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Automation is the heart of the infrastructure revolution

Presented by: **Felix Zalcmann**, Strategy and Planning Sn Program Manager
Presentation Date: October 12, 2022

Why Kyndryl: Our people power customer transformations

OUR INVESTMENT

YOUR VALUE

We are a talent destination

– 90,000 skilled professionals
– Industry-leading employee value proposition
– Proven IT experts: 10 years experience, on average

An engaged and innovative expert talent pool to lead your IT modernization

Delivering high-quality performance today

– Consistently high attainment for 31,000 service-level agreements
– Industry-leading NPS scores [1]

Delivering with proven and reliable services – we are rated 26% points higher than our nearest competitor for this capability [2]

Staffing skills for the future

– 96% of Kyndryls acquire new skills annually
– 1/3 of experts upskill in new technologies – cloud, AI, agile & more
– 31,000 vendor-recognized certifications in VMware, Cisco, Red Hat, Azure, AWS and more

Helping modernize processes and operations – we are rated 22% points higher than our nearest competitor for this capability [2]

Source:
1. IBM GTS-IS NPS scores (Dec 2017 – Aug 2021); Based on B2B benchmarks from Medallia
2. IBM Services Brand Study, Optimization and Management of Technology Infrastructure. May 2020

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Achieving operational excellence.

Why customers choose Kyndryl with Red Hat

kyndryl / **Red Hat**

Expertise

5000+ Qualifications

Working together for 20+ years.

Speed

1,200 Customer engagements

Innovation

Investing in our customers

- Joint Innovation Centers: co-create to securely improve capabilities of Ansible for network, edge and cloud infrastructure

Trust

Largest global services provider of Red Hat technology

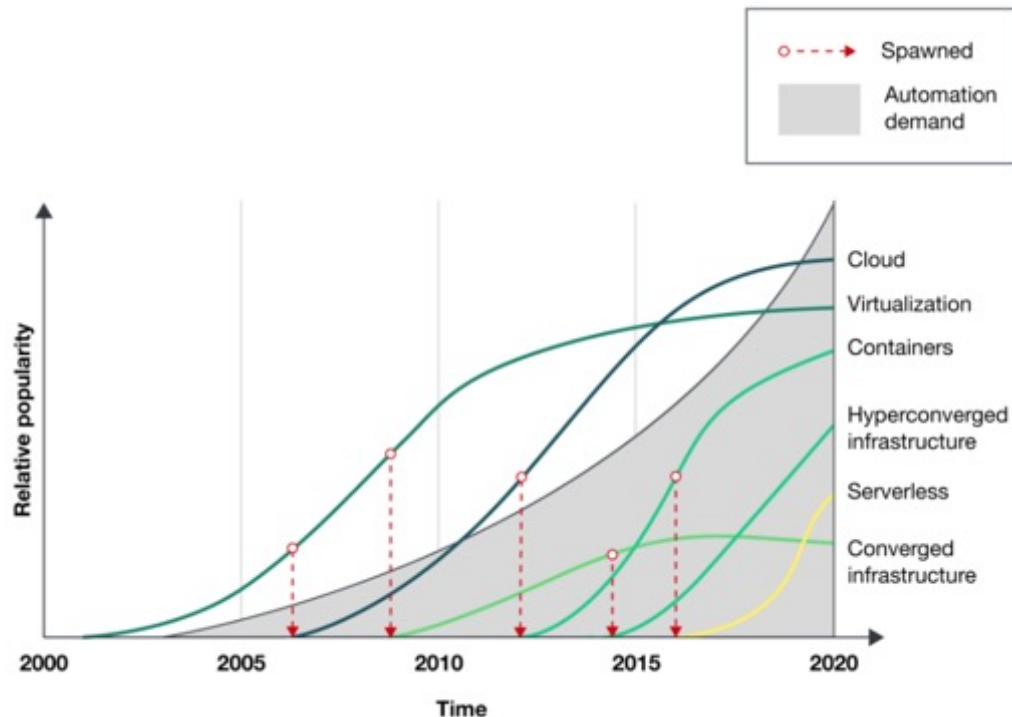Kyndryl has the largest services portfolio for Red Hat technology.

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Role of automation in infrastructure & operations revolution

INFRASTRUCTURE HAS MATURED, FUELED BY ABSTRACTION AND AUTOMATION

FORRESTER

Technology Abstractions Build Upon Other Abstractions, Accelerating Automation Demand

Automation Drives The I&O Industrial Revolution

Legend:
- ○ - - - ▶ Spawned
- ▨ Automation demand

Curves (top to bottom): Cloud, Virtualization, Containers, Hyperconverged infrastructure, Serverless, Converged infrastructure

