



Assuring digital transformation  
with the world's first and only AI-led  
integrated service assurance platform



# Introduction

IT has become one of the most important components of modern business, supporting operations, providing major sources of revenue, and increasing efficiency. However, as IT becomes more central, it becomes more complex and impacts a growing number of business functions. This makes it difficult for companies to manage scale, speed and cost. The numerous tools that manage different facets of IT make it challenging for human workers to keep up, causing problems that go unresolved and inefficiencies that go unnoticed.

These difficulties can impede a company's growth and slow innovation, making them more likely to be surpassed by an agile competitor. To ensure that IT operations are run as effectively as possible, it is critical that companies incorporate autonomies and orchestration into their IT ops strategy. This can help increase the speed of issue resolution, allow for greater scalability, and reduce operating costs, allowing companies to innovate and achieve their business goals.

## How iAssure can help organizations manage IT operations more effectively

iAssure dramatically transforms IT operations, letting artificial intelligence take the lead in management. Unlike previous automation solutions that simply aided human workers in IT operations, iAssure puts advanced artificial intelligence in charge of most tasks, minimizing required human input. There is no need for direct interface with difficult to use systems; for example, the IT team can simply interact with iEngage, one of the five foundational layers for iAssure, which uses advanced natural language processing capabilities to understand tasks and requests in the IT domain. The platform covers all IT operations, from cloud computing to servers, storage, networks, security, end-user computing, and IoT. It also covers service management functions, including knowledge management, incident resolution, and user requests. This helps companies drive predictability, visibility, control and effectiveness – while reducing costs.



# The challenges of digital age IT

Although companies have reaped substantial benefits from investments in IT infrastructure, solutions, and services, they also have added substantial complexity into the organization. IT systems are integrating a wider range of components and utilizing a growing number of deployment options. With changing technologies and service models, companies face a growing number of choices about management, automation strategies, and ownership. In order to overcome these issues, companies must innovate and take steps to simplify their operations. By implementing solutions to help them reduce IT operations workload and improve performance, companies can meet these challenges and be better equipped for the future.

## Increasing complexity of IT

Perhaps the greatest challenge of modern IT is its complexity. This complexity manifests itself in several ways, including an increasing number of deployment options, more complicated infrastructure, and more intricate applications. Together, these issues make it extremely difficult to manage IT operations across the enterprise, increasing the possibility of mistakes and requiring substantially greater investment in IT resources and labor.

### Innovate and simplify.

*Choosing the right solutions is the first step in preparing for an increasingly complex IT future.*

- **Diverse deployment options** – IT applications and services can be deployed in a wide range of ways. On-site private cloud, software-as-a-service, infrastructure-as-a-service, public cloud, and hybrid cloud all have viable use cases. To choose correctly, companies must thoroughly understand their goals and capabilities. The diverse range of options also makes IT much more difficult to manage, particularly for companies utilizing multiple deployment models. In many cases, a range of tools and in-depth expertise are necessary to effectively oversee operations across all deployments, adding cost and consuming time.
- **Mobile workforce** – The advent of mobile technology has added to the complexity of IT operations. The IT group doesn't just manage on-site IT resources but is responsible for integrating a wide range of mobile devices, many of which belong to employees. This presents substantial security and compatibility risks, as user devices may not be updated regularly and use a more diverse range of applications and operating systems.
- **Growing number of applications and services** – As IT becomes a more integral part of business, end users are demanding an increasing number of applications and services. This growth makes IT operations more challenging for a range of reasons. Modern IT teams struggle to oversee the details of all IT operations as there are simply too many components, too many data points, and too many potential problems. With a surge in users, applications and services, the IT team simply cannot keep up. This can lead to growing ticket queues, inefficiency, and a wide range of other issues that impede business.

