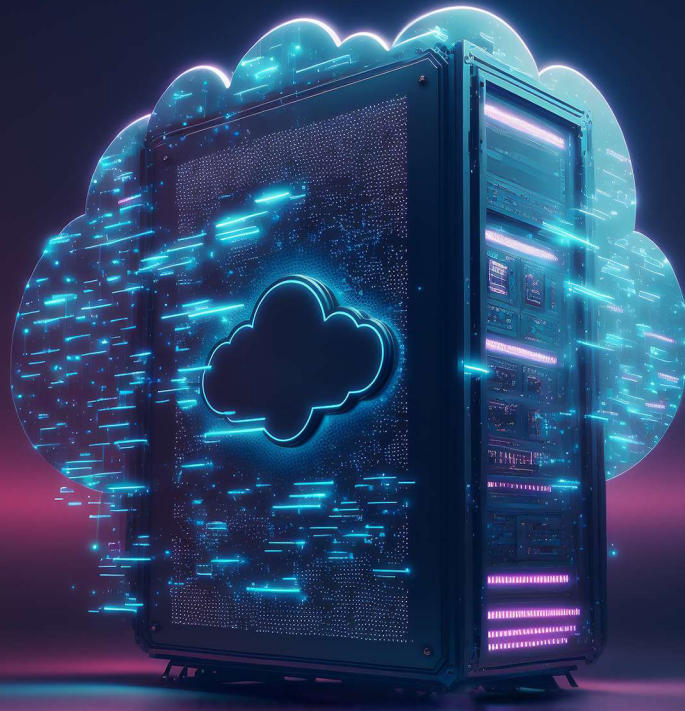




Solution Brief

Automated Scanning, Assessment, and Migration Planning

Laying the Foundation for a
Successful Cloud Transition



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Accelerate Cloud Adoption with Smart Assessment and Planning Tools for a Seamless Migration

Introduction

Before embarking on any cloud migration journey, thorough scanning and assessment of the current infrastructure are critical to ensuring a smooth and secure transition. By identifying vulnerabilities, dependencies, and compliance issues, organizations can mitigate risks, prevent costly disruptions, and optimize the migration process. This step lays the foundation for a more secure and efficient cloud environment, safeguarding data and business operations.

Our **MaaS (Migration as a Service)** solution offers a next-generation AI-powered platform with fully automated tools that perform comprehensive scanning, assessment, and migration activities with unmatched speed and precision. It enables businesses to accelerate their cloud adoption while maintaining the highest level of accuracy and security

Scanning Challenges

Complexity of Hybrid Environments

Migrating often involves maintaining both on-premises and cloud systems. Scanning across these hybrid environments to map out dependencies, configurations, and workloads can be complex and time-consuming.

Security and Compliance Concerns

During scanning, vulnerabilities, misconfigurations, or outdated security measures may surface. Ensuring security and compliance with regulations (like GDPR or HIPAA) while performing scans is critical to avoid data breaches or legal penalties.

Application Dependencies and Compatibility

Accurately identifying and mapping application dependencies (e.g., network configurations, databases) is essential. Missing any of these dependencies can lead to migration failures, performance issues, or downtime post-migration.

Cost and Performance Estimation

Assessing the infrastructure's resource requirements for cloud compatibility and estimating ongoing costs can be difficult. Incorrect estimates could lead to unexpected expenses or performance bottlenecks once the infrastructure is in the cloud.



