



## Briefing Notes Reprint

### Briefing Notes - Mindtree Addresses the “Retailization” of Travel & Hospitality with IoT

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## Briefing Notes – Mindtree Addresses the “Retailization” of Travel & Hospitality with IoT

### Summary and Key Takeaway

There's a clear gap in the travel market between the desire to provide better services to customers and the ability of the brands to do so. So, there's a market opportunity for providers to give guidance to enterprises in the travel and hospitality sectors. Mindtree works with its clients to enhance the customer experience across the entire travel/hospitality value chain. Its travel, transportation, and hospitality practice is the fastest growing segment of its digital portfolio. Mindtree combines a consulting-first approach with a reference architecture and framework with the building blocks for personalization, including the Internet of Things (IoT).

### Briefing Notes

ISG's Vishnu Andhare, Ron Exler, Bruce Guptill, Ankit Jamwal, Sumit Sadhukhan, and Sikha Singh participated in briefings with Srini Kasthoori, Associate Vice President, Head of U.S. Travel, Transportation and Hospitality Practice, Mark Tedone, GM, Travel, Transportation and Hospitality Practice, as well as Srinivas Rao Bhagavatula, Associate Vice President, Head of IoT Center of Excellence. The sessions highlighted how Mindtree approaches this industry, with specific focus on how it deploys IoT applications along with some use cases.

Mindtree is a mid-sized Indian IT services firm that serves financial services, higher education, insurance, manufacturing, media, retail, technology, travel, transportation, and hospitality industries. The firm uses Agile and collaborative approaches to design and create solutions to enable and support the digital value chain. Mindtree also offers expertise in IT infrastructure and applications management services.

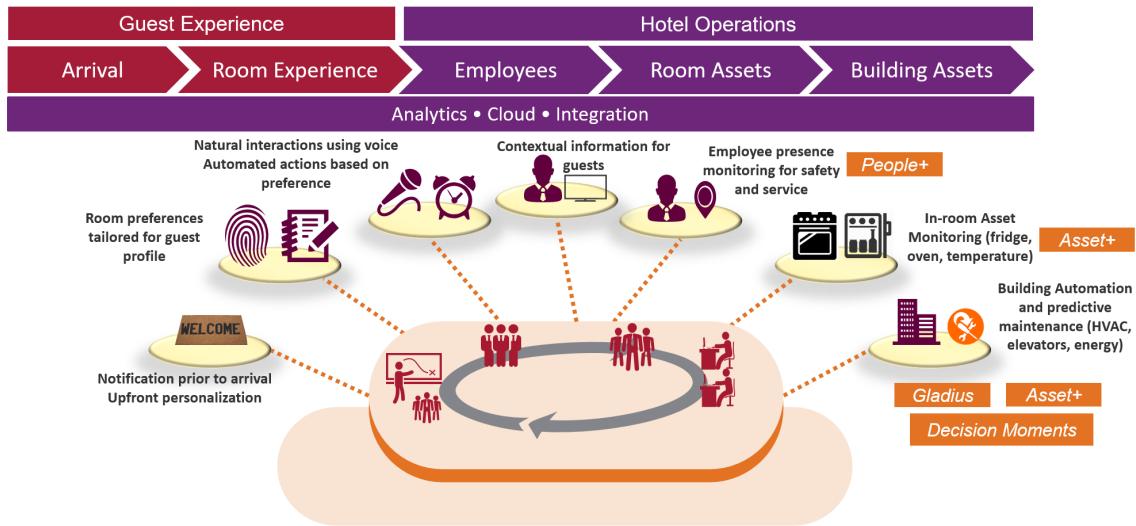
Leading travel and hospitality brands strive to better connect with travelers, increasingly using mobile phones to connect with travelers as they journey. A trip might start in their home, move to a vehicle, then to an airport, onto an airplane, into another vehicle, and then to a hotel. These movements establish a digital value chain that supports the recognition of individuals and provides the ability to respond immediately to needs.

Enriching the guest experience across the value chain is a trend in the hospitality industry with a focus on increasing brand preferences, loyalty and direct booking. Inventory unbundling is another trend that the hospitality providers consider to increase ancillary revenues. At one major hotel corporation, Mindtree delivered a comprehensive Big Data and analytics solution with a focus on enhancing the guest experience across the value chain. (Figure 1).

