Driving visibility and performance across the enterprise

CGI **OpenGrid**

Enterprise Asset Management

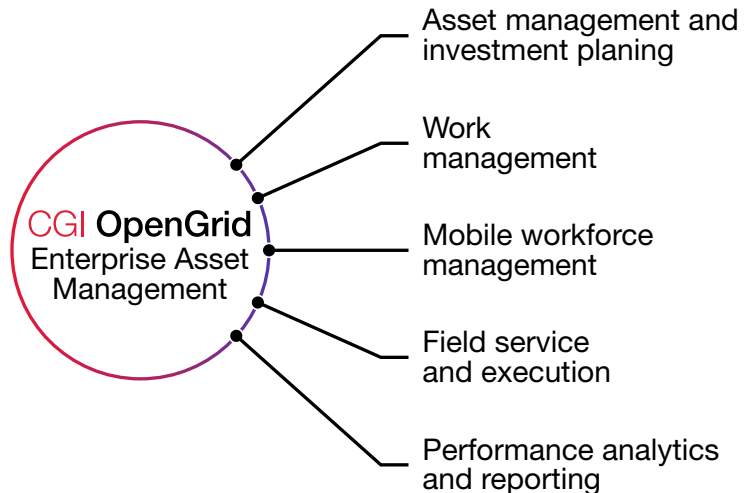# Drive additional value from your assets

Today, electric utilities have to make good on their power grid investments while natural gas providers face increasing levels of accountability due to safety concerns and water/wastewater utilities confront crucial network repair, renew and replace decisions. Leveraging the latest technology capabilities that focus on assets and the ability to prioritize them is vital to driving operational excellence.

CGI OpenGrid Enterprise Asset Management (EAM) delivers the advanced predictive diagnostics you need to analyze your data and detect and diagnose issues before they occur. Opening the door to new levels of digital optimization for utility Transmission and Distribution operations, CGI OpenGrid EAM provides full oversight into the end-to-end asset lifecycle—from procurement to disposal and delivering in-depth reporting and analytics.

Get more out of your assets through digitization

CGI OpenGrid EAM ensures you align your work, resources, and equipment so you can maximize the reliability and performance of your assets and network infrastructure. It offers a holistic approach to streamline workflows and maximize efficiencies of physical assets across the organization and combines a platform of modular solutions to digitize the complex and dynamic combination of managing assets, work, and resources throughout the entire asset lifecycle.

CGI OpenGrid EAM at a glance

- CGI OpenGrid Asset delivers advanced Asset Management and Investment Planning to optimize the reliability, compliance, and investment for linear/non-linear assets via a comprehensive registry, automated maintenance rules and procedures driven by regulation, asset health, and criticality.

- CGI OpenGrid Work provides a sophisticated workflow management platform to initiate, design, track, schedule, and reporting on all types of work in the office and out in the field, including construction, customer service, maintenance, and operations.

- CGI OpenGrid Workforce accurately analyzes business volumes and resource requirements with tactical resource planning, job scheduling, workflow management, and mobile functionality for intelligent scheduling recommendations based on key organizational metrics.

- CGI OpenGrid Field enhanced field operations with an integrated mobility platform supporting the digitization of fieldwork execution and data collection for all work types for accurate process and workforce unification.

- CGI OpenGrid Insights transforms data into powerful analytics with business intelligence dashboards and reporting for critical operational performance metrics.

Because of its ability to seamlessly connect data and the flexibility it provides to adapt as your business evolves, the CGI OpenGrid EAM portfolio can provide much greater potential and scalability for your organization. It combines cost-effective and proven enterprise-level capabilities to create, expand, and maintain a first-class network infrastructure while unlocking the power of your data to get the insights you need to make well-informed and faster decisions.

CGI OpenGrid
Enterprise Asset
Management

- Asset management and investment planing
- Work management
- Mobile workforce management
- Field service and execution
- Performance analytics and reporting

Transform how you work, share, and collaborate

The strength of CGI CGI OpenGrid EAM lies in its ability to control and measure all aspects of asset performance, allowing for optimizing of workflow processes, maintenance activities, and asset productivity. It offers all the features you need to proactively manage and optimize the lifecycle of every type of asset – from design with compatible units, capital expenditures, and construction as-builts to service orders, inspections, and maintenance.

