



Vnomic

Vnomic automated and engineered data center and enterprise application migration and management solution on Azure for the global enterprises

Authored by **Vnomic Inc.**



www.vnomic.com



Gold Cloud Platform





Introduction

In today's digital landscape, enterprises are increasingly looking to migrate their data centers and mission-critical applications to the cloud.

Microsoft Azure, with its robust and comprehensive suite of services, is a leading choice for these migrations. Vnomic specializes in facilitating this transition, leveraging advanced automation to enhance performance, security, and governance while significantly reducing costs, risks, and time to value.

Vnomic has successfully planned, deployed, and migrated leading global enterprises such as PepsiCo, Coca-Cola Bottlers Japan Inc, Lam Research, Coca-Cola Hellenic, Nike, Coca-Cola ARCA, Analog Devices, Coca-Cola European Partners, ESRI, Coca-Cola India, and Newmont Mining to Azure.



SOUTHWEST GAS



Planning and Designing the Azure Landscape

Expertise and Best Practices

Vnomic employs a strategic approach to planning and designing an Azure landscape, closely following Microsoft best practices and adhering to the Azure Well-Architected Framework.

Assessment and Strategy Development:

- ✓ **Comprehensive Assessments:** Vnomic conducts thorough evaluations of existing IT infrastructure, identifying dependencies, performance bottlenecks, and potential security risks.
- ✓ **Strategic Roadmaps:** Based on the assessments, Vnomic develops strategic cloud adoption roadmaps that align with the enterprise's business objectives and operational requirements.

Azure Well-Architected Framework:

- ✓ **Operational Excellence:** Vnomic ensures that operational processes, including deployment, monitoring, and management, are optimized for efficiency and reliability.
- ✓ **Security:** Robust security measures are integrated at every level to protect enterprise data and applications.
- ✓ **Reliability:** Vnomic designs architectures that guarantee high availability and disaster recovery capabilities.
- ✓ **Performance Efficiency:** Resources are optimized for peak performance, ensuring that applications run smoothly and efficiently.
- ✓ **Cost Optimization:** Cost-effective strategies are implemented to manage and reduce expenditure.



Azure Landing Zone

Vnomic sets up Azure Landing Zones to provide a secure, scalable, and compliant environment for enterprises:

- ✓ **Networking:** Establishes a robust network topology, often using a hub-and-spoke model, to ensure secure and efficient communication between resources. VPNs and ExpressRoute are configured for secure connections.
- ✓ **Identity and Access Management:** Utilizes Azure AD for managing identities and access control, ensuring secure access to resources.
- ✓ **Resource Organization:** Structures resources using management groups, subscriptions, and resource groups to maintain order and control.
- ✓ **Security and Compliance:** Leverages Azure Security Center for continuous security assessments and policy enforcement to ensure compliance with industry standards.
- ✓ **Monitoring and Management:** Implements tools like Log Analytics and Azure Monitor for comprehensive monitoring and management of the environment.

Consistent Tagging and Naming Conventions

Vnomic establishes and enforces consistent tagging and naming conventions to improve manageability and governance:

- ✓ **Tagging:** Resources are tagged according to environment, department, cost center, and other relevant classifications to facilitate tracking and management.
- ✓ **Naming Conventions:** A standardized naming convention is implemented to ensure clarity, consistency, and ease of management across all resources.





Enhancing Security

Security is paramount in any enterprise deployment, and Vnomic ensures enterprise-grade security through:

- ✓ **CIS Level 1 Security:** Implementation of the CIS benchmarks configuration baselines and best practices for securely configuring the systems including mapping the CIS controls to many established standards and regulatory frameworks, including the NIST Cybersecurity Framework (CSF) and NIST SP 800-53, the ISO 27000 series of standards, PCI DSS, HIPAA, and others.
- ✓ **Identity Management:** Implementation of Azure AD for single sign-on (SSO) and multi-factor authentication (MFA) enhances security by ensuring that only authorized users have access.
- ✓ **Network Security:** Configuration of Network Security Groups (NSGs), Application Security Groups (ASGs), and Web Application Firewalls (WAFs) to control and secure network traffic.
- ✓ **Data Protection:** Encryption of data both at rest and in transit, using Azure's built-in encryption capabilities.
- ✓ **Threat Protection:** Utilization of Azure Security Center and Azure Sentinel for proactive threat detection, monitoring, and response.