Y-axis: Relative popularity
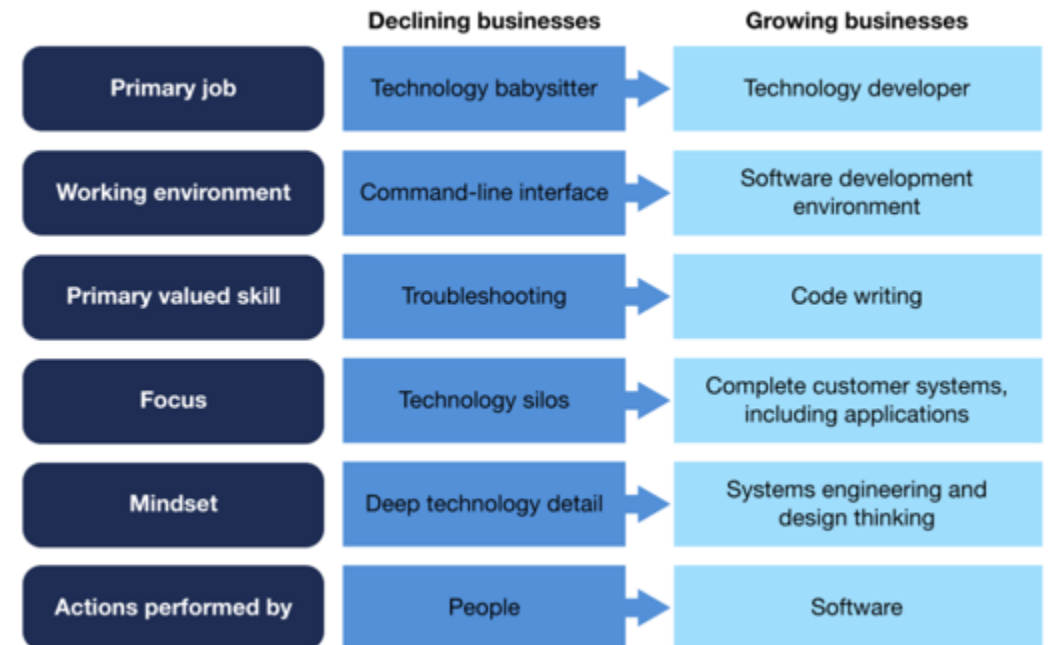X-axis: Time — 2000, 2005, 2010, 2015, 2020

Source – Forrester Research – 'Automation drives the I&O Industrial Revolution'
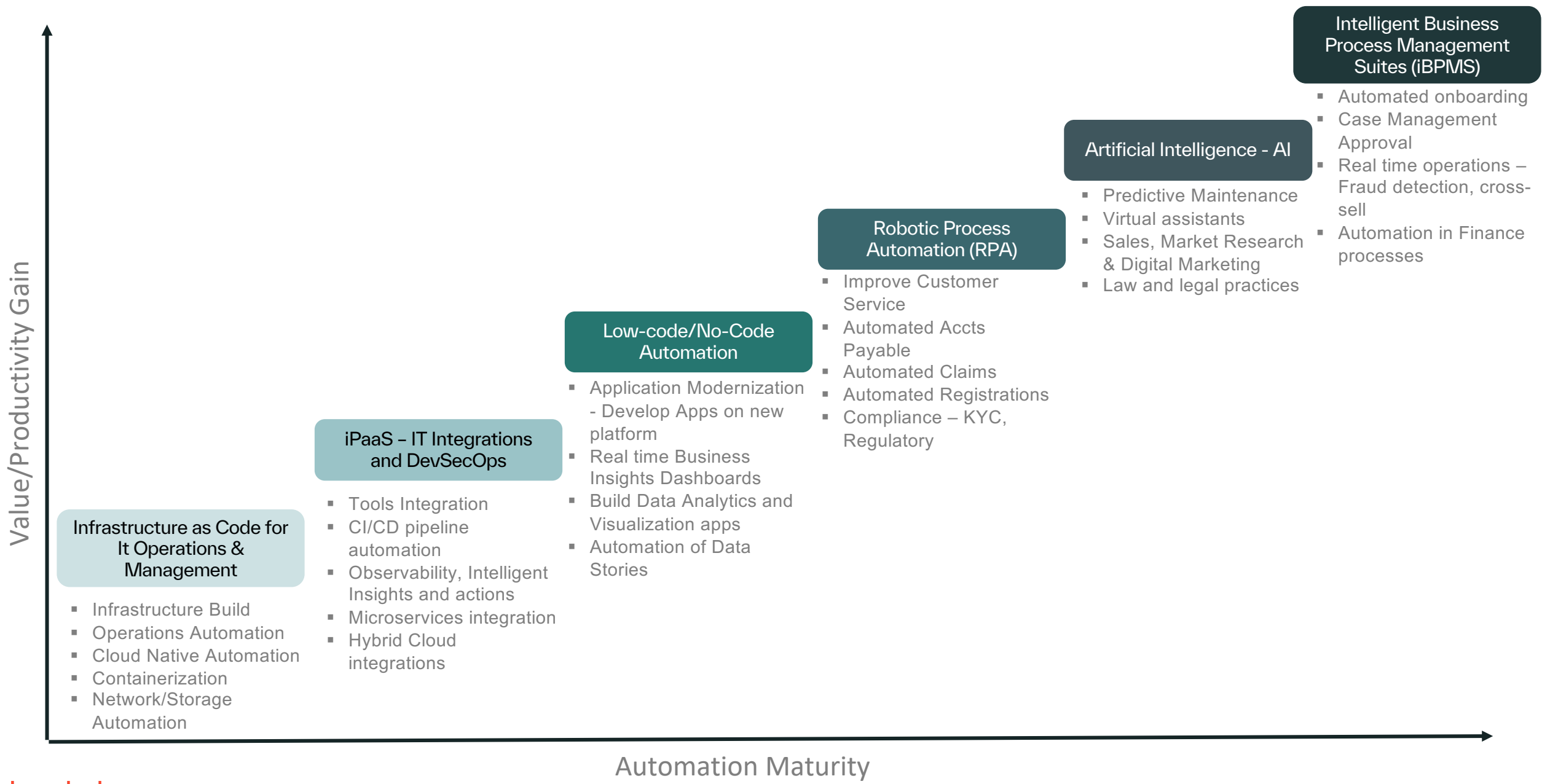
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AUTOMATION IS THE HEART OF THE INFRASTRUCTURE REVOLUTION

