



NEVA (NICE Employee Virtual Attendant) Distinguishing Capabilities Ensuring Desktop Automation Success at Scale

FOOD FOR THOUGHT

In a market ripe with RPA possibilities, it is becoming more and more critical for enterprises to understand the specific capabilities, which set a part more intelligent and robust Desktop Automation technology from all the market hype surrounding attended automation solutions. In order to ensure a successful Desktop Automation journey and attainment of the expected ROI, organizations need to carefully review the capabilities and underlying technologies of Robotic Desktop Automation solutions. Here are 12 capabilities that distinguish NEVA (NICE Employee Virtual Attendant) from other attended automation solutions in the market:

KEY CAPABILITIES for Desktop Automation Success

The following features are essential to unlock tangible and sustainable business value from investments in Desktop Automation technology:

1 AI Based Tool for Automation Discovery

Automation discovery, involving the selection of operational processes which are ripe for automation, is an integral part of the RPA and Desktop Automation journey. Since automating the wrong processes is a proven factor commonly contributing towards RPA and Desktop Automation project failures, AI and real desktop data is a reliable way to bullet proof the discovery phase of selecting business processes to automate. The [NICE Automation Finder](#) is a home-grown AI infused RPA diagnostic tool, unique to NICE, and designed to pinpoint the specific processes which are ripe for automation, yielding the highest ROI for the organization. The solution operates with precision and speed utilizing Desktop Analytics, Unsupervised Machine Learning and Deep Learning technologies.

2 Rich, Flexible & Interactive User Interface

Interactive screens are an essential part of Desktop Automation forming a mode of communication between the desktop robot and the employee. In order to create an optimized environment for the employee to work more productively and efficiently, the ability to create a rich and customizable UI for the interactive screens is essential. In addition, the interactive screen UI should encompass a fully functional, modern and customized design. For example, the next best action feature is best displayed as a wizard- like interactive screen.

3 Connectivity

Robust desktop connectivity capabilities are needed to support the dynamic and unpredictable nature of the desktop environment. Object based connectivity is the best option to achieve stable connectivity to ensure the continuity of process automations on the desktop. In the event of organizations not being able to install applications on the desktop, then surface automation is a form of connectivity used to operate in VDI (Virtual Desktop Infrastructure) environments. In order to cover all bases, using a vendor who provides a combination of object-based connectivity and surface automation (utilizing shape analysis and image recognition) is recommended.

4 Real-Time Triggering

Real-time triggering is another key capability distinguishing the more intelligent desktop automation solutions in the market. This capability enables the triggering of real-time events from the user's screen and should be able to support a wide range of employee desktop actions and scenarios in real-time. The intelligence of this capability is rooted in its ability to support a wide and varied range of scenarios spontaneously. Take for example a scenario where the employee is interacting with a customer telephonically and the customer spontaneously requests the employee to assist him/her with paying off their credit card.

This capability takes away the need for:

1. Manual, real-time scheduling (which is based on demand, rather than real-time triggers)
2. Invoking automations from API's (which is not based on real-time events on the employee's desktop)

5 NEVA Unified Framework

The intelligent NEVA unified framework is a crucial feature, in which all process automations can be invoked from. This powerful framework essentially acts as the central orchestrator of all the automated workflows. In order for the Desktop Robot to interact intuitively with the employee, the unified framework should enable the Automation Developer to add and work with an interactive user interface. This interactive interface is what will enable the employee to engage with the Desktop Robot conversationally, using text or voice activated chat. A deeper layer of interaction between the employee and the Desktop Robot in the form of voice and free text activation (rather than just integration with applications) is made possible by providing easy integration with an NLP (Natural Language Processing) engine. Additionally, the user interface also enables the employee with the flexibility to invoke any automation on demand via free text and voice activation. The framework should also easily integrate with chatbot technology.

Developers benefit greatly from working with a pre-configured framework, with built in functionality, as it takes away the need to build logic, therefore reducing development time and effort. Automations can therefore be intuitively and easily built by the developer and naturally invoked by the user from contextual information and NLP. Since the NEVA Unified Framework intuitively integrates with NICE RPA's unattended robots as well as various cognitive technologies – this enables users to leverage multiple types of process automations (supporting complex deployments), all from a single platform.

