

## Enterprise 11: Key Enhancements







#### **OPERATIONS**

- Workload Management
- Bot Lifecycle Management

#### **SECURITY**

- Credential Vault + Locker Management
- CyberArk Certified
- Role-based Access Control (RBAC)
- System-wide Security Updates

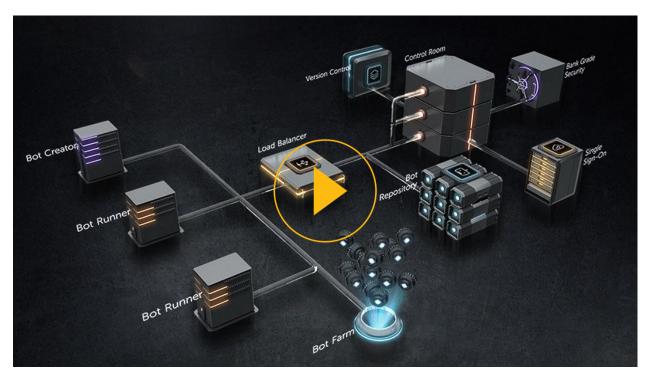
#### **AISense**

- Citrix Automation
- Intelligent Object Linking
- Bulk Data Entry and Extraction

INFRASTRUCTURE - SECURITY FRAMEWORK - OPERATIONAL SCALABILITY



## Enterprise 11: Architecture Overview



To play the video, click on the image in presentation mode or use this link: https://goo.gl/4J94Hc



## 1. OPERATIONS



## Operational Scalability

#### Existing

- Centralized Monitoring
- Control of Bot Creators, Bot Execution & Workloads
- Version Control
- Scheduling
- Audit
- User Management
- HA/DR

#### New in Enterprise 11

- Managing industrial-scale automation
- Meeting enterprise-class SLA requirements
- Addressing RPA demand fluctuations (BotFarm™)
- Enterprise-grade framework for automation development, testing and production
- Making disaster recovery a non-issue at server, desktop and bot level

