Technical Architecture

Custom Developed Applications & Integrations

Search Engine for Schedule files

(IRS proof of payment files)

|  |  |
| --- | --- |
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| Remedy Number (EA only) |  |

##### Document Revision History

The Revision History table records significant changes to document inclusive of scope, objectives, and organization. Include a date for when the document was created.

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version #** | **Revised By** | **Revision Details** |
| 8/16/2018 | V1.0 | B Watson | Initial Draft |
| 1/9/2019 | V1.01 | B Watson | Changed verbiage of capacity planning metrics |
| 1/16/2019 | V1.01 | Jose Ramirez | Completed TASD for Minor Enhancement |
| 2/15/2019 | V1.01 | Jose Ramirez | Revision of architecture diagram |

**TASD Change Log**

Use this section to document major changes to the architecture after the initial TASD approval.

|  |  |  |
| --- | --- | --- |
| **Change Log Summary – Version and Description** | **Date submitted to EA** | **Date approved by EA** |
|  | Click here to enter a date. | Click here to enter a date. |
|  | Click here to enter a date. | Click here to enter a date. |
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**Project Urgency**

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| --- | --- |
| **Select Project Urgency** | This Quarter |

Contents

[Contents 2](#_Toc523122730)

[1 System Overview 3](#_Toc523122731)

[1.1 Introduction 3](#_Toc523122732)

[1.2 System Overview Form 3](#_Toc523122733)

[1.3 Data Flow Diagram 9](#_Toc523122734)

[1.4 Architectural/Network Diagram 9](#_Toc523122735)

[1.5 Security 9](#_Toc523122736)

[1.5.1 Payment Card Industry (PCI) 10](#_Toc523122737)

[1.5.2 Sarbanes Oxley (SOX) 10](#_Toc523122738)

[1.5.3 Health Information Privacy (HIPAA) 10](#_Toc523122739)

[1.5.4 Personally Identifiable Information (PII) 10](#_Toc523122740)

[1.6 Other Architectural Considerations 10](#_Toc523122741)

[1.6.1 Monitoring 10](#_Toc523122742)

[1.6.2 Backup 10](#_Toc523122743)

[1.6.3 Data Responsibility 10](#_Toc523122744)

[1.6.4 DNS Requirements 10](#_Toc523122745)

[1.6.5 Project documentation/project plans/misc 11](#_Toc523122746)

[2 Appendix A – Data Classification 12](#_Toc523122747)

[2.1 Business Information 12](#_Toc523122748)

[2.2 Personal Information 13](#_Toc523122749)

# System Overview

The System Design Overview section has been designed to capture only the most essential information required for Initial Project Approval in a quick and concise manner. This section provides the functionality of an executive summary.

## Introduction

The schedule file is a proof of payment from IRS for FHVUT, business users need access to the file (pdf) by searching with the VIN number(s) contained in this file. This project will provide them the ability to find and access the schedule file by a simple search using VIN numbers.