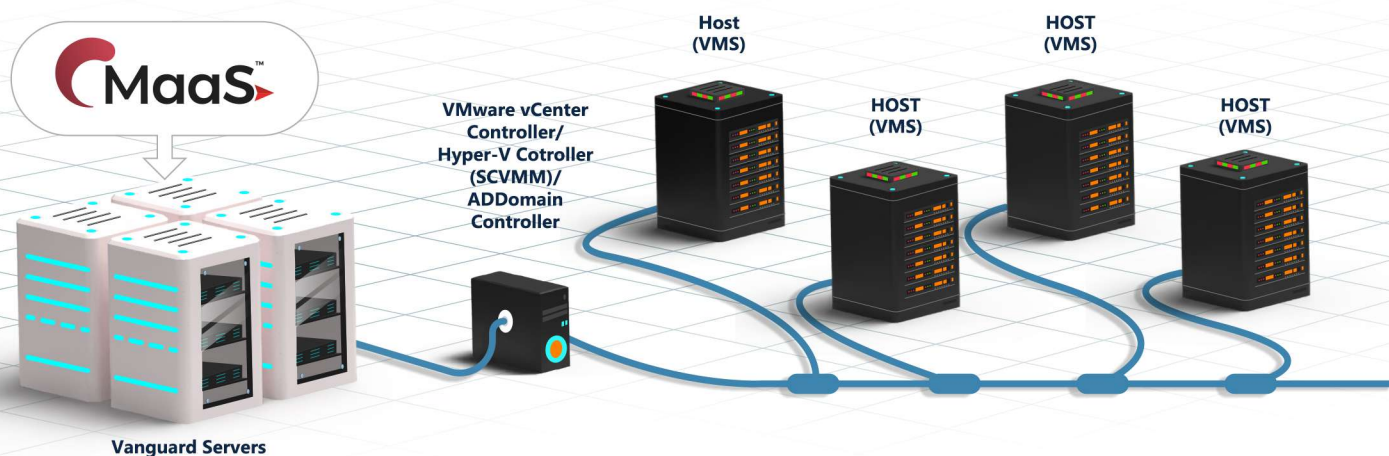
Solution Overview

Scanning

Scan with MaaS employs advanced tools and diverse scan types to pinpoint dependencies and risks for seamless, secure cloud migration.

Agentless Fast and Full Scan

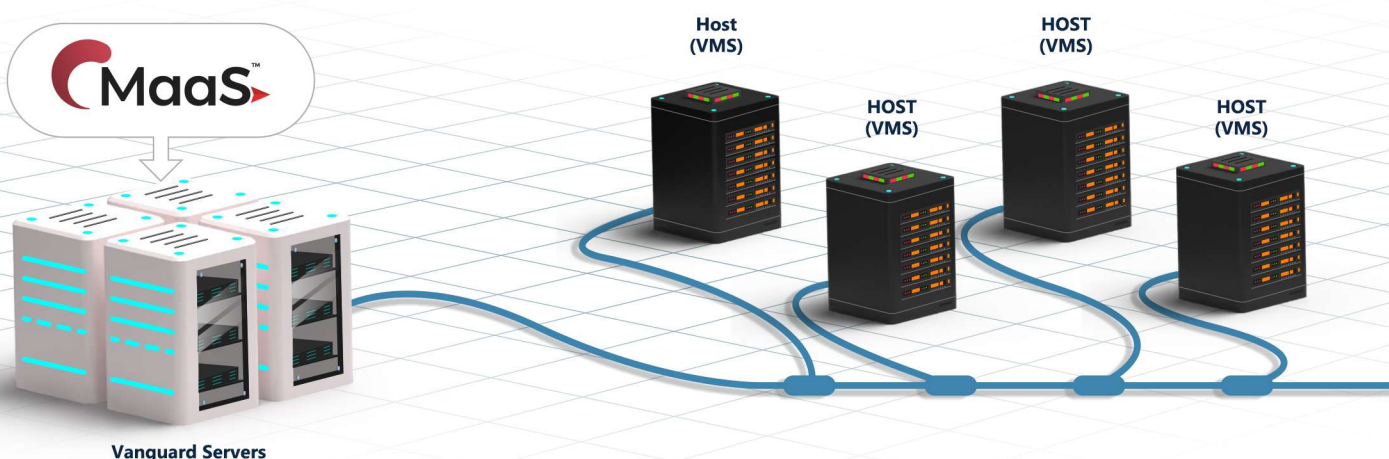
Ideal for quick migration to the cloud using a lift-and-shift approach. This scan restricts the scope to server/VM movement, making it a rapid solution to initiate migration. It is often the first step, followed by further cloud optimization or modernization later in the migration journey.



