



Microsoft Azure Services



Agenda

- Microsoft Partnership Overview
- Azure Migration & Managed Services



Microsoft Partnership Overview



Partnership and Accreditations



CBTS is a **Cloud Solution Provider** (CSP) which allows us to provide our customers with an end-to-end Microsoft professional services and cloud experience and provide value add to our customers with support, billing and consulting in the following areas:

Modern Work

Specialist
Adoption and Change Management
Calling for Microsoft Teams

Security

Specialist
Cloud Security
Identity and Access Management

Infrastructure
Azure

Data & AI
Azure

Digital & App Innovation
Azure

300+ **Microsoft Certifications**
across portfolio of solutions.

188+ **Microsoft Certified Individuals** to help design and configure a well-architected framework.

Sample Clients



Our Approach

Maximize Your Microsoft Investment



Assess

An agnostic approach to determining the value of emerging technology against existing environments with your **business outcomes** in mind.



Design

A customized holistic approach to designing a personalized mix of interconnected **cloud-native applications**, platforms, and operations.



Deploy

Many pitfalls and risks await inexperienced organizations. **A trusted adviser** is crucial to migrating mission-control applications and workloads successfully.



Operate

Our team of experts monitor and manage **modernized applications** and associated cloud and on-prem platforms to ensure peak performance, security and availability.

Why CBTS?

A Certified Microsoft Cloud Solution Provider

- Combine our deep technical expertise with a full suite of technology solutions including:
 - Unified Communications, Application Modernization, Managed Hybrid Cloud, Infrastructure, and Cyber Security Solutions — that drive successful business outcomes, improve operational efficiency, mitigate risk, and reduce costs for enterprise organizations.
- Provide you with end-to-end holistic Microsoft strategies.
- We support our clients with implementation, IT staffing, disaster recovery, and managed services for cloud, digital workplace, and security solutions, so you can maximize your Microsoft investments.
- Continuous development and integration of our two-decade long partnership with Microsoft by continuing to iterate on their technology and grow our certifications and specializations.



Solutions and Services

CBTS delivers modernized applications, scalable platforms, and optimized operations, all with integrated security to achieve your business outcomes.

Modernized Applications

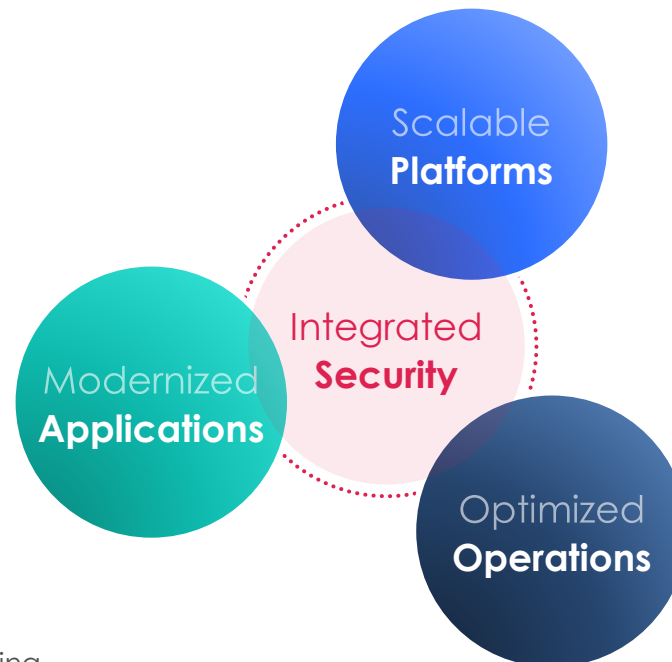
Business Applications

- Application Consulting: Discovery, Assessment, Governance
- Application Development: Custom, Web, Mobile, Cloud Native
- Low Code Solutions: Power Platform
- Application Modernization
- DevOps Lifecycle and Automation

Integrated Security

Security Services

- Zero Trust Security Assessment
- Penetration and Configuration Testing
- Endpoint Security: Intune
- SIEM Configuration: Sentinel
- Managed SIEM & SOAR Services
- XDR Configuration & Management



Scalable Platforms

Modern Work

- Microsoft Teams Voice
- Migration to O365 or M365
- SharePoint Migrations and/or Modernizations
- OneDrive Migrations
- Entra ID Services

Azure Transformation

- Cloud Readiness – Discovery & Assessment
- Cloud Business Case Development
- Cloud Migration Services
- SQL Database Migration & Modernization
- Backup & Disaster Recovery Services

Optimized Operations

Managed Services

- Modern Work Managed Services
- Application Management Services
- Cloud Managed Services
- Cloud Disaster Recovery and Managed Services
- Subscription and Perpetual Licensing
- Enterprise and MPSA Agreements
- Licensing Optimization Services

Azure Migration



Why Clients Are Embracing Cloud Services



Legacy

- Expensive hardware & application licenses
- Outdated application languages
- Large CapEx
- Management burden
- Large in-house IT staff
- New deployments can take months
- Security & compliance risk



Cloud Enabled Cost Savings + Agility

- High availability and best-of-breed technology embedded
- Modernized applications
- Consumption-based monthly OpEx
- On-demand IT resources and skill sets
- Scalable and on-demand capacity
- Deployment windows reduced with cloud automation
- Security & compliance included
- Right-size cloud spending



Email Platform



eCommerce



In-House Resources



ERP, CRM application



Data Infrastructure



Line of Business Application



Network Infrastructure

Azure Delivery Models



Cloud strategies typically involve either Private, Public, or Hybrid Cloud environments



Private Cloud



IT infrastructure supports a single organization



Managed with internal resources or by a 3rd-party data center provider



Confidential data & business-critical core systems

Networking
←...→



Hybrid Cloud



IT resources on both private and public clouds



Public cloud for non-mission-critical data and private cloud for proprietary data



