

Wolfie Christl

SURVEILLANCE AND ALGORITHMIC CONTROL IN THE CALL CENTER

**A case study on contact and service center
software, automated management and
outsourced work**



A CASE STUDY BY CRACKED LABS

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Cracked Labs, May 2023.

Author: Wolfie Christl

Edited by: Mike Holohan

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Cracked Labs – Institute for Critical Digital Culture
Gumpendorfer Straße 63b, 1060 Vienna, Austria
<https://crackedlabs.org>

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Summary

The call center has long been considered the prototype of a work environment that makes employees subject to extensive surveillance and digital control. Calls and other work activities are constantly monitored and assessed down to the second. The recorded data is used to rate, rank and discipline workers and push them to the maximum level of work they can manage. Call centers have become “contact centers” that handle calls, emails, chats and social media messages. Where they handle customer support or helpdesk services, they are also referred to as “service centers”. The work environment pioneered in the call center has spread into many areas, from sales to back-office work, from technical advice to remote nursing. Outsourcing giants with hundreds of thousands of employees, which are referred to as “business process outsourcing” (BPO) firms, handle everything from customer service, sales, claim handling and debt collection to content moderation and “AI” data labeling.

This case study explores software systems, technologies and mechanisms that use personal data on employees to organize, monitor, micromanage and control almost every aspect of work in call centers and similar workplaces, with a focus on Europe. It makes two contributions:

First, it summarizes more than two decades of research on how call centers actually use surveillance and algorithmic control in Europe and in the UK, based on a review of survey-based studies and field reports. The review also addresses how workers are affected, the structure of the industry and the complementary role of precarious working conditions, short-term contracts and low wages.

Second, and this is the main contribution, it examines software that is available on the market for employers to operate contact centers and manage workers, based on a detailed analysis of technical documentation and other publicly accessible sources. The investigation focuses on contact center systems provided by the leading vendor Genesys, but also documents data practices from other companies such as NICE, Verint, Amazon, Cogito and Callminer. Some of these systems unite functionality, which is typically covered by different software in other sectors. The findings show that today’s contact center systems offer a wide range of mechanisms to structure, direct, monitor and control work:

- Performance metrics, targets, rankings and assessments are ubiquitous. Dashboards, reports and alerts help to identify “outliers” and appoint coaching sessions. Real-time feedback on performance ratings and monetary “incentives” can be used to intensify work. Electronic wallboards that show metrics to groups of workers and other “public shaming” mechanisms can create peer pressure. Workers can be obligated to collect “points” throughout the day by behaving as desired and to compete with others in the team, turning the contact center into a *Black Mirror* episode.
- The concept of the “queue” creates a virtual assembly line with the constant need for immediate action. Notifications and timers can act as virtual whips. Automated call and task allocation can be used to maximize efficiency and minimize idle time. Managers can define key performance indicators that determine how quickly calls and other tasks are assigned to workers based on their skill profiles and past behavior. Workers may have to get in line with rigid scripts and other workflow mechanisms or step in when voice- or chatbots demand it.
- Calls and other communication contents can be fully monitored and recorded in the name of training, quality assurance, customer satisfaction and compliance. Today’s contact center software can automatically analyze and assess what workers say, which phrases they use and whether the sentiment in a call or conversation was “positive” or “negative”. Some systems claim to rate “friendliness” and “empathy” by assessing the tone of

voice or even provide automated real-time instructions to workers about how they should speak in order to “implement empathy at scale”, as one vendor states. The recording of screen contents is also offered. Managing “quality” and customer satisfaction can turn into behavioral control.

- Some vendors sell even more invasive surveillance technologies targeted specifically at remote workers, from recording keystrokes and mouse clicks to the use of webcams for monitoring.
- Employers can automatically schedule shifts, activities and breaks to get the maximum out of a minimum number of staff and outsource risks to workers by means of flexible shifts, unpaid leave, overtime assignments and just-in-time hiring. Forecasting and planning mechanisms can directly affect performance targets, work intensity and schedule stability.

Although surveys, field reports and vendor information on the use of the examined systems suggest that many of these functionalities are in use in Europe, it remains unclear how employers actually deploy them. Overall, the findings clearly demonstrate that the design of these systems can shape how they are used by employers and thus how they affect the daily lives of workers. Default settings and recommendations laid out in the software documentation can also have an impact on how employers use them. While a comprehensive legal assessment of the examined data practices is beyond the scope of this study, data protection issues are briefly discussed.

The study also addresses the relationship between some of the examined software vendors and the French outsourcing giant Teleperformance. Furthermore, it shows that several companies, which provide call center technology, originate from the national security sector. Some of them still sell surveillance systems to both employers and governments.

The findings of this case study will be incorporated in the main report of the ongoing project “Surveillance and Digital Control at Work” (2023-2024) led by Cracked Labs, which aims to explore how companies use personal data on workers in Europe. The main report will draw further conclusions.

1. Introduction

The call center has long been considered the prototype of a work environment in which employees are subject to extensive surveillance and control. Calls and other work activities are constantly monitored and assessed, down to the second. The recorded data is used to align the workers' behavior with business objectives, discipline them and often to push them to the maximum level of work they can manage. Call centers have been referred to as electronic "sweatshops" (Fernie and Metcalf, 1998) and the "factories of our times" (Woodcock, 2017), relying on an "assembly line in the head" (Taylor and Bain, 1999). While automation and digital control are ubiquitous, the line managers, who are often referred to as supervisors or "team leads", also play a crucial role.

Call centers have long since turned into **contact centers**. In addition to incoming ("inbound") and outgoing ("outbound") phone calls, the employees, who are usually referred to as "agents", also handle faxes, letters, emails, online live chats and social media messages. Contact centers provide customer support and handle orders, bookings, claims, complaints and other requests, as well as outbound activities from marketing and sales to debt collection. Large organizations operate "help desks" that provide internal support to employees (Sabeti, 2017). The industry is sometimes also referred to as the **call and service center** sector in the literature (Daum et al., 2028).

The boundaries between contact center work and many other types of clerical work have become blurred. Agents may not just handle customer communication, but take over entire **business processes**. Processing an insurance claim can, for example, involve gathering and verifying information, making decisions, notifying customers and handling further inquiries. More broadly, contact center work can involve both communication and back-office work, in combination with almost any form of service occupation, from financial advice to nursing, from mass marketing to high-skilled professional work (Burgess and Connell, 2017). Businesses and other organizations operate in-house contact centers, but also outsource their contact center operations to subsidiaries or to large service contractors such as Teleperformance and Majorel, which are also referred to as "business process outsourcing" (BPO) providers.¹ Leading vendors, which provide cloud-based software that enables organizations to operate contact centers and to manage workers, include Genesys, NICE, Five9, Talkdesk, Cisco and Amazon.²

1.1 Overview

This case study explores software systems, technologies and mechanisms that use personal data on employees to organize, monitor and control almost every aspect of work in call centers and similar workplaces, with a focus on Europe. It makes two contributions.

First, it summarizes research on how call centers actually use surveillance and algorithmic control in Europe, as set out in **Section 8**. It reviews survey-based studies and field reports from different countries, including Austria, Germany, Portugal, Spain, Italy, Poland and the UK. This section also addresses how workers are potentially affected. It describes the structure of the industry and discusses the role of outsourcing and precarious working conditions.

Second, the study examines software that is available on the market and used by employers to operate contact centers and manage workers, based on an analysis of technical documentation and other corporate sources. The investigation focuses on contact center technology provided by **Genesys**, a leading vendor with several thousand

¹ See section 8.2

² See e.g. Gartner (2022): Magic Quadrant for Contact Center as a Service, 22.8.2022

pages of documentation available online, but also addresses data practices from other companies. **Section 2** shows how organizations can use Genesys software to organize, prioritize, distribute, assign and monitor work. It addresses predictive call routing, automated task management, the pervasive role of performance metrics and other mechanisms that rely on the ubiquitous collection and analysis of personal data about workers. It also examines call recording and the analysis of communication contents in the name of quality assurance, customer satisfaction, training and compliance. **Section 3** turns to automated shift scheduling, forecasting, workforce planning and other mechanisms that promise to provide employers the maximum out of a minimum number of flexible workers. Subsequently, **Section 4** documents Genesys functionality that enables performance and behavior control such as targets, timers, customer ratings, evaluations, assessments and rewards, including mechanisms that rely on peer pressure and game mechanics à la *Black Mirror*. As **Section 5** shows, software provided by other vendors such as Five9, NICE and Amazon provides similar functionality. Since these systems are now cloud-based platforms, companies can install "apps" that add functionality and let data flow seamlessly across different systems. **Sections 6 and 7** explore examples of even more invasive technologies that use webcams and keystroke recording to monitor remote workers or systems that promise to measure and influence workers' emotions and mood.

The systems provided by Genesys and other vendors are very comprehensive software packages that consist of many different modules, which can potentially cover everything that is needed to operate a contact center, including daily operations, training, planning, scheduling and human resources. Other employers usually use several different systems for these purposes. As such, this is not a single case study of a single system, but a compilation of several case studies of different systems, all of which have in common that they process personal data on workers. Many mechanisms described in the following sections also play a role at workplaces in very different industries.

1.2 Context, scope and limitations

This case study is part of a series of case studies on systems that process data in the workplace, which in turn are part of the project "Surveillance and Digital Control at Work"³ led by Cracked Labs. The project aims to explore how companies use personal data on and against workers in Europe, based on previous research that resulted in an initial German-language report published in 2021, together with AlgorithmWatch, Jeremias Prassl (Oxford), UNI Europa and GPA, funded by the Austrian Arbeiterkammer. This case study documents technologies and data practices based on the examination of software that is available on the market and sold to employers. The products and vendors were selected as illustrative examples of wider practices. The findings are based on a literature review, as well as on an analysis of publicly available information provided by corporate actors. This includes software documentation and marketing materials, which might be ambiguous and incomplete. Every effort has been made to accurately interpret these corporate sources, but we cannot accept any liability in the case of eventual errors.

³ <https://crackedlabs.org/data-at-work>

2. Operating a contact center with Genesys software

Genesys, a US company with 6000 employees⁴ and offices in several European countries,⁵ is a leading vendor of software for operating contact centers. Its cloud-based system is used by 4,000 customers in 100 countries to manage 720,000 workers, according to the company.⁶ Founded in 1990, Genesys was a subsidiary of the French telecommunications technology firm Alcatel-Lucent from 2000 to 2012,⁷ and is now owned by a number of investment firms.⁸ Customers include large European companies such as BMW, Fiat Chrysler, Philips, Siemens Healthineers, Co-op and Vodafone, as well as outsourcing giants such as Arvato and Teleperformance.⁹

Genesys provides comprehensive functionality to organize, manage and control almost every aspect of work performed by contact center agents, from assigning calls and other tasks to tracking behavior and work performance down to the second. This includes automated call monitoring, quality assurance, training, shift scheduling and capacity planning.¹⁰ Enterprises have long been able to operate this software using their own IT infrastructure (“on-premises”) or using cloud infrastructure controlled by themselves (“private cloud”). In 2022, Genesys announced it would no longer sell these products to new customers and now encourages existing customers to move to a single cloud-based version operated by Genesys.¹¹

Earlier research of Genesys software includes Sánchez-Monedero and Dencik (2019) and a German-language report published by the author (Christl, 2021). The following sections are based on a review of several thousand pages of software documentation, which are provided online by the company, and which describe, in detail, how employers can use different versions of Genesys software, as well as additional components and applications.¹²

2.1 Monitoring and organizing contact center work

Genesys constantly calculates a wide range of performance metrics that rely on the ubiquitous collection of personal data on work activities. Supervisors and other managers have access to reports that display both individual-level and group metrics, both in real time and covering longer periods of time.

Activity and performance monitoring. Figure 1 (top left) shows a section of the user interface of a Genesys software module that displays real-time metrics about individual workers, including their names, which is referred to as a “dashboard” for supervisors. It shows lists and rankings of agents regarding their login times, talk times, numbers of calls handled and work performance.

⁴ <https://www.genesys.com/company> [28.11.2022]

⁵ <https://www.genesys.com/global-offices> [28.11.2022]

⁶ <https://www.genesys.com/blog/post/all-in-on-genesys-cloud-cx> [28.11.2022]

⁷ Taylor, Josh (2011): Alcatel-Lucent offered US\$1.5bn for Genesys. ZDNET, 30.10.2011. Online: <https://www.zdnet.com/home-and-office/networking/alcatel-lucent-offered-us1-5bn-for-genesys/>

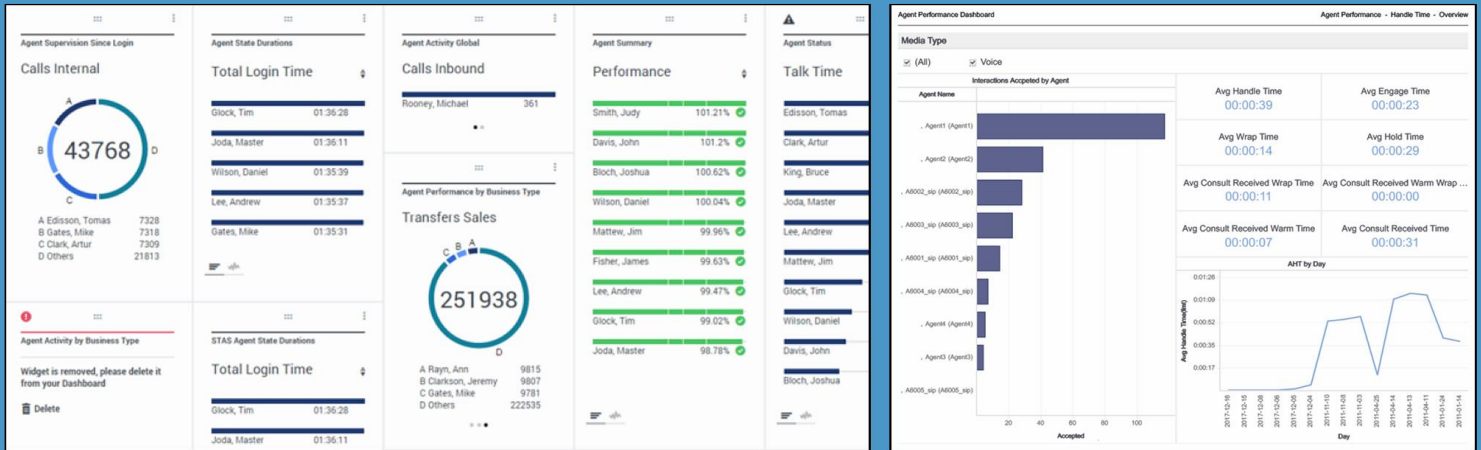
⁸ Porter, Kiel et al. (2021): Genesys Owners to Weigh IPO at Up to \$20 Billion Value. Bloomberg, 8.10.2021. Online: <https://www.bloomberg.com/news/articles/2021-10-08/genesys-owners-are-said-to-weigh-ipo-at-up-to-20-billion-value>

⁹ <https://www.genesys.com/customer-stories> [30.11.2022], <https://www.genesys.com/blog/post/why-fca-customer-care-moved-to-the-cloud> [1.12.2022], <https://www.genesys.com/en-gb/customer-stories/teleperformance> [1.12.2022]

¹⁰ <https://www.genesys.com/capabilities> [1.12.2022]

¹¹ <https://www.genesys.com/blog/post/all-in-on-genesys-cloud-cx> [1.12.2022]

¹² <https://docs.genesys.com/Documentation> [1.12.2022], <https://all.docs.genesys.com/GenesysEngageMulticloud> [1.12.2022], <https://help.mypurecloud.com/> [1.12.2022], <https://help.genesys.com/> [1.12.2022]



Name	Login Time	% Agent Occupancy	Not Ready Time	AHT	Lunch Time	Break Time	Handle Time	Hold Time	Answered
Edison, Tomas	09:00:02	67.24%	01:31:29	00:02:42	00:59:58	00:29:59	06:03:08	01:20:49	134
Gates, Mike	09:00:10	64.49%	02:04:59	00:04:05	01:00:58	00:41:07	05:48:22	01:28:40	85
Clark, Arthur	08:57:21	76.31%	01:33:04	00:05:15	01:00:06	00:28:53	06:50:06	01:41:51	78
Others	09:02:55	62.48%	01:35:00	00:04:33	01:00:12	00:32:27	09:28:26	00:19:44	76

Figure 1: Insights into agent behavior and performance at the Genesys call center system¹³

Figure 1 (bottom left) shows a report in tabular form that contains several key performance indicators (“KPIs”) at the level of individual workers. The lists are sortable and can thus be used to rank agents in the following ways:

- Total time an agent was logged into the system during the shift ("Login Time")
- Time in which an agent had set the system to the statuses "lunch break" and "break"
- Time an agent was not ready to take calls ("Not Ready Time")
- Average duration of an agent’s calls ("Average Handle Time", AHT)
- Total duration of an agent’s calls ("Handle Time")
- Time an agent put calls on hold ("Hold Time")

Genesys’ dashboards and reports¹⁴ are highly customizable.¹⁵ Many other types of activity and performance metrics based on work activities and behaviors are accessible, for example:¹⁶

- Percent of time an agent spent handling calls versus total login time (“Occupancy”)
- Number of incoming calls offered to an agent (“Offered”)
- Number of incoming calls answered by an agent (“Answered”)
- Time an agent spent doing follow-up work after calls (“AfterCallWork Time”, ACW)
- Time an agent spent on dialing for outgoing calls (“Dialing Time”)

¹³ Figures © Genesys. The figures serve as basis for the discussion of the corporate practices examined in this study. Sources: Genesys Engage, Introducing Pulse 8.5.01: <https://docs.genesys.com/Documentation/EZP/8.5.01/User/Pulse> [12.1.2023], Genesys Multicloud CX, Real-time Reporting with Pulse: <https://all.docs.genesys.com/PEC-REP/Current/RT/RTRReports> [12.1.2023], Genesys Multicloud CX, Agent Performance Dashboard: <https://all.docs.genesys.com/PEC-REP/Current/RPRT/HRCXIAgentPerfDshbrd> [12.1.2023]

¹⁴ <https://docs.genesys.com/Documentation/EZP/9.0.0/User/RTRTemplatesA> [15.1.2023]

¹⁵ <https://all.docs.genesys.com/PEC-REP/HiW> [15.1.2023]

¹⁶ <https://docs.genesys.com/Documentation/EZP/9.0.0/User/RTRTemplatesAGS> [15.1.2023], <https://docs.genesys.com/Documentation/GCXI/9.0.0/User/HRCXIAgentPerfDshbrd> [15.1.2023]

- Time an agent spent on letting incoming calls ring (“Ringing Time”)
- Number of incoming calls abandoned while an agent let the phone ring (“Abandoned Ringing”)
- Number of calls an agent transferred to another agent (“Transfers Made”)
- Number and time spent on internal consultative calls (“Consults Made”, “Consult Time”)
- Number of calls with a duration shorter than 10 seconds (“Short Talk”)
- The number of times an agent ended the interaction before the other party did (“Agent Disconnect First”)

Figure 1 (top right) shows another report that ranks agents by the number of accepted calls and additional group metrics. Genesys openly describes these reports on agents as **dossiers**.¹⁷ Many types of reports on agent conduct, productivity and performance are available, including over longer periods of time.¹⁸ Group-level metrics are also based on the analysis of extensive personal data on workers, but these metrics refer to teams of agents, distinct projects or entire contact centers. This includes, for example:¹⁹

- “Service Level”: ratio of calls answered to incoming calls
- “Service Level (x seconds)”: ratio of calls answered to incoming calls within e.g. 10, 20, 30 or 60 seconds
- “Average Wait Time”, AWT: average time an incoming call is waiting
- “Average Speed of Answer”, ASA: average time an answered call was waiting
- “Abandoned”: number of calls that were abandoned during the waiting period

Log data and “status” information. The numbers in the dashboards and reports are based on detailed records of agent activity. This includes automatically logged information, from the exact time an agent started and finished a shift to all kinds of interaction metadata, for example, about the exact time an agent received a call, answered it, put it on hold, stopped putting it on hold, transferred it to another agent, started outbound dialing, finished a call, started after-call work or finished it. Some of these actions, such as receiving an inbound call, are automatically initiated by the system. Others such as actually answering the call are manually initiated by the agent.

