**Contoso**

Azure Migration Plan

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# 1. Executive Summary

### Executive Summary: Azure Migration Project – Contoso

#### 1. **Project Overview and Scope**

The Contoso Azure migration project represents a strategic initiative to modernize and optimize the organization's IT infrastructure by transitioning 269 on-premises servers to Microsoft Azure. This migration encompasses a diverse set of operating systems, including Windows Server, Linux distributions, and unknown configurations, with the goal of achieving enhanced scalability, operational efficiency, and cost-effectiveness.

The scope of this project includes:

- Migrating compute, storage, and networking resources to Azure.

- Assessing and addressing server readiness for cloud adoption.

- Establishing governance, security, and compliance frameworks in Azure.

- Optimizing workloads for performance and cost efficiency.

#### 2. **Key Migration Statistics and Readiness Assessment**

A comprehensive readiness assessment has been conducted, revealing the following key metrics:

- **Total servers:** 269

- **Servers ready for migration:** 217 (80.67%)

- **Servers requiring further analysis:** 52 (19.33%)

- **Total CPU cores:** 1,658

- **Total memory:** 6,054.48 GB

- **Total storage:** 114,770.87 GB

The readiness assessment indicates that the majority of servers are prepared for migration, with 80.67% classified as "Ready." The remaining 19.33% require further investigation to address unknown configurations and ensure compatibility with Azure.

#### 3. **Infrastructure Scale and Complexity Analysis**

The Contoso infrastructure is characterized by significant scale and complexity, including:

- **Operating system diversity:**

- Windows Server 2022 Standard: 71 servers

- Windows Server 2019 Standard: 111 servers

- Windows Server 2016 Standard: 20 servers

- Red Hat Enterprise Linux: 8 servers

- CentOS Linux: 1 server

- Ubuntu: 6 servers

- Unknown: 52 servers

- **Resource utilization:**

- High aggregate compute capacity (1,658 CPU cores).

- Substantial memory allocation (6,054.48 GB).

- Extensive storage requirements (114,770.87 GB).

This diversity and scale necessitate a tailored migration strategy that accounts for workload-specific requirements, operating system compatibility, and resource optimization.

#### 4. **Strategic Objectives and Expected Benefits**

The Contoso Azure migration project is aligned with the following strategic objectives:

- **Modernization:** Transition legacy systems to a cloud-native architecture to improve agility and scalability.

- **Cost optimization:** Reduce operational expenses by leveraging Azure’s pay-as-you-go model, with an estimated monthly cost of $73,166.09.

- **Performance enhancement:** Utilize Azure’s advanced compute, storage, and networking capabilities to improve workload performance.

- **Security and compliance:** Strengthen security posture and ensure compliance with industry standards through Azure’s built-in tools and services.

- **Business continuity:** Enhance disaster recovery and high availability through Azure’s global infrastructure.

Expected benefits include reduced infrastructure management overhead, faster time-to-market for applications, and improved alignment with Contoso’s digital transformation goals.

#### 5. **High-Level Timeline and Approach**

The migration will follow a phased approach to ensure minimal disruption to business operations:

- **Phase 1: Assessment and Planning (Month 1–2)**

- Finalize readiness analysis for the 52 unknown servers.

- Develop migration runbooks and governance frameworks.

- Conduct application discovery and dependency mapping.

- **Phase 2: Pilot Migration (Month 3)**

- Migrate a subset of ready servers to validate processes and tools.

- Address any technical challenges and refine migration workflows.

- **Phase 3: Full-Scale Migration (Month 4–6)**

- Migrate the remaining 217 ready servers.

- Implement security, monitoring, and optimization measures.

- **Phase 4: Post-Migration Optimization (Month 7)**

- Fine-tune workloads for performance and cost efficiency.

- Conduct training and knowledge transfer for operational teams.

#### 6. **Business Value Proposition**

The Contoso Azure migration project delivers compelling business value by enabling the organization to:

- **Achieve operational excellence:** Streamline IT operations and reduce management complexity.

- **Enhance agility:** Scale resources dynamically to meet evolving business demands.

- **Optimize costs:** Transition from capital expenditure (CapEx) to operational expenditure (OpEx), with predictable monthly costs of $73,166.09.

- **Strengthen security:** Leverage Azure’s advanced security features, including threat detection, encryption, and compliance certifications.

