Ideas
Inside
Out

DSGN OPEN

ELECTRIC RED

Making BEST Services Smart.

Smart City
Mumbai

June 2015

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Making BEST Services Smart.

Smart City Mumbai

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DSGNOPEN is a channel to showcase the open opportunities that we lapped up out of sheer interest to produce useful & impactful ideas— for pressing and/or prospective problems. DSGNOPEN vividly brings out those ideas that we enjoyed producing as elaborate case studies and infographics.

Ideas Inside Out DSGN OPEN

by

Pencil Point Designs
... Brand & Design Consulting

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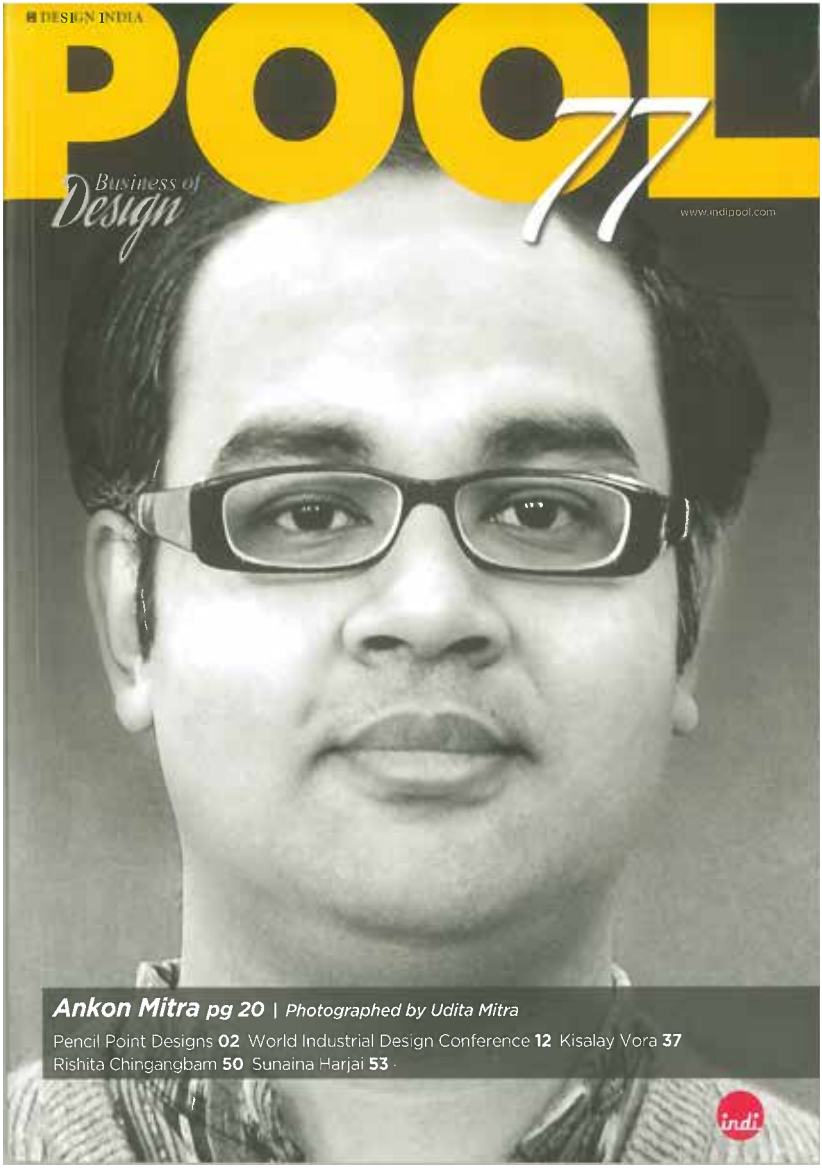
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INFOGRAPHIC

Best bet for Mumbai commuters

In a bid to design a more efficient commuting experience for the millions of Mumbai's public transport users, ***Pencil Point Designs*** *has come up with a holistic solution to transform BEST, the city's bus system*

Mumbai, the capital of the state of Maharashtra in India, is the country's most populous city. It has a metro population of about 20.7 million, according to reports last updated in 2016. For such a densely populated city, local road transportation is demanding and challenging. The commute from work-to-home and vice versa during peak hours on road could be anywhere between 45 minutes to two hours. A mounting challenge awaits the state government and the governing municipal corporation -Brihanmumbai Mahanagarpalika (BMC) - to handle the movement of people within the city.

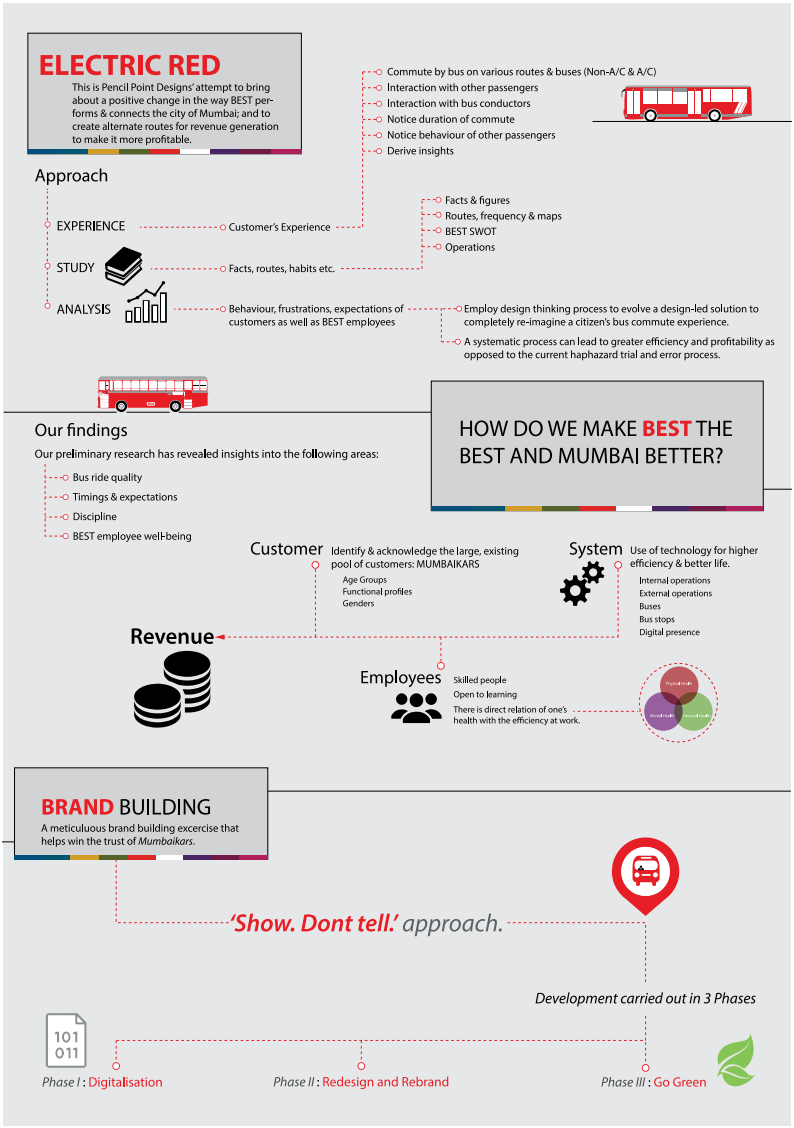
BEST (Brihanmumbai Electric Supply & Transport) has been managing the bus transportation throughout the city since 1947. Although it has managed buses, fleets and routes very efficiently over the years, today it faces harsh criticism and severe losses, and people shy away from using the services. If the services are enhanced, it will pave the way for decongestion, and encourage the public to utilize BEST's service offerings.

