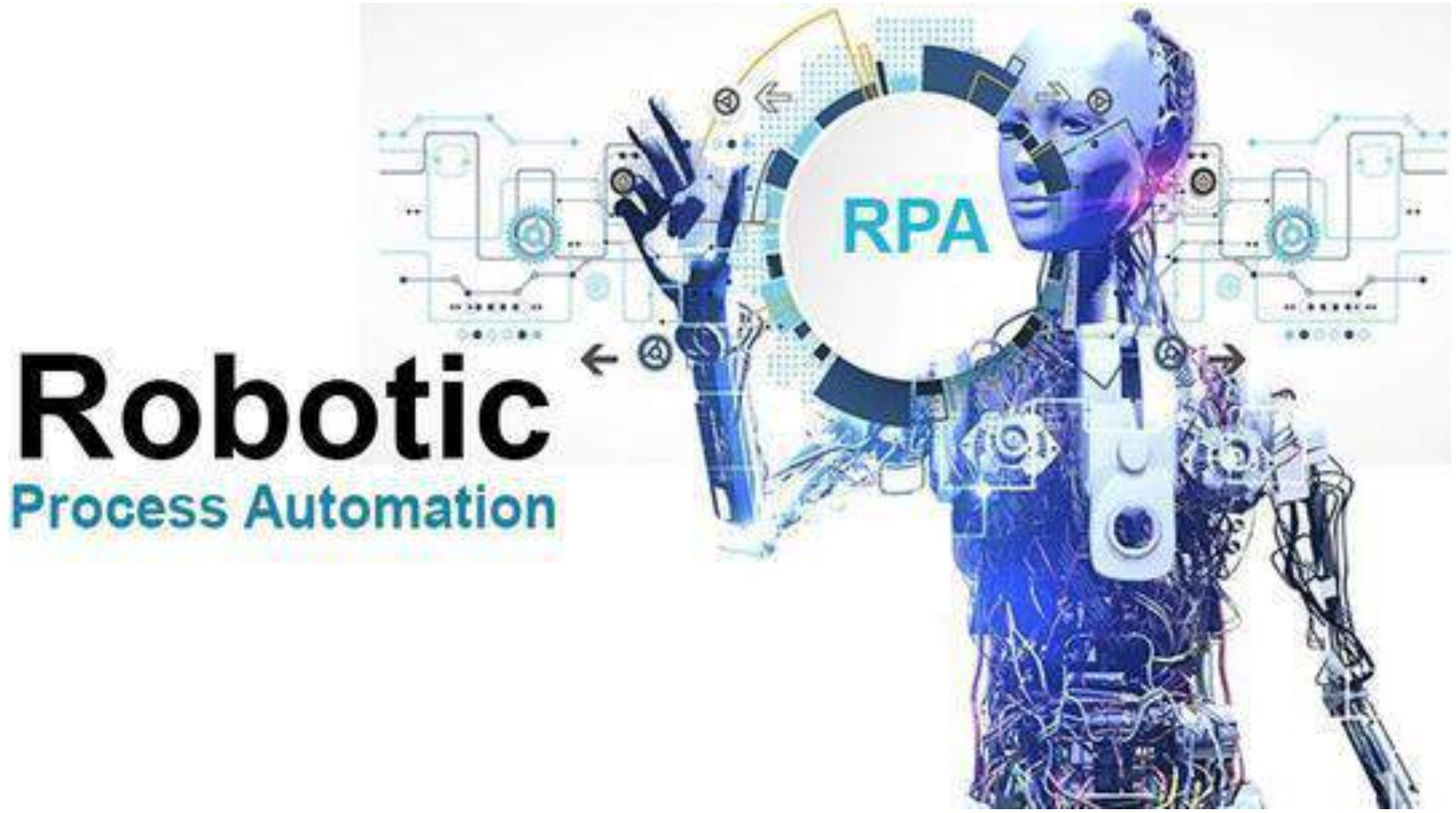
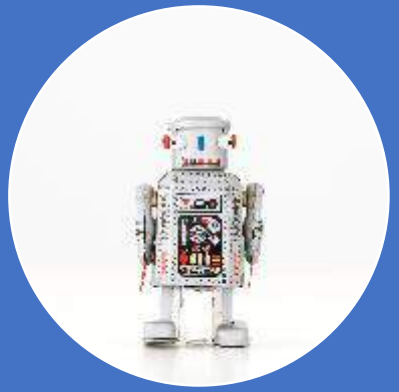
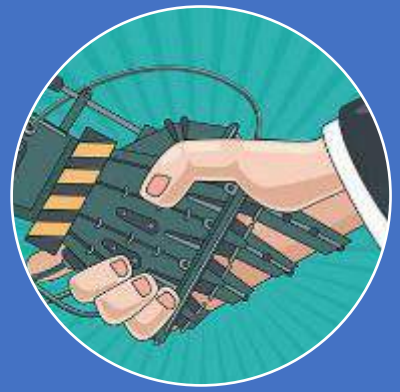
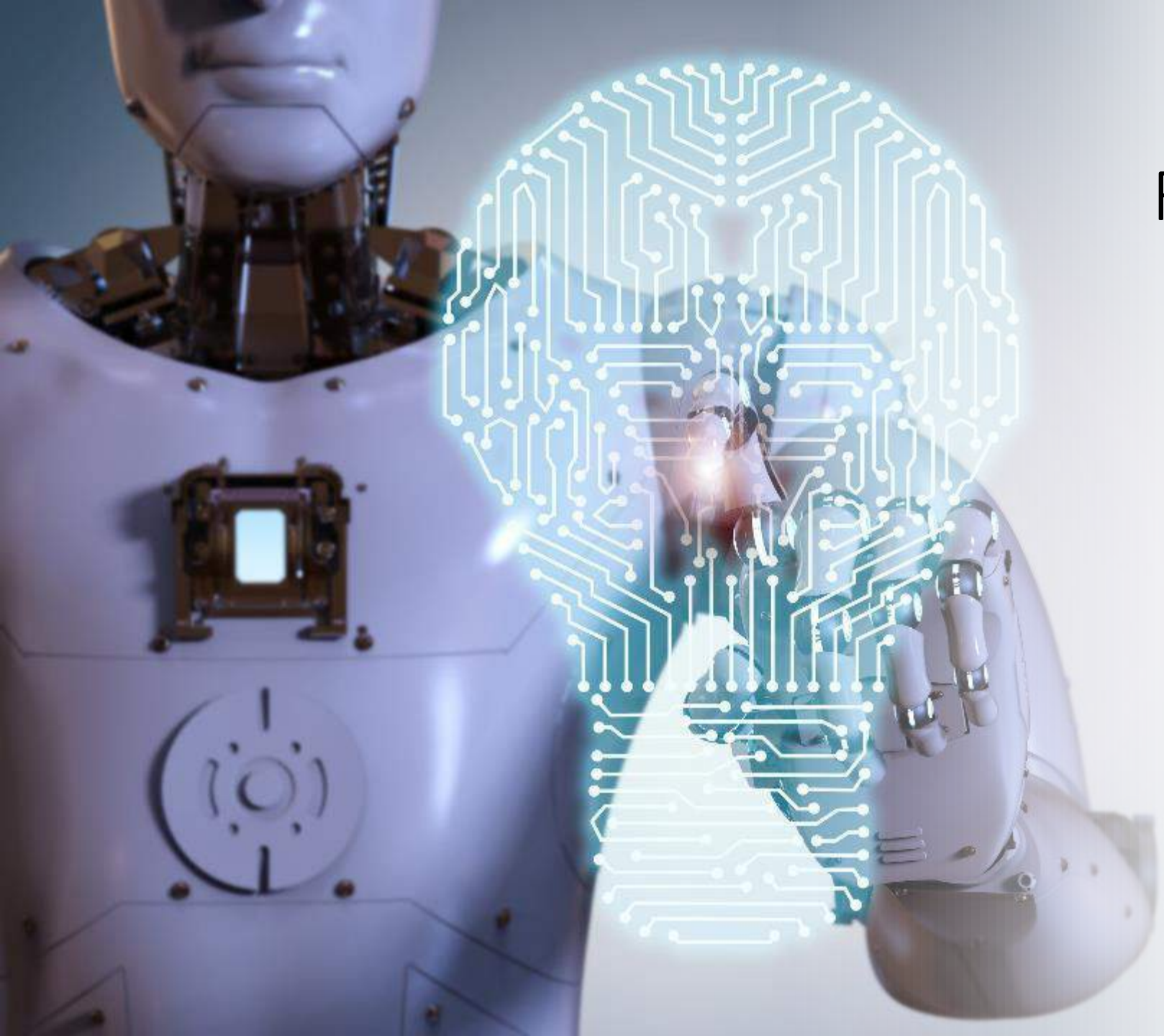
RPA