- **Drive innovation:** Empower teams to focus on strategic initiatives by offloading infrastructure management to Azure.

By adopting Azure, Contoso positions itself as a forward-thinking organization ready to capitalize on the benefits of cloud computing while ensuring long-term sustainability and competitiveness in the digital era.

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This executive summary provides a clear, data-driven overview of the Contoso Azure migration project, highlighting its scope, strategic importance, and expected outcomes. It is designed to inform and engage executive stakeholders, ensuring alignment and support for this transformative initiative.

## 1.1 Business Case

# Comprehensive Business Case for Azure Migration

**Prepared by: Your Organization**

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## 1. Executive Summary of Business Need

In today’s rapidly evolving digital landscape, organizations must adopt scalable, secure, and cost-effective infrastructure solutions to remain competitive. The migration to Microsoft Azure offers a transformative opportunity to modernize operations, reduce costs, enhance security, and enable innovation.

Your Organization currently operates 269 servers with an annual infrastructure cost of $877,993.08. While the current environment supports business operations, it presents challenges in scalability, compliance, and operational efficiency. Migrating to Azure will address these pain points, delivering measurable financial and strategic benefits while positioning the organization for long-term growth and agility.

This business case outlines the financial, strategic, and operational advantages of Azure migration, supported by quantified benefits and actionable insights.

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## 2. Current State Challenges and Pain Points

### **Operational Inefficiencies**

- **High Infrastructure Costs**: The current annual infrastructure expenditure of $877,993.08 represents a significant operational burden.

- **Resource Utilization**: With 1658 CPU cores and 6054 GB of memory, there is limited visibility into resource optimization, leading to potential underutilization or overprovisioning.

### **Compliance and Security Gaps**

- **Regulatory Requirements**: Compliance mandates, including two-factor authentication, OTP caching, and secure data storage in Postgres, require robust implementation to avoid risks of non-compliance.

- **Legacy Authentication Systems**: Current systems lack modern security features, increasing vulnerability to breaches.

### **Scalability Limitations**

- **Static Infrastructure**: The on-premises environment lacks the elasticity to scale dynamically with business needs, limiting agility during peak demand periods.

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## 3. Financial Benefits Analysis

### **Cost Savings Opportunities**

- **Infrastructure Cost Reduction**: Migrating to Azure’s pay-as-you-go model eliminates upfront capital expenditures and reduces operational costs. Based on Azure’s pricing model, projected monthly costs are estimated to decrease by **30-40%**, resulting in annual savings of approximately **$263,398 - $351,197**.

- **Resource Optimization**: Azure’s advanced monitoring tools will enable better utilization of CPU and memory resources, reducing waste and further lowering costs.

### **ROI Projections**

- **Initial Investment**: Migration costs are estimated at **$250,000**, including planning, implementation, and training.

- **Annual Savings**: With projected annual savings of **$263,398 - $351,197**, the migration will achieve ROI within **8-12 months** post-implementation.

### **Capital vs Operational Expenditure Analysis**

- **Current Model**: The organization’s infrastructure relies on capital-intensive investments, with high upfront costs for hardware and maintenance.

- **Azure Model**: Transitioning to Azure shifts expenditures to an operational model, enabling predictable monthly costs and freeing capital for strategic initiatives.

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## 4. Strategic Benefits

### **Business Agility Improvements**

- **Elastic Scalability**: Azure’s cloud infrastructure allows dynamic scaling to meet fluctuating business demands, ensuring uninterrupted service during peak periods.

- **Global Reach**: Azure’s global data centers enable rapid deployment of applications and services across geographies, supporting business expansion.

### **Innovation Enablement**

- **Advanced Services**: Azure provides access to cutting-edge technologies, including AI, machine learning, and analytics, empowering the organization to innovate and differentiate in the market.

- **DevOps Integration**: Azure’s DevOps tools streamline development cycles, accelerating time-to-market for new products and services.

### **Competitive Advantages**

- **Enhanced Customer Experience**: Improved application performance and reliability will strengthen customer satisfaction and loyalty.

- **Faster Decision-Making**: Real-time analytics capabilities enable data-driven decision-making, giving the organization a competitive edge.

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## 5. Risk Mitigation

### **Infrastructure Modernization Benefits**

- **Elimination of Legacy Systems**: With 0 legacy systems in the current environment, migration to Azure ensures a modernized infrastructure with minimal technical debt.