Agents are often required to enter “status” information. They set their status to “ready” when they are available for inbound calls or other work. As soon as they are not available, they set their status to “not ready” and must select a reason for not being available at a specific point in time, e.g. “lunch break”, “short break”, “meeting” or “training”. These status and reason codes are customizable.²⁰ After a call is finished, the system may automatically set their status to “after-call work”. Agents may then manually set their status back to “ready” when after-call work is completed. The contact center operator can also activate a timer that counts down the available seconds for after-call work. If agents do not finish after-call work within the limit, the system may automatically set their status to “not ready”.²¹ Agents usually cannot just take a break, but must request it. Supervisors may or may not grant the break.²²

Interaction and “disposition” information. An interaction itself, such as an inbound call, can also have status information attached, which may change from “assigned to agent x” to “in progress” to “done” (or “completed”).

¹⁷ <https://docs.genesys.com/Documentation/GCXI/9.0.0/User/HRCXI/AgentPerfDshbrd> [15.1.2023]

¹⁸ <https://all.docs.genesys.com/PEC-REP/Current/RPRT/HRCXI/IncludedReports> [15.1.2023], https://help.genesys.com/pureconnect/mergedprojects/wh_rh/desktop/interaction_reporter_reports.htm [15.1.2023]

¹⁹ <https://docs.genesys.com/Documentation/EZP/latest/User/RTRTemplates/QKPI> [15.1.2023]

²⁰ <https://docs.genesys.com/Documentation/TW/8.5.1/Dep/ManagingAgentStatus> [15.1.2023], <https://docs.genesys.com/Documentation/HTCC/latest/IWWD/ActionCodes> [15.1.2023]

²¹ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADchannels> [17.1.2023]

²² https://help.genesys.com/pureconnect/mergedprojects/wh_basl_connect/desktop/request_a_break.htm [17.1.2023]

Before marking an interaction as “done”, agents may be required to select a “disposition” code from a predefined list that characterizes the outcome of the interaction.²³ Disposition codes can indicate, for example, a successful sale, a fully resolved customer inquiry, an unresolved inquiry that requires a follow-up, a scheduled appointment, a terminated subscription or an angry customer that just hung up. Genesys provides reports that analyze disposition activity for individual employees,²⁴ which can feed into performance assessments. Agents can also see and modify case information, from the customer name to account information to the interaction history,²⁵ and they have access to knowledge databases and FAQs.²⁶

Calls, email, chat, social media and other tasks. Genesys is not restricted to phone calls. Companies can use it to manage inbound and outbound interactions with customers via different channels, from email to Facebook and WhatsApp messages to Tweets to interactive live chats. Agents can be scheduled to work in parallel on different channels, setting their status to “ready” and “not ready” for each channel.²⁷ The operator of the contact center can define “capacity” and “agent utilization” rules that determine how many interactions an agent may have to handle concurrently.²⁸ For example, an agent may have to “work with two chats at one time or receive a call while answering chats”.²⁹ By default, one Genesys software version designates that an agent has to handle one call, one email, one message, one callback and up to four chats “at one time”.³⁰

In addition to voice and text interactions with customers, agents may have to work on other tasks. So-called “work items” are tasks that require agents to take action in some way. For example, customers placing an order, service request, loan application or insurance claim via a website may result in work items that require a review, getting in touch with the customer or some other activity.³¹ Work items become part of an agent’s “work bin”, which can also contain email drafts and other resources related to interactions the agent will handle at a later point in time.³² Like interactions, work items have status information attached (e.g. “new”, “in progress”, “completed”)³³ and may require entering disposition codes to describe the outcome of the work.³⁴ Genesys can also include work items from other software such as CRM, ERP and workflow systems via the “Task Routing API”³⁵ and other mechanisms.³⁶

Remote work. All versions of Genesys software allow contact center operators to let employees work from home. While there are some limitations for operators who use the older on-premises version installed on their own server infrastructure, the newer cloud-based versions can be used to work from almost any location. Genesys emphasizes that workers need a stable internet connection and encrypted VPN access to the employer’s network.³⁷

²³ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADQuickStart> [17.1.2023]

²⁴ https://help.genesys.com/pureconnect/mergedprojects/wh_rh/desktop/agent_disposition_summary_report.htm [17.1.2023]

²⁵ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADQuickStart> [17.1.2023]

²⁶ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADKnowledgeCenter> [17.1.2023]

²⁷ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADchannels> [17.1.2023]

²⁸ <https://all.docs.genesys.com/PEC-AS/Current/ManageCC/ASCAPRules> [17.1.2023]

²⁹ <https://help.mypurecloud.com/articles/manage-multiple-interactions/> [17.1.2023]

³⁰ <https://help.mypurecloud.com/articles/utilization/> [17.1.2023]

³¹ https://help.genesys.com/pureconnect/mergedprojects/wh_icde/desktop/ipa_overview.htm [18.1.2023]

³² <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADMyWorkbins> [18.1.2023]

³³ https://help.genesys.com/pureconnect/mergedprojects/wh_icde/desktop/ipa_work_items.htm [18.1.2023]

³⁴ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADWorkitems> [18.1.2023]

³⁵ <https://all.docs.genesys.com/PEC-ROU/Current/GTR/GTROverview> [18.1.2023]

³⁶ <https://all.docs.genesys.com/PEC-IWD/Current/Administrator/IWD> [18.1.2023]

³⁷ <https://www.genesys.com/emergency-response/remote-workers-solution> [18.1.2023]

2.2 Automating the virtual assembly line

In contact centers operated using Genesys software, **the concept of the queue** serves as a major mechanism to prioritize and distribute work. A queue contains a list of calls, messages and other interactions that are waiting to be handled. It is the virtual equivalent of an assembly line. Contact center operators can configure many different queues for different teams, interaction types, projects and business needs.³⁸ When agents are assigned to certain queues and set their status to “on queue”, they will start to receive incoming interactions. Genesys provides different “routing” mechanisms that decide how interactions are assigned to agents, which are referred to as “automatic communication distribution” or **automatic call distribution (ACD)** systems.³⁹

Each agent is assigned a set of “skills” that describe, for example, language proficiencies, computer skills or product knowledge, including proficiency levels.⁴⁰ **Skill-based routing** matches incoming interactions with agent skills and availability to select an agent. It can consider other variables such as interaction priority, agent “cost”⁴¹ and agent ratings.⁴² More advanced, but also more intrusive and opaque, **predictive routing** uses statistical methods, which are often referred as artificial intelligence, to decide which agent will likely handle a given interaction in the most efficient way. For this purpose, the contact center operator chooses a key performance indicator (KPI) such as the “average handle time”. Genesys’ predictive routing system then promises to match interactions to agents in a way that optimizes the target KPI, based on machine learning models and analyzing large amounts of historical data on agents, customers, interactions and interaction outcomes.⁴³ For each interaction, it calculates scores for available agents in real-time. The highest ranked agent is expected to have the most positive impact on the target KPI when handling the interaction.⁴⁴ To avoid a situation where the “idle time” of lower-ranked agents “falls outside acceptable limits”, a “workload balancing” mechanism can override predictive routing decisions.⁴⁵

For **outbound calls**, the system can automatically dial the number and route it to an agent as soon as it detects a human is answering the call. Agents receive outbound calls similar to how they receive inbound calls. The system can adapt the timing of an outbound call based on predictive analytics to ensure that the targeted party “is answering at the moment” a suitable agent becomes available. The system can play a greeting that was previously recorded by the agent to the customer. Genesys emphasizes that predictive dialing can increase “agent productivity, in terms of time spent talking to customers and prospects” and achieve almost “100% utilization” of agents. By minimizing any remaining idle time, it promises to increase “productivity and profitability”.⁴⁶

³⁸ <https://help.mypurecloud.com/articles/create-queues/> [18.1.2023], https://help.genesys.com/pureconnect/mergedprojects/wh_icde/desktop/introduction_to_queues.htm [18.1.2023]

³⁹ <https://help.mypurecloud.com/articles/about-interaction-routing/> [18.1.2023]

⁴⁰ See also section 4.1

⁴¹ https://help.genesys.com/pureconnect/mergedprojects/wh_dlr/mergedprojects/dialer_manager_help2/desktop/skills_based_dialing_and_routing.htm [18.1.2023]

⁴² <https://help.mypurecloud.com/articles/preferred-agent-routing-behavior/> [18.1.2023]

⁴³ <https://help.mypurecloud.com/articles/predictive-routing-overview-2/> [18.1.2023]

⁴⁴ <https://help.mypurecloud.com/articles/agent-selection-process/> [18.1.2023]

⁴⁵ <https://help.mypurecloud.com/articles/workload-balancing/> [18.1.2023]

⁴⁶ https://help.genesys.com/pureconnect/mergedprojects/wh_dlr/mergedprojects/dialer_manager_help2/desktop/automatic_predictive_outbound_dialer.htm [18.1.2023], https://help.genesys.com/pureconnect/mergedProjects/wh_dlr/mergedProjects/dialer_manager_help2/desktop/agent_management.htm [18.1.2023]

Task and process automation. Genesys provides additional software modules that manage tasks beyond customer interactions and help to automate complex processes. The “Intelligent Workload Distribution” module lets companies create, monitor and manage queues that classify and prioritize work items (as described above) according to their “business value” and distribute them to agents.⁴⁷ The “Interaction Process Automation” module allows companies to design and manage workflows that require several steps over time. For example, a loan application process could include activities for collecting and verifying information in the application, making a decision about it, notifying the applicant of the decision, and handling further inquiries about it. Processes consist of “states through which the work moves through the process”, “tasks performed in each state” and “work items presented to [employees] assigned to work on the tasks”. They can include forms, databases and third-party applications that workers use at certain steps of the process, as well as interactions with customers such as calls or emails. The module can also distribute tasks to workers based on their skills or other criteria.⁴⁸

This is where software to operate a call center turns into software to operate all kinds of business processes and back-office work. According to a “success story” on the Genesys website, the largest Italian telecommunications company uses Genesys software to manage “2,800 internal and 1,000 outsourced agents” for sales, customer services and back-office activities, which includes “business process automation” and “workload management” so that “tasks always get assigned to the right person with the right skills at the right time”.⁴⁹ Genesys provides an extra software package for debt collection.⁵⁰

Reports on work items and tasks can, once again, include a wide range of individual-level metrics, for example, the average handling time and the number of tasks an agent has accepted, rejected and completed.⁵¹

Scripts, assistants and robots. Other Genesys functionality that involves automation includes scripts that tell agents what to say, what to look up and what to enter into forms in different stages of a call. They guide agents through interactions by “structuring, enriching, and optimizing agent conversation and workflow”.⁵² Agents can insert pre-written standard responses into emails and chats.⁵³ The “Agent Assist” module promises to support agents during interactions by providing them with knowledge and by automating repetitive tasks.⁵⁴ Of course, many customer interactions in today's contact centers are not handled by human agents, but by automated systems such as interactive voice response (IVR) systems, which have evolved into a multilayered and sophisticated technology. Genesys provides a variety of IVR, voicebot and chatbot modules that provide a wide range of functionality from automatically answering calls and presenting menu choices to “virtual agents” that use speech recognition and natural language processing.⁵⁵ Organizations can also integrate “virtual agent” and “AI assistance” services from other vendors such as Google.⁵⁶

⁴⁷ <https://all.docs.genesys.com/PEC-IWD/Current/Administrator/IWD> [18.1.2023]

⁴⁸ https://help.genesys.com/pureconnect/mergedProjects/wh_tr/desktop/pdfs/process_automation_tr.pdf [18.1.2023]

⁴⁹ <https://genbin.genesys.com/old/resources/s3/resources/en/resources/customerstory/Genesys-Telecom-Italia-CS-EN.pdf> [18.1.2023]

⁵⁰ <https://www.genesys.com/solutions/latitude-collections> [18.1.2023]

⁵¹ <https://docs.genesys.com/Documentation/EZP/9.0.0/User/RTRTemplatesAGS> [18.1.2023], <https://all.docs.genesys.com/PEC-REP/Current/GCXIMCPRG/IWDMetrics> [18.1.2023]

⁵² https://help.genesys.com/pureconnect/mergedProjects/wh_dlr/mergedProjects/scripter_dg/desktop/what_is_interaction_scripter.htm [19.1.2023], <https://docs.genesys.com/Documentation/AS> [19.1.2023]

⁵³ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADResponses> [19.1.2023]

⁵⁴ <https://www.genesys.com/capabilities/agent-assist> [19.1.2023]

⁵⁵ <https://www.genesys.com/capabilities/interactive-voice-response-ivr> [19.1.2023], https://help.genesys.com/pureconnect/mergedProjects/wh_iat/desktop/interaction_attendant_help.htm [19.1.2023], <https://www.genesys.com/capabilities/voicebots> [19.1.2023], <https://www.genesys.com/capabilities/chatbots> [19.1.2023]

⁵⁶ See section 5.3

While these technologies may improve efficiency and perhaps make life easier for workers, they can also force the remaining human employees to conform to rigid automated processes. Rather than replacing humans with robots or making their lives easier, these technologies may make humans work harder (Dzieza, 2020), or even turn them into robots (Sadowski, 2018). Call center agents may also be required to “impersonat[e] a chatbot that’s impersonating a person”, as Laura Preston (2022), described her work as a “human fallback” that steps in when the chatbot fails.

2.3 Recording and analyzing communication contents

In addition to the extensive analysis of metadata on interactions and work activities, Genesys offers to record all voice conversations and translate them into machine-readable text using automated transcription services – in the name of quality assurance, customer satisfaction, training and “compliance”. The agents’ screens can also be recorded, which enables fine-grained behavioral surveillance. Genesys suggests companies could use screen recording to “identify process adherence, interaction quality, training opportunities, process improvements and more”.⁵⁷

Many purposes. The Genesys website presents a wild mix of promises and purposes with respect to conversation recording and analysis:

- Genesys emphasizes that “keep[ing] every recorded interaction on hand” helps clients to “stay compliant with all local, federal and international laws” and to “identify potential fraud, disputes, claims or legal actions”. Clients “can keep a detailed record of every interaction” with “unlimited storage” – to be “covered for legal notices”, but also to be “prepared for employee training”.
- Genesys tells its clients that they can use “insights” from “speech and text analytics” as well as “transcription, sentiment analysis and topic spotting” to “elevate employee performance”.
- Clients can “record and store every interaction” to improve the “quality of service” by examining “agent behaviors” and “use one solution to monitor and develop employees”. They can “track and monitor every interaction” to “identify areas for continual improvement” and improve their “training program”. They can “extract meaning and insights from every interaction”, “uncover [...] behavior patterns” and “leverage conversational analytics to figure out what interactions to focus on for evaluations”.⁵⁸
- In 2021, Genesys wrote on its website: “Keep every recorded interaction on hand for compliance and legal efforts. This makes it easy to monitor agent productivity”.⁵⁹ The combination of these two sentences suggests that recording interactions for the purpose of legal compliance enables productivity monitoring. It has since disappeared from the website, but shows a blunt disregard for the concept of purpose limitation, a key principle in European data protection law.⁶⁰

The documentation states that Genesys functionality for “quality management” helps or enables clients to:

- “monitor agent-customer interactions” and to “improve agent productivity”
- “evaluate agent performance on a periodic and consistent basis”

⁵⁷ <https://www.genesys.com/capabilities/quality-assurance-and-monitoring> [19.1.2023]

⁵⁸ Ibid.

⁵⁹ <https://web.archive.org/web/20210624101924/https://www.genesys.com/capabilities/quality-assurance-and-monitoring> [19.1.2023]

⁶⁰ See e.g. Bentzen, Heidi Beate (2022): Context as key: The protection of personal integrity by means of the purpose limitation principle. In: Eleni Kosta, Ronald Leenes, and Irene Kamara (Eds.)(2022): Research Handbook on EU Data Protection Law. Edward Elgar Publishing Ltd

- “evaluate[...] agent productivity” and provide “targeted agent training”⁶¹
- “understand[...] agent performance and productivity issues at a granular level”, to “monitor [...] agent productivity and efficiency”, to “improve agent productivity” and to “identify agents who underperform”⁶²
- “identify agents that deserve recognition”⁶³
- “evaluate and improve agent behavior”⁶⁴
- create “action plans to improve an agent's performance”⁶⁵

For Genesys, “quality management” appears to be a synonym for extensive performance and behavior control. Monitoring, recording and analyzing the contents of communication for purposes of legal compliance or fraud prevention may be justified in some cases, if accompanied by appropriate measures and safeguards that protect the rights of employees. Doing so in the name of quality assurance, evaluation and training quickly turns into excessive performance monitoring and surveillance.

Keyword spotting. The transcripts of the recorded calls and other interactions such as emails or chats can be searched for words and phrases – over the last day, a month or across the entire database.⁶⁶ The “keyword spotting” function can automatically detect whether certain pre-defined words and phrases were mentioned or missing in conversations.⁶⁷ For example, managers can monitor whether agents or customers have mentioned a particular product or competitor brand or phrases such as “purchase”, “cancel my account” or “sue”. This function analyzes the contents of both agents’ and customers’ communications. It can determine whether agents have used certain specified phrases for greetings and closing statements, and whether they have used phrases considered inappropriate, such as “calm down”, “you’re not listening” or “I just work here”.⁶⁸

Sentiment scoring. Genesys can assign certain phrases to categories that are linked to positive or negative point values, and which indicate positive or negative sentiment. Consequently, the system can calculate how positive or negative the overall sentiment in a call or other conversation was.⁶⁹ For example, terms like “perfect”, “great” and “thank you” may have a positive sentiment score, while other terms like “unacceptable”, “ridiculous” and “unfair” have a negative score.⁷⁰ Genesys lists many example keywords in the documentation, although they state that “[s]ome example keywords are not appropriate for use in that they are too simplistic or short, and [...] difficult [...] to detect”. Through this disclaimer, Genesys appears to recommend that clients use these phrases, while also making it possible to deny responsibility. The system supports many languages including English, German, French, Spanish,

⁶¹ <https://all.docs.genesys.com/PEC-REC/Current/User/GetStarted> [19.1.2023]

⁶² <https://all.docs.genesys.com/PEC-REC/Current/User/qm> [19.1.2023]

⁶³ <https://help.mypurecloud.com/articles/quality-management-process/> [19.2.2023]

⁶⁴ <https://all.docs.genesys.com/PEC-REC/Current/User/evaluationmanager> [19.2.2023]

⁶⁵ <https://all.docs.genesys.com/PEC-REC/Current/User/evaluationsession> [19.1.2023]

⁶⁶ https://docs.genesys.com/Documentation/TW/latest/Help/Interaction_Search [19.1.2023], <https://help.mypurecloud.com/articles/content-search-view/> [19.1.2023]

⁶⁷ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/introduction_to_interaction_analyzer_keyword_spotting.htm [19.1.2023]

⁶⁸ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/appendix_a_interaction_analyzer_keyword_examples.htm [19.1.2023]

⁶⁹ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/set_the_score_for_a_keyword.htm [20.1.2023]

⁷⁰ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/appendix_a_interaction_analyzer_keyword_examples.htm [19.1.2023]

Portuguese, Dutch, Italian, Polish and Turkish.⁷¹ The documentation discusses how to improve the quality of word recognition.⁷² While some regional dialects may not be recognized reliably, agents can of course be encouraged to speak using standard language forms and avoiding dialects.

The words and phrases recognized in the call transcripts, together with positive and negative scores, are subsequently available for evaluations. Figure 2 (right) shows a report that assesses conversations of individual agents with regards to keywords associated with positive and negative scores. For each conversation, the system calculates separate scores for agent and customer speech. These are then added together to assign each conversation an aggregate score. The report shows, for example, that one agent had a conversation that was 3 minutes and 24 seconds long. It appears that the customer has been using keywords associated with negative scores, resulting in a negative score (-30). For the agent, the system calculated a positive score (+27), which suggests that the agent was able to somewhat appease the customer, possibly with words deemed positive and reassuring. In aggregate, this still resulted in a negative score (-3) for the entire conversation.