Robotic Process **A**utomation



ROBOT

- Software Technology
- Emulate human actions interacting with digital systems and software
- Perform a wide range of defined actions
- Accurate as the instructions provided to them

PROCESS

- Repetitive tasks
- Rule based
- Digital Tasks
- Anyone build an automation

AUTOMATION

- Understand what's on a screen
- Complete the right keystrokes
- Navigate systems
- Identify and extract data

What is RPA?

RPA (Robotic Process Automation) is using software robots (“bots”) to automate manual repetitive business processes using existing applications, resources, and architecture

- Automates mundane, routine rule-based tasks
- Introduces digital workforce that co-exists with humans
- Recent PwC estimates suggest **45%** of work activities can be automated (Source: ‘*Organizing your future with robotic process automation*’, PwC, 2016)
- **AI** and **ML** models -unstructured, digitally converted documents
- **Native Integrations – SAP and SalesForce**

Bots are NOT a physical robots

What are the benefits of RPA?

Productivity
High volume in less time

Accuracy
0% error rate

Predictability
100% consistent output

Scalability
Quick ramp up/down

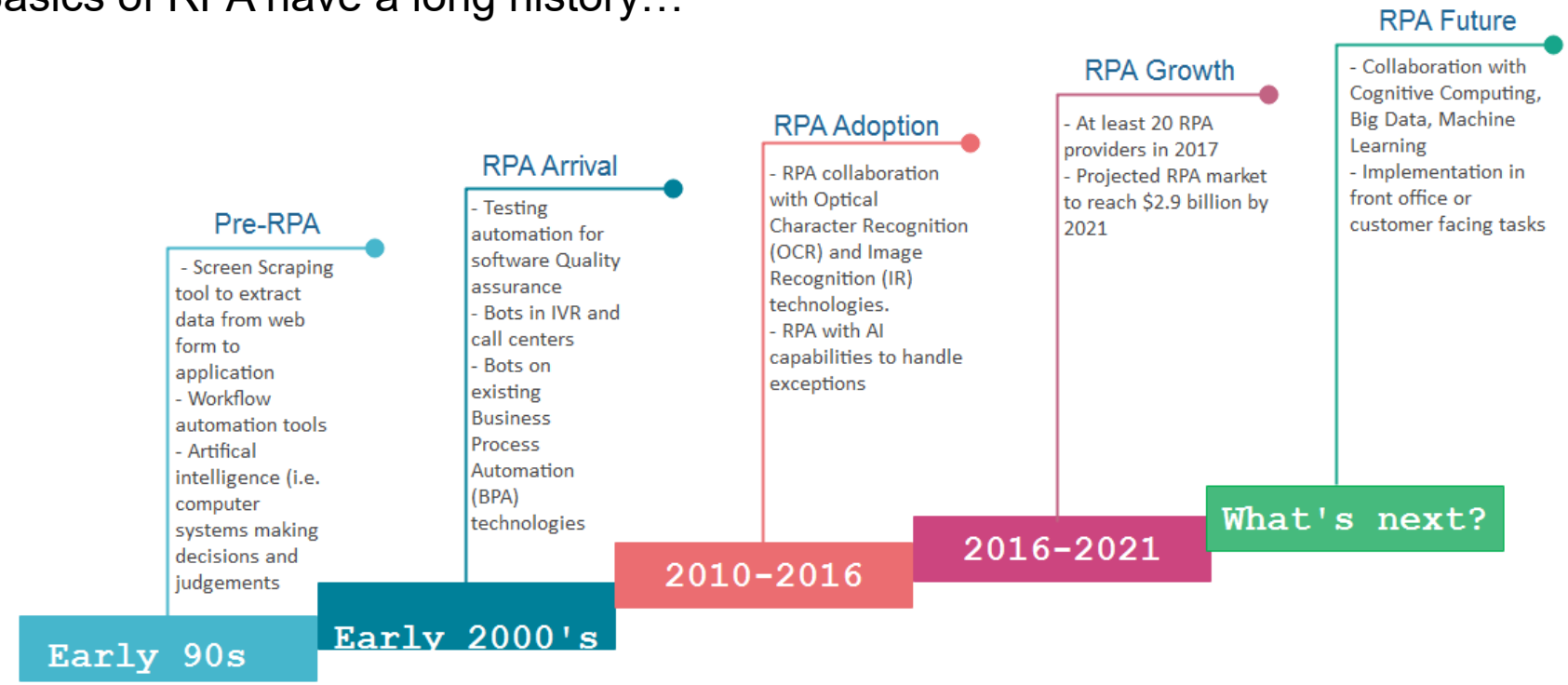
Availability
Bots don't sleep!

