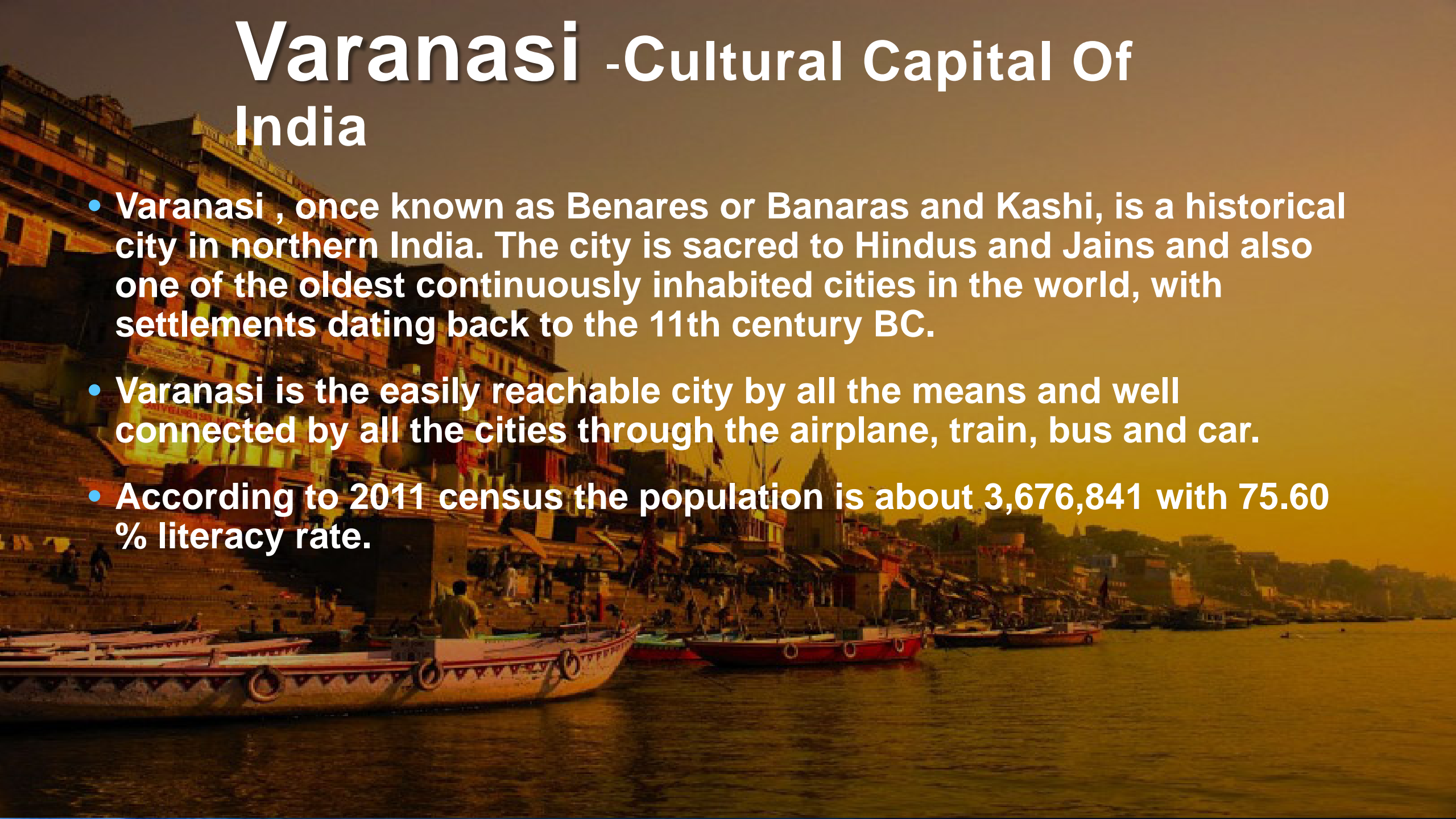


The background features a dark blue gradient with a series of curved, glowing lines that create a sense of depth and movement. On the right side, there is a grid-like pattern of light blue lines that recedes into the distance, suggesting a digital or technological environment.