Automated and Engineered Migration and Management

Eliminating Manual Processes

Vnomic eliminates manual processes through comprehensive automation:

- ✓ **Automated and engineered Enterprise application deployment and management:** Vnomic leverages the power of model driven and desired states AI based solutions to plan, design and implement enterprise applications on Azure.
- ✓ **CI/CD Pipelines:** Implements continuous integration and continuous delivery (CI/CD) pipelines using Azure DevOps, ensuring that code changes are automatically tested and deployed.
- ✓ **Automated Monitoring:** Sets up automated alerts, scaling, and remediation using Azure Monitor and Logic Apps to ensure that issues are detected and resolved promptly without manual intervention.

Reducing Time to Value by

▼ **90%**

Vnomic accelerates deployment and migration processes through automation:

- ✓ **AI-Powered Automation:** Uses Model Driven and Desired State AI technology to meet Microsoft and enterprise performance, security and governance requirements.
- ✓ **Automated Deployment:** Uses Model-driven, Desired states, ARM templates, Azure DevOps, and Terraform for infrastructure as code (IaC), enabling rapid and consistent deployment of resources.
- ✓ **Migration Tools:** Leverages Azure Migrate and Database Migration Service to automate the migration of workloads, minimizing downtime and ensuring a smooth transition.

Reducing Costs by

▼ **70%**

Vnomic's cost management strategies ensure significant cost savings:

- ✓ **Cost Analysis:** Uses Cost Management + Billing to track and optimize cloud expenditures, providing detailed insights into spending patterns.
- ✓ **Rightsizing Resources:** Regularly reviews and adjusts resource sizes and instances to match current usage needs, avoiding over-provisioning and unnecessary costs.
- ✓ **Reserved Instances:** Advises on the use of reserved instances for predictable workloads, which can provide substantial cost savings compared to pay-as-you-go pricing.

Ensuring Business Resiliency and Continuity

Automated Business Resiliency Through High Availability

Vnomic ensures high availability to minimize downtime and ensure continuous operation:

- ✓ **Redundancy:** Ensures redundancy at every layer, including VMs, storage, and databases, to prevent single points of failure.
- ✓ **Multi-Zone Deployments:** Distributes applications across multiple Azure zones to enhance availability and uptime.
- ✓ **Load Balancing:** Implements Azure Load Balancer and Traffic Manager to distribute traffic and ensure that applications remain accessible even during failures.

Automated Business Continuity Through Disaster Recovery

Vnomic implements automated and robust disaster recovery strategies to ensure business continuity:

- ✓ **Automated and Engineered Disaster Recovery:** Vnomic provides automated and engineered disaster recovery to meet the customer RTO and RPO requirements.
- ✓ **Azure Site Recovery:** Automates replication, failover, and recovery of services to ensure that operations can be quickly restored in the event of a disaster.
- ✓ **Geo-Redundant Storage:** Utilizes Geo-Redundant Storage (GRS) for critical data to ensure that data is backed up and can be accessed from different geographic locations.
- ✓ **Regular Testing:** Conducts regular disaster recovery drills to ensure that the DR plans are effective and that the enterprise is prepared for any eventuality.



Reducing Time to Recovery Using Snap-Based Backup and Recovery Solutions

Vnomic employs snap-based backup and recovery solutions to minimize recovery times:

- ✓ **Snapshot Management:** Uses advanced snapshots for managing database snapshots and ensuring rapid recovery in case of data loss or corruption.
- ✓ **Automated Restore:** Sets up automated policies for backup and quick restoration, ensuring that recovery processes are swift and efficient.

Azure Cloud Cost Management and Governance

Effective cost management and governance are crucial for maximizing the benefits of Azure:

- ✓ **Budgeting and Alerts:** Vnomic helps set budgets and configure alerts for spend thresholds, enabling proactive cost management.
- ✓ **Policy Enforcement:** Utilizes Azure Policy to enforce cost-saving measures and ensure compliance with governance standards.
- ✓ **Governance Framework:** Implements a robust governance framework to maintain control over the Azure environment, ensuring that resources are used efficiently and in compliance with organizational policies.



Conclusion

Vnomic transforms the way global enterprises migrate their data centers and mission-critical applications to Azure through automation.

By enhancing performance, security, and governance while reducing costs, risks, and time to value, Vnomic ensures a seamless and efficient cloud transition. With a proven track record of successfully migrating leading enterprises such as PepsiCo, Coca-Cola Bottlers Japan Inc, Lam Research, Coca-Cola Hellenic, Nike, Coca-Cola ARCA, Analog Devices, Coca-Cola European Partners, ESRI, Coca-Cola India, and Newmont Mining to Azure, Vnomic empowers enterprises to achieve their digital transformation goals, driving innovation, resilience, and operational excellence in the cloud.



SOUTHWEST GAS



www.vnomic.com



Vnomic

© 2009 – 2024 Vnomic Inc. All rights reserved.

All logos, trademarks and registered trademarks are the property of their respective owners.