

TFD19 - Automation Anywhere

Robotic Process Automation (RPA)

Fastest growing enterprise software. Series A funding of \$550 million
RPA becoming the delivery vehicle for AI

*Mihir Shukla

80% of the meetings were business using “people as bridges between applications”

6th startup - how do we solve this problem. Started back in 2003. The idea was the automate any application. Democratise automation. Anything that can be automated, should be automated.

"beautifully written code is a piece of art" - @MihirAndNow

Technology allows you do things you never did before - that's the real power

Every piece of software in the world changes how we work, but rarely do you have the opportunity to change what the work is.

Imagine a world where every job has a digital assistant working side by side, allowing people doing what they do best. Technology is an amazing force to create opportunities for every body

*Abhijit Kakhaniki (<https://twitter.com/Akakhandiki>)

RPA and AI Vision

Deliver digital workforce for everyone

- Any size - all markets - Global 2000, large & midsize, small business
- Anyone - all user persona - business, IT, developer
- Anywhere - all delivery models - cloud, on-premises, mobile

World's most advanced open platform

Addressing all RPA + AI stakeholders

IT - Security, governance and control

- embedded scripting

- APIs

- Cloud / on-premises

Business - Ease of use

- Digital workers

- AI skills

- RPA

Developers - Tools & marketplace

- SDK (Q3)

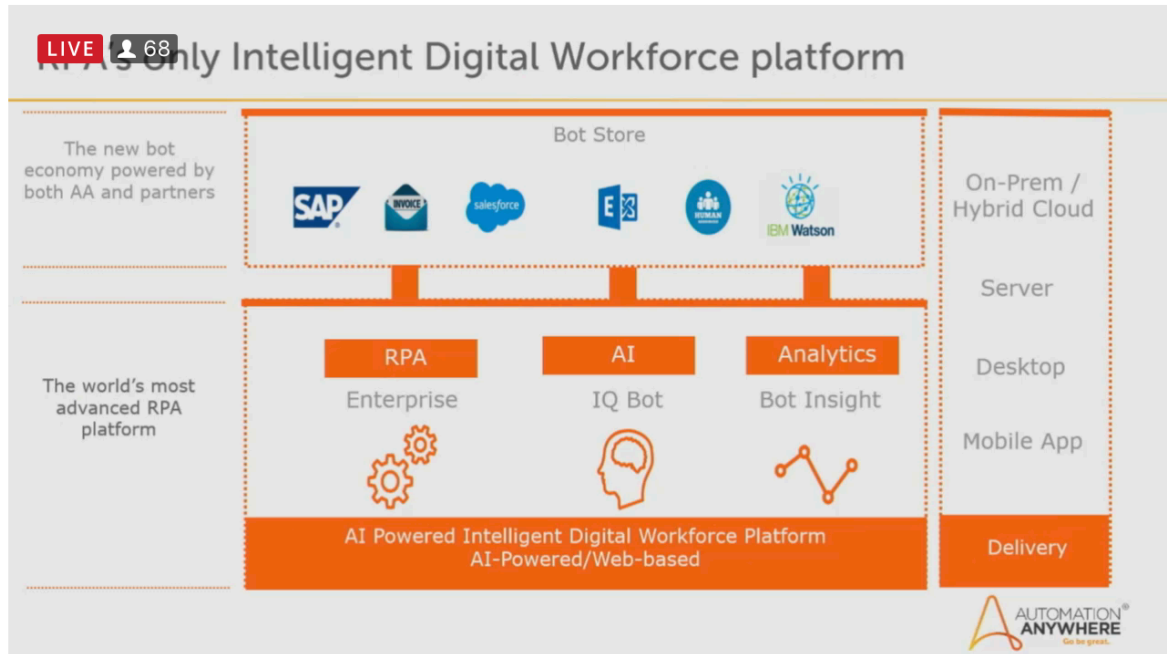
- AI framework

- Bot Store

Record button - hit record, do what you want in your app and the bot creates the script to automate that activity in the background

“Moving humans up the value chain”

RPA - start automating what you already have. Can then decide whether the process is optimal or whether it should be changed



Building the Digital Brain of a Knowledge Worker

- Process discovery
- Process unstructured data
- Superior automation (AISense)
- [Partners] Decision making (decision models)
- Predict process outcomes

Some people start with “I know that my job cannot be automated” - **80% of their job is business tools based, lack of automation is holding them back from thinking strategically**

*Steve Shah (part of Steve Squared)

A Strategic View

Business

- Build Bots Anywhere - Visually Automate More

IT

- Significantly reduce TCO
- Business Users and developers
- Cloud deployment option

Developers

- Best of breed, powerful bots
- Be more productive
- Collaborate with business users

Not everyone's a developer - what do we do for those people? From business users

through to hardcore developers

Making something easy to use doesn't just mean having a GUI. You can make GUIs hard to use too.