## System Overview Form

Complete the following form to define the scope of the system or enhancement and communicate high-level requirements surrounding performance, availability, compliance, and recoverability.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **System Overview Form** | | | | | | | | |
| **Item** | **Responses - *Select all that apply*** | | | | | | | **Comments** |
| **General** | | | | | | | | |
| *Project Type* | New App or Integration  Update Existing (specify name): Click here to enter text. | | | | | | |  |
| *Parent or related Project(s) (if applicable)* | FHVUT (Federal Heavy Vehicle Use Tax) application | | | | | | |  |
| *User Facing Component* | Yes  No | | | | | | | Please fill out Client Section |
| *Audience* | Internal Only (Ryder employees/contractors)  Customer-Facing  Public-Facing (open) | | | | | | |  |
| *Development Approach* | Agile  Waterfall | | | | | | |  |
| *Architectural Approach* | Microservices/Miniservices & API  Service Oriented Architecture (SOA)re  N Tier or Other: MVC application | | | | | | |  |
| *Deployment Location* | Cloud (specify Azure, AWS, etc): Azure  On-Prem | | | | | | | Include Cloud components in Software section |
| *Delivery of Functionality* | Modular  *Functionality delivered over time.* | | Monolithic  *Functionality delivered all at once.* | | | | |  |
| *Platform* | Windows  Linux | | Containers  Azure Service Fabric  Other: Click here to enter text. | | | | | If Containers, specify Windows or Linux |
| *Development Environment* | Java: version Click here to enter text.  Javascript: Angular 7 framework | | .NET: version Click here to enter text.  .NET Core  Other: Click here to enter text. | | | | |  |
| *Business Areas Impacted* | **FMS**  Marketing  Operations  Maintenance  Sales  Others Click here to enter text. | **SCS**  Marketing  Operations  Ryder Dedicated  CPG  Sales  Others Click here to enter text. | | | | | **CSS**  HR  Accounts Payable  Accounting  Payroll  Others Click here to enter text. |  |
| *Data Centers*  (if on-prem) | **Production**  Alpharetta (SSC)\*  Sacramento (Mainframe)  Novi✝  Miami✝  Cloud (SaaS, IaaS, PaaS)  **Disaster Recovery**  Miami\*  Alpharetta (SSC)  Cloud (SaaS, IaaS, PaaS)  No DR (specify): needs a BCCP | **Development**  Miami\*  Alpharetta (SSC)  Novi✝  Sacramento (Mainframe)  Cloud (SaaS, IaaS, PaaS) | | | | | **QA**  Miami\*  Alpharetta (SSC)  Novi✝  Sacramento (Mainframe)  Cloud (SaaS, IaaS, PaaS) | ✝ Exception Required  \* Preferred non-customer facing data center  \*\* Preferred customer-facing data center |
| **Integrations/Reporting** | | | | | | | | |
| *System Integrations* | Ryder to Consumers (B2C)  Business to Business (B2B) | | Application to Application (A2A)  N/A | | | | |  |
| *Integration Style if applicable* | API  EDI  BizTalk  Other: Click here to enter text. | | *API Gateway Required* | | | | |  |
| *Other Integrations Required* | SMTP  SMS  Secure FTP  Cloud Storage/SharePoint/OneDrive  Informatica On-Prem  Informatica Cloud | | | | | Data Lake  SSIS  DB2/ODBC  Golden Gate  Other: Click here to enter text. | |  |
| *Reporting* | PowerBI.com  PowerBI embedded  SSRS  Tableau  Other: Click here to enter text. | | | | | | |  |
| **Testing/QA** | | | | | | | | |
| *Pilot Prior to Production* | Yes | | | | No | | | ***If yes, make sure to inform QA*** |
| *Testing* | **General:**  Functional  Regression  Integration | | | | **Specialized:**  Performance  Load  Stress  Error Handling  Security  Platform  N/A | | |  |
| *User Participation in Testing* | Beta  User Acceptance  Other (specify): Click here to enter text. | | | | | | |  |
| **Databases** | | | | | | | | |
| *New Database?* | Yes | | | No | | | |  |
| *Database Technologies* | Microsoft SQL (version): Click here to enter text.  Oracle (version): Click here to enter text.  Other (specify): Azure Search PaaS | | | | | | |  |
| *Expected Transactions* | Per Day: 100 | | | Peak per minute: Click here to enter text. | | | |  |
| **Security** | | | | | | | | |
| *Has a security assessment of your architecture been performed?* | Yes | | | | No | | |  |
| *Electronic Commerce* | Yes  Credit Card  Automatic Clearing House ACH  Electronic Fund Transfer EFT  Other (specify) | | | | No | | |  |