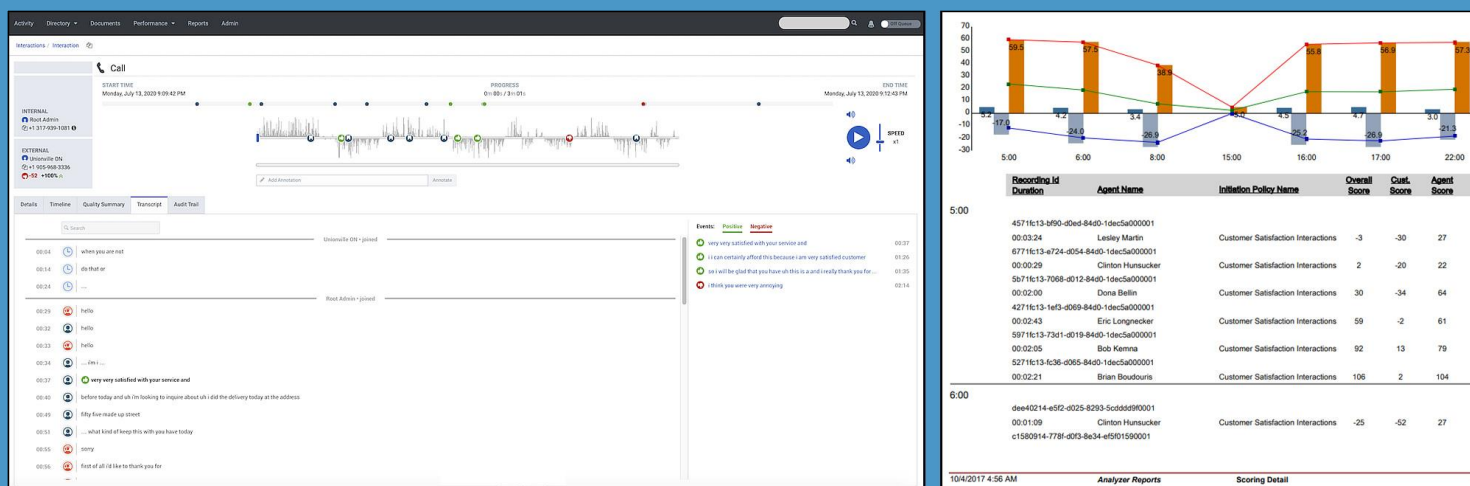


Figure 2: Monitoring call center conversations, keywords and sentiment with Genesys⁷³

Figure 2 (left) shows how the system identifies, second by second, the moments in a recorded conversation that are associated with positive or negative scores. Supervisors can listen to the conversation and add comments to specific parts. Moments of silence or conversation parts where one person interrupted another can also be detected.⁷⁴

⁷¹ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/language_support_for_interaction_analyzer_keyword_spotting.htm [20.1.2023]

⁷² https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_analyzer/desktop/interaction_analyzer_keyword_entry.htm [20.1.2023]

⁷³ Figures © Genesys. The figures serve as basis for the discussion of the corporate practices examined in this study. Sources: <https://www.genesys.com/blog/post/genesys-cloud-feature-releases-whats-new-in-september-2020> [19.1.2023], S. 10: https://help.genesys.com/pureconnect/mergedprojects/wh_rh/desktop/scoringdetailgenesys.pdf [19.1.2023]

⁷⁴ <https://all.docs.genesys.com/PEC-REC/Current/User/interactions> [20.1.2023]

3. Workforce planning and shift scheduling

In addition to software that micromanages calls and other tasks down to the level of the phrases mentioned in conversations, Genesys' "workforce management" modules⁷⁵ provide functionality that aims to calculate the required number of workers at any given moment while still meeting contractual obligations and other business objectives. Automated shift scheduling then distributes and allocates work to agents.

3.1 Automated shift scheduling

Genesys promises to automate the creation and adjustment of shift schedules for agents, both short and long term. An agent's shift⁷⁶ usually consists of a date, start and end time, start and end times for scheduled meals and breaks, both paid and unpaid,⁷⁷ as well as assignments to particular work activities⁷⁸ throughout the day, such as responding to incoming calls or completing other task sequences.⁷⁹

Contact center operators can define rules that indicate how the system assigns shifts to groups of agents with different employment contracts. This can include constraints on working days and hours, minimum and maximum working days and hours per week, minimum and maximum consecutive working days, required days off, weekends and other parameters.⁸⁰ Genesys emphasizes that these constraints can help to produce "legal schedules" that comply with "union or contractual requirements". It allows employers, however, to assign up to 24 working hours per day, up to 168 working hours per week and up to 365 consecutive working days per year.⁸¹ Based on the defined constraints, available workers, their skills, defined business objectives and forecasts about the expected workload, the system creates shift schedules, which then become available for agents to view. According to Genesys, the "scheduling algorithm minimizes the over and under-staffing of agents against the forecast staffing requirements".⁸² Schedules are generated in a way that "closely matches requirements with as few paid hours as possible".⁸³

Optimizing shifts. Schedules can be created one or several weeks in advance. Schedules can be adjusted as workload forecasts change or agents become unavailable because they call in sick or are granted time off. An automated "intraday reschedule" may change shift start times and lengths, meals, breaks and activity start times for agents. Genesys states that it may "not [be] practical to re-optimize the current hour" for most contact centers because changes to meals, breaks and work activities "might be difficult to communicate to the affected agents". Contact center operators can "decide whether shift duration should be allowed to change or not" on the same day.⁸⁴ They

⁷⁵ <https://all.docs.genesys.com/PEC-WFM> [20.1.2023], <https://help.mypurecloud.com/articles/about-workforce-management/> [20.1.2023], <https://docs.genesys.com/Documentation/WM/8.5.2/SHelp/Welcome> [30.1.2023]

⁷⁶ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/Shifts> [30.1.2023]

⁷⁷ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/MealsBreaks> [30.1.2023]

⁷⁸ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/CfgActvs> [30.1.2023]

⁷⁹ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/TskSqnc> [30.1.2023]

⁸⁰ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/Cntrcts> [30.1.2023], <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/Cnstrnts> [30.1.2023]

⁸¹ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/Cntrcts> [30.1.2023], <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/Cnstrnts> [30.1.2023]

⁸² <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Scheduling> [30.1.2023]

⁸³ <https://help.mypurecloud.com/articles/generate-a-schedule-from-a-forecast/> [30.1.2023]

⁸⁴ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Scheduling> [30.1.2023], <https://help.mypurecloud.com/articles/initiate-an-intraday-reschedule/> [30.1.2023]

also have the option to override “standard contract hours” in order to “customize monthly workloads”.⁸⁵

The system can automatically distribute breaks and meals across the working day based on predefined time windows, minimum distances between breaks and other constraints. These time windows may conflict with so-called planned “exceptions”, which are activities that are not automatically scheduled such as training sessions, meetings or administrative work. When the time window of a paid break conflicts with such a planned exception, the paid break is not scheduled, because by default the system does not consider paid breaks to be mandatory. For unpaid breaks or meals, which are considered mandatory by default, the algorithm tries to “relax the break constraints” and schedule them earlier or later than the predefined time window would allow. Genesys explains that this can sometimes leave very short periods of standard work activity between breaks and planned exceptions. Rather than extending the break by one minute, agents may have to answer calls for one minute. If relaxing the break constraints still does not make it possible to schedule the break, the system generates a warning. There is an extra setting called “suppress break-related warnings” that hides these warnings from managers in case they are too many.⁸⁶

Genesys emphasizes that shifts can be “configured to produce very regular, fixed, agent schedules”, but it appears to focus on flexible shifts that “can incorporate hundreds of possible start times and duration”.⁸⁷ Based on comparing forecasted to actual performance metrics, Genesys suggests that “unneeded agents can be sent home if you are overstaffed, or extra agents can be called in if you are understaffed”.⁸⁸ Employers can configure “rotating patterns”, which result in workers being assigned to weekly rotating schedules, each week consisting of a particular combination of working days, hours and activities. For this purpose, additional rules specify whether or not the system must assign a shift to an agent on a particular day of the week, whether or not the algorithm can optionally assign a day off instead, and whether the algorithm must assign an exact start time and shift duration or can flexibly adjust start time and duration.⁸⁹

Agent preferences. When building schedules, the system can “optionally consider agent preferences”. In this case, agents can enter preferences for shifts, days off, availability and time off.⁹⁰ They can (or may have to) enter “availability patterns” that indicate the days and times the scheduling system can assign a shift to them.⁹¹ Contact center operators can “specify whether preference fulfillment or schedule optimization is the more important goal”.⁹² In addition, operators can activate sophisticated schedule trading mechanisms that enable agents to swap shifts, “either through a trade with a specified agent or through a trade open to any qualified agents within their community”. Genesys states that this would make agents “feel” that “they have more proactive control over the times they work”, but also emphasizes that managers “no longer need to spend an excessive amount of time managing and processing” requests to change shifts.⁹³ To the extent workers feel a mutual responsibility to take shifts from each other, this system could be considered a form of outsourced management that exploits peer control.

⁸⁵ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/SteStgs> [30.1.2023]

⁸⁶ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/MealsBreaks> [30.1.2023]

⁸⁷ Ibid.

⁸⁸ <https://docs.genesys.com/Documentation/WM/8.5.2/SHelp/PerformanceMdl> [30.1.2023]

⁸⁹ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/RPPrp> [30.1.2023]

⁹⁰ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Scheduling> [30.1.2023]

⁹¹ <https://all.docs.genesys.com/PEC-WFM/Current/Agent/AvlPtrns> [30.1.2023]

⁹² <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Scheduling> [30.1.2023]

⁹³ Ibid.

Another mechanism referred to as **shift bidding** allows employers to create blank schedules that do not include agent names and then require qualified agents to indicate their most desired shifts. Based on these bids, the system assigns agents to available shifts. It can also consider criteria such as “seniority” or “rank” to determine who gets the most desirable shifts,⁹⁴ with the “rank” being a numerical value that can be assigned to each worker.⁹⁵ Genesys states that prioritizing higher-ranking agents at shift scheduling can “be used to increase morale within the contact center and reward high-performing agents”.⁹⁶ Rewarding high performance with the ability to choose more desirable shifts represents a form of performance control. Other available mechanisms include “overtime bidding” that allows agents to “bid on the overtime hours they most prefer” in order to help employers meet their “overtime requirements”⁹⁷, and “time-off bidding” that allows agents to bid on days off and vacation days, which may once again consider criteria like “seniority” or “rank”.⁹⁸

3.2 Forecasting and workforce planning

Genesys provides sophisticated “forecasting” mechanisms⁹⁹ that help to determine future workload, and thus staffing requirements, based on the analysis of large amounts of historical data on interactions, back-office work and other activities. Short-term forecasts predict workload and staffing requirements for a single week or for a few weeks and serve as a basis for automated shift scheduling. Long-term forecasts can cover up to two years in the future. Forecasts show in detail how interaction volumes and other metrics such as the average handle time may develop in the future. Contact center operators can set parameters such as available staff and specific service objectives like the desired service level, average speed of answer, maximum percentage of abandoned calls, agent occupancy, and then look at how the predicted metrics change. They can create “what-if” analyses and simulations and then make decisions about parameters, objectives and staffing.¹⁰⁰ Forecasts can also calculate the costs for a schedule based on the agents’ hourly wages.¹⁰¹

These forecasts can directly **affect performance targets, work intensity and schedule stability** for agents. For example, if the forecasted interaction volume is too high for a certain period of time in the future, the operator could either hire additional agents or change parameters such as reducing the target value for the “average handle time” to speed up the virtual assembly line. The operator could also increase the target value for the “agent occupancy” metric, which reflects “the percentage of time that agents actually spen[d] handling interactions against their available or idle time”,¹⁰² and thus try to minimize any remaining idle time. In a blog post, Genesys emphasizes that while “understaffing” may affect “customer experience”, “overstaffing” can also have “huge” implications. Because agent salaries can make up 60% to 70% of contact center costs, “overstaffing” by only 2% to 3% could cost the operator “hundreds of thousands to millions of dollars”.¹⁰³

⁹⁴ Ibid.

⁹⁵ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/CfgAgts> [30.1.2023]

⁹⁶ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/SchedBdg> [30.1.2023]

⁹⁷ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/OvrtmBdg> [30.1.2023]

⁹⁸ <https://all.docs.genesys.com/PEC-WFM/Current/Agent/HwBdWrks> [30.1.2023]

⁹⁹ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Forecasting> [31.1.2023], <https://help.mypurecloud.com/articles/work-with-forecasts/> [31.1.2023]

¹⁰⁰ Ibid.

¹⁰¹ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/SchedSumm> [31.1.2023]

¹⁰² <https://all.docs.genesys.com/PEC-REP/Current/RPRT/HRCXIGPRAgentOcpncy> [31.1.2023]

¹⁰³ <https://www.genesys.com/blog/post/forecast-staffing-with-a-seamless-wfm-system-integration> [31.1.2023]

Just-in-time hiring instead of “overstaffing”. Genesys provides another software module called “Decisions”, which is a “what-if analysis, staff- and budget-planning management system”. It promises to help contact center operators to “streamline” scheduling with “automated shift allocation” and “flexible work rules”, to “determine exactly how many agents [they] need week over week”, to “develop highly efficient just-in-time hiring and overtime plans” and to avoid “overstaffing”. Operators will “know precisely when, where and how many agents to hire—and when to offer unpaid leave or overtime”, and they will be able to “significantly reduce staffing costs”.¹⁰⁴ It appears that the system aims to minimize cost while maximizing flexibility for the employer and outsourcing business risks to workers by means of just-in-time hiring, flexible shifts, unpaid leave and overtime assignments.

The employers’ ability to use large amounts of historical and real-time data on workers to shape every aspect of work, minimize costs, maximize efficiency and optimize other business goals could be considered an expression of their “data power”. As knowledge is power, employers can exploit worker data for their benefit. By setting different target metrics and letting the system do the planning, they can push the gas pedal all the way down, as they see fit.

3.3 Schedule adherence

Genesys explains that “efficient schedules don’t mean anything if no one follows them”.¹⁰⁵ This is why it provides various mechanisms to monitor adherence and discipline workers who fail to adhere to the schedule.¹⁰⁶ Agents are not only expected to start and finish their **shifts** as scheduled, but must generally be in the correct “status” at all times throughout the day. This includes starting and finishing **scheduled breaks** on time, as well as being “ready” to answer interactions such as calls, emails and chats and work on other tasks exactly as scheduled. When agents are “not ready” despite being scheduled for a **particular work activity**, they must enter a “reason” code. Being “not ready” because they have to complete after-call work may make them adherent. Being “not ready” because they have exceeded the available time for after-call work¹⁰⁷ may make them non-adherent. Being in the “ready” state only for incoming calls, but not for emails, despite being scheduled for both calls and emails makes them non-adherent. Being “not ready” without providing a valid “reason” code certainly makes them non-adherent. Agents can also be considered non-adherent when they perform work activities they are not scheduled for.¹⁰⁸ As this includes logging in too early, agents may be required to arrive early enough not to miss the start of the shift, while having to spend unpaid time waiting for the exact starting time of the scheduled activity.

Supervisors and managers can access several **reports to monitor adherence**, both in real time and over longer periods of time.¹⁰⁹ Agents who are considered non-adherent are highlighted in yellow, or in red when they are “severely” non-adherent.¹¹⁰ The threshold between non-adherence and “severe” non-adherence is customizable, but

¹⁰⁴ <https://www.genesys.com/en-gb/collateral/transform-planning-and-analysis-in-contact-centres> [31.1.2023], <https://www.genesys.com/en-gb/capabilities/forecasting-and-decisions> [31.1.2023], <https://www.genesys.com/capabilities/workforce-scheduling-forecasting> [31.1.2023]

¹⁰⁵ <https://www.genesys.com/blog/post/forecast-staffing-with-a-seamless-wfm-system-integration> [31.1.2023]

¹⁰⁶ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Monitoring> [31.1.2023], <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/AdherenceMdl> [31.1.2023]

¹⁰⁷ See section 2.1

¹⁰⁸ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Monitoring> [31.1.2023], <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/AdherenceMdl> [31.1.2023]

¹⁰⁹ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/AdhrRpts> [31.1.2023], <https://help.mypurecloud.com/articles/real-time-adherence-overview/> [31.1.2023], <https://help.mypurecloud.com/articles/historical-adherence-overview/> [31.1.2023]

¹¹⁰ <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Monitoring> [31.1.2023]

set to 5 minutes by default.¹¹¹ Agents can accumulate non-adherence time, and the running total is constantly updated.¹¹² When agents are considered non-adherent, they may receive an “adherence exception” notification.¹¹³ Supervisors can insert so-called “payback exceptions” into the agent’s schedule, which are unpaid periods of working time to “pay back time lost to lateness or a personal appointment”. For example, they may insert “payback intervals” to the beginning of a shift, to the end of a shift or over meals “by decreasing meal duration”.¹¹⁴ Non-adherence may of course also lead to other disciplinary measures.

4. Performance and behavior control

The functions described in the previous sections help contact center operators to micromanage and evaluate every second of work, and to improve and optimize how agents perform the work according to their business goals.

Genesys provides a comprehensive system to prioritize, distribute, assign and control work. Using digital technology, it shapes work based on time-stamped records that contain metadata on workers and activities. In the background, the collection of personal data is almost ubiquitous. Workers contribute to the data collection through all of their actions, as well as by actively contributing additional data, for example, on their current status or the outcome of an interaction. The concept of the queue, the virtual equivalent of the assembly line, creates an ongoing string of new tasks. The automated assignment of tasks to workers based on their skills, large amounts of historical data and statistical models aims to minimize idle time and maximize productivity. These mechanisms structure work with a high degree of attention to detail, by prescribing and enforcing organizational procedures that can involve multiple steps, workers, roles, conditions and feedback loops.

Some of these mechanisms can be considered a form of implicit performance and behavior control that is directly embedded in the work process. The constant flow of new interactions and other tasks to be handled by an agent results in the constant need for immediate action, from quickly answering a call to quickly resolving the matter at hand to quickly completing after-call work, all in order to be quickly ready for the next task. This sense of urgency is further reinforced when the agent has to work on multiple interactions and tasks at a time. For an outbound call, the system can automatically dial the number, play a prerecorded greeting and then expects that the agent will immediately respond, rather than letting the agent control the timing and dial by themselves, which of course might cause some “idle” time. The constant need for agents to set their own “status” is also a key mechanism of implicit control. Genesys provides a wide range of additional mechanisms that aim to align behavior to business objectives, put pressure on workers and push them to the maximum level of work they can manage.

While automation is ubiquitous, team leads and supervisors also play a crucial role. They can use a variety of tools to manage agents. Other managing roles can include, for instance, quality evaluators and performance management administrators.¹¹⁵ In addition to top-down control, some mechanisms rely on peer pressure or on direct feedback to the agent. Many of these mechanisms can be customized by the operator of the contact center through the use of settings and the activation or deactivation of certain features. Others are inherent to the design of the software modules provided by Genesys, or they are, to some extent, predetermined by Genesys’ default settings.

¹¹¹ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/OrgSts> [31.1.2023]

¹¹² <https://all.docs.genesys.com/PEC-WFM/Current/Administrator/Monitoring> [31.1.2023]

¹¹³ <https://help.mypurecloud.com/articles/my-schedule-view/> [31.1.2023]

¹¹⁴ <https://all.docs.genesys.com/PEC-WFM/Current/Supervisor/MIAInsShftWz> [31.1.2023]

¹¹⁵ <https://help.mypurecloud.com/articles/add-an-interaction-to-an-existing-coaching-appointment/> [23.1.2023]

4.1 Mechanisms that rely on supervisors and the system itself

This section presents examples of Genesys functionality that enables performance and behavior control.

Performance metrics. Supervisors and other managers have access to dashboards that show real-time metrics, which may include rankings and other information on agents.¹¹⁶ If the numbers shown deviate from the plan, they may reach out to agents via email or messages. According to Genesys, “intraday” monitoring helps contact center operators to “track outliers and react”.¹¹⁷ Similarly, managers have access to many different reports that cover longer periods of time, which can also include individual-level data on agents, as described in section 2.1. Based on the reports, they can analyze “agent performance and conduct”, as well as an agent’s “relative ranking compared to other agents”.¹¹⁸ Genesys suggests managers should review reports against KPI targets such as service level or handle time. If they recognize “anomalies”, they can analyze “contributing factors” such as talk time, hold time and after-call work time, “drill down into further details” and try to “identify the root cause”. For example, they may identify that the anomaly is “driven” by particular agents or agent groups, which must then be addressed.¹¹⁹ The “agent conduct” report exposes workers with a high number of unaccepted interactions, “excessive” hold and after-call work times and “shorter-than-usual” talk times.¹²⁰

Schedule adherence. As detailed in section 3.3, Genesys provides various mechanisms to monitor schedule adherence, set up alerts and discipline workers who fail to adhere to their schedules, which includes break times and exact start and end times for particular work activities.