I&O leaders must move quickly and carefully to pursue automation:

- Spread DevOps practices through the whole company
- Unlock your team's true potential
- Design a different architecture for speed, scalability, & dependability – microservices
- Integrate multiple flavors of cloud with on-premises technology and edge computing
- Stop "babysitting" your infrastructure
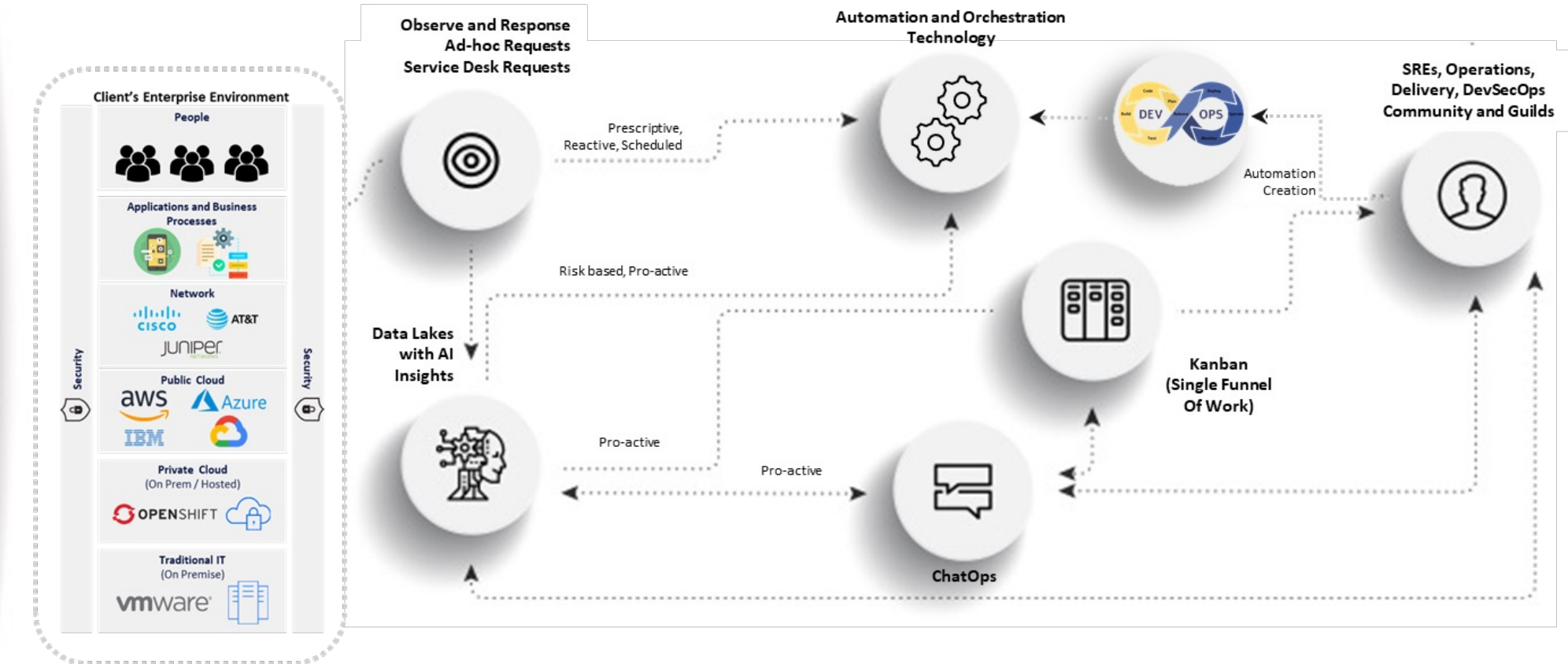- Dramatically reduce manual security and compliance operations