Agentless Fast/Full Scan Method

Agentless Extended Scan

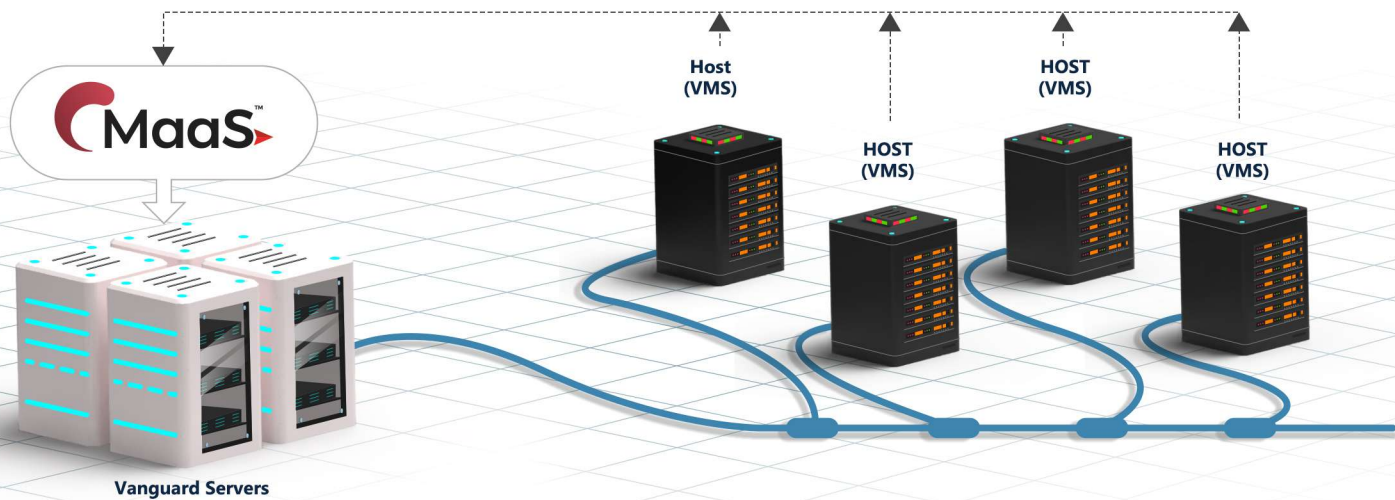
Extended over several days or weeks, this scan collects more comprehensive data for right-sizing VMs and identifying workloads that become active at different times. It offers more accurate dependency mapping and VM sizing. It is particularly useful after the full scan for deeper insights.



Agentless Extended Scan Method

Agent Deep Scan

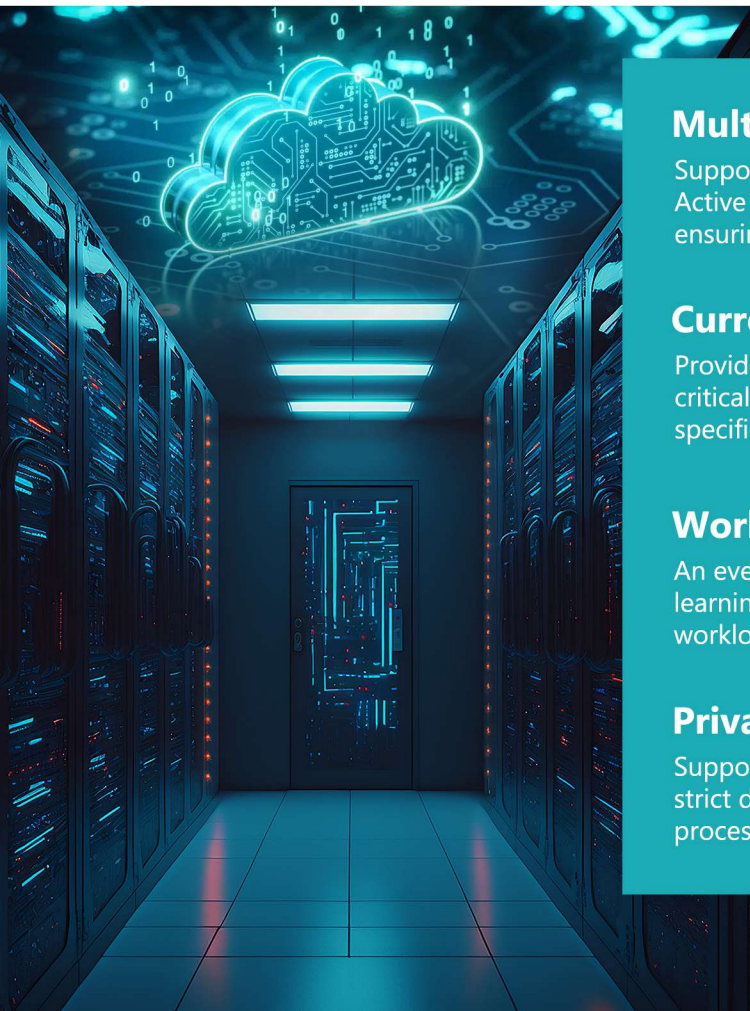
For more detailed analysis, especially when modernizing workloads for PaaS services. Agents are installed on specific servers to perform deep scanning, gathering in-depth data on workloads. Typically performed after detailed agentless scans for precision and comprehensive coverage.



