Draft Phased Implementation Plan

The San Luis Obispo County Travel Management Coordination Center (TMCC) Project

Prepared for:

Federal Transit Administration (FTA)
United States Department of Transportation

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Date:
March 19, 2018

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LIST OF ABBREVIATIONS

Acronym	Description
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act (federal law)
API	Application Program Interface
APP	Mobile Application
AVL	Automatic Vehicle Location (satellite navigation)
CAD	Computer Aided Dispatching (FR system)
CalTrans	California Department of Transportation
CASD	Computer Aided Scheduling and Dispatching (DRT system)
CHC	Community Health Centers
ConOps	Concept of Operations
CSR	Customer Service Representative
CTSA	Consolidated Transportation Services Agency (California)
DRT	Demand Response Transportation
FHWA	Federal Highway Administration
FR	Fixed Route
FTA	Federal Transit Administration
GPS	Geographic Positioning Systems
HLSD	High-Level System Design
ITS	Intelligent Transportation Systems
IVR	Interactive Voice Response
JPO	USDOT's ITS Joint Program Office
MSAA	Mobility Services for All Americans
PMT	TMCC Project Management Team
Ride-On	Ride-On Transportation
RTA	San Luis Obispo Regional Transit Authority
SCT	South County Transit (administered by RTA)
SLO	San Luis Obispo
SLOCOG	San Luis Obispo Council of Governments
TA	Technical Assistance
TMCC	Travel Management Coordination Center
TMCCAC	Travel Management Coordination Center Advisory Committee
TTT	TMCC Technology Tool (TMCC's technology components)
USDOT	United States Department of Transportation
USDHHS	United States Department of Health and Human Services
USOA	Uniform System of Accounts (FTA)

1 Executive Summary

In 2015, the United States Department of Transportation's (USDOT) Federal Transit Administration (FTA) awarded the Mobility Services for All Americans (MSAA) Intelligent Transportation Systems (ITS) technology research grant to Ride-On Transportation and the San Luis Obispo Regional Transit Authority (RTA) to plan and design an innovative Travel Management Coordination Center (TMCC). In designing the TMCC, the San Luis Obispo (SLO) County MSAA project leveraged the ITS Systems Engineering process to document the process of seeking and addressing stakeholder mobility needs in developing a TMCC. This Phased Implementation Plan (PIP) document seeks to document the necessary elements to implement the TMCC's selected design.

TMCC Project Overview

The SLO County TMCC project is a collaborative effort between Ride-On Transportation, RTA, and multiple diverse stakeholder groups to plan and design a replicable and scalable TMCC for the entire community. The TMCC's customer-focused vision is "To enhance personal mobility across San Luis Obispo County" with the following project goals and objectives.

- **Goal 1: Make available real-time DRT Provider information and services to the public.**
  - Objectives: Provide real-time DRT Provider service information to the public; Provide 90% of all demand response trips requested through the TMCC; and Provide access to the TMCC through in-person, telephone, website, and mobille Application (APP).
- **Goal 2: Coordinate public and human service DRT.**
  - Objective: Coordinate services between three or more DRT Providers; Create operational agreements between DRT Providers; and Determine a standard technology interface that could be used to coordinate TMCC scheduling functions.

The TMCC has experienced many committed community stakeholders participating in the TMCC design process, including the general public, private, non-profit, public, private, human service, and other community organizations. The TMCC Advisory Committee (TMCCAC), comprised of stakeholders, provided invaluable feedback into the TMCC's design, development, and implementation.

TMCC Phased Implementation Plan

The purpose of the Phased Implementation Plan (PIP) is to document steps taken to implement the San Luis Obispo County TMCC's chosen system design and requirements. The PIP also seeks to describe how the chosen TMCC system design will be implemented from concept into an operational system.

In creating the PIP, information contained in the TMCC's High-Level System Design (HLSD) and System Requirements were leveraged to develop an implementation plan that discusses the concepts of three phases, estimated costs, revenues, tasks, success measurements, and other potential impacts.

The TMCC is recommended to be implemented in the following three-phase approach over three years. The TMCCAC and Project Management Team (PMT) developed tasks for completion over the three phases leading to full implementation in Phase 3.

TMCC Implementation Phases

- Phase 1 - Initial TMCC Implementation
- Phase 2 - Interim TMCC Implementation
- Phase 3 - Full TMCC Implementation

Implementing the TMCC, Phase 1 is considered no cost, Phase 2 is estimated to have a capital cost up to $10,000 for the creation of a new 511 mobile application (APP), and Phase 3 is estimated to have a capital cost of $233,460-373,960 for the selected TMCC Technology Tool (TTT) alternatives and an administrative cost of $18,720 in support of all services. The TTT is recommended to utilize Commercial Off-The-Shelf (COTS) combined with Open Source (OS) technologies for its overall customer and business-to-business focus areas. The TMCCAC recommended that new, external state and federal revenues be sought to fund the project.

Guiding the phased implementation, the TMCCAC will continue to meet and address tasks on a regular basis throughout the project. The TMCCAC will also continue to explore industry technology innovations and costs while evaluating practical solutions in guiding project implementation.

Through the recommended tasks contained in this PIP, the TMCC provides an opportunity to enhance the community's mobility and services needs while benefiting all public, private, and non-profit participating agencies through enhanced coordination of Demand Response Transportation (DRT) services.

The following PIP is written for all members of the SLO County community, project sponsors, and other interested persons in providing an overview of the project, review of the chosen system design, estimated project costs and potential benefits, implementation phases, organization and staffing, ITS Regional Architecture update, and other supporting information.

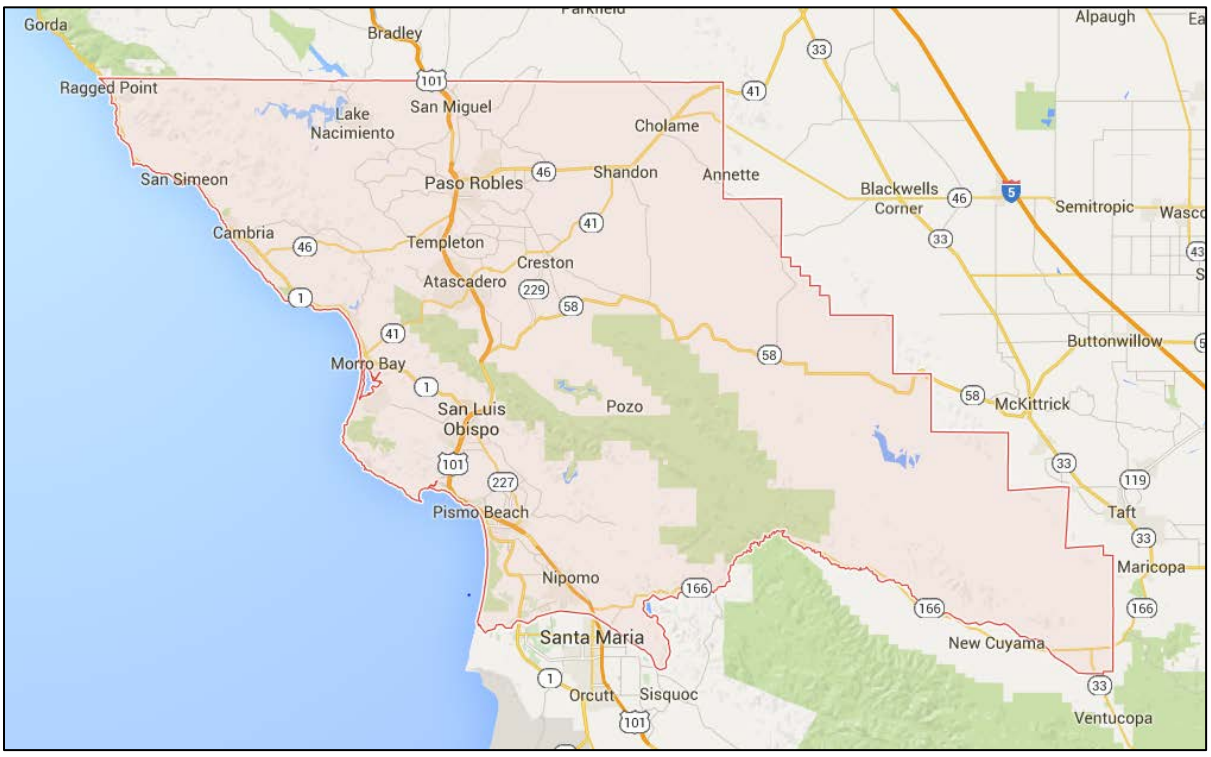
2 Phased Implementation Plan - Overview

This section provides an overview of the Phased Implementation Plan's purpose, list of agency stakeholders and descriptions, a summary of the customer needs assessment, and a brief discussion of the TMCC's technology subsystems.

2.1 The SLO County TMCC – Project Overview

In July 2015, Ride-On Transportation was awarded a Federal Transit Administration (FTA) Mobility Services for All Americans (MSAA) Intelligent Transportation Systems (ITS) research grant to design an interoperable, replicable, and scalable Travel Management Coordination Center (TMCC) for San Luis Obispo (SLO) County, CA. See Figure 1 for a map of the initial TMCC coverage area. The vision of the community-focused TMCC is "To enhance personal mobility across San Luis Obispo County." The goals of the TMCC project are to use technology in (1) providing real-time transportation information and trip scheduling choices for the general public (all persons) through (2) the coordination of public and human service Demand Response Transportation (DRT) providers.

Figure 1. Map of San Luis Obispo County, CA



Courtesy: Google Maps

Since award, the MSAA project has enabled Ride-On, SLO Regional Transit Authority (RTA), SLO Council of Governments (SLOCOG), and other stakeholder partners to leverage the Intelligent Transportation Systems (ITS) Systems Engineering process to further explore coordinating the community's DRT services while providing real-time information and services to the public.

Through this process, Ride-On and local partners have engaged multiple stakeholders to plan and design the TMCC with the community's input and interest at heart. This process has included multiple in-person meetings, discussion, research, shared information, and the utilization of the ITS Systems Engineering process to facilitate and document the project. Since project inception, the MSAA grant has facilitated the creation of a Project Management Plan, Concept of Operations, System Requirements, and High-Level System Design deliverables to fully document the TMCC.

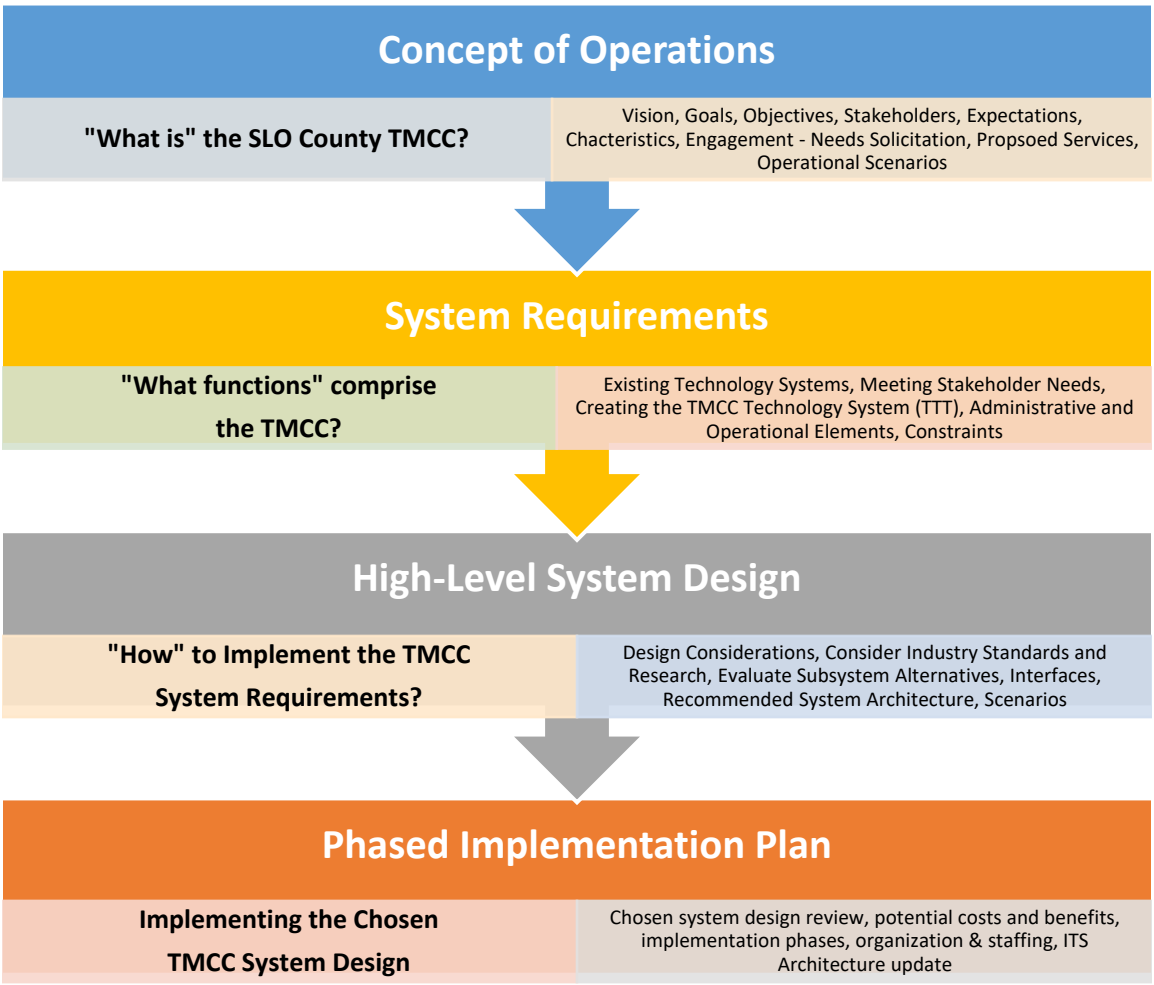
2.2 Plan Purpose

As part of the ITS Systems Engineering process and a required MSAA grant deliverable, the Phased Implementation Plan (PIP) documents the steps taken to implement the San Luis Obispo County TMCC's chosen system design and system requirements. The PIP also describes how the chosen TMCC system design will be implemented from concept into an operational system. The system design describes the technology and non-technology subsystems that comprise the TMCC's information and services provided.