## Growing dependence on IT

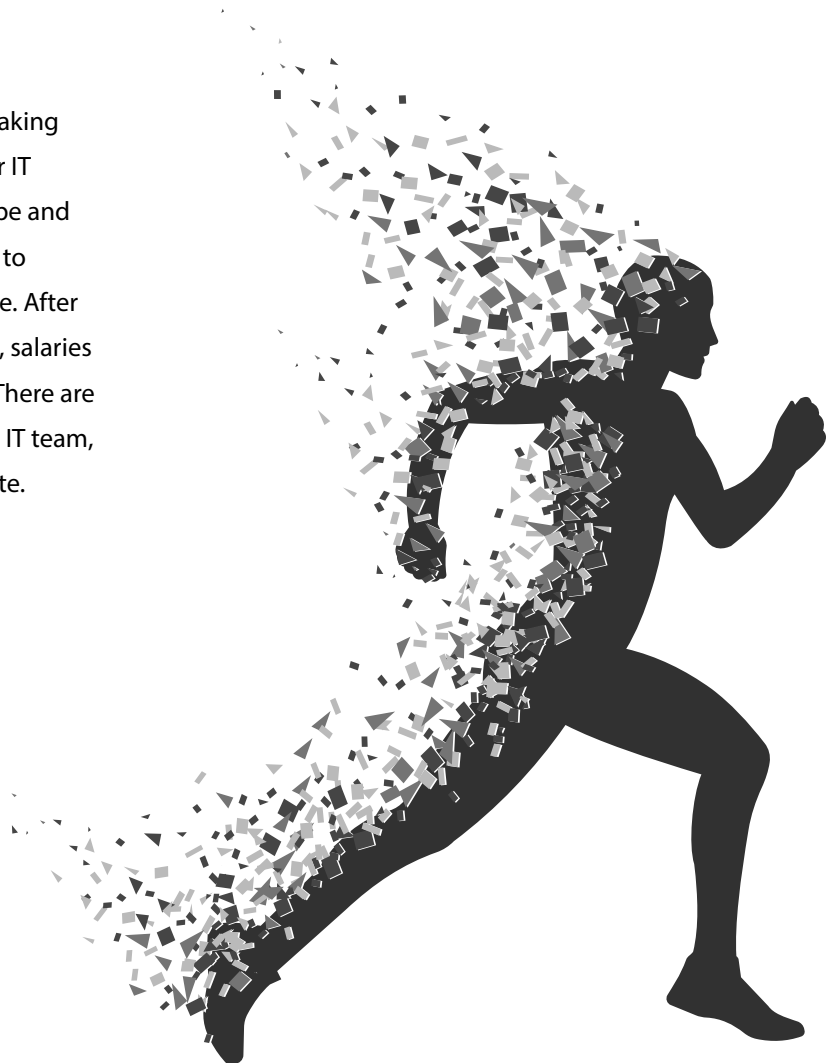
As IT becomes more complex, it also is becoming more important to the business. This means that downtime, inefficiency, and errors are more costly. One recent study found that nearly a third of organizations say one hour of downtime costs between \$1 million and \$5 million. These costs have grown exponentially as an increasing amount of business activities depend on IT services and applications. When these are not available, employees can't make sales, inventory can't be produced, and customer issues can't be resolved. This has a major impact not just on immediate revenue, but on long-term brand strength as well.

## Growing costs of labor

The cost of labor has been growing worldwide, making it substantially more expensive to support a larger IT ecosystem. IT wages have long been high in Europe and North America, but the costs of outsourcing work to offshore locations has been growing at a rapid rate. After three consecutive years of 10%+ annual increases, salaries in India are projected to increase 10.0% in 2018.<sup>1</sup> There are fewer and fewer cost-effective ways to bolster the IT team, causing operating costs to grow at an alarming rate.

## Error prone IT workers

Human workers are not perfect. When working with complex systems and large data sets, they will inevitably make mistakes. Given the high costs of downtime, these mistakes can be incredibly destructive. The likelihood of mistake can also increase dramatically when the IT team is overburdened with an overly large and complicated ecosystem. As the costs of labor increases and IT systems become increasingly complex, it is likely that mistakes will become more problematic and have a larger impact on the enterprise in the future.