Audit Trail
All activity logged

Sample functions: opening emails, moving files, extracting structured data, calculations, filling in forms, merging data, etc.

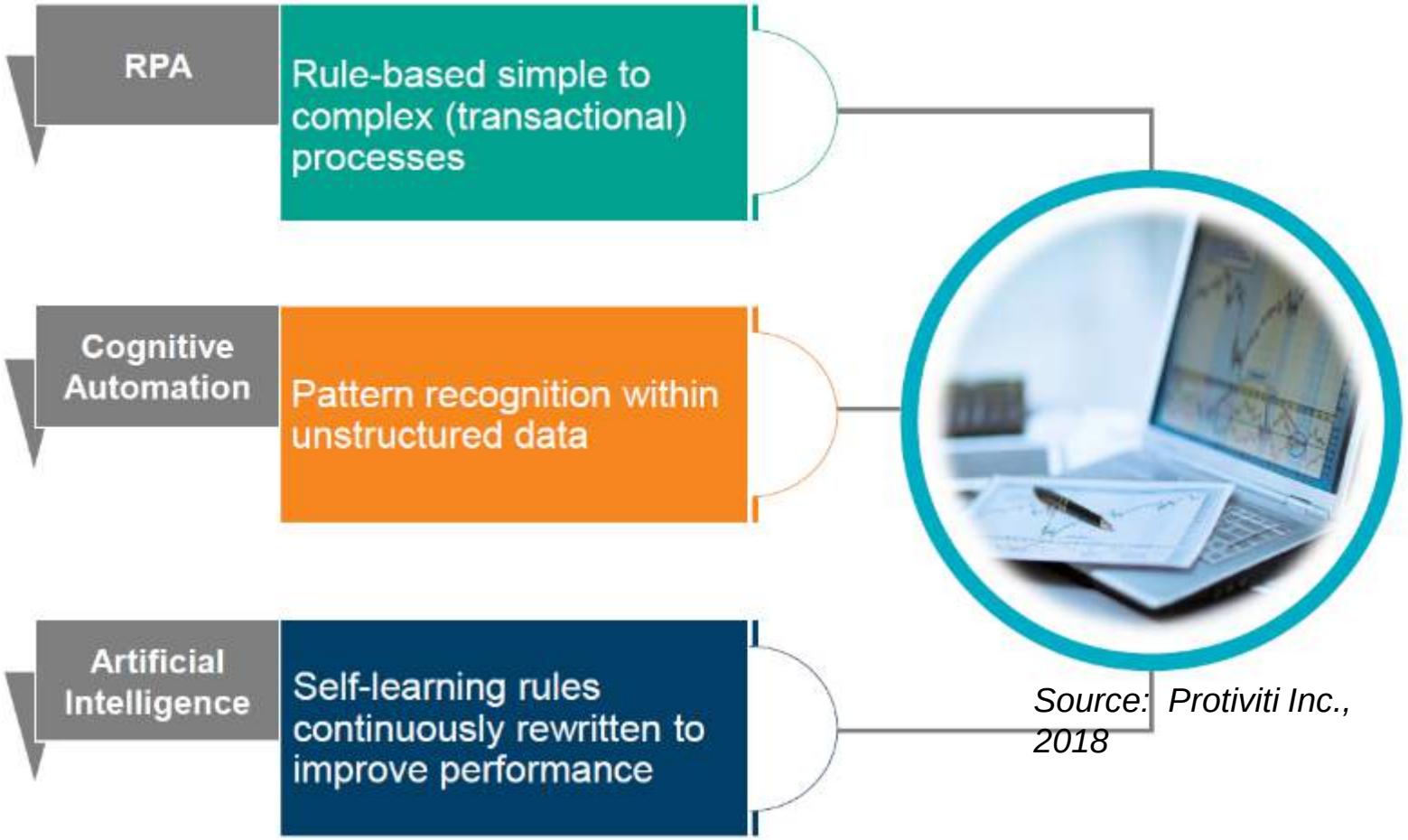
Evolution of RPA

Basics of RPA have a long history…



Sample RPA platforms today include: Blue Prism, Automation Anywhere, UiPath, Work Fusion, Pegasystems, NICE, etc.