Most enterprise clients utilize a hybrid cloud strategy

Networking
←...→



Public Cloud



"Pay as you go" billing model in a multitenant environment



Hosted and managed by a cloud service provider



Secure well architected framework that scales on demand

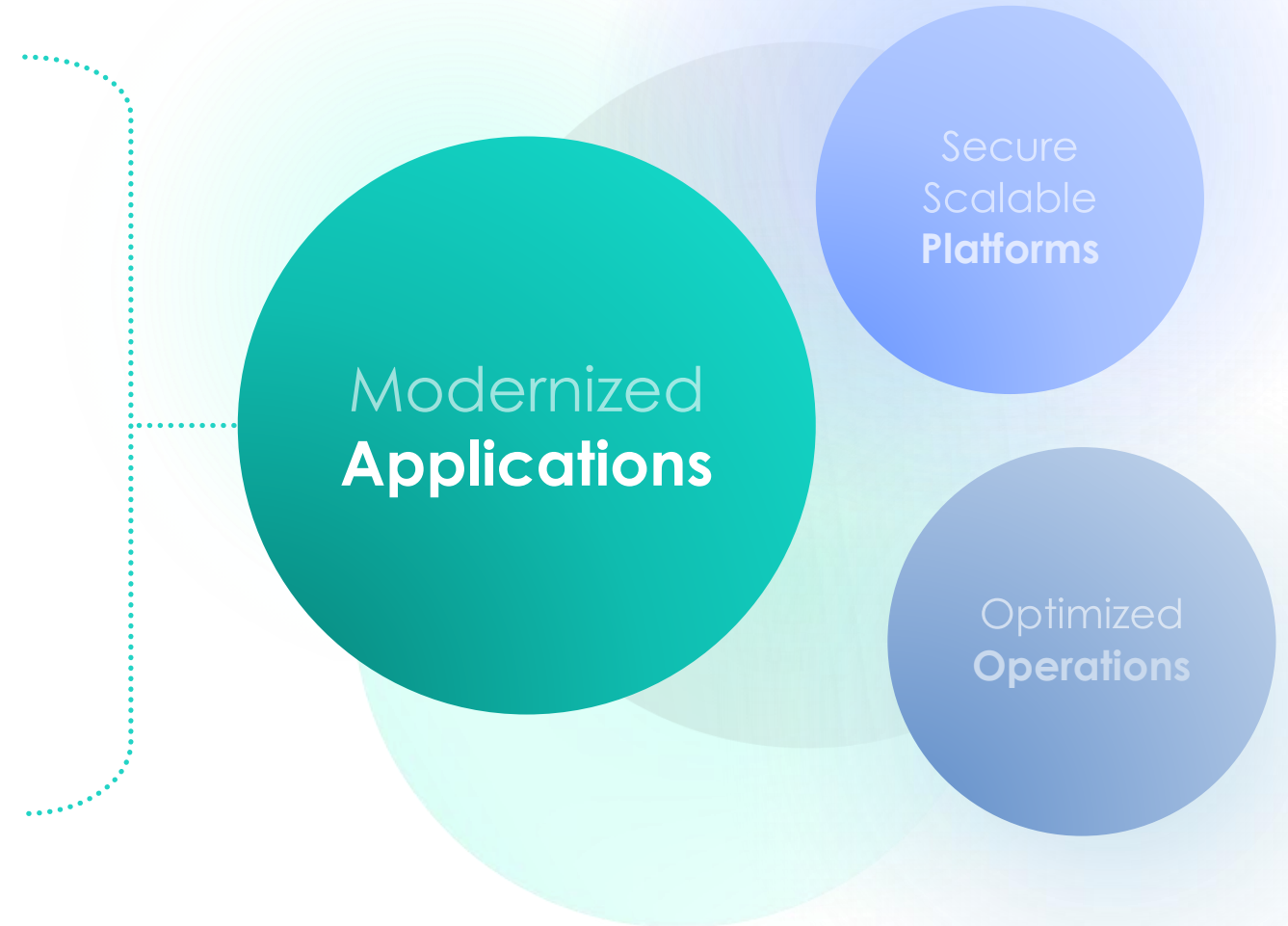
- Supported and Managed by Expert Cloud Solution Provider

