Appendix M

Glossary of Terms and Acronyms

ABI: Automatic Bus Identification, a transponder manufactured by AMTECH; used for transit signal priority to transmit the route/run to the roadside equipment. The ABI receives data on route/run from the driver login via LonWorks.

ACCESSIBLE VEHICLE: A revenue vehicle that is equipped with a mechanical wheelchair lift/ramp.

ACCESSIBLE SERVICE: Transportation service provided with lift or ramp equipped vehicles for passengers in wheelchairs or those unable to climb stairs due to a disability. See PARATRANSIT.

ACTIVE ZONE: A zone currently used by one or more routes.

ACTOR: An actor represents a role a user can play with regard to a system or an entity, such as another system or a database, which will reside outside the system being modeled. The total set of actors within a use case model reflects everything that needs to exchange information with the system.

ADA: Americans with Disabilities Act, The Federal Americans with Disabilities Act of 1990 requires public transportation agencies to take specific steps to make facilities, vehicles and services accessible to persons with disabilities. In addition, the ADA requires that complementary paratransit be provided for persons whose disabilities prevent use of regular service. See ACCESSIBLE SERVICE, PARATRANSIT.

ADAP: AVL Data Access Project

ADMINISTRATOR: A database administrator who maintains, updates, and loads on-board data from a fixed end.

AMTECH RF TAG: Amtech Radio Frequency Tag. Amtech is the manufacturer's name for the device, called the "tag," that provides vehicle-specific information to the signal priority equipment installed at a traffic signal. The Amtech RF tag is mounted on the top left corner on the front of all buses in the fleet. See TAG.

ANSI: American National Standards Institute

ANNUNCIATOR: A system that automatically announces stops and updates message signs with next stop information.

APC: Automatic Passenger Counter; system for sampling on and off activity by zone, TPI, and Trip. It is installed on 12% of the fleet and currently uses a mat sensor system to collect data. The APC is on the LonWorks network to receive the driver login, AVL signpost, odometer, and time.

APTS: Advanced Public Transportation Systems

ARI: APC/Radio Interface, a device contained in the MDU that enables the APC system to be integrated with the AVL, thereby eliminating redundant signposts and odometer sensors.

ARTICULATED BUS: A two-section bus that is permanently connected by a joint mechanism. An articulated bus is typically 60' long (50% longer than a standard bus), has three axles, and can bend in curves and in grade changes, yet has a continuous interior.

ASSIGNED GROUP(S): Service Route Group(s) assigned to a Coordinator Assignment through the Strategies process.

ASSIGNMENT: Any work or duties that an employee or coach is required or scheduled to perform.

ATIS: Automated Trip Itinerary System

ATP: Analyze Run Time; a module of the Hastus scheduling system.

ATTRACTION AREA: A geographic area containing a number of sites that could logically serve as the destination for passenger TRIPS, e.g. the Central Business District.

ATTRIBUTE: See VEHICLE ATTRIBUTE.

ATU: Amalgamated Transit Union

AVA: Automatic Voice Annunciation, a term used in the transit industry for a system that automatically announces stop information. KCM is including both interior and exterior announcements plus interior “next stop” signs.

AVI: Automated Vehicle Identification, the next-generation transponders for transit signal priority that will provide lateness and load data for selective signal priority.

AVM: Automated Vehicle Monitoring, a system to capture data off of the engine computer to monitor engine, transmission, and brake system performance and to wirelessly download this data to a central database. In addition to the data provided by the vehicle manufacturers, KCM plans to add sensors to monitor additional items such as wheelchair lift cycles.

BASE: The garage or depot for storage, fueling, and/or maintenance of buses when not in service. Transit Operators are assigned to and report to work at a base. Buses are assigned to a base. See TRIPPER STORAGE for exceptions. See DAY BASE.

BASE ARRIVAL: See PULL IN.

BASE DEPARTURE: See PULL OUT.

BASE ROUTE: The established deadhead routing between the base and a given route terminal.

BASE SERVER: a KCWAN networked server system with full system redundancy located at a centralized KC server facility and containing data for the entire fleet (Revenue Vehicles at all transit bases).

BID: Block Identification, A number to indicate a specific route/run or general type of trip, e.g. maintenance test drive, training or special service.

BLOCK: The operating schedule of a transit vehicle (from pull out to pull in), including revenue, deadhead, and layover time. 2) The scheduled TRIPS of a vehicle between its departure from and its return to a base. See ROUTE/RUN, also COACH ASSIGNMENT.