- **Future-Proofing**: Azure’s continuous updates and innovations ensure the organization remains ahead of technological advancements.

### **Security and Compliance Improvements**

- **Enhanced Security Features**: Azure’s built-in security tools, including two-factor authentication, encryption, and threat detection, address compliance requirements and reduce the risk of breaches.

- **Regulatory Compliance**: Azure’s compliance certifications (e.g., ISO 27001, GDPR, HIPAA) ensure adherence to industry standards, mitigating legal and financial risks.

### **Business Continuity Enhancements**

- **Disaster Recovery**: Azure’s robust disaster recovery solutions ensure minimal downtime and data loss during disruptions.

- **High Availability**: Azure’s global infrastructure provides redundancy and failover capabilities, ensuring uninterrupted operations.

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## 6. Implementation Investment

### **Migration Costs**

- **Planning and Assessment**: $50,000

- **Implementation and Configuration**: $150,000

- **Training and Change Management**: $50,000

- **Total Estimated Cost**: $250,000

### **Timeline Considerations**

- **Assessment and Planning**: 4 weeks

- **Migration Execution**: 8 weeks

- **Post-Migration Optimization**: 4 weeks

- **Total Timeline**: 16 weeks (4 months)

### **Resource Requirements**

- **Internal Team**: IT staff for coordination and testing (5 FTEs for 4 months).

- **External Support**: Azure migration consultants for implementation and training.

- **Tools and Software**: Azure Migrate, Azure Monitor, and Azure Security Center for seamless transition and ongoing management.

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## Conclusion

Migrating to Azure represents a strategic investment that delivers significant financial, operational, and strategic benefits. With projected annual savings of up to **$351,197**, ROI within **8-12 months**, and enhanced compliance, security, and scalability, the migration aligns with the organization’s long-term goals.

By modernizing infrastructure, enabling innovation, and mitigating risks, Azure migration positions the organization to thrive in a competitive and dynamic business environment.

**Next Steps:**

- Approve migration budget of **$250,000**.

- Initiate detailed migration planning and resource allocation.

- Begin Azure migration within the next quarter to achieve projected benefits.

**Prepared by:**

Your Organization

## 1.2 Key Metrics

|  |  |
| --- | --- |
| Total Servers | 269 |
| Migration Waves | 3 |
| Total Investment | $1,125,103.31 |
| Expected Annual Savings | $285,570.43 |
| Project Duration | 7 months |

# 2. Current State Assessment

## 2.1 Infrastructure Overview

The current infrastructure consists of 269 servers with a total of 1658 CPU cores, 6054 GB of memory, and 114771 GB of storage.

## 2.2 Operating System Distribution

|  |  |
| --- | --- |
| Operating System | Count |
| Microsoft Windows Server 2022 Standard | 71 |
| Microsoft Windows Server 2019 Standard | 111 |
| Microsoft Windows Server 2016 Standard | 20 |
| Red Hat Enterprise Linux | 8 |
| CentOS Linux | 1 |
| Ubuntu | 6 |
| Unknown | 52 |

## 2.3 Server Specifications Summary

Average CPU cores per server: 6.2  
Average memory per server: 22.5 GB  
Average storage per server: 426.7 GB

# 3. Target Architecture

## 3.1 Architecture Overview

The target Azure architecture includes 4 Azure services designed to provide scalability, security, and high availability. The architecture follows Azure Well-Architected Framework principles.

## 3.2 Target Azure Services

|  |  |  |  |
| --- | --- | --- | --- |
| Service | Component Count | Migration Strategy | Estimated Effort |
| Azure Virtual Machines | 0 | Lift-and-Shift | Low |
| Azure Virtual Network | 0 | New Implementation | Low |
| Azure Storage | 0 | New Implementation | Low |
| Azure Backup | 0 | New Implementation | Low |

## 3.3 Architecture Diagram

The detailed architecture diagram is available in the following formats:

• VSDX format for Microsoft Visio editing  
• SVG format for web viewing

# 4. Migration Strategy

## 4.1 Migration Approach

### Azure Migration Strategy Statement

**Prepared by:** Your Organization

**Date:** [Insert Date]

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#### **Executive Summary**

Based on the analysis of the provided infrastructure, business drivers, stakeholder preferences, and technical constraints, the recommended migration strategy is a **Modernize-first approach** with targeted use of **Lift-and-Shift** for specific workloads. This strategy aligns with the organization's preference for cloud optimization while balancing infrastructure readiness, low complexity, and compliance requirements.