Modern, web-based technology makes CGI OpenGrid EAM simple to implement with current enterprise legacy systems. Integrated enterprise-level mobility extends its capabilities from out of the office and into the field, delivering automated workflows and improved data collection resulting in longer asset life and improved financial and operational efficiency.

From strategy through execution, CGI OpenGrid EAM delivers a consolidated portfolio of solutions that support all types of work and assets, all with a single enterprise approach to ensure your assets are safe, reliable, and efficient over their lifecycle:

- Consolidate enterprise silos with centralized control of information

- Enhance the security and safety of your infrastructure

- Maximize your visibility and decision-support

- Improve the interoperability of your customer and operational data

- Align and unify your business processes

- Streamline your workflows and improve utilization of your material, labor, and equipment

- Optimize your work and resource allocation

- Improve your business performance management and reporting

CGI OpenGrid Asset

Transform how your assets perform

Redefine operational confidence for your asset-intensive operations

Maximizing asset performance relies on dynamic processes that capture and maintain quality information. The ability to generate actionable information and informed decisions about the state of your assets can influence your bottom line. Yet, it is also integrally linked with both customer satisfaction and regulatory compliance.

Combining technical solutions with asset performance best practices, CGI OpenGrid Asset improves and optimizes asset management by centralizing the complex analytics and insight from data to transform how asset information is collected and analyzed to deliver optimal performance. Its flexible and streamlined approach uses real-time performance data and predictive models to guide your asset management decisions that drive measurable improvements to daily operations and long-term capital planning.

Lapses in operating and maintaining assets can bring about expensive repairs, reliability issues, shortened asset life, and possibly substantial regulatory compliance fines. Through digitization and prioritization, CGI OpenGrid Asset provides an immediate boost in operational performance

optimization, aligning business processes with compliance standards such as ISO 55000, PAS 55, and Reliability Centered Maintenance (RCM) strategies. Proactively reducing costs and risk through improved communications, automation, and performance, CGI OpenGrid Asset will deliver optimal workflows based on the criticality and health of your assets and infrastructure.

From initial planning to final retirement, CGI OpenGrid Asset is a comprehensive, integrated business and technology solution to manage your entire asset lifecycle:

- Advanced predictive analytics for greater asset reliability
- Process standardization and maturity
- Reliability-based preventive maintenance
- Simple generation of step-based procedures
- Integrated geospatial visualization

CGI OpenGrid Asset (continued)

Strategic asset investment planning

Maintaining your current assets, building new infrastructure due to rising demand, or managing regulatory requirements are just some of the variables to consider when evaluating your asset strategies for long-term financial optimization.
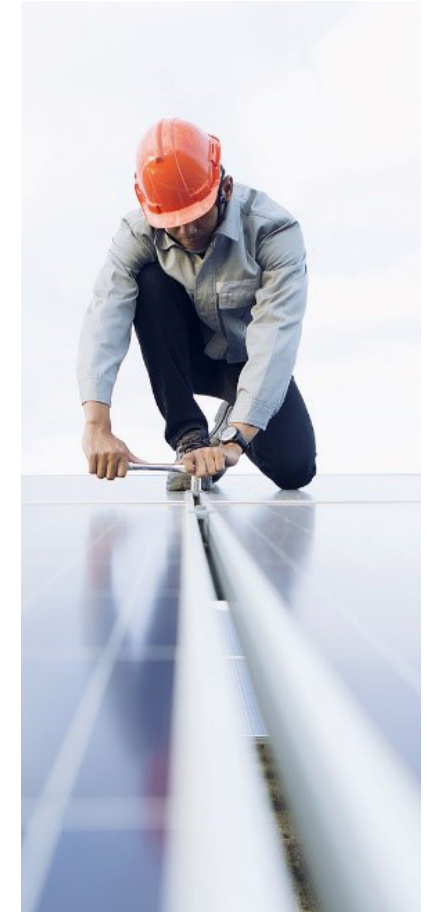
CGI OpenGrid Asset incorporates advanced Asset Investment Planning (AIP) to predict, propose, and prioritize your asset maintenance, management, and investment decisions. It ensures that your maintenance, repair, and replacement decisions are grounded on actual asset conditions and the criticality to your operations.