Rolling this out as a native cloud piece. RPA started as on-premises, but moving to a SaaS model

- Modern web interface
- Easy drag / drop commands
- See code, design, or both
- Design View for business users
- Access and run bots from the cloud (option)
- Group modules into easy flows

Guidance for those just getting started

Pluggable commands for easy customisability

"Bot Runner" lives on the host where the automation lives

Bot Runner Foundation

Common action tools

SDK (Q4 2019)

Actions

There is a community edition available - <https://www.automationanywhere.com/lp/community-edition>

Linux support available in Q3 2019

- Bots don't require rewrites
- Tools for custom commands
- Light, fast, minimal updates
- Fully licensed, security patched

Everything is a microservice

Plugin Architectures Reduce TCO

Attended Bot without Administrator Access

Attended Bot - helping someone out

Unattended Bot - something that runs in the background

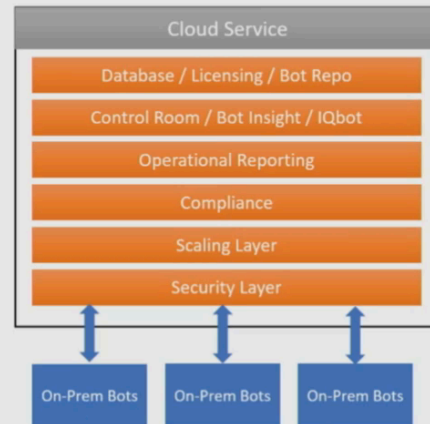
AAE as a Cloud Service is Privacy First

Significantly Reduce TCO

Business Users + Developers

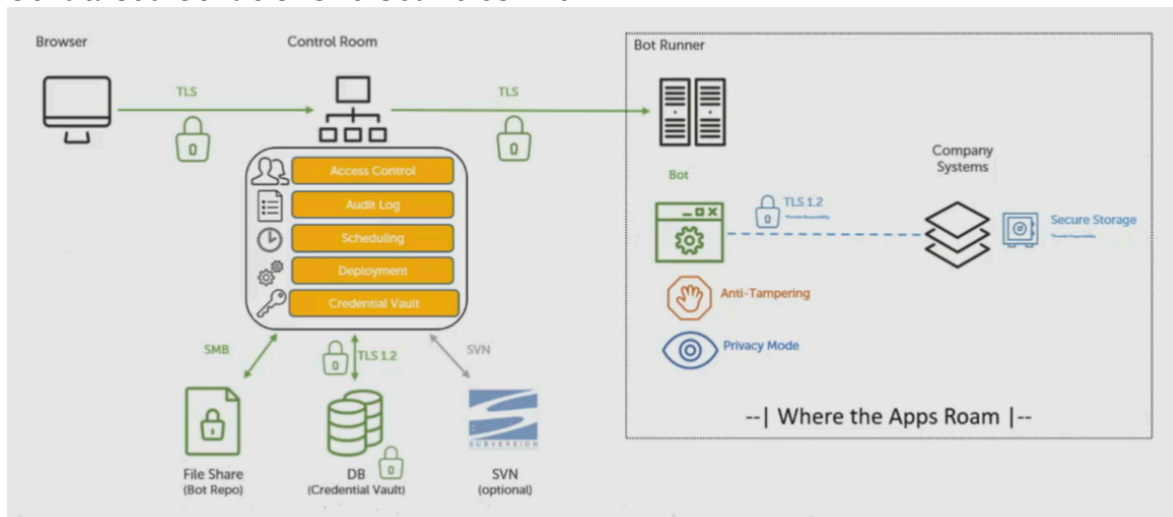
Cloud Deployment Option

- **Privacy Oriented Cloud Service**
 - PII stays within the BotRunner
 - PII never goes to cloud*
 - Service only keeps operational data, e.g., schedules
- **Security That Meets Regulatory Requirements**
 - SOC2 environment (Q3'19)
 - PCI
 - GLBA
 - GDPR
 - FISMA
 - OWASP
- **Encrypted Access**
 - TLS/1.2 for network security
 - AES256 encryption for data at rest
- **Cloud Optional**
 - Run A2019 as an on-prem version, OR
 - Run A2019 in the public cloud with AWS, Azure, IBM, etc.



