Delivering an IVR Migration from Multiple Platforms to Genesys Engage Cloud

miratech

Establishing Business & Technical Goals

Today, businesses continue to accelerate their migration to the cloud. Very often companies have multiple legacy systems that create inefficiencies in operations. Our client, a multinational financial services provider with call center operations serviced by over 1,500 agents, was one of those companies.

In 2019, the financial services giant was still operating two different legacy IVR systems, each over a decade old. They were custom-built platforms running 21 applications built with Microsoft UCMA code and spread across the two systems.

The following are some of the applications the client was looking to migrate:

Corporate Services:
Auto Attendant

Employee Services:
Employee Data Report
Employee IVR

Canada Services:
Canada Auto Disclosure
Canada Auto Fraud

US Services:
US Auto Disclosure
US Auto Dispute Status
US Auto Fraud
NextGen Workflow

National Consumer Telecom & Utilities Exchange Services:
NCTUE Auto Fraud
NCTUE Auto Disclosure
NCTUE Opt Out
NCTUE Security Freeze

State Services:
Social Services
State Agency Response
Tax Form Management

Workforce Solutions:
PPAY
WSS Hub
TCI Cast
TCI eSign
Verifier IVR

These legacy systems offered different levels of capabilities and required diverse application development tools for managing call flows. These issues led to costly maintenance and development expenses as well as lengthy turnaround times for new applications requested by business users. The client decided to move these legacy systems to the Genesys Engage Cloud platform.

A thorough analysis showed that migrating these legacy systems to Genesys Engage Cloud could substantially reduce the client's operational costs. Additional driving factors for this decision were to improve the business owners' control of their IVR applications, more easily scale across the enterprise and continue their drive to improve all aspects of customer experience.

Miratech, as one of the only independent Genesys PS teams empowered to perform a migration to Genesys Engage Cloud, was brought in to help.

From a technical aspect, the client's decision to move to Genesys Engage Cloud was based on Genesys IVR offerings that include:

- A web-based call flow design tool
- More control of applications which utilize state-of-the-art Natural Language technology
- Administration of the cloud IVR, supporting multiple roles from developer to business user to system administrator
- The cloud IVR ease of connectivity to external web services and/or APIs, allowing the client to fully access and utilize customer data for further customization and improved customer experience

Step One: Amassing the Size and Complexity of the Migration

The scope of the project was to design, configure, test, and migrate 21 IVR applications from third-party systems to Genesys Engage Cloud. As the selected vendor, Miratech analyzed the requirements, taking into account previous experience with similar engagements.
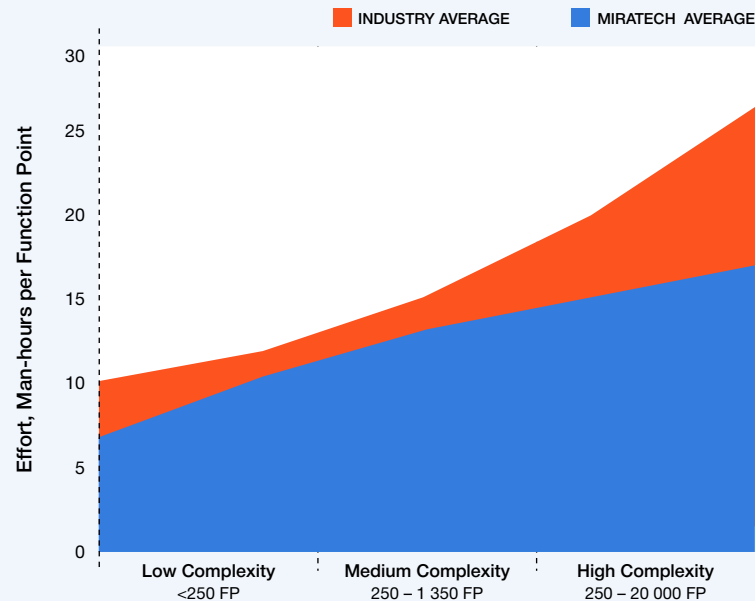
Miratech used their proprietary Function Point Methodology (see below) to estimate the size of the project as 2,110 Call Flow Points (CFP). Based on the analysis of historical data accumulated from Miratech projects of similar size and complexity, the estimated effort to migrate the IVR application was 1.6 person-hours per CFP, bringing the total project to 3,370 person-hours. Based on a delivery team of 9 FTE (including 7 Genesys PS consultants (one onsite and six offsite), and 2 Genesys QA engineers), the overall duration was estimated to be 10-12 weeks.