BLUETOOTH: An open specification technology that enables short-range wireless connections between desktop and notebook computers, personal digital assistants, mobile phones, headphones, camera phones, printers, digital camera, keyboards and even a computer mouse. Bluetooth wireless technology uses a globally available frequency band (2.4 GHz) and provides wireless communication between PCs and peripherals within a 30-foot range.

BOOK, The: See THE BOOK.

BTC: Bellevue Transit Center

BUS: A rubber-tired passenger transportation vehicle. Same as COACH and REVENUE VEHICLE.

BUS STOP: On-street location where transit vehicles stop to pick up and discharge passengers. It has a sign and basic service information, sometimes also a shelter with benches. See ZONE.

BUS TIME: The public name for the automated rider telephone information system providing schedule times for the next three buses at each particular zone.

BUS TRIP: A single bus movement from one place to another. A one-way trip. See TRIP.

CAD: Computer-Aided Dispatch, the system used in the transit Communications Center to manage the operation of the in-service fleet. CAD functionality includes map displays of bus locations based on the AVL system, and provides the ability for Service Communications Coordinators to manage radio calls and to log/manage incidents of all types.

CAN: Controller Area Network, a network especially suited to interconnecting smart devices to build smart systems or subsystems.

CAO: Customer Assistance Office

CATS: Customer Assistance Tracking System

CBD: Central Business District

COACH: A rubber-tired passenger transportation vehicle. Same as REVENUE VEHICLE.

COACH ASSIGNMENT: Assignment of a coach type or individual coach to a block. Note that a given coach may perform more than one assignment in one day. Also used in Scheduling to mean BLOCK. See COACH COUNT.

COACH CHANGE: When a coach in service must be replaced with another coach, while the operator remains the same.

COACH COUNT: Coach assignments that leave the base from start of service to 10:00 AM are counted as AM units; 11:30 through 1:30 inclusive as Noon units; 3:30 to 6:00 PM as PM units; and 10:30 PM to close of service as Night units.

COLD START: When a vehicle is powered on after it has sat for a long enough period of time that its OBS and radio have timed out and shut down. See contrasting WARM START.

COLLECTION/DISTRIBUTION: Pick-up and/or drop-off of passengers.

COMBO: A combination run—a transit operator assignment consisting of two or three pieces of work on the same or different routes.

COMFORT STATION: Restroom stop on a bus route.

COMMENTS: Text instructions from schedulers to operators. See INDICATE.

COMMUNICATIONS CENTER: Communications Center, the “radio control center” where all Transit operations are coordinated and dispatched.

COMMUNITY TRANSIT: The transit agency serving Snohomish County.

CONTROL POINT: In general, the timepoint from which trips are scheduled according to predetermined running times. In Metro's current trip-building system, the timepoint on a pattern at which at which a trip arrives inbound and leaves outbound.

COORDINATOR: Metro job classification responsible for radio communications with Operators. Coordinators are located in the Communications Center.

COORDINATOR ASSIGNMENT: A coordinator shift and its associated work assigned through the Strategies process.

CORE DUMP: Processor failure to execute an instruction due to an unexpected error that causes a reboot of the equipment to come up running.

CPS: Convention Place Station, one of five stations in the DSTT

CPU: Computer Processing Unit

CSR: Coordinator Service Record

CT: Community Transit

CURRENT: The service data set in effect at the present time.

DACS: Data Acquisition and Control System, the primary CPU of the data radio and Automatic Vehicle Location and monitoring system. DACS can contain up to nine daily operating schedules such as weekday, Saturday, and Sunday in the current shakeup, the same in next shakeup, and three others.

DASH SIGN: A sign placed inside the front and side window of the bus, facing the street, providing additional route information.

DATA MODE: KCM's standard radio operation which uses radio data messages to initiate, queue, respond to, and end radio communications between a revenue vehicle and the Communications Center.

DB: decibel; unit of measure for sound intensity.

"D" CAR: District "car" or van driven by a service supervisor.

DDB: Distribution Database, the enterprise database in Oracle used for transit data, including route, schedule and stops.

DDU: Driver Display Unit, a term adopted for the display device that will replace the current MDT. The DDU will be modular, programmable, and capable of becoming the single driver interface device.

DEADHEAD: Travel between a base and the beginning or end of a route (also called a terminal) or between two route terminals. Service is not advertised in public timetables, but operators must accommodate all customers. See BASE ROUTE.