THE STUDY

In 2015, we at Pencil Point Designs started looking into the problems and downward trend that clouded BEST. Feeling the need to reimagine BEST services, we took it upon ourselves to get a first-hand experience of the commute. In our two-month long study, we commuted by non-AC as well as AC buses. Mapping all our observations, we derived insights to come up with solutions that could really help both BEST as well as the passengers. We realized that the mammoth task at hand required a complete overhaul of BEST systems, a change in mindset, and infusing a new work culture. Another challenge was the need for multiple government bodies to work together.

OUR APPROACH

We organized our thoughts around three elements that are critical for the success of any organization: People (BEST employees); System (internal as well as external); and Users (commuters and/or citizens).



Phase I: Digitalization

Upgraded BEST Buses

Installation of GPS in all the BEST buses for real-time tracking

Installation of WiFi for revenue generation, data collection and advertisements

Upgraded Bus Stops

Complete redesign of the bus stop with intergrated WiFi

Installation of Interactive Kiosk for providing necessary information and dispensing tickets

Use of good quality, efficient construction materials

Mobile Application

A mobile application that enables and encourages commuters to conveniently and efficiently avail BEST bus services

Value Added Services

Installation of vending machines at every bus stop to generate revenue and integrating additional services like ATM, Bill collection centres and ticket dispensing

Big Data Generation

Collection of Data generated through the use of application to understand the user and improve the BEST system in the best possible way

Phase II: Redesign and Rebrand

Brand Building

Fresh Brand identity to communicate the new and improved services of BEST

Design clear and consistent signage and communication in all the bus stops and buses

Redesign Routes

Chart new routes based on the big data collected from the application and research to encourage public to use BEST services

Smart Cards

Introduction of smart card system for quick and hassle-free travel

Improved Bus Design

Improved air circulation system

Installation of sound-absorbing materials for the bus interiors

Use of good quality industrial fasteners to reduce noise levels during operation

Improved Bus Stop Design

Privatisation of few bus stops to increase revenue generation and for better maintenance

Phase III: Go Green

Hybrid Buses

Launch of Hybrid bus that runs on electricity

The hybrid buses employ fast charging technology

Upgraded Bus Stops

Installation of a fast charging station in every bus stop

Dedicated Bus Lanes

Construction of dedicated bus lanes to SEZs or a planned commercial complex for rapid and uninterrupted commute

Strategic Routes & Services

Launch of BEST Shuttlers mini buses that cover short distances in areas that are over-crowded and lack infrastructure for the regular buses to operate

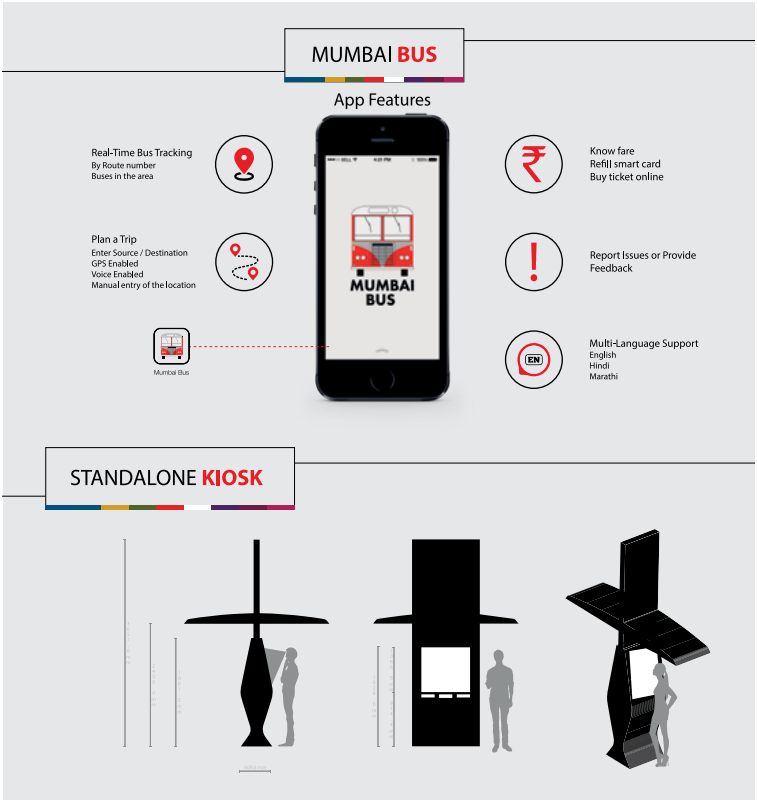
Benefits

Better ride quality

Reduction in pollution levels

Improvement in the health of drivers and conductors

Conceptualization



If BEST has the resources to take care of its employees' well-being, the employees will perform their duties with a lot more willingness and happiness. This in turn helps in building BEST with a better and humane brand experience.

Systems that are designed and developed after adopting best operating philosophies and practices enable smooth operations throughout the organization, including fleet and depots management, employee management, etc.

Understanding the users, their concerns and problems, and taking active steps in resolving them so as to make it easier for them to use BEST services.

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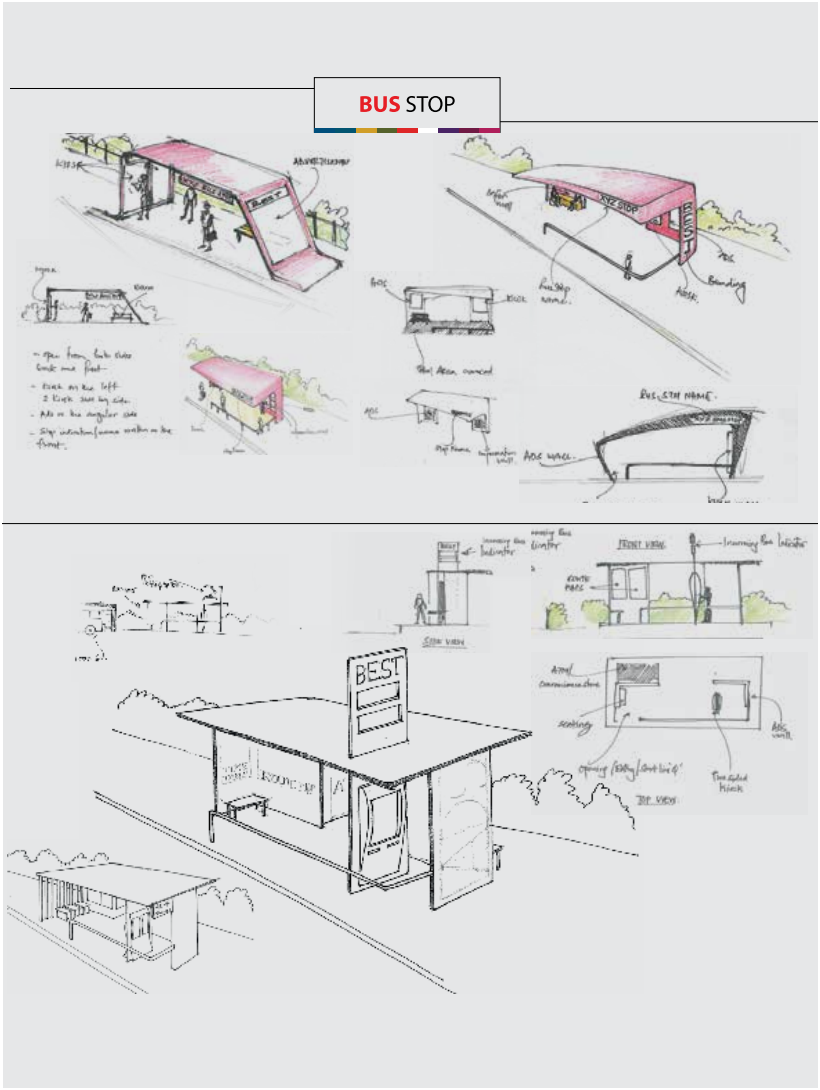


BUS MODIFICATIONS

To improve the ride quality

Quiet Commute
Noise creates stress & leads to heart disease. The noise level has to be significantly reduced to improve the quality of life of passengers as well as the BEST staff.