- Unlimited generation of investment scenarios
- Comprehensive set of risk, investment, and prediction tools
- Advanced optimization to support automated DIMP & TIMP decisions

Extend the operating life of your assets

Supported by best practices and a proven implementation methodology, CGI OpenGrid Asset delivers continuous process improvements required to ensure your assets are safe, reliable, and efficient over their entire lifespan.

- Improve the quality and life of your T&D assets with proactive strategies for long-term asset reliability and performance from acquisition to disposal
- Leverage sophisticated analyses of asset condition, risk, history, and financials to shape capital investment strategies
- Boost asset performance and reliability from acquisition to disposal
- Improve Operations and Maintenance (O&M) practices to improve compliance and safety
- Optimize lifecycle costs to reduce operating, maintenance, and long-term capital expenditures
- Preempt issues before they happen to extend equipment lifecycles
- Create long-term investment strategies that maximize business value while proactively managing risk
- Lower capital expenditures by extending the life out of existing assets

CGI OpenGrid Work

Reach new levels in workflow automation

Keep your work optimized and your operations efficient

To effectively build and maintain a cost-effective yet highly reliable Transmission and Distribution (T&D) network, efficiencies can be leveraged at the technology level. With the right business solution and capabilities, utilities gain the ability to standardize their workflow and reporting processes to create a centralized, accurate view of work order data to improve decision-making and visibility into their capital projects.

Designed explicitly to address the business needs of electric, gas, and water utility organizations, CGI OpenGrid Work provides a single go-to-source to transform your workflow processes, centralize your work requests and optimize your work execution at an enterprise-level. It combines leading digital capabilities to help deliver a unified platform for faster information processing and immediate visibility and control to ensure all your work is executed efficiently and that bottlenecks are quickly identified.

From initiation to closeout, CGI OpenGrid Work modernizes workflows to consistently and cost-effectively execute all types of work while improving your ability and flexibility to support more complex workflows and phased construction processes. With a set of feature-rich tools, browser-based capability, and built-in industry best practices, CGI OpenGrid Work offers a renewed roadmap to new levels in workflow automation and execution:

- Drive collaborative work execution in the office and out in the field

- Identify the required tasks, individual assignments and completion dates to ensure optimal execution of the "cradle to grave" lifecycle of all work

- Automate ERP interactions to trigger updates to Accounting, Supply Chain, HR, GIS enterprise systems

- Extend capabilities between enterprise applications by linking directly to external applications via configured links

CGI OpenGrid Work (continued)

Take the complexity out of construction and contractor management

CGI OpenGrid Work is uniquely positioned to support your entire construction management lifecycle, including collaborations with key Contractors, Developers, Permitting Agencies and One-Call locates. Its comprehensive toolset allows Utilities to accurately calculate the cost of work, determine labor hours and equipment requirements using Compatible Units (CU) to help streamline their construction and contractor activities:

- Impose construction and maintenance standards to reduce inventory costs and unnecessary field trips due to missing equipment or tools

- Standardize field data collection, invoicing, pre-requisites, and as-builts captured by crews and external contractors

- Seamlessly link Federal Energy Regulatory Commission (FERC) accounting requirements to the CU estimating process

- Provide a single source of reference for accurate and consistent reporting of performance metrics

Drive lasting improvements to your workflows and work execution

By leveraging fully configurable workflows, intuitive configured views and visibility across all work, CGI OpenGrid Work enables you to focus on the work priorities and tasks needed to meet or exceed your customer expectations.

- Manage your entire workstream end-to-end with greater visibility and accountability, using automated messages to hand off tasks rather than paper and telephone calls

- Increase your productivity by standardizing work methods across the organization

- Reduce your costs with streamlined work processes and reduced lifecycles of work

- Improve the management of contract resource execution and financial payments

- Integrate to your existing technology landscape to provide automated updates of labor, equipment, material, and cost information to external support systems

CGI OpenGrid Workforce

Revolutionize field workforce capabilities

Accurately analyze your business volumes and resource requirements

Your mobile workforce plays a significant role in executing work and asset management plans and can shift how your fieldwork is performed. Empowering them with flexible workflow automation and real-time communications between resources, devices, and back-office systems will boost their performance and job satisfaction. At the same time, safety, compliance, and productivity becomes progressively transformed.