Microsoft Cloud Adoption Framework



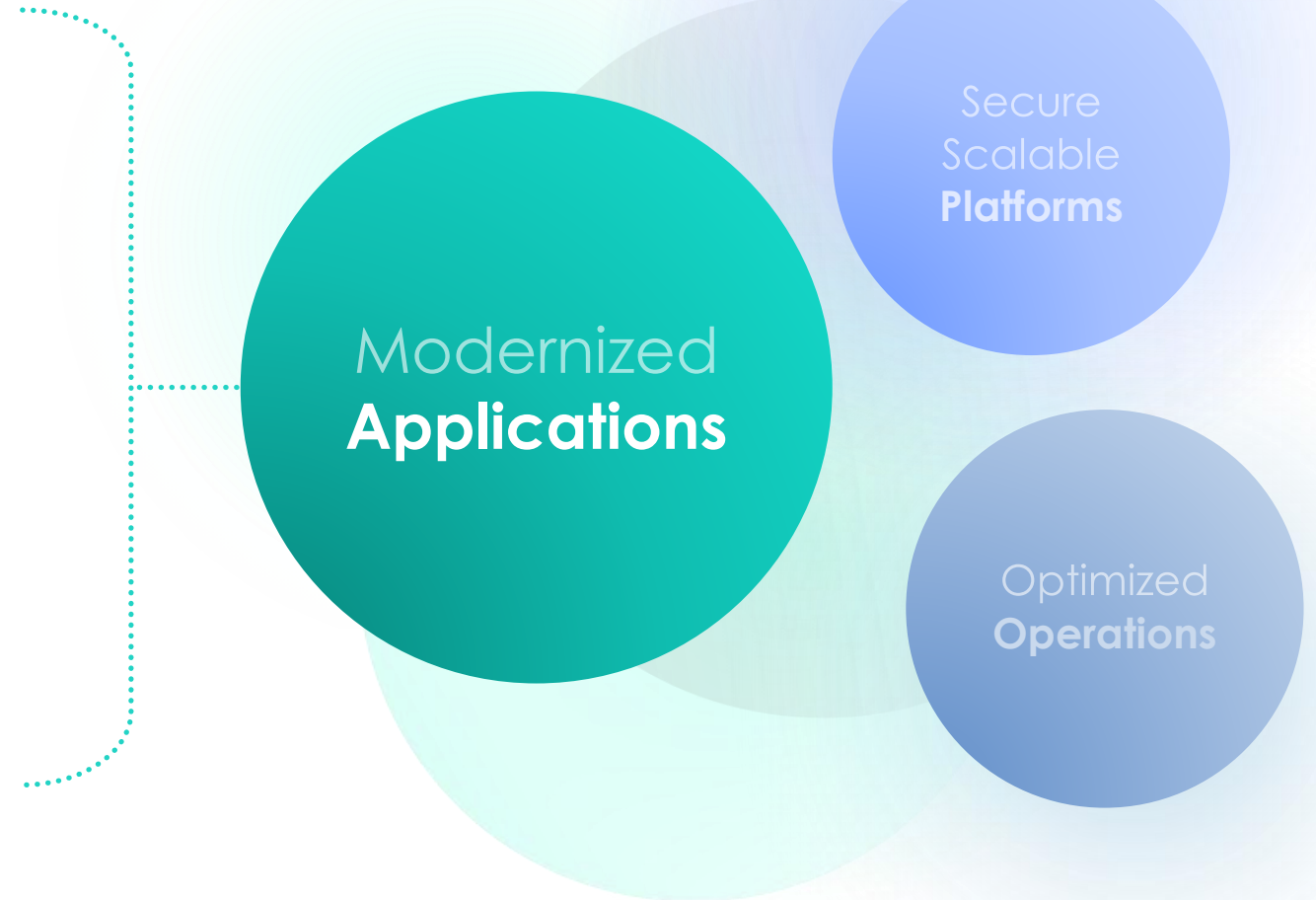
Our Azure Migration Portfolio

- Well Architected Review
- Security Posture Management
- Azure Re-platform, Build, and Migration
- Azure Migration Consulting
- General Consulting



Our Azure Migration Portfolio

- **Well Architected Review**
- Security Posture Management
- Azure Re-platform, Build, and Migration
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- General Consulting



Well Architected Review



Assessment of your current topology and key concepts, design principals, and architectural best practices for designing and running workloads in the cloud.



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Well Architected Review

Features



Performance Efficiency & Scalability Review

Designed for rapid scale-out on demand, scale-down after the surge.



Enhanced Reliability

- Designed for business requirements and sustainability during peak hours
- Redundancy for failure and resiliency for self healing
- Application Health Observability
- Opportunities for automation



Security

The following security areas are considered:

- Identity Management
- Protection of Infrastructure
- Application Security
- Segmentation and segregation
- Data sovereignty and encryption



Cost Optimization

Cost and incremental value should be considered. Build-Measure-Learn approach is used to measuring customer reactions and adjustments needed to improve customer experience.



Operational Excellence and Sustainability

Deployments must be reliable and predictable. Automated deployments reduce the chance of human error. Fast and routine deployment processes won't slow down the release of new features or bug fixes. Equally important, you must quickly roll back or roll forward if problems occur.



Well Architected Review

Methodology



Work with You to Enhance

- Environment Performance Efficiency
- Environment Reliability
- Environment Security
- Environment Sustainability
- Cost Optimization
- Operational Excellence