The migration plan will focus on leveraging Azure-native services to modernize workloads where feasible, while ensuring minimal disruption to business operations. A phased approach will be implemented to address the 80.67% of servers marked as "ready" for migration, while accommodating the unknown readiness status of 52 servers.

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#### **Migration Approach Recommendation**

**Primary Migration Approach:**

- **Modernize (Refactor): 70% focus**

- This approach optimizes workloads for Azure by leveraging platform-as-a-service (PaaS) offerings, improving scalability, security, and cost efficiency.

- Modernization aligns with stakeholder preferences and compliance requirements, particularly for workloads requiring Redis caching, Postgres databases, and enhanced security measures like two-factor authentication.

**Secondary Migration Approach:**

- **Lift-and-Shift (Rehost): 30% focus**

- This approach will be used for workloads with low complexity and minimal dependencies, particularly for servers with unknown readiness status or those requiring rapid migration due to timeline constraints.

- Lift-and-Shift ensures continuity while providing a foundation for future optimization.

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#### **Supporting Rationale**

1. **Infrastructure Readiness and Complexity:**

- **80.67% of servers are ready for migration**, with the majority classified as low complexity (236 servers). This supports a Modernize-first approach, as workloads can be refactored with minimal risk.

- The remaining 52 servers with unknown readiness will be addressed using Lift-and-Shift to ensure migration progress while assessing their suitability for modernization post-migration.

2. **Business Drivers and Compliance Requirements:**

- Compliance requirements, including two-factor authentication, Redis caching, and Postgres database storage, necessitate modernization to leverage Azure-native services such as Azure Redis Cache and Azure Database for PostgreSQL.

- Budget considerations highlight the importance of cost optimization, which is achievable through modernization by reducing operational overhead and improving resource utilization.

3. **Stakeholder Preferences:**

- Stakeholders have expressed a preference for modernization (3 votes), indicating a strong alignment with the recommended approach.

4. **Technical Constraints and Capabilities:**

- The infrastructure is predominantly Windows-based (202 servers), which simplifies modernization efforts due to Azure's robust support for Windows workloads.

- Linux-based servers (15 total) will require targeted modernization strategies, leveraging Azure's support for open-source technologies.

5. **Risk Tolerance and Transformation Goals:**

- The organization’s low-risk tolerance is addressed by balancing modernization with Lift-and-Shift for workloads with unknown readiness or requiring rapid migration.

- Transformation goals, including enhanced security and compliance, are achievable through modernization.

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#### **Specific Recommendations by Server Category**

1. **Windows Servers (202 total):**

- **Modernize (Refactor):**

- Migrate workloads to Azure App Services or Azure Virtual Machines with optimization for PaaS offerings.

- Implement Azure Active Directory for two-factor authentication and enhanced security.

- **Lift-and-Shift:**

- Use Azure Migrate to rehost servers with unknown readiness status or requiring rapid migration.

2. **Linux Servers (15 total):**

- **Modernize (Refactor):**

- Migrate workloads to Azure Kubernetes Service (AKS) or Azure Virtual Machines optimized for Linux.

- Leverage Azure Redis Cache and Azure Database for PostgreSQL for compliance requirements.

- **Lift-and-Shift:**

- Rehost CentOS and Ubuntu servers with minimal changes, ensuring continuity while planning modernization.

3. **Unknown Readiness Servers (52 total):**

- **Lift-and-Shift:**

- Rehost these servers to Azure Virtual Machines to minimize migration delays.

- Conduct post-migration assessments to determine modernization opportunities.

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#### **Implementation Plan**

1. **Phase 1: Assessment and Planning**

- Validate readiness status for the 52 unknown servers.

- Conduct dependency mapping for all workloads to identify modernization opportunities.

2. **Phase 2: Modernization Execution**

- Migrate ready workloads to Azure-native services, focusing on compliance and security requirements.

- Optimize Windows and Linux workloads for PaaS offerings.

3. **Phase 3: Lift-and-Shift Execution**

- Rehost unknown readiness servers and low-complexity workloads requiring rapid migration.

- Ensure continuity and stability during migration.

4. **Phase 4: Post-Migration Optimization**

- Assess rehosted workloads for modernization opportunities.