CGI OpenGrid Workforce is changing the landscape in field productivity and resource optimization with intelligent Mobile Workforce Management automation to meet the growing demands of a virtually connected workforce. Designed for asset-intensive operations, it provides an enterprise-level foundation to extend your decision support and business process management capabilities to the field, resulting in improvements to the overall availability and responsiveness of workload and field resources that contribute to better asset reliability.

From customer contact to fieldwork completion, you can manage commitments with confidence by identifying priorities, geographic locations, and the skills necessary to perform any work. Leverage an enterprise view of all your workload and workforce while continuously assessing and optimizing schedules as operational priorities change.

Modernize your field operations with a customer-centric approach

As utilities modernize and increase their focus on mobility and digitization, including the proliferation of devices like tablets and smartphones, CGI OpenGrid Workforce can deliver the sophisticated automation, process efficiency, and real-time communications flow for maximum efficiencies, worker safety, and uninterrupted service to the customers:

- Eliminate manual activities with end-to-end optimized process workflows, including enablement of work automation through mobility

- Maximize the value of real-time integration to operational data and back-office systems for maximum visibility of operational intelligence and decision support to the field

- Centralize dispatch operations, performance monitoring, and resource tracking with embedded analytics to enhance the customer experience

- Increase the frequency of work execution with more dynamic scheduling and optimized routing to improve responsiveness to customer needs while maximizing workforce productivity

- Connect the field and back-office on a single mobile platform to lower costs through productivity gains while sustaining long-term revenue growth through better customer service

CGI OpenGrid Workforce (continued)

With CGI OpenGrid Workforce, you can plan, execute, and monitor the full lifecycle of long- and short-term events, providing better insight into future work and resource demands so you can reliably balance commitments and plan for required resources.

Gain the ability to connect your dispatchers with field resources to centralize work management and optimize scheduling and dispatch of assignments while putting customer information, work execution, and analytics right at the fingertips of your field force. CGI OpenGrid Workforce equally delivers better insight.

Unparalleled support for performance-driven utilities

CGI OpenGrid Workforce offers an open architecture and industry-standard protocols to provide a high degree of flexibility in deployment and configuration and to simplify integration across multiple systems and lines of businesses. It can deliver all the benefits that come from a fully automated and optimized mobile workforce:

- Consolidate multi-operating units on a common mobile application, or work independently with a custom set of business rules

- Simplify cross-departmental cooperation and communications with standard terminology, business processes, and real-time analytics

- Scale as your business grows to accommodate a larger workforce, more customer data, and increasingly complex scheduling requirements

- Optimize workload and capacity geospatially across the organization while leveraging skills, materials, and equipment

- Empower your workforce with real-time customer- and service-specific information, including the inventory needed for improved first-call resolution

- Get easy access to new metrics, better data, and enhanced visibility to monitor performance and assess the value delivered from their investment

- Exceed customer expectations with improved service quality, increased asset utilization, and better productivity while controlling costs

CGI OpenGrid Field

Seamless mobility, anytime, anywhere

Mobilize and digitize your fieldwork execution

As customer demands increase and the coordination of managing field resources gets more complex, it becomes clear how the value and impact mobile enterprise technology can have on field operations and the organization as a whole. Maximizing your organization's mobile platform with extended hardware flexibility can help respond to the ever-growing variety of mobile devices available and provide even more opportunities to improve collaboration, communication, and the information they provide to their resources out in the field.
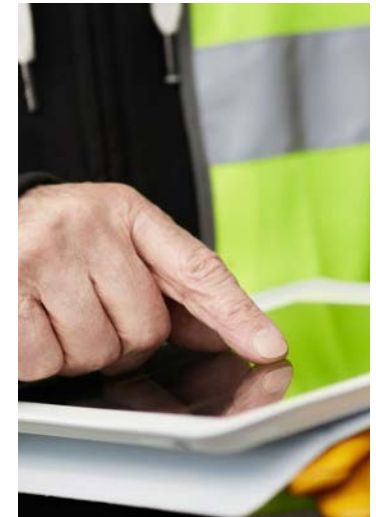
CGI OpenGrid Field solution brings enterprise-level digitization of work order management, fieldwork execution, and data collection to manage a complex array of work types across a diversified mobile workforce. It ensures your workforce gets the information they need when they need it.