The buses must be equipped with rear-engine & automatic transmission with power steering.

Carpeted floor can also help in absorbing noise to some extent.

Careful assembly of different parts during manufacturing will prevent noise due to vibration of loose parts.

Better Ventilation System

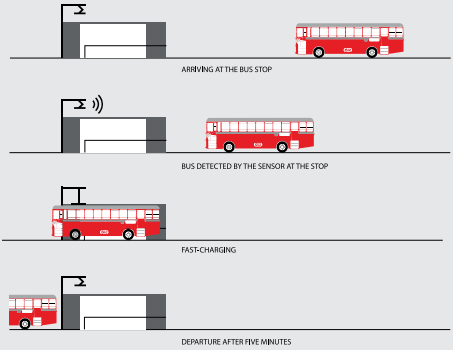
Fully Enclosed Buses
With all the windows shut, the buses will require better ventilation system that can make the commute comfortable even during rush hours.

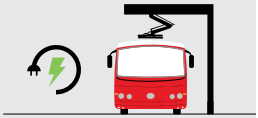
Fans can be deployed. The bus roof can be redesigned to push out hot air whereas minor design changes can be carried out to let the cooler air in.

Optimised Seating Arrangement

To accommodate more commuters per trip and ensure a comfortable commute.

ECO BUS





Fast Charging

Fast Charging Stations are designed for opportunity charging. Opportunity charging is fast charging for public transport at the turn-around location of the bus route.

Fast Charging points will be located at every bus stop in the city.

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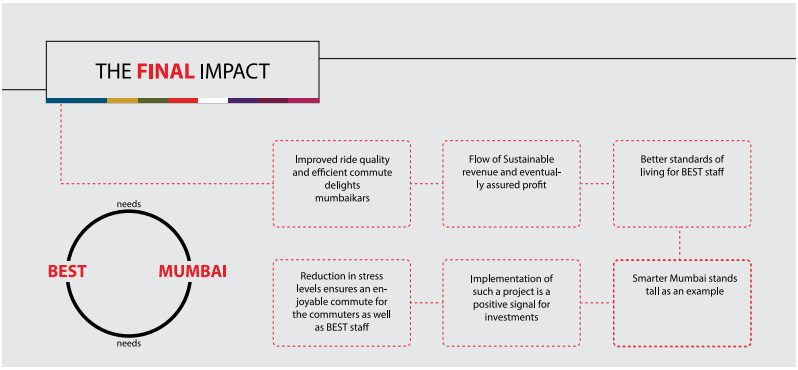

If the above mentioned elements are put in place, the fourth element, Finance, falls into place.

THE SOLUTION

We ideated a holistic solution that would employ design and technology to uplift BEST. The whole transformation required every aspect of the organization to be touched upon. The three-phase transformation has been planned for execution over a span of three to five years. These three phases are:

DIGITALIZATION

A large population of Mumbai uses smartphones and almost all the commuters carry a mobile phone. This population is also capable of understanding and using basic technology and is familiar with at least two regional languages. BEST can embrace the digital medium and enhance their services by reaching out to commuters through their mobile phones.

This phase has been envisaged for a span of three to four years: 6-8 months for pilot implementation across limited bus routes, 24 months for complete rollout and implementation, and 8-12 months for refining systems.

Digitalization requires the following five steps to be achieved systematically:

Upgraded BEST buses: This includes aspects like accessibility, reduced noise levels, wi-fi connectivity, ventilation, and seating arrangement.

Upgraded BEST bus stops: The redesigned bus stop will provide integrated Wi-Fi to enable people to perform their activities and allow BEST to monitor the buses as well as the bus stops. An interactive kiosk will help people plan their trip, take decisions about their trips as well as pay via BEST smart card/cash.

BEST Mobile Application: To enable better and efficient time management for the commuters, a mobile application is to be introduced that will help commuters get necessary information (in three languages).

Value-Added Services: The redesigned bus stop can integrate space for essential services like a bank

ATM, utility bill payment service kiosks, mini confectionery stall, etc. This can be a solid source of fixed revenue for BEST.

Central system to collect and synthesize Big Data: A central control room will capture and map out all the buses across all the routes, and record the usage of the mobile application and interactive kiosk at the bus stops. It will also monitor all the bus stops for security and vandalism.

REDESIGN AND REBRAND

With Phase I implemented and running smoothly, BEST will have already created a better experience for the commuters than before. It then becomes necessary to uplift and refresh the image of the organization through a complete redesign and rebranding exercise.

This phase has been envisaged to span a couple of years for complete rollout and implementation of the new brand image. An ongoing activity will be carried out with more focus towards commuters.

GO GREEN

This is the last phase in the transformation and aims at making Mumbai free of noise as well as air pollution. This requires the government to collaborate with international counterparts to import and employ the best technology available.

This phase has been envisaged to span two to three years: with 6-8 months for pilot implementation across limited bus routes, and 12-18 months for complete rollout and implementation.
This phase involves gradually phasing in hybrid buses across all the routes of Mumbai. The introduction of green buses would make BEST truly at par with any public transport organization in any country. The life of BEST employees also improves with better operating conditions, and commuters will start using the BEST services more as they become more viable along with being a delightful experience.

FINAL IMPACT

Improved ride quality and experience. Necessary information like real-time tracking, total trip time, bus number and routes, traffic updates, etc. will be available at the fingertips.

Value Added Services will make traveling by BEST buses a worthwhile experience. Big Data synthesized from the use of SMS/mobile application and WiFi will help BEST understand customer behavior and preferences.

If improved ride quality focuses on getting customers back, this will lead to increased ticket sales. Additional revenue will be generated through VAS, targeted ads through WiFi, ad spaces in buses and bus stops, etc.

In the long-term, the revenues can be utilized towards skill development and training, wellness regimes for BEST staff, education for their children, providing sufficient leave, and more.

> *As Enrique Penalosa stated, "A developed country is not a place where the poor have cars. It's where the rich use public transport."*

The success of this pilot model will encourage its implementation across metros and other cities in India. An extrapolation of this system has the potential to integrate road travel across India in the long run.

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INTRODUCTION

Mumbai, formerly known as Bombay, is the capital city of the state of Maharashtra in India. It is the most populous city in India and the fourth most populous city in the world (World Population Review, 2016). It is also touted as the financial hub of the country.

Mumbai has a metro population of about 20.7 million according to reports last updated in 2016. For such a densely populated city, local road transportation is demanding and challenging. With various societal changes occurring simultaneously, a mounting challenge awaits the state government and the governing municipal corporation to handle the movement of people within the city. People's aspirations, standards of living, household income, adoption of internet & mobile technology and other factors have contributed to the rise in number of vehicles on road. The commute from work-to-home and vice versa during peak hours on road could be anywhere between 45 minutes to 2 hours.