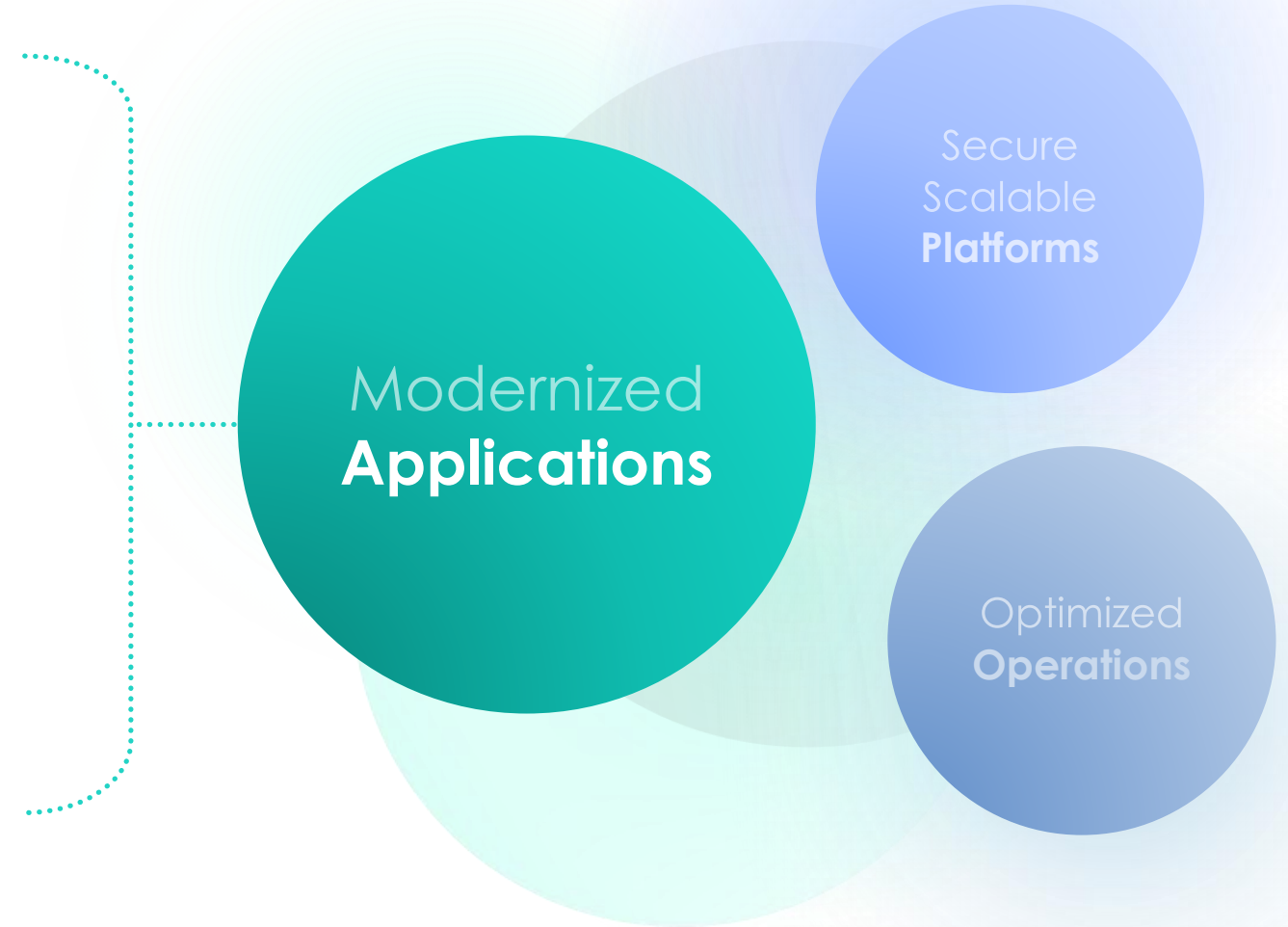
Deliver Expectations

- At the conclusion of a Well Architected Review, customers will be given a report covering all of the area's outlined within the scope of that specific review.
- This report will cover an explanation of all findings, recommendations and appropriate action plan.



Our Azure Migration Portfolio

- Well Architected Review
- **Security Posture Management**
- Azure Re-platform, Build, and Migration
- Azure Migration Consulting
- General Consulting



Security Posture Management



A one time or ongoing assessment of your Azure environment to reduce the risk of misconfigurations and gain the benefit of automated discovery and remediation.



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Security Posture Management

Features

- Continuous monitoring and management across multi-cloud environments
- Unified dashboard for a holistic view across all multi-cloud environments and benchmarking of current state to industry standards
- Automated remediation
- Pre-built compliance packs for PCI, HIPAA, GDPR, SOC, NIST, CSA CCM, CIS, ISO, and more
- Best-practice pack with identification of orphaned components
- Extensible platform for enhanced customization
- Weekly reports



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Security Posture Management

Methodology



Work with You to Enhance

- Identity Management
- Protection of Environment
- Application Security
- Data sovereignty and Encryption
- Security Resourcing



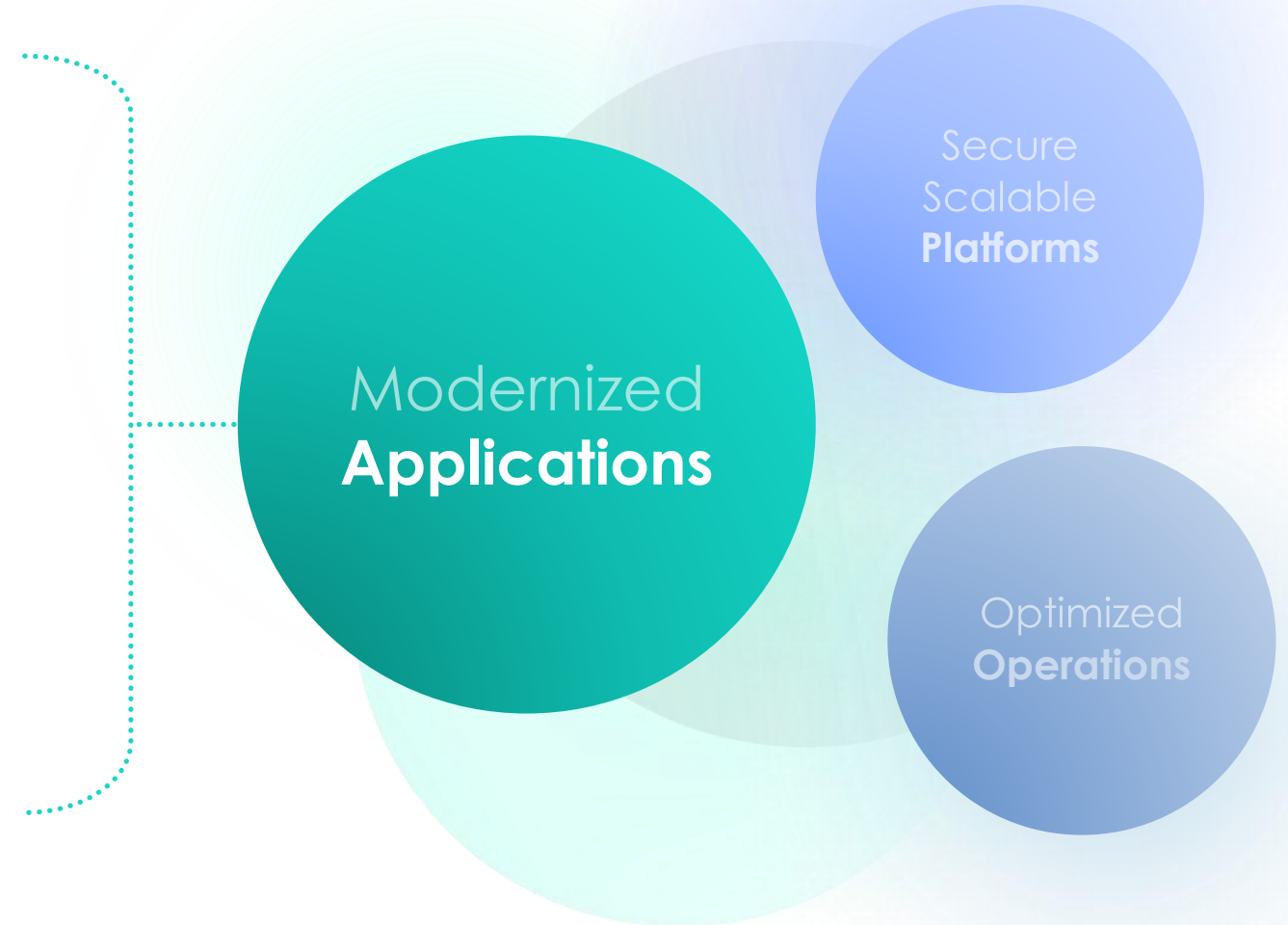
Deliver Expectations

- Best Practice Design Principles for sustainability in the cloud
- Recommended Cyber Controls and guardrails
- Secure coding recommendations
- Data Classification and Tiering guidelines



Our Azure Migration Portfolio

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Azure Re-platform, Build, and Migration



Moving your current platform, as well as rewriting/refactor and migrating existing applications to a new Azure environment to gain efficiencies.