To document the San Luis Obispo County TMCC PIP, this text is written to enable transparent review and comprehension by all project stakeholders and the community at-large. The PIP utilizes information from the project's Concept of Operations, System Requirements, High-Level System Design documents and features the following sections. See Figure 2 for an illustration of the PIP's information inputs that aided in the development of this document.

- ***Section 3.0 - TMCC System Design***
- ***Section 4.0 - TMCC Planning Costs and Potential Benefits***
- ***Section 5.0 - TMCC Implementation Phases***
- ***Section 6.0 - TMCC Organization and Staffing***
- ***Section 7.0 - ITS Regional Architecture Update***
- ***Section 8.0 - References***
- ***Appendices***

Figure 2. Phased Implementation Plan – Information Inputs



Source: Ride-On Transportation/Routematch

2.3 Agency and Stakeholder Description

Implementing the TMCC will rely on project leaders from Ride-On, RTA, and SLOCOG to determine a lead agency and project administrator to oversee and support the MSAA project. The project leaders plan to continue the MSAA advisory committee process after the planning portion of the project's conclusion in spring 2018. It is anticipated that TMCC DRT Providers, such as Ride-On, RTA, Yellow Cab, Smart Shuttle, and SLO Safe Ride, along with other stakeholders will participate in the phased implementation of the TMCC. Table 1 illustrates the stakeholders that are expected to participate in TMCC implementation.

Table 1. TMCC Implementation – Stakeholder Participants

Stakeholder Group (project relationship)	Participant
General Public (customer)	• Individuals • Sponsors (person or organization sponsoring an individual) • Caretakers (person who serves as caretaker for an individual
Human Service Agencies and Community Organizations (customer, information provider, service provider)	• Community Health Centers • CenCal Health (Medi-Cal Program) • SLO County Department of Social Services (DSS) • CapSLO • Tri-Counties Regional Center • SLO County Adult Services Policy Council
DRT Providers (customer, information provider, service provider)	• Ride-On Transportation • RTA (Runabout, Nipomo Dial-A-Ride, Shandon/Templete Dial-A-Ride, and Paso Express Dial-A-Ride) • SLO Safe Ride • Yellow Taxi • Smart Shuttle • Atascadero Dial-A-Ride (DAR) • Morro Bay Call-A-Ride • Amdal Transport Services
Fixed Route Transit Providers (customer, information provider, service provider)	• RTA • City of San Luis Obispo Transit (SLO Transit) • City of Morro Bay Transit • South County Transit - SCT (administered by RTA) • Paso Express (directly operated by RTA)
Transportation Information Resource Providers (customer and information provider)	• San Luis Obispo (SLO) Regional Rideshare/511 • 211 – United Way of San Luis Obispo

Stakeholder Group (project relationship)	**Participant**
Transportation Funding Partners (customer and information provider)	• San Luis Obispo Council of Governments (SLOCOG) • United States Department of Transportation: o Federal Transit Administration (FTA) and MSAA Technical Assistance (TA) Team o Federal Highway Administration (FHWA) – California Division • California State Government: o California State Transportation Agency: California Department of Transportation (CalTrans) o California Health and Human Services Agency - affiliated departments
Technology Partners/Advisors	• Routematch • Bishop Peak Technology • Others (to be determined)

2.4 Summary of Customer Needs Assessment

During the project's Concept of Operations phase, the Project Management Team (PMT) conducted a customer needs assessment through multiple public outreach activities comprising the following initiatives.

- **General Public Outreach.** Conducted English and Spanish language version surveys of TMCC customer needs through the MSAA website and in-person meeting handouts.
- **Human Service Agency and Community Organization Outreach**. Ride-On presented an overview of the MSAA project to multiple community organizations in seeking customer needs related to the project. These organizations took many surveys to share with their agency customers as well.
- **TMCC Advisory Committee Stakeholder.** The PMT solicited TMCC needs from all Advisory Committee members.

Customer comments received were received by the PMT and collated into like categories which became the basis of the project's goal-based objectives and supports the design of the proposed TMCC. The elicited customer needs provided the TMCC with requirements for access methods and services. Customers were clear in stating needs to access a system that was available *(1) in-person, (2) by telephone, (3) through website, and (4) mobile application (APP)*. Customers also stated needs for TMCC services, including transportation *(1) Information*, such as providers and human service agencies, and *(2) Services*, such as trip planning, trip selection and request, acceptance of trip confirmation, trip management (ride status, etc.), and fare options.

In addition, stakeholders also shared necessary institutional needs, such as inter-local agreements, operational protocols, marketing topics, and other items necessary to ensure successful TMCC operation. A collated list of customer stakeholder needs is provided as Table 2.

Table 2. Collated Customer Needs

Need #	Collated Need
1.00	Provide Transportation Services and Information through the following means: In-Person, Telephone, Website, and Mobile APP
1.01	Provide customer with transportation service options and agency contact information
1.02	Utilize existing 511 and 211 electronic and telephone services
1.03	Provide accessible services for senior citizens and persons with disabilities
1.04	Provide customer with a Fare Comparison of all transportation options (illustrate all available service providers and fares)
1.05	Provide customer with real-time vehicle arrival and travel time information
1.06	Provide customer with a less than 1-hour DRT Provider response time to a ride request
1.07	Provide customer with in-person (physical location) trip scheduling capability
1.08	Provide customer with trip journey planning services (fixed-para-train-taxi, etc.)
1.09	Communicate DRT Provider vehicle lift-equipped capability and vehicle capacity to customer
1.10	Enable direct phone call transfers between DRT Providers
1.11	Create a single telephone number for customers to contact DRT Providers
1.12	Provide customer with 24/7, 365/day, telephone service availability
1.13	Create simple to use APP and website for customer
1.14	Leverage DRT Provider data
1.15	Enable "new" riders to register for applicable services(s)
1.16	Utilize existing DRT Provider technologies
1.17	Provide a unified fare payment capability
1.18	Provide customer with secure online access for electronic services
1.18	Provide customer with confirmed fare after booking trip
1.19	Provide customer with trip confirmation (after trip is scheduled)

Need #	Collated Need
1.20	Enable data to be shared between DRT Providers
1.21	Trip verification/confirmation (who owns the trip - client's host agency?)
2.00	Create DRT Provider inter-agency service agreements
2.01	Create a DRT Provider "agency-only" telephone number
2.02	Identify all DRT Providers services available to the public
2.03	Develop operations coordination protocols between DRT Providers (business rules)
2.04	Develop minimum DRT Provider levels of insurance, staff training, and maintenance
2.05	Develop DRT Provider customer quality assurance measures
2.06	Encourage customers to use fixed route as options to DRT
2.07	Understand DRT Provider institutional barriers
2.08	Involve DRT Provider governing boards in the process as appropriate (those applicable)
2.09	Utilize existing DRT Provider call centers
2.10	Ensure DRT Provider consistency of information communicated to the customer
2.11	Create a project name and logo
2.12	Place logo in a visible location on all participating DRT Provider vehicles
2.13	Marketing and promote the TMCC to the public
2.14	Conduct customer education campaign
2.15	Establish accounting (payment/reimbursement) procedures between providers
2.16	Identify fares for all ridership categories
2.17	Conduct DRT Provider staff training
2.18	Identify DRT Provider staff to support the TMCC

2.5 TMCC Subsystems - Description

Based on the collated customer needs assessment, the TMCC's System Requirements were developed to address *"how"* the project's access methods and services will specifically meet customer interests. Through this process, the TMCC's proposed access methods and services were delineated into detailed technology and non-technology requirements. Supporting institutional/business non-technology requirements were also created to address the TMCC's administration and operation. The project's services technology elements became known as the TMCC Technology Tool (TTT) for clarity purposes.

After developing the TMCC's detailed system requirements, the PMT then identified and evaluated potential design options for the access and TTT subsystems. The High-Level System Design sought to determine *"what"* components will comprise the TMCC based on the project's system requirements. The design process enabled the project team to research, interview, and evaluate multiple alternatives in support of the access and TTT systems. Based on current information collected by the PMT and Advisory

Committee, the following are the TMCC's recommended Access and TTT subsystems components.

- **Access Methods Subsystem – Components**
  - In-Person
  - Telephone
  - Website
  - Mobile APP

- **TTT Subsystem – Components**
  - Transportation Information
  - Customer and Staff Portals
  - Provider Portal

2.5.1 Assumptions

The design of the TMCC subsystems are based on the following assumptions.

2.5.1.1 TMCC Access Methods Subsystem - Components

- In-Person
  - TMCC DRT Providers and other stakeholders will provide in-person service access during regular business hours.
- Telephone
  - TMCC DRT Providers and other stakeholders will host online telephone (including live CSR) access.
  - An after-hours telephone service shall be provided.
- Website
  - Hosting. The TMCC website will be hosted at an existing stakeholder location (i.e. Rideshare/511) or in the "cloud" (internet hosting service).
  - Design/Administration/Support. The TMCC website will be managed by an existing stakeholder (i.e. Rideshare/511 website).
- Mobile APP.
  - Hosting. The TMCC mobile APP will be hosted either through a vendor or a stakeholder cloud location.
  - Design/Administration/Support. The TMCC mobile APP will be designed and supported either through

vendor APP or new, locally developed APP. Administrative oversight will remain with the TMCC lead agency (administrator).

2.5.1.2 TTT Subsystem - Components

- Information
  - Source. Project stakeholders, such as 511/SLOCOG, DRT Provider, or other stakeholders will serve as the project's information resources.
  - Linkages. Information will be made available to the TMCC website and mobile APP by linking participating stakeholder websites.
- Customer, Staff and Provider Portals.
  - TTT Operation. The TTT shall operate in centralized and decentralized manners enabling multiple providers to participate in the system.
  - Administrator/Lead Agency. A current stakeholder shall serve as TMCC administrator and lead agency.
  - TTT Services Provision. Two or more DRT Providers shall provide services for the TMCC.
  - DRT Provider Technology. Current DRT Provider Computer Aided Scheduling and Dispatching (CASD) and Global Positioning System (GPS) enabled mobile technologies are necessary to support TMCC/TTT services and operation.
  - DRT Providers – Without CASD or Mobile Technology. DRT Providers interested in participating in the TMCC without CASD and mobile technologies may do so as a subcontractor to a TMCC DRT Provider with supporting technology enabling electronic communication with one another.
  - DRT Provider Real-Time Service Information. For service accuracy, the TTT system is dependent on real-time (i.e. 30 seconds) DRT Provider vehicle location information through their CASD system.
  - DRT Provider Technology Compatibility. DRT Providers shall maintain CASD technology compatible with TTT requirements to ensure interface communication.
  - DRT Providers will institute inter-agency agreements along with policies and procedures as referenced in <u>System Requirements, Section 4</u>.

2.5.2 Constraints

The design of the TMCC subsystems were also based on customer and stakeholder constraints received during the Concept of Operations outreach process. The following are potential TMCC administrative, operational, and technology constraints.

- Inter-agency agreement process, including cost-sharing arrangements for the operation of the TMCC, marketing plan, and training.
- Development of cost/benefits for all proposed TMCC High-Level Design alternatives.
- TMCC implementation funding and sustainability.
- DRT Provider service funding and sustainability.
- Stakeholder continued engagement and participation.
- Community awareness of the TMCC.
- Lack of adequate staff training on the TMCC system.
- Approval from DRT Provider Boards (if applicable).
- Labor rules.
- DRT Provider service/vehicle availability.
- Decentralized dispatching and call centers
- County geography - access to services in all portions of the county.
- DRT Provider staffing.
- Technology system complexity.
- Technology System accessibility and availability.
- Chosen technology system design.

3 TMCC System Design

This section provides an overview of the TMCC's system design, including details of the access methods and TTT subsystems, anticipated business process roles and responsibilities and agency/stakeholder resource and training needs.

3.1 System Design - Overview

The TMCC's system design is based on the project's system requirements, which provided a detailed set of expectations for the development of the project's Access Methods and TTT subsystems. After review of the system requirements, the PMT researched, created, and evaluated alternatives for each subsystem's components. The system design alternatives were reviewed with the TMCCAC and recommendations were provided in the HLSD document. Figure 3 provides an illustration of the TMCC High-Level System Architecture from the customer access perspective. The following section addresses the TMCC's access methods and TTT subsystems components.

3.2 TMCC Access Methods Subsystem - Components

3.2.1 In-Person Access Method

3.2.1.1 Overview

TMCC stakeholders including DRT Providers, Fixed Route Providers, 511/Rideshare, and human service agencies are recommended to serve as in-person access resources for the TMCC and TTT. Figure 4 provides an illustration of the TMCC's in-person access method subsystem.