Using client-server visualization architecture, CGI OpenGrid Field offers a zero-install footprint for seamless access and sharing of operational data without device, hardware, and software limitations. Device-agnostic flexibility enables advanced mobile workforce management functionality over multiple form factors.

Process and workforce unification

CGI OpenGrid Field seamlessly extends the power of CGI OpenGrid EAM to the field with optimized long-cycle workflows, as-built reporting, field collection of facility attributes, and step-based procedure and forms-based reporting. Compatible Unit (CU) catalog synchronization helps reduce cycle time from work completion to asset booking. The ability to conduct complex inspections simplifies data capture and ensures accurate and consistent asset condition information is sent back to CGI OpenGrid EAM.

- Delivers device flexibility with browser-based capabilities unburdened by network coverage so work can continue uninterrupted online or offline in any environment

- Mobilizes critical processes to drive efficiencies in construction, maintenance, fault resolution, and customer service operations

- Enables efficient and effective decision-making for dynamic priority-based planning, scheduling, and dispatching across the organization

CGI OpenGrid Field (continued)

Bring your most important information forward

CGI OpenGrid Field will ensure your process and data is consistent throughout your work order lifecycle. Work order management becomes streamlined as field technicians gain access to a collaborative flow of critical information while integrated maps help visualize their work in relation to the utility's asset infrastructure. Configurable user-defined forms are easily tailored to respond to variable business processes, data capture requirements, and resource needs to maximize real-time analysis, monitoring, and work order assignments.

Field Supervisors on the go will know where their team is, when work is delivered as well as leverage immediate access to real-time information about the performance of the field operation. CGI OpenGrid Field helps supervisors quickly manage evolving challenges by communicating directly with resources where supervision and safety considerations are essential. Internal field technicians performing maintenance activities get up-to-date information that includes inventory lookup, equipment status, and asset-related job history while external contractors and mutual-aid crews benefit from similar information through carefully configured, secured access.

Deliver intelligent and collaborative service in the field

CGI OpenGrid Field excels at providing a complete digital experience for your field workers, empowering them with access to the right information, at the right time, and in the right context so they can focus on completing their work and satisfying their customers.

- Leverage enterprise-grade reliability in the field with HTML5 cross-platform technology to support the execution of all work types

- Enable a faster implementation approach with reduced IT and device management costs

- Enhance reporting from the field with better data quality using compatible unit information, step-based procedure reporting, and forms-based data entry

- Group and sequence fieldwork into comprehensive work plans that address service work requiring multiple types of operations

- Maximize efficiencies in real-time situational awareness with dynamic geospatial displays and mapping to support real-time vehicle tracking, workforce monitoring, and street-level routing optimization

CGI OpenGrid Insights

Unlock the power of your data

Turn your data into actionable intelligence

Enterprise Asset Management provides T&D organizations with a myriad of information that requires thorough analysis to help drive the business benefits they want to achieve. The ability to visualize data over time, analyze your business processes, and identify areas to improve motivates proactive action for better investment decisions, increased operational performance, and improvements to back-office and field productivity.

CGI OpenGrid Insights offers pre-defined analytics and reporting developed from industry best practices managing assets, work, and resources. It delivers advanced operational and performance analytics in customized dashboards and reports to help you drive better work and asset management decisions quickly and consistently.

- Generate comprehensive KPIs and statistics of workflow processes from initiation to closing to determine if operational goals are being met as work is performed

- Monitor distribution assets and compliance activities associated with the maintenance to meet mandated PUC reporting requirements

- Produce quality metrics on scheduling adherence and accuracy, work commitments, resource utilization, and field workforce performance and productivity

Spatial and analytics for complex decision-making

The availability of accurate and current GIS land base data, satellite imagery, along with location-aware data geocoding, has become a necessity to manage work, asset, and resource information. Integrating the spatial capabilities of CGI OpenGrid Insights will access, analyze, and present data more effectively to help better understand existing conditions and how they evolve. Visualizing your work and asset data in a spatial environment enhances immediate decision-making centered on circumstances presented in a geographic context.