The image displays three screenshots of a user interface for a credit limit request process. The first screenshot shows a customer profile summary with the following details:

Here's the customer profile summary:	
Account Name	Jones Household
Address	1235 Shoreland Blvd Miami Shores, FL 33138 USA
Account Number	144097
Current Balance	\$3,126
Annual Revenue	\$200,000
Current Credit Limit	^ \$8,000

Below the summary, there is a section titled "Please Fill In The Following Details:" with two input fields: "Requested Amount:" and "Change Reason:". A "Submit" button is located at the bottom right.

The second screenshot shows a confirmation message: "Credit Limit request filed!" with a checked box indicating "Disclaimer was read to customer". There are "Chat" and "Submit" buttons below the message.

The third screenshot shows a chat window with a message from the Desktop Robot: "Anything else I can do before I wrap up the case?". There is a text input field and a send button below the message.

6 Multi-Instance Support

A very common behavior of desktop users includes opening of multiple instances of a single application. The Desktop Robot therefore needs to be able to connect to the correct instance in order to work with the correct data within the automation. In such a scenario there is a need for the desktop robot to be able to connect to the right instance. Here is an example: An employee receives a call from customer A while the CRM application is populated with customer A's information. Just as the employee is about to wrap up the call, simultaneously a new call comes in with a new instance of the CRM application being populated with customer B's information.

The technology needs to support the employee to move freely between the two instances all the while giving the attended robot the ability to apply the right logic to the correct instance.

7 Low Footprint Robot (Minimal CPU Consumption)

In order to provide a valuable and reliable service to customers, employees need their systems to perform with speed and efficiency. To enable this, a low footprint is needed in terms of CPU and memory consumption in order to not obstruct and slow down the day to day activities of the employee. When choosing an automation vendor, it is essential to verify and check that the software will have a minimal impact on the speed and performance of the employees' machines.

8 Real-Time Responsiveness

Real-time responsiveness is an important capability that will impact the performance of an employee's desktop. Ideally the robot should have the capabilities to respond to a request quickly, in real-time. The underlying technology that is needed to enable real-time responsiveness is triggering. Triggering enables the robots to only respond to a specific event when triggered by an employee's action on the desktop, as opposed to polling which continuously monitors the desktop, utilizing too many resources in the process.

9 Centralized Monitoring and Control

A centralized control room is necessary for the effective management of thousands of workstations with varying profiles. The control room is designed to hold and display all the details surrounding the functioning of the attended robotic workforce. Should an error occur, this can be identified easily taking away the need for IT departments to search for logs. NICE's Control Room capability enables the management of many thousands of users, supporting high volume and more complex attended process automations. The system is fully scalable and supports the addition of more desktop automation robots to support the additional employees, who may be recruited during peak or surge periods.

10 Analytics - Business Insights from Data Collection

The ability to measure, quantify and analyze the performance of a process automation is essential, making analytics and reporting an important capability for Desktop Automation deployments. During the design phase, the data to be collected, should simply be marked and during run time (when the process automation is running), the data is collected and made available for reports. An integrated Business Intelligence (BI) tool can then be used to display the out-of-the-box reports in addition to producing customized reports, based on the data collected.

11 Optimized Deployment Mode for Desktop Terminal Server Environment

Running applications from both desktop and remote, Citrix like, environments is common practice for most organizations today since business processes are typically performed across different environments. In order to handle this type of scenario, it is necessary for attended robots to reside in both the desktop and virtualized environments where they should have the capabilities to communicate and transfer data between each other. This capability enables process automations within a complex environment by seamlessly aligning desktop activity with remote activity.

12 Deployment & Scale

Packaging and distribution of software is a significant undertaking by any IT division. Unlike unattended automation software, attended robotic software requires technical expertise to update the logic or robotic configuration in an efficient manner. NICE provides a built-in mechanism to update the logic and software installation, taking away the need to repackage.

An auto update mechanism has the capability to push software updates to the desktop without the need to involve IT. When employees turn off their machines, the desktop software will connect to the server to check for and download updates.

Additionally, Desktop Automation deployments are generally volume driven, particularly when implemented in a call center environment where thousands of agents need to be supported, each with their own personal Desktop Robot. It is critical to ensure that the automation platform not only supports large scale desktop automation deployments, but the support should also extend into accurately managing, monitoring and troubleshooting any relevant issues. It is also advisable to select an automation vendor with many large scale, complex desktop automation projects under their belt, with solid references.

CLOSING WORDS

In a race to achieve digital transformation success, all the while building competitive advantage through service differentiators and operational efficiencies - Desktop Automation (with the correct capabilities and underlying technologies) is an essential investment for enterprises today. Whats more, powerful automation platforms should intuitively integrate with cognitive technologies to successfully drive organizations into the digital era.

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