Agent Deep Scan Method

Import from Other Tools

When scanning is not feasible due to compliance or security restrictions, existing performance or workload data from monitoring tools can be imported. This data can be fed into the MaaS platform for further analysis and cloud migration planning.



Multi-environment Scanning:

Supports scanning across various environments, including Hypervisors, Active Directory, VMWare, Private/Public Cloud, and Bare Metal, ensuring compatibility across diverse infrastructures.

Current Estate Visualization:

Provides a 2D visual representation of the entire infrastructure. Displays critical metrics such as statistical distribution, hardware and software specifications, utilization, dependencies, and more.

Workload Learning Library:

An ever-growing library of workload knowledge, offering continuous learning and insights, enhancing the accuracy and efficiency of workload assessment during migration.

Private Deployment:

Supports highly secure, private deployment environments, ensuring strict data protection and compliance during the cloud migration process.

Assessment

MaaS Assess offers comprehensive infrastructure assessment, tailored recommendations, and risk mitigation for cloud transitions.



Assessment Challenges

Complex Application Dependencies and Incomplete Inventory:

Legacy systems often have intricate interdependencies between applications, databases, and services, making it difficult to map them accurately. Missing or misidentifying these dependencies can cause disruptions during migration. Additionally, many organizations struggle to maintain an up-to-date inventory of their infrastructure, leading to incomplete or inaccurate assessments, which complicates migration planning.

Data Sensitivity, Compliance, and Security Risks:

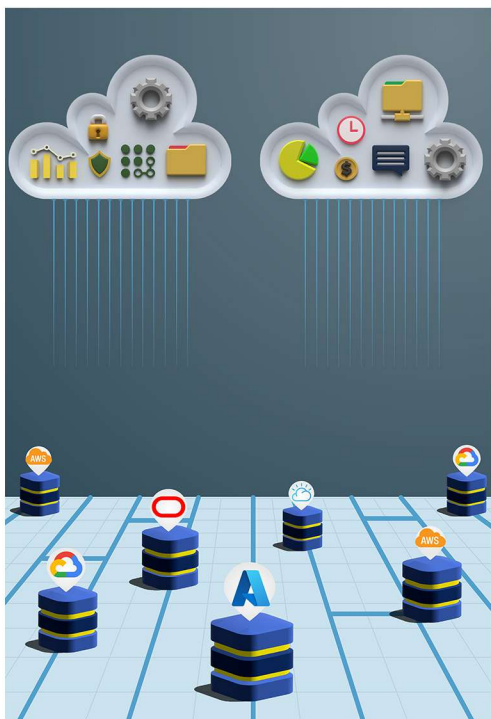
Assessing data for cloud readiness involves identifying sensitive information and ensuring compliance with regulations such as GDPR, HIPAA, or industry-specific standards. Evaluating security vulnerabilities, risks, and post-migration controls like encryption and access management is critical to maintaining data integrity and avoiding breaches, making this a crucial and complex part of the assessment process.

Right-sizing and Total Cost of Ownership (TCO) Estimation:

Accurately right-sizing on-premises workloads for the cloud is challenging due to differences in instance types and configurations, often leading to over-provisioning (unnecessary costs) or under-provisioning (performance issues). Hidden cloud costs, like networking, storage, and operational overhead, also complicate accurate total cost of ownership (TCO) estimates, resulting in unexpected expenses post-migration.

End-of-Life Systems and Modernization:

Many organizations rely on legacy systems or outdated software that may not be cloud-compatible. Assessing these systems for modernization, re-platforming, or even elimination is a significant challenge. Deciding whether to migrate, refactor, or retire these systems involves careful planning and resource allocation to avoid delays and unnecessary costs in the migration process.



What-If Scenario Analysis:

Provides the ability to compare different cloud providers and evaluate various migration paths. This helps in understanding the impact of potential decisions, enabling informed migration planning.