- View work, asset, and resource details in conjunction with your land base and GIS information and identify assets based on proximity for performing work activities such as planning and design optimization

- Define organizational and geographic boundaries within a spatial context and visualize work locations based on proximity to identified entities

- Interact with non-spatial data for work, asset details, conditions, resources linked to your GIS spatial elements and attributes

Key benefits of CGI OpenGrid EAM

With CGI OpenGrid EAM, predict asset and infrastructure problems in advance to keep your operations running at maximum efficiency

- Modernize asset lifecycle management on a single integrated platform and repository suitable for transmission and distribution operations of electric, gas, and water/wastewater utilities

- Leverage visibility, control and automation of critical information for greater efficiency managing all asset types on a single technology platform

- Remove the barriers imposed by operational silos to gain end to end visibility of activities in the back-office and out in the field

- Facilitate compliance tracking, maintenance, and risk management with automated inspection and compliance driven work based on configurable parameters and events

- Automate planning, scheduling, and workload processes to optimize capacity, task & work dependencies, work order management and resource allocation

- Align the management of your infrastructure with performance strategies of physical and financial attributes of the asset lifecycle for long-term success of business and operational objectives

- Increase asset availability and reliability to significantly reduce operating and maintenance costs, as well as long-term capital expenditures

- Move from corrective to preventative maintenance to optimize utilization of all assets for greater asset availability, reliability and performance

- Centrally streamline processes for planned and unplanned work from initial acquisition to completion and recording

- Empower field technicians to collect and manage critical asset data and attributes, regardless of location, device or network coverage

CGI OpenGrid EAM digital roadmap of key capabilities

1 Intelligent work and asset management

2 Enterprise mobile workforce management

3 Pipeline construction management

4 Asset investment planning

5 Field execution management

6 Smart meter asset management

7 Construction and contractor management

8 Vegetation management

9 Asset performance insights and analytics

10 Gas network compliance management

11 Water and wastewater asset management

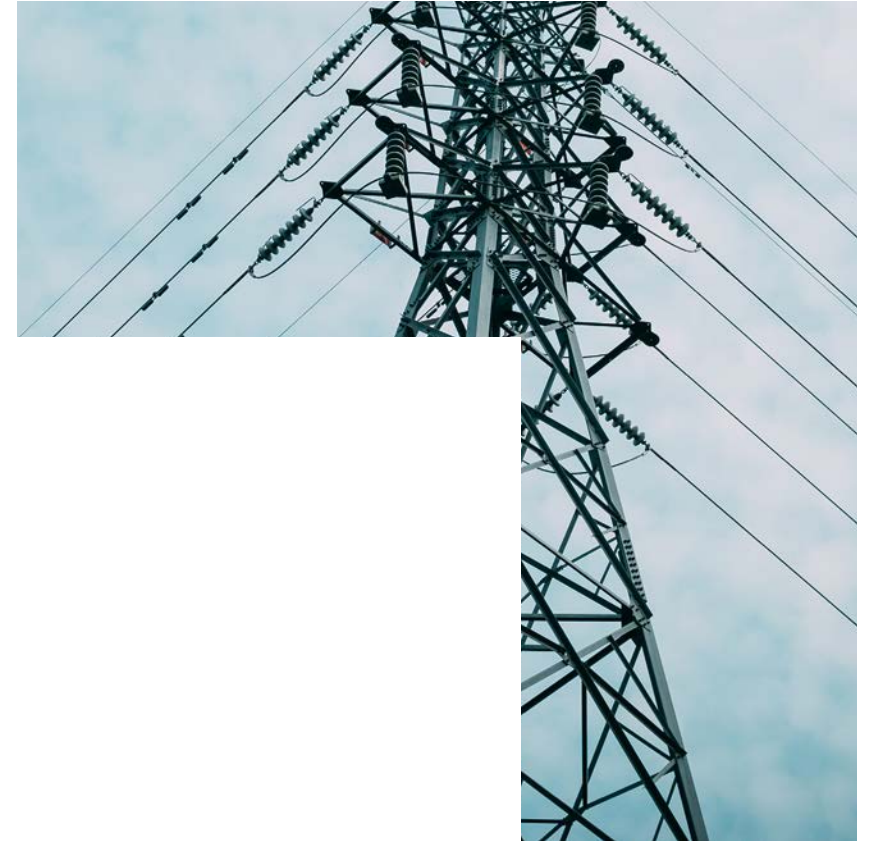**12** Managed EAM services

About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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