	Declining businesses	Growing businesses
Primary job	Technology babysitter	Technology developer
Working environment	Command-line interface	Software development environment
Primary valued skill	Troubleshooting	Code writing
Focus	Technology silos	Complete customer systems, including applications
Mindset	Deep technology detail	Systems engineering and design thinking
Actions performed by	People	Software

Automation maturity model for enterprises

Value/Productivity Gain (y-axis) / **Automation Maturity** (x-axis)

Infrastructure as Code for It Operations & Management

- Infrastructure Build
- Operations Automation
- Cloud Native Automation
- Containerization
- Network/Storage Automation

iPaaS – IT Integrations and DevSecOps

- Tools Integration
- CI/CD pipeline automation
- Observability, Intelligent Insights and actions
- Microservices integration
- Hybrid Cloud integrations

Low-code/No-Code Automation

- Application Modernization - Develop Apps on new platform
- Real time Business Insights Dashboards
- Build Data Analytics and Visualization apps
- Automation of Data Stories

Robotic Process Automation (RPA)

- Improve Customer Service
- Automated Accts Payable
- Automated Claims
- Automated Registrations
- Compliance – KYC, Regulatory

Artificial Intelligence - AI

- Predictive Maintenance
- Virtual assistants
- Sales, Market Research & Digital Marketing
- Law and legal practices

Intelligent Business Process Management Suites (iBPMS)

- Automated onboarding
- Case Management Approval
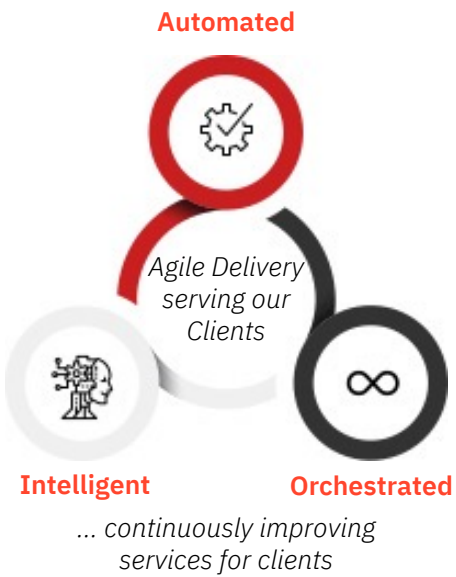- Real time operations – Fraud detection, cross-sell
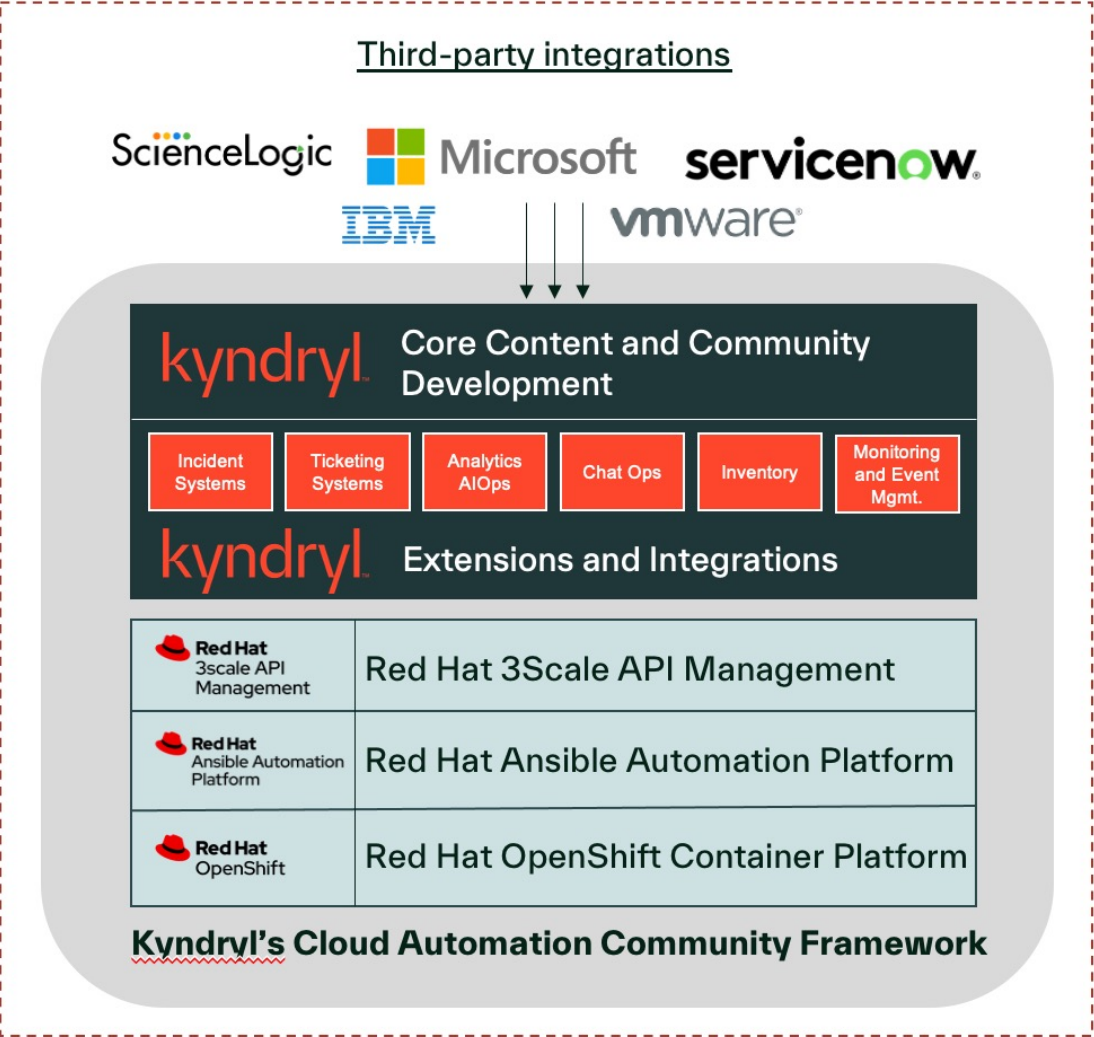- Automation in Finance processes