Performance targets. Managers cannot only view performance metrics, but also set target values at various points. When setting up a queue, for example, they must enter a target value for the service level of each voice, chat and email channel.¹²¹ They can also set up a “service goal group”, which is a “set of queues with the same service performance goals” such as average speed of answer or service level.¹²² Supervisors may then just keep an eye on the metrics and reach out to agents who miss the targets, or they may directly communicate performance targets to agents, informally or formally. They may also activate the “performance tracker” widget that shows real-time performance metrics about an agent’s work directly to the agent, and puts them in relation to defined targets.

As figure 3 shows, the widget displays a white arrow for each metric that represents the agent’s current performance. The arrows are positioned along a tri-colored horizontal bar. The part of the horizontal bar colored green represents the desired range of the target value. Where the arrow points to the segment that is colored red, the agent is not meeting their target at all. In this case, the widget displays a warning to the agent. The example “performance tracker” in figure 3 shows the agent’s average handling time and other metrics, which is customizable.¹²³

¹¹⁶ See section 2.1

¹¹⁷ <https://www.genesys.com/en-gb/collateral/genesys-multicloud-cx> [23.1.2023]

¹¹⁸ <https://all.docs.genesys.com/PEC-REP/Current/RPRT/HRCXIAgentPerfDshbrd> [23.1.2023]

¹¹⁹ <https://all.docs.genesys.com/UseCases/Current/GenesysEngage-onpremises/BO07> [24.1.2023]

¹²⁰ <https://all.docs.genesys.com/PEC-REP/Current/RPRT/HRCXIAgentConduct> [24.1.2023]

¹²¹ <https://help.mypurecloud.com/articles/create-queues/> [25.1.2023]

¹²² <https://help.mypurecloud.com/articles/service-goal-groups/> [25.1.2023]

¹²³ https://all.docs.genesys.com/PEC-AD/Current/Agent/ADNav#Performance_Tracker [25.1.2023], <https://all.docs.genesys.com/GAMD/Current/Agent/Performance> [25.1.2023]



Figure 3: Genesys “performance tracker” and agent evaluation report¹²⁴

Monitoring interactions. Supervisors can monitor calls, chats and other interactions in real-time. They can also “coach” agents by speaking to them during a call.¹²⁵ Genesys emphasizes that supervisors can listen to an agent’s calls without the agent being aware.¹²⁶ Whether an agent is aware that a specific call is being monitored or just knows monitoring could occur at any time, call monitoring aims to assess and change agent behavior.

Quality management as behavior control. Genesys’ software modules for “quality management” provide a variety of functions to assess agents and their work on an ongoing basis.¹²⁷ Managers regularly single out calls or other interactions that were handled by certain agents or agent groups. Evaluating these interactions should measure “script adherence, compliance with business practices, customer satisfaction, or other business benchmarks”.¹²⁸ A review of an interaction includes listening to the recorded call or reading the message text, as well as looking at pre-calculated analysis results such as sentiment scores and highlighted conversation parts.¹²⁹ After annotating parts of the conversation, supervisors fill out an evaluation form, which results in an evaluation report that may contain a numeric score. The report is then sent to the agent and may lead to other measures such as a coaching appointments or training sessions.¹³⁰ Agents may have to review completed evaluations, which are shown to them in a section labeled “My Performance” in the user interface.¹³¹ Evaluation scores¹³² can flow into further reports.¹³³ As figure 3 shows, the “agent quality” report displays a list of evaluations completed by named agents, including their evaluation scores.¹³⁴ Genesys promises that evaluations can provide agents with “objective assessments”, which is a bold

¹²⁴ Figures © Genesys. The figures serve as basis for the discussion of the corporate practices examined in this study. Sources: <https://all.docs.genesys.com/GAMD/Current/Agent/Performance> [25.1.2023], <https://help.mypurecloud.com/articles/agent-quality-details-report/> [25.1.2023]

¹²⁵ <https://all.docs.genesys.com/PEC-AD/Current/Supervisor/ADsuper> [23.1.2023]

¹²⁶ <https://all.docs.genesys.com/PEC-AD/Current/Supervisor/ADsuper> [19.1.2023]

¹²⁷ <https://all.docs.genesys.com/PEC-REC/Current/User/qm> [23.1.2024], <https://help.mypurecloud.com/articles/about-quality-management/> [24.1.2023]

¹²⁸ <https://help.mypurecloud.com/articles/create-publish-evaluation-form/> [24.1.2023]

¹²⁹ See section 2.3

¹³⁰ See below.

¹³¹ <https://help.mypurecloud.com/articles/view-released-evaluations/> [24.1.2023]

¹³² <https://help.mypurecloud.com/articles/evaluation-scoring/> [24.1.2023]

¹³³ <https://help.mypurecloud.com/articles/interactions-view/> [24.1.2023]

¹³⁴ <https://help.mypurecloud.com/articles/agent-quality-details-report/> [24.1.2023]

claim. They can help to “improve agent behavior”, to “identify training requirements”, to “motivate agents” and to “recognize and keep top employees”.¹³⁵ For Genesys, quality management appears to be a synonym for performance and behavior control, as detailed in section 2.3.

Customer ratings. Customer surveys are another source of data that can be used for performance monitoring. Genesys offers survey functionality that allows customers to provide a rating or other feedback after an interaction with an agent,¹³⁶ resulting in a “survey score”.¹³⁷ For example, customers might be asked to rate how likely they would recommend the service to a friend on a scale of 0-10, which is the basis for calculating the “net promoter score” (NPS), a popular measure for customer satisfaction. A rating of 9-10 is considered excellent, 7-8 is seen as neutral and 0-6 as bad.¹³⁸ While such scores may actually refer to a product, service or other business circumstances, Genesys provides reports that associate survey scores with agents, for example a report that “shows the average survey score for agents” and a report that “shows the satisfaction trend for an agent over time”.¹³⁹ Another report compares an agent’s survey scores with quality scores from call recordings and evaluations.¹⁴⁰

Skill assessment, training, performance objectives and reviews. Several Genesys modules offer functionality that combines training with skills assessment and performance control. The “development and feedback” module¹⁴¹ provides learning units and assessments that can be assigned to agents, resulting in another score.¹⁴² Supervisors may schedule coaching appointments, which can also be triggered by issues raised in quality management.¹⁴³ In 2021, Genesys launched BeyondCX, an e-learning platform for contact center work that provides “tailored plans to improve employees’ skills and performance levels”.¹⁴⁴

The older “Performance DNA” module¹⁴⁵ allows contact center operators to assess employee skills based on both online tests and monitoring. It aims to improve those skills by defining performance objectives. The system maintains employee profiles that contain a number of “skills” and corresponding ratings, based on a list of predefined skills. For example, an employee may be rated 100 for their “friendliness”, 72 for “customer care”, 64 for “helpfulness”, 54 for “tone of voice”, 45 for “expertise” and 45 for their “call metrics”.¹⁴⁶ Skill ratings can originate from online assessments or from any other system in the company, including HR, e-learning, sales, customer feedback¹⁴⁷ and performance metrics, based on observational data recorded during work. Metrics-based ratings can refer to KPIs such as the average handle time, the number of calls per day and the customer satisfaction score.¹⁴⁸ Skills such as

¹³⁵ <https://all.docs.genesys.com/PEC-REC/Current/User/evaluationmanager> [24.1.2023]

¹³⁶ https://help.genesys.com/pureconnect/mergedProjects/wh_tr/mergedProjects/wh_tr_feedback/desktop/introduction.htm [24.1.2023], <https://help.mypurecloud.com/articles/about-web-surveys/> [24.1.2023]

¹³⁷ <https://help.mypurecloud.com/articles/view-interactions-evaluation-summary/> [24.1.2023]

¹³⁸ <https://help.mypurecloud.com/articles/net-promotor-score-web-survey-question-overview/> [24.1.2023]

¹³⁹ https://help.genesys.com/pureconnect/mergedProjects/wh_tr/mergedProjects/wh_tr_feedback/desktop/interaction_feedback_survey_reports.htm [24.1.2023]

¹⁴⁰ https://help.genesys.com/pureconnect/mergedProjects/wh_rh/desktop/survey_vs_quality_scores_report_help.htm [24.1.2023]

¹⁴¹ <https://help.mypurecloud.com/articles/about-development-and-feedback-modules/> [24.1.2023]

¹⁴² <https://help.mypurecloud.com/articles/understanding-the-development-and-feedback-page/> [24.1.2023]

¹⁴³ <https://help.mypurecloud.com/articles/schedule-a-coaching-appointment/> [24.1.2023]

¹⁴⁴ <https://www.genesys.com/en-sg/company/newsroom/announcements/genesys-launches-beyondcx-the-first-elearning-program-for-contact-centre-employees-focused-on-empathy-and-human-interactions-in-a-digital-world> [24.1.2023]

¹⁴⁵ <https://docs.genesys.com/Documentation/PDNA> [25.1.2023]

¹⁴⁶ <https://docs.genesys.com/Documentation/PDNA/latest/PDNAU/DNA> [25.1.2023]

¹⁴⁷ <https://developer.genesys.cloud/forum/uploads/db6296/original/2X/5/550e0998a9f8b47d359d958f28ea2b609232d558.pdf> [25.1.2023]

¹⁴⁸ <https://docs.genesys.com/Documentation/PDNA/latest/PDNAA/ManuallyManagingDNABaseData> [25.1.2023]

“product knowledge” or “friendliness” are assessed through tests, surveys and other “feedback” mechanisms including self-assessments and peer reviews.¹⁴⁹ The system allows managers to analyze and correlate skill ratings with “learning interventions” and single out employees for training.¹⁵⁰ It promises to help them “identify the specific skills, knowledge and behaviors that define a top performer”.¹⁵¹ As such, managers can “define an ideal profile for employees” and then “track employee performance against the defined profile”.¹⁵²

In addition, the system offers a “personal development review” process that aims to improve skill ratings over time, based on objectives, goals and targets that are either proposed by employees or created by managers.¹⁵³ An agent may, for example, be obligated to lower their average handle time or improve their “friendliness” skill. Employee profiles and skill ratings can flow into the automated call routing system¹⁵⁴ and decide which agent will receive what kind of work,¹⁵⁵ which may in turn affect skill ratings, and thus creates a feedback loop. In a case study, Genesys explains that the use of its skills management products by the Norwegian telco Telenor caused new temporary agents to quickly “outperform” established agents, which points to the fact that these technologies also make workers easier to replace.¹⁵⁶

Performance-based pay and other performance-based rewards. While it appears that Genesys does not directly offer functionality to manage bonuses or other forms of performance-based pay, other software vendors do. As detailed in section 5.1, NICE provides a system that allows contact center operators to define certain performance metrics such as average handle time, schedule adherence and customer satisfaction, and then define target values and bonus payment amounts. Agents have access to a dashboard that shows their metrics in relation to targets, as well as their “earning potential” in case they miss, reach or exceed the targets. Wages that depend on the amount of calls handled or tasks completed represent a form of piecework. As detailed in section 4.4, the newest Genesys version contains a “performance management” module that involves game mechanisms and rewards. Agents earn “points” when they adhere to the schedule, behave as desired and reach their targets. Rankings create competition among team members. As a reward, agents may appear as “top performers” in the ranking or receive other forms of recognition. Employers might also allow agents to trade points in for gift coupons or provide rewards such as prizes or bonus payments. Genesys’ shift scheduling system can be configured in a way that rewards higher-performing agents with the ability to choose more desirable shifts or vacation days, as detailed in section 3.1.

Timers. At various points, Genesys uses mechanisms that limit the time available for a particular task. For example, a timer visible to the agent may count down the seconds available for after-call work. As the agent approaches the end of the available period, the timer’s color changes from green to yellow to red. By default, the color changes to yellow when 50% of the period has passed and to red when 90% has passed.¹⁵⁷ If agents do not complete their work within the limit, this may trigger an exception that could lead to an alert being sent to the supervisor, or later appear in a report. The after-call work timer is customizable. Employers can allow agents to “request” additional time, or

¹⁴⁹ <https://docs.genesys.com/Documentation/PDNA/latest/PDNAU/TakinganAssessment> [25.1.2023]

¹⁵⁰ <https://docs.genesys.com/Documentation/PDNA/latest/PDNA/SkillsAnalysis> [25.1.2023]

¹⁵¹ <https://www.genesys.com/en-gb/capabilities/workforce-optimisation> [25.1.2023]

¹⁵² <https://docs.genesys.com/Documentation/PDNA> [25.1.2023]

¹⁵³ <https://docs.genesys.com/Documentation/PDNA/latest/PDNA/PersonalDevelopmentReview> [25.1.2023]

¹⁵⁴ <https://developer.genesys.cloud/forum/uploads/db6296/original/2X/5/550e0998a9f8b47d359d958f28ea2b609232d558.pdf> [25.1.2023]

¹⁵⁵ See section 2.2

¹⁵⁶ <https://www.genesys.com/media/Telnor-SS-EN.pdf> [25.4.2023]

¹⁵⁷ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADchannels> [17.1.2023], <https://all.docs.genesys.com/GASL/8.5/Agent/ACWtimer> [25.1.2023]

they can decide to not activate the mechanism at all. They can also choose whether or not agents can finish the after-call work period before the end of the defined period. Genesys mentions that the “no early exit” option could be “useful to give agents a ‘cool down’ period between interactions”, but offers both options.¹⁵⁸

Another mechanism visible to agents counts down the time that remains for answering an incoming call assigned to them before they are automatically set to the status “not responding”.¹⁵⁹ When agents work on chats, a timer counts down the seconds until they must send the next chat message.¹⁶⁰ When working on outbound calls, a timer may permit them to preview the customer record before the contact is automatically dialed. The default value set by Genesys is one minute.¹⁶¹ The maximum time a call can be set “on hold” defaults to 900 seconds.¹⁶² Generally, agents get automatically logged out of the system after a specified period of “inactivity”.¹⁶³

Alerts. Supervisors can receive notifications that alert them in real-time of certain incidents, for example, when particular metrics are no longer within the bounds of a predefined range of values.¹⁶⁴ These alerts are customizable and can cover group metrics such as the number of waiting calls, maximum wait time or service level, but also individual-level metrics. Supervisors can, for example, receive an alert when an agent is answering too few calls, placing calls on hold too often or is spending too much time on after-call work.¹⁶⁵ Many Genesys modules provide alert mechanisms. Supervisors may also receive an alert when the customer survey score for an agent falls below a defined value,¹⁶⁶ or when a particular keyword or phrase is mentioned in a call.¹⁶⁷

Making “status” information more visible. A German vendor provides physical devices that promise to make an agent’s Genesys “status” information and notifications more visible to others in the office. Their “blinkyDings” device can light up and flash in different colors. The vendor argues that notifications in the browser are just “not intrusive enough” and supervisors “would like to have a live activity and performance overview”.¹⁶⁸

4.2 Mechanisms that involve direct feedback

The mechanisms described in the previous section aim to align agent performance and behavior with an organization’s business goals in a way that is enforced by supervisors or by the system itself. To make agents behave as desired, it is often sufficient that they know that particular behaviors will or might have negative consequences. While many mechanisms respond to work activities, some of them provide transparent feedback to agents very directly and/or very timely or immediately. Others aim to outsource control to the agents themselves and, to some extent, stimulate and automate agent self-control. This includes, for example:

Timers. One example of a direct feedback mechanism is the timer shown to agents, counting down the seconds until after-call work must be finished. When an agent fails to complete work within the available time, this may

¹⁵⁸ <https://help.mypurecloud.com/articles/configure-call-work-settings/> [25.1.2023]

¹⁵⁹ <https://help.mypurecloud.com/faqs/what-do-the-timers-in-an-interaction-mean/> [25.1.2023]

¹⁶⁰ <https://help.mypurecloud.com/articles/interaction-alerts-cx-digital/> [25.1.2023]

¹⁶¹ <https://help.mypurecloud.com/articles/create-preview-campaign/> [25.1.2023]

¹⁶² https://help.genesys.com/pureconnect/mergedprojects/wh_id/desktop/hid_held_interaction_timer_initiator.htm [25.1.2023]

¹⁶³ <https://help.mypurecloud.com/articles/set-an-automatic-inactivity-timeout/> [25.1.2023]

¹⁶⁴ https://help.genesys.com/pureconnect/mergedprojects/wh_is/desktop/add_an_alert.htm [25.1.2023]

¹⁶⁵ <https://help.mypurecloud.com/articles/edit-alert-rule/> [25.1.2023]

¹⁶⁶ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_feedback/desktop/overview.htm [25.1.2.23]

¹⁶⁷ https://help.genesys.com/pureconnect/mergedprojects/wh_tr/mergedprojects/wh_tr_installation_and_configuration/desktop/interaction_analyzer.htm [25.1.2023], https://help.genesys.com/pureconnect/mergedprojects/wh_id/desktop/hid_keyword_spotted_initiator.htm [25.1.2023]

¹⁶⁸ <https://deliberate.de/en/contact-center/blinkydings/> [26.1.2023]

result in anything from a friendly reminder to disciplinary measures. However, the timer mechanism aims to prevent this from happening in the first place. As detailed in the previous section, several timers are available. Agents also get feedback on the time spent during an interaction¹⁶⁹ and the time lapsed in their current “status”.¹⁷⁰

Performance metrics and targets. Several versions of Genesys software offer the option to show individual-level and group metrics not only to supervisors and managers, but also to agents. The software used by agents can display individual-level performance metrics to them.¹⁷¹ As detailed in the previous section, the “performance tracker” widget can also show them their metrics in relation to a target, which pressures agents to hit these targets. Without empirical research into the practical use of Genesys software, it remains unclear how widely contact center operators activate these features in Europe. Some operators may also deactivate them and rely on supervisors informally communicating metrics and targets to agents. In addition, agents can view a list of their evaluation reports including their scores,¹⁷² a list of their coaching appointments and training assignments including assessment results¹⁷³ and a list of customer surveys related to their interactions, which also include scores.¹⁷⁴ Providing constant feedback about performance metrics and targets to agents can be considered a mechanism that exploits agent self-control.

Performance-based pay and other reward systems. As described in section 4.4, the newest Genesys version offers a module that urges agents to earn “points” by adhering to the schedule, behaving as desired and reaching performance targets. It provides constant feedback and rewards agents with recognition or material incentives. As described in section 5.1, the performance-based pay system offered by NICE not only shows performance metrics and targets to agents, but also the “earning potential” in case they miss, hit or exceed their targets.

Notifications and alerts. Generally, the system uses a variety of messages, notifications and alerts that constantly remind agents of tasks and other incidents related to their work.¹⁷⁵

The “queue” as a virtual whip. The constant flow of new interactions and tasks to be handled by an agent can generally be considered a performance control mechanism. Omni Intelligence, a technology vendor whose services can be integrated with Genesys,¹⁷⁶ makes this explicit. It tells its clients that “staff will know to be more ‘efficient’ on their current call so they can then quickly move to the next waiting caller” when “there are a number of calls waiting”.¹⁷⁷

4.3 Mechanisms that rely on peer pressure

Genesys software provides different mechanisms that exploit peer control. It can show performance metrics to groups of agents, both in the user interface¹⁷⁸ and on “wallboards”, which broadcast information to large screens

¹⁶⁹ <https://help.mypurecloud.com/articles/interaction-page-navigation/> [26.1.2023]

¹⁷⁰ <https://help.mypurecloud.com/articles/status-timer-for-agents/> [26.1.2023]

¹⁷¹ <https://help.mypurecloud.com/articles/my-performance-view/> [26.1.2023]

¹⁷² <https://help.mypurecloud.com/articles/my-evaluations-view/> [26.1.2023]

¹⁷³ <https://help.mypurecloud.com/articles/my-development-view-2/> [26.1.2023]

¹⁷⁴ <https://help.mypurecloud.com/articles/my-interactions-view/> [26.1.2023]

¹⁷⁵ <https://all.docs.genesys.com/PEC-AD/Current/Agent/ADNav> [26.1.2023], <https://help.mypurecloud.com/articles/interaction-page-navigation/> [26.1.2023]

¹⁷⁶ <https://appfoundry.genesys.com/filter/genesyscloud/listing/7455c835-5423-4454-9b32-488808b8d462> [25.4.2023]

¹⁷⁷ https://marketplace.mypurecloud.com/7455c835-5423-4454-9b32-488808b8d462/marketingurl_a97637f2.en-us.pdf [25.4.2023]

¹⁷⁸ See sections 4.4, and: <https://help.mypurecloud.com/articles/agent-activity-overview/> [26.1.2023]

that are visible to the whole team in the office.¹⁷⁹ Several third-party vendors offer software that pulls real-time data from Genesys' systems in order to display it on wallboards.¹⁸⁰

Figure 4 shows an example wallboard provided by the Slovakian firm 2Ring. It displays group-level metrics, for example, the number of incoming calls on a day, the share of calls that were handled and the “service level”, as well as individual-level metrics such as named agents' current status and average handle time.