* Unless a bot is explicitly told to share data

Centralised Controls: One Set Rules Them All



Controls Require Security

Controls Require Security

Significantly Reduce TCO

Business Users + Developers

Cloud Deployment Option

Roles-based Access Control

- Logical segregation of duties for Bot Runner / Bot Creator
- Least privilege access across user, role, device, app, and ops levels

Security Integrations

- SAML 2.0
- Kerberos – Windows login
- CyberArk certified integration

Audit Completeness

- User, bot, Bot Runner, and Admin level audit
- Development lifecycle audit
- Change management

End to End Encryption

- Native credential vault
- FIPS-compliant
- AES-256 for data-at-rest
- TLS/1.2 for data-in-motion

Secure Operations

- Veracode level 5
- Automation timeout
- Stealth mode automation
- Disable mouse / keyboard

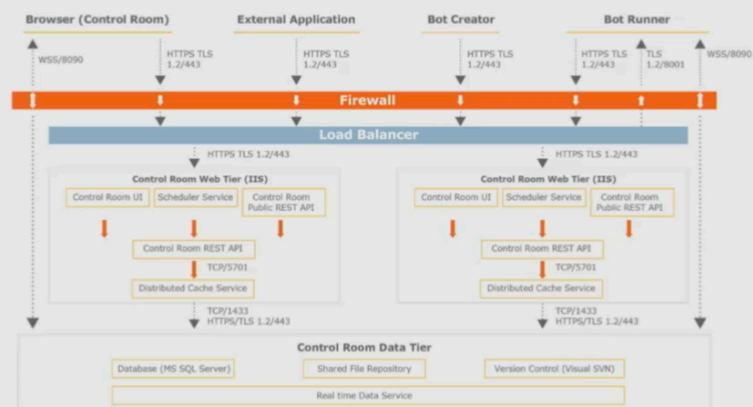


Firewall Friendly: TLS + HTTP + WebSockets

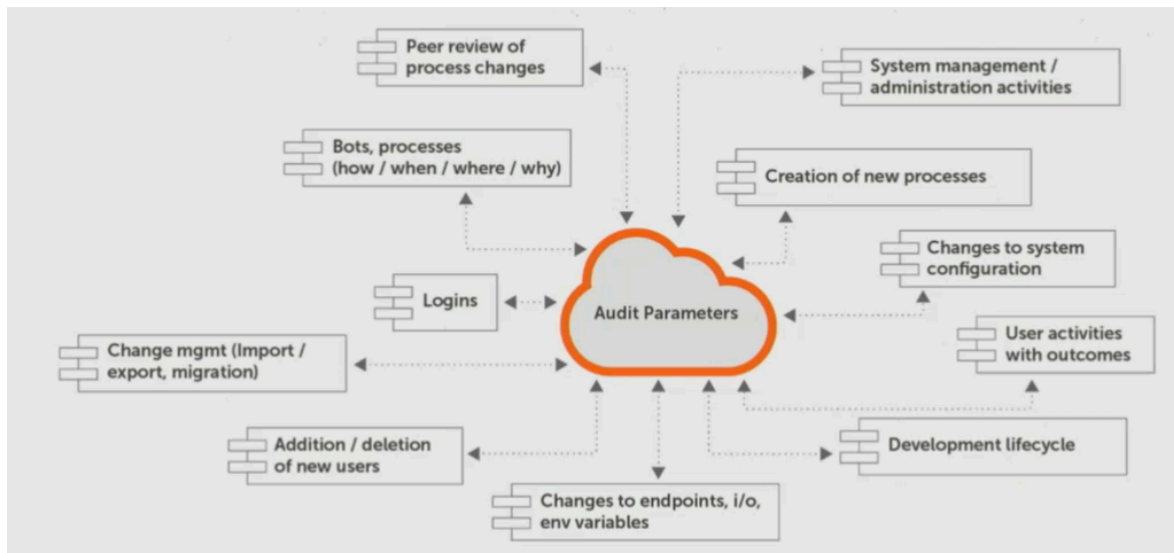
Significantly Reduce TCO

Business Users + Developers

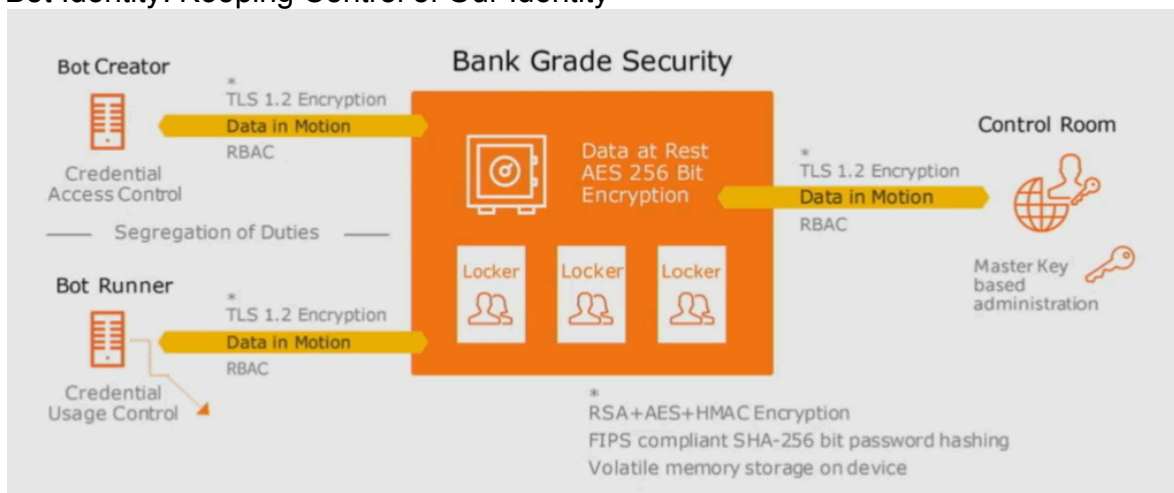