To Develop ITMS For
City Transport Varanasi

Varanasi - Cultural Capital Of India

- **Varanasi** , once known as Benares or Banaras and Kashi, is a historical city in northern India. The city is sacred to Hindus and Jains and also one of the oldest continuously inhabited cities in the world, with settlements dating back to the 11th century BC.
- **Varanasi** is the easily reachable city by all the means and well connected by all the cities through the airplane, train, bus and car.
- **According to 2011 census the population is about 3,676,841 with 75.60 % literacy rate.**



VCTSL-Varanasi City Transport Service Limited

Varanasi city transport service ltd. Is public incorporated on 15th June 2010. It is registered at registrar of companies as a state govt. company. It has two depot one at kashi and other at Cantt. It is public city based service under JNNURM scheme of government of India. Some of the interesting facts about the service are:

- ✓ 130 buses.
- ✓ 36 unique routes.
- ✓ Everyday covers total distance of 21000 Km.
- ✓ Average income of 4.5 lakhs daily.

About ITMS(Intelligent Transportation Management System)

A range of technology based solutions for improving the quality, safety and information aspects of traffic and transport. ITMS technologies, also known as transport telematics, usually have three core characteristics: communications, information and integration. ITMS solutions enable individual travelers, drivers, transport operators and public authorities to make better-informed, more intelligent decisions.

- ✓ TIME SAVINGS
- ✓ BETTER EMERGENCY RESPONSE TIMES AND SERVICES
- ✓ REDUCED CRASHES AND FATALITIES
- ✓ COST AVOIDANCE
- ✓ INCREASED CUSTOMER SATISFACTION
- ✓ ENERGY AND ENVIRONMENTAL BENEFITS
- ✓ DECREASING OF PROBABILITY OF CONGESTION OCCURRENCE

In ITMS we want to design:

- ✓ Real time monitoring and tracking of buses and help reduce road congestion and other related issues.
- ✓ ITMS solution to provide dynamic passenger information system(PIS) based on GPS system.
- ✓ Advanced display and communication technologies.
- ✓ Ticketing systems using ETMS and use this data to improve efficiency.

RAHi APP (A City Bus Information Platform)



- ✓ Provides real-time location of the bus to the people.
- ✓ Helps new commuters get an idea of the best routes and buses by entering the source and destination locations.
- ✓ Several features work offline (No need of internet connections).
- ✓ Provides fare information between two stops.
- ✓ The app provides a list with bus numbers and their estimated time of arrival (ETA).
- ✓ Gives nearest bus stop with live bus stop status.
- ✓ Monitoring drivers and alerting the administration about unauthorized stops, speed limit violations, and route deviations.
- ✓ List of nearest hospitals, police station and fire brigade in case of emergency.

InoTracks Admin Dashboard

The screenshot displays the InoTracks Admin Dashboard interface. At the top left, the 'InoTracks' logo is visible. A user profile icon for 'vctsl' is in the top right. A search bar for buses is located on the left side. A sidebar menu on the left contains various navigation options: 'Map View', 'Tabular View', 'Speed', 'Running Buses', 'Time Tables', 'Routes', 'Route Violation', and 'Fuel'. The main area shows a map of Varanasi, India, with a red pin indicating a bus location. A popup window provides details for the bus: 'Bus Number: UP65AT4091', 'Driver Name: SANJAY KUMAR 2', 'Running Status: true', and 'Shifts: 0'. The map also shows several other red pins, suggesting multiple buses are being tracked. A 'Refresh Shifts' button is located in the top right corner of the map area.

Features Like:

- Real time tracking on map.
- Route Violation information.
- Detail fuel information of each bus with enabled notification.
- Direct editing and making of time-table.

Future Prospects

- ✓ **Cashless travelling –Integrate of online and offline payment through the app for ticket booking (in accordance with the digital India initiative).**
- ✓ **CCTV based surveillance.**
- ✓ **Fuel sensor integration in bus so as to monitor the fuel consumption on real time.**
- ✓ **Machine learning based data monitoring.**
- ✓ **Synchronize between bus, train and flights with reminder of the status of the vehicle.**
- ✓ **Metro, Railway station and airport synchronization.**
- ✓ **Connect with police stations, fire brigade, hospitals and ambulance in case of emergency.**
- ✓ **WebApp development.**