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Azure Re-platform, Build, and Migration

Features



Buildout Planning and Migration Execution

- Architecture design and project plan is developed that establishes application prioritized order of migration
- Identify critical roles, develop timeline and migration process and procedures
- Execute secure migration and perform all necessary testing of the new environment including DR.



Transition To Operations

- Final update and review of documentation including:
 - As-built architecture diagrams
 - Dataflow diagrams
 - Tagging standards
 - Monitoring guidelines and alert configurations
 - Automation code library and deployment run book
 - QA and DR test plans
 - Any change management processes
 - Established security parameters and guidelines



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Azure Re-platform, Build, and Migration

Enhanced Features

- Analysis of application cloud readiness to enable portability, scalability and faster iterations
- Options for cloud-native service, micro services and serverless architecture utilization
- Infrastructure As Code approach and recommendations
- Options for containerization
- Documented scope approach and estimate for rebuild or rehosting of application in the cloud to take advantage of cloud native services and benefits



Azure Re-platform, Build, and Migration

Methodology



Work with You to Enhance

- Code development best practices and approach
- Efficiencies of application performance
- Rapid proof of concept (POC)
- Increased speed to market



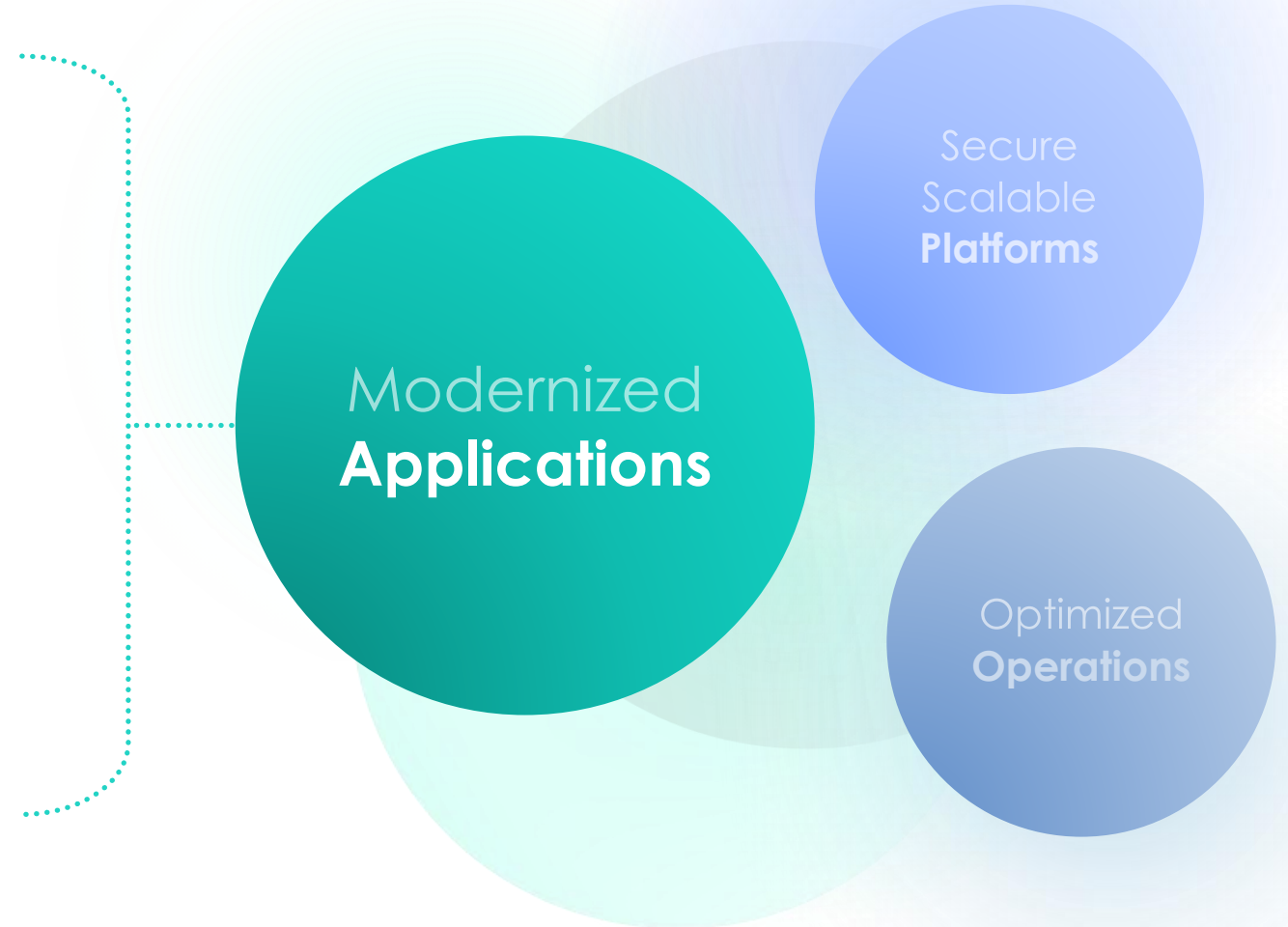
Deliver and Outcomes

- Guidance regarding moving workloads and applications from datacenters into the cloud
- Scope resource needs and timeline of potential remediation and migration plan for designated application
- Next generation cloud architectures for applications, giving you options on the path chosen for native service adoption
- Options for redundancy and reliability aimed at fluid app performance utilizing the benefits of cloud services



Our Azure Migration Portfolio

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- **Azure Migration Consulting**
- General Consulting



Azure Migration Consulting



Guidance regarding moving workloads and applications from data centers into Azure, or net new builds within an Azure environment. This can be at the start of the Azure journey, or after a customer has already started to transition.



