

Cognizant Digital Operations – Predictive Operations for Outstanding Customer Experience

Best Achievement in Operational Excellence to Deliver an Outstanding Customer Experience

About Cognizant:

Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise and a global, collaborative workforce that embodies the future of work. We are one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Cognizant, a member of the NASDAQ-100, is ranked 205 on the Fortune 500 and is consistently listed among the most admired companies in the world.

Digital Operations – Technology Vertical:

Technology vertical at Cognizant is the fastest growing Digital Operations business unit which enables the transformation agenda for born-digital organizations. Our Digital Operations transformation framework helps clients achieve breakthrough performance improvements across the entire value chain by applying advanced technology levers and deep business operation knowledge. With smart technologies such as rapid process mining and digitization, we simplify customer business processes to maximize agility, scalability, speed and efficiency.

Our Expertise and Services Offerings:

	Social Media Content Ops	Digital Marketing and Sales Ops	Maps, Innovation Ops	Customer Experience Ops
Business Outcomes	<ul style="list-style-type: none">• Brand Reputation• User Experience & Safety• Regulatory Compliance	<ul style="list-style-type: none">• Revenue Growth• Customer Acquisition & Retention	<ul style="list-style-type: none">• New Customers• Revenue Growth• Competitive Mkt Position	<ul style="list-style-type: none">• Customer Experience• Customer Advocacy• Cross-sell /Upsell
Service Offerings	<ul style="list-style-type: none">• User Trust & Safety• Brand Trust & Safety• Algorithm (AI) training• Analytics & Reporting• Social media Monitoring• Crowd Sourced Moderation	<ul style="list-style-type: none">• Brand, A/C Manager Support• Content & Creatives Readiness• Ad Ops, Sales Ops (SMB & LCS)• Campaign Optimization• Analytics and Reporting• Data Integration (IT+ Ops Engine)	<ul style="list-style-type: none">• Localization, Map Ops,• AI Algo training• Feedback Engineering• AR /VR Content Classification• Healthcare products/ platform• NPI / Fintech incubation	<ul style="list-style-type: none">• Go-to-Market• Customer Support• Product Support• Social Media support• Fraud Analytics• Ops-up Consulting

Fig 1.0

Operational excellence is at the core of our Digital Operations business. Our technology solutions with human centric design, create an immersive customer experience and accelerate delivery on business outcomes.

It is supported by a deep understanding of how to attract and develop critical talent required to prosper in the digital age.

Capabilities and Practice Areas to help clients deliver business outcomes



In this project, we utilized our ***Cognitive Ops and Intelligent Ops*** capabilities to deliver Customer Experience Excellence in Digital Marketing Operations.

Let us introduce the project now – What if you have a crystal ball in your hand and you can see the future, and have the ability to change it? That is exactly what we did!

Project / Challenge:

We were facing challenges in meeting timeliness SLAs and Customer Experience SLAs in Campaign Implementation workflow of Digital Marketing Operations. We prepared an innovative machine learning-based solution to ensure significant improvement in Timeliness and Customer Experience outcomes.

Crystal Gazer

- **Process:**

Our campaign implementation team is responsible for end to end implementation of task in client provided tools. Team receives tickets with multiple SLAs, e.g. 5 hrs, 6 hrs and 24 hrs. Multiple Account Managers (Our customers) have varied needs and use nonstandard inputs. Time-critical transactions require to be monitored aggressively to ensure good customer experience and mitigate potential loss to the customer due to delays & errors. Team has to manually manage the allocation of tasks after assessing the task requirements.

- **Challenge:**

As there is no standard design for inputs, different tasks have different SLAs, different work content, and every account manager has their own preferences around communication and inputs discipline; Our teams needed a solution that could handle these multiple factors to suggest the ***Next Best Action***.

- **Solution:**

We utilized our ***Analytics*** capability to identify the factors that affect customer experience, and utilized our ***Cognitive Ops*** capability to develop a robust solution to ensure better customer experience. A tool using ***Intelligent Ops*** capability was developed and has 2 stages.

