CLOUD: A TRANSFORMATION TOOL FOR THE WASTE MANAGEMENT INDUSTRY

Abstract

Cloud has proved itself to be the underlying force that has helped organizations survive the COVID-19 pandemic. It is now time for waste management companies to leverage the capabilities of the cloud and transition to the next advanced digital level – that of being agile, responsive, and data-driven. This perspective paper looks at how the waste management industry can benefit from cloud capabilities, and the differences cloud can bring to handling waste management operation.

Cloud transformation for any customer poses a few challenges, especially in the initial stages. To simplify the cloud transformation journey Infosys Cobalt is a one-stop solution to get the industry best practices and guidance from leaders of the industry. This point of view examines the key features of Infosys Cobalt and the many benefits it offers waste management players.

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Introduction

Since the onset of COVID-19, the one global constant is disruption. Just as people settled into the new normal with hopes of successful vaccines, second and third waves of infection from new strains of the virus are emerging across the globe. The ability to survive disruption requires strategic thinking supported by the right technologies. In response to COVID-19, many industries reorganized their supply chains, implemented remote and virtual operating models, and made tough financial decisions. These actions hold valuable lessons for the waste management industry.

Cloud for waste management

Traditional operations and ways of working are still widely practiced among waste management companies. With an aging workforce nearing retirement, these companies are also at risk of losing industry-specific knowledge as experienced professionals hang up their boots. There is thus tremendous value to be gained in capturing, storing, and forwarding this knowledge to the next generation of employees and this can be achieved by transitioning to the cloud.

Cloud programs are maturing in other sectors, which gives waste management players access to existing solution blueprints that are proven to deliver value. Cloud-enabled solutions for customer relationship management (from the banking and finance industry), asset maintenance (from telecommunications), fleet management (from supply chain and logistics), and energy conservation (from the utilities sector) can be easily modified and adapted for the waste management industry, allowing enterprises to leapfrog ahead in their cloud transformation journeys. Cloud has the potential to enable vendors in the waste management ecosystem to customize their services and experiences to customers. Global templates can be easily rolled out and standardized to streamline operations.

Challenges in the waste management industry that can be addressed by cloud

Cloud is a unifying technology that allows waste management companies to address domain, business, and operational challenges. It can reduce operational costs through digital-first waste collection and maintenance solutions like dynamic routing, predictive maintenance, sensors for on-time collection, and enterprise
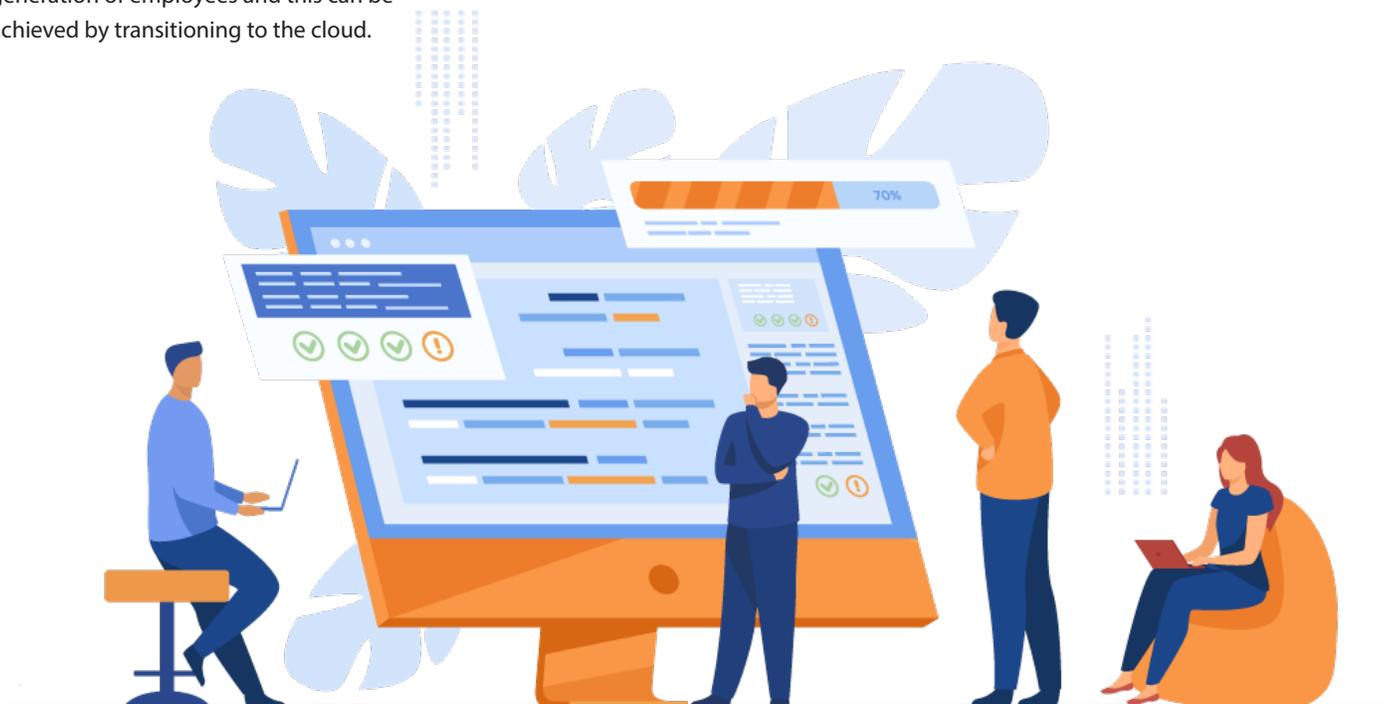
asset management. Capabilities like predictive modeling based on big data analytics support predictive waste collection so that companies can better handle large and increasing volumes of waste. Advanced technologies powered by the cloud can enable robotic waste segregation and, AI-based waste sorting which makes this tedious job simple, efficient, and with minimal human intervention.