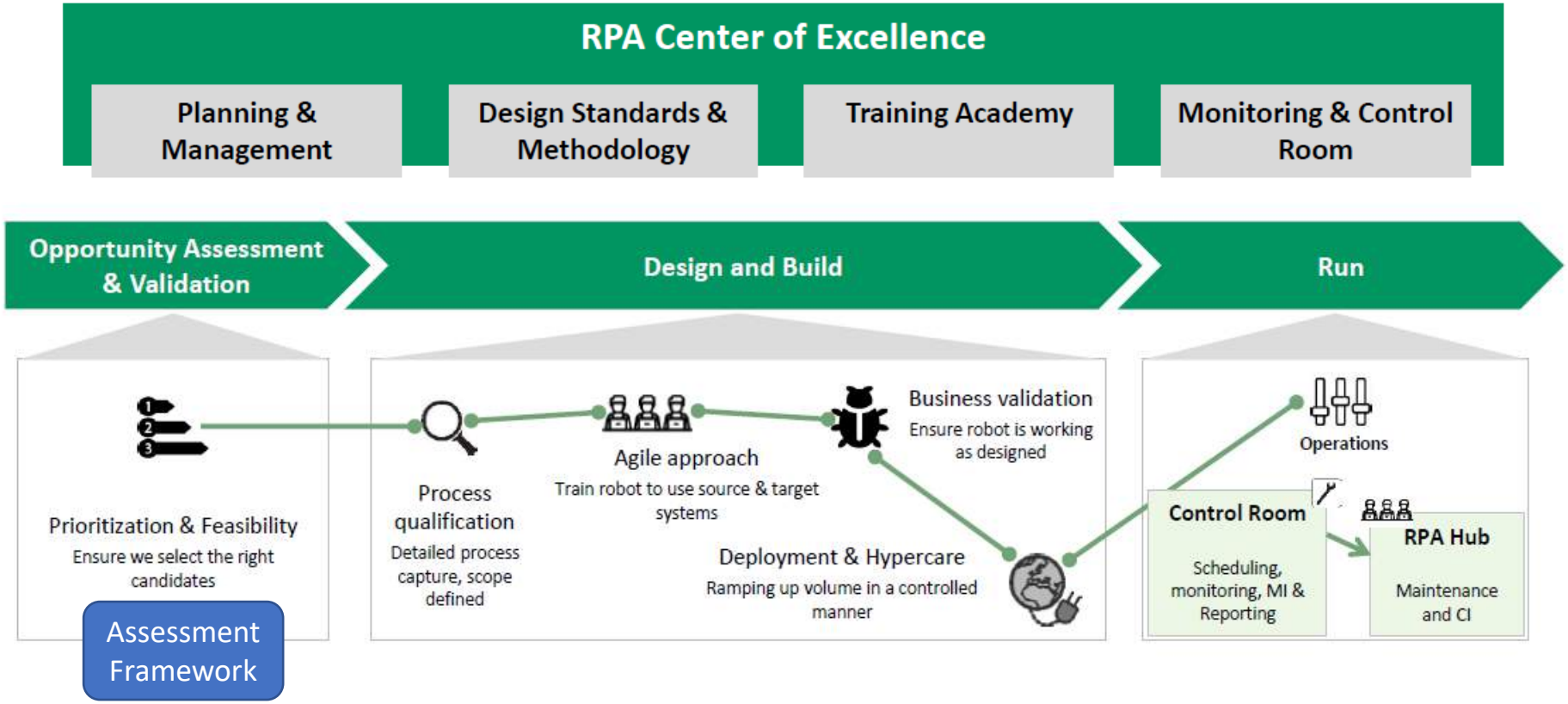
Intelligence Continuum



Source: Protiviti Inc., 2018

How is RPA implemented - Organizational

Concept of a Center of Excellence (COE)



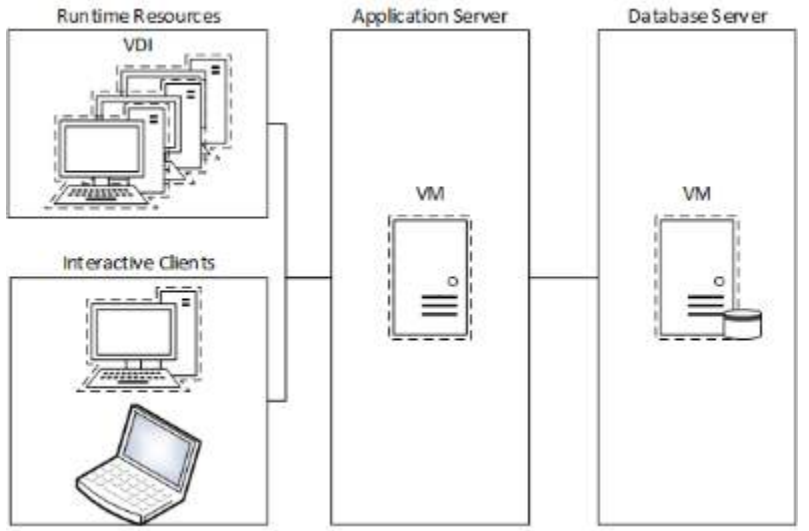
How is RPA implemented - Technical

Bots execute scripted procedures by emulating a user's actions to complete a series of tasks (similar to testing automation)

The Bots interact with GUI applications at an object level (were possible)

Bots also access resources like structured data (XML, spreadsheets, etc.), databases, and web services

Using Windows Active Directory (AD) and a secure credentials manager; Bot Access = User Access



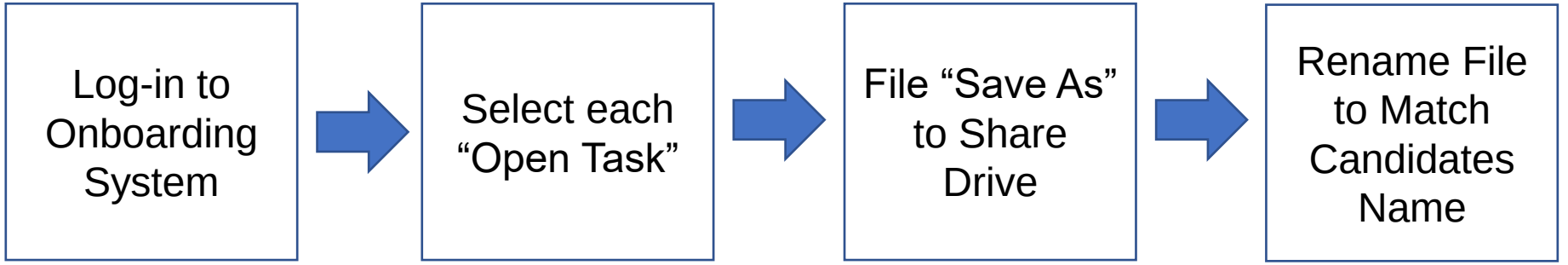
The Bot is simply a Windows Service running on the VDI desktop with existing applications

RPA Use Case – Sample 1

Example HR Use Case – Saving from the Onboarding System

Execute assigned tasks in system and save results on specific share drive

Rename file to match the candidate's name

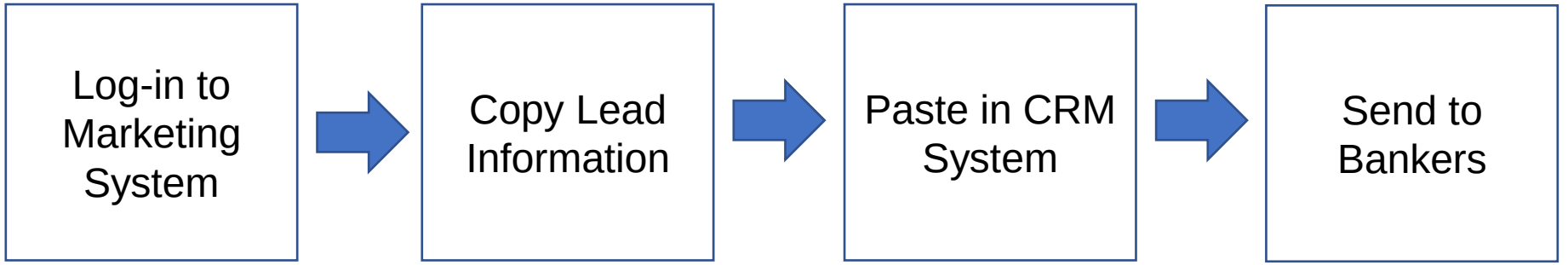


Monitoring Control – Daily Processing Report (*example*):