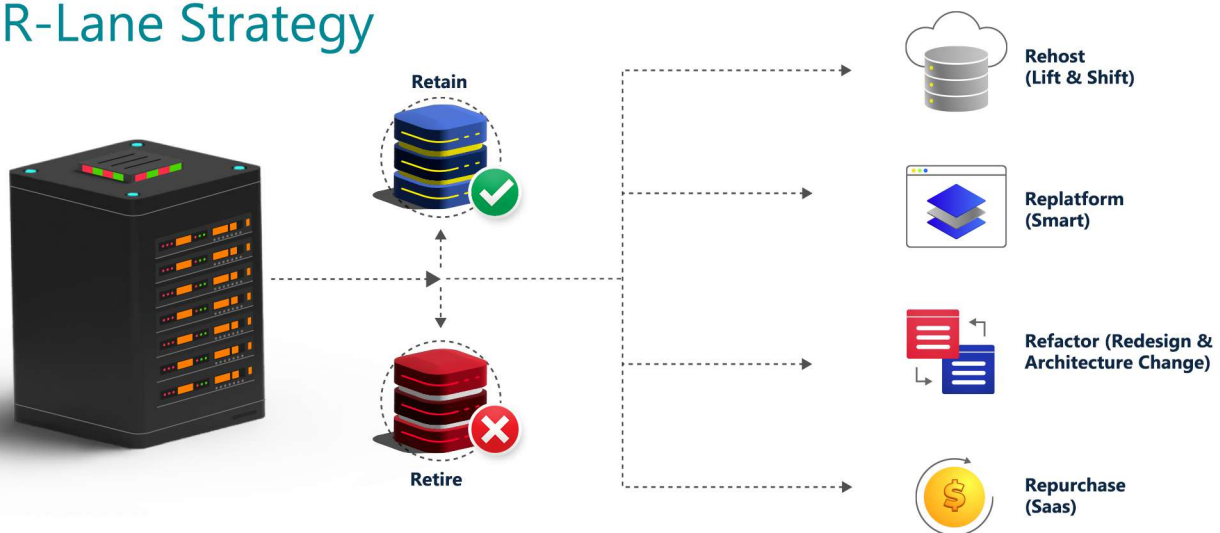
Specification Differentiators:

Offers detailed comparisons of cloud provider specifications, enabling businesses to choose the most suitable platform based on performance, cost, and other critical metrics.

Cloudable Recommendation:

Provides tailored recommendations for migration strategies, including Lift & Shift, Smart Migration, In-Place Conversion, PaaS, and Containerization. These options ensure the most efficient path to the cloud based on specific workloads.

R-Lane Strategy



Delivers comprehensive assessments using the R-lane strategy:

Re-host (Lift & Shift): This quick-win strategy helps you move applications “as-is” for rapid deployment and cost savings, ideal for low-risk or nearing-end-of-life applications.

Re-platform: Modernize your existing infrastructure by leveraging Cloud-native services, boosting performance and scalability without major code changes.

Repurchase: Opt for cloud-based SaaS solutions whenever they offer similar functionality and reduced maintenance, freeing up resources for other initiatives.

Retain: Prioritize security and compliance by keeping sensitive applications on-premises while migrating others to the cloud for a hybrid approach.

Retire: Decommission applications reaching their end-of-life, streamlining operations and reducing costs.

Re-architect: Unleash the full potential of the cloud by completely overhauling your application with a cloud-native architecture, achieving ultimate scalability and agility.



Dedicated TCO Modeling:

Compares IaaS, PaaS, and Container costs across multiple cloud providers. It includes cost breakdowns for both Migration Group (MG) and Migration Wave Planning (MWP), helping in the design of cost-effective migration and operational strategies.



Operational Cost Analysis:

Customizes pricing models based on discounts, margins, and customer-specific pricing structures. This feature ensures tailored operational cost analysis to fit unique business needs.



Modernization Recommendations:

Recommends modernization strategies, including App PaaS (Platform as a Service) and DBaaS (Database as a Service), as well as migration to Kubernetes-based containerized environments.



AI-based Right Sizing:

Leverages AI to determine the equivalent and best-match cloud infrastructure, ensuring optimal performance and cost-efficiency by right-sizing workloads for cloud migration.



Customized Cloud Catalog

Builds a customized catalog of cloud offerings based on the specific requirements of the business. This ensures the selection of optimal resources from a variety of cloud providers.



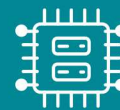
Application Dependency Visualization

Visualizes application dependencies and infrastructure relationships. This is critical for ensuring smooth migrations and avoiding disruptions caused by unaccounted dependencies.



End-of-Life Support

Advises on support advancements for platforms approaching their End of Life (EOL). For example, it provides guidance on Red Hat Enterprise Linux in-place conversion strategies based on EOL timelines.



Hardware and Workload Consolidation

Provides detailed assessments for consolidating hardware and workloads, reducing infrastructure sprawl, and improving overall efficiency during migration.