DESTINATION: The ending point of a trip. See ORIGIN.

DESTINATION SIGN: A roller or electronic sign above the front, side, or rear window of the bus or streetcar providing customers with a route number, end point, and “via” information.

DEVICE: Physical hardware/equipment which has a separate enclosure and some means of connecting to or communicating with another device(s) in the system.

DIRECTION: Direction of travel of a revenue vehicle, e.g. north, south, east, or west.

DISTRIBUTION DATABASE: An Oracle database at the transit enterprise level that manages interfaces between various computer systems

DOMAIN: The physical location where system functionality resides. Project domains are Revenue Vehicle (RV), Communications Center (CC), and Base Operations (BO).

DOT: Department of Transportation

DRIVER: See TRANSIT OPERATOR.

DRIVER'S COCKPIT: The area in a revenue vehicle where the driver sits and accesses vehicle, OBS, and radio communication controls.

DSTT: Downtown Seattle Transit Tunnel; a 1.2-mile-long tunnel with five stations that runs through the CBD, mostly under 3rd Avenue, and is used exclusively for buses. The tunnel will be modified for joint use by both buses and light rail.

DUAL POWER: Equipped with two alternate propulsion systems; at Metro, this refers to the electric/diesel tunnel coaches.

DUAL-MODE OPERATION: Transit operation which involves two different travel modes, such as steered and guided, rail and highway, and others. See DUAL POWER.

DVRS: The Digital Video Recording System consists of signs, color cameras, a microphone, a digital video recorder, storage device, writing and cabling, Save Event button and LED status indicator light. The system interfaces with the Transit Radio System by way of the Emergency Alarm switch.

DWELL, DWELL TIME: The time a vehicle takes to load and/or unload patrons.

EA: Emergency Alarm. The EA is a silent alarm system installed on the fleet. It is activated whenever an operator presses the switch located to the left of the brake. When activated, it sends an alarm to the Communications Center and immediately begins fast-polling so that assistance can be sent to the bus.

EARLY: In the Service Guidelines, "on-time performance" is defined as zero to five minutes late. In practice, one minute early is considered on time in data summaries, and Service Quality only "writes up" operators who are two minutes early.

ECM: Engine Control Module, a common industry term that is synonymous with ECU (engine control unit) and refers to the computer-based monitoring system that is provided by the vehicle OEM (original equipment manufacturer) to monitor the vehicle's DRIVE TRAIN including the engine, brakes, transmission, and electrical system. The OBS requirement is to connect the VLU to the ECM in order to allow it to collect and monitor drivetrain data in real time and record the AVM data for download to Vehicle Maintenance.

ECU: Electronic Computer Unit

ELECTRONIC PURSE: The value loaded onto a passenger's smart card that will be drawn down with each purchase for which it is used, and can be increased with a revalue event.

EMITTER: A site type in TRANSGEO, the zones system. See SIGNPOST EMITTER.

EMITTER ZONE: The area in which a signpost emitter signal can be received.

EMITTER PASS: The event of an emitter signal being received and recorded.

EMS: Emergency Management System

ESTIMATED TIME POINT: A location (associated in GIS with a node) along a route where trips are assigned an estimated arrival and/or departure time. Location will be displayed and reported for this type of timepoint, however schedule adherence will not.

EVENT: Any system action that must be managed and logged.

EVENT MANAGER: The Event Manager is the OBS component that coordinates communications, including prioritizing, queuing, and signaling activities, among all other OBS components.

EXPRESS ROUTE: A route that skips one or more zones along the route and/or takes a shorter path than the local route of the same number.

EXTRA: A special coach assignment for a special event or a supplement to regular service to handle overloads or unusual riding situations.

FAR SIDE STOP: A bus stop located immediately following an intersection.

FARE: Money, ticket, transfer, pass, token, or permit used to pay for a passenger ride.

FARE BOX: A device for collecting, securing, and possibly counting passenger FARES.

FARE BOX REVENUE: Includes cash, value of tickets, and school tokens (less pass and vanpool revenue).

FARE SET: A base transit fare that is determined and invoked according to administering agency (KCM or Sound Transit), time of day (peak or non-peak hour) and location (city zone boundary).

FCC: Federal Communication Commission, an independent United States government agency, directly responsible to Congress, charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. The FCC's jurisdiction covers the 50 states, the District of Columbia, and U.S. possessions.