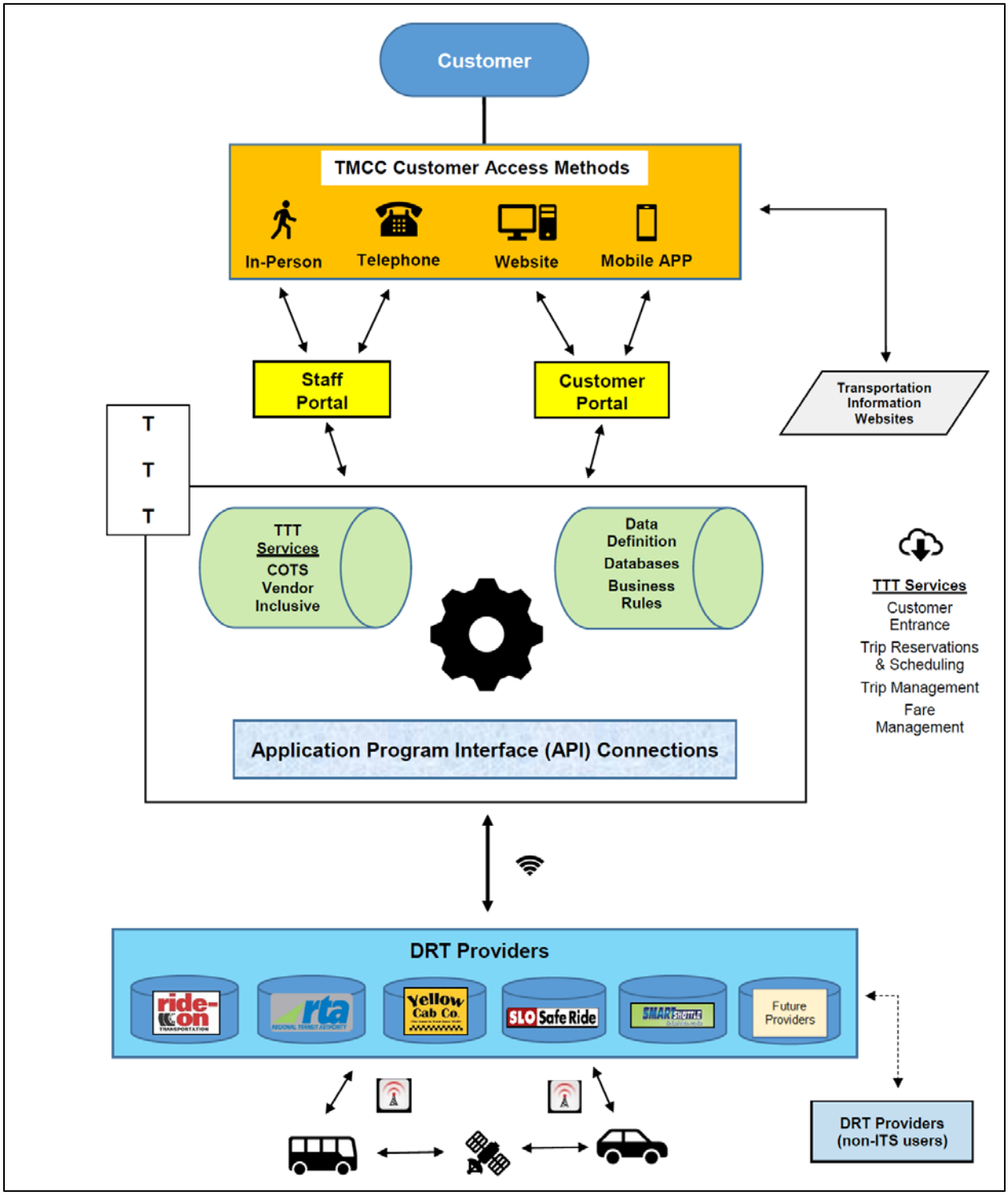
3.2.1.2 Anticipated Business Process Roles/Responsibilities

During regular business hours, authorized stakeholder agency staff are proposed to provide customers with inter-personal community transportation information and TTT services utilizing the TTT Staff Portal. Customer

3.2.1.3 Agency/Stakeholder Resource & Training Needs

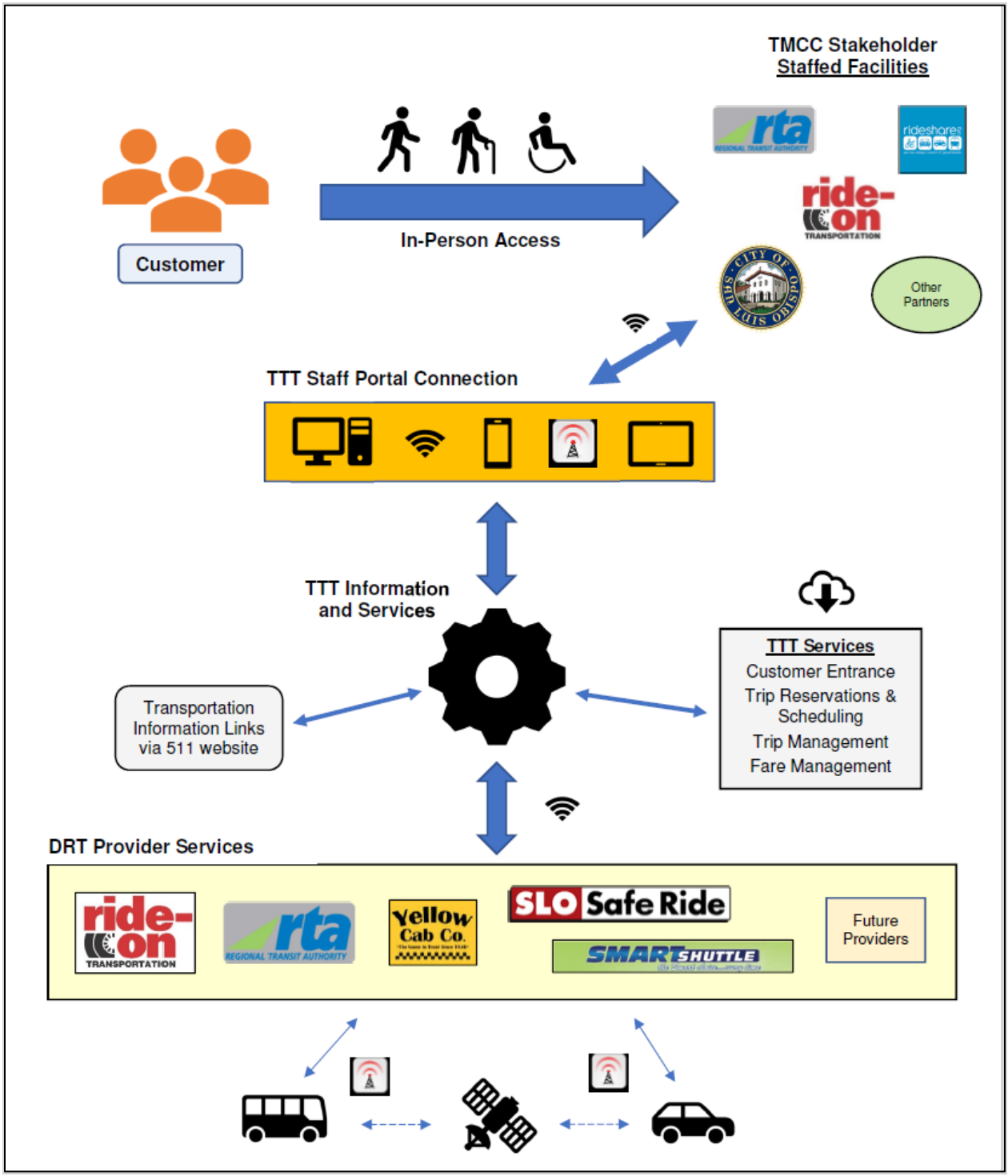
The designated TMCC lead agency shall develop and deliver stakeholder-focused training programs in Phase 3 to address in-person customer service provision, leveraging TMCC services, use of the TTT staff portal, and discussing understanding adopted telephone business protocols.

Figure 3. TMCC High-Level System Architecture (Customer Access)



Source: Ride-On Transportation/Routematch

Figure 4. TMCC In-Person Access Method Subsystem



Source: Ride-On Transportation/Routematch

3.2.2 Telephone Access Method

3.2.2.1 Overview

The TMCC's recommended telephone access methods leverage contact through existing community resources, including DRT Providers, 511, 211 CA Relay, TDD/TTY (connections with Ride-On and RTA), to enable customer connections with "live" Customer Service Representatives (CSR's). The project's System Requirements also recommends utilizing a specific toll-free number to access "live" TMCC services. It is recommended this service be provided through Rideshare's 511 telephone number and "live" CSR's available during regular business hours. Figure 5 provides an illustration of the TMCC's telephone access method subsystem.

3.2.2.2 Anticipated Business Process Roles/Responsibilities

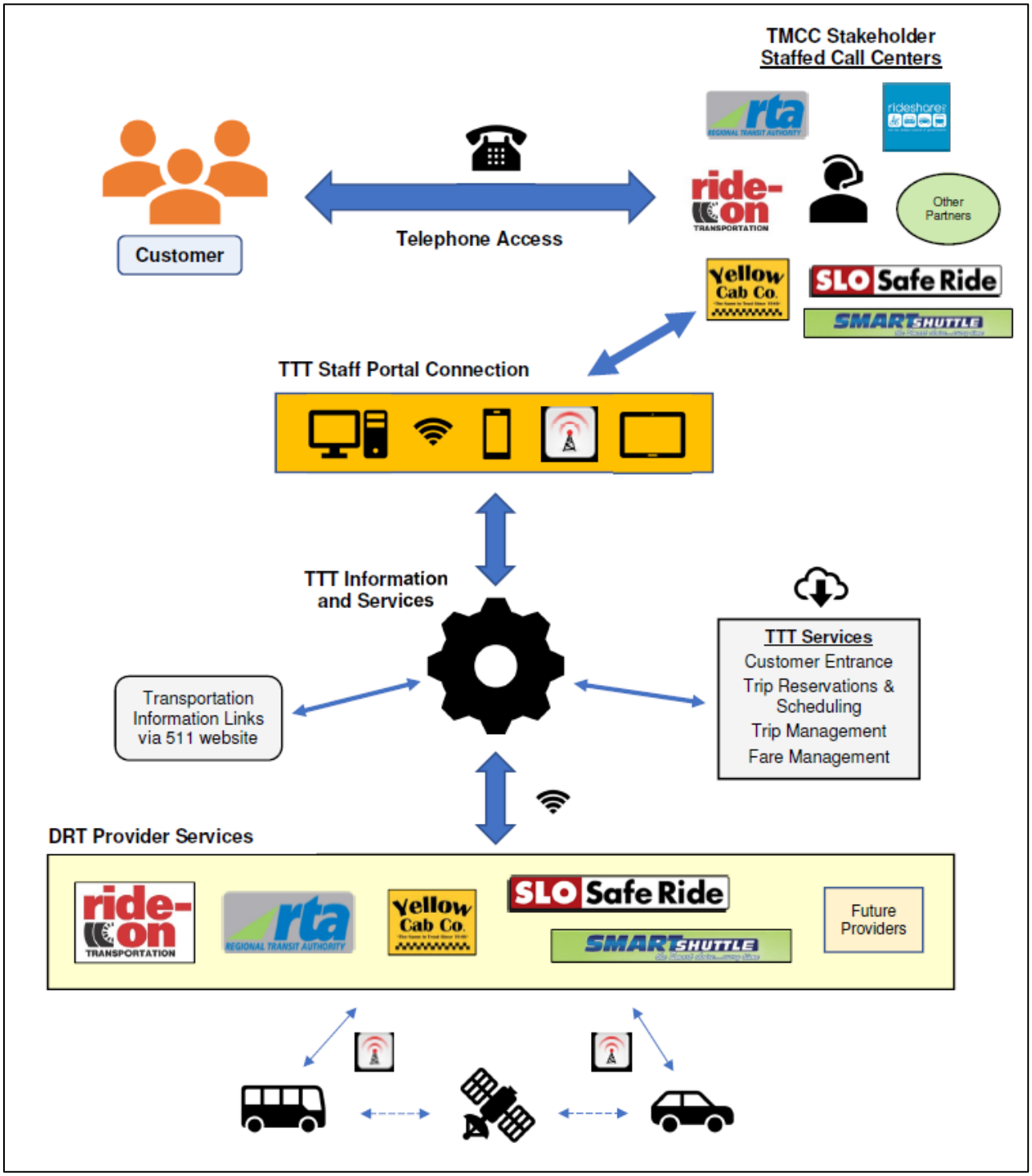
During regular business hours, customers are proposed to contact stakeholder agency and Rideshare/511 staff by telephone to receive TMCC services. Stakeholder staff are proposed to utilize the TTT's Staff Portal to address customer service needs. In the event stakeholder agency staff are unavailable to address customer calls either during or outside regular business hours, the use of call forwarding technology is recommended for agencies (capable of doing so) to transfer customer calls to other designated TMCC partners for service continuity.

3.2.2.3 Agency/Stakeholder Resource & Training Needs

The designated TMCC lead agency shall develop and deliver stakeholder-focused training programs in Phase 3 to address transferring customer calls to other partners (for those agencies with telephone systems capable of doing so), leveraging TMCC services, use of the TTT staff portal, and understanding adopted telephone business protocols.

Figure 5. TMCC Telephone Access Method Subsystem

Source: Ride-On Transportation/Routematch



Source: Ride-On Transportation/Routematch

3.2.3 Website Access Method

3.2.3.1 Overview

As an existing and developed community resource, the 511/Rideshare website features many travel services, including transit journey planning and CalTrans highway cameras, along with the Know How to Go! guide for community transportation information and resources.

With this level of community experience and engagement, it is recommended the 511/Rideshare website be leveraged as the TMCC's website while incorporating additional community transportation information website links and TTT Subsystem components as illustrated in the System Requirements. Figure 6 provides an illustration of the TMCC's website access method subsystem.

