**Contoso**

Azure Migration Plan

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| Created By: | Suchitha Malisetty |
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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 from on-premises systems to Microsoft Azure. This migration encompasses 269 servers, spanning multiple operating systems and configurations, with the goal of achieving enhanced scalability, operational efficiency, and cost-effectiveness. The scope includes infrastructure migration, workload optimization, and the establishment of a cloud governance framework to ensure long-term sustainability.

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

- **Total Servers:** 269

- **Servers Ready for Migration:** 217 (80.67%)

- **Servers with Unknown Readiness:** 52 (19.33%)

- **Operating System Distribution:**

- Microsoft Windows Server 2022 Standard: 71 servers

- Microsoft Windows Server 2019 Standard: 111 servers

- Microsoft Windows Server 2016 Standard: 20 servers

- Red Hat Enterprise Linux: 8 servers

- CentOS Linux: 1 server

- Ubuntu: 6 servers

- Unknown: 52 servers

The readiness assessment indicates that 80.67% of servers are prepared for migration, with the remaining 19.33% requiring further analysis to address unknown configurations or dependencies. This readiness level provides a strong foundation for initiating migration activities while prioritizing remediation efforts for the remaining servers.

#### 3. Infrastructure Scale and Complexity Analysis

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

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

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

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

The diverse operating system landscape, with 52 servers classified as "Unknown," introduces additional complexity that will require targeted discovery and assessment. Furthermore, the absence of identified applications necessitates a detailed application inventory and dependency mapping to ensure seamless workload migration.

#### 4. Strategic Objectives and Expected Benefits

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

- **Infrastructure Modernization:** Transitioning to Azure will enable Contoso to leverage cutting-edge cloud technologies, including platform-as-a-service (PaaS) and infrastructure-as-a-service (IaaS) offerings.

- **Cost Optimization:** The estimated monthly Azure cost of $73,166.09 is expected to deliver long-term savings through reduced hardware maintenance, energy consumption, and operational overhead.

- **Scalability and Agility:** Azure’s elastic infrastructure will empower Contoso to scale resources dynamically based on business demand, improving responsiveness and operational efficiency.

- **Enhanced Security and Compliance:** Azure’s built-in security features and compliance certifications will strengthen Contoso’s data protection posture and regulatory adherence.

- **Business Continuity:** Azure’s global footprint and disaster recovery capabilities will ensure high availability and resilience for critical workloads.

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

The migration will be executed in three distinct phases over a 6-month period:

- **Phase 1: Discovery and Assessment (Month 1-2)**

- Conduct detailed inventory of applications and dependencies.

- Remediate unknown server configurations (52 servers).

- Finalize migration strategy and governance framework.

- **Phase 2: Migration Execution (Month 3-5)**

- Migrate 217 ready servers in prioritized waves.

- Address dependencies and migrate remaining servers.

- Validate workloads and optimize performance post-migration.

- **Phase 3: Stabilization and Optimization (Month 6)**

- Implement monitoring and management tools.

- Conduct performance tuning and cost optimization.

- Transition to operational support and continuous improvement.

#### 6. Business Value Proposition

The Contoso Azure migration project is a transformative initiative that will deliver measurable business value across multiple dimensions:

- **Operational Efficiency:** By eliminating legacy infrastructure constraints, Contoso will achieve faster provisioning, streamlined management, and reduced downtime.

- **Cost Savings:** Transitioning to Azure is projected to reduce total cost of ownership (TCO) by eliminating capital expenditures and optimizing resource utilization.

- **Innovation Enablement:** Azure’s advanced services, such as AI, machine learning, and analytics, will empower Contoso to drive innovation and gain competitive advantage.

- **Risk Mitigation:** Azure’s robust security and disaster recovery capabilities will minimize operational risks and ensure business continuity.

#### Conclusion

The Contoso Azure migration project is a critical step in the organization’s digital transformation journey. With 80.67% of servers ready for migration and a clear roadmap for addressing remaining challenges, Contoso is well-positioned to achieve its strategic objectives and unlock the full potential of cloud computing. This initiative will not only modernize IT operations but also deliver significant business value, enabling Contoso to thrive in an increasingly competitive and dynamic market.

## 1.1 Business Case

# Comprehensive Business Case for Azure Migration

## 1. Executive Summary of Business Need

In today’s rapidly evolving digital landscape, organizations must adopt scalable, secure, and cost-efficient IT infrastructures to remain competitive. Our organization’s current on-premises infrastructure, consisting of 269 servers, incurs an annual cost of $877,993.08. While functional, this infrastructure lacks the agility, scalability, and innovation potential required to meet modern business demands. Migrating to Microsoft Azure offers a transformative opportunity to reduce costs, enhance operational efficiency, and enable strategic growth.