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Azure Migration Consulting

Features



Detailed Discovery and Assessment

- Review current state & establish strategic business goals
- Determine priorities and dependencies
- Cloud adoption framework analyzed and reviewed
- On-premises applications and IT infrastructure are identified
- Analysis and documentation of current environment and resourcing options reviewed



Migration and Buildout Planning

- Architecture design and project plan is developed that establishes application prioritized order of migration
- Identify critical roles, develop timeline and migration process and procedures
- Execute secure migration and perform all necessary testing of the new environment
- Ensure thorough transfer to operations



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Azure Migration Consulting

Methodology



Work with You to Determine

- Define applications earmarked for public cloud based on need and requirements
- Scan server and application dependency within current environment
- Map out how applications will transition and architecture options, utilizing well-architected best practices around network, database, application and infrastructure



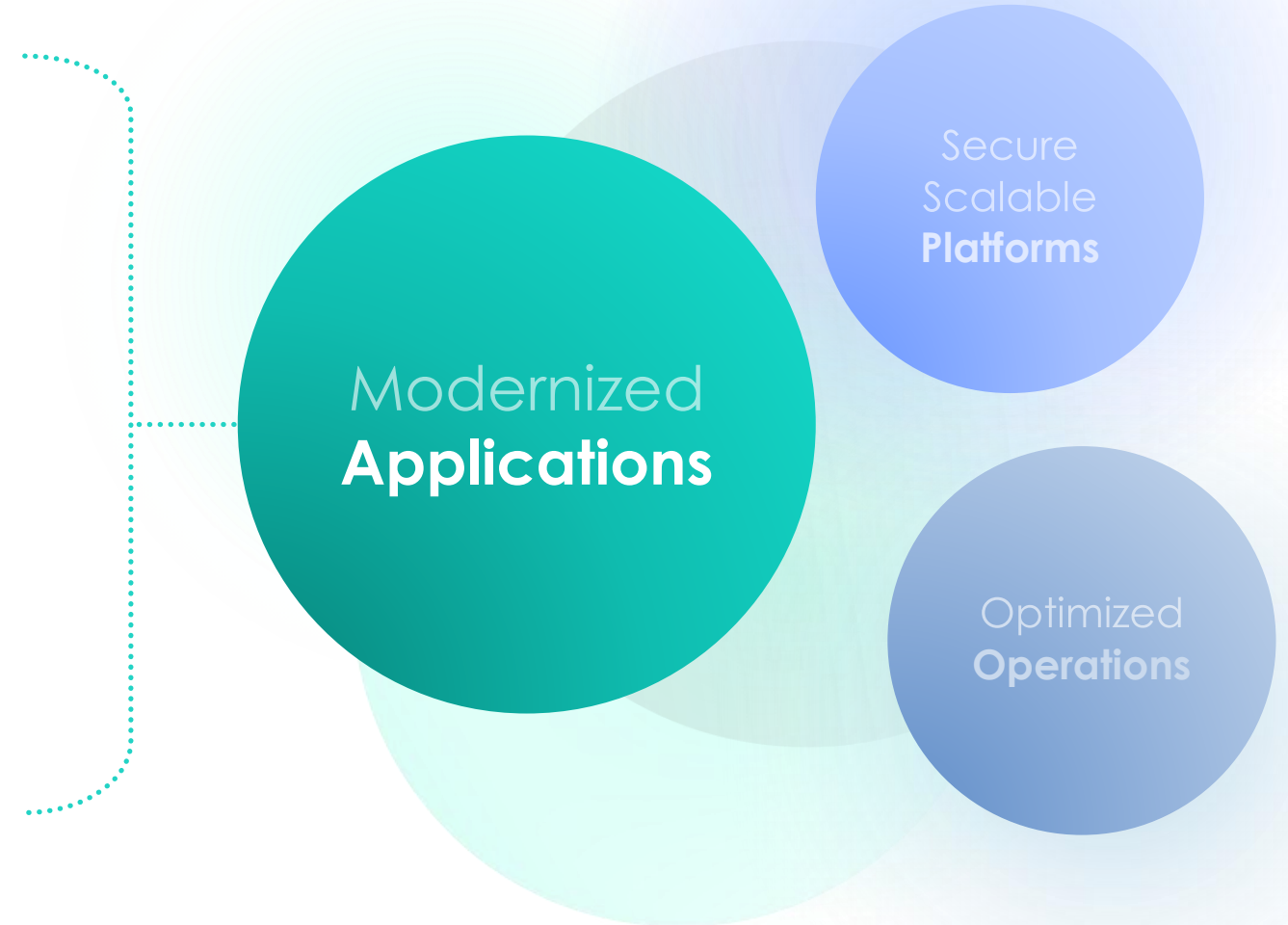
Deliver and Outcomes

- Scope resource needs and timeline of potential migration plan for designated application
- Application dependency mapping diagrams
- Next generation cloud architectures for applications, giving you options on the path chosen
- Options for redundancy and reliability aimed at fluid app performance during an outage



Our Azure Migration Portfolio

- Well Architected Review
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- Azure Migration Consulting
- **General Consulting**



General Consulting



Guidance on your specific or unique challenge you have encountered in existing environments, such as cloud adoption, cost assessments and operational issues.



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General Consulting

Features



This service focus' on your operations, reliability, performance efficiency or cost optimization trouble area's specific to your unique environment.

- Enhanced alerting opportunities without over taxing systems
- Impacts to environment uptime
- Reducing costs without impacting delivery
- Automation For work efficiency or speed to market
- Security Vulnerability Remediation
- Cross Platform Integrations for data or tool dependency



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Azure Managed Services



Managed Azure

Fully Managed and Networking Service

For customers who need stability, flexibility, security, and peace of mind within their cloud environment, CBTS, a certified Microsoft CSP, provides best-in-class managed Azure services.