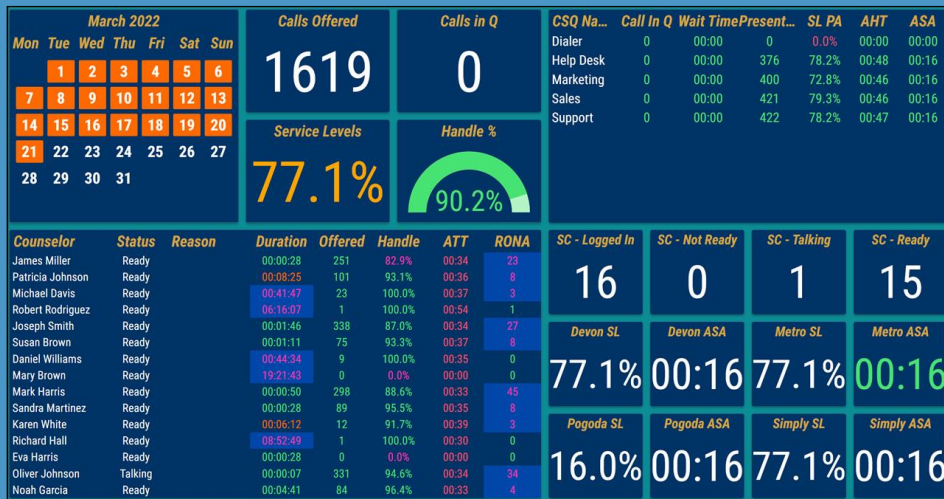


Figure 4: Contact center „wallboard“ from 2Ring¹⁸¹

The numbers shown on the wallboard change colors depending on their value.¹⁸² For example, the “service level” metric may turn from green to orange when it falls below the acceptable value, and to red when things get out of hand. In this case, the color coding is a visual representation of a group-level performance target. Agents might be aware that the metric turning to red must be avoided at any cost, and thus may work faster. Broadcasting individual-level metrics to everyone in the room makes visible whose performance is falling behind. But even without displaying data on individuals, wallboards can exert performance and behavior control.

In addition, Genesys provides functionality that allows agents to trade shifts among each other. To the extent workers feel a mutual responsibility to take shifts, this system can be considered a mechanism that exploits peer control.

4.4 Performance management á la Black Mirror

The newest cloud-based Genesys version offers additional functionality that combines mechanisms described in the previous sections and goes beyond them. Marketed as a “performance management” solution that includes “gamification”, it uses game mechanisms such as points, targets, rankings, incentives and rewards to make agents reach

¹⁷⁹ <https://all.docs.genesys.com/PEC-REP/Current/RT/RTRUserAccess> [26.1.2023]

¹⁸⁰ E.g. <https://deliberate.de/en/contact-center/displayings/>, <https://www.novellox.com/contact-center-wallboards/genesys-wallboard/> [26.1.2023]

¹⁸¹ Figures © 2Ring. The figures serve as basis for the discussion of the corporate practices examined in this study. Source:

<https://www.2ring.com/products-manager/dashboards-wallboards-genesyscloud/summary/> [26.1.2023]

¹⁸² https://www.2ring.com/wp-content/uploads/2022/01/2109_2Ring_Product-Datasheet_DW_A4_Genesys_Email.pdf [26.1.2023]

performance goals. Genesys claims on its website that “competition is a natural motivator”, and promises to “empower[...] employees to self-manage” and to help them “strive for team goals”.¹⁸³ The system claims to “enhance performance management and encourage friendly competition around performance-based objectives”.¹⁸⁴ Agents must constantly earn “points” throughout the day by behaving as desired.

Figure 5 (left) shows how agents see their metrics in relation to predefined performance objectives. In this example, an agent will maximize their points by minimizing after-call work time, minimizing hold time and minimizing the number of calls transferred to colleagues. In addition, they earn points by taking breaks and going “on queue” exactly as scheduled. The dashboard shows a comparison of the agent’s score with personal bests and other agents’ bests – per day, per week and per month – as well as a ranking of agents in the team, including their scores.

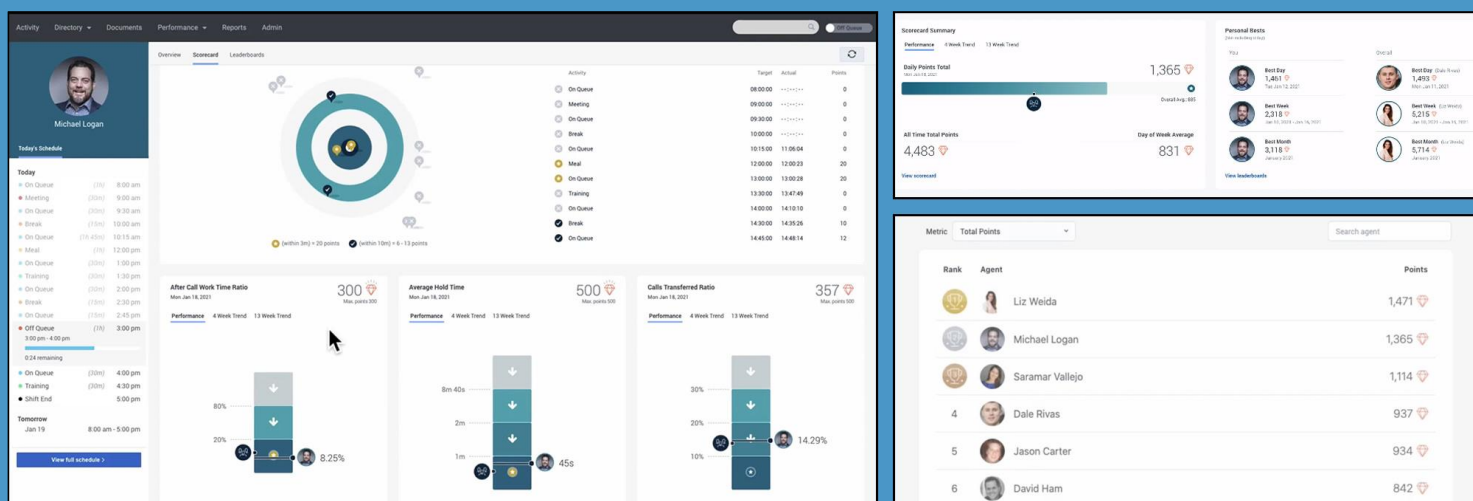


Figure 5: Genesys agent dashboard for performance and behavior control¹⁸⁵

Performance metrics and targets are configurable and can include “average handle time”, “interactions per hour” and other KPIs. Targets can have different ranges that indicate bad, medium-level and good performance. The tracked metrics can even include a measure for how often particular phrases have been mentioned in a call or text conversation (“detected topics”). The “punctuality” metric measures the seconds between the scheduled and the actual start time of an activity, such as on-queue status, breaks, meals, meetings and training appointments.¹⁸⁶ Any available metric from other systems can also be included. Genesys mentions, for example, “customer satisfaction score” (CSAT), “net promoter score” (NPS), “first contact resolution” (FCR), “daily sales” and “refund rate”.¹⁸⁷

¹⁸³ <https://www.genesys.com/capabilities/gamification-call-center-employees> [26.1.2023]

¹⁸⁴ <https://help.mypurecloud.com/articles/about-gamification/> [26.1.2023]

¹⁸⁵ Figures © Genesys. The figures serve as basis for the discussion of the corporate practices examined in this study. Source: <https://www.genesys.com/capabilities/gamification-call-center-employees> [26.1.2023]

¹⁸⁶ <https://help.mypurecloud.com/articles/configure-gamification-profile-metrics/> [26.1.2023]

¹⁸⁷ <https://help.mypurecloud.com/articles/configure-external-metrics-for-performance-scorecards/> [26.1.2023]

5. Genesys and other contact center “platforms”

Leading vendors who provide cloud-based contact center systems include Genesys, NICE, Five9 and Talkdesk, as well as major tech companies such as Cisco and Amazon.¹⁸⁸ Other vendors provide similar functionality to Genesys. For example, **Five9**, a US company with offices in Germany and the UK,¹⁸⁹ and which states that its contact center software manages almost a quarter million “concurrent agent seats”,¹⁹⁰ offers functionality for real-time monitoring, performance control, workflow automation, as well as call and screen recording. Every call and other interaction can be scored.¹⁹¹ Five9 promises to help reduce “overstaffing” with its forecasting and scheduling software.¹⁹²

5.1 Performance-based pay (NICE)

NICE, another leading contact center software vendor, also promises to help reduce “overstaffing” and “labor waste”.¹⁹³ In addition to scheduling, call and screen recording, sentiment scoring, performance monitoring,¹⁹⁴ NICE provides an extra module for **performance-based pay**.

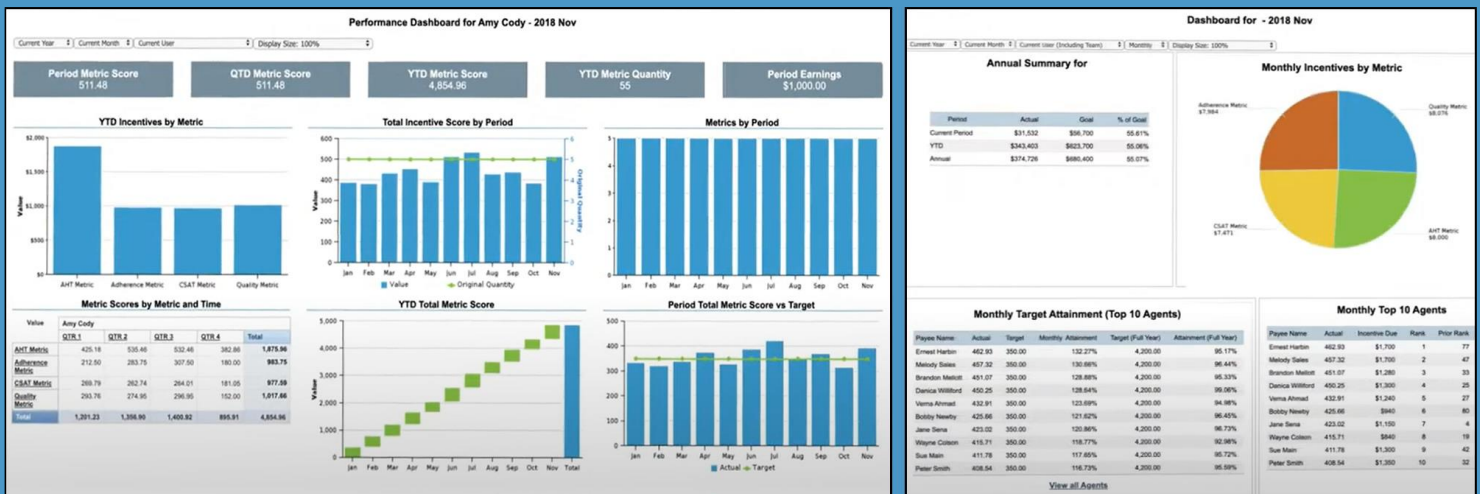


Figure 6: Dashboards on performance-based pay for agents and managers from NICE¹⁹⁵

NICE promises to “automate incentive compensation” and emphasizes that agents can always see their “earning potential”.¹⁹⁶ Figure 6 (left) shows an example of a “performance dashboard” as seen by a particular agent. It contains a wild mix of charts that break down how this agent has missed, reached or exceeded their performance targets

¹⁸⁸ See e.g. Gartner (2022): Magic Quadrant for Contact Center as a Service, 22.8.2022

¹⁸⁹ <https://www.five9.com/about/contact> [31.1.2023]

¹⁹⁰ <https://www.five9.com/en-uk/about> [31.1.2023]

¹⁹¹ <https://www.five9.com/products/capabilities/supervisor-desktop> [31.1.2023], <https://www.five9.com/products/capabilities/performance-management-dashboard> [31.1.2023], <https://www.five9.com/products/capabilities/workflow-automation> [31.1.2023], <https://www.five9.com/products/capabilities/call-center-quality-management-monitoring-tools> [31.1.2023]

¹⁹² <https://marketplace.five9.com/s/sfsites/c/cms/delivery/media/MCFTQYNX5EGZAQVOL5QML7IXIGHQ> [31.1.2023]

¹⁹³ [https://www.nice.com/-/media/niceincontact/resources/datasheets/2020/10/0001525_en_cxone-wfm-datasheet-2020-\(1\).ashx](https://www.nice.com/-/media/niceincontact/resources/datasheets/2020/10/0001525_en_cxone-wfm-datasheet-2020-(1).ashx) [31.1.2023]

¹⁹⁴ <https://www.nice.com/products/workforce-engagement/workforce-management> [31.1.2023], <https://www.nice.com/products/workforce-engagement/call-recording> [31.1.2023], <https://www.nice.com/products/workforce-engagement/quality-management> [31.1.2023]

¹⁹⁵ Figures © Nice. The figures serve as basis for the discussion of the corporate practices examined in this study. Source: Nice YouTube channel, "Pay for Performance in the Contact Center", 29.7.2020. Video stills 1:14 and 1:09: https://www.youtube.com/watch?v=y_56k87ZpmM [31.1.2023]

¹⁹⁶ <https://www.nice.com/products/workforce-engagement/sales-performance-management/pay-for-performance-contact-center> [31.1.2023]

over the past 12 months. The agent's payment of \$1,000 is based on an aggregate "metric score" that combines four different KPI metrics, including average handle time, schedule adherence, customer satisfaction and a quality score. The example screens shown in NICE's marketing materials are unclear about whether the amounts indicate bonus payments or cover the full wage. Figure 6 (right) shows a section of the management dashboard, including ranked lists of the top-performing agents in a month. They not only reached but exceeded their performance target by between 116% and 132% and thus receive payments between \$840 and \$1,700. It also shows that the contact center aimed to spend \$680,000 annually on performance-based pay but has actually spent only \$375,000. NICE's software for performance-based compensation can be used for any kind of contact center work but focuses on sales agents.¹⁹⁷

NICE is headquartered in Israel, has more than 7,500 employees and offices in several European countries including in Germany, France and the UK.¹⁹⁸ It was founded in 1983 as a company that primarily sold surveillance technology to the military sector.¹⁹⁹ Today, it offers a broad spectrum of products and services for contact center operations and enterprise process automation,²⁰⁰ as well as systems that involve consumer profiling,²⁰¹ and it still provides data analytics and other services to government agencies and law enforcement.²⁰²

5.2 Citizen, worker and consumer surveillance (Verint)

Another vendor shows even more clearly how a company can exploit synergies across government mass surveillance, consumer profiling and worker monitoring. The US company **Verint** provides, on the one hand, contact center technology including call recording, speech analytics, performance monitoring, forecasting and scheduling.²⁰³ On the other hand, Verint has supplied phone surveillance technology to the National Security Agency (NSA), a US intelligence agency, as reported in 2013.²⁰⁴ The company developed what is perhaps the world's largest biometric voice recognition database for Interpol²⁰⁵ and has repeatedly supplied surveillance technology to authoritarian states around the world, according to NGO reports.²⁰⁶ In addition, Verint's contact center solutions involve not only worker surveillance, but also consumer profiling.²⁰⁷ In 2021, Verint spun off its intelligence and defense business into a new company named Cognyte.²⁰⁸

¹⁹⁷ <https://www.nice.com/products/workforce-engagement/sales-performance-management> [31.1.2023]

¹⁹⁸ <https://www.nice.com/company/about-us> [31.1.2023], <https://www.nice.com/company/global-locations> [31.1.2023]

¹⁹⁹ https://web.archive.org/web/20071022204124/http://www.nice.com/news/newsletter/6_03s/anniversary.php [31.1.2023]

²⁰⁰ <https://www.nice.com/products/automation> [31.1.2023]

²⁰¹ <https://www.nice.com/products/cx-analytics/customer-journey> [31.1.2023]

²⁰² <https://www.nicepublicsafety.com/> [31.1.2023]

²⁰³ <https://www.verint.com/enterprise-recording/> [31.1.2023], <https://www.verint.com/speech-analytics/> [31.1.2023], <https://www.verint.com/forecasting-and-scheduling/> [31.1.2023]

²⁰⁴ Brewster, Thomas (2020): Israeli Surveillance Companies Are Siphoning Masses Of Location Data From Smartphone Apps. *Forbes*, 11.12.2020. Online: <https://www.forbes.com/sites/thomasbrewster/2020/12/11/exclusive-israeli-surveillance-companies-are-siphoning-masses-of-location-data-from-smartphone-apps>

²⁰⁵ Kofman, Ava (2018): Interpol rolls out international voice identification database using samples from 192 law enforcement agencies. *The Intercept*, 25.6.2018. Online: <https://theintercept.com/2018/06/25/interpol-voice-identification-database/>

²⁰⁶ See e.g. Privacy International (2014): Privacy International uncovers widespread surveillance throughout Central Asia, exposes role of Israeli companies. Press release, 20.11.2014. Online: <https://privacyinternational.org/press-release/1186/privacy-international-uncovers-widespread-surveillance-throughout-central-asia>, Privacy International (2015): How Colombia built a shadow state, a new Privacy International investigation reveals. 31.8.2015. Online: <https://privacyinternational.org/blog/1362/how-colombia-built-shadow-state-new-privacy-international-investigation-reveals>,

Amnesty International (2021): South Sudan: Rampant abusive surveillance by NSS instils climate of fear. 2.2.2021. Online: <https://www.amnesty.org/en/latest/news/2021/02/south-sudan-abusive-surveillance-by-national-security-service-climate-of-fear/>

²⁰⁷ <https://www.verint.com/experience-management/> [31.1.2023]

²⁰⁸ Hazani, Golan (2021): Verint completes spin-off of its defense activities into new company Cognyte Software. *C'Tech*, 22.2021. Online: <https://www.calcalistech.com/ctech/articles/0,7340,L-3890984,00.html>

These examples demonstrate two things. First, vendors who once built technical and commercial expertise in one domain, namely surveillance technology for military and intelligence agencies, expanded to other domains, in this case worker and consumer surveillance. Technology to monitor and analyze calls and other communication contents, for example, can be used both for government mass surveillance and in the call center.²⁰⁹ It is a **multi-purpose** technology. Second, sometimes the same system is used to monitor different groups at the same time. Software for contact center operations usually monitors not only workers but also customers, by listening to what consumers say and building digital profiles on them. Sometimes monitoring customers can directly lead to increased worker profiling, for example, when customer satisfaction scores based on consumer data are used to assess agent performance. Karen Levy and Solon Barocas (2018) have coined the term **refractive surveillance** to describe how the collection of information about one group can “facilitate control over an entirely different group”.