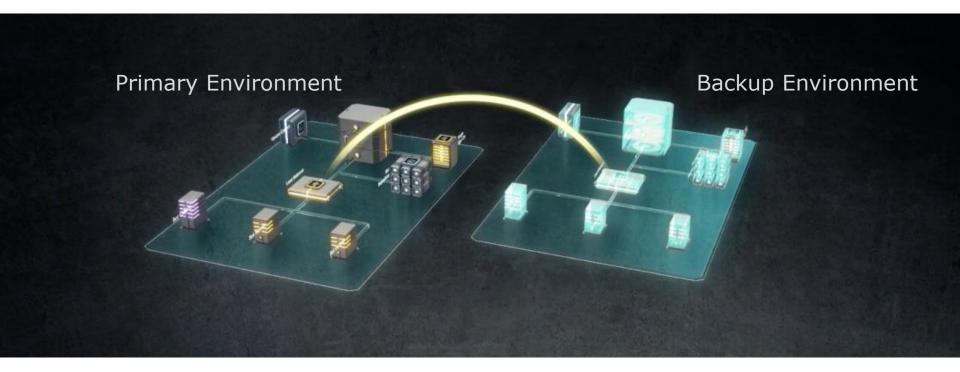
WORKLOAD MANAGEMENT

BOT LIFECYCLE MANAGEMENT

FULL-FLEDGED HA/DR

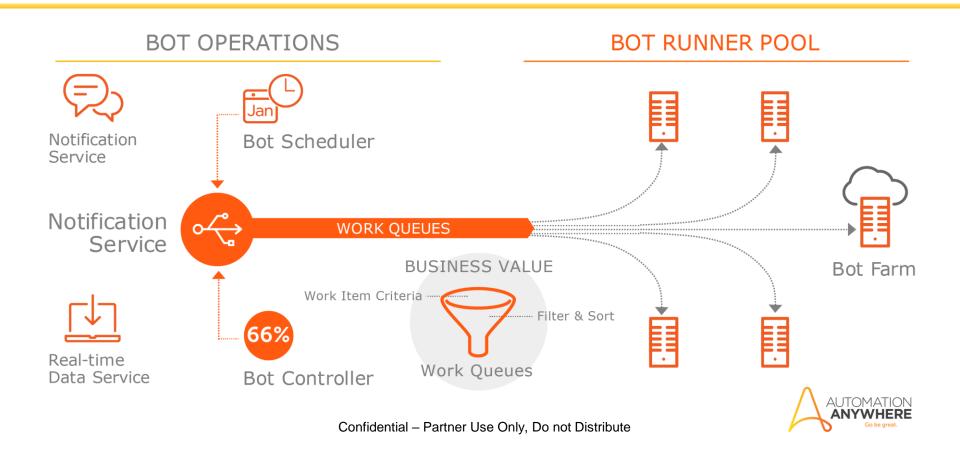


### Scalable. Stable. Resilient

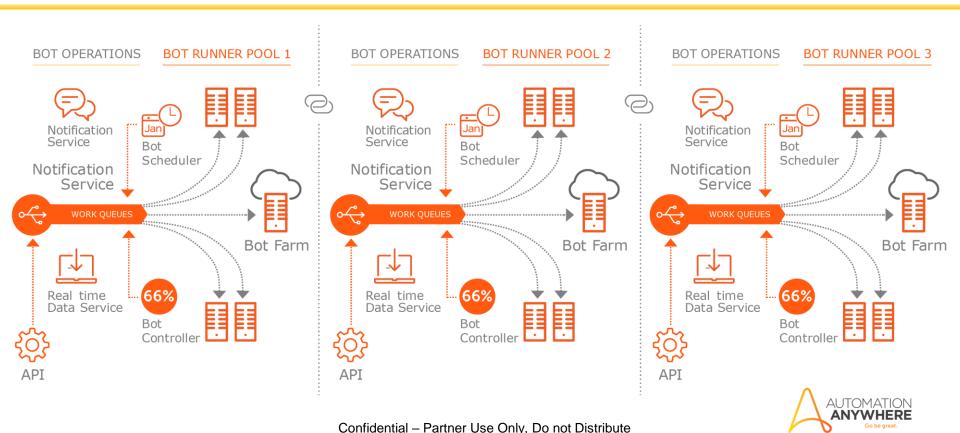




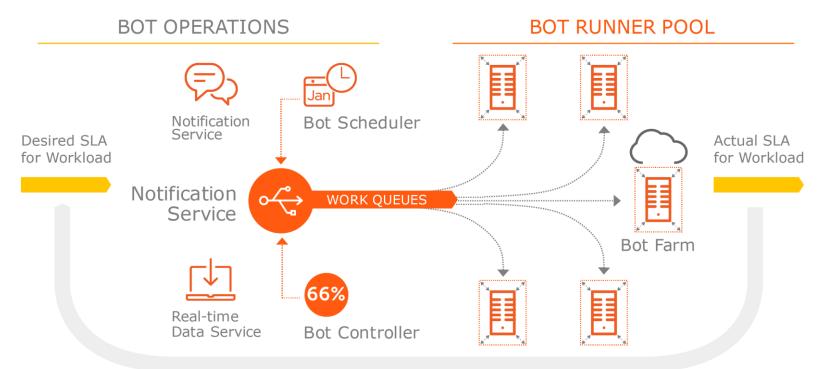
#### Business Value-Based SLA Prioritization