From a business standpoint, the cloud offers a standardized operating model and microservices-based architecture, thus enabling integrated platforms and ecosystems that come about post mergers and acquisitions.

From a customer perspective, the cloud facilitates next-gen customer service by overcoming fragmented back-office operations through automation and shared services. Apart from improving the user experience.

Cloud-driven learning ensures employees get access to anytime, anywhere training so that they are up to date on safety and able to comply with changing local regulations. It supports talent and workforce management.

To empower waste management enterprises with a robust solution suite Infosys has launched Infosys Cobalt.

Modernize waste management with Infosys Cobalt

Infosys Cobalt is a set of services, solutions, and platforms that acts as a force multiplier for cloud-powered enterprise transformation. It helps companies:

- Expand innovation by reaping the full potential of the cloud ecosystem to unlock new opportunities and increase business value

- Achieve speed to market through ready access to Infosys Cobalt Store, Cobalt Labs, and the Cobalt community

- Be secure with single-point accountability and easy compliance with strict global, regional, and industry regulations and security standards
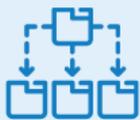
Infosys Cobalt uses automation and a full suite of tools to achieve service and operational efficiencies. It harmonizes processes, modernizes legacy, and rationalizes applications, thereby reducing technology debt. The integrated vendor, services, and software model guarantees 40-50% cost savings along with value-based pricing models.

Infosys Cobalt uses a persona-based approach to deliver IT services. Short-duration pre-packaged solutions and frameworks foster rapid onboarding to cloud. It also encourages always-on learning through a dedicated academy. In future, companies can achieve DevOps maturity, too, through our suite of tools and accelerators. Armed with Infosys frameworks, companies can de-risk their migration and realize value immediately.

Key elements of Infosys Cobalt

- **Infosys Cobalt community**
  A set of environments to create and share solutions and cloud assets.

- **Infosys Cobalt Store**
  A growing collection of 200+ industry solution blueprints and 14,000+ assets for business, engineering, knowledge and learning.

- **Infosys Cobalt Labs**
  A platform where ideas, solutions and platforms are democratized for partners and clients.

HOW DO WE HELP CLIENTS GAIN 40-50% SAVINGS?

Vendor Consolidation

Facilitate reduction in cost of operations, bring in procurement and sourcing efficiencies and integrated service management

Services Cost Optimization

Bring in service cost optimization via cognitive live enterprise, right shoring and shared/cross skilled teams

Software Cost Optimization

Software selection, build vs buy decision making and application portfolio rationalization

Legacy Modernization

Process simplification frameworks, technical debt reduction and automations

Areas of application

With Infosys Cobalt, waste management companies can get on cloud, deploy proven solutions, and reap measurable benefits across the waste management value chain. Some key areas of application are:

- **Knowledge Transfer**
  Community cloud talent can codify the knowledge and experience of waste management experts into best practices and use these to develop relevant solutions for waste management.

The common platform will allow various stakeholders like waste management staff and leaders as well as cloud professionals to share findings, solve challenges, and brainstorm digital applications.

- **Reimagine business models**
  By enabling easy onboarding for ecosystem partners, cloud can enable enterprises in this industry to reorganize themselves and achieve circular waste management. Cloud provides a strong foundation to test new technologies like robotics and IoT for waste collection and segregation.

- **Build contextualized services** Infosys applied AI cloud and our AI Center of Excellence give waste management companies quick and easy access to AI hardware and software stacks across private and public clouds so they can create personalized, AI-first services for their business needs.

- **Single point accountability**
  With the Infosys cloud platform, waste management enterprises get access to a single point of truth across the enterprise. As security is built into the ecosystem design, this improves the efficiency of the data accessed, shared, and analyzed.

Conclusion

To address the world's growing waste crisis, waste management companies must deploy technologies that allow for the easy rollout of applications, enable anywhere, anytime access to them, store data centrally, and facilitate analysis of this data. Cloud is the technology that can help roll out proven solutions across back-end, logistics, waste segregation, and more. Infosys Cobalt combines a community of cloud experts with an entire repository of cloud assets and solutions for de-risked migrations and adoption. It can enable waste management companies to position themselves for further growth by transforming with cloud.

About the Authors

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Dr. Arun heads the domain consulting group for Energy, Utilities, and Services at Infosys. He has over 27 years of Consulting, Global Leadership, and Software Delivery experience. His core expertise is in assisting clients in the Energy Utility and Services industries.

Chand Bajaj, *Associate Vice President, Infosys*

Chand is an accomplished client partner with 25 years of experience across multi-industries including Waste Management. He has expertise in leading multiple initiatives including client services in package, product, and outsourcing. He is also on the advisory committee of EdgeVerve, an Infosys subsidiary, where he guides them with their market strategies, including feedback from the marketplace.

Chand is adept at managing client relationships, involving the delivery of critical and high-impact projects cross-functional teams of various sizes. He has engaged clients in the US, Australia, SE Asia, and the Middle East. Chand holds an MBA in Marketing and an Engineering Degree in Electrical.

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Venkat has nearly two decades of experience working in Waste Management, Real Estate, Financial, and Retail Service industries. He specializes in business development, digital strategy, technology consulting, account management, and IT service delivery management. He helps his clients navigate large scale transformation programs and drive innovation. Venkat, has partnered with CXOs, CIOs, and Business and IT Leaders on strategy and planning and building solutions and ideas for revenue growth and improved profitability.

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