[1] <https://www.willistowerswatson.com/en/press/2017/11/India-to-see-a-10-percent-salary-increase-in-2018-Willis-Towers-Watson-survey>

# How iAssure transforms and simplifies IT operations in the digital age

Given the significant challenges of modern IT operations, companies must innovate in order to remain competitive. Increasingly, this means looking to automated solutions that can augment the capabilities of the IT team.

Utilizing automation can help companies increase efficiency, improve reliability, and simplify operations. However, many automation tools are difficult to integrate into the workflow and do not provide the expected outcomes. To avoid these issues, it is critical that companies choose a comprehensive, fully orchestrated solution that provides end-to-end automation.

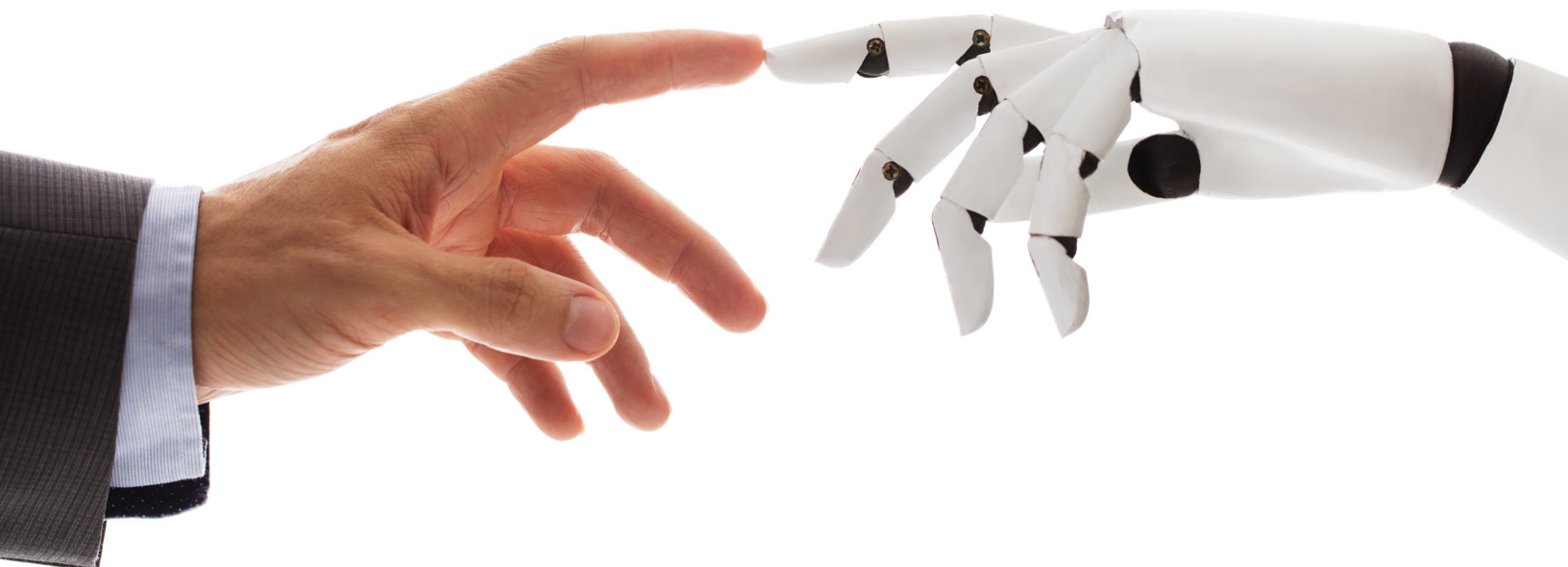
## The problem with traditional process automation

Automation can dramatically reshape the IT operations landscape by increasing efficiency and reducing errors. However, many automation solutions suffer from subpar usability, siloed systems, and a lack of focus on outcomes. Many solutions have the right features, but are difficult for end users to implement into their workflow. This creates a situation in which systems go unused or add to the difficulty of finishing tasks. This problem can be made even worse when systems are heavily siloed, making them more difficult to manage, control, and use in collaboration. Having a centralized platform with a focus on outcomes is key to ensuring that the automation solution helps achieve business objectives.