| *Regulatory or Privacy Requirements* | Payment Card Industry (PCI)  Sarbanes Oxley (SOX)\*  Health Information Privacy (HIPAA) | | | | Personally Identifiable Information (PII)  Other (specify)\*:  Not applicable | | | \*Obtain sign off from IT Security Group  ***If any item other than N/A is checked, fill section 1.5*** |
| *Data Classification* | Public  Confidential  Restricted | | | | | | | Please refer to Appendix A for more information on Data Classification |
| *Single Sign On*  *(SSO)* | Yes (select Type)  No | | | | **Type**  SAML  Native SSO Client  LDAP  Active Directory  OpenID Connect  Other: Click here to enter text. | | |  |
| *Authorization* | Users belong to an Active Directory group and to access the application they need to be in that group | | | | | | | Describe Authorization methodology. This is how user access to resources are controlled within the application ***(rights/roles)***. |
| *Data Encryption* | In Transit (TLS/SSL, etc)  At Rest (specify method/level): Azure Encryption at Rest for PaaS | | | | | | |  |
| **Capacity Planning/Performance** | | | | | | | | |
| *Avg Transaction Response Reqs.* |  | | | | | | | Describe performance requirements in terms of transaction response time |
| *Capacity Planning* | **Estimated Peak Concurrent Users or processes**  By Audience  Customers:  Consumers:  Employee:  Business: | **Estimated Average Concurrent Users or processes**  By Audience  Customers:  Consumers:  Employee:  Business:  By Location  Internet:  Intranet: | | | | | **Estimated Annual Customer Growth Rate**  % By Audience  Consumers:  Employee:  Business: |  |
| *SLA (Production Hours of Operation)* | Normal Business Hours (e.g. 8am to 5pm EST)  24 X 7 | | | | | Extended Business Hours (specify): Click here to enter text. | |  |
| *Does this project require Load Balancing?* | Yes. Describe: Existing F5 load balancer for ETE environment | | | No | | | |  |
| **Disaster Recovery/Business Continuity/High Availability** | | | | | | | | |
| *Is Disaster Recovery included in the architecture?* | Yes | | | | No (If no is selected please provide business justification and sponsor business agreement and signature for such determination) | | | Justification: |
| *Disaster Recovery Requirements*  *(Data Center Down)* | **Recovery Time Objective: (RTO)**  Days 0 day(s)  Hours 0 hr(s)  Minutes 0 min(s)  Not Applicable (specify): Azure PaaS | | | | **Recovery Point Objective: (RPO)**  Days 0 day(s)  Hours 0 hr(s)  Minutes 0 min(s)  Not Applicable (specify): Azure PaaS | | |  |
| *Business Continuity* | **Is there a business continuity plan for this functionality?**  Yes – Please attach documentation to TASD  No – Please reach out to Javier Sanchez [jsanchez@ryder.com](mailto:jsanchez@ryder.com) and Ann E. Lindgren [Ann\_E\_Lindgren@ryder.com](mailto:Ann_E_Lindgren@ryder.com) for assistance. | | | | | | |  |
| *Does this application architecture include high availability?* | Yes. Describe: Azure PaaS | | No. Comments: Click here to enter text. | | | | |  |
| **Client (optional)** | | | | | | | | |
| *Client Type (select all that apply)* | PC Browser  PC App | | Mobile Web  Mobile App | | | | | If a mobile component is included here, it must be included in the architecture/flow diagrams below. |
| *Specify Client requirements for software (browser versions/OS restrictions/etc)* | IE 11, Chrome or Firefox browser | | | | | | |  |
| *Connectivity requirements* | **Specify speed in kbps or mbps (per client)**  Minimum: Click here to enter text. Recommended: Click here to enter text. | | | | | | |  |
| **Hardware/VM (optional)** | | | | | | | | |
| *Existing Hardware/VM or New?* | Existing | New | | | | | N/A |  |
| *If Existing, has a capacity assessment been performed?* | Yes. Results: Several MB for web site files | | | | No. Explain: Click here to enter text. | | |  |
| *If* ***New*** *Hardware, double click and fill spreadsheet* |  | | | | | | | |
| *If* ***Existing*** *Hardware, double click and fill spreadsheet* |  | | | | | | | |
| **Software, PaaS, SaaS, etc (optional)** | | | | | | | | |
| *List any additional SaaS, PaaS, or software components, databases, and frameworks or libraries that are relevant to the architecture of your application. You don’t need to include any technologies already listed above* |  | | | | | | | |