## 24/7 Mission Critical Processes with Unparalleled Stability

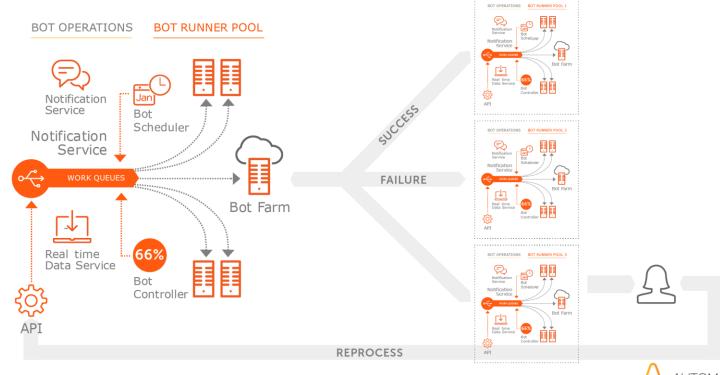


## **SLA Transparency**

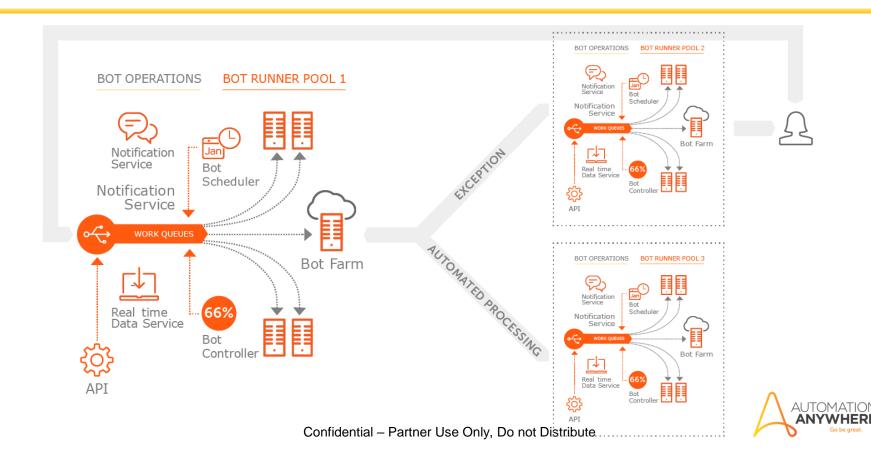




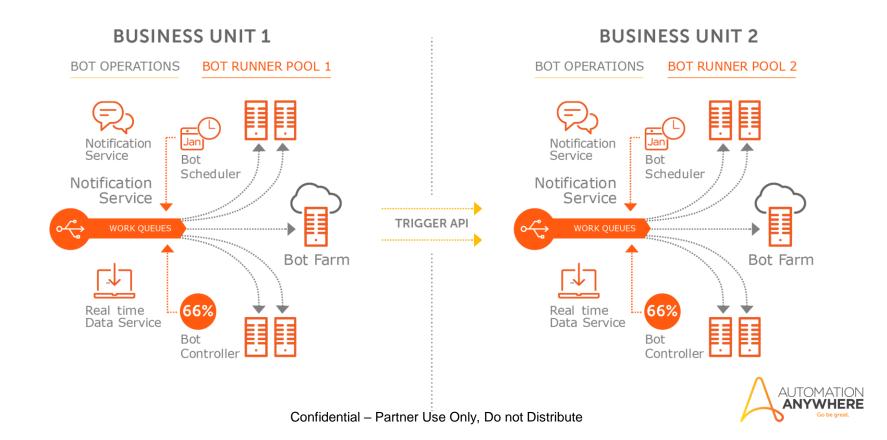
## Conditional Automation with Human in the Loop



## Exception Management / Rework / Human in the Loop



## Workload Management Across RPA Systems



## SLA-based Automation: Real-life Application



#### **Challenges**

Meeting dynamic SLA requirements in a BPO environment.

- Large number of customers but limited number of automation resources
- Very tight and frequently updating SLA deadlines



#### **Solution**

Workload Management framework for advanced SLA Management:

- Smart load distribution through intelligent queue management
- Ability to include human in the loop to adjust and tweak the process as needed

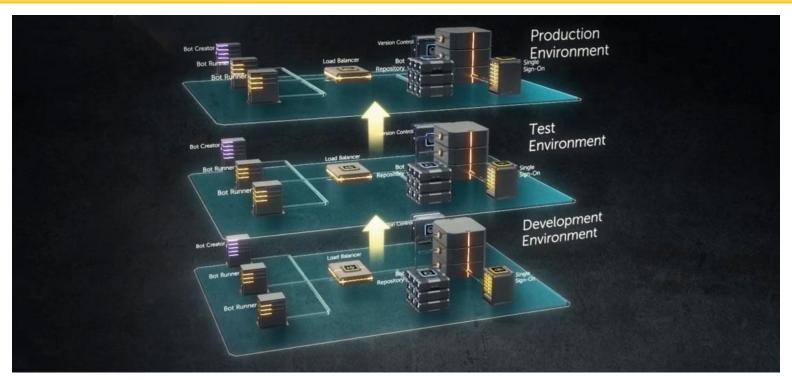


#### **Benefits**

- Ability to execute within SLA bounds, especially at high load volume
- Completely transparent process

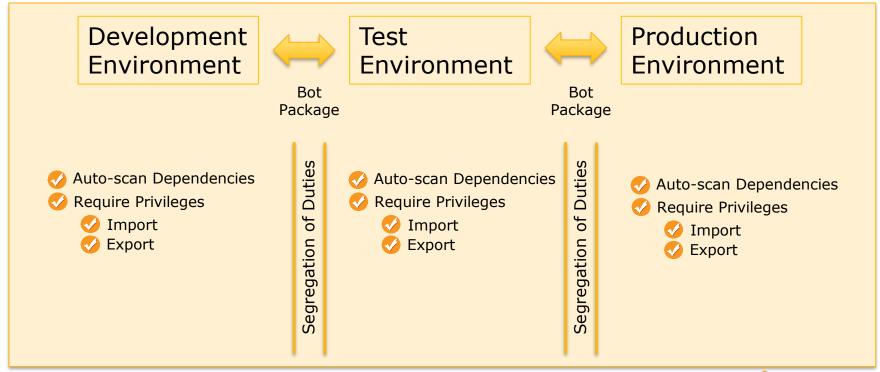


# Bot Lifecycle Management with SDLC Best Practices





## Bot Lifecycle Management with SDLC Best Practices





## Bot Lifecycle Management: Real-life Application



#### **Challenges**

At Citibank, an automation environment of over 300 bot developers

 A complex and error-prone environment for automation development, testing and production