## How iAssure solves automation challenges

DRYiCE iAssure helps solve the problems of traditional process automation solutions by bringing standardization and automation to the entire IT operations landscape. The solution differs from other competing automation tools in that it combines backend process automation with easy-to-use front-end components, creating a seamless experience.

These tools are simple to use and interact with, allowing the team to work in a natural way. iAssure takes the lead in operations, helping to augment the capabilities of the IT team, allowing them to do more with less. The platform can analyze thousands of documents, network infrastructures, and statuses in a fraction of the time of a human worker, allowing companies to reduce labor costs, increase efficiency, and simplify operations.



# 1

## iEngage

The iEngage layer utilizes a cognitive virtual assistant with robust natural language processing. This allows users to easily make requests and get feedback without directly interfacing with error-prone human workers. A user can interact with iEngage and the system will manage the complex back-end processes. iEngage is accessible through its own web interface, as well as Facebook Messenger, Skype, Slack, Amazon Alexa, Google Voice, and a range of other communication platforms. This allows users to interface with the system in the same way they would with one of their colleagues.

# 2

## iVisualize

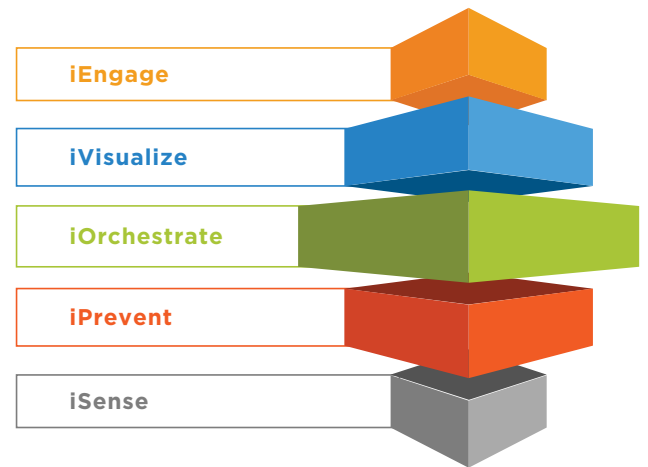
iVisualize allows data to be collected and analyzed easily. Information can be gathered in real time about problem incidence, system performance, and whether or not operations were completed successfully. This allows IT leaders to make better decisions about operations, improve efficiency, and identify problem areas. iAssure is also able to react to this data automatically, resolving issues and optimizing without human input.

# 3

## iOrchestrate

iAssure works with the company's existing systems via the iOrchestrate layer, allowing digital systems to be controlled with process automation solutions. This allows routine tasks to be rapidly performed, with minimal errors. It also allows common IT issues to be resolved automatically, with little to no human intervention, allowing for a lean and agile lifecycle. It also ensures modernized service consumption through end-to-end automation and orchestration, which enables launching of new services that can be consumed by the enterprise users.

### Foundational layers of iAssure



# 4

## iPrevent

This layer utilizes machine learning. iPrevent is an AI-led automation that predicts threats that could disrupt IT operations, and takes action to prevent them. iPrevent works with the monitoring data captured in the iSense layer and runs analytics to gauge potential problems.

# 5

## iSense

iSense is the foundational layer that enables organizations to seamlessly connect to – and provide insights into – its complex and evolving environment. This involves data centers, networks, applications, enterprise systems, security and machines. The enormous data generated from this environment is closely monitored by the iSense layer. It senses any anomalies that occur through real-time monitoring, and triggers appropriate automated actions to resolve issues.