Total Success	Successfully Process	S.A.F.E Team: Manual (Not Processed)	Total Failed	Failed: Business Exception	Failed: System Exception
368	70	298	0	0	0

RPA Use Case – Sample 2

Example Business Use Case – Leads Management
Transfer prospects from marketing system to CRM system
Distribute prospects to assigned Bankers



Monitoring Control – Daily Processing Report (*example*):

Arizona SUCCESS	Arizona FAILED	Omaha SUCCESS	Omaha FAILED
160	0	1648	3

Risk Profile for RPA

- Bots failing due to IT and business processes changes
- Innate rules not captured (as bots are literal)
- Poor process mapping causes bots to fail
- Systematic and widespread errors (due to bots being consistently wrong)
- HR risk of robotics automation (automation anxiety and resistance; perception of bots taking jobs)

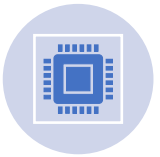
Additional Common RPA Risks

Source: Protiviti Inc., 2018

Thematic Considerations

Establish and maintain a comprehensive strategy / roadmap for RPA

Optimize / re-engineer underlying business process first



Adhere to design standards for producing consistent, sustainable bots which can be more easily maintained and managed

Implement stable infrastructure and partner closely with IT

Understand the risk profile / Manage automation anxiety

Maintain a consistent in-take mechanism for the submission of use cases

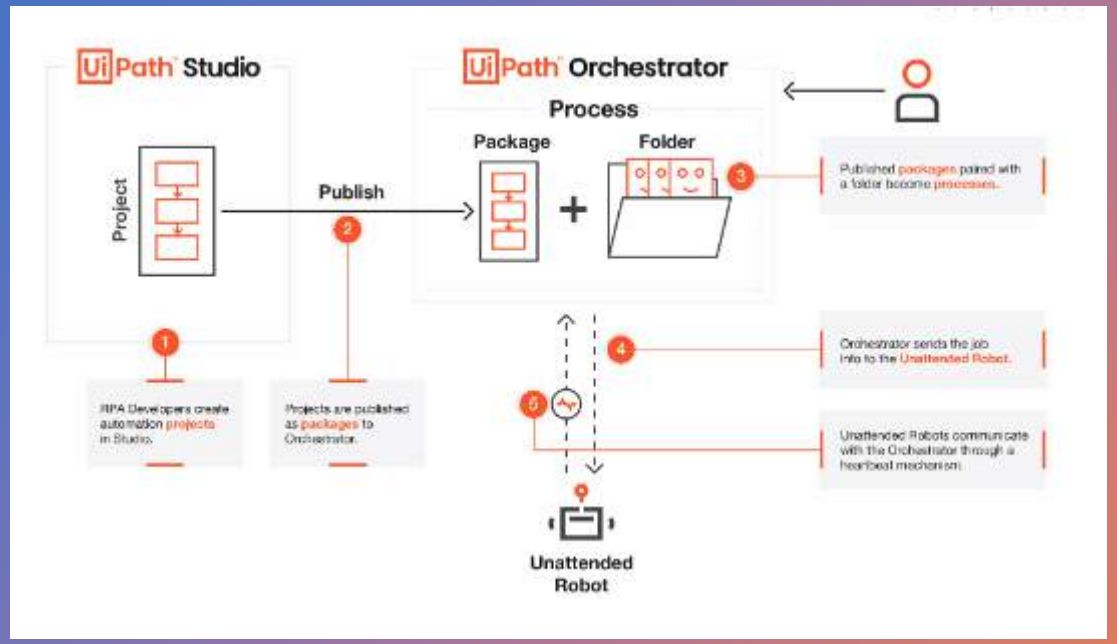
Updated Business Continuity Plans (BCPs) to include RPA

