

Messer Subcontractor Prequalification Portal – POC Technical Requirement Document (TRD)

1. Hardware Requirements (If applicable)	
ID	Requirements
1.1	Hardware Requirement <i>List the hardware requirements, if any. <u>Example:</u> 256 MB Ram</i>

2. Software Requirements	
ID	Requirements
2.1	Software Requirement <ul style="list-style-type: none"> Azure Dev VM with DOTNET 5 Framework (runtime environment) Node JS Webserver (IIS/NGINX/TOMCAT), Angular Version 11.2.12 Docker Kubernetes (AKS) Azure Dev SQL (Details and Access) like User Account Detail Azure Dev Storage Account - For saving and securing files Messer GitHub - For version control and source code management

3. Technical Requirements
<p>Technical requirements are giving information to the developers as to what the system must adhere to. These are guidelines that can have implications over on the developer's way of developing a code. For a successful development process identification of the correlation between the functional requirements and corresponding technical requirements/constraints is essential. Best practice to write technical requirements is to address each and every functional requirement mentioned in the business requirements document (BRD). Use one table for each requirement identified from the BRD.</p>

3.1. Functional Requirements			
Business Req ID #	Business Requirements	Technical Req ID #	Technical Requirements
1.1	Single Sign On: As the users navigate from MBP to SPP, they will be authenticated and authorized without prompting for credentials.	1.1.1	Authentication and Authorization model from MBP (SNOW) platform will be leveraged for single sign on. Type of Authentication/Authorization: Response (Success/Failure): Service Endpoint:

1.2	Data Transfer: As the users navigate from MBP to SPP, 3 data fields Tax-id, Vendor id and Prequal expiry date will be passed from MBP and used in SPP.	1.2.1	<ul style="list-style-type: none"> For navigating from MBP to SPP, Messer's MBP Team (SNOW Team) will call the SPP Service with required parameters Messer's MBP Team (SNOW Team) will pass the data fields to SPP Service <p>Fields Required: Tax-id, Vendor id and Prequal expiry date</p> <p>Service Endpoint:</p>
1.3	UI Prototype & Development: 1 welcome page + 4 screens (listed below) with 5 to 6 fields per screen for data entry and storage.	1.3.1	<p>Welcome page</p> <ul style="list-style-type: none"> Welcome page/Dashboard will load based on the roles. For reviewing the status of the application (minimal functionality will be considered for POC). This will be integrated as a section in the welcome page. For Subcontractor, Startup of messer application is welcome page which provides the details of overall messer business portal For Subcontractor, navigate to complete prequalification details by clicking "Click to start your Company's Prequalification" in welcome page
		1.3.2	<p>Screen Name: Organizational Info</p> <p>Table Name: Organization</p> <p>Fields Required:</p> <ol style="list-style-type: none"> Organization Type Data Type: alphanumeric Certified Diverse/minority business Data Type: alphanumeric Certified Diverse Attachment Data Type: alphanumeric Prequalification Contact Name Data Type: alphanumeric Prequalification Contact Email Data Type: alphanumeric Prequalification Contact Mobile Data Type: alphanumeric

			<p>7) Additional Details Data Type: alphanumeric</p> <p>8) Created Date Data Type: Date & Time</p> <p>9) Updated Date Data Type: Date & Time</p> <p>10) Create User Data Type: alphanumeric</p> <p>11) Updated User Data Type: alphanumeric</p> <p>12) Delete Mode Data Type: numeric</p> <p>Validation:</p> <ul style="list-style-type: none"> • If type of organization is “Other”, then Explain: (Text Field) Required when other is selected – Multiline Text. • If you select ‘YES’ in certified diverse/minority business field, you’ll have to submit your certified diverse/minority business certifications for review and approval by the Messer Economic Inclusion team. • Please ensure the Prequalification contact details are up to date. Messer will send notifications, acknowledgements and the Messer prequal team may contact the person listed, if required. <p>Service Endpoint: https://localhost:5001/api/Organization</p>
		1.3.3	<p>Screen Name: Safety Info</p> <p>Table Name: Safety</p> <p>Fields Required:</p> <p>1) Supplier Data Type: alphanumeric</p> <p>2) Supplier Definition Data Type: alphanumeric</p> <p>3) Safety Program Data Type: alphanumeric</p> <p>4) Safety Program Attachments Data Type: alphanumeric</p> <p>5) OSHA Data Type: alphanumeric</p> <p>6) OSHA Add Info Data Type: alphanumeric</p> <p>7) OSHA Log Last Year Data Type: alphanumeric</p>