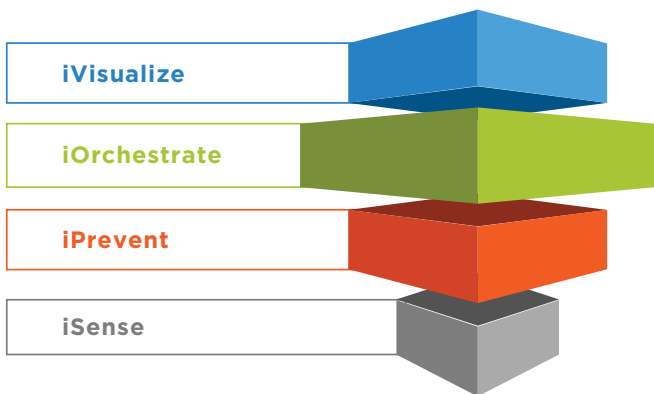
# iAssure use cases

iAssure takes the lead in IT operations, expanding the scope of viable use cases for automation. From service integration to complex customizations, iAssure has the ability to transform enterprise operations. Below are just some of the many innovative applications of iAssure:

## Hybrid Cloud

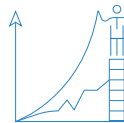
While hybrid cloud environments bring flexibility and scale, they come with some inherent challenges. Enterprises face hurdles such as management complexity, limited visibility and control, legal and technology compliance, workload management, and high management costs. How does iAssure solve this?

### ACTIVATED LAYERS



### Benefits of using iAssure

#### Efficiency



- Reduced incidents through auto-remediation
- Highly automated operations (1500+ predefined, preconfigured automation runbooks)
- Quicker RCA through machine learning

#### Efficacy



- Better MTTR through auto and assisted resolution (150+ pre-defined, pre-configured workflows and business rules)
- Improved FTR through event lifecycle automation
- Executive decision support through predictive advanced analytics
- View and control public and private environments through a single console
- Inherent compliance through policy enforcement and control

#### ROI



- Simpler management by replacing point tools
- Lower cost through automation
- Cost savings through auto harvesting of VMs and software licenses

## Case Study

### F200 US manufacturer reduced server provisioning time from 21 days to 4 hours

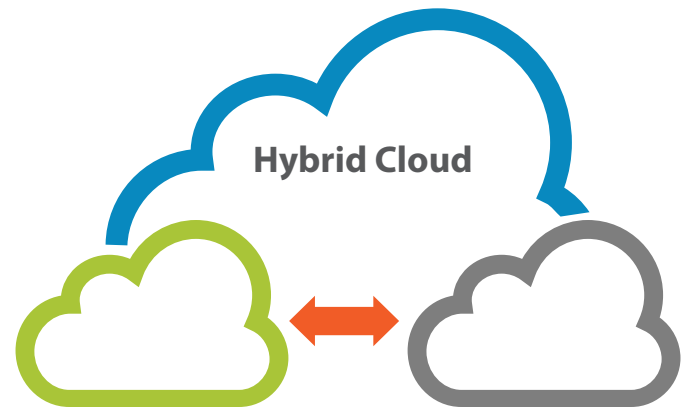
#### A F200 US MAJOR

With a revenue of USD 20B+ that manufactures & services engines and related equipment including filtration, & power generation products. It also designs and distributes them to over 190 countries.

#### GLOBAL CHALLENGES

Dependency on manual operational procedures enhanced the chances of errors and lowered the efficiency level of the corporation. The datacenter required an overhaul to make the workflow more agile. The challenges faced by the client include:

- Inefficient data centers causing major carbon footprint in the existing landscape. Client failed to optimally utilize the five data centres they owned, as they functioned in silos.
- Though client had a shared service organization to enable “as-a-service” model for multiple IT infrastructure projects & responsibilities but was relying heavily on unstructured and manual processes.
- Inability to focus on its organizational strategy i.e. customer experience and global markets, owing to slow pace of IT adoption in the organization
- Manual IT asset provisioning process was slow, error-prone, lacked agility resulting in reduced operational efficiency of IT employees and business users.