3.2.3.2 Anticipated Business Process Roles/Responsibilities

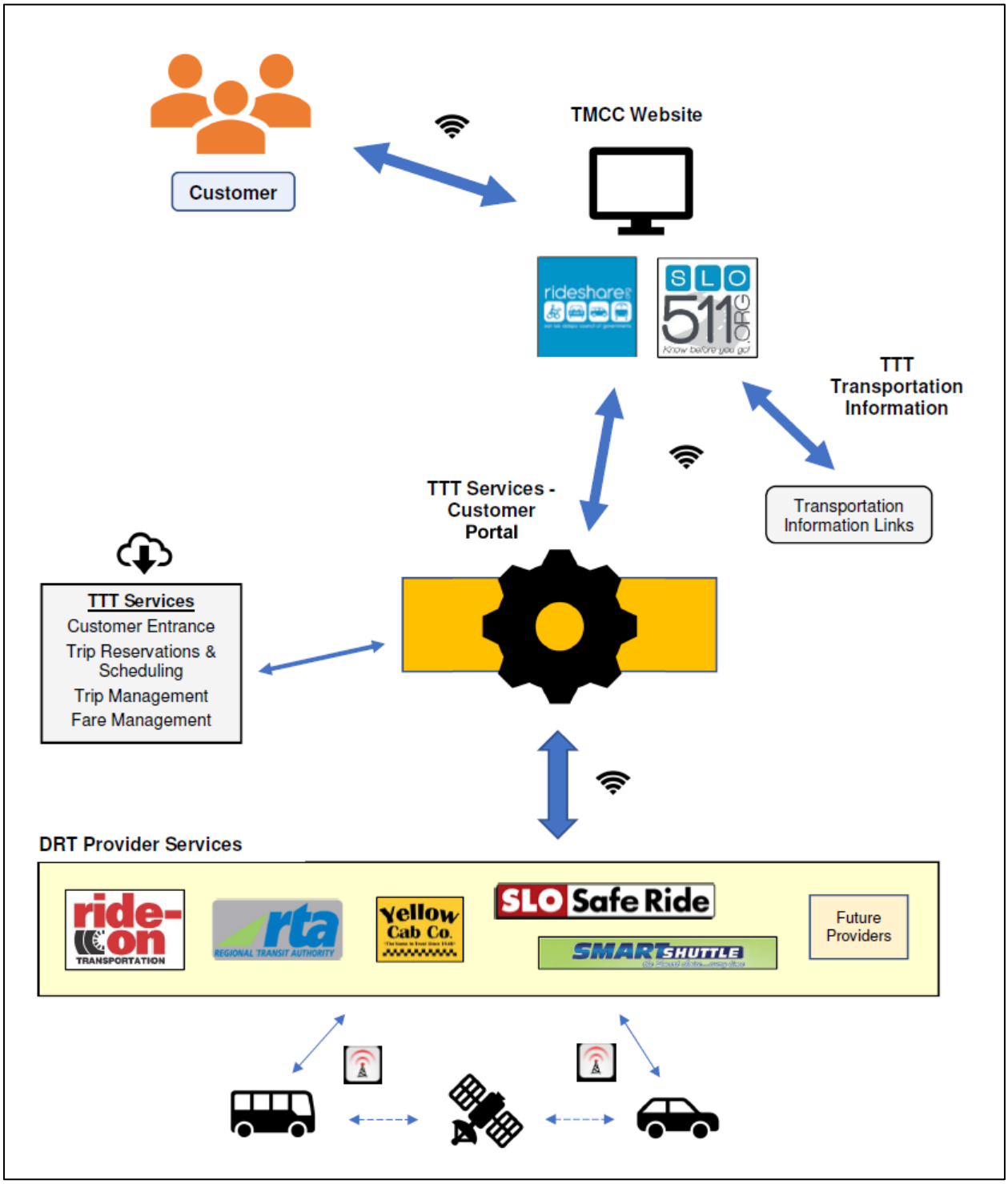
As the TMCC's proposed website, Rideshare is recommended to expand the 511 website to include additional TMCC stakeholder transportation website links, such as 211, human service agencies, community organizations, and other transportation providers. In Phase 3, the chosen TTT system is proposed to be linked from the 511 website for direct customer access to TMCC services.

3.2.3.3 Agency/Stakeholder Resource & Training Needs

As recommended in the HLSD, it is recommended that Rideshare expand their 511 website to enable linkages to additional community transportation resource websites and to the TTT system in Phase 3. Revisions to the 511 website are estimated to cost $500-$1,000 and will be addressed in Section 4. Ongoing updates and maintenance to the 511 website shall be Rideshare's responsibility in partnership with the TMCC lead agency and local stakeholders.

In addition, the designated TMCC lead agency shall develop and deliver stakeholder-focused training programs in Phase 3 to address website access, use, and services (information and TTT portals) along with a review of the adopted website business protocols. Information should be prepared and made available to the public on website features and use as well.

Figure 6. TMCC Website Access Method Subsystem



Source: Ride-On Transportation/Routematch

3.2.4 Mobile APP Access Method

3.2.4.1 Overview

The TMCC's mobile APP is recommended to be provided by 511 and the TTT Customer and Staff Portals' commercial off-the-shelf (COTS) technology solution as part of an overall comprehensive package. A revision to the 511 web-enabled APP into a true mobile APP is recommended for consideration in Phase 2 with the inclusion of TTT elements incorporated in Phase 3. The 511/TMCC mobile APP shall be publicly available on the major "APP" stores. Figure 6 provides an illustration of the TMCC's website access method subsystem.

In addition, the estimated cost for the new 511 mobile APP is $10,000 with the remaining costs being incorporated into the overall expense for the TTT Customer and Staff Portals as addressed in Section 4. Figure 7 illustrates the TMCC mobile APP access method subsystem.

3.2.4.2 Anticipated Business Process Roles/Responsibilities

The TMCC's lead agency shall work with Rideshare to discuss the development of a 511 mobile APP in Phase 2. The TMCC lead agency shall work with Rideshare and the chosen COTS vendor to integrate the TTT's components with the 511 mobile APP in Phase 3 or leverage the business partner's inclusive mobile APP instead. The lead agency shall understand the mobile APP's impacts on their organization and other stakeholder business processes as well. Once impacts are understood, the TMCC lead agency will communicate and discuss the impacts with stakeholders. Ongoing maintenance of the mobile APP is anticipated to either be the responsibility of 511, TMCC lead agency, or the chosen COTS technology partner.

3.2.4.3 Agency/Stakeholder Resource & Training Needs

In Phase 2, it is recommended the TMCC lead agency and Rideshare consider creating a new true mobile APP for 511 (as the TMCC's mobile APP). The creation of a new 511 mobile APP is estimated to cost $10,000 and will be addressed in Section 4. Additional costs for TTT services inclusion with the mobile APP are addressed in the chosen TTT vendor's costs. Ongoing updates and maintenance to the 511 mobile APP shall be Rideshare's responsibility with support from stakeholders as needed.

The designated TMCC lead agency shall develop and deliver stakeholder-focused training programs in Phase 3 to address mobile APP use (information and TTT services for the customer and stakeholders) and adopted mobile APP business protocols. In addition, the designated TMCC lead agency should also prepare educational material designed to instruct the public on the mobile APP's use.

3.3 TTT Subsystem – Components

The TTT Subsystem consists of multiple components including Transportation Information and Customer, Staff and Provider Portals. Figure 8 provides an illustration of the TTT Subsystem components and interactions. This section provides an overview of the subsystem's recommended transportation information and portals components.

3.3.1 Transportation Information

3.3.1.1 Overview

The TTT's transportation information subsystem component recommends the TMCC website to enable links to additional community transportation and information resources, including DRT provider, fixed route provider, human service agency, other transportation & mobility organizations, safety & security, 511, 211, and multimodal trip planning information. To facilitate this process, the Rideshare/511 website and TMCC mobile APP are recommended to facilitate online links to the community's transportation resources from each electronic platform.

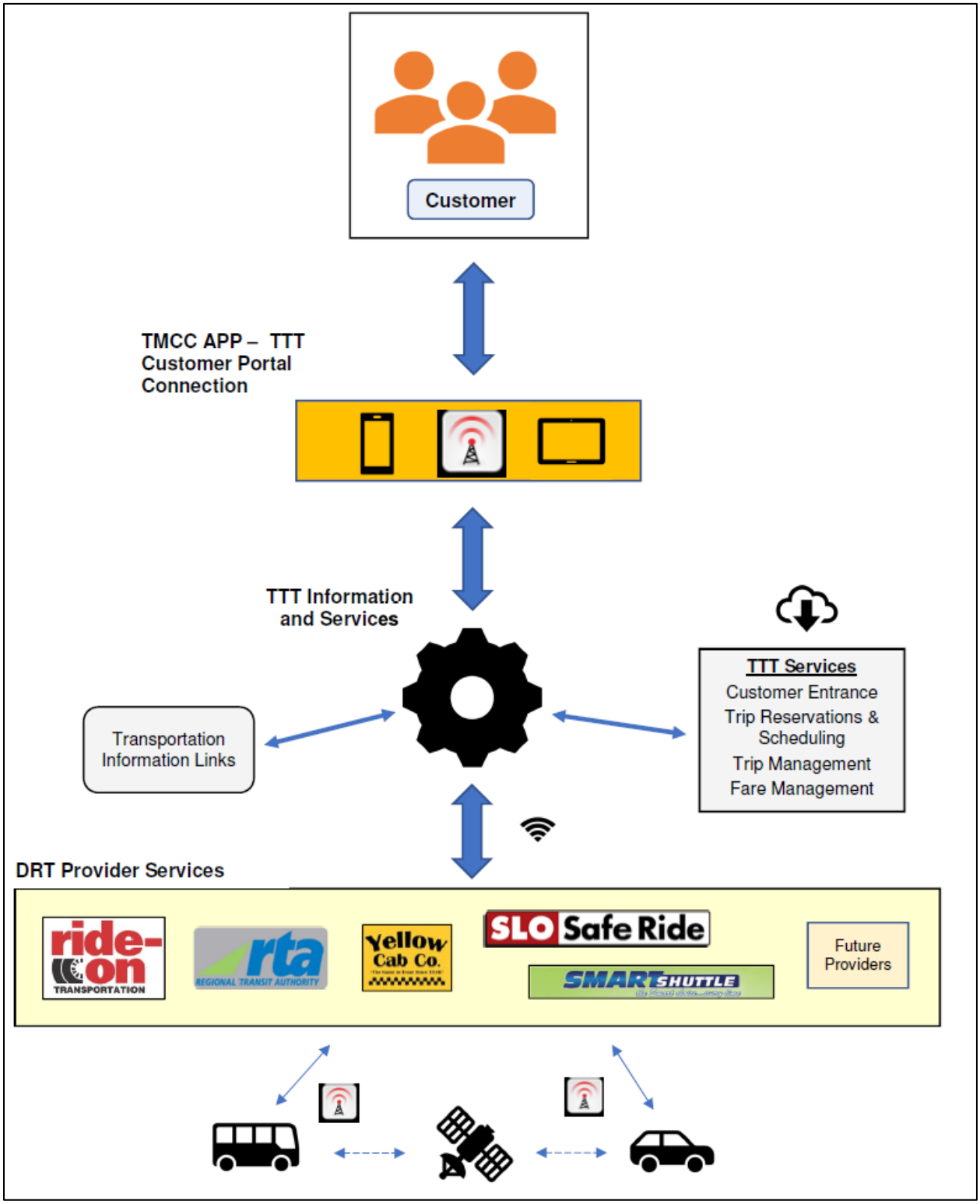
3.3.1.2 Anticipated Business Process Roles/Responsibilities

As referenced in Section 3.2.3, Website, Rideshare is recommended to incorporate TMCC stakeholder/additional community transportation resource links to their website. The TMCC lead agency and stakeholders can assist in developing the list of organization names and website links for this purpose.

3.3.1.3 Agency/Stakeholder Resource & Training Needs

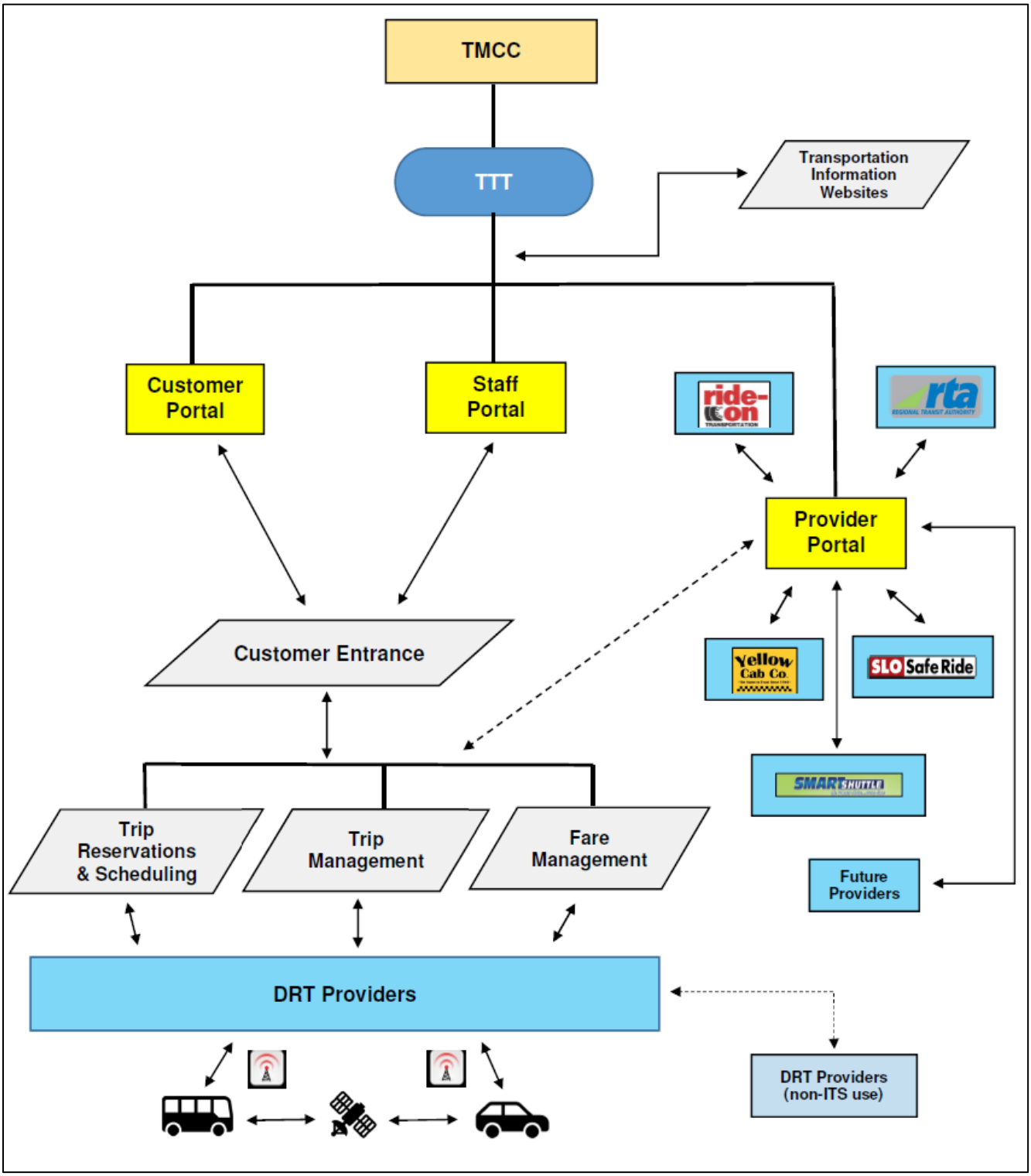
It is recommended that Rideshare expand their 511 website to enable linkages to other community transportation resource websites and to the TTT system in Phase 3. Ongoing updates, including stakeholder information and currency, and maintenance to the 511 website shall be Rideshare's responsibility with support from stakeholders as needed.