BEST [Brihanmumbai Electric Supply & Transport Undertaking (Of Brihanmumbai Mahanagarpalika or BMC)] has been managing the bus transportation throughout the city since 1947 (BEST Undertaking, 2014). Although it has evolved and has managed buses, fleets and routes very efficiently, today it faces harsh criticism and severe losses (First Post, 2016). The passengers shy away from using the services and BEST employees are stressed.

There are multiple modes of transport available in the city: local trains, auto-rickshaws (3-Wheeled), share-an-auto (where 3 people can share an auto from aggregating starting points like local train stations to popular residential/commercial areas), taxis, share-a-cab service (where 4-6 people can share the cab in a similar fashion), and private taxi aggregators like Uber and Ola. But, there is a definite need for buses to facilitate local commute. If the services are enhanced, it will pave way for decongestion, and would encourage the public to utilize BEST's service offerings.

THE STUDY

In 2015, we at Pencil Point Designs started looking into the problems and downward trend that clouded BEST. It was all over media that BEST was literally wooing passengers using loudspeakers to use their services, albeit, with no result. We discussed the media reports amongst our team and felt the need to reimagine BEST services.

Study

With each passing day, the need for change became evident. But we had to study the real problem that the users faced on a daily basis. We took it upon ourselves to use BEST services and got a first-hand experience of the commute. In our study that spanned over two months, we commuted by non-AC as well as AC buses. Our observations and some of the main discoveries are as follows:

1. AC Buses

a. Reasonably quiet and more comfortable ride. Air conditioners (AC) were not always/fully functional throughout the journey. But it was yet a comfortable ride.

b. Passengers getting off the bus were less tired.

c. Conductors and drivers were comfortable and happier. This also reflected in their driving discipline and adherence to traffic rules.

d. The general conversation between co-passengers and/or passenger-conductor/driver was pleasant.

e. Passengers opted for long distance commute even during rush hours:

- Passengers didn't mind spending a bit more and preferred commuting by AC buses over the over-crowded trains

- Passengers engaged in various activities: browsing, working on laptops, using mobile phones to chat, talk and/or play games, sleeping etc.

f. The timings of these buses were noted by the passengers so that they can schedule their work accordingly.

g. AC buses ply with an official time interval of 20-30 minutes. In reality, especially during rush hours it could be anywhere upwards of 25 minutes.

h. The overall quality of the buses was good, but there is scope for improvement.

i. Most of the people get the monthly pass to avoid the hassle of carrying change. Nevertheless, the act of buying a ticket everyday has been pleasant, discounting few isolated events.

j. The ticket price being high, mostly, only working professionals use the service.

k. Most of the passengers sit comfortably and usually the bus conductor didn't allow overcrowding.

2. Non-AC Buses

a. Very high levels of noise due to traffic, the engine as well as the chattering moving parts of the bus made the ride very stressful. Passengers end up speaking loudly due to the noise even if they were sitting next to each other.

b. The ride quality was very bumpy and uncomfortable. Passengers getting off the bus were tired and irritated.

c. BEST conductors and drivers endured highest levels of stress during multiple trips in a day. This reflected in rough and rash driving and complete indiscipline and disregard for traffic rules.

d. Although, there are more options to choose from a particular bus stop for a particular destination, the average wait period was anywhere between 5 minutes to 35 minutes before the arrival of the bus.

e. Passengers who wait long for the bus took an alternative mode of public transport like a taxi or an auto-rickshaw to save time. And with couple of similar experiences, they might completely stop using the services.

f. Conductors allow as many people as can be squeezed into the bus. Despite having dedicated seats for senior citizens, women and the disabled, they weren't mostly used by the assigned along all routes at all times.

g. Lack of proper ventilation, especially during monsoons when the windows remain shut.

h. Given a choice, citizens avoid bus commute primarily due to

- Tiring and uncomfortable ride
- High noise levels
- Unpredictable arrival and running time
- Traffic conditions making it unreliable

Mapping all these points, we derived insights to come up with solutions that could really help both BEST as well as the passengers. The mammoth task at hand required complete overhaul of BEST systems, change in mindset and infusing a new work culture. Another challenge was the need for multiple government bodies to work together— for eg. Traffic Police would be required to ensure road discipline as well as mark dedicated lanes for BEST buses.

OUR APPROACH

We organized our thoughts around 3 elements that are critical for the success of any organization.

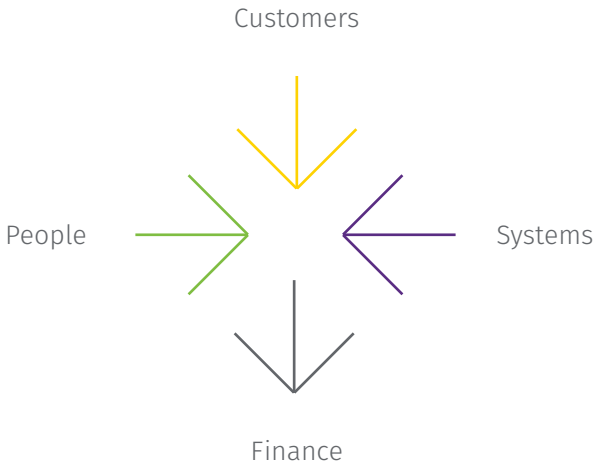
- People: BEST employees
- System: Internal as well as external
- Users: Commuters and/or citizens

If BEST has the resources to take care of its employees' well-being, the employees will perform their duties with a lot more willingness and happiness. This in turn helps in building BEST with a better and humane brand experience.

Systems that are designed and developed after adopting best operating philosophies and practices enables smooth operations throughout the organization including fleet and depots management, employee management, etc.

Understanding the users, their concerns, problems and taking active steps in resolving them so as to make it easier for them to use BEST services.

If the above mentioned elements are put in place, the fourth element, Finance, falls into place.



THE SOLUTION

We ideated a holistic solution that would employ design and technology to uplift BEST. The whole transformation required every aspect of the organization to be touched upon. The 3-phase transformation has been planned for execution over a span of 3-5 years. These three phases:

1. Digitalisation
2. Redesign & Rebrand
3. Go Green

DIGITALISATION

A large population of Mumbai uses smartphones and almost all the commuters carry a mobile phone. This population is also capable of understanding and using basic technology and are familiar with at least two regional languages. BEST can embrace the digital medium and enhance their services by reaching out the commuters through their mobile phones.

This phase has been envisaged for a span of 3-4 years: 6-8 months for pilot implementation across limited bus routes, 24 months for complete rollout and implementation and 8-12 months for refining systems.

Digitalisation requires the following 5 steps to be achieved systematically:

Upgraded BEST Buses	Upgraded Bus Stops	Mobile Application	Value Added Services	Big Data Generation
				

1. Upgraded BEST Buses

To encourage people to commute by BEST buses, it is important to provide good experience—whether it is an AC or a non-AC bus. While the ride quality in the AC bus is good, the non-AC buses require major changes in design as well as fabrication in order to enhance the experience.