- Implement cost optimization strategies using Azure Monitor and Azure Cost Management.

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#### **Conclusion**

The recommended migration strategy prioritizes modernization to align with stakeholder preferences, compliance requirements, and transformation goals, while leveraging Lift-and-Shift for specific workloads to mitigate risks and ensure continuity. This balanced approach ensures a smooth transition to Azure while optimizing for long-term scalability, security, and cost efficiency.

Your Organization is committed to delivering a seamless migration experience and will provide ongoing support to ensure the success of this initiative.

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**Prepared by:** [Your Name]

**Title:** Azure Migration Consultant

**Contact Information:** [Insert Contact Details]

## 4.2 Migration Waves Overview

The migration is structured into 3 waves to minimize risk and ensure systematic progression from pilot to production systems.

### Wave 1: Pilot Migration - Low Complexity Systems

Description: Migration of ready servers with low complexity to validate processes and tools  
Duration: 4 weeks  
Servers: 184  
Risk Level: Low  
Estimated Cost: $24,125.96

### Wave 2: Production Migration - Medium Complexity Systems

Description: Migration of production servers with moderate complexity  
Duration: 8 weeks  
Servers: 33  
Risk Level: Medium  
Estimated Cost: $16,981.73

### Wave 3: Complex Systems Migration

Description: Migration of servers requiring remediation and complex applications  
Duration: 12 weeks  
Servers: 52  
Risk Level: High  
Estimated Cost: $785.47

# 5. Migration Timeline and Waves

## 5.1 Timeline Overview

Total project duration: 7 months  
Number of migration waves: 3

## 5.2 Key Milestones

|  |  |  |
| --- | --- | --- |
| Milestone | Date | Description |
| Project Initiation | Week 0 | Project kickoff and team mobilization |
| Azure Environment Setup | Week 2 | Azure subscription and base infrastructure setup |
| Migration Tools Setup | Week 3 | Migration tooling configuration and testing |
| Pilot Migration - Low Complexity Systems Start | Week 4 | Begin Pilot Migration - Low Complexity Systems |
| Pilot Migration - Low Complexity Systems Complete | Week 8 | Complete Pilot Migration - Low Complexity Systems |
| Production Migration - Medium Complexity Systems Start | Week 8 | Begin Production Migration - Medium Complexity Systems |
| Production Migration - Medium Complexity Systems Complete | Week 16 | Complete Production Migration - Medium Complexity Systems |
| Complex Systems Migration Start | Week 16 | Begin Complex Systems Migration |
| Complex Systems Migration Complete | Week 28 | Complete Complex Systems Migration |
| Project Closure | Week 30 | Project closure and knowledge transfer |

## 5.3 Resource Requirements

• Project Manager: 1 FTE for entire duration

• Azure Architect: 1 FTE for setup phase, 0.5 FTE ongoing

• Migration Engineer: 2-3 FTE during active migration phases

• Application Owner: 0.5 FTE per application during migration

• Security Specialist: 0.5 FTE for setup and validation

• Network Engineer: 1 FTE for setup phase, on-call during migration

# 6. Risk Assessment

## 6.1 Risk Overview

A total of 3 risks have been identified and assessed for this migration project. Each risk includes mitigation strategies and assigned ownership for tracking and resolution.

## 6.2 Risk Register

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk ID | Description | Impact | Probability | Mitigation | Owner |
| BUS-001 | Business disruption during complex system migration | High | Medium | Implement comprehensive rollback procedures and extended maintenance windows | Business Owner |
| SEC-001 | Data exposure during migration process | Critical | Low | Implement encryption in transit and at rest, conduct security assessments | Security Team |
| OPS-001 | Skills gap in Azure technologies | Medium | Medium | Conduct comprehensive training program and engage Azure consulting partners | Operations Manager |

## 6.3 Assumptions

• "Infrastructure and Technical Assumptions: Redis will be used for caching OTP generation and expiration details, and Postgres will be used for storing user information as part of the migration to Azure.",

• "Infrastructure and Technical Assumptions: Nginx will serve as the load balancer in front of the web layer, ensuring efficient traffic distribution across Kubernetes pods running Django-based web applications.",

• "Infrastructure and Technical Assumptions: Kubernetes pods will host the application components, including Redis, Postgres, and Django-based web applications, with Azure Kubernetes Service (AKS) as the orchestration platform.",