In stage 1, the solution utilizes real time analytics and operates as a ***Match Maker***. The solution at this stage is able to:

- I. Identify the top 5 operators in sequence of best match for the job
- II. Assess the job content and predict time taken to process it, compare it with the SLA of the job and assign priority to the job based on time due and work content

This information of Predicted SLA, Assigned Priority and Best Operator for the job; help the tool assign the job to **Best Available Operator**.

In stage 2, once the task is assigned to an operator, the tool analyzes the historic CSAT scores and comments for the combination of operator and the account manager, **predict likely CSAT** (using ML models XGBoost) and shares insights (**Next Best Action**) on what is critical for operator to deliver a better customer experience for the account manager. For example, it could share the insights like, this account manager does not like to get connected every now and then for clarifications, just send updates and clarifications every six hours or this account manager prefers the final output of campaign plan in Excel sheets (this is achieved using sentiment analysis of the request ticket and historic CSAT comments).

Crystal Gazer - Match Maker for Optimal Performance

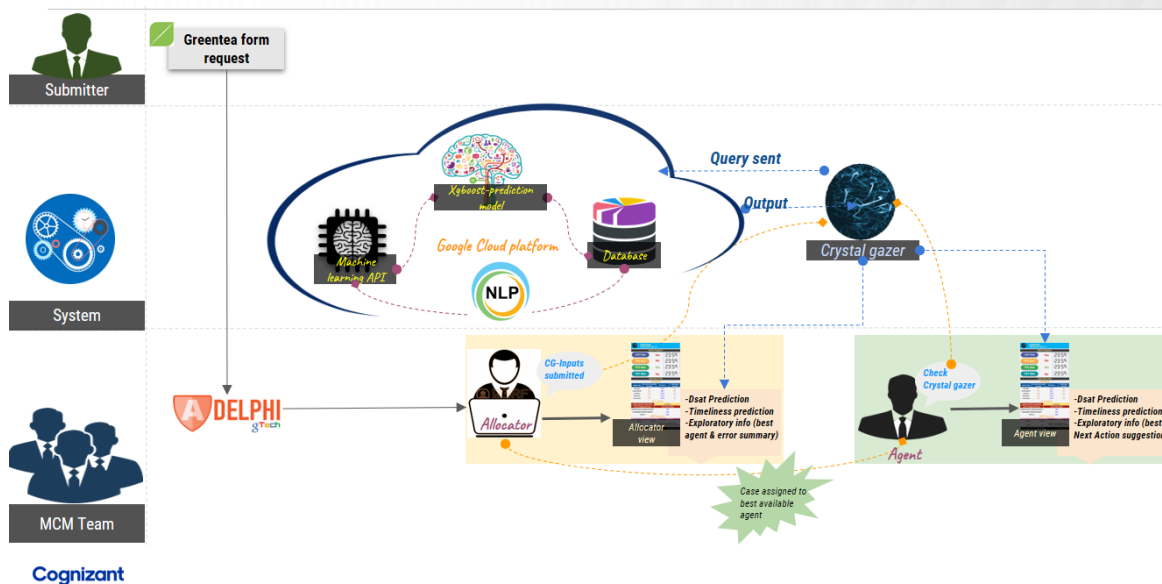


Fig 2.0

This is just like a crystal ball that looks into the future and guides you to take action to change that future if it is not favorable. That is why we call it **Crystal Gazer**.

Project Implementation and Timelines:

The project was divided in three phases, Agile development methodology was used to deliver minimum viable product in phase 1 and features were added in subsequent phases alongside testing of previous phases. Following are details of development roadmap and project timeline.