FHA: Federal Highway Administration

FHWA: Federal Highway Administration

FIM: Full Integration Mode is a term used to describe the RFCS on-board systems architecture after OBS integration with “smart card” equipment.

FIRMWARE: Software kept in semi-permanent memory in hardware.

FIXED ROUTE: Planned bus service that follows a regular schedule and route pattern.

FLEET ASSIGNMENT: Coaches assigned to a base; also units available.

FOB: Freight On Board

FOLLOWER: The second of two consecutively scheduled revenue vehicles operating the same route and trip pattern.

FTA: Federal Transit Administration

FTP: Fare Transaction Processor, a device that will be installed as a part of the RFCS smart card project, which will wirelessly read and write transaction data when a card is presented to the sensor.

FUTURE: The service data set in effect after Next.

GEOCODING: The process of matching and plotting street addresses to locations on an electronic map.

GFI: farebox vendor

GIS: Geographic Information System; computer map and related databases.

CLI: Command Line Interface

GPS: Global Positioning System, a system of satellites that are used to determine the location of a receiver on the ground. The location information is very accurate when at least three to four satellites are within line of sight (LOS) of the GPS receiver. There are accuracy problems when operating GPS in locations with high rise buildings or other obstacles to LOS.

GUI: Graphical User Interface

HAILING SPEAKER: A speaker located in the driver's compartment that will broadcast a coordinator's voice message to one or more operators without requiring the operator to pick up his radio handset to hear the message.

HASTUS: Horaires et Assignations pour Systemes de Transport Urbain et Semi-urbain, i.e. Vehicle schedules and Driver schedules for Urban and Suburban Transportation Systems; Metro's scheduling software

HEADWAY: Time interval between successive in-service vehicles traveling in the same direction, usually expressed as an average number of minutes.

ICD: Interface Control Document, a document which contains the file format for each file used to pass data between systems during processing. Each format includes a brief description of the file parameters such as record length and file size, and the format of each type of record in the file.

IDS: International District Station, one of five stations in the DSTT

INACTIVE ZONE: A zone currently not in use by any routes.

INBOUND: Travel toward an attraction area.

INDICATE: An alphabetic code referencing comments on run cards and schedule pages.

INFORMATION SIGNS: Signs placed at bus zones for passenger use that display zone-related bus schedules, maps, and other customer information.

INTERLINING: Blocking (hooking) trips together on different routes that share the same terminal. Often used on routes that travel common streets for part of their length. May be in the same route group.

I/O SENSOR:

ITE: Institute of Transportation Engineers

ITS: Intelligent Transportation Systems that generally include a real-time information component.

KCDOT: King County Department of Transportation

KCM: King County Metro

KCWAN: King County Wide Area Network

KEY TYPE: A four-character field in TRAM that describes one or more route/route part/type/service as Local, Express, Shuttle, Turnback, or a combination.

LAN: Local Area Network

LANDING PAD: A KCWAN networked computer that will ensure uninterrupted operations for data exchanges with the RVs whether or not the KCWAN connection is viable.

LATE: Coach is considered to be “late” if it is six or more minutes late at a scheduled timepoint.

LAYOVER: The time allotted between scheduled trips for various purposes, either for five-minute contractual minimum or for additional recovery; or at a timepoint within a trip, e.g. for Pulse Scheduling. See RECOVERY.

LAYOVER ZONE: Location approved by local public works jurisdiction to stop a coach for a scheduled layover out of a traffic lane. Passenger on/off not permitted.

LCD*:* Liquid Crystal Display

LEADER: The first of two consecutively scheduled revenue vehicles operating the same ROUTE and TRIP PATTERN.

LED: Light-Emitting Diode, a type of semiconductor diode that emits visible or infrared light when current passes through it.

LIFT-EQUIPPED SERVICE: See ACCESSIBLE SERVICE.

LIM: Limited Integration Mode is a term used to describe the on-board systems architecture after RFCS “smart card” implementation and before OBS implementation.

LIMITED SERVICE: "Limited Bus" service is intermittent or seasonal in nature, providing travel to and from special events on fixed routes.

LINK: 1) Any linear segment in the base map that represents a physical or geopolitical feature, e.g. a street or district boundary. Every link ends with a node. 2) The name of Sound Transit's Light Rail Transit.

LOAD FACTOR: Ratio of passengers on board a vehicle at point of interest, e.g. the maximum load point, relative to the total number of seats available; a measure of capacity utilization.