This solution captures the customer “genome”, or profile, including customer stay preferences, buying behavior, food and beverage preferences, online shopping behavior, and amenity preferences. Mindtree

**Figure 1: Mindtree IoT in Hospitality**

## IoT in Hospitality



Source: *Mindtree*

In another hotel implementation, the focus was to enrich the customer experience with a robust mobile app that includes real-time customer chat and digital key capabilities for the guest. The app enables pre-arrival notification, automated check-in, keyless door-entry with the digital key, personalized in-room amenities, real-time indoor navigation, and immediate checkout transportation.

To support other deployments, Mindtree offers an IoT reference architecture for travel focused on connected baggage, signage, vehicles, and trolleys. This event-driven architecture addresses the high throughput and high availability requirements of the connected traveler. Another capability Mindtree supports for travel is a voice-enabled personal cognitive assistant that a hospitality company uses to increase automation and self-service via mobile devices.

Mindtree offers a range of horizontal solutions and assets that underlie its service in travel and hospitality. The Persona Engine is a reference architecture model that defines the enterprise systems for customer management. Mindtree builds such frameworks once to leverage across multiple clients. Its approach is to leverage technology and understand all parts of the travel process from the customer perspective. Then, Mindtree works with enterprises to build new business models that enable a 360-degree view of customers – to build that genome discussed earlier.

The company sees clients in different states of readiness, so it helps those at the various stages of need with tools and accelerators. Its Connected Traveler is an Azure-based platform that combines (as needed) cognitive assistants, voice-enabled chatbots, an Alexa interface, and mobile access with a recommendation engine for ancillaries. The Mindtree Gladius video management platform includes the Gladius IoT platform to connect and manage video, audio, and sensors.

In client implementations, Mindtree says it is open to working with any products. Some of its clients don't care about specific technologies - they want best-of-breed for the optimum custom solution. The company sees less interest in monolithic systems today, as enterprises want flexible, cloud-based technologies - so the client engagement typically starts with consulting. In some cases, Mindtree leads a comparison of technologies and then recommends based on client requirements.

In many cases, clients first want to capture unused data. So Mindtree applies Big Data landing platforms for gathering data while also building a platform to capture and manage attributes. In some deployments, it connects Apache's Hadoop and Cassandra and then pushes data to Mindtree's Decision Moments, analytics workspace, to generate insights that serve personalization applications.

## Net Impact

There's a clear gap in the travel market between the desire to provide better services to customers and the ability of the brands to do so. Customers don't always react kindly to ancillary services. Legacy practices and systems dominate, some of which impede progress in digital transformations and enabling modern technologies. Meanwhile, the competition for the customer is fierce, not only between traditional players but also with the entry of alternative services. At the same time, the costs of IoT infrastructure are falling. So, there's a market opportunity for providers to give guidance to enterprises in the travel and hospitality sectors.

Mindtree's use cases show promise for the use of the Big Data analytics, AI, and the IoT in these industries. The case for improved customer experiences is clear from their early deployments. The challenges are in scaling the deployments, which require not only the right provider oversight but also need enterprise buy-in starting at the executive level and flowing through the organizations.

Leveraging existing unused data is an important early initiative that can serve as a foundation for data streams as IoT connectivity adds data. We think that few industries have the complexities as those in travel and hospitality, with so many stakeholders involved (e.g. owners, operators, management companies, guests). In such a scenario, data ownership as well as data sharing incentives and methods will also determine the scalability of any deployment.

The company's experience in hotels and airports in particular give it an experience base that combines well with its skills base and technology ecosystem. Future success for Mindtree depends on its successful implementation of existing projects to gain references, raise awareness, and create differentiation in a competitive market.

## Summary Facts

- Mindtree Limited has corporate headquarters in Bangalore, India, and U.S. headquarters in Warren, NJ.
- Company annual revenue for year ended March 31, 2017 was \$779.8 million, with approximately 16,470 employees globally serving 300+ active clients.
- Core portfolio includes application development, cloud computing, digital transformation services, data analytics, e-commerce, and marketing.

- Core markets include the US and Europe contributing 65% and 25% in revenue respectively.  
Overall, Mindtree has 42 offices in 17 countries.
- Key competitors include Infosys, Accenture, Atos, Capgemini, HCL, IBM, TCS, and Wipro.

## Associated Insights

Improving the Customer Experience Takes More Than Technology Innovation

Briefing Notes – Mindtree Fuses Design Thinking via Its “Digital Pumpkin”

Mindtree ADM Profile

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