Figure 7. TMCC Mobile APP Access Method Subsystem



Source: Ride-On Transportation/Routematch

Figure 8. TTT Subsystem Components



Source: Ride-On Transportation/Routematch

3.3.2 Customer and Staff Portals

3.3.2.1 Overview

As detailed in the System Requirements, The TTT's Customer and Staff Portals are considered two separate components with very similar requirements serving different users, the customer and authorized staff/caregiver. For both portals, only the proper login credentials separate access to certain service features for the user. In creating and selecting a recommended design alternative, the two portals were referenced together for subsystem components discussion and to reduce redundancy.

Components of the TTT Subsystem, the Customer and Staff Portals are recommended to be incorporated into an inclusive COTS technology package that is provided by private sector business who have either created or are in process of developing similar technologies to those illustrated in the System Requirements (at time of this writing). The recommended system design's use of inclusive COTS technology features existing elements of the Customer and Staff portals' system requirements while incorporating fare management, reporting, and mobile APP technologies into a single package. A weblink between the COTS technology system and Rideshare/511 website is recommended to facilitate customer access to TTT online services. In addition, the TTT's COTS inclusive technology components will also integrate with a new 511 mobile APP (considered in Phase 2 or 3) or serve as a new locally branded mobile APP (Phase 3). The TTT's COTS inclusive technology is proposed to be owned, licensed, supported, maintained, updated, and hosted "in the cloud" by the vendor. Creating interface between the TTT Customer/Staff Portals and four DRT Provider CASD technology systems are included in the proposed system. See Figure 9 for an illustration of the TTT Customer and Staff Portals Subsystem Components.

3.3.2.2 Anticipated Business Process Roles/Responsibilities

In Phases 2 and 3, the following are key roles and responsibilities in support of TTT Customer and Staff Portals deployment. Additional details may be observed in Sections 3-4, System Requirements.

- TMCC lead agency selected by stakeholders.

- TMCC lead agency employs administrator to implement recommendations.
    - TTT procurement conducted, business partner chosen, deployment and project management.
    - TTT Technology inputs and outputs per the System Requirements.
    - Mobile APP – Phase 2 or 3 integration with a new 511 mobile APP or new Phase 3 locally branded mobile APP leveraging business partner inclusive technology.
    - Address non-technology requirements:
        - Accessibility
        - System Performance and Availability
        - System Operations
        - System Maintenance
        - Security
        - Scalability and Replicability
    - Technology Interface management.
        - Work with DRT Providers and technology vendors to ensure interface development work is progressing.
- Lead Agency and Stakeholder Partners
    - Administrative tasks to address.
        - Create inter-Agency agreements, policies and procedures, communication, staffing, financial elements, final success measures, marketing components, training sessions, emergency management planning, and other items.
    - Operational tasks to address.
        - Create policies and procedures, inter-agency services protocols, vehicle breakdown/maintenance needs, emergency preparation, and operations contingency.

3.3.2.3 Agency/Stakeholder Resource & Training Needs

The TMCCAC clearly stated in the HLSD development process that additional non-local financial resources will need to be secured to fund the recommended TMCC. The TMCC stakeholders will need to identify additional grant resources to deploy the recommended TTT as illustrated in Phase 3.

The proposed three-year inclusive total cost is $158,400 - $298,400, which includes vendor COTS technology;

interfaces; annual hosting, support, and maintenance; and additional COTS technology to share trips with non-TMCC DRT Providers. Additional details are provided in Section 4.

DRT Provider and stakeholder training material will need to be created, managed, and implemented by the TMCC administrator on the use of all TTT Portals.

3.3.3 Provider Portal

3.3.3.1 Overview

The recommended TTT Provider Portal comprises a hybrid concept utilizing existing COTS technologies and creating a locally developed solution utilizing Open Source (OS) technologies. Due to the lack of existing COTS technology comprehensively meeting the Provider Portal's requirements, the Provider Portal recommendation utilizes COTS technologies to communicate customer trips between DRT Providers, leveraging existing market technology for DRT Provider staff instant messaging, and use of OS Clearinghouse technology for local development use in meeting the Provider Portal's requirements.

This recommendation requires local (or contracted) development, hosting, support, and ongoing maintenance of the Clearinghouse technologies. The Technology Subcommittee also encouraged the Provider Portal be developed in the latest code and stated the use of OS technologies in Ruby/Rails developer code is considered dated (from a technology perspective). See Figure 8 as an illustration of the Provider Portal's relationship to the overall TTT Subsystems Components.

3.3.3.2 Anticipated Business Process Roles/Responsibilities

The anticipated business process roles and responsibilities are consistent with those recommended in Section 3.3.2.2. Additional Provider Portal protocol interactions between DRT Providers should be defined.

3.3.3.3 Agency/Stakeholder Resource & Training Needs

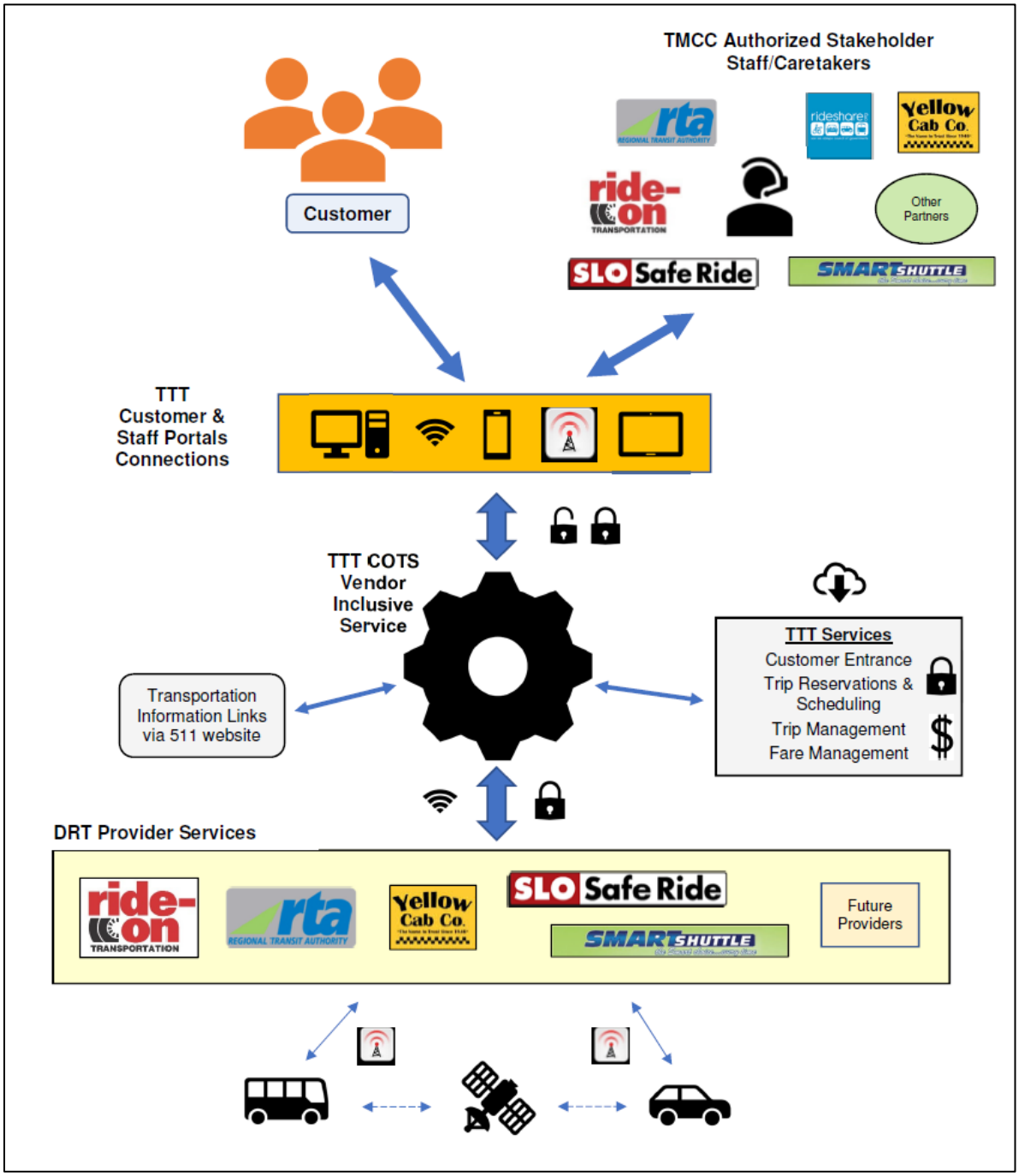
The TMCCAC clearly stated in the HLSD development process that additional non-local financial resources will need

to be secured to fund the recommended TMCC. The TMCC stakeholders will need to identify additional grant resources to deploy the recommended TTT as illustrated in Phase 3. Additional initial measures to meet some of the Provider Portal's requirements are addressed in Phase 1.

Based on market feedback, the estimated initial cost for the preferred option ranges from $18,800 - $74,560 per year depending on chosen technology solutions implemented. The cost factors include the use of COTS technology ($18,800) and estimated local TMCC administrator development time ($56,160) using OS software to create the Provider Portal consistent with the System Requirements. Given the unique and innovative nature of the project, the Provider Portal's staff development time is only an estimate.

DRT Provider and stakeholder training materials will need to be created, managed, and implemented by the TMCC administrator on the use of all TTT Portals.

Figure 9. TTT Customer and Staff Portals Subsystems Components



Source: Ride-On Transportation/Routematch

4 TMCC Estimated Costs and Potential Benefits

The following section provides a review of the recommended TMCC design's estimated costs, including administrative and capital, and potential benefits. Given the innovative, unique requirements of the TMCC, the identified costs are estimated based on stakeholder discussion, detailed research, and market feedback.

4.1 TMCC Estimated Costs – Administrative and Capital

The TMCC's focus provides customers with access to transportation information and services. The High-Level System Design process recommends the TMCC provide customers with access to services through four methods, including (1) in-person (at stakeholder locations); (2) telephone (through all stakeholder partners); (3) website (through the Rideshare/511 website); and (4) mobile APP (creating a new APP). To provide the TMCC's information and services, the TTT, comprised of Customer, Staff, and Provider Portals, is recommended to serve as the electronic backbone of the system utilizing a combination of COTS, Open Source (OS), and locally-created technology solutions for each portal.

During the High-Level System Design process, the PMT conducted extensive research leveraging all stakeholders, literary, state and national trade associations, and technology market resources to identify potential costs related to the TMCC's access methods and TTT. Estimated costs for the TMCC's access methods were shared by local stakeholders and technology partners based on knowledge and experience. The TTT portal's, given their unique, nationally innovative approach, was limited to receiving potential cost information from technology market resources with either existing systems that could be modified or those with similar new systems in development. The following section addresses the TMCC's estimated administrative and Access Methods and TTT Subsystems' capital expenses. Table 3 provides an overview of total estimated costs by implementation phase.

Table 3. TMCC Estimated Costs by Implementation Phase

Implementation Phase	Total Estimated Cost
Phase 1 - Initial TMCC Implementation	$0
Phase 2 - Interim TMCC Implementation	$10,000
Phase 3 - Full TMCC Implementation	$252,180 - $392,680 (3-year total)

Source: Ride-On Transportation/Routematch

4.1.1 TMCC Administrative Expenses

The TMCC lead agency is recommended to employ a part-time administrator to manage the TTT Subsystems in partnership with existing lead staff contacts located at each DRT Provider (5 agencies). The estimated new administrator total cost is $15,600 per year (or $46,800 for three years) and existing DRT Provider staff time total cost associated with TMCC functions is estimated at $3,120 per year (or $9,360 for three years).

4.1.2 Access Methods Subsystem Components – Estimated Costs

In considering the TMCC's Access Methods subsystem, each component's estimated costs are addressed below. Table 4 provides a detailed review of the subsystem's recommended components and cost by phase.

- **In-Person and Telephone Access Methods.** There are no anticipated costs for the in-person and telephone access methods in Phases 1-3.
- **Website Access Method.** The website access method is anticipated to cost an estimated $500-$1,000 in Phase 3 to update the 511 website with the TTT's services and technology recommendations. The 511 website's ongoing maintenance is anticipated to be addressed by Rideshare and supported by local partners based on agreement.
- **Mobile APP Access Method.** The new mobile APP access method is anticipated to cost up to $10,000 for Rideshare, TMCC lead agency, and stakeholders to consider its design, development, and deployment in Phase 2. With full funding availability in Phase 3, it is recommended the TTT Customer/Staff Portal's inclusive technology be integrated with the 511 mobile APP components, which is incorporated into the estimated cost. In the event the 511 mobile APP is not developed, the chosen Phase 3 business partner's mobile APP may be used instead.

4.1.3 TTT Subsystem Components – Estimated Costs

The TTT Subsystem's estimated costs were based on technology market resource estimates for the Customer, Staff, and Provider Portals. The TTT Customer/Staff Portal's estimated capital costs are based on vendor COTS technology; interfaces; annual hosting, support, and maintenance; and additional COTS technology to share trips with non-TMCC DRT Providers. The TTT's Provider Portal utilizes a hybrid system with estimated capital costs based on existing COTS technology and staff costs to further develop OS technologies per the

System Requirements. Detailed TTT Subsystem components, phases, and estimated costs are listed in Table 4.