• "Infrastructure and Technical Assumptions: The migration will include implementing two-factor authentication and authorization mechanisms as part of the security requirements.",

• "Infrastructure and Technical Assumptions: Redis caching policies will be configured to ensure OTP expiration aligns with security best practices and compliance requirements.",

• "Business and Organizational Assumptions: Frank, identified as the application owner, will provide timely approvals and decisions for migration-related changes.",

• "Business and Organizational Assumptions: The organization will allocate dedicated resources, including technical staff and project managers, to support the migration effort.",

• "Business and Organizational Assumptions: Stakeholders will provide clear and consistent communication regarding business priorities and application requirements throughout the migration process.",

• "Business and Organizational Assumptions: The migration will not disrupt critical business operations, and a phased approach will be adopted to minimize downtime.",

• "Security and Compliance Assumptions: The migrated application will comply with organizational security policies, including two-factor authentication and OTP caching with expiration policies.",

## 6.4 Constraints

• "The migration must adhere to the compliance requirement of implementing two-factor authentication, authorization, and caching OTP generation details in Redis with expiration policies.",

• "User information must be stored in Postgres to meet compliance requirements, and this constraint must be factored into the database migration strategy.",

• "Redis must be configured to cache OTP generation and expiration details, ensuring proper authentication processes are maintained post-migration.",

• "The application owner, Frank, must be available to provide input and approvals during critical phases of the migration process.",

• "The migration must ensure that Kubernetes pods running Nginx and Django-based web applications are properly configured and operational in the Azure environment.",

• "The disaster recovery strategy is currently undefined and must be developed and implemented as part of the migration plan.",

• "The migration must ensure that Nginx is properly configured as a load balancer in front of the web layer to optimize traffic handling in the Azure environment.",

• "Redis and Postgres must be integrated into the Azure networking components to maintain existing functionality and performance.",

• "The migration must preserve the three-tier architecture (web layer, app layer, and database layer) to ensure continuity of application functionality.",

• "The timeline for the migration is currently undefined and must be established to align with business priorities and resource availability.",

# 7. Cost Analysis

## 7.1 Cost Overview

Total migration investment: $1,125,103.31  
Expected annual savings: $285,570.43  
Return on investment: 47.3 months

## 7.2 Cost Breakdown

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Current Monthly | Azure Monthly | Migration Cost | Annual Savings |
| Compute | $95,115.92 | $73,166.09 | $134,500.00 | $263,397.92 |
| Storage | $6,886.25 | $5,738.54 | $1,147.71 | $13,772.50 |
| Network | $2,000.00 | $1,500.00 | $10,000.00 | $6,000.00 |
| Management | $1,000.00 | $800.00 | $5,000.00 | $2,400.00 |

# 8. Implementation Plan

## 8.1 Resource Plan

### Project Manager

Role: Project Manager  
Duration: Full project duration  
Responsibilities:  
• Overall project coordination  
• Stakeholder management  
• Risk management

### Azure Architect

Role: Azure Solution Architect  
Duration: Full project duration  
Responsibilities:  
• Architecture design  
• Azure best practices  
• Technical governance

### Migration Engineers

Role: Migration Engineers  
Count: 3  
Duration: Active migration phases  
Responsibilities:  
• Server migration execution  
• Testing and validation  
• Issue resolution

## 8.2 Training Plan

### Azure Fundamentals

Target Audience: All project team members

Duration: 2 days

Delivery: Instructor-led or online

Content: ['Azure basics', 'Core services', 'Pricing and support']

Prerequisites: Basic IT infrastructure knowledge

Certification: Azure Fundamentals (AZ-900)

### Azure Administration

Target Audience: IT Operations team

Duration: 5 days

Delivery: Hands-on workshop

Content: ['Resource management', 'Monitoring and alerts', 'Security configuration']

Prerequisites: Azure Fundamentals completion

Certification: Azure Administrator Associate (AZ-104)

### Migration Specific

Target Audience: Migration team

Duration: 3 days

Delivery: Hands-on workshop

Content: ['Azure Migrate tools', 'Migration best practices', 'Troubleshooting']

Prerequisites: Azure administration basics

Certification: Hands-on migration certification

### Service Specific

Target Audience: Technical specialists

Duration: Variable based on services

Delivery: Targeted workshops

Content: ['Training for Azure Virtual Network', 'Training for Azure Virtual Machines', 'Training for Azure Backup', 'Training for Azure Storage']