Tool Development Roadmap

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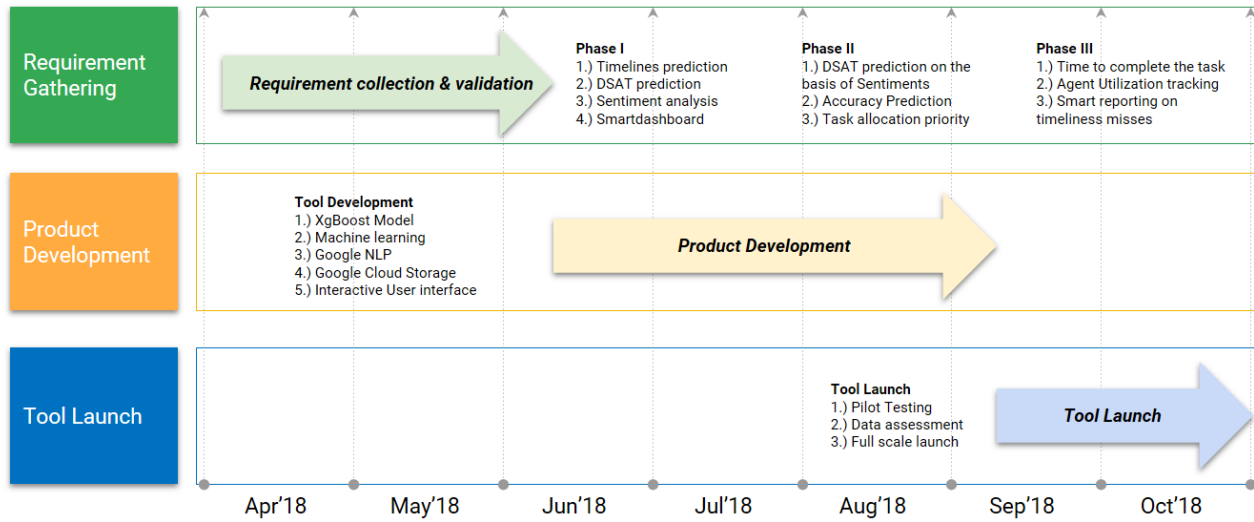
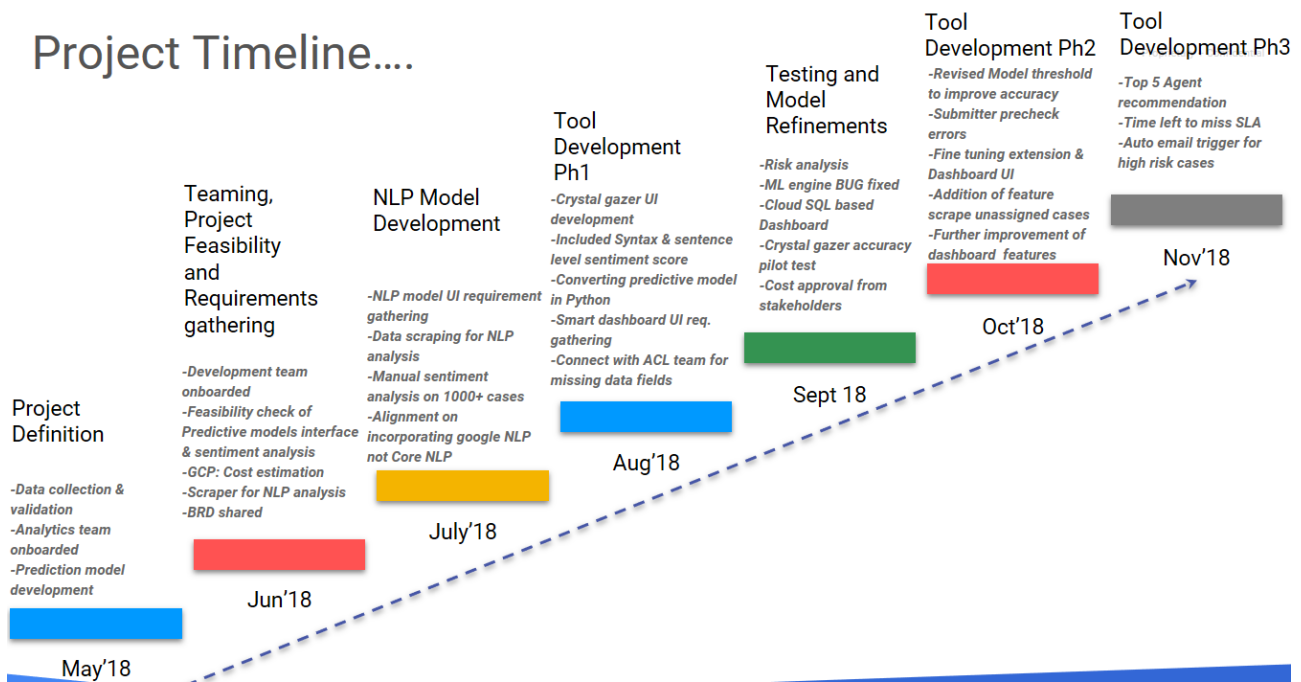