Comprehensive Reporting

Generates detailed reports in multiple formats, including PDF, Docx, XLS, with customization options to fit specific business requirements and communication needs.

Migration Planner

Maas Migration Planner streamlines the cloud transition by automating key tasks, ensuring a seamless and efficient process.



Migration Planning Challenges

Accurate Dependency Mapping and Migration Wave Planning:

Identifying and mapping all dependencies between applications, databases, and services is crucial but challenging, especially in complex environments. Missing these connections can result in service outages or disruptions. Additionally, proper sequencing of migration waves is difficult, as interdependent workloads must be moved in a coordinated manner to avoid downtime and performance issues.

Right-sizing, Resource Allocation, and Cost Management:

Determining the appropriate cloud resources for workloads is challenging. Inaccurate right-sizing can lead to over-provisioning (higher costs) or under-provisioning (performance issues). Additionally, predicting the total cost of ownership (TCO) in the cloud, including hidden costs such as data egress and operational overhead, is difficult, making effective cost management a complex task.

Security, Compliance, and Multi-Cloud Complexity:

Ensuring security and compliance during migration is a major challenge, particularly in regulated industries. Aligning cloud security controls with existing policies can be difficult. Furthermore, for multi-cloud or hybrid cloud environments, the complexity increases as each cloud provider has different tools, security models, and integration requirements, making seamless management and compliance even more challenging.

Legacy Systems and Maintaining Business Continuity:

Migrating legacy systems, especially those approaching end-of-life, often requires modernization efforts like refactoring or re-platforming, which adds complexity to planning. At the same time, maintaining business continuity during migration is essential, as any unplanned downtime or service disruption can significantly impact operations and result in losses.