Cloud Deployment Option



Audit: How we prove the rules are followed



Bot Identity: Keeping Control of Our Identity



Separation of duties - separating Devs from HR

Powerful Bots

Inline Scripting Support

- native support for inline scripting languages
- Python, VBScript, etc. supported out of the box
- Allows simple data passing between scripts and bots
- no need for complex dev tools or linking DLLs / APIs

Advanced Variable Types

- Advanced variable types for DataTable, Arrays, Lists, etc
- Table data type support for reading Excel documents
- File Data Column to make CSV files a snap
- Further sophistication via inline scripting

Infuse Bots with AI / ML Capabilities

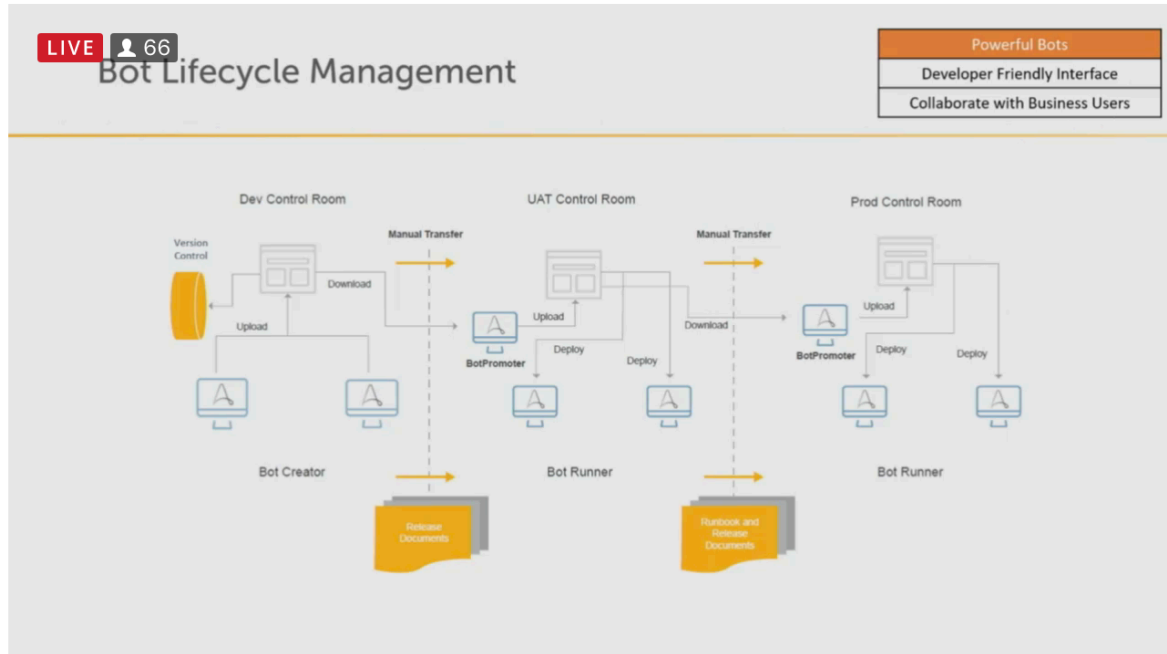
- Leverage the latest AI/ML tools and libraries
- Use inline scripting to weave together rich AI tools

Cross-platform Scripting

- Cross-platform languages (eg Python) supported across Linux and Windows

without any additional coding

Sysadmins are people with families and obligations too
RPA can be really useful with legacy stuff