Introducing Miratech's Assessment Methodology Based on Function Points

There are a myriad of issues that call centers encounter in terms of security and most of these topics are not even considered until there is a failure or it's too late to take preventative action. Here we touch on some of the most common call center security fail points and how we address them in a unique and effective way. By addressing these core issues we are able to create a bespoke solution for your specific needs.

FUNCTION POINT METHODOLOGY DELIVERING SUCCESS AT 30-40% HIGHER EFFICIENCY

Miratech delivers the best cost per deliverable across the full spectrum of projects from low to high complexity. Miratech especially thrives on very complex projects.

INDUSTRY AVERAGE   MIRATECH AVERAGE

Effort, Man-hours per Function Point

| Low Complexity | Medium Complexity | High Complexity |
| <250 FP | 250 – 1 350 FP | 250 – 20 000 FP |

Not All Things Go As Planned

The initial plan was to migrate 21 IVR applications, but as is in all business operations, priorities change. That's the real world.

Midway into the engagement, a new, high-complexity application was added to the requirements for development within just two months so an old data center could be decommissioned as planned. Miratech, working with the financial services giant's business leaders, quickly reassigned the development activities of the team to focus on this important new application. The newly added application was a consumer credit IVR strategy that required over 100 person-hours to develop and deploy.

As the project evolved, the requirements changed once again. Four new applications would be required to ensure seamless operations of the business – they had to be developed within just one month to accommodate unexpected the decommissioning of an older data center. Miratech once again reassigned the development activities to include these new applications, considering the new time limits. The original list of 21 applications the Miratech team already started developing was narrowed down to five, with a focus on the high-complexity application mentioned above.

The implementation of all these applications was fully dependent on the APIs that were to be developed by the client's internal team but weren't ready on time – this made completing the development and performing unit testing within the given timeframe highly challenging. These APIs required multiple modifications as they weren't giving back the information required for the communication with the newly developed IVR applications.

For each successive requirement, Miratech's unique and propriety methodology was used to ensure the successful, timely, and on-budget implementation.

Turning Agile Development into an Agile Relationship

When priorities changed yet again, another five applications from the original list of 21 were reassigned. Miratech handed off these applications to a team in India to complete the last 10%. Miratech then shifted our team, which was more highly skilled, to the more complex assignments with a higher priority.

To remain on track with their timelines, four months later the client expanded the project further and asked Miratech to help with the Genesys migration of their another large business unit spread across three locations. The team that was working on this had failed all agreed deadlines – to speed up the process, Miratech's agile team was brought in.

This is when Miratech had to come in to provide the ability to deliver it in parallel with this other team and Genesys PS team. Our team was tasked with IVR applications testing and Workforce Management (WFM) deployment. The latter required a highly skilled WFM expert, whom Miratech provided within a just few days. To ensure the tight deadlines are met, our team utilized our propriety methodology – we measured the scope and broke multi-step tasks down into single-step ones to accelerate the deployment.

Within just four weeks, a standard 8-week WFM deployment cycle, from discovery session to production, was completed. Close collaboration with WFM business users and agile approach were key to meeting tight deadlines.

The IVR applications our team worked on were of high complexity and were tested one by one, including end-to-end testing and User Acceptance Testing (UAT) case development; each application wax launched to production within a maximum of just four weeks. As our team has expertise across multiple Genesys products, we also assisted in testing critical features of Pulse Reporting, Quality Management, and Call Backs.