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Modern enterprises require Intelligent Automation across its estate to enable efficiency, agility, & client satisfaction

Kyndryl Automation Reference Architecture

Automated, Orchestrated, and Intelligent; Moving Us to Zero Touch Principles

Kyndryl's Cloud Automation Community Framework (CACF)

Third-party integrations

ScienceLogic · Microsoft · servicenow · IBM · vmware

kyndryl Core Content and Community Development

| Incident Systems | Ticketing Systems | Analytics AIOps | Chat Ops | Inventory | Monitoring and Event Mgmt. |

kyndryl Extensions and Integrations

Red Hat 3scale API Management	Red Hat 3Scale API Management
Red Hat Ansible Automation Platform	Red Hat Ansible Automation Platform
Red Hat OpenShift	Red Hat OpenShift Container Platform

Kyndryl's Cloud Automation Community Framework

Capabilities

- Automates Day 0, 1, & 2 manual processes for zero touch approach
- Self Heal accelerating productivity and problem resolution
- Incident Remediation, Patch Scanning & Execution, Security & Compliance, Container & Server Build, License Management, and more
- Enables a community model, allowing faster automation deployment and customer specific content creation
- Supports both hybrid and native cloud workloads for journey to cloud

Scale of Solution

- **Largest Ansible Implementation** today, **~600K** connected devices across **~40** shared and dedicated instances worldwide
- **Tens of millions** of automations performed monthly
- **Thousands of automation modules** created via community development approach
- **Thousands of Kyndryl engineers** educated on Ansible and Kyndryl's community model

Customer Value

- Improved speed to execute 'zero day' patching events: reduced timeframe from 72-hour cycle to 6-hour cycle across the estate
- Automated all server Health Check, Security and Compliance checks via Ansible playbooks
- Reduced incident alert volume by 30%

Kyndryl Strategy: Advanced Delivery
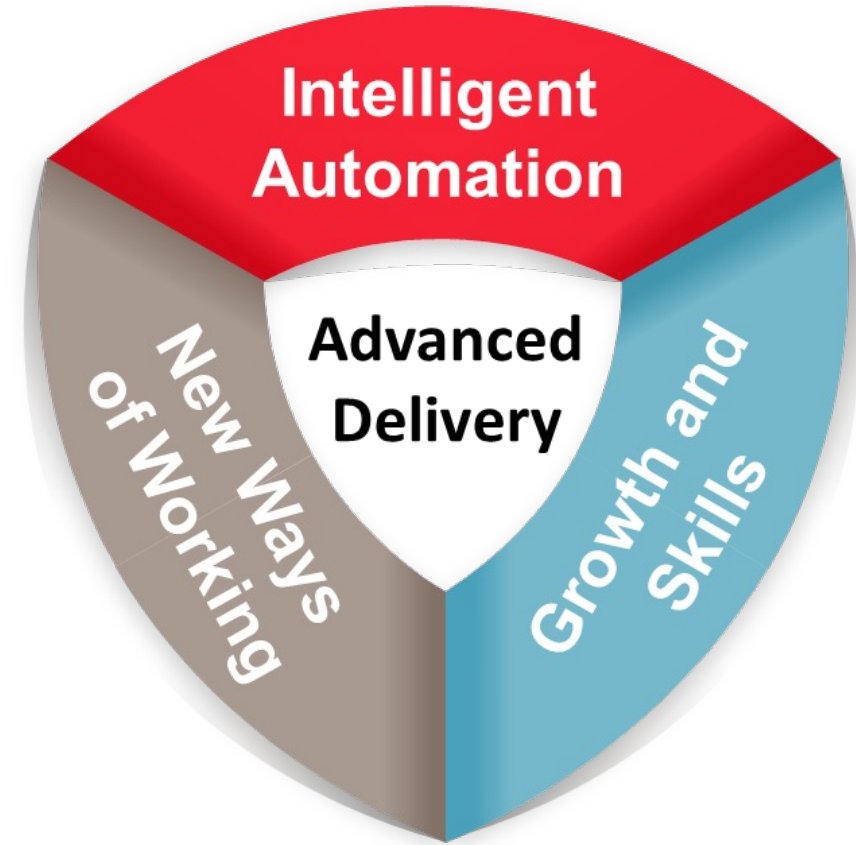
Intelligent Automation

AIOps and automation to drive fully integrated and proactive delivery and transformation.

