SCHEDULE 1 APPENDIX E – ROLE DESCRIPTIONS

Required Roles or Role descriptions may differ from Customer to Customer.

1. Business Analyst

1.1. Description

The business analyst provides analysis methodologies for complex IT business requirements and processes. This role recommends standards and methodologies to resolve, simplify and improve business processes/issues.

1.2. Duties

The business analiness e) performing business modelling

- f) writing business processes documentation;
- g) planning and monitoring; and,
- h) performing requirements analysis and verification.

1.3. Skills

The business analyst's skills include, but are not limited to, the following:

- a) knowledge of planning, documentation, analysis and business requirements management techniques;
- b) knowledge of business processes;
- c) knowledge of complex modelling techniques;
- d) excellent business analysis and reporting skills;
- e) excellent project management and planning skills;
- f) excellent verbal and written communication skills;
- g) excellent analytical, problem-solving and decision-making skills; and,
- h) excellent interpersonal and negotiation skills.

1.4. Applications and Technologies

This role does not have general application and technologies requirements, but Customers may express specific requirements during the Second Stage Selection Process.

2. Business Architect

2.1. Description

The business architect integrates the governance structure, business processes, and business information at the organization and/or core business levels. This person aligns strategic goals and objectives with decisions regarding products and services; partners and suppliers; organization; capabilities; and key business and IT initiatives.

2.2. Duties

The business architect's duties include, but are not limited to providing, the following:

- a) developing a business architecture strategy;
- b) applying a structured business architecture approach and methodology;
- c) capturing the tactical and strategic goals of the organization;
- d) defining the set of strategic, core and support processes;
- e) formulating frameworks and building models;
- f) determining the best path for solving business problems/opportunities;
- g) capturing the relationships among roles, capabilities and business units; and,

h) developing an IT framework that aligns with the business plan.

2.3. Skills

The business architect's skills include, but are not limited to, the following:

- a) experience with business and technology transformation program, project planning and roadmap development;
- b) knowledge of business capabilities, functions, processes and interactions;
- c) experience with one or more other architecture domains;
- d) understanding of diverse business environments, especially public environments;
- e) ability to identify and analyze business requirements;
- f) excellent project management and planning skills;
- g) excellent verbal and written communication skills; and,
- h) excellent analytical, problem-solving and decision-making skills.

2.4. Applications and Technologies

This role does not have general application and technologies requirements, but Customers may express specific requirements during the Second Stage Selection Process.

3. Cloud Specialist

3.1. Description

The cloud specialist helps organizations migrate their data and processes into the cloud. It is essential that there is no interruption in services during this migration. This role helps ensure this by analyzing an organization's needs and helping it select the appropriate cloud technology.

3.2. Duties

The cloud specialist's duties include, but are not limited to providing, the following:

- a) providing input in solutions design;
- b) collaborating with other team members to achieve project milestones;
- c) analyzing and recommending cloud solutions improvements;
- d) write and maintain system documentation and operational procedures; and,
- e) evaluate IT solutions against the organization's IT needs.

3.3. Skills

The cloud specialist's skills include, but are not limited to, the following:

- a) experience in working with system architecture components;
- b) knowledge of cloud computing infrastructure and components (server, storage, network, data, and applications);
- c) understanding of cloud technology;
- d) ability to develop and maintain secure virtual environments;
- e) understanding of DevOps principles such as infrastructure orchestration/automation (infrastructure as code);
- f) excellent technical skills;
- g) excellent verbal and written communication skills; and,
- h) excellent analytical skills.

3.4. Applications and Technologies

Customers' requirements may include, but not be limited to:

- a) Azure;
- b) Amazon I0 TMC /L /LBody <</MCID 4m2limitW-4.893 (es)-2d (h))Tj (r)3.7 (esuevv (y)10.7 (t)2 (. Tc 0 Tw6 (h)))10.s

- c) designing and building relational databases and data warehouses;d) developing strategies for data acquisition, implementation and arc

- b) performing regular reporting on key system metrics;
 c) maintaining accurate documentation for all services;
 d) ensuring the availability of the middleware infrastructure;
 e) responding to down service situations as appropriate.
 f) respond to alerts generated by monitoring systems to ensure organization systems health.
 g)

i) AlgoSec CASE.

11.

12.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

- a) SSH, SSL/TLS;
- b) Snort, port scanners, rootkit detectors;
- c) SOX; and,
- d) PCI.

13. Security Specialist

13.1. Description

The security specialist is responsible for the security of IT assets by identifying and solving potential and actual security problems. This role carries out security projects and tasks in the organization, including incident response, vulnerability assessments, security controls and security systems implementation.