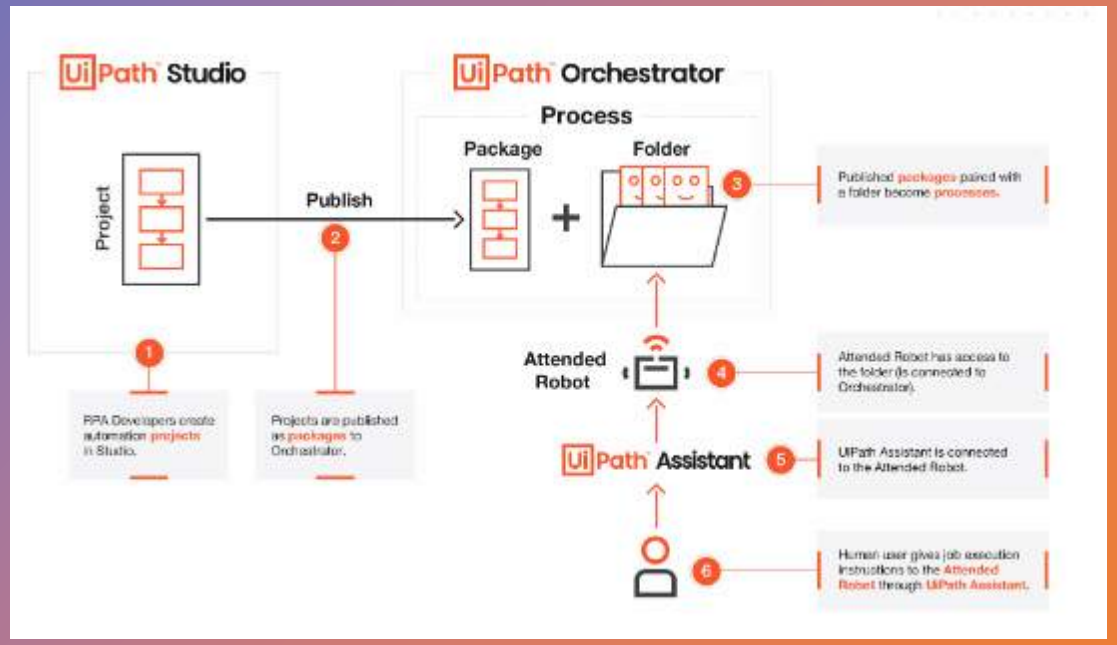
UI Path RPA – Core Components

Studio

Robot

Orchestrator

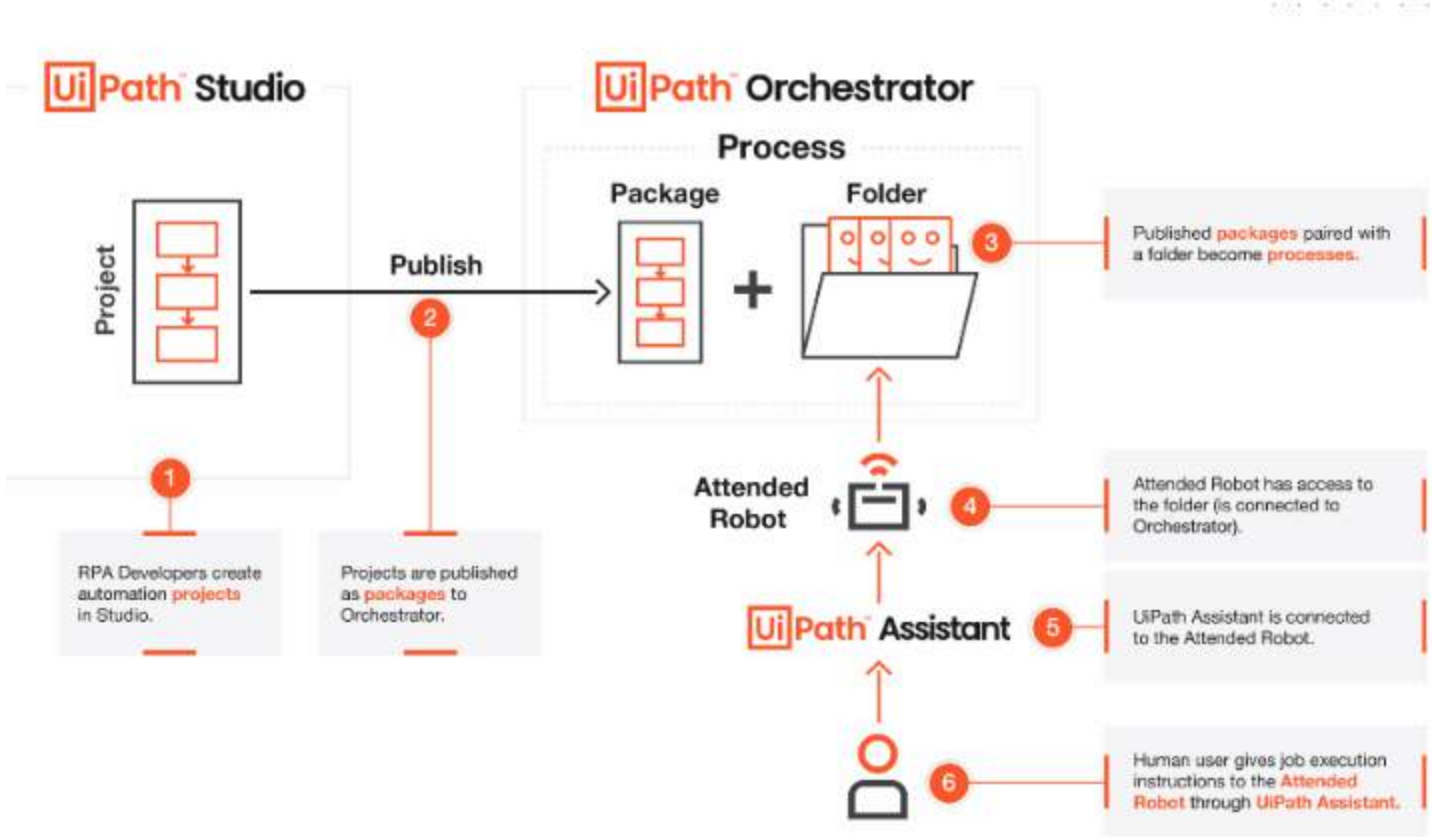




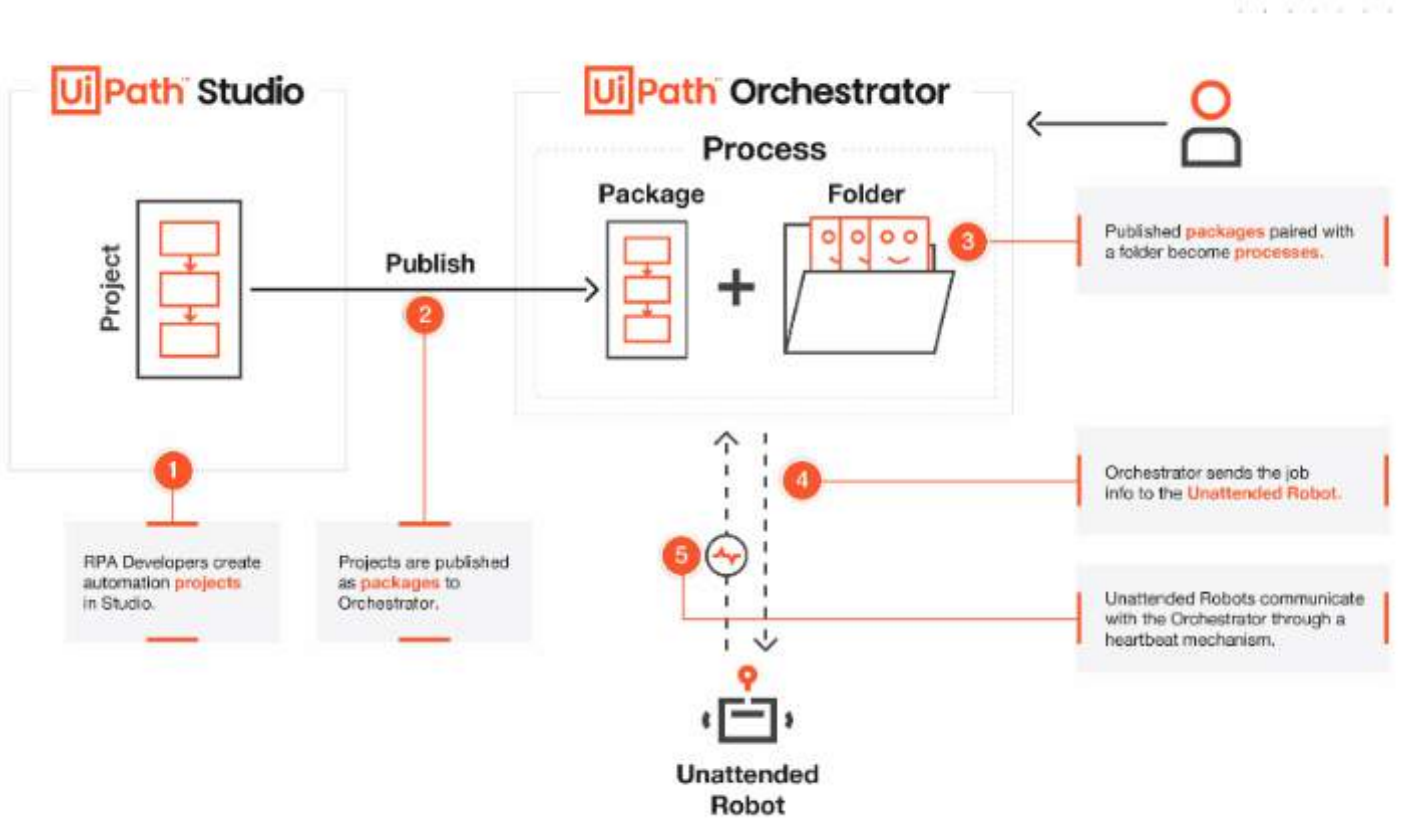
UI Path Studio, Orchestrator, Bots