The key points:

a. Accessibility

- Making the bus accessible for commuters on wheelchairs, senior citizens, pregnant women and physically challenged people
- Enabling easy entry and exit from and into the bus for all commuters

b. Quiet Commute

In order to reduce the noise levels within the bus, following changes are required:

- All buses need to have rear engine with automatic transmission
- All engines must run on compressed natural gas as opposed to diesel
- Fixed lightly tinted glass windows that reduces the outside noise by almost 70%
- Careful assembly of parts and use of good quality fasteners that withstand vibrations of the bus.
- Daily inspection of these moving parts and fasteners
- Carpeted floor for absorbing sound/noise

c. Wi-Fi Connectivity

- BEST can tie-up with private companies to offer free, secure and completely monitored Wi-Fi services in their buses

d. Ventilation

For a fully enclosed bus, it becomes important to feature an efficient ventilation system in order to keep the temperature at least 5-8 degree Celsius below the ambient temperature. This can be achieved by:

- Installing small swinging fans every 20" along the length of the bus
- Specific changes in bus body fabrication to aid air circulation without letting in the sound, dust or pollution. The roof can be designed to push out hot air, whereas the floor of the bus can designed to let in fresh air via a filter

e. Seating arrangement

In order to manage the load during peak hours, the seating can be better designed in order to make:

- Access and Exit from the seats convenient
- Allow for sufficient number of standing commuters

By touching upon the above points, the ride quality of the non-AC bus would improve substantially and commuters are more likely to use BEST bus service.

2. Upgraded BEST Bus stops

There are two types of bus-stops: a single pole bus stop that is installed on the sidewalk where space is a constraint and a proper bus stop enclosure with limited seating arrangement, advertisement panel which typically covers an area of 12ft length by 2ft6" breadth and 8-10ft height where the space is available.

In many parts of Mumbai, these bus stops are encroached upon by slum dwellers or homeless people forcing the commuters to wait on the road outside the bus stop. Through design, we can make efficient use of the space and make it more frequently usable in order to prevent such encroachments.

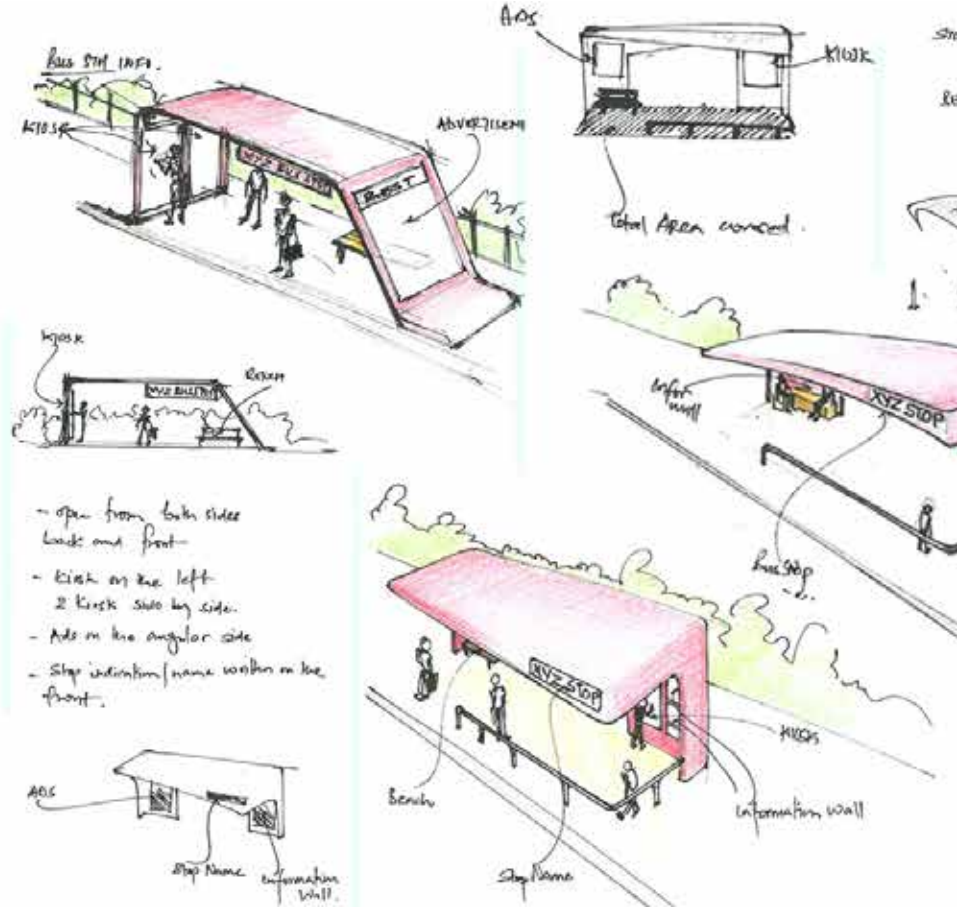
This can be achieved by taking the following steps:

a. Redesign space for easy movement within the bus stop.

b. Free, secure and monitored Wi-Fi

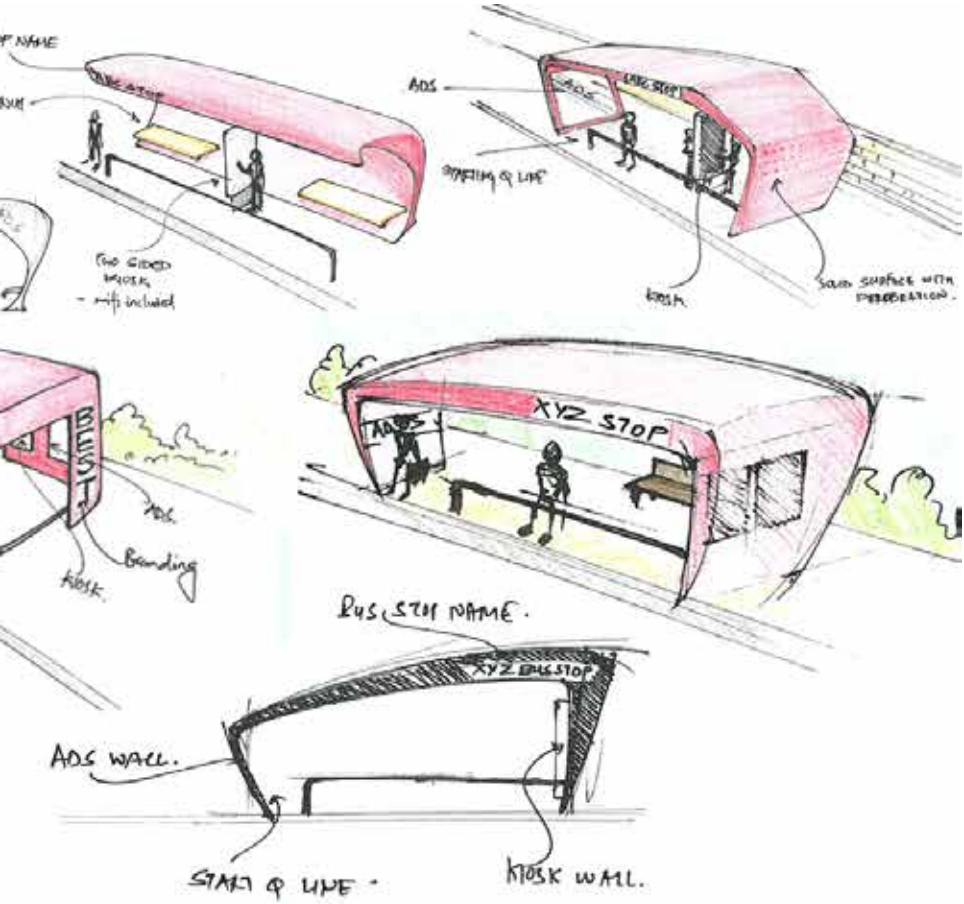
c. Interactive Kiosk with integrated ticket dispensing