The major value our team delivered for this business unit was launching into production the entire solution, including SIP telephony, IVR, Reporting, and WFM – all at the same time.

Accelerating the Project Plan

The success of the project was fully dependent on the close coordination of four geographically dispersed teams located all over the world – from India to Costa Rica, in three different time zones. To make communications between the teams most efficient, the Miratech team shifted their work hours so everyone was operating at GMT -5.

Thanks to decades of experience in planning and effective processes, the Miratech team was able to ensure faster resolution of issues, and successfully meet the tight deadlines.
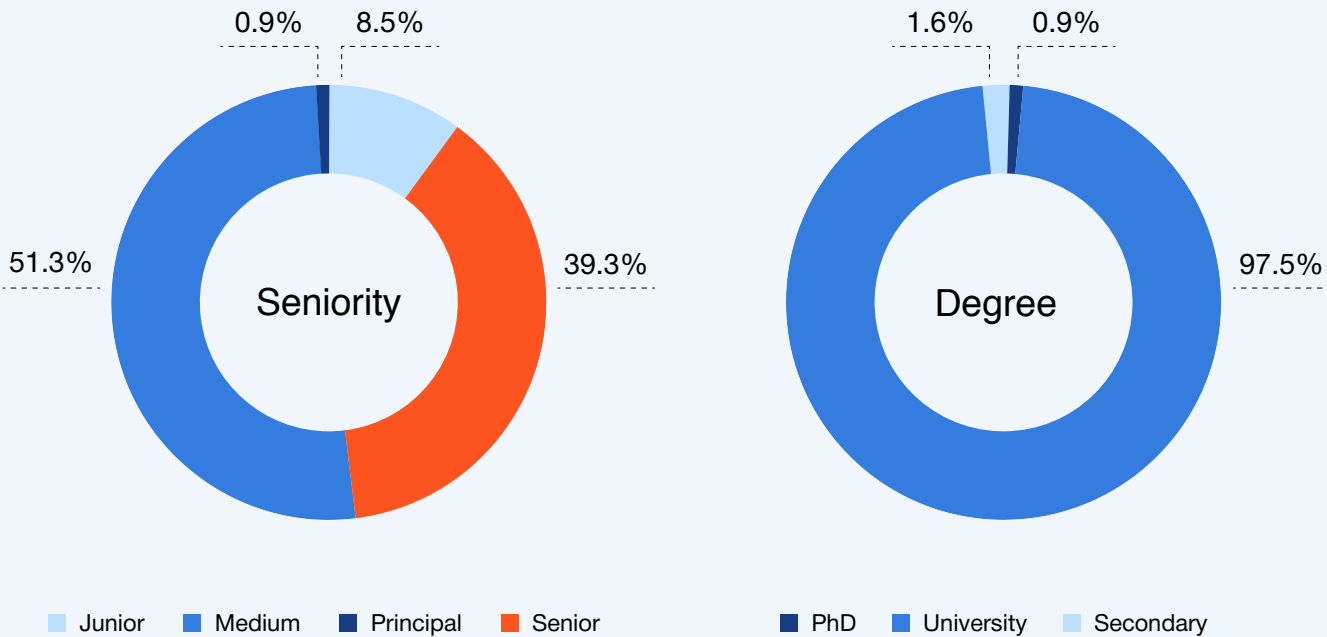
Optimizing the Strategy

The new IVR applications were of critical importance to the client's business. Each application enabled customer requests for specific information or changes to customer data to be entered in the IVR. These applications thus reduced the volume of calls needing a live agent for fulfillment – a great improvement in customer experience as well as a reduction in cost of meeting these customer needs.

From Engineering to Support to Professional Services

Usually, when companies identify resources that would work with a platform like Genesys, they would look for someone who used to set up VoIP, install phone switches, or was part of an operations and maintenance team.

At Miratech, we choose people that used to be developers. And there's a big reason for it. Somebody who used to install complex hardware, their primary job was punching down cables; whereas a Miratech's PS consultant's primary training was product development, they are programmers.