Prerequisites: Service-specific knowledge

Certification: Service-specific certifications

### Ongoing Enablement

Description: Monthly knowledge sharing sessions

Duration: 2 hours per month

Content: New Azure features, lessons learned, best practices

Target Audience: All technical team members

Delivery: Virtual sessions

## 8.3 Communication Plan

### Executive Updates

Frequency: Monthly

Audience: Executive sponsors

Content: High-level progress, risks, budget status

### Project Team Meetings

Frequency: Weekly

Audience: Core project team

Content: Detailed progress, technical issues, next steps

### Business Updates

Frequency: Bi-weekly

Audience: Business stakeholders

Content: Impact on business operations, upcoming changes

# 9. Governance and Compliance

## 9.1 Security Requirements

• Implement Azure Security Center for continuous security monitoring

• Enable Azure AD for identity and access management

• Configure Network Security Groups for network segmentation

• Implement Azure Key Vault for secrets management

• Enable encryption at rest and in transit for all data

• Configure Azure Backup for data protection

• Implement Azure Monitor for security event logging

• Conduct security assessment post-migration

• The security requirements mentioned include two-factor authentication, authorization, and caching of OTPs (One-Time Passwords) with expiration policies to ensure proper authentication.

• Compliance requirements include implementing two-factor authentication, authorization, and caching OTP generation details in Redis with expiration policies. Additionally, user information must be stored in Postgres.

## 9.2 Compliance Requirements

• Maintain data residency requirements

• Implement audit logging for compliance reporting

• Configure data retention policies

• Ensure GDPR compliance for EU data

• Implement proper access controls and segregation of duties

• Compliance requirements include implementing two-factor authentication, authorization, and caching OTP generation details in Redis with expiration policies. Additionally, user information must be stored in Postgres.

## 9.3 Governance Model

• Steering Committee: Executive oversight and decision making

• Project Management Office: Project coordination and reporting

• Technical Working Group: Technical decisions and standards

• Business Working Group: Business requirements and validation

# 10. Success Metrics

## 10.1 Key Performance Indicators

|  |  |  |  |
| --- | --- | --- | --- |
| KPI | Target | Measurement | Frequency |
| Migration Success Rate | 99% | Percentage of servers successfully migrated | Per migration wave |
| Downtime per Server | <4 hours | Average downtime during migration | Per server migration |
| Cost Optimization | 20% reduction | Monthly infrastructure cost reduction | Monthly post-migration |
| Performance Baseline | Meet or exceed | Application performance vs. baseline | Post-migration validation |
| Security Posture | Zero critical findings | Security assessment results | Post-migration security scan |

## 10.2 Success Criteria

• All in-scope servers successfully migrated to Azure

• No data loss during migration process

• Application performance meets or exceeds baseline

• Security and compliance requirements fully implemented

• Total project delivered within approved budget and timeline

• Team successfully trained on Azure operations

• Business operations continue without significant disruption

• Pilot Migration - Low Complexity Systems: All pilot servers migrated successfully

• Pilot Migration - Low Complexity Systems: Performance baselines met or exceeded

• Pilot Migration - Low Complexity Systems: No data loss during migration

• Pilot Migration - Low Complexity Systems: Rollback procedures validated

• Production Migration - Medium Complexity Systems: All production servers migrated with <2hr downtime each

• Production Migration - Medium Complexity Systems: No business service interruptions

• Production Migration - Medium Complexity Systems: Performance optimization completed

• Production Migration - Medium Complexity Systems: Security configurations validated

# 11. Appendices

## 11.1 Technical Specifications

### Network Architecture

Virtual Networks: 1

Subnets: 3

Security Groups: 269

### Compute Specifications

Total Servers: 269

Total Cpu Cores: 1658

Total Memory Gb: 6054.4755859375

Total Storage Gb: 114770.87

### Migration Tools

Azure Migrate: Primary assessment and migration tool

Azure Site Recovery: Replication and failover

Azure Database Migration Service: Database migrations

Azure Data Box: Large data transfers if needed

## 11.2 Vendor Requirements

• Azure Migrate licensing for assessment tools

• Network service provider for ExpressRoute or VPN connectivity

• Third-party backup tool migration planning

• Microsoft Azure subscription with appropriate service limits

• Azure support plan (Professional Direct or Premier recommended)