Azure monitoring and management provides:

- Administrative support
- Cost optimization
- Continuous monitoring and management 24x7
- Updates and patching
- Monitoring and alerting
- Security and compliance
- Azure DevOps
- Licensing and billing support



Managed Azure Onboarding

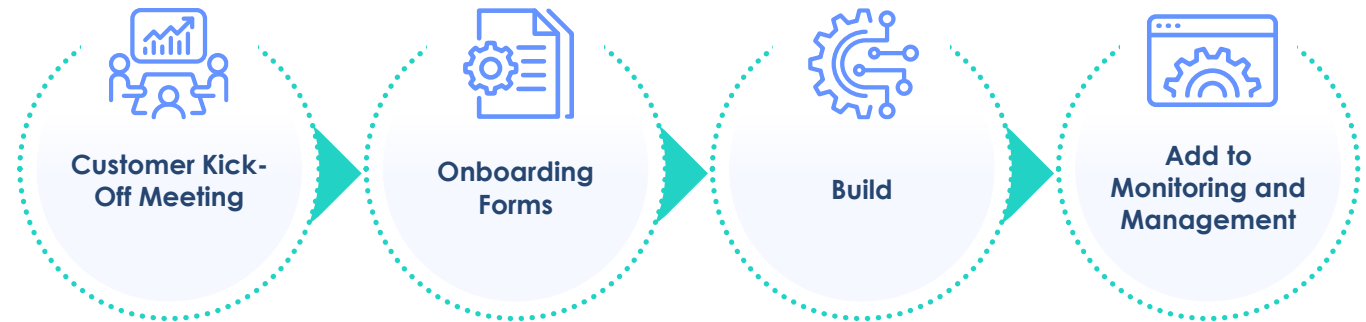
Service Transition incl. Build Projects – Overview



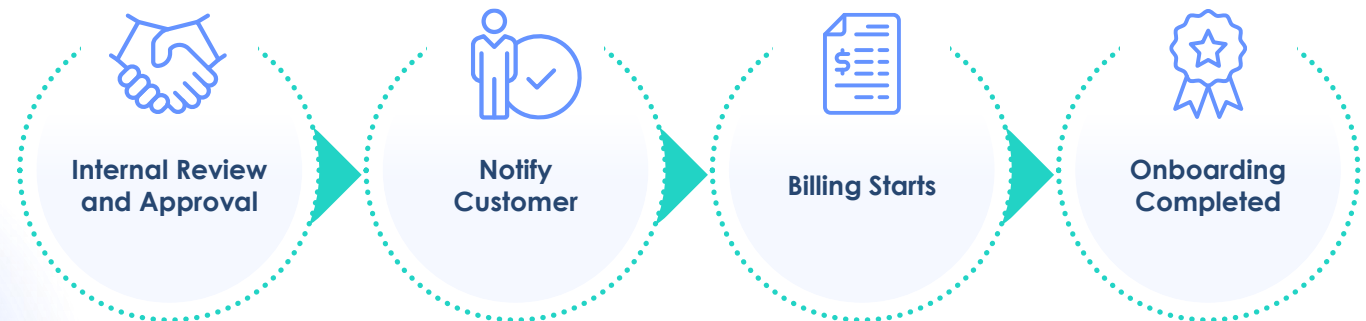
White glove onboarding with support staff

- Service Transition Manager
- Project Manager
- Lead Engineer

Build to Run – Transition



Completion



Azure Optimization Services

Realize and maximize value of the cloud



1. Shut down unused resources
2. Right-size underused resources
3. Reserve instances for consistent workloads
4. Capitalize on Azure Hybrid benefits
5. Configure autoscaling
6. Set up budgets and allocate costs to teams and projects
7. Choose the right Azure compute service





Azure Compute Services

Azure compute provides the resources you need to run your apps, containerization, and server infrastructure with elastic capacity in the cloud and scale on demand. Deploy Windows and Linux virtual machines and take advantage of flexible options for all scenarios. With CBTS managed services for Azure Compute we can help improve operational excellence while reducing the likelihood of extended outages, issues related to configuration drift, vulnerabilities related to systems being improperly patched and the overall health of all compute resources.

- Virtual machines
- Virtual machine scale sets
- Availability sets
- VM images
- Azure container instances
- Azure Container Registry
- Kubernetes services (AKS)
- Container Apps
- Azure Functions
- Batch
- App Service (Plans)
- Web App for Containers
- API Management (Gateway)
- Content Delivery Network
- Azure Dedicated Hosts/Host Groups
- AVD (Azure Virtual Desktop)

Azure Storage Services



Azure Storage is the Azure platform's managed service for providing cloud storage. Azure Storage is composed of several core services and supporting features. Storage in Azure is highly available, secure, durable, scalable, and redundant allowing many scenarios and considerations to implement for a customer. CBTS managed services for Azure Storage allows the continued support and advanced configurations to take advantage of storage services and less reliant on IaaS solutions.

- Azure Blob storage
- Archive Storage/Tiering
- Azure Files
- Storage Sync Services
- Azure Disk storage
- Azure HPC cache
- Azure Backup
- Azure Site Recovery
- Azure Data Box/Data Box Gateway
- Azure NetApp Files*
- StorSimple*

Azure Networking Services



Azure Networking is the Azure's software defined solution for a high speed and agile communication backbone. This SDN is the fundamental building block for your private network in Azure. CBTS Managed Services helps your azure network perform at its optimal level and constantly updates it to provide seamless communication while implementing zero trust with Microsoft best practices and solutions.

- Virtual networks
- Network security groups
- Application security groups
- Public IP addresses
- Network interfaces
- Azure DNS
- Bastions
- Load balancers
- Network Watcher
- Azure DDoS Protection
- Service endpoints
- Private Link/Private Link Service
- Route tables
- Azure Route Server
- Azure Firewall
- Traffic Manager
- Web Application Firewall (WAF)
- Azure Front Door
- VPN Gateways
- Application gateways
- NAT gateways
- Virtual WANs



Azure Database Services

Azure Database solutions include both traditional relational database management system (RDBMS) and big data solutions. A big data architecture is designed to handle the ingestion, processing, and analysis of large or complex data. With CBTS Managed Services, we can take it one step further for better optimization, increased security with resiliency and getting the most out of your data.