Table 4. TMCC Components by Phase – Detailed Cost Estimates

Name	Recommended Alternative	Comp. #	Component	Phase 1 Cost ($)	Phase 2 Cost ($)	Phase 3 Cost ($)	Total Estimated Cost ($)
TTT Customer & Staff Portals	**Commercial-Off-The-Shelf (COTS) - Vendor Inclusive** (TTT System & Fare Management)	**1.1**	**TTT & Fare Management Systems Inclusive Vendor - Initial Cost:** Initial Investment - such as licensing, configuration, hosting, integration with five technology systems, integrated fare system, mobile app creation, link for website, branding, implementation services, and first year annual support & maintenance	$0	$0	$100,000 - $200,000	**$100,000 - $200,000**
	(requires website to interface & mobile APP is included)	1.1.1	Integration Cost - Varies per vendor (total 4 DRT Provider CASD systems to integrate to COTS vendor - note: RTA and Ride-On use same vendor)	$0	$0	$20,000 - $40,000	**$20,000 - $40,000**
		1.1.2	TTT & Fare Management Systems Vendor - Annual Support, Maintenance, Hosting, Upgrades (TTT & Fare System)	$0	$0	$20,000 - $40,000	**$20,000 - $40,000**
		1.3	**DRT Provider CASD Portal:** Access for agencies without CASD/Mobile to participate in TTT (through lead agency)	$0	$0	$14,400	**$14,400**
		1.3.1	Annual Support, Maintenance, Hosting, Upgrades (Access for agencies without CASD/Mobile to participate in TTT (through lead agency)	$0	$0	$4,000	**$4,000**
	Subtotal Cost			**$0**	**$0**	**$158,400 - $298,400**	**$158,400 - $298,400**

Name	Recommended Alternative	Comp. #	Component	Phase 1 Cost ($)	Phase 2 Cost ($)	Phase 3 Cost ($)	Total Estimated Cost ($)
TTT Provider Portal	**HYBRID - Commercial Off-The-Shelf (COTS) and Locally Developed**	**1.1**	**COTS Provider Portal - Vendor Initial Cost**	$0	$0	$ 14,400	**$14,400**
		1.1.1	Annual Support, Maintenance, Hosting, Upgrades	$0	$0	$2,000	**$4,000**
		1.2	**Locally Developed Trip Sharing System** (locally developed staff time)	$0	$0	$56,160	**$56,160**
	Subtotal Cost			**$0**	**$0**	**$74,560**	**$74,560**
TMCC Website	**Rideshare/511 Website Enhancement** (TTT Customer and Staff Portals Commercial Off-The-Shelf (COTS) and Open Source (OS) vendor system links)	1.0	Modification to 511 website to link to TTT Customer and Staff Portals.	$0	$0	$500 - $1,000	**$500 - $1,000**
	Subtotal Cost			**$0**	**$0**	**$500 - $1,000**	**$500 - $1,000**
TMCC Mobile APP	**COTS Vendor Mobile APP** (Integrated TTT Customer and Staff Portals)	1.0	Included within TTT COTS - Vendor Inclusive alternative cost	$0	$0	$0	$0
		2.0	Initial 511 Mobile APP development and deployment (Phase 2 consideration)	$0	$10,000	$0	$10,000
	Subtotal Cost			**N/A**	**$10,000**	**$0**	**$10,000**

Name	Recommended Alternative	Comp. #	Component	Phase 1 Cost ($)	Phase 2 Cost ($)	Phase 3 Cost ($)	Total Estimated Cost ($)
TMCC Staffing	Lead Agency - TMCC Administrator	1.0	TMCC Lead Agency - administrator cost	$0	$0	$15,600	**$15,600**
	DRT Providers - TMCC Staff Support Cost	2.0	DRT Providers - staff cost to manage TMCC-related elements	$0	$0	$3,120	**$3,120**
	Subtotal Cost			**$0**	**$0**	**$18,720**	**$18,720**
	TOTAL Overall Estimated Cost			**Phase 1 Cost ($)**	**Phase 2 Cost ($)**	**Phase 3 Cost ($)**	**Total 3 Year Cost ($)**
				$0	**$10,000**	**$252,180 - $392,680**	**$262,180 - $402,680**

4.2 TMCC Subsystem Costs - Administrative and Capital Expenses

The TMCC's primary costs, referenced in Table 5, are considered as either administrative or capital expenses for FTA funded grant purposes. The TMCC's estimated administrative cost totals $18,720 for the first year of Phase 3 for part-time TMCC administrator and DRT Provider staff expenses. The estimated Phase 2 and 3 capital costs for the TMCC Access Methods and TTT Subsystems is $243,460 - $383,960. Table 5 provides a breakout of TMCC component costs by phase and eligible administrative and capital expense categories.

Table 5. TMCC Components, Phases, and Estimated Costs

TMCC Component	Phase 1 Estimated ($)	Phase 2 Estimated ($)	Phase 3 Estimated ($)	Total Estimated Cost ($)
Administrative Expenses				
Local Staff Support Cost - Lead Agency Administrator	$0	$0	$15,600	**$15,600**
Local Staff Support Cost - DRT Providers	$0	$0	$3,120	**$3,120**
Subtotal	**$0**	**$0**	**$18,720**	**$18,720**
Capital Expenses				
TMCC In-Person Access Method	$0	$0	$0	$0
TMCC Telephone Access Method	$0	$0	$0	$0
TMCC Website Access Method	$0	$0	$500 - $1,000	$500 - $1,000
TMCC Mobile APP Access Method	$0	$10,000	$0	$10,000
TTT - Customer and Staff Portals	$0	$0	$158,400 - $298,400*	$158,400 - $298,400*
TTT - Provider Portal	$0	$0	$74,560*	$74,560*
Subtotal	**$0**	**$10,000**	**$233,460 - $373,960**	**$243,460 - $383,960**
OVERALL TOTAL	**$0**	**$10,000**	**$252,180- $392,680**	**$262,180 - $402,680**

* Includes three-year total support and maintenance costs.

4.3 Potential TMCC Revenues

On December 5, 2017, and January 24, 2018, the TMCCAC discussed the HLSD alternatives, recommended costs, and possible TMCC Phased Implementation Plan revenue resources. During these meetings, stakeholders articulated that existing local funding resources are either being fully used by existing community services or reserved for future projects. The TMCCAC recommended the MSAA project seek additional new sources of revenue, such as state and federal grants, to fund Phase 2, Interim TMCC Implementation, and Phase 3, Full TMCC Implementation. The TMCCAC recommended Phase 1 serve as "no cost" utilizing existing stakeholder revenues to address proposed TMCC implementation steps.

4.4 Potential Benefits & Success Measurements

The mission of the TMCC is to provide "personal mobility across SLO County" enabling the customer with access to multiple communication methods to receive transportation information and services. The TMCC's proposed services provide the customer with the convenience of searching the community's mobility options, managing their confirmed trips, and providing an automated payment option for services. The TMCC's mission and proposed services provide the community and project stakeholders with an additional opportunity to expand mobility choices, while providing potential enhanced economic impacts to the county. The TMCC has the potential to benefit customers and DRT Providers through the following methods.

4.4.1 Potential Benefits

Potential Benefits – The Customer

- **Healthcare Access.** Customer access to healthcare services, including same day, non-life threatening, at multiple facilities across the county. Transportation options as proposed to be provided through the TMCC also have the potential to reduce public emergency medical transport demand for non-life threatening medical needs.
- **Employment Access.** Access to transportation options that promote employment opportunities across the county. The TMCC is proposed to enable customers to evaluate mobility options and costs that benefit their budget, mobility, and access needs.
- **Recreation Access.** Mobility options 24/7 enabling customers with connection to recreational opportunities.
- **Aging in Place.** As the county's senior population continues to grow, the TMCC is proposed to enable all persons to remain at home and leverage mobility options that best fit their mobility needs, including direct access to their preferred DRT Provider.

Potential Benefits - DRT Providers

- **All DRT Providers.**
  - Resource Utilization. The potential to further maximize resource utilization and service efficiency.
  - Customer Service. The potential to further enhance customer service through the support of other DRT Providers and Transportation Information in-person and telephone customer service resources.
  - Operational Support. The potential for DRT Providers to utilize other partners in support of daily operational conditions.
- **Private DRT Providers.**
  - Additional Revenue. The potential to gain additional customers, trips, and revenue through increased visibility and access to the community.
- **Public DRT Providers.**
  - Customer Service. The potential to offer customers with same day trip options through other DRT Providers.
- **Non-Profit DRT Providers.**
  - Operational Support. The capability to extend customer transportation services through other DRT Providers, including during peak customer capacity timeframes.
  - Additional Revenue. The potential to gain additional customers, trips, and revenue through increased visibility and access to the community.

4.4.2 Success Measurements

The TMCC's System Requirements encourages the development of detailed success measurements by local stakeholders prior to Phase 3, Full TMCC Implementation. The development of Success Measures may also be considered prior to other partnership efforts in Phases 1-2 (i.e. Phase 1 - use of "Dropbox" online technology for trip sharing). Appendix B provides sample success measurements and monitoring processes to assist local stakeholders in preparing for the Phase 3 deployment of TMCC Access Methods and TTT Subsystems components.

5 TMCC Implementation Phases

The TMCC Implementation Phases section provides an overview of the staged elements recommended in the project's implementation. The following section shall provide additional details on the TMCC's phased implementation approach, points of contact, major tasks, implementation schedule, and security and privacy of the system.

5.1 Phased Implementation Approach

The project's implementation tasks are recommended by the TMCCAC to be undertaken in a three-phase approach over a three-year period. Phases may be implemented at any time based on local schedule and resource availability. The TMCC's three implementation phases include the following description, time, and task references.

- Phase 1: Initial TMCC Implementation. Year 1 tasks that may be completed in a short duration of time and at no/low cost.
- Phase 2: Interim TMCC Implementation. Year 2 tasks that may be completed toward Phase 3, full implementation.
- Phase 3: Full TMCC Implementation. Considered the "Cadillac" system by the TMCCAC in Year 3, this phase consists of full implementation of TMCC tasks as addressed in the System Requirements and High-Level System Design.

5.2 Points of Contact

As the TMCC's implementation phases commence, primary contact for questions and comments related to the project should be directed to either Mark Shaffer, Ride-On, or Omar McPherson, RTA.

As the project moves into Phase 1, it is recommended the TMCCAC continue meeting at least bi-monthly as a regular implementation working group and then select a lead agency to develop the recommended tasks. The lead agency will serve in the capacity of coordinating TMCCAC meetings and managing project implementation tasks.

5.3 Major Tasks

The TMCC's major implementation tasks have been developed based on the recommendations contained in the High-Level System Design and System Requirements. In compiling the major tasks, each were segmented and delineated by phase based on the recommended Access Methods and TTT Subsystems. A list of major tasks was reviewed and comments provided by the TMCCAC at their December 5, 2017, and January 24, 2018, meetings. A

list of major tasks to implement is provided in Table 6 and Appendix C features a detailed list of tasks to perform by TMCC component and phase.

5.4 Implementation Schedule

The TMCC's implementation is recommended to occur over a three-year period with each phase proposed to occur in the same year (i.e. Phase 1 = Year 1, etc.). Table 6 illustrates the TMCC's implementation by major task and schedule.

Table 6. TMCC Implementation - Major Tasks and Schedule by Phase/Year

TMCC Component	Major Task
PHASE/YEAR 1	
In-Person Access Method	Staff Resource List: Create and share list of all SLO County transportation services and agency contact information.
	All Stakeholders: Provide countywide transportation information & referral services to customer.
	Staff Resource List: Create and share list of all SLO County transportation services and agency contact information
Telephone Access Method	Identify and establish participating locations.
	Expand 511 call forward capability to connect with all DRT Providers.
	Encourage DRT Provider call transfers (customer one-call service).
	Enable DRT Provider customer service agents to learn fixed-route systems in promoting use.
Website Access Method	Modify 511 website to include human service transportation information & fares.
	511 – Enable customer access to DRT Provider web forms to request trips online (in trip planner).
Mobile APP Access Method	Promote 511 and DRT Provider mobile-responsive websites.
	Promote SLO Safe Ride's mobile APP.
TTT	Customers contact DRT Providers for services, including trip requests, management, and fare payment.
	DRT Providers – consider use of credit cards to manage payment (if not in practice).
	Conduct joint DRT Provider staff training.
	Enable e-mail trip confirmation.
	Develop DRT Provider secure trip sharing, billing, and reporting capability.
Administrative	Develop Inter-Agency agreements.
	Create DRT Provider operational, reporting, and cost reimbursement protocols.
	Continue ongoing TMCCAC Meetings.

TMCC Component	Major Task
Administrative, continued	Develop initial TMCC success measures.
	Determine TMCC Lead Agency.
	Monitor technology developments and modify Phased Implementation Plan (as needed).
Operational	Create operating protocols consistent with inter-agency agreements; Vehicle breakdown contingency plan; and Discuss a DRT Provider mutual aid process.
	Determine level of human service agency participation as TMCC customer, stakeholder, provider, or all options.
PHASE/YEAR 2	
Telephone Access Method	Rider profile – develop initial format.
	Customers continue to contact DRT Providers for services.
	Create TMCC telephone service provision protocols.
Website Access Method	Create links from all DRT Provider websites to 511; and explore creation of customer login functionality.
Mobile APP Access Method	Explore creation of initial 511 true mobile APP. The proposed mobile APP will build towards Phase 3's recommendations.
TTT	DRT Providers – continue to explore other low-cost payment methods (i.e. a centralized account for DSS).
	Provider Portal – create secure communication system between DRT Providers.
	Evaluate options to connect DRT Providers without the necessary technology to the TTT.
Administrative	Prepare for Phase 3, TMCC Full Implementation - confirm DRT Providers, services, staffing, fares, inter-agency accounting & fare processes.
	DRT Providers - encourage customer use of fixed route services.
	Address any DRT provider entry barriers to the TMCC.
	Engage DRT Provider Governing Boards in process (as needed).
	Create and monitor TMCC success goals and measures (secure baseline data)
	Hold regular TMCCAC meetings.
	Identify sustainable funding commitments from each partner.
Operational	Continue to expand DRT Provider participation in TMCC.
	Create agreements and operating protocols.