#### HYBRID CLOUD SOLUTION

DRYiCE iAssure service assurance platform leveraged automation to help detect cost spikes, & provide deep visibility into cloud consumption. The platform helped automate its existing workflow, thus, boosting the overall operational efficiency. The highlights of the solution include:

- Automated cloud provisioning across hybrid environments. All five data centres which were operating in silos were integrated.
- Enabled ‘one click catalogue system’ for provisioning and decommissioning of IT assets. The new catalogue provided the end-user a shopping cart-like experience, thereby delivering customer delight.
- Provided customizable and dynamic web-based user Platform for accurate cost estimations and personalized reporting dashboards for both business users and IT staff

#### IMPACT DELIVERED

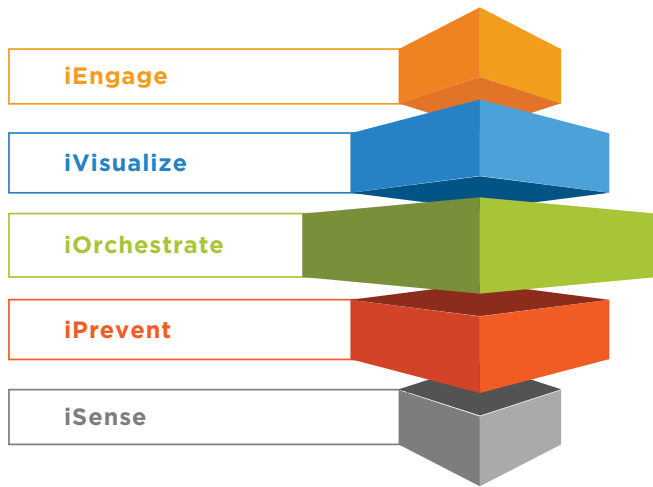
- Average server provisioning time was brought down from 21 days to 4 hours
- Enhanced customer experience and reduction in manual efforts
- 100% automation for server deployment
- Provided digital business-IT interface to plan, provision, customize, and de-provision resources for the ease of users



# IT Automation

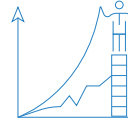
Automation in an enterprise is not something new, but these are often point-based – which can cripple an enterprise with multiple challenges. These include: complexity due to multiple existing tools, absence of insights, inconsistent user experience, and high human dependency. How does iAssure solve this?

## ACTIVATED LAYERS



## Benefits of using iAssure

### Efficiency



- Reduced incidents through auto-remediation
- Highly automated operations (1500+ predefined, preconfigured automation runbooks)
- Quicker RCA through machine learning

### Efficacy



- Better MTTR through auto and assisted resolution (150+ pre-defined, pre-configured workflows and business rules)
- Improved FTR through event lifecycle automation
- Executive decision support through predictive advanced analytics
- Enhanced user experience through AI based assistance (50+ pre-defined and pre-configured collaboration and communication packs)

### ROI



- Simpler management by replacing point tools
- Lower cost through automation

# Legacy ITSM and Complex Customizations

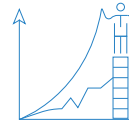
Enterprises with both primitive and complex ITSM systems are often plagued by inefficient service management, difficulty in fulfilling audit and compliance requirements, a lack of a unified view of operations and services, and substandard user experience. They may also have difficulty deploying tools that depend on complex customizations, upgrades and maintenance. How does iAssure solve this?

## ACTIVATED LAYERS



## Benefits of using iAssure

### Efficiency



- Reduced incidents through auto-remediation
- Highly automated operations (1500+ predefined, preconfigured automation runbooks)

### Efficacy



- Better MTTR through auto and assisted resolution (150+ pre-defined, pre-configured workflows and business rules)
- Enhanced user experience through self service and cognitive assistant
- Executive decision support through predictive advanced analytics
- Inherent compliance through policy enforcement and control

### ROI



- Simpler management by replacing point tools
- Cost savings through reduction in manual efforts

# Service Integration & Management

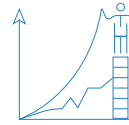
An explosion in the demand for services has led to an exponential rise in the number of enterprise vendors. This has led to increased pressure on IT to manage multi-vendor catalog sprawl (for IT and non-IT), support for bi-modal IT operations, limited reporting and visibility, etc. Additional challenges like multiple systems of engagement for users, delayed benefit realization, and missing critical features in OOB tools have become major hurdles. How does iAssure solve this?