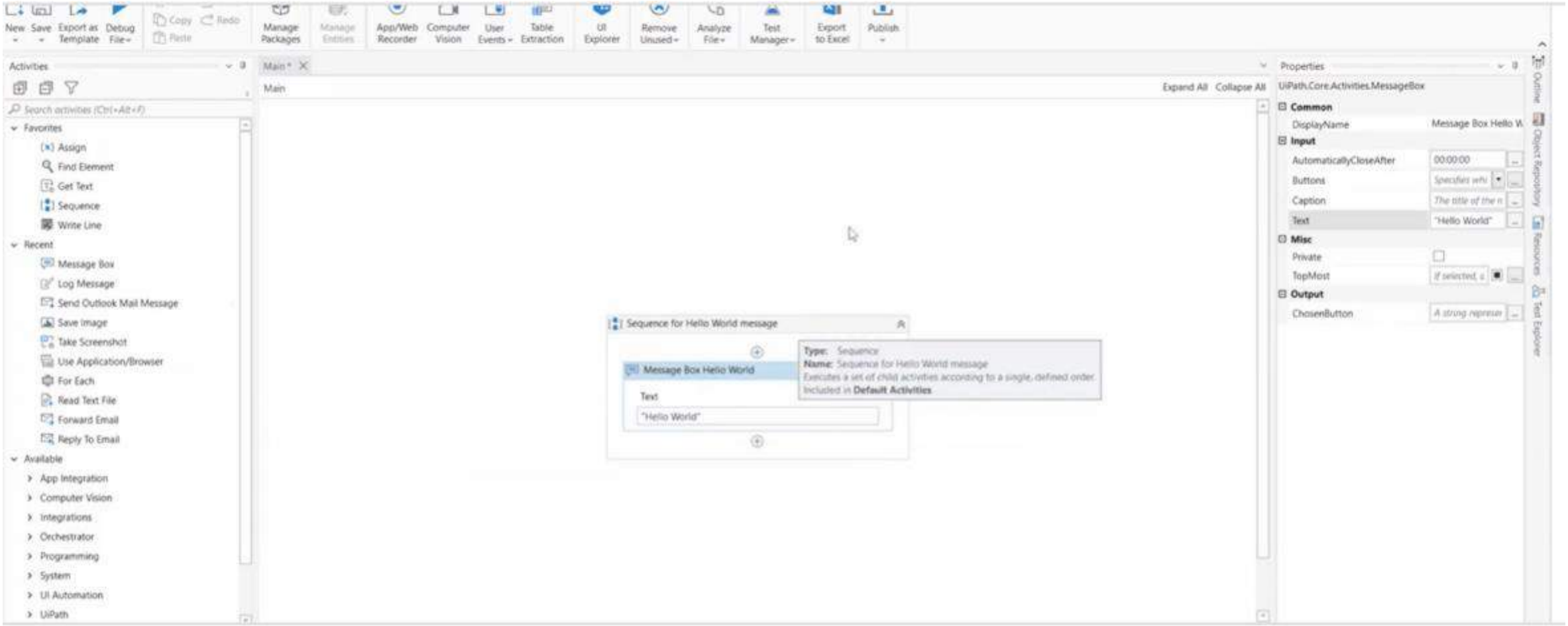
- Build automation projects using the Studio family
- Automation projects published to Orchestrator
- Robots Execute (Heartbeat Mechanism)
  - Attended
  - Unattended