#### Solution

Bot Lifecycle Management framework that enables a highly formalized process:

- Not every bot dev has the privileges to graduate bots from dev to test
- Only QA lead has the authority to export bots into test
- Only admins can export bots into production after QA sign off



#### **Benefits**

- Enforces process discipline for deployment configuration across the enterprise
- Readiness for SOX and CMMI Level 5 certification



## 2. SECURITY



## Enterprise-wide Security

#### Existing

- Credential Vault
- RBAC
- NTLM Authentication
- Multi-Domain Active Directory
- Single Sign-On
- Veracode Level 3
- IP Protection via MetaBots
- Tamper prevention during execution
- Data Encryption
  - At Rest: AES 256
  - In Motion: TLS 1.2

#### New in Enterprise 11

Built-in Credential Vault 2.0

**CREDENTIAL VAULT** 

CyberArk™ Integration

 Centrally set and enforce enterprise-wide security policies

SECURITY POLICIES

- Kerberos Authentication
- SAML 2.0 Support for Single Sign-On
- Two-Factor Authentication
- Veracode Level 5

SECURITY
STANDARDS



#### Segregation of Duties and Least Privilege Access

| Logical    |
|------------|
| Separation |
| Of Duties  |

Bot creators (development) and Bot runners (runtime) RBAC on Bots, Bot Runners, Bot Schedules

Critical NIST requirements.

Departmental

Isolation
Access enforcement,
least privilege for
code execution,
least functionality

RBAC on Credential Management

Credential owner, access and usage separation

Locker management and locker admin separation Role-based Processing Domains

Applies least privilege principles to domains to enable seamless isolation

Run and set production version separation

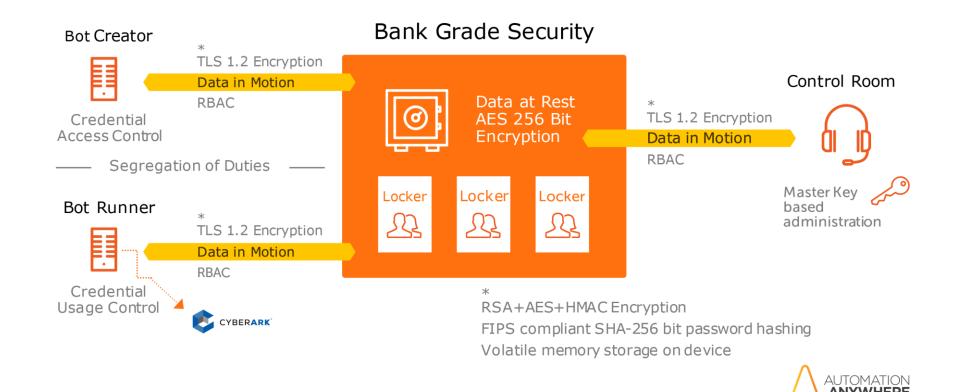
RBAC on Operations, User Management, Permissions

Segregation of duties even on privileged accounts

Essential for enterprise-wide deployments



## Credential Vault 2.0 with Locker Management



Confidential – Partner Use Only, Do not Distribute

## Two-Factor Authentication: Real-life Application



#### **Challenges**

Applying human standards of security, such as prevention of impersonation, to software bots