Fig 3.0

Project Timeline....



Benefits Delivered:

The project delivered significant benefits., We reduced tickets with dissatisfied ratings by 26% and we those that were processed late, by 10%. Along with these hard benefits, there were other softer benefits as well, that are shown below.

Benefits from the Crystal Gazer Tool

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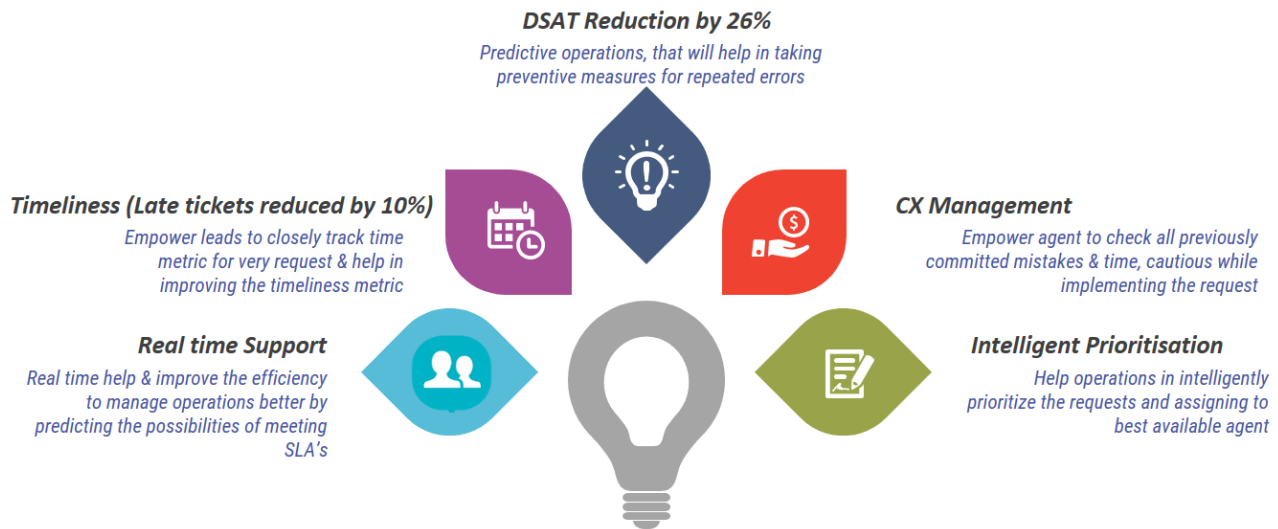


Fig 4.0

Organizational Learning:

This is a first such solution that we created. It is very innovative and relevant to any operation that process deferred tickets where work content of every ticket has high variance. There are multiple workflows within and beyond the Technology vertical that this solution is easily replicable to. The replicability is so high that we have placed this solution in our central **Reusable Assets Repository** where any workflow that needs this tool can replicate it by producing their own models that work best in their scenario.

Business Results:

Customer centricity has enabled us mine the opportunity landscape, develop deeper process knowledge and understand customer preferences to impart enhanced customer satisfaction. The long term impact is on **born digital** client mindshare as a preferred partner in offering transformation solutions. This has resulted in a 4x ramp in the Campaign Optimization workflow where this tool will be implemented to stabilize the process, as a part of the solution.