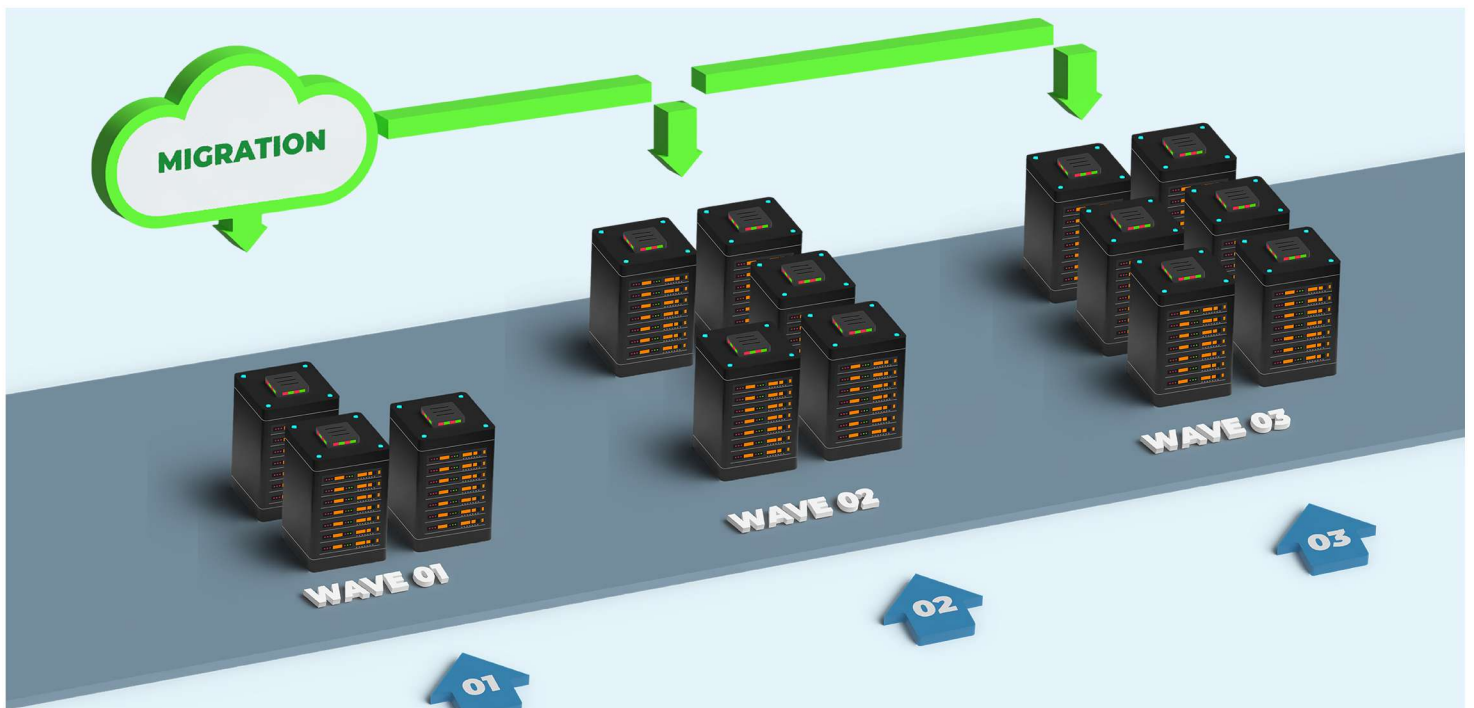


AI for Move Groups & Automatic Wave Planner:

AI-driven Move Grouping: Automatically groups workloads based on application dependencies, performance metrics, and business priorities. AI ensures that interdependent systems are grouped logically to minimize disruption during migration.

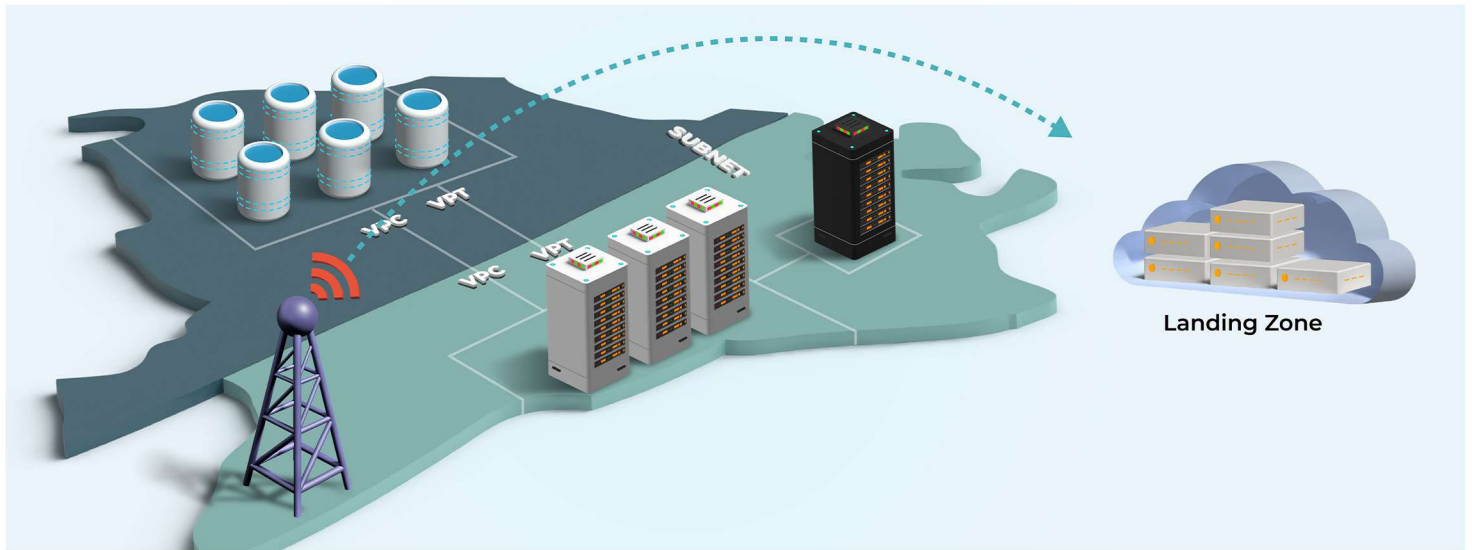


Automatic Migration Wave Planning: Utilizes AI to sequence migration waves for optimal performance and minimal downtime. It analyzes workload criticality, interdependencies, and resource availability to create a dynamic, efficient migration timeline that adjusts in real-time based on ongoing assessments.