#### **Solution**

Implement two—factor authentication via virtual smart cards

Deploy enterprise-wide RPA using highly granular RBAC

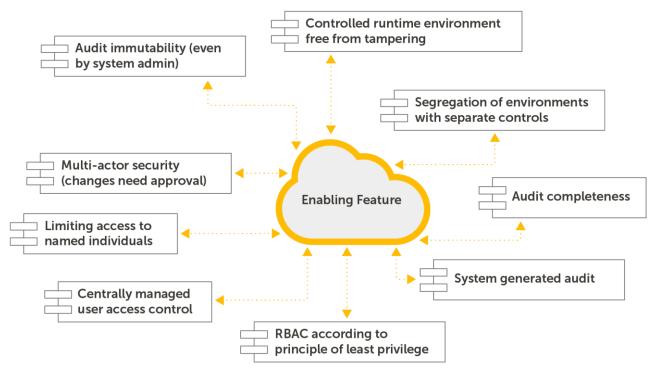


#### **Benefits**

Security standards that are consistent across humans and bots

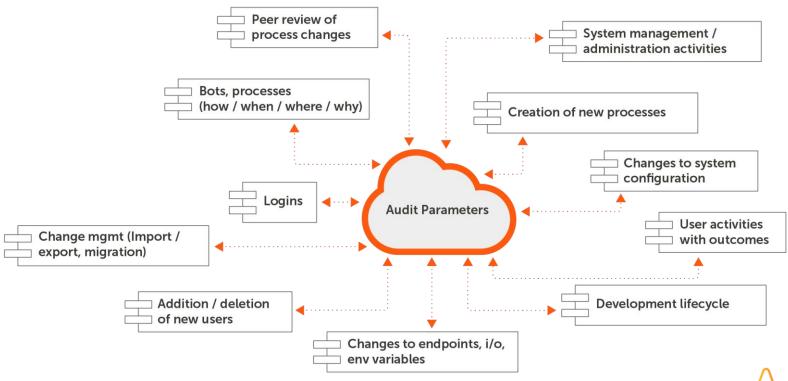


#### Non-Repudiation Control





## Audit Completeness



## 3. AISense



#### AISense for Citrix Automation

#### Existing

- Object-based automation
- Co-ordinates and layout-based automation

#### New in Enterprise 11

- AI-powered automation intelligently creates dynamic linking between scanned objects
- Automates across dynamic fields, color changes, zoom level and screen resolution changes without errors
- Bulk data input and extraction in a single scan

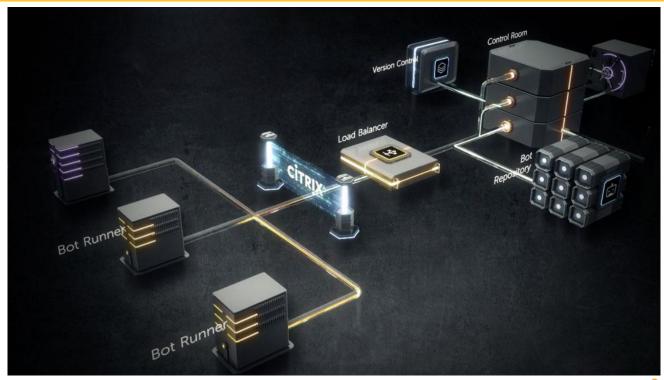
#### **COMPUTER VISION**

**CHANGE AGNOSTIC** 

DATA BURST TECHNOLOGY



## Computer Vision for Citrix, Flex, RDP



## AISense for Citrix Automation: Real-life Application



#### **Challenges**

Processing PII and sensitive data in a Citrix-type environment at a bank

 A Citrix environment that doesn't lend itself easily to process automation



#### **Solution**

Intelligent image recognition through computer vision and AI techniques

- AISense that is agnostic to application changes such as on-screen field position change position, application color changes colors, zoom level fluctuations or screen resolution updates
- "Data burst" technology for bulk data input and extraction



#### **Benefits**

- Citrix automation that complies with HIPAA and other PII regulations
- Significant savings in automation processing times



## Automation Anywhere Enterprise 11

## Digital Workforce Platform Architected for the Modern Digital Enterprise

- 1. Enterprise-grade Architecture
- 2. Intuitive UI, Fast Deployment
- 3. Rapidly Scalable
- 4. Operational Efficiency
- 5. Bank-grade Security
- 6. Highly Extensible



## Analysts and Partners View



## Analyst & Partners View

"Release 11 represents a significant movement of the needle as it relates to ease of use, scaling, and analytics. The user interface brings the overall user experience to new levels and the enhanced security management capabilities of the credential vault demonstrate Automation Anywhere's continued commitment to listening to its customers feedback and incorporating enhanced features and functionality in every release."

– James Manos, Director, Robotic ProcessAutomation, ISG





## Analyst & Partners View

"Automation Anywhere has enhanced its software by adding new features in areas such as workload management, automation lifecycle management, SLA-based automation, Citrix automation, and credential management as well as adding new data APIs. These additions should appeal to enterprise users who are looking for higher operational and security capabilities in RPA software."

— Sarah Burnett, Vice President, Everest Group





## Analyst & Partners View

"Automation Anywhere gets high marks for both intuitive usability and scalability in the RPA user experience research HfS has recently completed. With the release of Enterprise 11, the company has introduced significant enhancements, most notably higher-level security, credential vaults so only authorized people have access to bots, sophisticated workload management, as well as an attractive new interface, which provides a compelling user experience."

Phil Fersht, CEO and Chief Analyst, HfS Research





# Go be great.