13.2. Duties

The security specialist's duties include, but are not limited to, the following:

- a) defining access privileges, control structures, and resources;
- b) implementing and managing network firewall, hacker detection and antivirus systems;
- c) implementing security improvements;
- d) conducting periodic aud2 (y)10.7 6.7 (odi) 4/(ng p1y)10.6 (. Tw [(r)3.6 (i2w [(r)3.6 (i)12.0 Tc 0 T3 0 Td [(i)-004 Tc -0.0e04

e) TCP/IP.

14. Service Desk Analyst

14.1. Description

The service desk analyst helps users resolve issues with computer hardware or software. This role responds to user inquiries, assess problems and issues with IT equipment and applications, and help resolve these issues for users.

14.2. Duties

The service desk analyst's duties include, but are not limited to, the following:

- respond to telephone calls, email and in-person requests for technical support from internal stakeholders;
- b) troubleshoot and support software applications, various hardware/software configurations and run appropriate testing and diagnostics;
- c) resolving IT support requests;
- d) escalating advanced cases;
- e) logging and tracking all calls using ticket tracking system;
- f) maintaining service records;
- g) performing system testing and updates; and,
- h) maintaining IT documentation.

14.3. Skills

The service desk analyst's skills include, but are not limited to, the following:

- a) experience in an IT field;
- knowledge of hardware and software (VPN, Citrix, desktops, laptops, mobile devices, network resource access, MS Office, MS Windows);
- c) experience with Citrix support;
- d) excellent verbal and written communication skills;
- e) excellent analytical and problem solving skills; and,
- f) ability to explain technical situations to non-technical individuals.

14.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

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f) defining application development standards and framework.

17. Software Specialist

17.1. Description

The software specialist designs, modifies, and improves IT systems and applications, including technical assistance for implementation, conversion and migration.

17.2. Duties

The software specialist's duties include, but are not limited to, the following:

- a) developing and testing code;
- b) reviewing complex system requirements;
- c) implementing and maintaining software;
- d) offering software process management and control; and,
- e) recording and documenting test results.

17.3. Skills

The software specialist's skills include, but are not limited to, the following:

- a) degree in computer science or equivalent;
- b) experience with one or more programming language;
- c) experience with one or more platform;
- d) experience with methodologies for design, development, test, implementation and maintenance of software applications;
- e) knowledge of information technology concepts, practices, methods, and principles; and,
- f) excellent verbal and written communication skills.

17.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

- a) languages: C#, Java, ASP.NET, Python, C++
- b) Windows 2000/2003/XP/Vista/7/2008/8;
- c) virtualization: VMWare (ESX, vCenter, vCloud, Hyper-V;
- d) 3d Graphics API: Open GL, Java3d, Unity3D, CryEngine;
- e) web Technologies: Java, J2EE, XML, HTML, XSL, XML, CSS, Javascript;
- f) databases: Microsoft SQL Server, PostgreSQL, Oracle, DB2, MySQL; and,
- g) InstallShield, Microsoft Exchange Server, Active Directory.

18. Solutions Architect

18.1. Description

The solutions architect is responsible for defining Customers' requirements, designing IT solutions, managing solutions development and overseeing solutions deployment.

18.2. Duties

The solutions architect's duties include, but are not limited to, the following:

- a) meeting with clients to define their requirements;
- b) designing solutions to meet clients' requirements;
- c) leading architecture development;
- d) creating and maintaining technical documentation;
- e) defining and implementing development standards and best practices; and,
- f) managing high-level development projects.

18.3. Skills

The solutions architect's skills include, but are not limited to, the following:

- a) experience with designing and delivering complex solutions;
- b) experience with liaising between business stakeholders, operations and technology teams;
- c) experience with development project management;
- d) excellent customer relationship management skills;

- e) excellent verbal and written communication skills; and,f) excellent analytical, problem-solving and decision-making skills.

18.4.

- a) deploying software and workstation;
- b) troubleshooting software and hardware;
- c) performing back-up and recovery;
- d) managing user access and user profiles;
- e) providing user support;
- f) maintaining network and system security; and,
- g) provisioning and configuring new servers.

20.3. Skills

The systems administrator's skills include, but are not limited to, the following:

- a) degree in computer science or related field;
- b) Information Technology Infrastructure Library ("ITIL") certification;
- c) experience with multiple virtual technologies and platforms;
- d) experience with one or more operating systems;
- e) experience with one or more hardware platforms;
- f) understanding of server, network, and desktop infrastructure;
- g) excellent verbal and written communication skills; and,
- h) excellent analytical, problem-solving and decision-making skills.

