HOW BLUEPI HELPED A LEADING TRAVEL AGGREGATOR MIGRATE TO AWS CLOUD & ENHANCE OPERATIONAL EFFICIENCY

About the Client
One of the largest online hotel and air-travel booking websites in India, it is also one of the highest ranked apps in Google Play, under Travel category. In 2015, their hotels-booking volumes grew 5x YoY, with 70% of them coming from their mobile app.

The key business differentiator for the client was to deliver the fastest and most trusted user experience, enabled by the fastest search, booking, payments, settlements and refund processes. All of that, built on top of enormous amount of data coming in from various sources, daily.

Business Problem
Client used to host all its applications and workloads on a traditional data center, by purchasing and renting its systems and architecture. This posed a huge challenge in scaling the application during high traffic periods. Additionally, purchasing new servers and upgrading their configuration was proving to be time consuming and expensive. They were looking for a scalable solution that tackled the enormous traffic.

BluePi’s Solution
The first of our recommendations was to migrate their entire infrastructure to AWS. This was crucial, as it would help them leverage benefits like Auto Scale and On-Demand temporary infrastructure, to tackle high volumes upfront. It also let them make use of AWS managed services like RDS for Database, ElasticCache for Caching, ELB for Load-Balancing, EMR for Hadoop, etc., helping them enhance operational efficiency at optimal costs. In addition, with features like Elastic Load Balancing, the infrastructure can automatically take care of redundancy, armed with additional safety of an auto-failover mechanism.

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In addition to all that, as we just began working on it, AWS announced the launch of Mumbai region, which meant, we had to shift all that we had started deploying! Despite these complexities BluePi, powered by Agile methodology, was flexible and competent enough to walk the client through their entire journey of digital transformation, without any hassles and with minimum downtime. The key here was the amount of time invested in understanding the requirements thoroughly before beginning the planning process. Our initial Requirement Analysis questionnaire was elaborate and captured minute details about the current application setup, helping us provide a truly customized solution while sticking to the timelines promised. The entire delivery process can be explained in 2 phases:

1. **Phase One** A discovery phase that involved taking stock of the existing infrastructure in addition to talking to various departments, understanding their application dependencies, 3rd party integrations, security concerns etc., before going ahead with the migration.

2. **Phase Two** This involved setting up of a data lake to host all the data in S3 for Big Data, configuring EMR, running a couple of sample Hadoop Jobs along with implementation and migration of streams to ElasticSearch.
Architecture
BluePi was entrusted with responsibility and ownership of migrating the Applications, DataSources, Services and the Data Platform to AWS. At a high level, the stack consisted of Python, MySQL, MongoDB, SOLR, Cassandra, Kafka, Redis, MemCache, Hadoop, Cloudera, Hive and a few other components.

Results & Benefits
In a nutshell, here’s what we managed to achieve:
• Live Migration of entire architecture to AWS with the least downtime
• Built a highly scalable, fault tolerant, elastic architecture
• Helped leverage benefits of cloud, like Auto Scaling and On-Demand temporary infrastructure
• Deployed AWS Services like RDS for Database, ElasticCache for Caching, ELB for Load-Balancing, EMR for Hadoop, etc.

Doing so for a complex system, within the timelines agreed on, with the minimum of fuss, downtime or adverse business impact – was, quite surely, icing on top of the delicious cake!