5.3 Contact center technology and big tech (Amazon, Google)

Major platform companies also provide contact center software. In 2017, **Amazon** launched “Connect”, a cloud-based contact center system that has emerged from the company’s own internal customer service infrastructure.²¹⁰ It offers functionality similar to Genesys’ system, including “call recording for agent performance assessment”, “full-text search on transcripts“, mechanisms to “prioritize, assign, and track agent tasks” and analytics to make “data-driven decisions that increase agent productivity”.²¹¹ Amazon emphasizes that its “forecasting, capacity planning, and scheduling” modules are “not designed to ensure compliance with any particular laws”. It would be the responsibility of clients to ensure their use of these features “comply with any applicable laws, including employment regulations”. A few sentences later Amazon claims that “forecasting, capacity planning, and scheduling” would be “fully compliant with GDPR”.²¹²

Google also provides a cloud-based contact center system, including functionality for “predictive routing, agent productivity and operational efficiency” that promises to “reduce handle time by providing deep interaction context” and make “agent productivity higher”.²¹³ Its “Contact Center AI” services focus on speech analytics, automated “virtual agents” and bots, as well as on functionality that provides “human agents with continuous support during their calls and chats by identifying intent and providing real-time, step-by-step assistance”.²¹⁴ These services can be integrated into other contact center systems such as Genesys. The Genesys website provides rich documentation about Google’s contact center technology.²¹⁵

5.4 From software to “platform”: apps, services and APIs

Today’s cloud-based contact center systems, which are sometimes also referred to as “contact center as a service”²¹⁶, provide various mechanisms that make it possible to integrate with systems, applications and digital services from

²⁰⁹ See also section 7.2

²¹⁰ <https://aws.amazon.com/blogs/aws/amazon-connect-customer-contact-center-in-the-cloud/> [1.2.2023]

²¹¹ <https://aws.amazon.com/connect/features/> [1.2.2023]

²¹² <https://aws.amazon.com/connect/optimization/> [1.2.2023]

²¹³ <https://cloud.google.com/solutions/contact-center-ai-platform> [9.2.2023]

²¹⁴ <https://cloud.google.com/solutions/contact-center> [9.2.2023]

²¹⁵ <https://help.mypurecloud.com/articles/about-the-google-cloud-dialogflow-es-integration/> [9.2.2023], <https://help.mypurecloud.com/articles/about-agent-assist/> [9.2.2023]

²¹⁶ Gartner (2022): Magic Quadrant for Contact Center as a Service, 22.8.2022

other vendors. Genesys,²¹⁷ Five9,²¹⁸ Nice²¹⁹ and Talkdesk²²⁰ operate **app stores** that provide hundreds of “apps”, designed to expand the functionality of their platforms and enable data flows into and out of them. This includes integrations with popular enterprise systems for customer relationship management (CRM), enterprise resource management (ERP), workflow automation and unified communications, from vendors such as Salesforce, SAP, Microsoft, ServiceNow and Zoom.²²¹ It also includes software for data analytics, reporting, performance management, time tracking and scheduling from lesser-known vendors, some of which provide even more invasive functionality than the contact center systems already do.²²² Companies can also use APIs²²³ to build custom integrations or enable data flows out of and into the contact center platform.

Genesys provides extra functionality that allows organizations to better access and **exploit data from subcontractors**. The “Outsourcer Management” module promises to provide a “holistic view of each outsourcer's performance, skills, and capability, benchmarking them against internal performance or even other outsource centers”.²²⁴ In a case study, Genesys explains that it helped a Belgian telco to “circulate relative performance statistics among its five outsourcers and so foster bracing competition between them”, which led to cost savings of €3 million per year.²²⁵

5.5 Genesys, NICE and Teleperformance

In 2009, the French outsourcing giant Teleperformance²²⁶ started to use Genesys software, at least for a part of its operations.²²⁷ In a 2015 marketing brochure²²⁸, Genesys states that Teleperformance uses Genesys software for agent management, routing, queuing, reporting and analytics for certain “on demand” operations.

Genesys also explains that Teleperformance’s “Observer” platform, a “real-time agent desktop observation and call center floor management module”, which “remotely monitors live audio, video and desktop feeds from employee workstations in contact centers around the world and reports on call statuses and temperaments”, was “built on the Genesys platform”. Teleperformance’s clients can “access all components of agent interactions and view contact floor activity from controllable, aerial cameras while analyzing realtime call activity, capacity and emotion states”. The system “tracks every real-time event that happens at the agent level”, creating a “comprehensive, live view of what’s happening inside the contact center”. If “Genesys data indicates that an agent regularly has excessive hold times and has passed the threshold for looking up customer data, Teleperformance Observer connects those data points and raises an alert”. The system would enable “continuous viewing and analyzing of behavioral patterns across the contact center”. Genesys emphasizes, on the one hand, that the monitoring occurs for fraud prevention

²¹⁷ <https://appfoundry.genesys.com> [1.2.2023]

²¹⁸ <https://marketplace.five9.com> [1.2.2023]

²¹⁹ <https://cxexchange.niceincontact.com> [1.2.2023]

²²⁰ <https://appconnect.talkdesk.com> [1.2.2023]

²²¹ Ibid.

²²² See e.g. sections 6 and 7

²²³ E.g. <https://developer.genesys.cloud/devapps/api-explorer>, <https://www.five9.com/products/capabilities/call-center-apis-and-sdks>, <https://www.nice.com/products/open-cloud-platform/restful-apis>, <https://docs.talkdesk.com/docs/api-access> [1.2.2023]

²²⁴ <https://all.docs.genesys.com/UseCases/Current/GenesysEngage-onpremises/EE17> [1.2.2023]

²²⁵ https://genbin.genesys.com/old/resources/success-stories-and-infographics/Genesys_Belgacom_CS07212014_screen.pdf [25.4.2023]

²²⁶ See section 8.2

²²⁷ <https://opusresearch.net/wordpress/2009/09/03/genesys-and-teleperformance-team-up-to-offer-genesys-ondemand/> [7.2.2023]

²²⁸ <https://www.genesys.com/media/Teleperformance-SS-EN.pdf> [7.2.2023]

purposes and to prevent data breaches. On the other hand, it can also help with “boosting performance”. The “bird’s-eye view” is thus “important for driving both security and efficiency”.²²⁹

The contact center vendor NICE also provides services to Teleperformance. According to a marketing brochure,²³⁰ Teleperformance Benelux has used call monitoring and analytics software from NICE for a large client in order to “reduce operational costs” and “increase profits”. The NICE solution was incorporated in the “Teleperformance Quality Assurance Process”, capturing “100% of customer interactions”. The result was as “40% reduction of silent time”, a “20-second reduction” of the average handle time and a “36% decrease in call transfers among agents”.

5.6 Genesys, data protection and legal compliance

Employers can use different versions of Genesys software in very different ways. They are primarily responsible for using it in a legally compliant way, from data protection to employment law. However, it might generally be impossible to use particular functionality implemented by a software vendor in a legally compliant way. While it would be interesting to review Genesys software with respect to its compliance with the GDPR and other regulatory requirements, a comprehensive legal assessment is beyond the scope of this case study. Nevertheless, this section provides a few remarks.

Most of the policy documents that address data protection for the cloud-based Genesys systems appear to focus on customer data and information security, and rarely on employee data, if at all.²³¹ Genesys explains that it has “commissioned a GDPR project”, but it does not state whether this project has been completed. In the same paragraph, the company mentions that it aims to complete an “updated data inventory” to determine “every location in which Genesys cloud” stores, processes or transmits “PII”.²³² Using the US-American term “PII”, which refers to “personally identifiable information”, in combination with the GDPR is problematic. The term “PII” is completely irrelevant under the GDPR, where only “personal data” is relevant. Personal data is a much broader concept than what is covered by the term “PII”.²³³

Genesys sometimes also uses ambiguous terminology when it addresses employee data. For example, the documentation about Genesys’ predictive routing functionality explains that “PII” gets “anonymized” when it is uploaded to the system. The explanation in the documentation, however, suggests that the system does not “anonymize” PII, but “pseudonymizes” personal data. Genesys explains, for example, that it “maps” data linked to “anonymized” versions of the employee ID “back to the non-anonymized versions of the employee IDs so that routing can proceed”.²³⁴ The ability to link data back to the “non-anonymized” data clearly points to the use of pseudonymization rather than anonymization. In contrast to anonymized data, pseudonymized data is still considered personal data under the GDPR (see e.g. Christl, 2017, p. 69). At another point in the documentation, Genesys emphasizes that its real-time

²²⁹ Ibid.

²³⁰ <https://www.nice.com/-/media/niceincontact/resources/customer-stories/2022/03/teleperformance-case-study.ashx?rev=1ed5f2cab3b54e908bcb897ad84d18fc> [7.2.2023]

²³¹ E.g. <https://help.mypurecloud.com/articles/about-security-and-compliance/>, <https://help.mypurecloud.com/articles/gdpr-overview/>, <https://help.mypurecloud.com/articles/genesys-cloud-and-gdpr-compliance/>, <https://help.mypurecloud.com/wp-content/uploads/2021/11/Genesys-Cloud-Privacy-Policy-Nov-2021.pdf>, https://all.docs.genesys.com/System/General_security_and_compliance_information, https://all.docs.genesys.com/System/Genesys_Multicloud_CX_support_for_GDPR, https://all.docs.genesys.com/System/General_Data_Protection_Regulation [9.2.2023]

²³² <https://help.mypurecloud.com/articles/gdpr-overview/> [9.2.2023]

²³³ See e.g. <https://piwik.pro/blog/what-is-pii-personal-data/>

²³⁴ <https://all.docs.genesys.com/PE-GPR/9.0.0/Deployment/dataReqs#anonymize> [9.2.2023]

reporting module “only stores Usernames”, which would be a “good privacy protection approach”.²³⁵ As a username is clearly still personal data under the GDPR, this is a questionable claim.

Genesys often uses vague and ambiguous explanations when it describes the purposes that particular mechanisms which rely on processing personal data on workers can be used for. As detailed in section 2.3, it presents a wild mix of promises and purposes with respect to call monitoring and communication analytics, both on its website and in the documentation. In part, this shows a blunt disregard for the concept of **purpose limitation**, which is a key principle in the European data protection regime.²³⁶ In Austria and Germany, employers may not be able to use some of the functionality described in sections 2 to 4 in a legally compliant way, or they may have to negotiate it with the works council.²³⁷ Functionality that may be problematic includes all mechanisms that rely on analyzing large amounts of historical personal data on employees (e.g. predictive routing, forecasting), mechanisms that involve the monitoring and analysis of communication contents (e.g. call monitoring), and mechanisms that can be considered performance and behavior control, especially at the individual level (e.g. performance metrics and targets). Genesys’ shift scheduling functionality touches a lot on employment law.

Beyond legal compliance, enterprise software vendors shape, to a large extent, how employers can and will use the system, and, as such, how employers will process and exploit personal data on workers. This is even more true for vendors that provide cloud-based systems. Specifically, default settings can have a considerable impact on how a system is used by employers.

6. Monitoring workers’ webcams, screens, keystrokes and mouse clicks at home

While contact center system vendors such as Genesys already provide comprehensive functionality to monitor workers, from tracking tasks down to the second to call recording, speech analytics and screen recording,²³⁸ there appear to be no limits to making worker surveillance even more intrusive, especially when it comes to targeting employees who work from home or at another remote location.

The Genesys app store provides a simple way to install additional software that allows managers to monitor agents’ webcams, screens, keystrokes and mouse clicks. In a September 2020 blog, Genesys promoted the workspace monitoring system “Agent Interact”, which records webcam snapshot images every 60 seconds, as a solution for tracking both “productivity and compliance of at-home agents”.²³⁹ The software, which is sold by the US company **Trendzact**, has far-reaching surveillance capabilities. Figure 7 shows a section of a supervisor’s dashboard²⁴⁰ for the “observation room” product, displaying images taken by webcams at workplaces, some of which show red flags indicating behavioral anomalies. For one employee, their screen is shown and also labeled with a red flag. The

²³⁵ “This page was last edited on June 18, 2021”: <https://docs.genesys.com/Documentation/System/8.5.x/SDG/GDPR-Pulse> [15.1.2023]

²³⁶ See e.g. Bentzen, Heidi Beate (2022): Context as key: The protection of personal integrity by means of the purpose limitation principle. In: Eleni Kosta, Ronald Leenes, and Irene Kamara (Eds.)(2022): Research Handbook on EU Data Protection Law. Edward Elgar Publishing Ltd

²³⁷ For Germany, see e.g.: https://opus4.kobv.de/opus4-euv/frontdoor/deliver/index/docId/462/file/Middel_Lukas_Workplace_surveillance.pdf

²³⁸ See section 2

²³⁹ <https://www.genesys.com/blog/post/unify-productivity-and-compliance-of-at-home-agents> [15.2.2023]

²⁴⁰ Remark: Although Trendzact uses this image publicly for promotional purposes, the faces have been redacted by the author of this study. The original screen does not contain the areas marked in green.

system promises to automatically detect “significant changes (user leaves focus, new user appears)” and “new objects (cell phone, pen, paper)” in the recorded images, based on Amazon’s image analytics service, “Rekognition”. Trendzact promotes its products as solutions for monitoring workers for both “security and productivity” purposes.²⁴¹

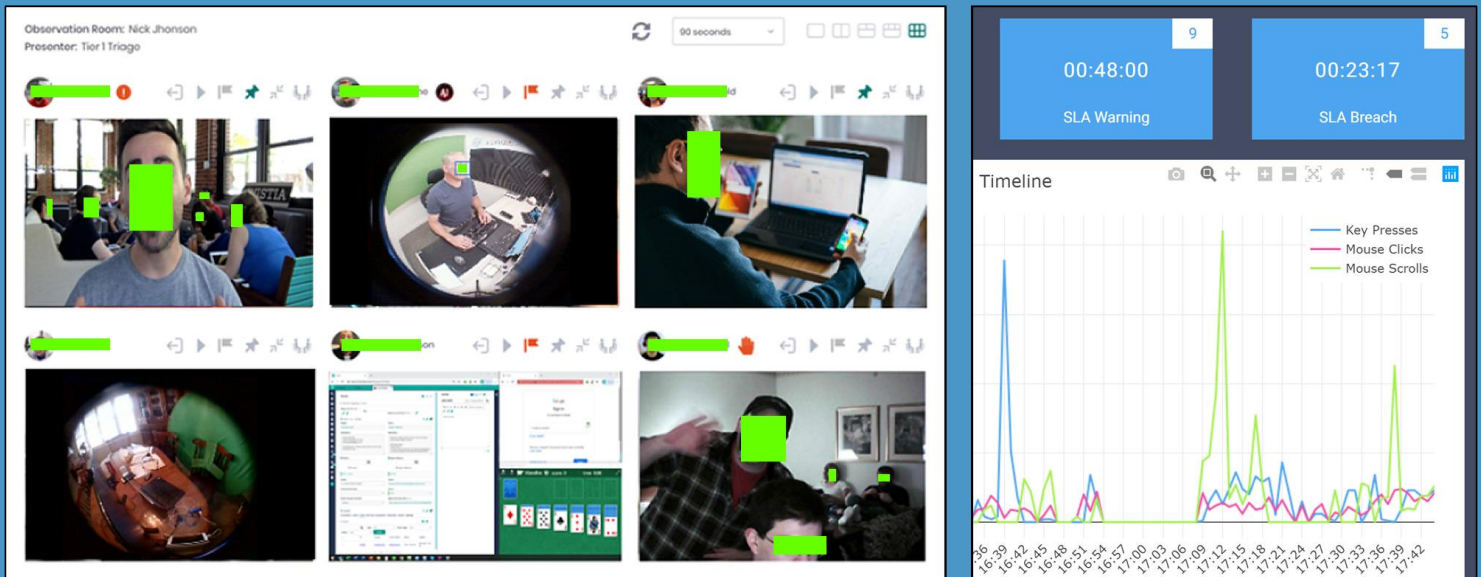


Figure 7: Monitoring webcams, screens (Trendzact), keystrokes and mouse clicks (AgenTrak)²⁴²

The UK-based company **Asterlogic** offers another surveillance system called “AgentTrak”, which can also be installed as a Genesys app and which records “keyboard and mouse activity”, “application & website use”, as well as “agent productivity statistics”.²⁴³ Figure 7 shows an AgenTrak report about how the number of “key presses”, “mouse clicks” and “mouse scrolls” have developed over time in relation to service level “warnings” and “breaches”. Based on the data on the use of applications, websites and documents, as well as on keyboard and mouse activity, the system promises to “track productive and unproductive time”. The company suggests using this information to verify whether workers are “having the right levels of keyboard activity” and identify “the gaps of activity in the employees days”. They could also “identify disgruntled employees”. Supervisors can access “analytics on team and employee performance”, view an agent’s screen in real-time and optionally access an agent’s webcam. By tracking an agent’s device location, employers can “ensure the employee is working where they are supposed to”.²⁴⁴

It is not clear to what extent employers in Europe and in the UK use monitoring software from Trendzact and Asterlogic. In 2021, the Guardian reported that the outsourcing giant **Teleperformance** planned to use its “Observer” system to monitor its at-home workers in the UK via their webcams. According to a training video seen by the Guardian, the system “monitors and tracks real-time employee behaviour and detects any violations to pre-set business rules”. It scans the workspace for breaches such as “missing from desk” and “detecting an idle user”, and

²⁴¹ <https://trendzact.com/platform/> [15.2.2023]

²⁴² Figures © Trendzact, Asterlogic/AgenTrak. The figures serve as basis for the discussion of the corporate practices examined in this study. Sources: <https://appfoundry.genesys.com/filter/genesyscloud/listing/c6785d6e-7af0-4ddf-b39a-5ca89534036a>, <https://asterlogic.co.uk/img/solutions/agen-trak/app3.png> [15.2.2023]

²⁴³ <https://appfoundry.genesys.com/filter/genesyscloud/listing/6ff99f57-f1b9-4cf4-8d87-21fb2ac8bbe7> [15.2.2023]

²⁴⁴ https://marketplace.mypurecloud.com/6ff99f57-f1b9-4cf4-8d87-21fb2ac8bbe7/marketingurl_ce9d3b7f.en-us.pdf [15.2.2023]

it also uses facial recognition²⁴⁵ and data on keystroke and mouse activity.²⁴⁶ In light of the media coverage, Teleperformance stated that it would not use the system in the UK but still plans to use it in more than 30 other countries. A later article quoted an Albanian worker who was dismissed after having objected to video monitoring.²⁴⁷ According to promotional materials, and as detailed in section 5.5, Teleperformance's Observer system was "built on the Genesys platform".

Working from home. The French service contractor Teleperformance, one of the largest contact center operators, announced in April 2020 that 66% of its staff in its core business, or about 155,000 agents, were working from home, up from only 5,000 agents at the end of 2019. While at-home work certainly peaked during the pandemic, it appears to have increased the share of at-home workers permanently. In a 2022 press release, Teleperformance stated that "over 70%" of its staff was working from home.²⁴⁸ Sitel, another large contact center operator, states on its homepage that 65% of its 160,000 employees work from home as of 2023.²⁴⁹

7. Measuring and optimizing emotions and mood

Some vendors that provide call monitoring systems go beyond the automated detection and classification of keywords and phrases, as described in section 2.3.

