As Needed Invoicing System

Manual Invoice

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Technical Design Diagram

**Deployment Topology**

A computer program with a diagram

Description automatically generated with low confidence

System Capabilities

Specify the major system capabilities in terms of availability, target deployment environment(s), device accessibility, and/or technical capability.

* Provides a web-based invoicing system for use with;
  + MS Edge, Chrome or Firefox
  + Accounting users with local lan accessibility or via Citrix
* Provides an order entry form to generate invoices for random things that;
  + Are sold off from assets
  + Acquisitions
  + Special case projects and developments
* System must maintain general availability during;
  + Business hours
  + And can tolerate downtime if scheduled.

Technical Specifications

Table of System Objects

**Main components of the Build**

|  |  |
| --- | --- |
| **Item** | **Note** |
| IIS Web Pages | <https://manualinvoice.wcap.ca> |
| IIS www root path | C:\inetpub\wwwroot-manual-invoice-03 |
| DNS Common Name | manualinvoice.wcap.ca [ 10.0.105.127 ] |
| Node.js Install Path | C:\Program Files\nodejs\node.exe |
| iisnode Install Path | C:\Program Files\iisnode |
| Site Access Group | office\IIS - Manual Invoice - General Users |

Disk Layouts and Storage Planning

We aren’t expecting significant or interesting disk i/o or capacity needs at any point of this application. The system serves typical MS IIS activity from the wwwroot folder on c:\\*. Data is sent and retrieved to Oracle user tables managed by D&A team.

****

System User Accounts and Access

**Account Name and Explanation of Access**

|  |  |  |
| --- | --- | --- |
| **Account Name** | **Item** | **Access** |
| N/A | No service accounts needed at this time. | N/A |

IIS Access and Authentication ( cgy-web-p01 )

Only specific user groups are granted access to the Manual Invoice internal websites. Default Anonymous authentication has been disabled on the active sites.

|  |  |  |  |
| --- | --- | --- | --- |
| **IIS Site** | **Authentication** | **Access** | **User Groups** |
| Manual Invoice 03 |  | Full Control | IIS APPPOOL\Manual Invoice 03 |
| Manual Invoice 03 |  | Allow | office\IIS - Manual Invoice - General Users |

HTTPS is enabled on the sites and bound to port 443 as normal. Machine cert was requested from local host to the internal CA for manualinvoice.wcap.ca “common name”. Template used is the WC Websites.

A screenshot of a computer

Description automatically generated

IIS Site Home Folder Securables

Active IIS sites have their home folders limited to their related APPPOOL user.



IIS URL Rewrite and web.config

All URLs need to be redirected to server.js in the root of the virtual directoy and allows the node.js app to run. Also the iisnode module needs to be declared in the bottom on the web.config so that IIS knows that js files are handled by the module.



Windows Server 2022 Custom Settings

**Access Grants and Non-Default Settings.**

|  |  |
| --- | --- |
| **Setting** | **Adjusted to** |
| N/A | No special or workaround setting needed. |

Technical Lead(s) and Roles:

* Jamie Morosky, as-built doc, backups, and specified / built design for MS IIS and iisnode.
* Yafiet, node.js programming and debugging. Describes requirements of the application.

List of Servers in System

List a brief description and function for each server that is needed, and include the following information:

|  |  |
| --- | --- |
| **Hostname** | **Description** |
| CGY-WEB-P01 | Virtual machine at eStruxture that hosts the IIS invoice entry and edit pages for accounting department. |

System Interfaces

Describe the dependency and relationship requirements of the system to other enterprise/external systems. Include any interface to a future system or one under development. For clarity, a graphical representation of the interfaces should be used when appropriate.

|  |  |
| --- | --- |
| **System** | **Dependency Interface** |
| Data retrieval and submission | **Oracle database connection for user tables.** |
| IIS Windows Authentication | **OFFICE.LOCAL domain availability** |

System User Characteristics

Identify each type of user of the system by function, location, and type of device. Specify the number of users in each group and the nature of their use of the system.

|  |  |  |
| --- | --- | --- |
| **User Group** | **Role** | **Location / Device** |
| General Users | View, create and edit invoices. | Calgary Office |
| D&A | Write access to wwwroot folders of the site as needed to code. | Calgary Office |

Requirements

Security

Manual Invoice has restricted all areas of user and system machine access such as;

* IIS web portal for accounting users ( https://manualinvoice.wcap.ca )
* Windows Authentication used for client server encryption.
* IIS URL authentication used to limit access to specific user groups.

Monitoring, Sensors & Alerting

* PRTG Alerts

Backup and Recovery

* All Windows OS system is backed up by existing Calgary Nutanix NXA jobs on Veeam.
* New data generated saved to the Oracle user tables on the OL Linux VMs is backed up on those existing Veeam jobs.

Training

* MS IIS 10 and Management console.

Appendices

Appendix A: System Names and Roles

| **Name** | **Role** |  | **IP** |
| --- | --- | --- | --- |
| **CGY-WEB-P01** | IIS invoice pages for create, view and edit. |  | 10.0.105.127/24 |

Appendix B: Domain Configuration

Domain Name: office.local

Custom Organizational Units

| **OU** | **Nested OU** | **Group Policy Assignments** |
| --- | --- | --- |
| **N/A** | N/A | N/A |

Custom Group Policies

| **Policy Name** | **Applies To** | **Purpose** |
| --- | --- | --- |
| **Default Policy** |  |  |
| **Password Policy** |  |  |
| **Security Policy** |  |  |
| **Printer Policy** |  |  |
| **RDS Policy** |  |  |

Appendix C: User Names and Passwords

User Names and Passwords

| **Account Name** | **Description** | **PROD\TEST** |
| --- | --- | --- |
|  |  |  |
|  |  |  |

Appendix D: Cabinet Layouts

Appendix E: System Architecture Drawings (VISIO)

[Visio - Manual Invoice Application.vsdx](https://whitecap.sharepoint.com/:u:/r/sites/IT-INFSupport/_layouts/15/Doc.aspx?sourcedoc=%7B5F5179CB-6792-48EA-93F9-9BF09F8FA9C2%7D&file=Visio%20-%20Manual%20Invoice%20Application.vsdx&action=default&mobileredirect=true)

Appendix F: IP Address Tables

Network Subnets

| **Network Name** | **IP Subnet** | **Default Gateway** | **Primary DNS Server** | **Secondary DNS Server** |
| --- | --- | --- | --- | --- |
| **Server VLAN\_105** | 255.255.255.0 | 10.0.105.1 | 10.0.100.10 | 10.0.100.22 |
|  |  |  |  |  |
|  |  |  |  |  |

IP Addresses

| **Asset Name** | **Rack/Location** | **Prod/Test** | **IP** | **Subnet** |
| --- | --- | --- | --- | --- |
| **VIRTUAL NO FIX ASSET** |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |