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| Merrilton Bank |
| Cloud Infrastructure Design |
| D088 Final Assessment |

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| James Braithwaite  4-5-2020  Version 1 |

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# Authentication Process

Propose an authentication process for the cloud application that meets the applicable device, browser, and user security requirements.

The proposed authentication process meets the applicable device, browser, and user security requirements.

# Remote Access

Explain how an employee will remotely access the cloud environment by using two-factor authentication.

The submission explains how an employee will remotely access the cloud environment by using two-factor authentication. The explanation of how two-factor authentication should be used is accurate and feasible. The proposed course of action would enable employees to securely access the bank’s resources that they are authorized to use.

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/concept-mfa-howitworks>

# Application Security: Application-Cloud Encryption

Propose an end-to-end encryption solution for the communication between the application and the cloud.

The proposed end-to-end solution adequately addresses the encryption of the communication between the application and the cloud.

<https://docs.microsoft.com/en-us/azure/security/fundamentals/encryption-overview>

# Network Security: Home Office-Cloud Encryption

Propose an end-to-end encryption solution for the communication between the home office and the cloud.

The proposed end-to-end solution adequately addresses the encryption of the communication between the home office and the cloud.

<https://docs.microsoft.com/en-us/azure/security/fundamentals/encryption-overview>

# Internal APIs

Describe systems that will integrate with each of the following internal application program interfaces (APIs), including technical details or diagrams to support the explanation of the mechanics of the integration:

• bank fraud services

• branch location information

• all log data

The described systems will integrate with each of the given internal APIs. The technical details or diagrams provided support the explanation of the mechanics of the integration and are free of errors.

<https://docs.microsoft.com/en-us/azure/api-management/api-management-key-concepts>

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/platform-logs-overview>

# External APIs

Describe systems that will integrate with each of the following external APIs, including technical details or diagrams to support the explanation of the mechanics of the integration:

• single sign-on (SSO)

• credit score provider

• location data look-up

The described systems will integrate with each of the given external APIs. The technical details or diagrams provided support the explanation of the mechanics of the integration and are free of errors.

<https://docs.microsoft.com/en-us/azure/api-management/api-management-key-concepts>

# Deployment Plan

Summarize a deployment plan for the cloud application and its cloud infrastructure, including the following points:

• cloud backend timeline

• resources

• estimated costs

• redundancies

The summarized deployment plan for the cloud application and infrastructure includes logical responses for each of the given points.

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/deployment-manager-tutorial>

<https://docs.microsoft.com/en-us/azure/active-directory/manage-apps/plan-sso-deployment>

<https://investor.equifax.com/~/media/Files/E/Equifax-IR/reports-and-presentations/events-and-presentation/investor-relations-presentation-september-2019-final.pdf>

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<https://azure.microsoft.com/en-us/services/azure-maps/#azuremaps-overview>

# Maintenance Strategy

Summarize a maintenance strategy for the cloud application that addresses the needs of the business and the short- and long-term considerations for each of the following points:

• patch management

• updates and redevelopment

The summarized maintenance strategy for the cloud application logically addresses the given points. Plausible short- and long-term considerations are included for each of the given points. The maintenance strategy outlined meets the needs of the business.

<http://www.techkb.onl/azure-using-service-health-to-alert-against-planned-maintenance/>

<https://azure.microsoft.com/en-us/blog/azure-update-management-a-year-of-great-updates/>

<https://docs.microsoft.com/en-us/azure/automation/automation-update-management>

<https://docs.microsoft.com/en-us/azure/automation/automation-update-management>

# Disaster Recovery Plan

Summarize the systems, processes, and procedures of a disaster recovery plan for the cloud application.

The submission summarizes appropriate systems, processes, and procedures to ensure continuous business operations of the cloud application in the case of a disaster.

<https://azure.microsoft.com/en-us/services/site-recovery/>

# Regulatory Compliance

Explain how you will maintain compliance with key applicable laws and regulations imposed on the cloud application.

The submission logically explains how compliance will be maintained for all key applicable laws and regulations for the cloud application.

<https://azure.microsoft.com/en-us/blog/regulatory-compliance-dashboard-in-azure-security-center-now-available/>

# Sources

Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.

The submission includes in-text citations for sources that are properly quoted, paraphrased, or summarized and a reference list that accurately identifies the author, date, title, and source location as available.