20.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

- a) Microsoft Exchange;
- b) Microsoft Active Directory;
- c) Microsoft Windows Server;
- d) Virtualization (VMware, ESXi, Virtual Box, Microsoft Virtual Server);
- e) SAN technology;
- f) SQL server;
- g) Apple OSX server;
- h) Linux, LDAP;
- i) Networking: firewalls, managed switches, IPsec, VPN, DNS, DHCP;
- j) Routers (Cisco);
- k) RAIDs; and,
- I) IIS Web Servers.

21. Technical Support Specialist

21.1. Description

The technical support specialist performs technical and end-user support functions to ensure optimal performance and maximum productivity. This includes receiving, prioritizing, documenting and actively resolving end user help requests.

21.2. Duties

The technical support specialist's duties include, but are not limited to, the following:

- a) providing tier 1 technical support services to end users;
- b) providing mobile devices support services;
- c) performing hardware and software installations, upgrades and troubleshooting;
- d) managing and prioritizing calls in a help desk ticketing tracking system;
- e) providing basic end-user training; and,
- f) developing knowledge base articles for end users.

21.3. Skills

The technical support specialist's skills include, but are not limited to, the following:

- a) relevant industry certifications;
- b) experience with a help desk ticketing system;
- c) experience with one or more operating systems and environmend (b))Tjl ()Tj 0.004 Tc -0.015 Tw 1.173 0 Td [(ex)24 (

- f) excellent analytical, problem-solving and decision-making skills; and,
- g) excellent interpersonal and negotiation skills.

21.4. **Applications and Technologies**

Customers' requirements may include, but not be limited to, the following:

- desktop operating systems: Windows XP, Ubuntu Linux, Mac OS X; mobile operating systems: Blackberry, iOS, Android; a)
- b)
- Microsoft Exchange; c)
- d) Microsoft Active Directory;
 e) Microsoft Office;
- f) Microsoft SharePoint;
- g) SQL;
- h) Java environment; and,
- i) WebShere Application Server.

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- b) updating and improving existing websites;
- c) troubleshoot and debug websites;
- d) providing on-call tech support.

23.3. Skills

The technical trainer's skills include, but are not limited to, the following:

- a) degree in computer science or related field;
- b) experience in front-end web development;
- c) experience troubleshooting and debugging website issues;
- d) experience with pixel tracking, Google analytics, split testing, and heat-mapping;
- e) experience in cross-browser/cross-device testing;
- f) knowledge of latest user experience and design trends;
- g) knowledge of Search Engine Optimization ("SEO") best practices;
- h) knowledge of server/hosting/DSN management;
- i) excellent verbal and written communication skills;
- j) excellent organizational skills; and,
- k) excellent attention to detail.

23.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

a) PHP;

- b) HTML/CSS (Including Sass & Flexbox);
- c) jQuery/JavaScript;
- d) MySQL;
- e) Oracle 12c, MS SQL Server; and,
- f) Drupal, WordPress.

24. Web Specialist

24.1. Description

24.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

- a) server-side: PHP, Ruby, Python, ASP, ASP.NET;
- b) client-side: HTML, XML/XSLT, JavaScript, AJAX, jQuery, CSS;
- c) Agile Methodology;
- d) Adobe Creative Suite: Photoshop, Acrobat, Dreamweaver, InDesign, Flash, Illustrator;
- e) Microsoft applications: Visio, SharePoint, Expressions; and,
- f) CMS: Drupal, WordPress.

25. IT Facilities Architect

25.1. Description

The IT facilities architect partners with internal stakeholders to drive improved technology solutions that support the organization's strategy.

25.2. Duties

The IT infrastructure architect's duties include, but are not limited to, the following:

- a) acting as an internal consultant on IT facilities infrastructure
- b) providing suggestions for viable solutions to systems problems of high complexity;
- c) investigating, analyzing and resolving system problems;
- d) documenting technical standards and acting as a champion for their implementation; and,
- e) developing technical roadmaps and strategies.

25.3. Skills

The IT infrastructure architect's skills include, but are not limited to, the following:

- a) experience operating and managing IT facilities;
- b) practical experience operating networking products such as but not limited too; Cisco WAAS, SD-WANDE n(s) 06604 Tc -0.00

i. Excellent analytical, problem-solving and decision-making skills.

27.4. Applications and Technologies

Customers' requirements may include, but not be limited to, the following:

ORACLE (ALL MODULES, INCLUDING CLOUD) PEOPLESOFT (ALL MODULES) JD EDWARDS (ALL MODULES) SAP (ALL MODULES) WORKDAY SAGE