Attended Robots

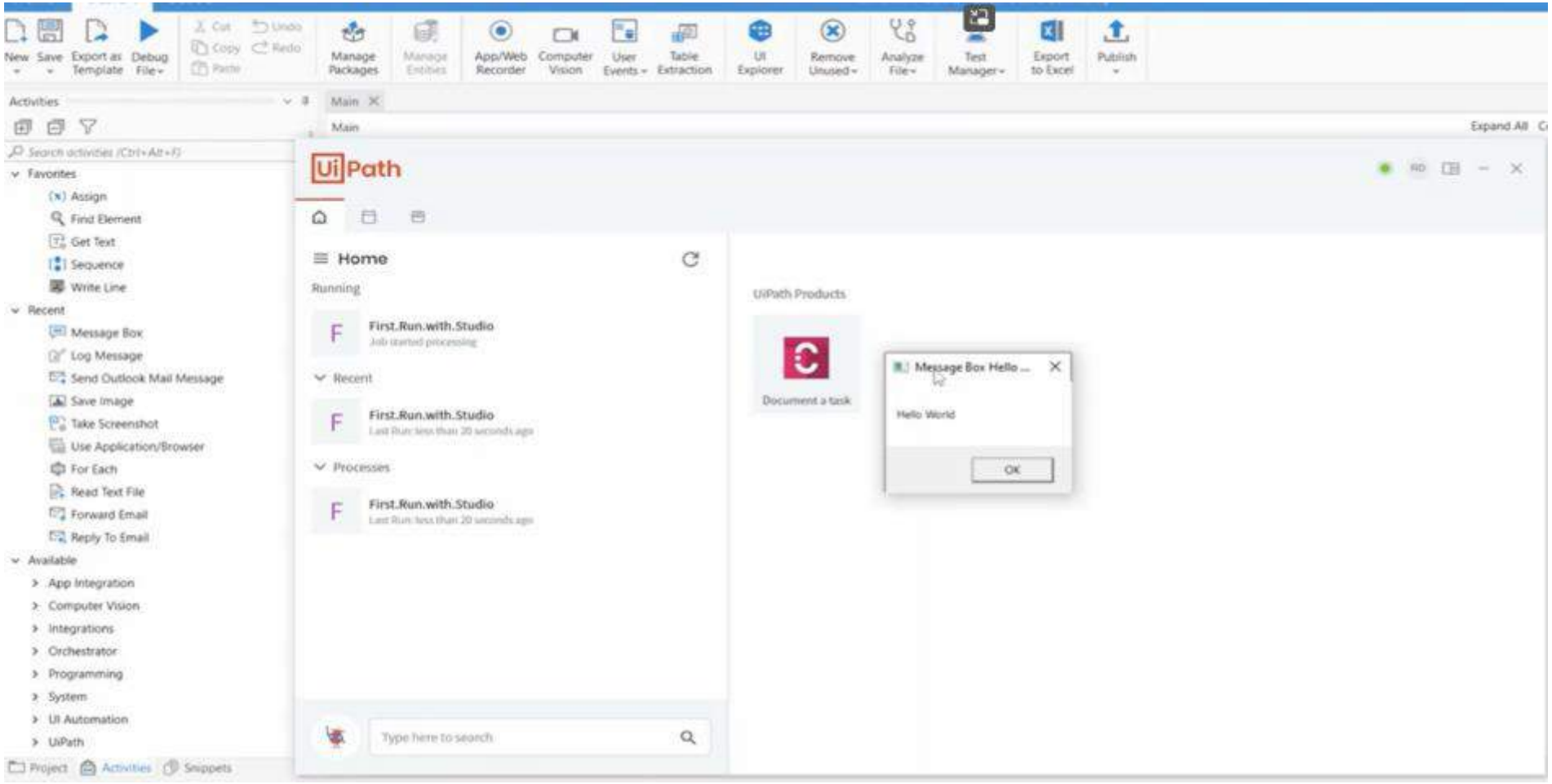


Unattended Robots

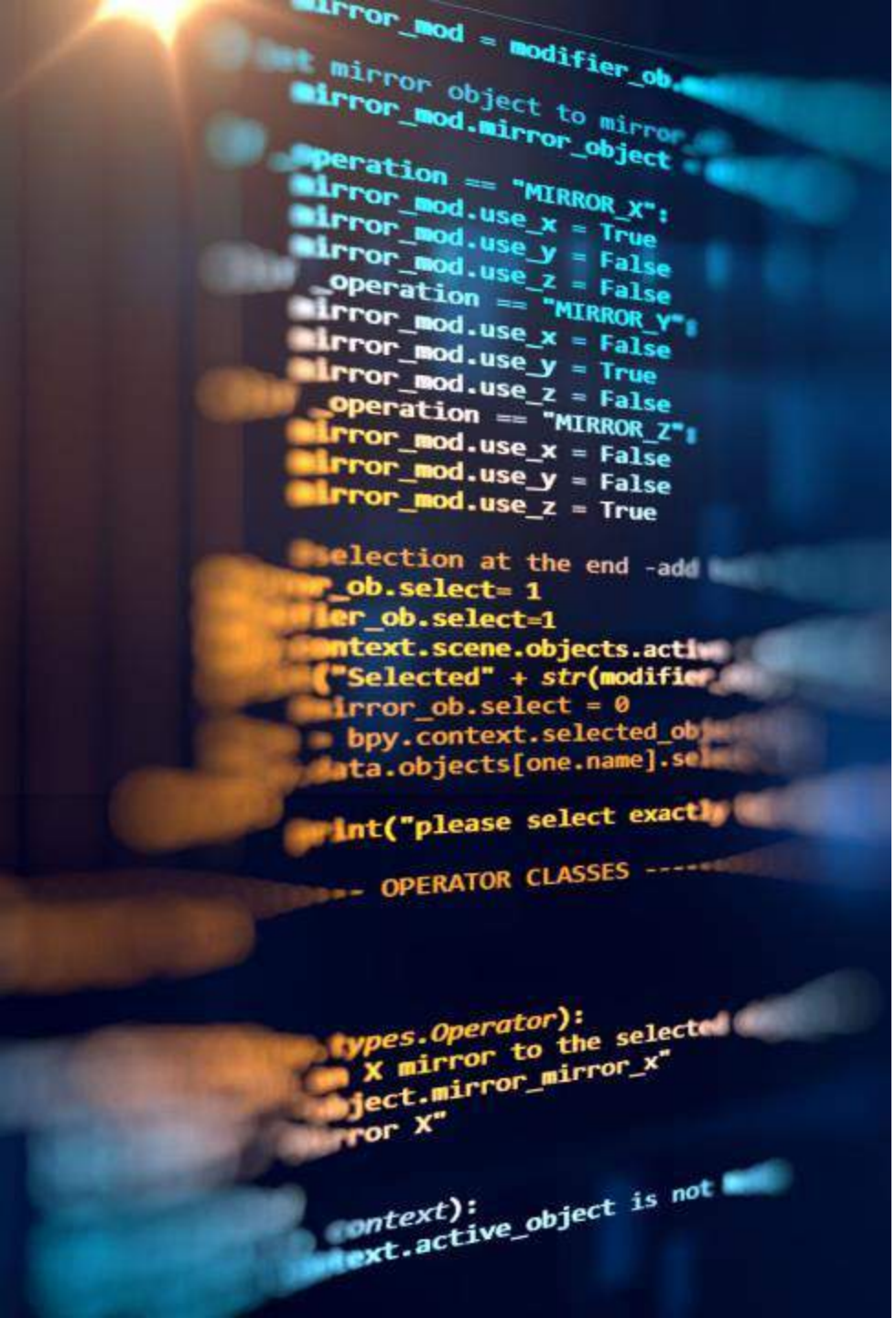




Hello World Project



Hello World Project



Other Technologies in RPA Landscape

- Tools – SailPoint, Core banking System
- Programming Languages – C#, ASP.Net, Java
- Databases – Oracle, SQL Server, My SQL

Conclusion

Questions / Comments / Experiences?