d. Space for Value added services

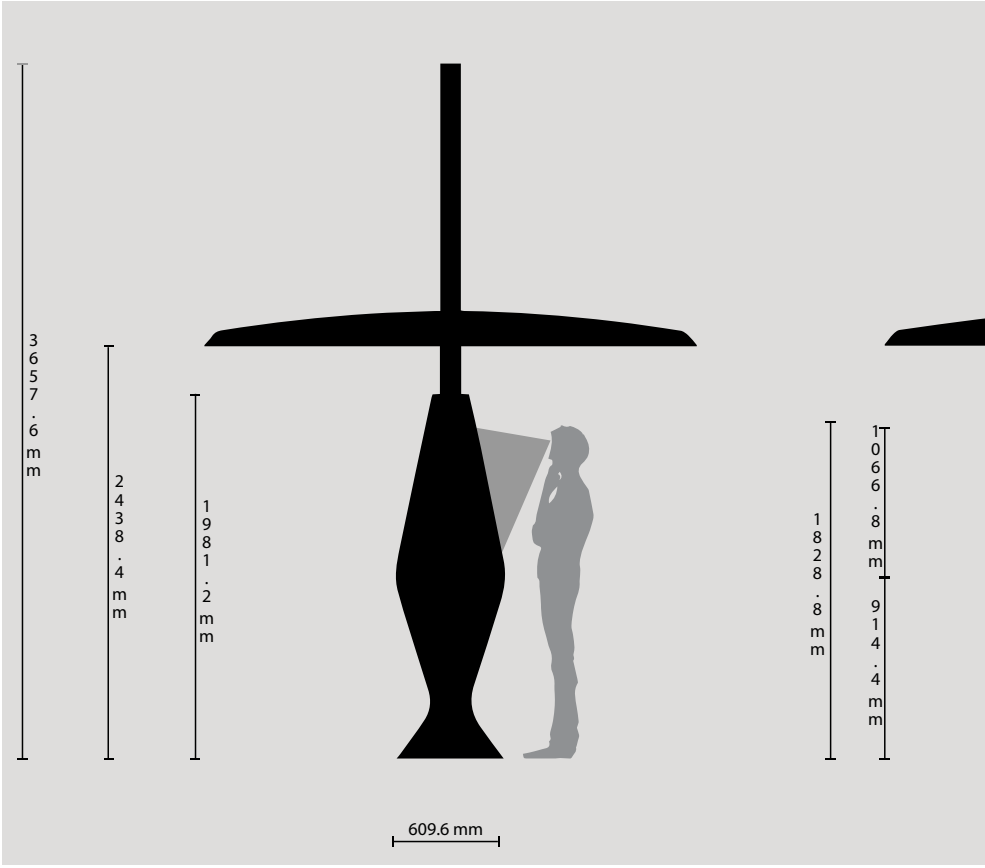


Bus stop

We conceptualized the bus stop designs that would integrate the above features as shown.

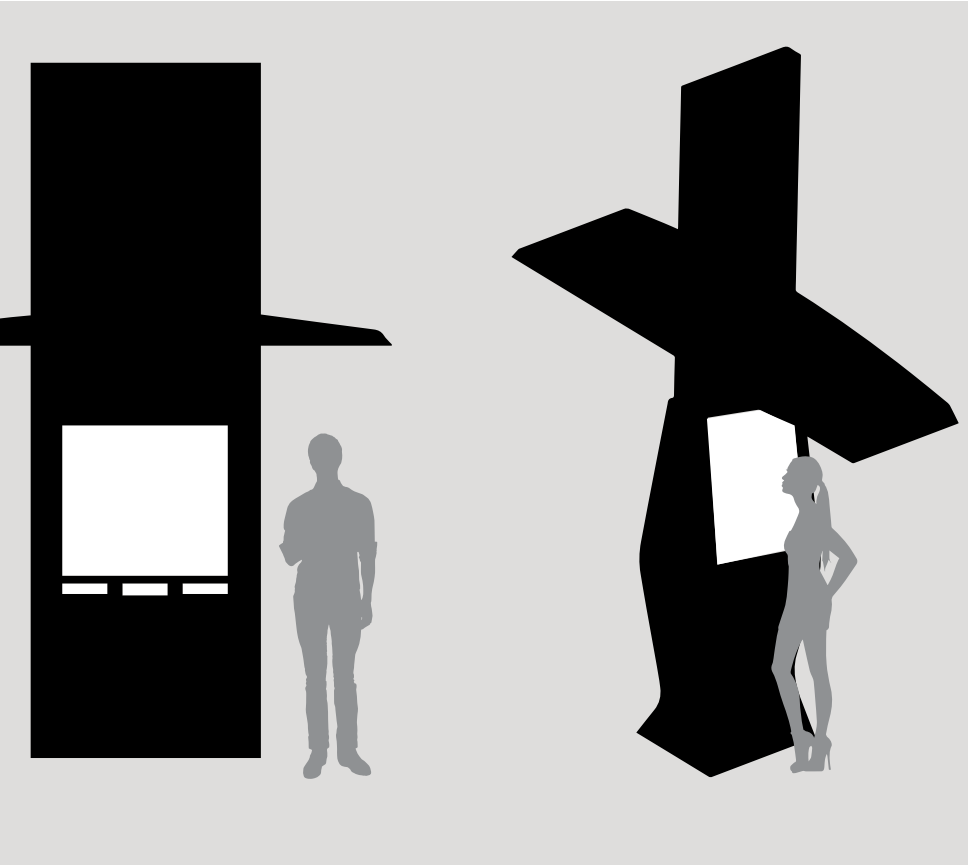


The redesigned bus stop gives a very airy and open feel. The integrated Wi-Fi enables people to perform their activities while at the same time enables BEST to monitor the buses as well as the bus stops.



Kiosk

The interactive kiosk runs an application that helps people plan their trip, take decisions about their trips as well as pay via BEST smart card/cash.

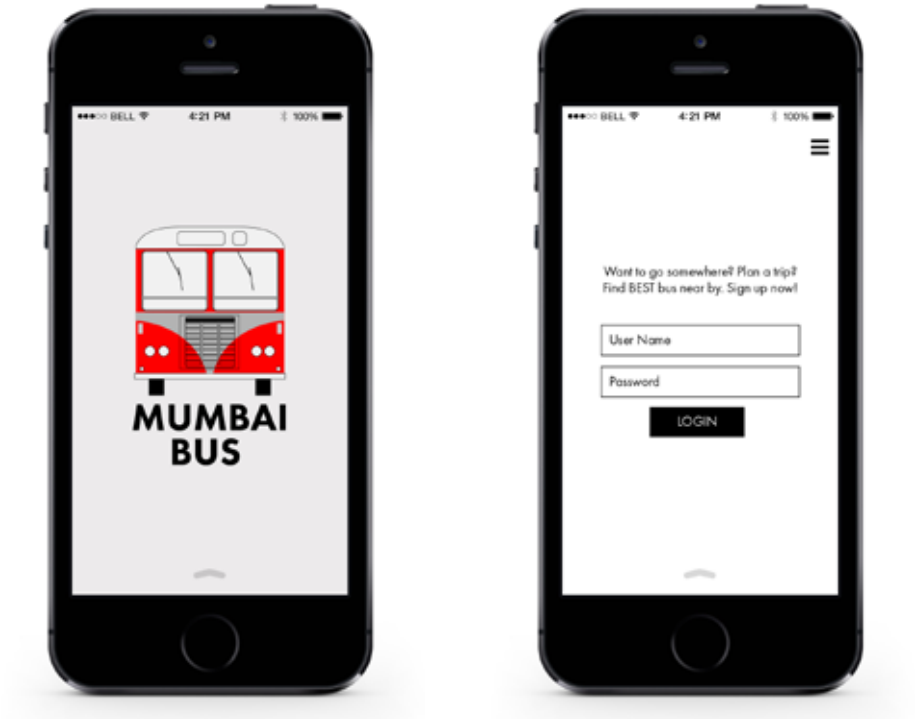


3. Mobile Application

To enable better and efficient time management for the commuters, a mobile application that helps commuters get necessary information for making a decision to opt for the bus commute is imperative.