			<p>8) OSHA Log Two Years Data Type: alphanumeric</p> <p>9) OSHA Log Three Years Data Type: alphanumeric</p> <p>10) TRIR Info Last Year Data Type: alphanumeric</p> <p>11) TRIR Info Two Years Data Type: alphanumeric</p> <p>12) TRIR Info Three Years Data Type: alphanumeric</p> <p>13) Created Date Data Type: Date & Time</p> <p>14) Updated Date Data Type: Date & Time</p> <p>15) Create User Data Type: alphanumeric</p> <p>16) Updated User Data Type: alphanumeric</p> <p>17) Delete Mode Data Type: numeric</p> <p>Validation:</p> <ul style="list-style-type: none"> If you select “YES” in supplier field, the user can skip this section. Onscreen Notification- As a supplier, you are not required to complete this section. Please move to the NEXT Section If you select “YES” in written safety program field, then user must upload attachment. Attachment is mandatory, if YES. If you select “YES” in OSHA field, then user must upload attachment. Attachment is mandatory, if YES. <p>Service Endpoint: https://localhost:5001/api/Safety</p>
		1.3.4	<p>Screen Name: Relevant Experience</p> <p>Table Name: Experience</p> <p>Fields Required:</p> <p>1) Project Name Data Type: alphanumeric</p> <p>2) City Data Type: alphanumeric</p> <p>3) State Data Type: alphanumeric</p> <p>4) Zip code</p>

			<p>Data Type: alphanumeric</p> <p>5) Reference Name Data Type: alphanumeric</p> <p>6) Reference Email Data Type: alphanumeric</p> <p>7) Owner Data Type: alphanumeric</p> <p>8) Contractor Data Type: alphanumeric</p> <p>9) Contract Price Data Type: alphanumeric</p> <p>10) Completion Date Data Type: alphanumeric</p> <p>11) Project Delivery Method Data Type: alphanumeric</p> <p>12) Project Description Data Type: alphanumeric</p> <p>13) Created Date Data Type: Date & Time</p> <p>14) Updated Date Data Type: Date & Time</p> <p>15) Create User Data Type: alphanumeric</p> <p>16) Updated User Data Type: alphanumeric</p> <p>17) Delete Mode Data Type: numeric</p> <p>Validation:</p> <ul style="list-style-type: none"> List projects in the past three years that your company has performed the subcontract work (for joint ventures, list each joint venturer's projects separately). You are hereby permission to contract the parties involved in the relevant experience listed. Upon completion on the prequalification form, the MBP will automatically send reference checks for the listed references for the project tied to them. So, please ensure you have the correct addresses. <p>Service Endpoint: https://localhost:5001/api/Experience</p>
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		1.3.5	<p>Screen Name: Financial Info</p> <p>Table Name: Financial</p> <p>Fields Required: (All questions on this section are mandatory)</p> <ol style="list-style-type: none"> 1) CPA Attachment Data Type: alphanumeric 2) Extended Credit Data Type: alphanumeric 3) App Credit Value Data Type: alphanumeric 4) Financial Inst Name Data Type: alphanumeric 5) Contact Person Name Data Type: alphanumeric 6) Contact Info Data Type: alphanumeric 7) WIP Attachment Data Type: alphanumeric 8) Created Date Data Type: Date & Time 9) Updated Date Data Type: Date & Time 10) Create User Data Type: alphanumeric 11) Updated User Data Type: alphanumeric 12) Delete Mode Data Type: numeric <p>Validation:</p> <ul style="list-style-type: none"> • App Credit value – numeric • Financial Institution – alphanumeric • Contact person name – Alphanumeric • Contact Info – multi-line text <p>Service Endpoint: https://localhost:5001/api/Financial</p>
1.4	Secure document upload: Documents can be uploaded and stored securely.	1.4.1	Document securely upload in Azure Dev Storage Account .

1.5	Intermediate Auto-Save: Automatically save the data intermediately when the user is idle and save options at the end of each section.	1.5.1	
1.6	Secure Access control: Role based access control	1.6.1	<p>User will authenticate based on these four roles - Subcontractors, Admin, Risk User, Safety User.</p> <ul style="list-style-type: none"> Admin - Have full privileges to access the portal and allocate the roles for the user. Subcontractors - only submit the form to complete the prequalification Risk User - Approve the subcontractors Prequalification. Safety User - can review the safety precaution / Info of subcontractors.

3.2. Reporting Requirements (If applicable)		
Reporting Req ID # (From BRD)	Technical Req ID #	Technical Requirements
	3.2.1	<p>Reporting Requirement List the reporting requirements, if any. <u>Example:</u> Select X, Y, Z from XXX table between date=YYY and date=ZZZ</p>

3.3. Security Requirements (If applicable)		
Security Req ID # (From BRD)	Technical Req ID #	Requirements
	3.3.1	<p>Security Requirement List the security requirements, if any. <u>Example:</u> Use XXX algorithm for encryption.</p>

4 Technical Process Flow

Insert process flows, if any.

5. Addendums & Appendices

Include any additional documents/ information.