LOCAL ROUTE: A bus on a local route makes all stops along the route.

LOG: A record of events, used for system information, backup, and recovery.

LONWORKS: LonWorks is the name for the kind of network currently installed on the KCM fleet. It is this network that enables the current level of integration between the radio/AVL system, APC, and signal priority.

LRT:LIGHT RAIL TRANSIT

MASTER SYSTEM: A separate software application, also referred to as the vehicle logic unit (VLU), which will provide all of the functionality necessary to interact with the named subsystems. This Master System is composed of all the use case functionality included in the Revenue Vehicle domain of the OBS/CCS model.

MAXIMUM COACHES IN SERVICE: This is the maximum number of coaches simultaneously on the street. Due to variations in peaking among bases, this is not the same as peak coach requirement.

MAXIMUM LOAD POINT: Point of maximum on-board passenger loads carried by a vehicle or vehicles of a route; may refer to one or more locations for a given direction of travel.

MDT: Mobile Data Terminal, the currently deployed driver display device. The MDT is used by operators to log in, control the PA system, and interface with the radio. The MDT's manufacturer is out of business; therefore replacement units are no longer commercially available. It is a proprietary "black box" that will not support multiple applications.

MDU: Mobile Data Unit, a legacy component that acts as an interface between the 450 MHz mobile radio and the MDT.

MHz: Megahertz, a million cycles of electromagnetic currency alternation per second. MHz is used as a unit of measure for the "clock speed" of computer microprocessor. In designing computer bus architectures, the microprocessor speed is considered together with the potential speed or amount of data that can come into the computer from I/O devices in order to optimize overall computer performance.

METRO: The Transit Division of the King County Department of Transportation.

MIRS: Maintenance Information Reporting System

MODE: A means of transportation: Auto, bus, rail, etc. Sometimes refers to power supply, e.g. diesel vs. electric.

MODE CHANGE: A change in propulsion or guidance; e.g. diesel to electric at the Seattle CBD transit tunnel entrance.

MONITOR: At KCM, an employee responsible for recording passenger loads and time-check observations. A.K.A. "checker" elsewhere in the transit industry.

MPA: Metro Police Agent

MPU: Mobile Processing Unit, the processor for the current, mat-based APC system. This unit provides all of the functionality to identify and store the count data along with signpost and odometer readings.

MSD: Metro Scheduling Data

MTBF: Mean Time Between Failures

NEAR SIDE STOP: A bus stop located immediately before an intersection.

NEXT: The service data set in effect after Current.

NIGHT RUN: A run which is completed after 8:00 p.m.

NODE: In GIS, a location that signifies the end of a LINK. Typically but not always at the center of an intersection. A node number is a four-digit numeric code given to an exact location, or node, identifying it as a specific timepoint. More than one route can use the same node number.

NOON TIME COACHES IN SERVICE: The number of coaches simultaneously on the street at noon.

NTCIP: National Transportation Communications for ITS Protocol

NTD: National Transit Database

O&D: Origin and Destination

OB AVL: On-Board Automated Vehicle Location, a modular software component of the VLU which receives input from a set of external location sensors and uses these to determine and report a current location solution. This is the only VLU application which is required to be modular to support OBS life cycle upgrades and replacement.

OBDB: On-board database posited as containing service data sets and their initiating “trigger” data.

OBS: On-Board Systems

OBVC Database: On-Board Vehicle Configuration Database. These exist for each vehicle and are resident on both the vehicle and the Base Server.

ODBC: Open Database Connectivity

ODK: Operator Display Keyboard

OEM: Original Equipment Manufacturer. An OEM is a company that uses product components from one or more other companies to build a product that it sells under its own company name and brand. (The term is sometimes mistakenly used to refer to the company that supplies the components.)

OFF-PEAK: Service during weekdays outside of a defined “peak” period or on weekends; may vary according to the “peak” definition; may refer to characteristics of the “off-peak” service period, e.g. “off-peak” ridership, etc.

OFF-ROUTE: Operation of a coach off of the route on which it has been assigned.

O/I: Output/Input Sensors. On-board sensors that collect information about the functions/devices they're attached to for use in system health notifications and AVM reports.

OID: Operator Identification number, A unique number to identify the specific individual.

ON-TIME PERFORMANCE: (OTP) operation measured within a range of one minute early (a positive number) to five minutes late (a negative number) at timepoints.

OPERATOR: See TRANSIT OPERATOR.