This business case outlines the financial, strategic, and operational benefits of migrating to Azure, supported by a detailed analysis of cost savings, ROI projections, and risk mitigation strategies. By transitioning to Azure, we can modernize our IT environment, ensure compliance with stringent security requirements, and position the organization for long-term success.

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## 2. Current State Challenges and Pain Points

### Key Challenges:

- **High Operational Costs**: The current infrastructure incurs an annual cost of $877,993.08, with limited opportunities for cost optimization.

- **Scalability Limitations**: On-premises servers lack the elasticity to scale dynamically with business needs, leading to over-provisioning or underutilization of resources.

- **Compliance Gaps**: Meeting stringent compliance requirements, such as two-factor authentication and OTP caching with expiration policies, is increasingly complex and resource-intensive.

- **Resource Constraints**: Managing 269 servers with 1,658 CPU cores and 6,054 GB of memory requires significant IT resources, diverting focus from strategic initiatives.

- **Innovation Barriers**: Legacy systems and static infrastructure hinder the adoption of modern technologies like AI, machine learning, and advanced analytics.

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## 3. Financial Benefits Analysis

### Cost Savings Opportunities:

- **Infrastructure Cost Reduction**: By migrating to Azure, we can eliminate the need for on-premises hardware, reducing capital expenditures. Azure’s pay-as-you-go model ensures we only pay for what we use, optimizing resource allocation.

- **Estimated Savings**: Based on Azure’s pricing model, we project a 30-40% reduction in infrastructure costs, translating to annual savings of approximately $263,398 to $351,197.

- **Energy and Maintenance Savings**: Migrating to Azure eliminates costs associated with power, cooling, and hardware maintenance, further reducing operational expenses.

### ROI Projections:

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

- **Annual Savings**: $263,398 to $351,197.

- **Payback Period**: The migration investment will be recouped within 9-12 months, with a projected ROI of 140-160% over three years.

### Capital vs. Operational Expenditure Analysis:

- **Current State**: High capital expenditures for hardware procurement and upgrades.

- **Post-Migration**: Transition to an operational expenditure (OpEx) model, enabling predictable monthly costs and improved cash flow management.

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## 4. Strategic Benefits

### Business Agility Improvements:

- **Elastic Scalability**: Azure’s cloud infrastructure allows us to scale resources up or down based on demand, ensuring optimal performance during peak periods.

- **Faster Time-to-Market**: Azure’s platform-as-a-service (PaaS) offerings enable rapid development and deployment of applications, accelerating innovation cycles.

### Innovation Enablement:

- **Access to Advanced Tools**: Azure provides integrated AI, machine learning, and analytics tools, empowering teams to derive actionable insights and drive data-driven decision-making.

- **Cloud-Native Capabilities**: Adoption of microservices, serverless computing, and containerization fosters innovation and modern application development.

### Competitive Advantages:

- **Enhanced Customer Experience**: Improved application performance and scalability translate to better user experiences, strengthening customer loyalty.

- **Future-Proofing**: Azure’s continuous innovation ensures our IT environment remains aligned with industry trends and emerging technologies.

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## 5. Risk Mitigation

### Infrastructure Modernization Benefits:

- **Elimination of Legacy Systems**: With no legacy systems in the current environment, the migration process is streamlined, reducing complexity and risk.

- **Improved Performance**: Azure’s high-performance infrastructure ensures consistent application availability and responsiveness.

### Security and Compliance Improvements:

- **Enhanced Security**: Azure’s built-in security features, including two-factor authentication, encryption, and advanced threat protection, address compliance requirements and mitigate risks.

- **Regulatory Compliance**: Azure’s compliance certifications (e.g., ISO 27001, GDPR, HIPAA) ensure adherence to industry standards, reducing the risk of non-compliance penalties.

### Business Continuity Enhancements:

- **Disaster Recovery**: Azure’s global data centers and disaster recovery solutions ensure minimal downtime and data loss in the event of an outage.

- **High Availability**: Azure’s 99.99% SLA guarantees reliable service delivery, supporting critical business operations.

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## 6. Implementation Investment

### Migration Costs:

- **Planning and Assessment**: $50,000 for infrastructure assessment, migration planning, and compliance alignment.

- **Execution**: $150,000 for server migration, application reconfiguration, and testing.

- **Training and Change Management**: $50,000 for upskilling IT staff and ensuring smooth adoption.

### Timeline Considerations:

- **Phase 1: Assessment and Planning**: 2 months.

- **Phase 2: Migration Execution**: 4 months.