TMCC Component	Major Task
PHASE/YEAR 3	
In-Person Access Method	Identify as a TMCC in-person resource center.
	Create and provide consistent TMCC staff training.
	TTT Staff Portal use commences.
Telephone Access Method	Promote the 511 telephone number for TMCC services.
	Customer may contact TMCC or DRT Providers for service.
	24/7/365 service availability (as appropriate/funding permitting).
	Enable access to a "live" Customer Service Representative.
	Expand TDD/TTY/CA Relay access (beyond RTA and Ride-On).
	Call forwarding capability between stakeholders.
	Conduct Staff training on TMCC service protocols.
Website Access Method	Create link between 511 (as TMCC website) and TTT system for customer and staff use.
Mobile APP Access Method	511 mobile APP expanded to incorporate other TTT Customer and Staff Portal functionality.
Information	511 website and mobile APP links available.
TTT	Implement Customer, Staff, and Provider Portals.
	Customer may visit or call the DRT Provider for services
Administrative	Update TMCC inter-agency agreements between DRT Providers.
	Develop TMCC standardized policies and procedures.
	Identify TMCC lead agency and staffing; hold regular TMCCAC meetings.
	Create customer feedback and rating system process.
	Create customer feedback and rating system process.
	Create and implement TMCC marketing plan/initiatives.
	Train all stakeholder staff on TMCC services.
	Update DRT Provider Boards (as needed).
	Monitor performance against adopted success measures (standards).
Operational	Develop TMCC operational policies and procedures – ensure consistency with DRT Provider policies and procedures.
	Address vehicle breakdown and emergency contingency process.
	Develop TMCC operations contingency plan.

5.5 Security and Privacy

As addressed in the System Requirements, the TMCC Subsystems are expected to meet all applicable federal and state laws, current industry data security standards, Section 508 compliance, HIPPA data compliance, and applicable ITS standards. The TTT Subsystem is also recommended to fully utilize current customer, DRT Provider and stakeholder staff, and administrator security protocols.

6 TMCC Organization & Staffing

This section provides an overview of the TMCC's organization and staffing components, including points of contact, hardware, software, and facilities, staffing requirements, outstanding issues, and performance monitoring.

6.1 Points of Contact

In the Phase 1 of the TMCC's implementation, it is recommended the TMCCAC discuss and select a lead agency for the project. The TMCC lead agency will serve as the point of contact for the project and work with local partners in securing funding (as available) for the project. Until lead agency selection has occurred, Mr. Mark Shaffer, Executive Director, Ride-On Transportation will continue to serve as overall project contact and Mr. Omar McPherson, RTA, will continue to serve as MSAA grants administrator for project.

6.2 Hardware, Software, and Facilities

6.2.1 Hardware

The recommended design of the TTT Subsystem's Customer, Staff, and Provider portals suggests the following as it relates to hardware.

- **DRT Providers:** No additional new hardware is anticipated for full TMCC implementation. Continued use and regular replacement and maintenance of existing legacy hardware, including personal computers, telephones, mobile data terminals/tablets (with GPS), and mobile phones is expected.
- **Rideshare/511.** No additional new hardware is anticipated for TMCC implementation. Continued hosting of the 511 website and maintenance of the 511 website by Rideshare is recommended. If a new 511 mobile APP is developed through Rideshare in Phase 2 and 3, server hosting resources will need to be determined.
- **Stakeholders.** The only anticipated hardware change is the use of mobile technology to access the TMCC/511 after full implementation.
- **TTT Subsystem - Portals: COTS Vendor Inclusive Technologies**. The TTT Subsystem's COTS Vendor Inclusive technology is proposed to be utilized "in the cloud" with the chosen vendor hosting all server hardware for the project commencing during full TMCC implementation.
- **TTT Subsystem - Provider Portal: OS Technology.** During TMCC full implementation, the Provider Portal's recommended use

of an OS solution, the software will be utilized consistent with the OS license requirements.

6.2.2 Software

- **DRT Providers:** TTT Subsystem integration with existing legacy CASD is anticipated for full TMCC implementation. Continued management of existing legacy CASD software will be the DRT Provider's responsibility.
- **Rideshare/511.** For full TMCC implementation, anticipated changes to the 511 website includes inserting weblinks to TMCC recommended information resources and TTT Subsystem – Customer/Staff Portal software hosted by the chosen COTS vendor.
- **TTT Subsystem - Portals: COTS Vendor Inclusive Technologies.** The TTT Subsystem's COTS Vendor Inclusive technology is proposed to be utilized "in the cloud" with the chosen COTS vendor hosting all software for the project commencing during full TMCC implementation. Integrations between the TTT Customer/Staff Portals components and DRT Provider legacy CASD technology is required.
- **TTT Subsystem – Provider Portal: OS Technology.** During TMCC full implementation, the Provider Portal's recommended use of an OS solution will be utilized consistent with its license requirements. This subsystem component's technology is new and requires further development to meet the System Requirements.

6.2.3 Facilities

There are no anticipated facility changes for TMCC full implementation. A part-time TMCC administrator is recommended to oversee the system and shall require existing available office space within the lead agency.

6.3 TMCC Staffing Requirements

6.3.1 System Administrator

To ensure TMCC and TTT services are available daily, a part-time system administrator is recommended to provide oversight of the TMCC and subsystems. The administrator is recommended to be employed by the project's lead agency and serve as a "circuit rider" managing the TTT subsystems while assisting customers, stakeholders, and those engaged with the service. The administrator is also envisioned to provide stakeholder training on TTT use and provide a variety of other functions deemed appropriate by the lead

agency and project partners. It is recommended the TMCC administrator work with lead contacts at each DRT Provider agency to address daily TMCC issues.

6.3.2 DRT Provider Staff/TMCC Support

To ensure DRT Provider agency technology systems and staff maintain connected with the TMCC, it is recommended that DRT Provider staff appoint a lead contact to work with the TMCC administrator. The DRT Provider's lead staff contact will ensure daily TMCC issues are addressed, staff needs are met, and the system is operating consistent with its requirements. No new staffing is anticipated for TMCC full implementation.

6.4 Outstanding Issues

No outstanding issues were identified as of completion of this document. Section 5 and Appendix C address the revenue needs and tasks to be accomplished by local partners during Phases 1-3 to implement the TMCC. Completion of these tasks will be critical to ensure full implementation of the system.

6.5 Implementation Impact

Given the new and unique nature of the SLO TMCC, implementation is anticipated to cause impacts to current operations of DRT Providers, Rideshare, and agency stakeholders. In considering tasks to be addressed in Phases 1 and 2, local partners should anticipate these impacts on agency staff and the general public when preparing for Phase 3, full implementation. Specific implementation tasks by phase are listed in Table 6 and Appendix C to assist the TMCCAC to reduce the impact on local partners and public.

6.6 Performance Monitoring

The topic of ongoing performance monitoring of success measures has been very important to the TMCCAC. Ensuring that success measures, reporting, verification, and ongoing monitoring methods are in place is critical to TMCC implementation. As addressed in Section 4.4.2 and illustrated in Appendix B, the TMCC's System Requirements encourages the development of detailed success measurements by local stakeholders prior to Phase 3, Full TMCC Implementation. As new stakeholder partnership efforts are considered in Phases 1-2, success measures should be developed, baseline data collected, reporting methods determined, and monitoring efforts defined prior to implementation.

7 ITS Regional Architecture Update

The regional ITS architecture comprises local transportation technology projects for all modes and "provides region-level information that can be used and expanded in project development."[1] As the designated urban Metropolitan Planning Organization (MPO), SLOCOG oversees the development, management, and maintenance of the region's ITS architecture plan. The MSAA PMT has maintained ongoing communication with SLOCOG planning staff since March 2016 regarding the architecture. SLOCOG staff has continued to indicate their paratransit ITS documentation is consistent to what is documented in MSAA project deliverables and there are no competing designs to the TMCC. In speaking with SLOCOG staff in March 2018, the PMT understands the region is expecting an August 2019 update to the ITS Architecture. SLOCOG also indicated that when the TMCC Final Report is completed, the TMCC's recommendations will be incorporated into the next revision of the regional ITS architecture.

(1) Systems Engineering Process for ITS: An Introduction for Transportation Professionals, USDOT/FHWA/FTA, January 2007

8 References

- MSAA Implementation Plan Deliverable Template v1, FTA, July 14, 2016.
- MSAA TMCC Advisory Committee Meetings: December 5, 2017; January 24, 2018; and March 6, 2018.
- The San Luis Obispo County Travel Management Coordination Center (TMCC) Final High-Level System Design, Ride-On Transportation, March 12, 2018. (2)
- The San Luis Obispo County Travel Management Coordination Center (TMCC) Final System Requirements, Ride-On Transportation, July 13, 2017. (2)
- The San Luis Obispo County Travel Management Coordination Center (TMCC) Concept of Operations, Ride-On Transportation, September 16, 2016. (2)
- Final Project Management Plan (PMP), The San Luis Obispo County Travel Management Coordination Center (TMCC) Project, Ride-On Transportation, January 27, 2016. (2)
- Systems Engineering Process for ITS: An Introduction for Transportation Professionals, USDOT/FHWA/FTA, January 2007.

(2) Note: All project documents are available from Ride-On Transportation's MSAA website at http://www.ride-on.org/msaa.php

Appendix A: Document Version Changes

Version Number	Date	Description of Changes	Status
01	March 19, 2018	Draft Document	Submitted to FTA for review and comment.

Appendix B: TMCC Subsystems - Potential Success Measurements

TMCC Subsystem	Component	Success Measurement Description	Success Measurement Goal	Monitoring Process	Reporting Method
1.0 Access Methods	**1.1 In-Person**	1.1.1 Customer access to stakeholder staff during regular business hours	In-Person access: 99% availability to staff - 24/7/365	Stakeholder business hours/availability	Self-reported
		1.1.2 Number of individual TMCC customers served	100% customers served	Stakeholder staff	(1) Stakeholder staff reported to TMCC Administrator; and (2) Staff Portal use by stakeholder report
	1.2 Telephone	1.2.1 Customer access to stakeholder staff (time of day)	Telephone access: 99% availability to staff - 24/7/365	Stakeholder reported information	Stakeholder telephone system reports
		1.2.2 Number of individual customers served	100% of customers served	Stakeholder reported information	Stakeholder telephone system reports
		1.2.3 Number of TMCC 800# telephone calls	Year 1: Month 1-6 = 30; Month 6-12 = 60; Year 2 = 100	Stakeholder reported information	Stakeholder telephone system reports
		1.2.4 Number of TMCC 511 telephone calls	Year 1: Month 1-6 = 30; Month 6-12 = 60; Year 2 = 100	Stakeholder reported information	Stakeholder telephone system reports
		1.2.5 Call Transfers between Stakeholders	100% of calls transferred successfully	Stakeholder reported information	Stakeholder telephone system reports
	1.3 Website	1.3.1 Customer access to website	99% website availability - 24/7/365	Website metrics	Reported by website host
		1.3.2 Total individual customers served	Year 1: Month 1-6 = 150; Month 6-12 = 170; Year 2 = 250	Website metrics	Website report

TMCC Subsystem	Component	Success Measurement Description	Success Measurement Goal	Monitoring Process	Reporting Method
1.0 Access Methods, continued	**1.3 Website,** continued	1.3.3 Customer satisfaction	Use APP-style rating system: Customer Rating of 4.5 out of 5 stars	Customer survey on website and app	Report generated by the website and app.
	1.4 Mobile APP	1.4.1 Customer access to mobile APP	99% Mobile APP availability - 24/7/365	Mobile APP metrics	Reported by mobile APP host
		1.4.2 Total individual customers served	Year 1: Month 1-6 = 150; Month 6-12 = 170; Year 2 = 250	Mobile APP metrics	Reported by mobile APP host
		1.4.3 Customer satisfaction	Use APP-style rating system: Customer rating of 4 of 5 stars	Customer survey on website and app	Report generated by the website and app.
2.0 TMCC Technology Tool (TTT)	**2.1 Information**	2.1.1 Customer links to stakeholder information	Year 1: Month 1-6 = 15; Month 6-12 = 20; Year 2 = Requested 60	Number of visits from 511 website to stakeholder website links.	Website report
	2.2 Customer Portal	2.2.1 Individual customer daily use	Year 1: Month 1-6 = 120; Month 6-12 = 150; Year 2 = 200	TTT reporting metrics	TTT report
		2.2.2 Individual customer profile access (via login)	Year 1: Month 1-6 = 100; Month 6-12 = 130; Year 2 = 175	TTT reporting metrics	TTT report
		2.2.3 Customer Trip Planning process - search and no login	Year 1: Month 1-6 = 20; Month 6-12 = 20; Year 2 = 25	TTT reporting metrics	TTT report
		2.2.4 Customer Trip Planning process - search and login	Year 1: Month 1-6 = 100; Month 6-12 = 130; Year 2 = 175	TTT reporting metrics	TTT report
		2.2.5 Customer Trip Selection - demand response	Year 1: Month 1-6 = 192; Month 6-12 = 240; Year 2 = 320	TTT reporting metrics	TTT report

TMCC Subsystem	Component	Success Measurement Description	Success Measurement Goal	Monitoring Process	Reporting Method
2.0 TMCC Technology Tool (TTT)	**2.2 Customer Portal,** continued	2.2.6 Customer Trip Selection - fixed route	Year 1: Month 1-6 = 42; Month 6-12 = 60; Year 2 = 80	TTT reporting metrics	TTT report
		2.2.7 Trips Requested and Scheduled/ confirmed.	Year 1: Month 1-6 = Requested 240, Scheduled 240; Month 6-12 = Requested 300, Scheduled 300; Year 2 = Requested 400, Scheduled 400	TTT reporting metrics	TTT report
		2.2.7 Number of total customer trips provided (Provide 90% of all demand response trips requested through the TMCC (TMCC Objective)	Year 1: Month 1-6 = 240; Month 6-12 = 300; Year 2 = Requested 400	TTT reporting metrics	TTT report
2.0 TMCC Technology Tool (TTT)	**2.3 Staff Portal**	2.3.1 Individual Daily Use - all approved stakeholders	Year 1: Month 1-6 = 1,200; Month 6-12 = 2,400; Year 2 = 6,000	TTT reporting metrics	TTT report
	2.4 Provider Portal	2.4.1 Individual Daily Staff Use - all DRT Providers	Year 1: Month 1-6 = 600; Month 6-12 = 1,200; Year 2 = 3,000	TTT reporting metrics	TTT report
		2.4.2 Number of daily inter-agency trips coordinated (shared)	Year 1: Month 1-6 = 4; Month 6-12 = 8; Year 2 = 20; Year 3 = 30	TTT reporting metrics	TTT report
		2.4.3 Coordinate services between three or more DRT Providers (TMCC Objective)	Secure 3 or more DRT Providers for TTT services	Advisory Committee oversight	Signed inter-agency agreements