New Ways of Working

Agile working models to provide proactive solutions, enhanced resiliency, and meaningful innovation.

Growth and Skills

Continuous modernization and upskilling to address increasing complexity and evolving business needs.

Outcomes

- ⊘ Improved service delivery
- ⊘ Reduced downtime
- ⊘ Measurable continuous process improvement
- ⊘ Cost-reduction
- ⊘ Improved end-user experiences
- ⊘ Intelligent innovation and transformation

Advanced Delivery enables our transformation from leader in Intelligent Automation to leader in AIOps

Today

kyndryl bridge

Recognized Leader in Intelligent Automation

- **Millions** of infrastructure components and applications managed with Automation

- **600,000** Compute, Storage, Network, and more devices automated with Ansible

- **20M+ monthly automations** across day 1 and day 2 operations providing enhanced security and compliance, incident remediation, and more

- **Millions** of RPA automations orchestrating IT, service desk, and business processes

- **~2 Exabytes (~2,000,000,000 Gigabytes)** of storage managed with automation

- AIOps driven recommendations for proactive automation to reduce risks and protect IT environments.
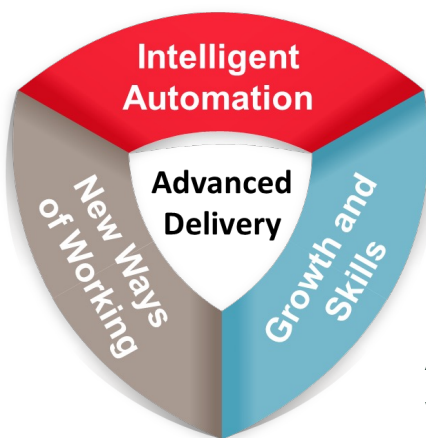
Tomorrow
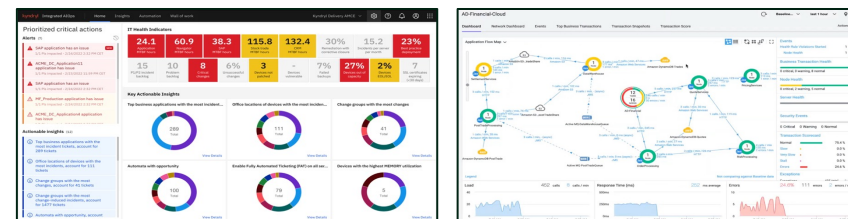
Automated, Orchestrated, and Intelligent via Integrated AIOps

- **Instant** focus to Critical issues with zero touch fix capabilities

- **No transformation needed.** Bring your own data, define your own actionable insights and link them to automation.

- **Risk Management** by deviation of best practices (SpoF, EOS and EOL)

- **Security Management by real-time identification** of threats.

- **Observability** and **Digital Experience** Monitoring.

Intelligent Automation · New Ways of Working · Growth and Skills · Advanced Delivery

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Our Automation is Included in Our BAU Delivery Operations, and Our Scale is Unparalleled Scale in Industry
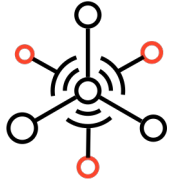
Millions of infrastructure components and applications managed with Automation
Servers, VMs, Containers, Databases, Storage, Middleware, Network Devices, Mainframes, Applications, etc.
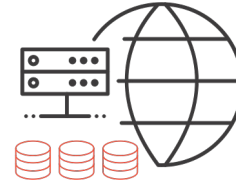
~600,000 Devices
Connected to CACF (Ansible Automation Platform) for Incident Resolution, Patching, Security and Compliance, and more

30,000,000+ Automated Actions per month
Driven through CACF automating Incident remediation, security and compliance, Asset and License Mgmt., Build, etc.
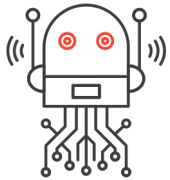
5,000,000+ in a year
RPA process executions orchestrating IT, Business, and Help Desk processes
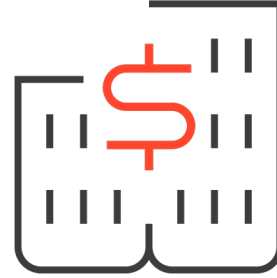
700,000+ servers
Monitoring & Event Management

~2 Exabytes (~2,000,000,000 Gigabytes)
Storage Managed via Automation

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Kyndryl's Automation helps clients grow their top and bottom lines and provides innovation

Revenue Growth
A large retail client was able to open stores in South America 20% faster and more securely by using Kyndryl automation.

Profit Growth
A global shipping company was able add $10M to $15M in profit by using Kyndryl automation to address incident resolution, security and compliance, patching, etc. for their IT estate.