## ACTIVATED LAYERS



## Benefits of using iAssure

### Efficiency



- Reduction in deployment time through preconfigured workflows (IT and non-IT)
- Faster supplier onboarding/off-boarding through automated policies (24 predefined process modules enabling multi-supplier integration)

### Efficacy



- Better MTTR through auto and assisted resolution (case frames and BM25-enabled cognitive enterprise 3.0 collaboration platform)
- Self-service and AI-driven user experience (50+ predefined and preconfigured collaboration and communication packs)
- Executive decision support through predictive advanced analytics
- Inherent compliance through policy enforcement and control
- Improved SLA compliance enabled through a robust OLA and UC framework

### ROI



- Simpler management by replacing point tools
- Cost savings through auto harvesting of VMs and software licenses
- Better power to negotiate enabled by improved vendor visibility



## Conclusion

iAssure brings simplicity and efficiency to the increasingly complex world of IT operations. By combining high-level user experience with low-level tasks that cover the entire scope of IT operations, iAssure can reduce costs and deliver a better experience for end users.

With its natural-language-based user interface enabled by iEngage, users can simply make requests and have tasks be performed automatically via back-end process automation. Systems can be automatically optimized, adjusted, and repaired based on data-stream processing, machine learning, and preset triggers, which frees IT teams to focus on higher value tasks.

IT operations will only continue to become more complex, costly, and unmanageable if companies do not take innovative steps to control them. With greater reliance on large IT systems, companies must employ more workers or find ways to better leverage their existing workforce. By implementing an effective, unified automation solution that lets AI take the lead, companies can take charge of IT operations and stay competitive in the coming years.



## ABOUT THE SPONSOR

DRYiCE is a division of HCL Technologies that is focused on building AI-powered products & platforms for the digital world, with the vision of transforming & simplifying enterprise IT, Business & Digital operations. These products & platforms leverage the world's best A.I. technology, IT automation, and robotic process automation to enable enterprises to operate leaner, faster, and in a cost-efficient manner, while ensuring superior business outcomes. Our vision focuses on: AI-led Service Assurance, Enabling a Service Oriented Enterprise, and Driving Enterprise-wide Digital Agility. To know more about DRYiCE, click [here](#).

HCL Technologies (HCL) is a leading global technology company that helps global enterprises re-imagine and transform their businesses through Digital technology transformation. HCL operates out of 41 countries and has consolidated revenues of US\$ 8.0 billion, for 12 Months ended 30th June, 2018. HCL focuses on providing an integrated portfolio of services underlined by its Mode 1–2–3 growth strategy.

Mode 1 encompasses the core services in the areas of Applications, Infrastructure, BPO and Engineering & R&D services, leveraging DRYiCETM Autonomics to transform clients' business and IT landscape, making them 'lean' and 'agile'. Mode 2 focuses on experience-centric and outcome-oriented integrated offerings of Digital & Analytics, IoT WoRKS™, Cloud Native Services and Cybersecurity & GRC services to drive business outcomes and enable enterprise digitalization.

Mode 3 strategy is ecosystem-driven, creating innovative IP-partnerships to build products and platforms business. HCL leverages its global network of integrated co-innovation labs and global delivery capabilities to provide holistic multi-service delivery in key industry verticals including Financial Services, Manufacturing, Telecommunications, Media, Publishing, Entertainment, Retail & CPG, Life Sciences & Healthcare, Oil & Gas, Energy & Utilities, Travel, Transportation & Logistics and Government. With 124,121 professionals from diverse nationalities, HCL focuses on creating real value for customers by taking 'Relationships Beyond the Contract'.

For more information, please visit [www.hcltech.com](http://www.hcltech.com).



## ABOUT IRPA AI

Founded in 2013, the Institute for Robotic Process Automation and Artificial Intelligence (IRPA AI) is an independent professional association and knowledge forum for the buyers, sellers, influencers, and analysts of robotic process automation, cognitive computing, and artificial intelligence.

Our global network and advisory services offer leading-edge market intelligence, industry research, sourcing assistance, and events, as well as offering opportunities to learn and network with stakeholders across service industry functions.

To learn more, please visit [www.irpaai.com](http://www.irpaai.com).