- Azure SQL
- SQL Server (IaaS)
- Azure SQL Database
- Azure SQL Managed Instance
- Table Storage
- Azure Database for MariaDB
- Azure Database for MySQL
- Azure Database for PostgreSQL
- Azure Cosmos DB
- Event Hubs
- Azure Cache for Redis
- Azure Data Factory
- Azure Data Share
- Azure Data Lake Storage
- Azure Database Migration Service



Azure Analytics Services

Azure Analytics services gives you the ability to monitor and react on performance anomalies, diagnose issues invisible to the eye and continuously improve workload performance and usability. CBTS assists is properly using the tools to its maximum value by using experience and Microsoft's partnership to target your specific needs.

- Azure Monitor
- Log Analytics workspaces
- Application Insights

First Transit

First Transit turns to CBTS to “lift and shift” third party application to **Azure environment.**

First Transit, Inc. has more than 60 years of experience and is the largest private-sector provider of mobility solutions in North America, moving more than 300 million passengers annually. First Transit provides operation, management, and consulting for more than 300 locations in 41 states, four Canadian provinces, and Puerto Rico for transit authorities, state departments of transportation, municipalities, universities, and private companies.

Problem:

First Transit was looking to migrate one of their vendor supported applications to Azure to reduce data center reliance.

CBTS Solution:

CBTS reviewed their third-party application and worked to understand the vendor's support requirements. PaaS offerings were limited in the solution as the vendor required 'physical' compute, thus virtual machines in Azure were utilized. We designed and built the new application environment in Azure and performed a 'lift and shift' migration which included Windows based application and database servers with integration to a reporting services in another Azure subscription.

Technology:

- Azure VMs with encrypted disks
- NSGs
- Active Directory
- Azure Blob and AZCopy
- DDOS
- Virtual Gateways



Cintas maintains “business as usual” while recovering from ransomware attack.

The client is the largest provider of a range of products and services to businesses including uniforms, mats, cleaning and safety products in the U.S.

Problem:

Customer was impacted by a ransomware attack which compromised their onsite network. They needed a way for employees to access corporate and partner assets without accessing their onsite network.

CBTS Solution:

CBTS built an Azure Windows Virtual Desktop environment to enable their employees to connect to virtual desktops from remote locations. We focused on network isolation between test and production subnets as well as ensuring internet and on premise accessibility surface area was minimized with hardened Network Security Groups and Azure Firewalls. Security design and implementation was critical to the overall solution and a least privileged approach was taken.

Technology:

- Azure Windows Virtual Desktop
- Network Security Groups
- Azure Firewalls
- Storage Account Firewalls
- Bastion Host
- DDOS Protection
- Azure Monitor



Kroger automates next generation network architecture offerings into **Azure environment** to extend security.

The client, founded in 1883, is the largest US grocer retailer in the US, with 3400 store locations in 50 states.

Problem:

As Kroger began to do more and more in their Azure environment, they needed to extend their standards for network security into Azure.

CBTS Solution:

CBTS partnered with the customer's Network Security and Cloud Services teams to automate the next generation of network architecture offerings hosted in Azure. To accomplish this, we leveraged Infrastructure as Code to implement best practices. The following were automated:

- Deployment of BlueCat DNS servers in an HA configuration
- Integration with BlueCat Gateway and BlueCat IPAM
- Deployment of Broadcom (formerly BlueCoat) ProxySG for outgoing traffic, including setup of private keys in Azure KeyVault
- Deployment of Palo Firewall Appliances for egress and DMZ topologies

- Azure Resource Manager Templates to deploy Azure Resources and vendor network virtual appliances
- Github for version control management of the Azure Resource Manager templates
- Github Actions for CI/CD
- Azure CLI and PowerShell Modules

Technology:



Divestiture Drives Need for new Microsoft M365 Tenant and Migration for Leading Retailer.

A U.S.-based gas station and convenience store chain with several thousand locations throughout 32 states.

Problem:

Marathon Oil split off its Speedway gas station unit into its own company (that was later acquired by 7 Eleven). As a result, Speedway needed to establish their own Microsoft 365 environment and migrate their employees from Marathon to Speedway's tenant.

CBTS Solution:

- CBTS performed a series of workshops to understand the current state of Marathon's environment and the ultimate plans for Speedway and how they were going to operate
- Developed the design of the new Speedway Microsoft 365 tenant including email, OneDrive, SharePoint, Teams and Security
- Executed the migration of over 2500 users and all accompanying data into the newly established Microsoft 365 tenant
- Assisted in the build and training of the new Speedway team to support the environment ongoing

Technology:

- Microsoft 365
- Azure
- Microsoft 365 Email
- Microsoft 365 OneDrive
- Microsoft 365 SharePoint
- Microsoft 365 Teams
- Quest Migration Manager
- PowerShell



Thank You!

Next Steps...

Schedule a **discovery session** with our consultants followed by an **assessment** of your current environment

Visit us on the web at [CBTS.com](https://www.cbts.com) and follow us on social



Appendix



Cloud Transformation



Azure Assessment Services

Review and document current infrastructure and applications, and recommend a roadmap to transform your operation and migrate to a cloud environment.

- Cloud Readiness Assessment
- Application Portfolio Discovery & Assessment
- Cloud Well-Architected Framework Design

Application Development Services

Applications are re-written, re-platformed, and tested for optimal performance in a new cloud environment.

- Application Developer Staffing
- Application Development
- Application Re-Platforming
- Application Architecture Design

Managed Azure Migration

Services that securely migrate customer environments from one data center or cloud environment to another with as little impact to production as possible, and in a secure and protected manner.

- CI/CD Tool Chain Design and Rollout
- Tenant Design and Rollout
- Managed Migration

Managed Azure Support

Ongoing monitoring, maintenance and management of cloud and on-premises environments, applications, and infrastructure.

- Managed Applications
- Managed Infrastructure
- Managed Cloud
- Managed Disaster Recovery
- Managed Backup