# **Hyperautomation** The next step in the automation journey

### What is Hyperautomation?

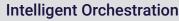
Hyperautomation is a digital strategy where organizations rapidly identify and automate business processes through the application of robotic process automation (RPA) and advanced technologies such as process mining, intelligent orchestration, advanced analytics for business intelligence reporting, and artificial intelligence (AI)/machine learning (ML) tools for intelligent automation.

## **Process Mining & Discovery**

Process mining and discovery tools provide teams with a window into all of their automation opportunities. Logbased process mining delivers information to identify potential bottlenecks in workflow and deviations between not only human-machine interaction, but also data. With all the valuable information these platforms provide in a brief amount of time, teams can begin identifying the right business processes to automate, when to enhance, and when to reengineer. In addition to this, process mining and discovery applications also bring the capability of dynamically creating automation scripts, i.e. the ability to automate the automations.

MIL partners with organizations offering process mining and discovery technologies, both stand-alone and integrations in leading RPA platforms, leveraging event logs from enterprise systems and applications, recorded user interactions, and AI/ML analytics that equip organizations with the tools to identify new opportunities for automation and optimization.

"50% of RPA scripts will be generated automatically by 2023" – Gartner



There are benefits to both unattended and attended automations, however, unattended solutions give teams the highest return on investment (ROI) in the shortest amount of time.

The deployment and management of digital workforces with features such as end-to-end visibility for robots, realtime data, and ability to schedule and scale robots with ease become increasingly important as the intelligent automation market matures. The ability to have a human-inthe-loop to supervise bot actions or perform cognitive steps has also been added to the leading RPA platforms. While MIL recognizes the potential of attended automation for mundane, repetitive processes being performed manually a successful and impactful intelligent automation program requires utilizing the different orchestration/control room technologies of the leading RPA platforms as a cornerstone to success.

# "You should govern RPA digital workers in much the same way as you do human employees" – Forrester



# Advanced Analytics for Business Intelligence Reporting

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MIL recognizes the success of any intelligent automation program relies on the ability to track automation data, manage pipeline and delivery, and deliver real-time reporting to program leadership. The integration of AI/ML technologies into business intelligence applications provide additional functionality such as forecasting business outcomes and generating recommendations– providing leadership with the insight required to maximize value and ROI. MIL can help navigate the path to provide the insight necessary based on an organization's needs and requirements, by implementing the right business intelligence applications from both the leading RPA platforms and stand-alone applications which can be integrated into automations to measure impact and success.

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### Intelligent Automation: Integrating RPA & AI

With complex and dynamic business processes occurring simultaneously, assigning one technology as a one-size-fits-all solution is not scalable and does not maximize efficiency. MIL has identified emerging AI and ML technologies which can be used in tandem with RPA to extend the scope of automation. Intelligent automation is not a technology, rather it is a suite of technologies combined to deliver improved quality, speed, and reliability of government services and processes.

ML is an application of artificial intelligence which allows systems to learn and improve from experience rather than explicit programming. A subset of machine learning, deep learning, allows computer systems to learn and improve through the analysis of large sets of unstructured or unlabeled data—providing analytics which would be not be possible otherwise. These two technologies used in combination with RPA greatly increase the scope of what is possible with automation.

"RPA creates the foundation, but the next phase is to evolve to intelligent digital workers" – Horses for Sources

### **Smart Data Capture**

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Structured data is comprised of clearly defined data types with patterns that make them easily searchable, whereas unstructured data can be thought of as everything else. Government's unstructured data lakes deepen daily; experts estimate that 80% of any organization's data is unstructured. The intake, organizing, and tracking of this data is a growing challenge. Smart data capture applications work through a combination of optical character recognition (OCR) and ML to extract the required data points from semi-structured and unstructured sources.

MIL's partnerships with the leading smart capture service providers allows the for the intake and automation of processes which work with semi-structured or differently structured form types—such as processing invoices from hundred of vendors– all with their own format.

The advancements in intelligent character recognition (ICR), a subset of OCR, now allows even handwritten documents to increasingly be successfully processed. This ICR functionality also greatly increases the scope of what is possible with automation.



## **Natural Language Processing**

Natural language processing (NLP) technologies such as speech-to-text, natural language understanding (NLU), and natural language generation are also being used as part of government intelligent automation efforts. Both citizens and government employees have a growing expectation to be able to access government services via the channel of their choice. These channels include conversational applications, including virtual customer assistants (VCAs), virtual personal assistants (VPAs), and chatbots.

MIL has identified several use cases where NLP can be leveraged with RPA to enhance customer and client support, improving the citizen experience while reducing cost to deliver reliable services. This is accomplished by leveraging RPA's capability of interacting with backend applications through the user interface, something VCAs and VPAs cannot do.