Business Continuity
A Japan client uses our RPA solution to monitor seismic data and automatically engages resiliency protocols when an earthquake occurs.

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Powering business growth with automation

Bord Gáis Energy, Ireland's largest energy provider, supplies gas and electricity to over 750,000 customers.

Its priority is to help customers navigate their way to a lower carbon future with smart digital technologies.

Solution

Kyndryl built a solution with Red Hat Ansible Automation Platform to shift the incident management workload from people to tooling. Kyndryl implemented automated Alert Monitoring and Incident Management resolution and progressively automating security code control. A new AIOps toolkit was also deployed to provide a single pane of glass view across the estate.

Outcomes

A stable and secure platform that can handle requests for new services with fast changing business requirements—all while keeping both internal and external customers happy.

More, better & faster, with same staff & improved cost-efficiency:

- From weeks to 6 hours for a zero-day patch of more than 300 servers

- 40% of all incidents automatically resolved end-to-end

- 0 downtime, no business interruption

"The dynamic automated tooling and environment created by Kyndryl and Red Hat proactively resolved repetitive tasks and automated event incident response and resolution, while consistently enabling operational improvements that ensured customer satisfaction."

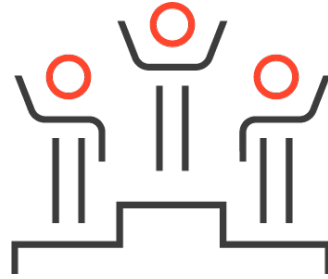**Andy Nason, Head of Service and Infrastructure**

Automation Guild and Community Team's Mission

Quantity
Work across Delivery Centers, Practices, Countries, SREs, etc. to discover and index automation capabilities used across Kyndryl today and co-create automation where needed.
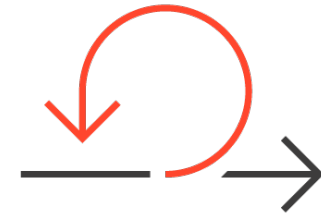
(Hackathons, incentives/badges, awards, account co-creation)

Quality
Create and promote standards across the community to ensure the automation running in our accounts has the highest level of confidence and lowest level of difficultly.

(Automation maturity model, quality checking tools, building blocks for standard automation creation, dashboards)

Reuse
Ensure teams can easily find and use existing automation to solve the use case. Avoid "recreating the wheel" over and over again.

(Standardized use case catalogs, search platform, newsletters, account)

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Kyndryl Automation Professional Services

Our values

Kyndryl Automation Professional Services helps enterprises with the adoption of cloud automation:

- Providing multi-skilled cloud automation experts across all major Hyperscalers (Microsoft Azure, AWS and Google Cloud) and private cloud environments

- Offering a rich set of Infrastructure-as-Code accelerators to help enterprises gain ~90% efficiency in provisioning virtual infrastructure needs

- Helping converge fragmented automation initiatives y enabling an automation fabric for enterprises

- Accelerating our customers' automation journey through a rich bouquet of standard ready-to-use technology agnostic automation assets

- Accelerating and integrating business processes based on customer needs through ad-hoc, custom automation

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Accelerate return on cloud investments through Kyndryl's Innovative market-leading solutions and services
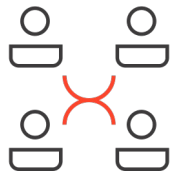
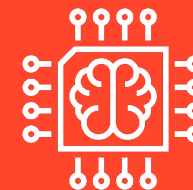|		
Advisory Services	**Implementation Services**	**Management Services**

Few Examples:

Optimized Infrastructures for specialty workloads including Edge, Big Data / Analytics, AI/ML and VDI

Automation Content for Process Automation Management, Cloud and Edge Solutions

Intelligent automations for Application migrations, modernizations and managed services

Ansible Automation

Speed up automation with our Ansible Automation Journey

Validation phase demonstrates the value of our solution, aligned with your specific needs