The technology from **observe.ai**, which can be added as an app to contact center systems such as Genesys²⁵⁰ and Five9²⁵¹, promises to assess mood and emotion in different sections of a conversation by analyzing tone of voice, speech rate and volume. According to the company, its speech analytics software has been "trained" on 10 million hours of customer service calls.²⁵² It can be used to analyze and optimize how agents use "empathy statements" to "improve" the "mood" of "unhappy or frustrated" callers, based on calculating and monitoring metrics such as customer satisfaction.²⁵³ The company also offers dashboards for supervisors that promise to "automatically identify top and bottom performers"²⁵⁴ and help them to make "confident staffing, operational, and coaching decisions".²⁵⁵

Voci Technologies, another speech analytics firm, claims to use a mix of "acoustic features and word sentiment scores" to detect "positive", "negative", "improving" and "worsening" emotions in calls.²⁵⁶ The journalist Josh Dzieza spoke to a call center agent who had to work with this system and reported Kafkaesque experiences. According to the article, the system "consistently marked her down for negative emotions" although she had previously

²⁴⁵ Walker, Peter (2021): 'Missing from desk': AI webcam raises remote surveillance concerns. The Guardian, 26.3.2021. Online: <https://www.theguardian.com/business/2021/mar/26/missing-from-desk-ai-webcam-raises-remote-surveillance-concerns>

²⁴⁶ Walker, Peter (2021): Call centre staff to be monitored via webcam for home-working 'infractions'. The Guardian, 26.3.2021. Online: <https://www.theguardian.com/business/2021/mar/26/teleperformance-call-centre-staff-monitored-via-webcam-home-working-infractions>

²⁴⁷ Walker, Peter (2021): Call centre used by UK firms accused of intrusively monitoring home workers. The Guardian, 8.8.2021. Online: <https://www.theguardian.com/world/2021/aug/08/call-centre-uk-firms-accused-intrusively-monitoring-home-workers-teleperformance>

²⁴⁸ <https://www.teleperformance.com/en-us/insights-list/insightful-articles/global/moving-forward-to-a-better-world-teleperformance-and-nice/> [15.2.2023]

²⁴⁹ <https://www.sitel.com/> [15.2.2023]

²⁵⁰ <https://appfoundry.genesys.com/filter/genesyscloud/listing/affe88f8-7759-4304-a683-9a33b8890aa9> [1.2.2023]

²⁵¹ <https://marketplace.five9.com/s/product/observeai/01t3r000008qe1t> [1.2.2023]

²⁵² <https://www.observe.ai/blog/ai-sentiment-analysis-contact-centers-customer-experience> [1.2.2023]

²⁵³ <https://www.observe.ai/blog/what-are-empathy-statements-and-how-do-you-coach-agents-on-them> [1.2.2023]

²⁵⁴ <https://www.observe.ai/post-interaction/contact-center-performance-management> [1.2.2023]

²⁵⁵ <https://www.observe.ai/platform/contact-center-reporting-analytics> [1.2.2023]

²⁵⁶ Voci was recently acquired by Medallia: <https://docs.medallia.com/en/voci/v-cloud/v-cloud-api-docs/vcloud-transcription-parameters/emotion-sentiment-and-gender> [1.2.2023]

received positive feedback about her empathetic manner from managers and her other metrics were excellent (Dzieza, 2020).

7.1 Implementing “empathy at scale” (Cogito)

Cogito is a startup spun out of the top-tier research university MIT and was initially funded by the US defense agency DARPA.²⁵⁷ It has been aggressively marketing itself²⁵⁸ and claims to be able to “detect and measure over 200 key indicators” of “emotional state” in a call.²⁵⁹ Its system communicates the detected emotional states to call center agents in real time, and instructs them on how to change their speaking style and tone of voice. Figure 8 (left) shows a dashboard for a supervisor who manages a small team of agents. It lists characteristics the system has detected in certain conversation parts, including slow responses, speaking too quickly, speaking too slowly, speaking too long, speakers interrupting each other, moments of “extended silence” and the use of “empathy” and “energy”. Figure 8 (center) shows how a negative customer emotion was detected and is communicated to the agent. The system suggests that the agent should now show “empathy” in order to “make a connection with the caller”.

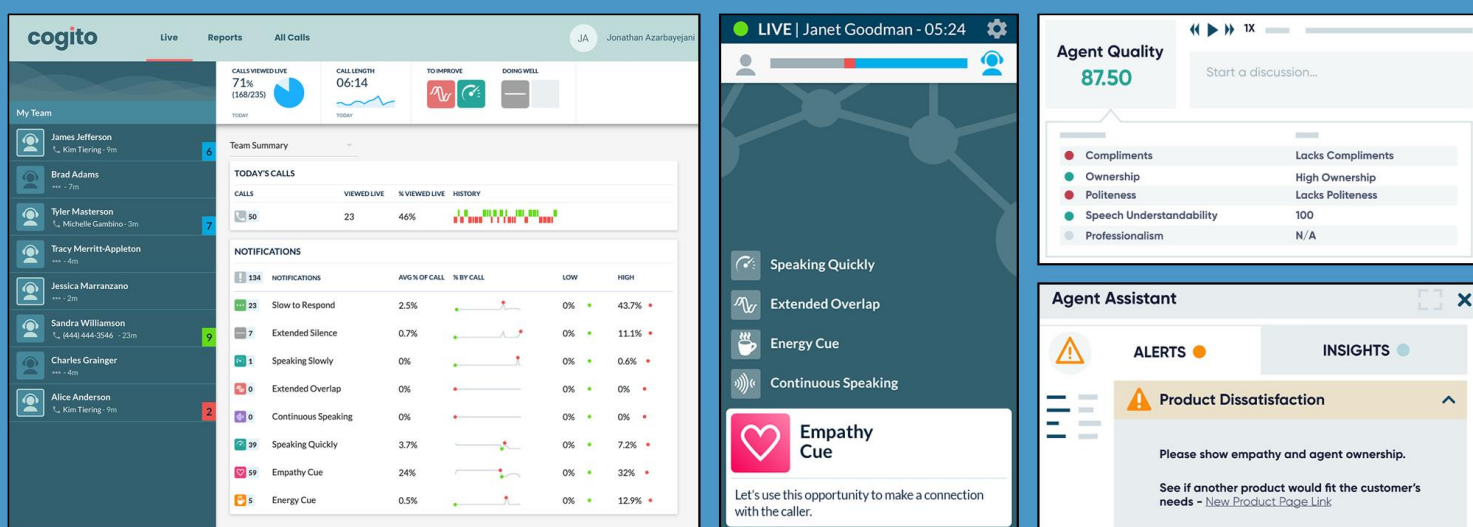


Figure 8: Analyzing and optimizing emotions and mood using Cogito (left, center) and Callminer (right)²⁶⁰

If considered necessary, Cogito instructs agents to respond more quickly or to speak with more “energy”.²⁶¹ Once again, some agents at an insurance call center reported absurd experiences, as is described in the article from Josh Dzieza (2020). One agent “had been laughing with joy over the birth of a child”, which triggered the empathy alarm, resulting in a review of the call by the supervisor. Another agent claimed “they could meet their empathy metrics just by saying ‘sorry’ a lot”, whether it was appropriate or not. Agents who used Cogito told the journalist they have to handle calls from “people dealing with terminal illnesses, dying relatives, miscarriages, and other traumatic events” for 10 hours a day. Each call should be completed within 12 minutes. They have one minute to fill out the

²⁵⁷ <https://cogitocorp.com/about/> [1.2.2023]

²⁵⁸ https://cogitocorp.com/about/news/?_news_categories=in-the-news [1.2.2023]

²⁵⁹ <https://cogitocorp.com/reduce-talk-time-and-increase-first-call-resolution/> [1.2.2023]

²⁶⁰ Figures © Cogito and Callminer. The figures serve as basis for the discussion of the corporate practices examined in this study. Sources: <https://cogitocorp.com/product/> [23.5.2021], <https://callminer.com/products/coach> [23.5.2021], <https://callminer.com/products/alert> [23.5.2021]

²⁶¹ https://cogitocorp.com/wp-content/uploads/2020/12/cogito_annual_report_2020_Update.pdf [1.2.2023]

insurance form and 30 minutes per month for bathroom breaks and personal time. According to the agents interviewed, they experienced chronic anxiety and insomnia, while, at the same time, “your computer is standing over your shoulder and arbitrarily deciding whether you get to keep your job or not” (Dzieza, 2020). It appears that this call center uses Cogito as a cheap and poor substitute for improving disastrous working conditions.

Cogito states in a brochure that it would not be easy for call center agents to “make an emotional connection with customers, quite literally, on demand”. This is why it aims to help them measure and improve empathy in an automated way by “implementing empathy at scale”.²⁶² Its “CX score”, Cogito claims, is an “objective measure” of “a customer’s perception of a call”. In 2017, it won Switzerland-based Zurich Insurance Group as a customer.²⁶³ Cogito can be added as an app to contact center systems such as Genesys.²⁶⁴

7.2 Speech analytics at work and for national security (Callminer)

Callminer, another speech analytics firm, makes similar claims. It promises to automatically extract information about emotions and behaviors from calls, and to calculate “objective” scores that assess, for example, “effort”, “emotion” and “customer satisfaction”.²⁶⁵ Figure 8 (top right) shows that Callminer calculates a single number that assesses “agent quality”. In this example, the agent is given a quality score of 87.5 and it is noted that there was a lack of “politeness” and “compliments”. “Speech understandability”, however, is rated as good. Like Cogito, Callminer alerts workers in real time when it detects a bad mood in a conversation. Figure 8 (bottom right) shows its “agent assistant” software. In this example, the system has detected “product dissatisfaction”, which is why the agent should now “show empathy”. A manager from a call center that had been using Callminer in 2018 estimated that a worker sees three to five notifications a minute during a typical call (see Simonite, 2018).

Callminer is a US company with an office in the UK.²⁶⁶ Its early investors include the CIA’s venture capital firm, In-Q-Tel, which stated in 2005 that Callminer’s “technology for mining information from recordings offers a robust set of applications to gain insight into recorded interactions”, which is why they “have tapped CallMiner’s expertise in the development of speech analytics applications to serve in the United States national security interest”.²⁶⁷ Callminer can be added as an app to contact center systems such as Genesys.²⁶⁸

7.3 Emotion tracking?

As several scholars have pointed out, the accuracy, validity and meaningfulness of such automated assessments of emotions and mood using “AI” technology are highly questionable (see e.g. Cannon, 2019; Turow, 2021; Kaltheuner, 2021; Whittaker et al., 2018). Claims of “objectivity” are often empty promises. But perhaps this is irrelevant for companies that use such systems, as long as they can achieve certain business goals. Kiesche and Wilke (2012) suggest that analyzing and influencing emotions may violate the human dignity of employees in Germany, since it would affect the inviolability of the “core area of individuality, identity and integrity”.

²⁶² Ibid.

²⁶³ <https://www.prnewswire.com/news-releases/expert-system-has-signed-a-global-agreement-with-zurich-insurance-group-for-cognitive-computing-solutions-300438067.html> [1.2.2023]

²⁶⁴ <https://appfoundry.genesys.com/filter/genesyscloud/listing/732a6945-ba14-4783-898a-77268bb1ff06> [28.4.2023]

²⁶⁵ https://pages.callminer.com/rs/347-XFV-966/images/CX_CallMiner_AUS_web.pdf [1.2.2023]

²⁶⁶ <https://callminer.com/contact> [1.2.2023]

²⁶⁷ <https://www.iqt.org/news/callminer-announces-agreement-with-in-q-tel-for-speech-analytics-technology/> [1.2.2023]

²⁶⁸ <https://appfoundry.genesys.com/filter/genesyscloud/listing/6e80dcad-4ca7-4936-ab06-42f39ed103cd> [28.4.2023]

8. Contact center work in Europe and in the UK

The previous sections of this case study have examined the technologies and software that are available on the market and sold to employers. It remains unclear how companies actually implement, customize and use the functionality provided by these systems. This section summarizes existing literature on surveillance and algorithmic control in contact centers in Europe and in the UK, including how it affects workers, and it describes the structure and scale of this industry, which informed the examination of software in the previous sections.

8.1 A large body of call center research

Academic literature on call centers proliferated in the late 1990s and early 2000s. Several authors such as McPhail (2002), Russell (2008), Ball and Margulis (2011), Lloyd (2016) and King (2020) have discussed the large body of research that has emerged since then.

A number of studies addressed issues of **monitoring, measurement and control** (Ferne and Metcalf, 1998; Callaghan and Thompson, 2001; Bain et al., 2002). Ferne and Metcalf (1998) characterized the call center as a new form of Foucault's "total institution", a modern manifestation of Jeremy Bentham's panopticon. Bain and Taylor (2000) criticized the technology determinism and pessimism in this analysis, which would render workers powerless. They still see a potential for collective organization and employee resistance. Yet, their critique does not "deny that the call centre labour process is repetitive, intensive, often acutely stressful, and essentially Tayloristic in character, and that workers' output and performance can potentially be measured and monitored to an unprecedented degree". The constant assessment of "expression and intonation" of speech would further contribute to the "intensity of work" in the call center (Bain and Taylor, 2000). Quantitative targets would increase monotony, repetitiveness and stress, especially when combined with the "unrelenting pressure to conform to acceptable forms of speech" (Taylor and Bain, 1999).

Taylor and Bain (1999) see the call center as part of a wider development in the Taylorization of white-collar work, relying on a "combination of technologically driven measurements and human supervisors". Townsend (2005) has pointed to the "coercive nature of the peer control", where workers are "expected to maintain levels of output for themselves and use peer pressure to influence the level of output for their team members in a positive manner". Other research has addressed the role of gender (Belt, 2002), emotional and affective labor (Mulholland, 2002) and transnational outsourcing (Patel, 2010). The following sections outline the structure and scale of the industry, summarize how call center work can affect employees and provide an overview of field research and survey-based studies about monitoring, performance measurement and control in European and UK call centers.

8.2 The contact center industry

Assessing the scale of employment in the call center and contact center industry in Europe is difficult. As the industry has emerged as a "derivative of activities that previously occurred in other industries", call centers are "everywhere, except in the official industry data" (Burgess and Connell, 2006). Call center jobs often "cut across traditional industries, with subcontractors serving clients as diverse as retail firms, financial institutions, collections agencies, and [...] telecommunications firms" (Doellgast and Pannini, 2015). Weinkopf et al. (2010) estimated that

call center workers made up between 1% (Germany, Denmark), 2.4% (Netherlands) and 3% (UK) of the corresponding national workforces in 2005. A report from a software vendor²⁶⁹ suggests that 3.85 million people have been working in 37,700 contact centers with 2.89 million “seats” in Europe and the UK in 2015. This includes 128,000 seats in Russia and a low number of seats in Turkey. According to the report, the UK holds the largest number of seats (758,000), followed by Germany (347,200), France (241,800) and the Netherlands (188,300). European countries with smaller call center workforces but high growth rates include Ireland, Romania, Bulgaria, Slovakia and Serbia. While the methodology of this report remains unclear, the findings are to some extent consistent with other numbers. A German trade magazine estimated that 540,000 people have been working in German contact centers in 2020, the majority of them for large service contractors such as Teleperformance, Concentrix, Sykes, Sitel, Webhelp and Majorel.²⁷⁰ For the UK, The Economist cites a number of 1.3 million call center workers in 2020, which is about 4% of the UK workforce.²⁷¹

Outsourcing giants. Service contractors, which are also referred to as business process outsourcing (BPO) providers, have become large corporations.²⁷² The French outsourcing giant Teleperformance employs 420,000 people in hundreds of contact centers across 88 countries. In 2021, it recorded a revenue of €7.1 billion, serving over 1,000 businesses and governments.²⁷³ The company’s services include sales, customer services and back-office work, from accounting to debt collection to human resources.²⁷⁴ Its domestic and international “smartshoring” offer allows clients to “choose the location that best suits [their] business”.²⁷⁵ Other BPO firms include Concentrix with 270,000 employees,²⁷⁶ Sitel with 160,000 employees, 65% of them working from home,²⁷⁷ and Majorel, which was formed through a merger between German Arvato Bertelsmann and Saham in 2019 and which claims to have 82,000 employees.²⁷⁸ Little is known about the technical systems used by these companies. According to marketing brochures, Genesys has been providing software to Teleperformance since 2009, at least for a part of its contact center operations. This includes intrusive monitoring systems that involve cameras and the analysis of agents’ “behavioral patterns” and “emotion states”. NICE, another contact center vendor, also provided call monitoring and analytics software to Teleperformance, according to a marketing brochure (see section 5.5). In 2021, Teleperformance was accused of intrusively monitoring home workers in Greece and Albania,²⁷⁹ as well as allowing too little time for toilet and food breaks in the UK.²⁸⁰

These outsourcing firms also provide **content moderation** services for social media platforms. Teleperformance, for example, employs low-paid content moderators on behalf of TikTok in Columbia. In 2022, workers who had to

²⁶⁹ Altitude (2016), International 2016 Customer Contact Benchmark: <https://www.esceda.fr/mailling/1612/Benchmark-Altitude-Europe-2016-Exec-Summary.pdf>

²⁷⁰ Call Center Profi, Call Center Ranking 2020: <https://www.gtai.de/en/invest/industries/services/contact-centers>

²⁷¹ Economist (2020): Britain’s call centres are overwhelmed and overhauling how they work. No author, 4.4.2020

²⁷² See e.g. <https://www2.everestgrp.com/reportaction/EGR-2020-21-R-3965/Marketing> [2.2.2023], <https://www.pwc.de/de/im-fokus/customercentrictransformation/die-zukunft-des-deutschen-contact-center-und-crm-marktes.pdf> [2.2.2023], <https://www.gtai.de/en/invest/industries/services/contact-centers> [2.2.2023], <https://www.cbi.eu/market-information/outsourcing-itobpo/contact-center-services/market-potential> [2.2.2023]

²⁷³ <https://www.teleperformance.com/media/dldbwcqc/teleperformance-stakeholder-briefing-document-key-facts-dec-2022-2-1-1.pdf> [7.2.2023]

²⁷⁴ <https://www.teleperformance.com/en-us/services/cx-management/back-office-processing/> [7.2.2023]

²⁷⁵ <https://www.teleperformance.com/en-us/services/cx-management/smartshoring/> [7.2.2023]

²⁷⁶ <https://ir.concentrix.com/static-files/03ab605e-625b-455c-a120-5f59356cd494> [7.2.2023]

²⁷⁷ <https://www.sitel.com/> [7.2.2023]

²⁷⁸ <https://www.bertelsmann.com/news-and-media/news/bertelsmann-and-saham-s-customer-experience-business-majorel-launched.jsp> [7.2.2023]

²⁷⁹ Walker, Peter (2021): Call centre used by UK firms accused of intrusively monitoring home workers. The Guardian, 8.8.2021. Online: <https://www.theguardian.com/world/2021/aug/08/call-centre-uk-firms-accused-intrusively-monitoring-home-workers-teleperformance>

²⁸⁰ Walker, Peter (2021): Covid test-and-trace staff told to limit toilet and food breaks to 10 minutes. The Guardian, 25.8.2021. Online: <https://www.theguardian.com/business/2021/aug/25/private-covid-test-and-trace-staff-told-to-limit-toilet-and-food-breaks>

review traumatizing videos that included extreme violence and sexual abuse accused the company of inadequate psychological support, impossible performance target demands, punitive salary deductions, extensive surveillance and union busting. One worker had a target of 900 videos per shift, with about 15 seconds to review each video. Watching only 700 videos in a shift was considered “work avoidance” and led to the loss of a monthly bonus (McIntyre et al., 2022). Majorel, which employs content moderators on behalf of TikTok and Facebook in Morocco, faced similar accusations in 2022, including low wages, constant surveillance, unachievable targets, punitive deductions and unpredictable shifts (Bradbury and Al-Waheidi, 2022). Teleperformance also offers **data labeling** and annotation services that are the basis for any of today’s “AI” systems, ranging from audio and document transcriptions to everything that requires human judgement over text, image and other content.²⁸¹ This type of work is managed, monitored and controlled in a similar way as call center work. According to a recent media report, OpenAI, the organization behind the widely discussed chatbot system ChatGPT, outsourced data labelling to a firm which hired low-paid Kenyan workers, who were expected to read and label text passages while meeting performance metrics on speed and accuracy (Perrigo, 2023).

Global Call Centre Project. Between 2004 and 2005, the “Global Call Centre Project”,²⁸² a large-scale international study led by Rosemary Batt, David Holman and Ursula Holtgrewe, examined work practices in 2,500 call centers in 17 countries, which employed almost half a million of people from Europe to North America to South America to Asia (Holman et al., 2007). This research continues to be the most comprehensive survey of working conditions in call centers worldwide. To better describe the differences across countries, the authors grouped them into “coordinated” economies with relatively strong labor market regulations (Austria, Denmark, France, Germany, Israel, Netherlands, Spain, Sweden), “liberal” economies (Canada, Ireland, UK, USA) and “industrializing or transitional” economies (Brazil, India, Poland, South Africa, South Korea).

Call center agents are predominantly female (69%). In the average call center, 29% of agents are part-time or temporary workers. Centers in “coordinated” economies make the greatest use of non-standard work arrangements in order to circumvent employment laws that make it difficult to fire employees. In the Netherlands, 46% of workers are part-time, while 44% of staff in Spain are under temporary contracts. Job discretion, i.e., “discretion over the pace of work, work methods and procedures, the timing of breaks and lunches, how agents complete a task, and how they respond to customers”, is generally low. However, call centers in Austria, Denmark, Germany, Spain and Sweden were found to provide a larger share of higher discretion jobs than call centers in the UK or in India. The median annual turnover rate, which includes workers who quit, retired, were dismissed or promoted, is 20%, ranging from low turnover rates in “coordinated” countries to high rates in other regions.