We envisaged the screens for the application that can work across any platform, available in three different languages, has audio features and an integrated a payment gateway.

Mumbai is home to a diverse population. For any application that can get maximum number of users has to have multi-linguistic capabilities. The three languages that are most important are Marathi (Regional language), Hindi (Popular language), and English.



Mobile app screens

To make the application accessible to physically handicapped individuals, the app has specific, in-built features—for e.g. a visually impaired person can use the ear-plugs to hear the prompts from the application. The application can receive voice commands and aid in navigation. It can also prompt the user through voice as well as sensory mode (mobile vibrations) about events of the commute like bus arrival, trip planning, arrival of destination etc.

The key features of the application:

a. Native app available across all platforms

b. Plan a trip (From and to any location) within the city

This feature gives the following details:

- All bus options for that destination
- Ticket fare
- Time taken
- Next available bus
- Arrival time (in real time)

c. Search for bus via destination & Route Number

d. Get daily bus schedule for any route number

e. Get real time positions of the desired bus with traffic conditions

f. Manage commute history

g. Manage e-Wallet & online payments

h. Commuter Grievances

i. BEST updates

- For offers, special service launches
- Disaster management & Emergency services updates

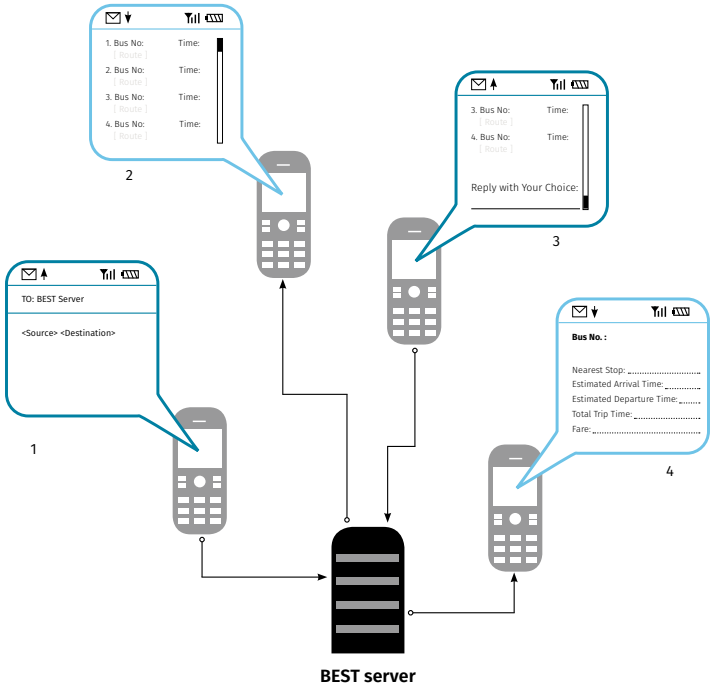
j. Accessibility features for the disabled

- Sensory alerts
- Audio alerts
- Voice commands

k. Multilingual

- Marathi
- Hindi
- English

3A. Real-time information via SMS

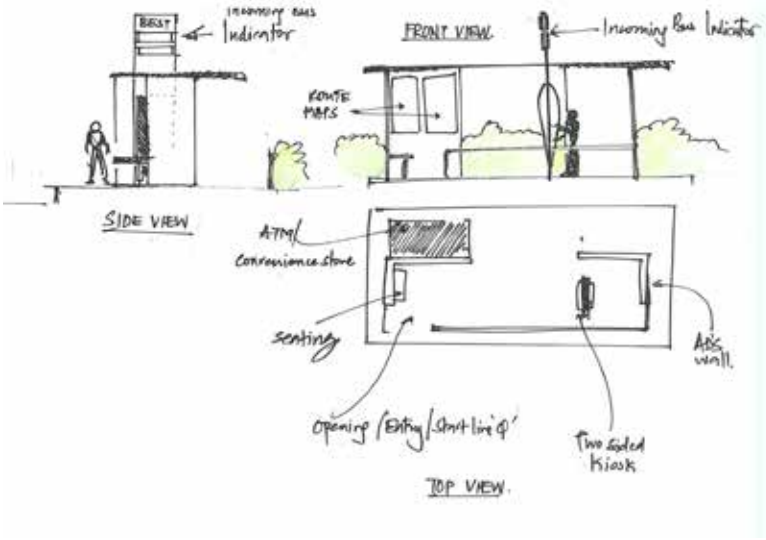


4. Value-Added Services (VAS)

Value Added Services can help bring together private businesses, brand owners, banks etc. For private businesses, it can spell direct access to consumers, whereas for BEST it can be a solid source of fixed revenue; VAS also enables commuters to use their wait time in a better way.

The redesigned bus stop can integrate space for essential services like a bank ATM, utility bill payment service kiosks, mini confectionery stall etc.

Use of technology would generate large amounts of Big Data. This can help brand owners in reaching out to the customers in a precise manner.



VAS in bus stop

5. Central system to collect & synthesize Big Data

A central control room captures and maps out all the buses across all the routes, records the usage of the application as well as interactive kiosk at the bus stops. It also monitors all the bus stops for security and vandalism.

The large amount of user data being generated can help BEST in many ways:

1. Optimize the time schedule for each bus depending on commuter load
2. Deploying focused bus service across specific routes
3. Plan and deploy mini-buses & long haul buses based on user data
4. Plan and deploy premium services for working professionals – AC buses across business hubs
5. Aid brand owners in creating targeted advertisements

Big Data has the power to bring in the longevity to an organization if it is synthesized, analyzed and utilized well.

REDESIGN & REBRAND

With the phase I implemented and running smoothly, BEST has already created a better experience for the commuters than before. It then becomes obvious to uplift and refresh the image of the organization through a complete redesign & rebranding exercise.

This phase has been envisaged to span 1-2 years for complete rollout and implementation of the new brand image. An ongoing activity will be carried out with more focus towards commuters.

Brand Building

Redesign Routes

Smart Cards

Improved Bus Design

Improved Bus Stop Design

GO GREEN

This is the last phase in the transformation and is towards making Mumbai free of noise as well as air pollution. This requires the government to collaborate with international counterparts to import and employ the best technology available.