Kyndryl Quick Start Module for Ansible Automation

Content

Automation Workshop

Understand objectives of the automation, identify 1-2 use cases

Proof of Value

Deploy Kyndryl Ansible Automation Platform in your environment
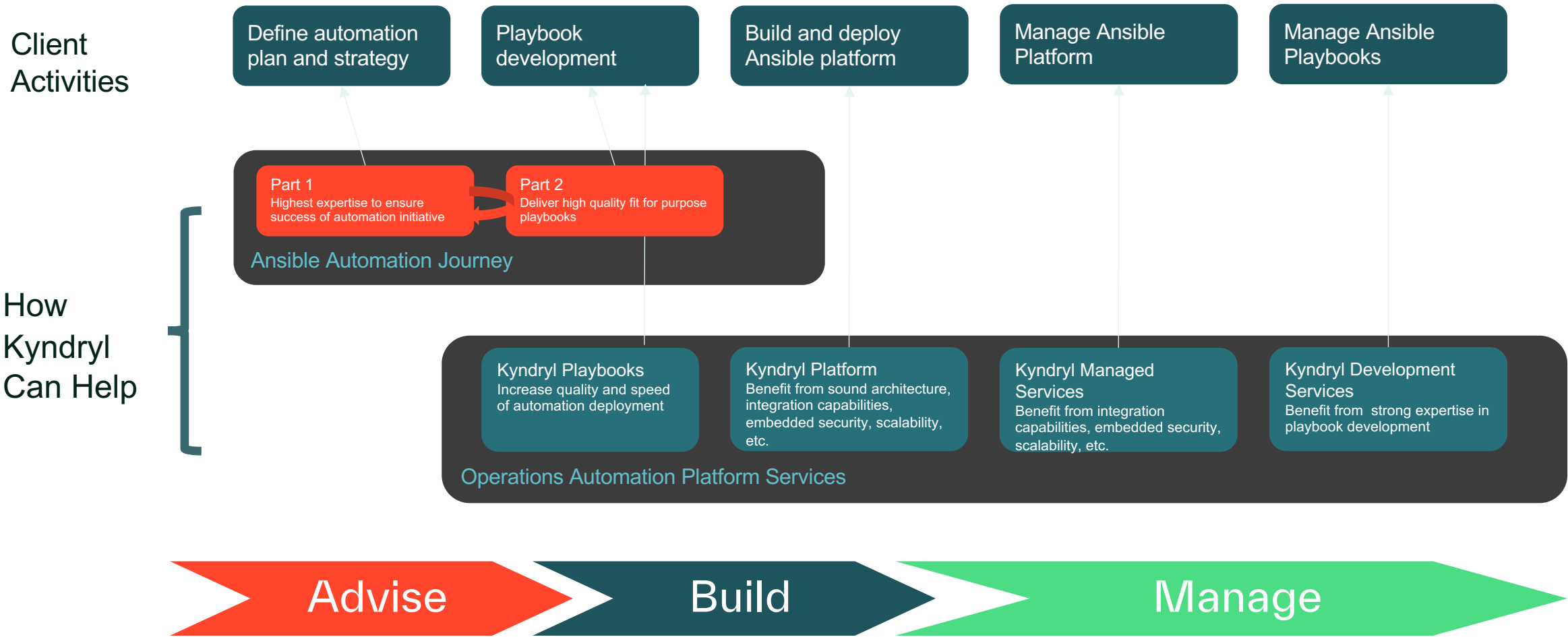
Create and deploy two automation playbooks

Benefits

- Achieve savings and improve service quality by automating two of your use-cases
- Experience the value Kyndryl Automation Services within your own IT environment
- Understand how Kyndryl expertise can help you on your Automation Journey

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End-to-end journey of our customer with Kyndryl Automation Platform Offering

Quick Start Module - Ansible Automation

Client Activities

Define automation plan and strategy

Playbook development

Build and deploy Ansible platform

Manage Ansible Platform

Manage Ansible Playbooks

How Kyndryl Can Help

Part 1
Highest expertise to ensure success of automation initiative

Part 2
Deliver high quality fit for purpose playbooks

Ansible Automation Journey

Kyndryl Playbooks
Increase quality and speed of automation deployment

Kyndryl Platform
Benefit from sound architecture, integration capabilities, embedded security, scalability, etc.

Kyndryl Managed Services
Benefit from integration capabilities, embedded security, scalability, etc.

Kyndryl Development Services
Benefit from strong expertise in playbook development

Operations Automation Platform Services

Advise → **Build** → **Manage**

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Kyndryl Automation offerings with Ansible focus

Quick Start Module - Ansible Automation

Ansible Automation Journey (AAJ)

(Advise pillar offering)

➡️ Provide clients a systematic adoption plan for Ansible automation using Agile methodologies and help establish a proof of value (POV) setup for initial automation use cases (MVP)

Operations Automation Platform Service (OAPS)

(Build & Manage pillar offering)

➡️ Operations Automation Platform Services offering enables clients automate IT Operations service workflows & tasks in their hybrid Multicloud environments using Red Hat Ansible Automation Platform

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The Kyndryl Quick Start Module for Ansible Automation provides you with an avenue for heralding an automation culture to your IT Operations team

Why this is important now?

- The size of IT is expanding while the size of IT Operations Organizations are shrinking, automation is the only way to keep up

- Traditional, proprietary IT automation tools encourage lock-in and enforce legacy processes

- Ansible allows you to harness the work of thousands of OpenSource developers and build a culture of Site Reliability Engineering (SRE) and DevOps

- Without assistance, experience and consultant guidance this voyage can take months or years to develop, sacrificing a competitive edge

Make the first win in your automation journey a big one. Kyndryl will install Ansible and complete one of your biggest automation challenges:

- One less headache, and the foundation to build your new DevOps culture

- Expand that foundation by providing a backlog of automation opportunities.

Key Business Benefits

- A jumpstart in adopting Ansible automation with a minimal investment

- Speed & Agility that allows developers to integrate with their existing DevOps environment

- Provide an open, secure, portable platform for flexibility, security and scalability

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Thank You