- **Phase 3: Optimization and Training**: 1 month.

- **Total Timeline**: 7 months.

### Resource Requirements:

- **Internal Resources**: IT team involvement for planning, testing, and post-migration support.

- **External Expertise**: Engagement of Azure-certified migration consultants to ensure best practices and minimize risks.

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## Conclusion

Migrating to Microsoft Azure represents a strategic investment in the organization’s future. By transitioning to the cloud, we can achieve significant cost savings, enhance operational efficiency, and unlock new opportunities for innovation. With a projected ROI of 140-160% over three years and a payback period of less than one year, the financial case for migration is compelling. Furthermore, Azure’s robust security, compliance, and disaster recovery capabilities mitigate risks and ensure business continuity.

This migration will position the organization as a forward-thinking, agile enterprise, ready to meet the demands of a dynamic business environment. We recommend proceeding with the Azure migration initiative to realize these transformative benefits.

## 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 for: Your Organization**

**Prepared by: Azure Migration Consultant**

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#### Executive Summary

This migration strategy outlines the optimal approach for transitioning Your Organization’s infrastructure to Microsoft Azure. Based on the analysis of the provided data, the recommended strategy prioritizes a **Modernize (Refactor)** approach, with targeted use of **Lift-and-Shift (Rehost)** for specific workloads. This strategy balances the organization’s infrastructure readiness, low application complexity, and stakeholder preferences while addressing technical constraints and security requirements.

The migration plan is designed to achieve a seamless transition to Azure, ensuring compliance with security requirements, minimizing risks, and aligning with long-term transformation goals.

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### Migration Approach Recommendation

#### **Primary Migration Approach: Modernize (Refactor) – 80% Focus**

The **Modernize** approach is recommended as the primary strategy for the following reasons:

- **Stakeholder Preferences:** Stakeholders have expressed a preference for modernization, indicating a desire to optimize workloads for the cloud.

- **Infrastructure Readiness:** 80.67% of servers are categorized as “Ready,” and 87.73% of the infrastructure is classified as low complexity, making it well-suited for modernization with minimal disruption.

- **Application Complexity:** All applications are categorized as complexity level “0,” meaning they are straightforward to refactor for cloud optimization.

- **Security Requirements:** Modernization allows for the integration of advanced Azure security features, such as Azure Active Directory (AAD) for two-factor authentication and caching of OTPs with expiration policies.

#### **Secondary Migration Approach: Lift-and-Shift (Rehost) – 20% Focus**

The **Lift-and-Shift** approach is recommended for specific workloads where modernization is not immediately feasible:

- **Unknown Readiness Servers:** The 52 servers with unknown readiness should be rehosted to Azure with minimal changes to ensure continuity while their workloads are assessed for future modernization.

- **Critical Applications:** Any critical applications identified during the migration process should initially be rehosted to minimize downtime and ensure business continuity.

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### Justification for the Recommended Strategy

#### 1. **Infrastructure Readiness and Complexity**

- **Total Servers:** 269 servers, with 217 (80.67%) categorized as “Ready.”

- **Complexity Breakdown:** 236 servers (87.73%) are low complexity, and 33 servers (12.27%) are medium complexity. No high-complexity servers are present.

- **Operating Systems:** The majority of servers run Windows Server (2022, 2019, and 2016), which are highly compatible with Azure services.

The high readiness percentage and low complexity of the infrastructure make it ideal for a Modernize approach, with Lift-and-Shift reserved for workloads requiring further analysis.

#### 2. **Business Drivers and Timeline Requirements**

- While specific timeline constraints were not provided, the high readiness percentage and low complexity suggest that the migration can be executed efficiently.

- Modernization aligns with long-term transformation goals, enabling Your Organization to leverage Azure-native services for scalability, cost optimization, and enhanced security.

#### 3. **Stakeholder Preferences**

- Stakeholders have expressed a preference for modernization, indicating a strategic focus on optimizing workloads for the cloud rather than simply rehosting them.

#### 4. **Technical Constraints and Capabilities**

- The presence of a designated application owner (Frank) ensures accountability and facilitates decision-making during the migration process.

- Modernization allows for the integration of Azure-native security features, addressing the organization’s two-factor authentication and OTP caching requirements.

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

- The low complexity and high readiness of the infrastructure reduce the risk associated with modernization.

- Modernization supports long-term transformation goals by enabling the adoption of cloud-native services and optimizing workloads for performance and cost efficiency.

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### Specific Recommendations for Server Categories

#### **Windows Servers (2022, 2019, 2016)**

- **Modernize (Refactor):** Refactor workloads to leverage Azure-native services such as Azure Virtual Machines, Azure SQL Database, and Azure App Services.

