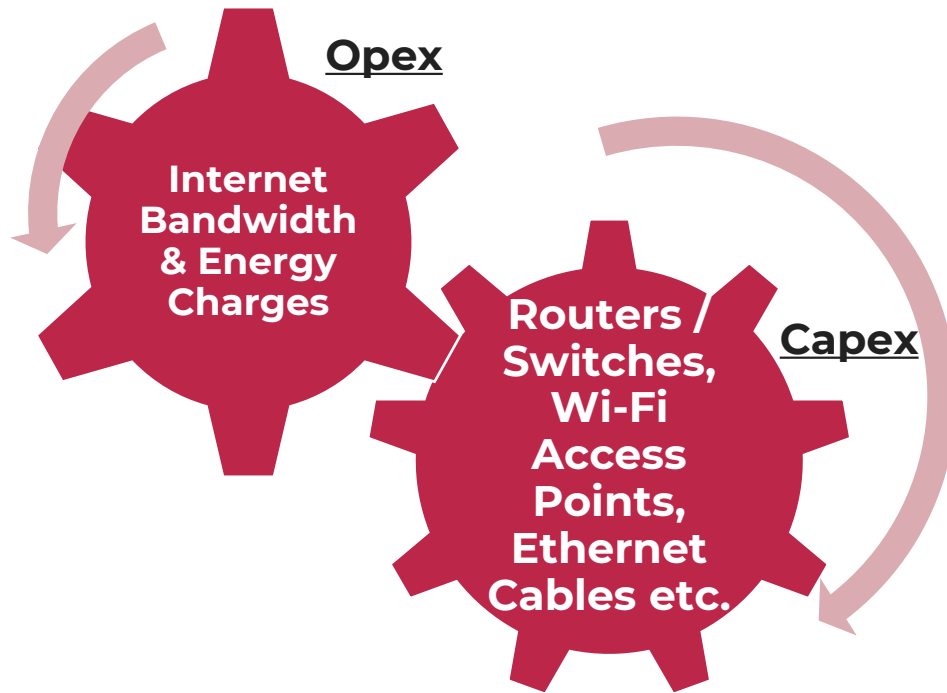
**Costing in Current Scenario:**

- 50% IP Fee
- 50% Rental & Energy Charges

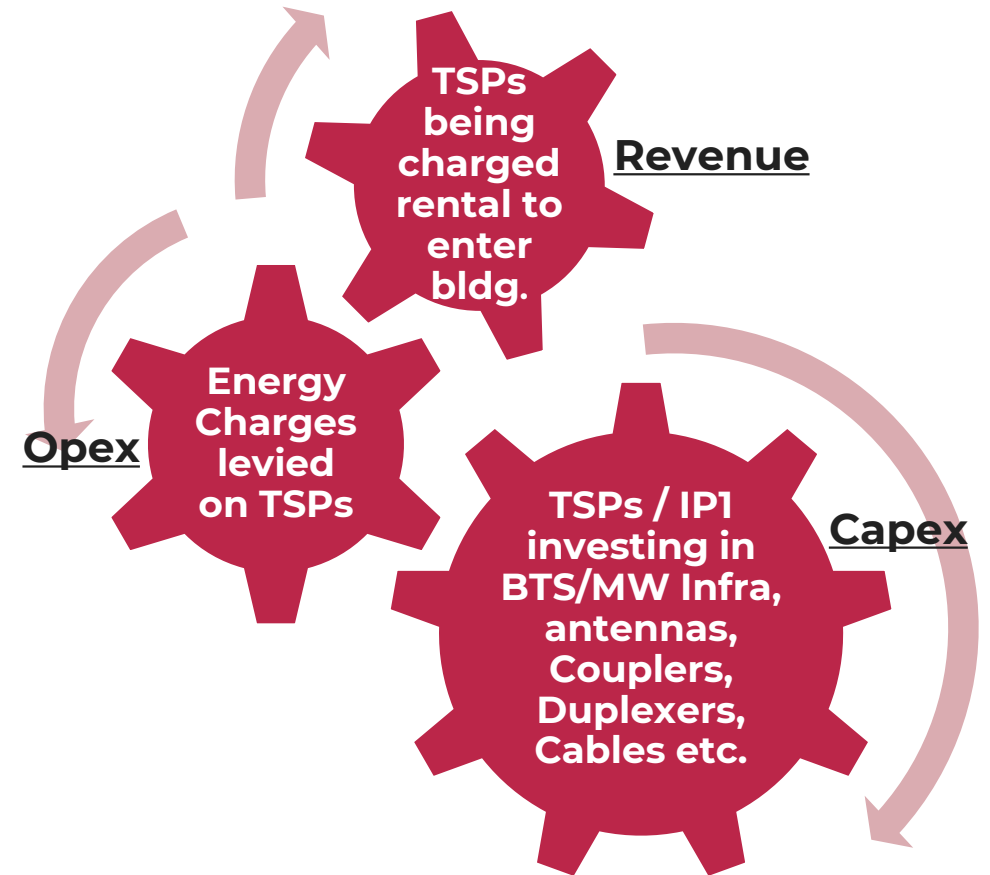
# Cost of Delivering DCI: Builder's Perspective



## Wi-Fi: Builders invest



## IBS: Builders make money



Rental & Energy charges are detrimental to DCI / IBS in buildings

## HIGH TRAFFIC SITES:

- For better neutral Digital Connectivity Infrastructure in-building, the site owners should forego rental & energy charges for seamless connectivity for their end users within the premises.

IP1 shall invest for in-building infrastructure and Telecom operators for BTS / Microwave.

## LOW TRAFFIC SITES:

- Some of the cases where operator might not find viability , Building owners might have to go for ORAN solutions (future upcoming technology) by investing themselves in Infra and then connect to Telecom operators.

The logo for IBUS, featuring the letters 'IBUS' in a bold, white, sans-serif font. The background is a dark blue gradient with a network of white lines and dots, resembling a molecular structure or a data network, transitioning from red on the left to blue on the right.

# IBUS

**THANK YOU**