On average, half of all call centers are covered by some form of collective representation such as collective bargaining or works councils. Coverage is the highest in “coordinated” countries (71%), followed by “industrializing or transitional” countries (36%) and “liberal” countries (22%). One third of call centers are service contractors, employing 56% of all call center agents. Countries with a larger share of service contractors include India, Brazil, Spain and Germany. Compared to in-house call centers, service contractors offer lower-discretion jobs, pay lower wages, make greater use of part-time and temporary workers, have higher levels of performance monitoring and are less likely to be covered by collective representation and union contracts.

²⁸¹ <https://www.teleperformance.com/en-us/services/digital-cx-and-ai/ai-operations/> [25.4.2023]

²⁸² <https://web.archive.org/web/20090303171333/http://www.ilr.cornell.edu/globalcallcenter/> [6.2.2023]

As Doellgast and Pannini (2015) outline, service contractors often have very little or no union coverage in countries with low bargaining coverage overall such as the US and UK. In continental European countries, unions have sometimes succeeded in establishing sectoral agreements, but there are differences across countries. Germany represents a “more extreme case where there are no sectoral agreements for the call centre or telecommunications industries, and only one major collective agreement at a call centre subcontractor”. In 2005, 54% of German call centers were service contractors (Holtgrewe, 2005).

Offshoring. While outsourcing occurs within countries, “offshoring” to countries with lower wages and less rigid employment laws became prominent in the early 2000s. As Weinkopf et al. (2010) describe, the potential for offshoring relies on language. The opportunities were rather low in countries such as Denmark and the Netherlands, but French firms went to Morocco and other French-speaking African countries. Companies in the US and UK have opened subsidiaries or hired service contractors in Ireland, India, South Africa and the Philippines. A service contractor quoted in Politico’s Protocol said that building a contact center in Germany would be an “extremely expensive” option. Another option would be to hire students who are native German speakers in “Lisbon or Athens”. A third option would be to go to use a location “like Cairo, where there’s a huge number of secondary speakers”.²⁸³ For English-speaking countries, India is the most important geographical location for call center outsourcing (Taylor, 2012).

8.3 How workers are affected

While call center work is diverse and includes high-skilled professional work, a large share of it is associated with low wages, precarious working conditions, tightly controlled schedules and break times, high workload, intense performance pressure, as well as simple, monotonous and repetitive duties (Holman et al. 2007; Doellgast and O’Brady, 2020). As a literature review by Doellgast and O’Brady (2020) shows, past research has found that:

- Call center workers are generally at high risk of psychological strain and suffer from high rates of stress, anxiety and burnout.
- More intense performance monitoring was found to increase strain, stress, emotional exhaustion, depression and anxiety. Putting pressure on employees to consider quantitative targets such as the number of calls taken or the length of after-call work time was associated with higher levels of emotional exhaustion.
- Higher levels of strain were found when workers have little control over the timing and handling of calls, when they have to speak in a scripted manner, when they have to handle calls quickly while keeping to a script, when they feel they cannot meet performance targets and when overall discretion at work is low.
- Increased stress levels were found when task monitoring is perceived as inappropriate or badly designed, and when reward systems are perceived as unfair.
- Stress also increases when the consequences of poor performance ratings lead to discipline rather than development or training.
- “Emotional distance”, which occurs when workers perceive a disconnection between the emotions they have to communicate to customers and their actual emotional state, leads to higher levels of emotional exhaustion, anxiety, depression, depersonalization and psychosomatic issues. Higher levels of work standardization, workloads, monitoring and quantitative targets increase emotional distance.

²⁸³ Counts, Aisha (2022): AI-powered contact centers could define the next wave of globalization. Protocol, 15.2.2022. Online: <https://www.protocol.com/enterprise/global-contact-center-lanauge>

- Higher levels of work standardization, script use and monitoring also increased quit rates, intentions to quit and absenteeism. Workers were even found to cope with stress through quitting.

In addition to psychological strain, several studies found that call center workers often suffer from physical issues such as headaches and sore eyes, shoulders and necks (Lloyd, 2016). A survey of 2,066 workers across seven US call center operators (Doellgast and O'Brady, 2020) confirmed many findings from past research and found that:

- Stress levels are generally high, based on measures of general stress, emotional strain, sleep difficulties, use of anxiety medication, and repetitive stress injuries.
- A majority of workers experience intense monitoring and feel that the data gathered is primarily used for disciplinary purposes. A high level of monitoring and discipline-focused performance management is associated with increased stress, lower job satisfaction, higher absenteeism and higher quitting intentions. Performance-based pay at the individual level is also associated with higher stress levels.
- Both performance management and scheduling are perceived as unfair and inflexible.
- Call centers make heavy use of scripts. Workers report moderate to low discretion in customer interactions.
- Workers frequently experience negative interactions with customers. Around 80% stated that customers often or frequently blame them for something beyond their control. Often or frequent experiences of customer abuse are correlated with very high personal stress.
- A majority of workers report problems with workplace technologies such as system crashes, malfunctions and inadequate information.
- Close to 80% of workers express strong layoff fears associated with outsourcing and downsizing. A large share feel that poor performance could lead to layoffs. 67% of workers and “up to 80% of some employers” reported that the possibility of layoffs has been used to justify management decisions.
- Outsourcing is generally associated with higher levels of stress and decreased job satisfaction.

8.4 Research on monitoring and behavior control

Many of the monitoring and control mechanisms provided by today's cloud-based contact center systems, as described in sections 2 to 4, were already documented more than two decades ago.

In their study, “Taylorism, targets and the pursuit of quantity and quality by call centre management“, Peter Bain et al. (2002) examined four UK call centers in the finance, telecommunication, travel and outsourced customer services sectors, based on observations in the field, discussions with employees and reviews of internal documents. They found that all firms made heavy use of performance measurements and targets. Partly, they made use of performance-based pay. Supervisors monitored individual-level performance targets, for example, the average handle time (e.g. lower than 5.50 minutes), after-call work time (e.g. lower than 4% of handle time) and “idle” time including toilet breaks (e.g. lower than 10% of shift time). Any call lasting longer than 10 minutes would provoke a supervisor intervention. In one call center, workers were sorted into three categories (“not met targets”, “met targets” or “exceeded targets”), which determined annual bonus payments. Another call center used monthly bonus payments to reward agents who hit targets such as the number of calls handled. One firm rewarded agents who accumulate “points” by hitting targets such as the average handle time with shopping vouchers. Missing the targets led to coaching sessions or dismissals. Performance targets also included, for example, converting at least 40% of calls into successful loan applications, dissuading at least 37% of customers who want to terminate an agreement from doing so, or monetary figures of how much new business an agent should acquire.

Outbound calls were continuously dialed automatically and had to be handled immediately. All call centers used either electronic wallboards or flipcharts to display performance metrics to the whole team, for example, the current service level, the number of waiting calls and the longest waiting time. In one case, the wallboard also displayed individual-level metrics. One firm launched a campaign that urged agents to reduce their after-call work time under the slogan “talk and type”. Across centers, bonus payments for supervisors were tied to team performance targets. To assess the “quality” of work, calls were monitored and evaluated on a regular basis. To evaluate calls, supervisors filled out forms that addressed criteria such as product knowledge, call openings and closures, listening skills and tone of voice, resulting in numerical quality scores. Bonus payments relied in part on both quantitative and qualitative targets.

Survey-based studies in Germany and the UK. A 2002 study that surveyed managers in 167 call centers in the UK found that almost all of them monitored workers electronically and communicated performance metrics back to the agents. In 39% of call centers this occurred daily, in 30% weekly and in another 22% at least once a month (Holman et al., 2003). Almost all agents had their calls listened to, 26% of them daily, 33% weekly and another 21% at least once a month. Call quality information was communicated back to the agents daily in only 9% of call centers, but in 66% of them at least weekly or monthly. 82% of call centers had a “formal mechanism for gathering customer feedback” and 28% stated that they communicate customer satisfaction data back to the agents. About 20% used performance-based pay at the group or individual level. Across call centers, 68% of employees were women. The median call length was 3 minutes and 6 seconds and an agent answered an average of 73 calls per day.

A 2005 study that surveyed managers in 300 call centers in Germany found that 65% of them used target times for answering incoming calls (Holtgrewe, 2005). The call handling time averaged 4 minutes and agents handled an average of 15 calls per hour. A mean of 15% of pay was based on individual performance, 3% on group performance. 54% of call centers had formal mechanisms to gather customer feedback. In 23% of call centers, agents received daily reports on customer satisfaction, weekly reports in 13% of centers and monthly reports in another 20%. 36% of call centers made heavy use of scripts that guide customer interactions, while 41% reported little or no script use. Generally, an average of 71.7% of German call center agents were women. 10.4% had college degrees and another 9.5% were students. About half of the call centers used non-permanent contracts with agents, and 43% of them used part-time contracts. 54% of call centers were independent service contractors that work on behalf of other companies. 33% were in-house units within a company and 13% outsourced subsidiaries.

Global Call Centre Project. The “Global Call Centre Project” (see section 8.2) found several similarities and differences across countries. For example, the average call handling time typically averaged 3 minutes and 10 seconds, with surprisingly little variation, which the authors see as an indicator of the “relative standardization of work across call centers in different countries”. Performance monitoring activities, i.e. call listening and communicating performance metrics to agents, typically occurred on a monthly basis in “coordinated” countries with relatively strong labor market regulations in Europe, every second week in “liberal” countries such as the UK and the US, and weekly or a few times a week in “industrializing or transitional” countries such as Brazil and India. The most intense form of performance monitoring occurred in Indian call centers (Holman et al., 2007).

Another study published in 2010, which was also part of the Global Call Centre Project, further examined performance-based pay in eight countries (Batt et al., 2010). It found that 49% of call centers in “coordinated” countries (Austria, Denmark, France, Germany, Spain) made use of performance-based pay, compared to 58% in “liberal” countries (Canada, UK, US). In both groups of countries, 45% of centers made use of individual-level incentive pay. Group-based pay was used by 18% of call centers in “coordinated” economies, compared to 29% in “liberal”

economies. The intensity of performance monitoring was found to be significantly lower in “coordinated” countries. Some differences across countries are surprising. While 75% of call centers in the US made use of performance-based pay, only 35% of UK centers made use of it, and a striking 58% did in France. While the UK resembled the “coordinated” economies, France more closely resembled the US. French employers generally made extensive use of individual performance-based pay, but it had remained a relatively small percentage of overall pay. In France, performance-based pay has been pushed by government tax incentives and industry employer associations, according to Marsden et al. (2007). This shows how institutional factors can help shape practices such as performance-based pay, which in turn affect the design of monitoring systems that analyze data on work activities.

Portugal, Austria and Italy. Patricia Matos (2010) observed in her study of a Portuguese call center that supervisors there had access to individual-level performance metrics and targets, including the number of calls answered, average handle time, “idle” time and the time used for breaks and meals. In monthly evaluations, supervisors assessed agents against criteria such as “technical competence”, “speed of resolution” and “amiability and sympathy”, which includes the degree of “smile” in the voice. Agents who reached their quantitative targets and 90% of their qualitative targets received a “productivity award” of € 50. Electronic wallboards displayed group metrics.

Another study based on a survey of 811 workers in 11 call centers in Portugal found that all centers operated extensive monitoring systems and communicated performance data to agents either on a weekly or monthly basis (Castanheira, 2012). Some call centers used performance targets such as a minimum number of calls per hour or a maximum average call time (e.g. 180, 220 or 360 seconds). Agents who did not hit the target got penalized in their performance evaluation. In one call center, the target time was 90 seconds, which is supported by a counter that displays the remaining seconds to the agents. Some call centers used electronic wallboards. Some centers monitored calls to evaluate script adherence. In one call center, supervisors had to listen to one call every 30 minutes and evaluate it according to a checklist. In another center, an extra quality department evaluated two calls per worker per day. Performance-based pay was used in seven call centers, for example, in the form of variable pay or quarterly bonus payments. In one center, the full wage relied on performance evaluations. Another call center provided weekly and monthly prize money to the best teams and to the best agents.

Field reports from several Austrian call centers published in a book by Sandra Stern et al. (2010) describe performance targets such as “one sale per hour” or “30 calls per hour”. The latter meant that agents had only 2 minutes per call, including after-call work, which was de-facto impossible to achieve. When a colored traffic light in the office switched from “green” to “yellow” or “red”, everyone in the team knew that the employer was threatened with a contractual penalty. Agents not reaching the target or overstaying a break led to email alerts, meetings with the supervisors or reprimands. Agents, who were in part employed by temporary work firms, had to boot the computer and launch programs before the start of their paid shift. If they logged into the system one minute late, the paid shift was counted only from half an hour later. This shows that digital control can be very precise or deliberately inaccurate, depending on the employer’s business interest.

According to a survey of 1,715 workers in 19 call centers in Italy, about 85% of respondents said failing to reach performance targets set by the company had consequences (Fortunato, 2013). This includes verbal warnings (67%), penalties in terms of lower bonuses or economic benefits (49%), worse employment relations (45%), a lack of career opportunities (41%), penalties in the allocation of working tasks (35%) and job loss (37%).

Germany and Poland. One of the most recent studies on call center surveillance comes from a German-Polish research team²⁸⁴ and is based on interviews with agents who were employed at different call centers in Germany and employees with different roles in a Polish call center (Bronowicka et al., 2020).

They found that **German call centers** tracked metrics such as the number of calls, emails and chats completed by agents, the time spent entering information after a call, the length of breaks or whether a customer request was resolved during a single interaction (“first-contact resolution”). All centers except one recorded calls at least partially. The “quality” of work was assessed by supervisors listening to calls and reading conversations, as well as evaluating them according to criteria such as “human touch, compliance, accuracy and efficiency”. Quality was also assessed by scores based on customer feedback. Some call centers used performance targets tied to management decisions on bonuses and other rewards. Agents who did not reach targets also had meetings with supervisors and were put on “personal development plans”. One call center used a wallboard that communicated individual-level metrics to the whole team. Supervisors were in part assessed based on team performance.

The German call center agents generally felt that performance targets create “pressure” and “stress”. Some perceived them as unachievable. Some reported that performance metrics that affect bonus payments or promotions rely on issues that are outside of their control but are rather related to management issues such as faulty products, policy changes and understaffing. Similarly, customer feedback that affects bonus payments was perceived as unrelated to agent performance but related to general issues customers had with the company. One agent felt a tension between quantitative and qualitative targets. Generally, workers felt they could not rely on the performance data, yet managers could arbitrarily use it to justify decisions. Because of the low base wage, some workers relied on bonus payments. One German agent compared the call center to a “jail” where they “really monitor everything”. Almost all employees considered precarious working conditions and the constant threat of a dismissal to be a major issue. Employers would actively instill fear and remind them of how replaceable they are. Dismissals would “often” happen in a way that made sure the remaining workers saw it. The fear of being dismissed or not having the short-term contract renewed appears to be the main reason why agents did not speak out about their concerns, alongside a work atmosphere that pretended to have flat hierarchies and encourage friendly relationships with supervisors and managers. Open resistance occurred in some cases when agents disagreed with shift planning, break times or dismissals. All agents reported angry and abusive customers, which was described as the worst and most stressful part of the job.

The study of a **Polish call center** is based on interviews with agents and managers from a single company, and it paints a different picture (Bronowicka et al., 2020). Agents reported that “every second” of their work was monitored. This includes supervisors creating reports about the number of calls, break times and other metrics. All calls were recorded. Some of them were listened to and evaluated according to criteria such as sticking to guidelines and the tone of voice. Coaching sessions occurred once a month. Some calls were audited by an extra quality department. Agent evaluations sometimes included customer ratings. Those who worked from home had their computers monitored. The security department received alerts when emails contained words that are considered dangerous.

However, in stark contrast to the German study, Polish agents were either neutral or even positive about their monitoring. They generally claimed that monitoring was not a problem for them. They reported that they were used to it or forgot about it. Some said it would even help them to perform their work better and to be more cautious of

²⁸⁴ <https://cihr.eu/surveillance-at-the-workplace/> [2.2.2023]

what they say. Some agents emphasized that call recording could help them when there were customer complaints. Only the monitoring of breaks was a source for discomfort. The length of breaks was generally a subject of debate. Workers reported they had to discipline each other to prevent break times being exceeded. Managers were enthusiastic about monitoring. It allowed control and it was useful for the agents who wanted to work well, but it could be harmful to those who did not want to work. Senior management said they wanted to introduce emotion tracking within the next few years. There are different possible explanations for the different perceptions across German call centers and the Polish company. Besides differences in the attitudes towards data protection in both countries, the working conditions in the Polish call center might just be not too bad. Neither agents nor managers talked a lot about performance targets, bonus payments or disciplinary measures. In addition, the study authors acknowledge that the interviewees they spoke to were chosen by the company. They admitted that their team had more freedom and better working conditions than other teams in the company. The agents' biggest problems included low salaries, bad contracts and the emotional labor related to handling difficult customers.

Generally, the study authors found that “workplace surveillance must be understood within the broader context of precarious working conditions in call centres characterised by low wages, short-term employment contracts, emotional strain, low autonomy and poor bargaining power of the employees” (Bronowicka et al., 2020). They conclude that three “dynamics” support the normalization of surveillance at work. First, the “normative belief that employee monitoring has a positive effect on productivity shared by management and accepted by some employees”. Second, challenging surveillance is difficult when employees are already in a weak bargaining position. Third, surveillance further increases the power imbalance, and thus further weakens the bargaining position of employees.

Legal implications and regulatory frameworks. Both German agents, Polish agents and Polish managers said that the introduction of the GDPR did not change anything regarding employee monitoring and was only discussed in relation to customer data. While many of the call centers German agents were working at had works councils, all but one agent was unaware that German works councils actually have powerful options to challenge monitoring and performance control. Bronowicka et al. (2020) also conducted interviews with experts from public institutions, trade unions and employer associations in Germany and Poland. While German experts stated that workplace surveillance has been a subject of debate for years, Polish experts said that the topic was largely absent in public discourse until the introduction of the GDPR. While Polish experts viewed workplace surveillance mainly as a technological issue, German experts were more concerned with social issues. In Germany, trade unions are highly involved in the legislative process and public debate, while the Polish discourse on workplace surveillance is, if at all, driven by public institutions such as the GDPR regulator and a digital rights organization. With regard to purpose limitation, some German experts “saw monitoring as an appropriate means of controlling quality, but not for evaluating productivity or behavior at work in general”. Experts in both countries see existing legislation as too imprecise. In Poland, legislation was too narrowly focused on certain forms of monitoring. German experts see the complexity of technologies in the workplace as a challenge for both employers and works councils and generally see employees at workplaces without works councils as the most vulnerable group.

Another account from a Polish call center. The Polish technology news website Spider's Web interviewed a German-speaking call center worker who was working for a Polish outsourcing firm that served German customers during the Pandemic (Szymaniak, 2021). The agent described experiencing “total surveillance”, “constant control”, extreme pressure, stress and other mental-health implications, feelings of “dehumanization” and unpredictable automated scheduling. He was working exclusively from home. The scheduling algorithm assigned him ever-changing shift start times from Monday to Sunday. While it allowed him to indicate preferences for days off, it systematically

ignored these preferences. He had only three short breaks for toilet visits or lunch per eight-hour shift, which were also automatically pre-scheduled. After finishing a call, the system automatically connected the next call. He was constantly required to meet the targets for five real-time performance metrics, including average call duration, after-call work time, first-contact resolution rate, break-schedule adherence and customer rating. When he missed a target, the corresponding rating would turn red and a supervisor would call him, which he experienced as a “virtual whip”. All conversations, as well as his computer screen, were recorded. Occasionally, he would receive a report assessing a past call. The agent was in touch only with around ten people in his small team via a WhatsApp group. In theory, the group could exchange full shifts on a one-to-one basis, but this almost never happened because the group was too small. Occasionally, a member of the group “left the chat”, which he interpreted as a sign of a quiet dismissal and a constant reminder of the fact that the agents only had three- to six-month contracts.

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