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Developer-Friendly Interface

Powerful Bots	
Developer Friendly Interface	
Collaborate with Business Users	

- See Code AND Visio-like Flows Together
 - Simple Visio-like flowchart view of bots
 - View the same bot as code
 - Freely move back and forth between views; no additional work to maintain two versions of bots
 - View both code and design at the same time
- Powerful Bot Code Management
 - Single step through bots
 - Version control bots
 - Color coded view of changes from one version to next
 - Merge bot code across versions
- Inline Scripting without Linking
 - Run from an external file or as cut-and-pasted code
 - Leverage third-party libraries with ease
- Rich Variable Passing
 - Pass bot variables into methods as simple parameters
 - Set bot variables to hold return values
 - No cross-language mapping required

The screenshot shows the Developer-Friendly Interface with a bot design on the left and its code on the right. The bot design is a flowchart with various steps and connectors. The code is written in a structured, readable format. The interface is clean and modern, with a clear separation between the design and code views.

www.TechFieldDay.com
#TFD19

*Steve Van Lare
Ultra-intuitive AI for everyone

AI? Starts with software that learns, gets smarter over time
Important that it's an open system

AI Components

AI Skills

Automate business processing creating and trainman specific AI skills

Document understanding - business documents and images

Language understanding - Chat bots, emails, messaging, and voice

UI Understanding - surface automation

Process Intelligence - process discovery and next best action

Automation Anywhere AI

Build - gather data associated with skill to train

Train - UI (for human validation supervised learning) and feature extraction from data set

Deploy - Push model to production and run on new input

Learn - engine to build the model and test the results

Leverage Any AI Stack

Build - any data science tool can be used to assemble AI skills for use with RPA

Train for Any Use-case

Train - any data science tool can be used to assemble AI skills for use with RPA

IQ Bot Example

Build Invoices, Training IQ Bot, Learn Model

The ability to take a trained bot and package into the Bot Store, as well as skip the whole training process and just use a trained model

Deploy - Bot Runners provide the flexible compute architecture needed to scale, on-premises or off, AAI tech stack or others

Learn - the models are deployed when a high level of confidence is achieved by the system, that will improve even more from user feedback

IQ Bot - Built-in AI Skill for processing unstructured data

Vision Skills

- Invoice Processing

- Claims Processing

Language Skills

- KYC

- Contracts Analysis

Conversation Skills

- HR Benefits Admin

- Order Enquiry

Voice Skills

- New policy admin

- Customer support KB

AI Sense - Built-in AI Skill for Surface Automation

Region based proposal networks (RPN)

- enables detection of same class of object that have different shapes and sizes (eg text box with different shapes and sizes)

- tells the detector where to look for objects

Fully Convolutional

- feature generation and object detection combined into single network architecture
- multiple classifiers to improve detection

*Brendan Foley

Intelligent Automation: one of the fastest growing sectors in history

Automation Anywhere: Most broadly deployed platform

Developer Proposition and Journey

- Install Community Edition
- Start Building: Documentation, Bot Games (docs.automationanywhere.com)
- Engage in the APeople Community
- Build your career through AA University
- Post to the Bot Store

By the end of the summer will be introducing monetisation

Install Community Edition

Access to the full product suite

- Enterprise - RPA
- IQ Bot - AI
- Bot Insight - Analytics
- Bot Store - Marketplace
- Mobile App

Free cloud license

- Developers
- small businesses
- students

Documentation Portal

Bot Building Best Practices

Bot Games (both virtual and physical)

- largest active RPA competition in the world
- 150+ active teams currently competing

APeople Community - <https://apeople.automationanywhere.com>

AA University

<https://www.automationanywhereuniversity.com>

FastTrack Accreditation - for the experienced RPA developer looking to get coding quickly (4 hours, free)

Bot Developer Certification - for every developer looking for a comprehensive learning path (12 hours, free)

Post to the Bot Store

<https://botstore.automationanywhere.com>

More than 500 bots today, 60% created by partners

Monetisation

- Bots and Digital Workers are listed in the Bot store with “per Bot pricing”
- subscription licensed based on simultaneous bots and Digital Workers
- Bots for sale on the Bot Store have IP protection
- All paid bots and Digital Workers have 30-day free (limited) trials
- We handle billing and pay upon monthly
- You build, support, maintain, and update your bots and Digital Workers

Value Prop for Devs

- develop a recurring revenue stream based on your bot ideas and experience
- scales with customer adoption without adding staff
- immediate Global reach with access to the largest global RPA customer base
- real time transaction reporting and vendor payments monthly