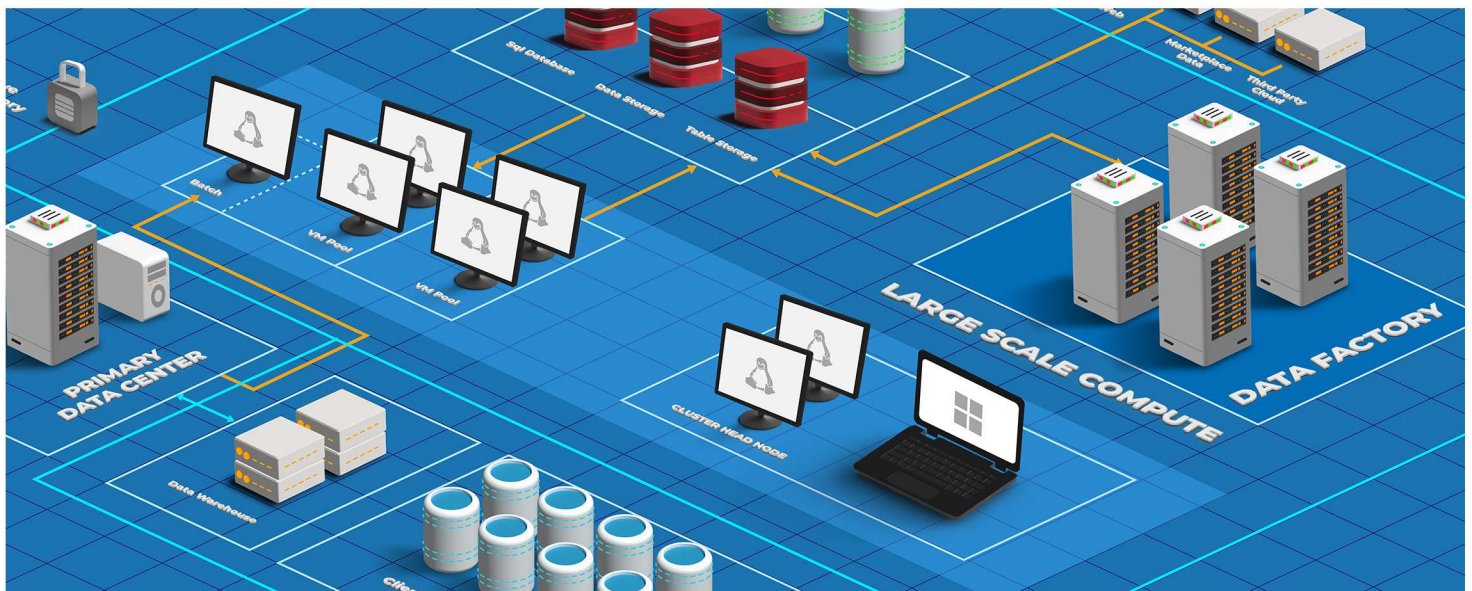
AI-Driven Secure Auto Landing Zone Provisioning:

Automatically provisions secure, compliant landing zones in the cloud based on best practices and specific workload needs. AI analyzes security requirements, network configurations, and compliance rules to ensure that each landing zone is tailored to the specific environment and is provisioned with



Combination of Best Practices and Topology:

Integrates best practices with custom topologies to create tailored cloud environments that align with specific business needs. This combination guarantees both adherence to industry standards and the flexibility to meet unique operational requirements.



Blueprints with Export & Orchestration:

Allows the creation of migration blueprints that mirror the on-premise environment in the cloud. These blueprints can be exported as AWS CloudFormation, Azure Resource Manager (ARM) templates, or Terraform configurations, ensuring multi-cloud compatibility and ease of deployment.

Why MaaS?

Holistic Approach: Unlike standalone tools, MaaS provides an integrated solution that encompasses scanning, assessment, and migration planning, ensuring a seamless transition process.

AI-Powered Insights: MaaS solutions leverage AI for deeper analytics and intelligent recommendations, offering more precise insights than traditional migration tools that may lack advanced capabilities.

Scalability and Flexibility: MaaS is designed to scale according to the needs of the organization, making it more adaptable than fixed solutions that may not accommodate varying project sizes or complexities.

Reduced Complexity: With a centralized platform for migration activities, MaaS simplifies the process compared to using multiple products, which can lead to increased overhead and coordination challenges.

Continuous Improvement: MaaS platforms often include ongoing support and updates, incorporating the latest best practices and technologies, whereas standalone products may become outdated or lack regular enhancements.

Ready to Lay the Groundwork for a Successful Cloud Migration?

Our AI-powered MaaS platform is designed to simplify, secure, and accelerate your transition to the cloud. With comprehensive scanning, precise assessments, and intelligent migration planning, we ensure a seamless and efficient cloud adoption.

Explore how our automated tools can help you achieve a faster, smarter, and more secure cloud migration.

Let's build a cloud strategy that sets your business up for success.

Reach out to our team today to get started!



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