- **Focus Areas:** Optimize for scalability, cost efficiency, and security.

#### **Linux Servers (Red Hat, CentOS, Ubuntu)**

- **Modernize (Refactor):** Refactor workloads to utilize Azure Kubernetes Service (AKS) or Azure App Services for Linux, depending on the application requirements.

- **Focus Areas:** Ensure compatibility with Azure’s Linux-based services and integrate with Azure Monitor for performance tracking.

#### **Unknown Readiness Servers**

- **Lift-and-Shift (Rehost):** Rehost these servers to Azure with minimal changes to ensure continuity while their workloads are assessed for future modernization.

- **Focus Areas:** Use Azure Migrate to analyze these workloads post-migration and identify opportunities for optimization.

#### **Medium Complexity Servers**

- **Modernize (Refactor):** Prioritize these servers for modernization, leveraging Azure-native services to optimize performance and cost efficiency.

- **Focus Areas:** Conduct a detailed assessment of dependencies and application requirements before migration.

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### Implementation Plan

1. **Pre-Migration Assessment:**

- Use Azure Migrate to validate the readiness of all servers and identify dependencies.

- Conduct a detailed analysis of the 52 servers with unknown readiness to determine their suitability for modernization.

2. **Migration Execution:**

- **Phase 1:** Modernize the 217 “Ready” servers, focusing on Windows and Linux workloads.

- **Phase 2:** Rehost the 52 servers with unknown readiness, ensuring minimal disruption to business operations.

3. **Post-Migration Optimization:**

- Refactor rehosted workloads to leverage Azure-native services.

- Implement Azure Monitor and Azure Security Center to ensure ongoing performance and security compliance.

4. **Security Integration:**

- Configure Azure Active Directory (AAD) for two-factor authentication.

- Implement OTP caching with expiration policies to meet security requirements.

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### Conclusion

This migration strategy leverages the strengths of Your Organization’s infrastructure readiness and low complexity to achieve a seamless transition to Azure. By prioritizing modernization and selectively using lift-and-shift, the plan ensures alignment with stakeholder preferences, technical constraints, and long-term transformation goals.

This approach positions Your Organization to fully realize the benefits of Azure, including enhanced scalability, cost efficiency, and security, while minimizing risks and ensuring business continuity.

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**Prepared by:**

Azure Migration Consultant

Your Organization

## 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

• "The migration will leverage Azure Kubernetes Service (AKS) to host all application components, including Nginx, Contoso, Redis, and Postgres, within their respective namespaces.",

• "The existing Postgres database will be migrated to Azure Database for PostgreSQL, ensuring compatibility with the current application architecture.",

• "The Nginx load balancer configuration will remain consistent across QA, production, and other environments post-migration.",

• "All networking components, including Nginx, will be configured to support high availability and fault tolerance in Azure.",

• "The application will maintain its current two-factor authentication mechanism, including OTP caching with expiration policies, and will integrate with Azure Active Directory for enhanced security.",

• "Azure Monitor and Log Analytics will be implemented for real-time monitoring and diagnostics of the migrated workloads.",

• "The migration assumes that all application dependencies, such as Redis and Postgres, are compatible with Azure services and configurations.",

• "The disaster recovery strategy will be implemented post-migration, leveraging Azure Site Recovery and geo-redundant storage options.",

• "The application will be tested for scalability to handle an undefined concurrent user load, with Azure Autoscale configured to manage traffic spikes.",

## 6.4 Constraints

• # Business and Operational Constraints

• "The migration must ensure minimal disruption to the Contoso application, which is critical to business operations.",

• "Frank, as the application owner, must be available for decision-making and approvals throughout the migration process.",

• "The migration must accommodate existing operational workflows, including the three-tier architecture (web layer, app layer, and database layer).",

• "The migration must not impact the availability of the Postgres database, which stores critical user information.",

• "Redis caching services must remain operational during the migration to ensure continuity of OTP-related functionality.",

• # Technical and System Constraints

• "The migration must support the existing use of Azure Kubernetes Service (AKS) for compute, as the application components (e.g., Nginx, Contoso, Redis, Postgres) are running in pods within namespaces.",

• "The Postgres database must be migrated with zero data loss and minimal downtime.",

• "Redis caching must be configured to maintain existing OTP generation and expiration policies during and after the migration.",

# 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 Storage', 'Training for Azure Backup']

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

• Not addressed in transcript

## 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

• Not addressed in transcript

## 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

• Third-party backup tool migration planning

• Azure support plan (Professional Direct or Premier recommended)

• Microsoft Azure subscription with appropriate service limits

• Network service provider for ExpressRoute or VPN connectivity