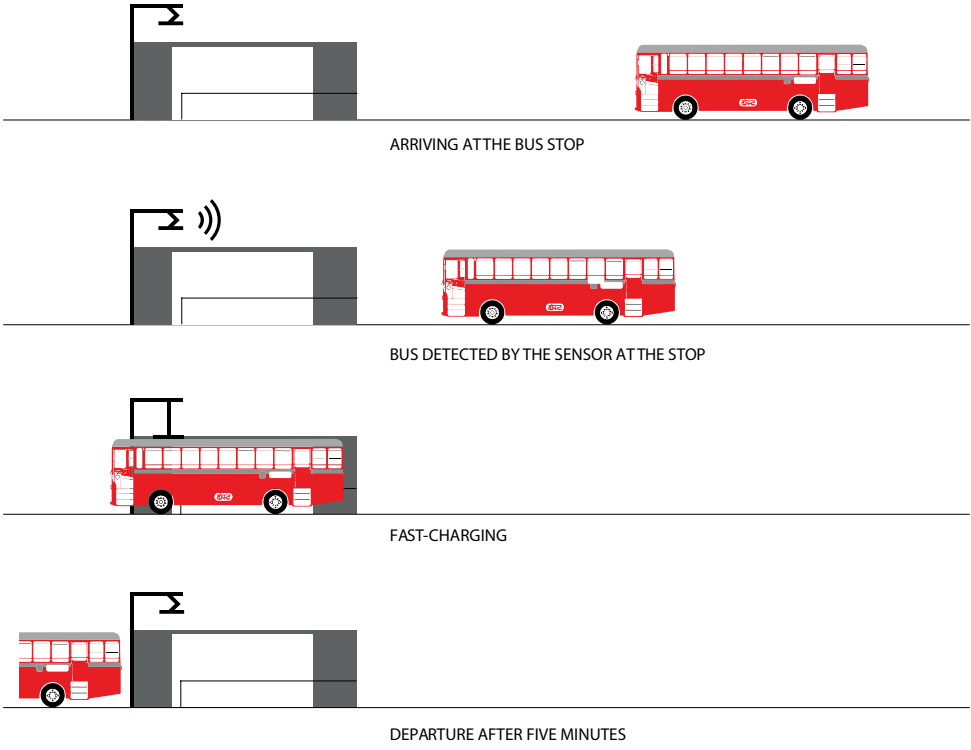
This phase has been envisaged to span 2-3 years: with 6-8 months for pilot implementation across limited bus routes, 12-18 months for complete rollout and implementation.

This phase involves gradually phasing in hybrid buses across all the routes of Mumbai. The State Government can import technology that uses overhead bus-bars to charge the electric batteries. This proven technology is already being used in Sweden.

Some of the features of these buses are:

1. These buses run primarily run on electricity & very little on gas
2. Full charge range is 18-20Km. This essentially covers the distance covered by long haul routes.
3. The batteries are quick charging and allow for a full charge in 5-7 minutes.
4. The buses can charge their batteries at the bus stops using bus-bar technologies.
5. The ride quality is superior with quiet operation not only inside but also outside.
6. All the buses can be fully air-conditioned

With all the technology that has been established and refined in the first 2 phases, the introduction of green buses would make the BEST truly at par with any of the public transport organization in the world. The life of BEST



ARRIVING AT THE BUS STOP

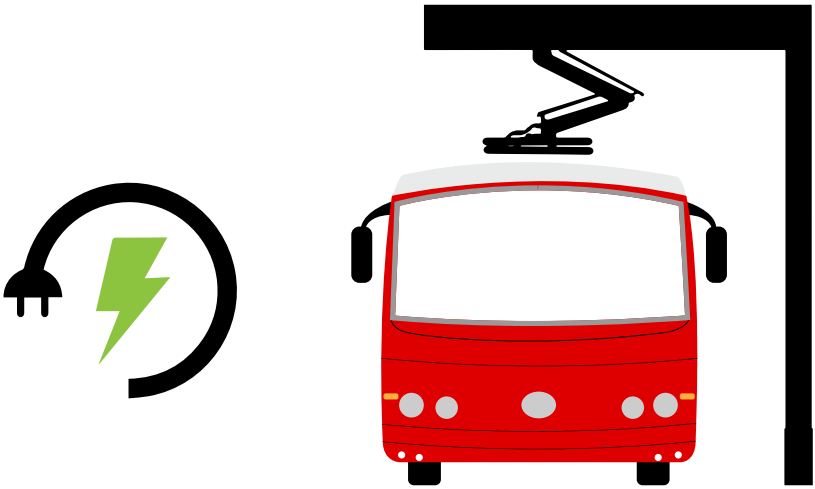
BUS DETECTED BY THE SENSOR AT THE STOP

FAST-CHARGING

DEPARTURE AFTER FIVE MINUTES

Hybrid buses

employees also improves with better operating conditions, commuters start using the BEST services more as it becomes more viable along with being a delightful experience.



FINAL IMPACT

Improved ride quality & experience

The redesign of the buses will ensure a quiet and comfortable ride— including improved accessibility for senior citizens, physically challenged and pregnant women. Better ventilation and seating arrangement, several measures to reduce noise specifically address the fatigue associated with the commute and health woes such as loss of hearing ability and stress experienced by drivers and conductors throughout the day.

The rebranding effort will focus on clear and consistent signage and communication across bus stops and buses to efficiently assist commuters from different states and countries.

Convenience

Necessary information like real-time tracking, total trip time, bus number & routes, traffic updates etc. will be available at fingertips— either via SMS or through a mobile application. This helps commuters make an informed decision about taking a bus.

The introduction of smart cards and interactive kiosks for dispensing tickets & information improves the preference for the service.

Worthwhile experience

Along with improved ride quality, features like WiFi in buses and bus stops, redesigned bus stops housing other Value-Added Services (VAS) like ATM, bill collection centres, and entertainment kiosks would make wait and commute time worthwhile.

Data-specific services

Big data synthesized from the use of SMS/mobile application and WiFi will help understand the customer behaviour & preference to launch data-specific services like more buses during peak hours, strategic routes etc. This will drastically improve the operations and ease management.

Sustainable Revenue Generation

If improved ride quality focuses on getting customers back, the convenience features and other VAS aims to attract new commuters. This will lead to increased ticket sales. Additional revenue will be generated through VAS, targeted ads through WiFi, ad spaces in buses and bus stops etc.

The VAS, redesigned buses and bus stops could present fresh investment opportunities for various businesses.

Green Mumbai

With the establishment of a smooth working system, sustainable revenues and footfalls, the final phase of implementation will see the launch of hybrid buses. The dedicated lanes will improve connectivity and reduce commute time. This is also key to attract a new customer base. Though this phase requires infrastructural changes, if done right, the health benefits are not just for the people but also for Mumbai.

Welfare schemes

In the long-term, the revenues can be utilized towards skill development & training, wellness regimes for BEST staff, education for their children, providing sufficient leaves and more.

As Enrique Penalosa stated, “A developed country is not a place where the poor have cars. It’s where the rich use public transport.” We wish to contribute in making Mumbai smarter.

The success of this pilot model will encourage its implementation across metros and other cities in India. An extrapolation of this system has the potential to integrate road travel across India in the long run.

About Pencil Point Designs

We are a research-based brand & design consulting firm in Mumbai specialised in Strategy+Design services with industry expertise in an integrated manner. We provide significant value in niche areas of focus in terms of not only design but also on strategy and innovative service/ product offerings for companies including startups. Our specialized industry niches include Law, Pharma and Life Sciences, Financial Services, IT and Telecom, Media and Entertainment, Real Estate and Infrastructure, Food & Beverages etc. We are the preferred design firm for international service firms, pharma companies and other manufacturing companies in India as well as the U.S.

We have developed a specialised focus in nurturing startups to kickstart a design-led brand creation in line with their strategic goals - immediate as well as long-term. We work closely with startups across all their design requirements.

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Ideas
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Out

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Making BEST Services Smart.

Smart City
Mumbai

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