## Data Flow Diagram



## Architectural/Network Diagram



## Security

If you have checked any box in the Security section other than “Not Applicable”, please add detailed information to each section below. You may hide any section that is not relevant to your application. It is imperative that you make contact with Ryder Network Security as early as possible during your project to ensure a smooth TASD process. If you need assistance identifying the correct resources, please contact Enterprise Architecture.

### Payment Card Industry (PCI)

*Replace this text with details about what kind of information about the payment card will be stored in the system, the encryption to be used, the masking to be utilized, data access privileges planned, the audit trail incorporated to monitor who has viewed the card data, whether the EMV chip is being used, security on the devices, and* ***must*** *include a data flow in section 1.2.*

### Sarbanes Oxley (SOX)

*Replace this text with details about IT Security (user access and administration, purging of accounts for ex-employees, password policy, physical security), IT Change Management (leadership approval, separation of duties between development and production), and Scheduling Operations (job schedules, access to job schedules, monitoring and issue resolution).*

### Health Information Privacy (HIPAA)

*Replace this text with details regarding any health information that will be accessed by the system and the security measures planned by the project to protect that data.*

### Personally Identifiable Information (PII)

*Replace this text with the type of personal information that is being accessed. Provide a list of all personally identifiable information that will stored/processed/accessed by the system. Also, include information on what type of data security is going to be in place to protect the sensitive information in PII.*

## Other Architectural Considerations

The project might require that additional information is communicated to IT Operations, Enterprise Architecture, Devops, Networking, or groups involved outside the project group. This section is provided as a space to either include supporting project documentation or discuss additional topics. Please feel free to add/remove sections as needed.

### Monitoring

Azure Application Insights

Apps Dynamics

### Backup

### Data Responsibility

### DNS Requirements

searchirsfile.ryder.com

### Project documentation/project plans/misc

Microsoft documentation on security for Azure Search

Security and data privacy in Azure Search

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

Azure Search enterprise security: Data encryption and user-identity access control

<https://azure.microsoft.com/en-us/blog/azure-search-enterprise-security-data-encryption-and-user-> identity-access-control/

# Appendix A – Data Classification

## Business Information

|  |  |  |
| --- | --- | --- |
| **Public** | **Confidential** | **Restricted** |
| * Marketing materials * Annual report (after release) * Press releases * Public announcements * Customer website content | * Financial reports * Market research, plans * Audit reports * General customer data * Business tax ID * Customer lists * Customer metrics * Customer/vendor agreements * Vendor lists * Logistics/Lease rates/pricing * Sales data * Operational processes * Bid and proposal information (e.g. pricing, fees, discounts) * Proprietary customer information (e.g. future products, blue prints, logistics) * Compliance documents (DOT, Environment, Health & Safety) * Warehouse & Engineering process design documents * Ryder’s bank account #’s * Legal Contracts * Information subject to any Non-Disclosure Agreement when Ryder signs the NDA * Cargo/Shipping information | * Non-public SEC disclosures, including proxy statements, 8k and 10k filings * Quarterly and annual financial results and forecasts, including key operating metrics routinely disclosed to investors * Attorney-client privileged information (e.g. litigation details) * Unannounced merger or acquisition information * Internal investigation documents * Board of Director materials |

## Personal Information

|  |  |  |
| --- | --- | --- |
| **Public** | **Confidential** | **Restricted** |
| * Publicly available information that is lawfully made available to the general public by public records or widely distributed media | * Employee roster * Employee union information * Employee Name in combination with any of the following: * Employee Home Address * Employee Age * Employee Place of Birth * Employee personal email address * Employee personal phone number * Employee Salary information | * Employee personnel files * Background check results * Driver’s license information for both customer and employee * Health Information/Medical History * Benefits enrollment details/claim details * Social Security Number * National ID Number * Passport Number * Bank Account Number * Credit Card Information for both customer and employee (number, swipe data) * Name and Date of Birth (Month/Day/ Year) * Combination of User Name and Password * Driver qualifications files |