Source: Ride-On Transportation/Routematch

Appendix C: Detailed TMCC Implementation - Component and Phase

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
1. Customer Access	***1.1 In-Person***	1. Provide countywide transportation and referral information.	1. Identify as a TMCC in-person resource center.	1. Commence TTT Staff Portal Access.
		2. Create and share list for all SLO County transportation services.		2. Public access during business hours.
		3. Provide emergency management information (as needed).		3. Access a "live" Customer Service Representative (CSR) for services.
		4. Identify and establish participating in-person locations.		4. DRT Provider CSR training on TMCC protocols.
	1.2 Telephone	1. Expand 511 live person use of call forward to DRT Providers.	1. Rider profile - develop initial profile format utilizing System Requirements.	1. Promote 511 telephone number for TMCC services. Customer may also call TMCC, DRT Provider, or stakeholder for service.
		2. Develop quick staff electronic resource listing for all transportation and stakeholder resources.	2. DRT Providers - Ensure access to CA Relay and TDD/TTY services.	2. Provide transportation information and DRT Provider Services.
		3. DRT Providers - enable call transfer capability to one another for lowest cost DRT Providers and other resource needs.	3. Customers contact DRT Provider direct for services.	3. 24 hour/365 day accessibility (as appropriate and funding permits).
		4. Provide emergency management information (as needed).	4. Create TMCC call protocols.	4. Communicate with live stakeholder CSR's.
		5. Customers contact DRT Provider direct for services.	5. DRT Provider CSR training on TMCC protocols.	5. Develop telephone system call forwarding goals and collect data.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
1. Customer Access	***1.2 Telephone**, continued*	6. DRT Provider CSR's learn fixed-route systems to promote use.	6. Identify as a TMCC telephone resource center.	6. Expand TDD/TTY/CA Relay access (beyond RTA and Ride-On).
		7. Identify and establish participating locations.		7. Create and utilize a separate telephone number for DRT Provider staff to communicate with one another (non-public).
				8. Commence TTT Staff Portal Access.
				9. Enable text to DRT Provider capability.
	1.3 Website	1. Continue to promote 511 as the region's transportation information resource.	1. Create link from all DRT Provider and stakeholder websites to 511 and 211 websites.	1. TMCC website creation and public availability.
		2. Customer direct access DRT Provider websites.	2. Expand existing 511 trip planning functionality to include personal travel needs (i.e. use of wheelchair), use of personal profile, additional DRT Provider services, and DRT trip selection method to call provider to arrange service.	2. TMCC website telephone number links to information resources.
		3. Modify 511 website to include human service transportation information.	3. 511 website - create initial customer profile option.	3. Create link between 511 (as TMCC website) and TTT system for customer and staff use.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
1. Customer Access	***1.3 Website,*** *continued*	4. Promote local transportation mobile-enabled websites and SLO Safe Ride Mobile APP.		
		5. Develop quick staff electronic resource listing for all transportation and stakeholder resources.		
		6. Create links from 511 trip planner to DRT Provider website trip request forms.		
	1.4 Mobile APP	1. Promote 511 and DRT Provider mobile-responsive websites.	1. Explore creation of 511 mobile APP.	1. TMCC Mobile APP development and Public Availability.
		2. Promote SLO Safe Ride's mobile APP and others as available.		2. 511 mobile APP expanded to incorporate other TTT Customer and Staff Portal functionality.
				3. Link mobile APP to telephone number information resources.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
2. Customer Services	***2.1 Information***	1. Provide countywide transportation and referral information.		1. TMCC to provide web/mobile APP links to DRT, Fixed, transportation, human service, and other stakeholder websites.
		2. Create and share list for all SLO County transportation services.		2. Provide a TMCC "what's new" section on website and mobile APP.
		3. Continue to promote 511 as the region's transportation information resource.		3. Provide safety and security information on website and mobile APP (as needed).
		4. Modify 511 website trip planning tool to include human service transportation information.		4. Provide access to multimodal options on website and mobile APP.
		5. Develop quick electronic resource listing all transportation and stakeholder resources (as staff reference).		
	2.2 TTT - Customer & Staff Portals	1. Customers contact DRT Provider to schedule trip.	1. Customers contact DRT Provider to schedule trip.	1. TMCC TTT Customer & Staff Portals availability through website and mobile APP. Customers may also continue contacting their DRT Provider for services.
			2. Evaluate options to connect DRT Providers without the necessary technology to the TTT.	2. Monitor technology developments and modify Phased Implementation Plan (as needed).

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
2. Customer Services, continued	**2.2.1 Customer Entrance**	1. Provide staff training to agencies.	1. 511 website - Create a new customer login and profile component.	1. TTT - enable new customer registration and profile management.
			2. DRT Provider Staff to use the 511 website for customer trip planning purposes.	2. TTT - Provide customer with secure access credentialing requirements.
				3. TTT - Fare Management capability within profile.
	2.2.2 Trip Reservations & Scheduling **2.2.2.1. Trip Selection**	1. Customers direct contact DRT Provider to seek trip options.	1. Customers contact DRT Provider to seek trip options.	1. TTT - Customer may either contact DRT Provider/stakeholder or use TMCC TTT website or mobile APP to seek and confirm trip options.
		2. Customers submit trip requests by telephone or web form.		2. TTT - Customer or staff (on customer behalf) may either be "new" or existing" to view trip options.
		3. DRT Providers - Enable customer trip request confirmation via e-mail.		3. TTT - DRT Providers manage resource availability for the system providing input to the customer's requested trip date/time. Unavailable DRT Providers shall be listed and unavailable for customer selection.
				4. TTT - Customer or staff (on customer behalf) must login to submit "chosen" trip request to DRT Provider.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
2. Customer Services, continued	**2.2.2.1. Trip Selection,** continued			5. TTT to provide the customer with the option to call the DRT Provider.
	2.2.2.2 Trip Confirmation	1. DRT Providers - directly manage customer cancellations.	1. DRT Providers - directly manage customer cancellations.	1. TTT to provide customer/staff with confirmed trip information, including date, time, and fare.
				2. TTT may provide customer trip information to approved sponsor.
	2.2.3 Trip Management	1. Customers contact DRT Providers to manage trips.	1. Customers contact DRT Providers to manage trips.	1. TTT - Customer may either contact DRT Provider/stakeholder or use TMCC TTT website or mobile APP to manage trip options.
				2. TTT - The customer or staff (on customer behalf) shall be manage confirmed customer trips, including cancellations, vehicle arrival status, visual location on map.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
2. Customer Services, continued	**2.2.4 Fare Management**	1. DRT Providers manage individual fare systems.	1. DRT Providers - Develop use of credit cards and deposits as part of fare systems.	1. The TMCC TTT shall include a fare management system.
		2. DRT Providers - through inter-agency agreement discussion, address fare/ payment expectations.	2. DRT Providers – continue to explore other low cost payment methods (i.e. a centralized account for DSS).	2. TTT fare management system shall allow customer or staff (on customer's behalf) payment through multiple means and manage this process in their profile (Customer Entrance).
		3. DRT Providers – consider use of credit cards to manage payment (if not in practice).		3. The fare management system shall have auditing capabilities.
	2.3 TTT - Provider Portal	1. Develop DRT Provider secure process to send/ receive trip requests.	1. Create encrypted trip communication system between DRT Providers.	1. Implement TMCC's TTT Provider Portal for inter-DRT Provider communication.
			2. DRT Provider (lead agency) - evaluate vendor trip sharing options for CASD/Mobile connection to providers without ITS.	2. TTT - enable inter-Provider Chat capability.
				3. TTT - Drivers, Dispatchers, and Managers shall have different capabilities to access different service features.
				4. TTT - DRT Provider administrator capabilities.
				5. TTT - Post trip reporting capabilities for host agency information.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
2. Customer Services, continued	***2.4 Data Management and Reporting***	1. DRT Providers - per inter-agency agreement process, collect required customer trip data.	1. Trans. Data can be sent through provider mailbox	1. The TTT shall provide reporting and data management functions.
			2. DRT Provider (lead agency) - evaluate vendor trip sharing options for CASD/Mobile connection to providers without ITS.	2. The TTT shall provide DRT Providers with monthly reports, including trips originating through the system.
				3. The TTT shall generate reports based on billing rates, trip, and performance, and other information.
3. Administrative	**3.1 Inter-Agency Agreements**	1. Develop standard agreements between DRT Providers.	1. Continue DRT Provider agreements.	1. Develop TMCC Agreements for DRT Providers.
	3.2 Policies and Procedures	1. Develop inter-agency trip sharing working protocol and cost reimbursement process.	1. Identify all DRT Provider services that can be included in the TMCC.	1. Develop standardized policies and procedures for the TMCC
				2. Develop TMCC DRT Provider service provision requirements.
				3. Develop DRT Provider Operational policies and procedures.
				4.Create fare media management policies and procedures.
				5. Create reporting policies and procedures
				6. Address DRT Providers' system policies and procedure changes to accommodate interaction with the TMCC (as needed).

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
3. Administrative, continued	**3.2 Policies and Procedures,** continued			7. Create emergency management policies and procedures.
	3.3 Communication	1. Hold regular TMCCAC meetings.	1. Hold regular TMCCAC meetings.	1. Create a staff-based internal communication process to address TMCC issues. Continue TMCCAC meetings.
	3.4 Staffing	1. Determine TMCC Lead Agency	1. Identify DRT Provider and participating stakeholder staffing and roles in support of the TMCC.	1. Identify TMCC Administrator staff and functions.
				2. Identify TMCC helpdesk staffing and functions.
	3.4 Financial	1. DRT Providers - discuss trip and cost sharing opportunities.	1. Identify DRT Provider fare structures applicable to the TMCC.	1. Establish cost sharing agreement for TMCC operational costs.
			2. Develop and document DRT Provider accounting processes, including payment and fare management services.	2. Create a “no show” and “late cancellation” fare payment and cancelation policy.
				3. Develop and document fare management policies and procedures. Specifically address riders with fare payment challenges.
				4. Develop DRT Provider and participating stakeholder fare management processes, including reimbursement rates for coordinated trips.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
3. Administrative, continued	**3.4 Financial,** continued			5. Create fare media management policies and procedures.
				6. Establish fare media accounting and reimbursement procedures with all DRT Providers and other participating stakeholders.
	3.5 Measures for Success	1. Develop annual inter-agency mobility goals, objectives, and success measures.	1. Develop standards, goals and objectives to determine success measures for TMCC. Determine potential commitments of sustainable funding from each partner.	1. Identify specific system success measure goals, such as number of customers served, number of calls taken, number of trips scheduled, number of trips provided, trips provided per day, mobile APP access, staff use, website access, and customer satisfaction. Monitor performance and evaluate against adopted standards - adjust as necessary.
				2. Develop customer service measures for DRT Provider participation in the TMCC.
				3. Develop process and procedure for collecting system success measurement information.
				4. Provide one or more methods for customer feedback.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
3. Administrative, continued	**3.6 Marketing**	1. Continue to promote 511 as the region's transportation information resource.	1. Explore creation of coordinated TMCC marketing plan.	1. Create a TMCC marketing plan, including a cost-sharing agreement to implement the marketing plan.
		2. Modify 511 website to include social service transportation information.	2. Identify methods for the receipt, collection, and tracking of customer feedback.	2. Create a new TMCC brand, including name and logo.
		3. Develop quick electronic resource listing all transportation and stakeholder resources (as staff reference).		3. Market new TMCC brand and co-brand with other participating DRT Provider, transportation, and information stakeholders.
				4. Promote new TMCC brand through public education, adverting, and logo on all participating TMCC DRT Provider vehicles.
				5. Create a quality control customer rating system of all DRT Providers.
	3.7 Training	1. Transportation Providers - Conduct joint-training sessions where feasible.	1. Train DRT Provider and participating stakeholder staff on the website, mobile, telephone, in-person, and staff portal access methods and features.	1. Create and provide TMCC start-up and ongoing training for DRT Providers and other stakeholder staff on all system policies and procedures.
		2. Educate all DRT /Provider CSR's on fixed route services as travel options.	2. Crosstrain DRT Provider staff on all TMCC services.	2. Develop processes and provide ongoing support for TMCC technology and customer service requirements.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
3. Administrative, continued	**3.7 Training,** continued			3. Create and provide customer and stakeholder-focused training services, such as how to access the TTT system, what is the TMCC, how to provide customer services, and using the TMCC's services.
	3.8 Emergency Management	1.0 Inter-Agency Agreement process - discuss creating a mutual aid system and process.	1.0 Discuss DRT Provider redundancy process.	1. In cooperation with SLO County Emergency Management Services and Volunteer Organizations Active in Disaster (VOAD), prepare emergency response support procedures.
				2. Create an emergency redundancy plan, including system and DRT Provider electricity, inter-DRT Provider communications, external (customer) communications, and other components.
	3.9 Other Items	1. Encourage customer use of fixed route services (where feasible).	1. Encourage customer use of fixed route services (where feasible).	1. Encourage customer use of fixed route services (where feasible).
		2. Engage DRT Provider Boards of Directors (those appropriate) in the TMCC process.	2. Identify and address DRT Provider barriers to participate in the TMCC.	2. Engage DRT Provider Boards of Directors (those appropriate) in the TMCC process.
			3. Engage DRT Provider Boards of Directors (those appropriate) in the TMCC process.	3. DRT Providers identify a lead staff person to address all agency specific TMCC related items.

		Implementation Tasks		
TMCC Component	**Subcomponent**	**Phase 1**	**Phase 2**	**Phase 3**
4. Operational		1. DRT Providers - per the Inter-Agency agreement process, create operational policies, procedures, and protocols.		1. Develop DRT Provider operational protocols to support TMCC service provision, such as trip booking, day of service trip management, staff communication, age eligibility, and customer needs support.
		2. Address a process and contingency plan in support of DRT Provider vehicle maintenance/break downs.		2. Develop TMCC operations contingency plan.
		3. Identify emergency operational needs. Discuss a DRT Provider mutual aid process.		
		4. Determine level of human service agency participation as TMCC customer, stakeholder, provider, or all options.		

Source: Ride-On Transportation/Routematch