With this kind of background, it is much easier to learn a new piece of software that does something that they can actually build themselves. Our transition is from engineering to support to professional services. You start from being an engineer, someone who is very technical – you're "inside of the software"; your next step is moving to a customer-facing role in technical support – you talk to customers, learn to understand their problems; finally you become a PS consultant – this is when you consolidate your prior experience, creating a perfect balance of technology and people skills.

Seniority: 0.9% Principal, 8.5% Junior, 39.3% Senior, 51.3% Medium

Legend: Junior, Medium, Principal, Senior

Degree: 1.6% Secondary, 0.9% PhD, 97.5% University

Legend: PhD, University, Secondary

Summing Up

Originally, the scope of this project was estimated with great precision – 2,110 Call Flow Points (CFP) that brought the total project to 3,370 person-hours. A team with the right skill sets was built within just days, and was ready to put in their relentless performance. But, as today's business environment is increasingly dynamic, many things just don't go as planned; which is why the ability to be agile, adaptive, and resilient is key to success in today's digital world.

With business requirements changing every few months, Miratech had to reassign the development activities to include new tasks and ramp the team up and down as needed. For each successive requirement, Miratech's propriety methodology was used to ensure a successful, timely, and on-budget implementation. As project evolved, agile development turned into an agile relationship, allowing the client to be nimble and flexible in response to the rapidly changing business environment.

Another key factor that contributed to the success of this project was close collaboration between multiple geographically dispersed teams – to make communications most efficient, the Miratech team temporarily shifted their work hours to a more suitable time zone for all teams.

At this point, all critical applications, both in the original scope and those added as project evolved, are successfully completed as scheduled, with zero defects during UAT. The remaining applications are currently under development.

APPENDIX

Some of the assumptions used in Miratech's estimations to account for time and complexity of the project according to the Function Point Methodology:

- Project size is 2,110 Call Flow Points.

- The scope of this project is the development of 21 IVR applications completely defined in call-flow diagrams (24 MS Visio files). Any changes, features, or activities, which are not explicitly stated in referenced documents may result in changing the project size and effort respectively.

- If identical parts of call flows will be identified, it will increase the efficiency of development by means of reusing such parts.

- The estimated project scope will be implemented by the Miratech team.

- The client is responsible for integrations with third-party systems (web-services, databases, etc.) through Enterprise Service Bus (MuleSoft). IVR applications will use REST APIs exposed by MuleSoft API gateway. Unavailability of REST APIs towards third-party systems, or defects behind those APIs, should not affect acceptance of services provided.

- APIs exposed by MuleSoft to ensure integration with third-party systems will be well-documented.

- Services will be delivered remotely from Miratech R&D centers.

- The client will provide Miratech with recorded audio messages for reuse.

- All the activities will be performed using the standard functionality of Genesys Designer. No custom development is assumed within the scope of this project.

- Standard speech grammars will be used in IVR applications. Implementation of up to 5 non-standard speech grammar in total is included in estimates.

- The client will provide translated phrases in multiple languages for speech grammars where these languages should be supported.

Technical Specifications

General
- Web-based thin client flow design tool
- Supports multiple languages Business Controls
- oggle emergency flags on and off
- Configure business hours and special days
- Control IVR flow and behavior in real time from internal "data tables"

Integration
- Integrates with any front- and back-office applications to personalize engagement
- Facilitates RESTful integration

Reporting
- Pre-defined dashboards and visualizations
- Reports on business-specific data including calls, duration, milestones, activities, and disposition
- Troubleshooting and tuning the data including call path, user inputs, and low-level session data
- Filters to pinpoint calls that meet certain conditions

Administration
- Supports multiple roles including business user and developer
- Saves and publishes the application
- Easily assigns dialed numbers to applications or removes them

Key features
- Web-based design tool, Enterprise IVR
- Visual summary of call flows
- Connections to external web services
- Analytics with pre-defined dashboards and visualizations
- Embedded survey solution
- Speech recognition with custom, dynamic grammar, and Natural Language Understanding **support**
- Recorded IVR interactions
- Multiple user-level administration

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