OPERATOR ASSIGNMENT: A unit of driver work of any size from part of a trip to a full day's run of roundtrips. May include work on different vehicles. See RUN, COMBO.

ORIGIN: The beginning point of a trip. See DESTINATION.

OSI: Open Systems Interconnect

OUTBOUND: Travel away from an attraction area.

OVERLOAD: A ratio of passengers on board to the total number of seats available, greater than 1.0.

PA: Public Announcement System. The PA system is installed on all coaches to enable audio announcements to be made to passengers.

PARATRANSIT: Complementary paratransit service required by the ADA for persons whose disabilities prevent use of regular public transportation. At Metro, paratransit is curb-to-curb, advance reservation, shared-ride service provided by ACCESS Transportation (some service enhancements are available on a limited basis). The service area and hours are comparable to the operation of fixed route, non-commuter bus service. See SUBCONTRACTED TRANSIT.

PARK-AND-RIDE: A facility intended for Metro customers to park their cars and ride the bus, carpools, or vanpools that are serving that lot.

PASSENGER: An individual who rides a transit vehicle.

PASSENGER LOADING ZONE: Location designated for picking up/dropping off carpool or vanpool passengers or park-and-ride users.

PASSENGER MILES: A measure of service utilization which represents the cumulative sum of the distance ridden by all passengers. For example, ten passengers riding in a vehicle for two miles equals 20 passenger miles.

PASSENGER TRIP: See TRIP. Typically includes portions of the journey which may be made in different vehicles or on different modes of transportation.

PATH: A directional sequence of LINKS. A detailed description of how a vehicle passes through the street network. Commonly describes a timepoint interchange in revenue or deadhead service.

PATTERN: An identified path which includes two or more timepoints and the intermediate TPIs. It is identified by route, route part, direction, and pattern ID, and further described by type of service. In many cases, a Pattern describes the footprint of a route, although a route may be comprised of more than one Pattern.

PATTERN ID: The ID for a specific pattern.

PCMCIA CARD: Personal Computer Memory Card International Association card

PCU: Passenger Counting Unit, a component in the current APC system that converts the mat signals into passenger ons and offs.

PEAK COACH REQUIREMENT: The maximum number of blocks scheduled to operate during the highest of the two weekday peak periods. See MAXIMUM COACHES IN SERVICE.

PEAK FARE: Higher fare for trips scheduled to arrive inbound 6:00-9:00 a.m. or 3:30-6:00 p.m., or leave outbound 6:00-8:30 a.m. or 3:00-6:00 p.m. at the CBD or Bellevue Transit Center control point. For other non-CBD routes, applies if more than half the trip time is in these periods.

PEAK HOUR: A 60-minute period of time during which ridership is at its highest levels, usually in reference to weekday a.m. and/or p.m. periods.

PEAK LOAD: Maximum number of persons on a bus during a trip.

PEAK PERIOD: A defined period of time during which ridership is at its highest levels, usually in reference to weekday a.m. and/or p.m. periods.

PERFORMANCE REPORT: Documentation of driver action, either positive (a commendation) or negative (record of a rule violation, such as speeding, early operation, discourtesy, etc.).

PERIOD PASS: A transit pass that is issued for use during a specific month, group of consecutive months or year, and is invalid outside of its time parameters.

PIECE OF WORK: A part of a driver's run that is continuously associated with one block.

PIERCE TRANSIT: The transit agency serving Pierce County.

PLATFORM HOURS: All coach revenue (in service), deadhead, and layover hours. Time an operator is scheduled to be on a BUS or other transportation vehicle. In the case of subcontracted transit, excludes base route deadhead time.

PLATFORM MILES: Include all coach revenue (in service) and deadhead mileage. Source: Management Information Report Systems. (MIRS)

PLATFORM TIME: Time operator spends on bus excluding allowances.

PLC: Programmable Logic Control, a component used for industrial controls. The structure of a PLC is that of a computer: it consists of a Central Processing Unit (CPU), a memory, input/output modules, and an internal bus. The functions implemented by a PLC are written in the form of programs stored in memory. A PLC receives input signals from process equipment to be controlled (switches, sensors), processes them according to a precise model defined by programs, and provides output signals to the process equipment such as relays, motor starters, etc. Unless a system reconfiguration is required, the functions executed by a PLC are fixed, the programs do not change, and therefore they may be stored in Programmable Read-Only Memory (PROM).

PRIMARY VEHICLE: Refers to the vehicle intended to normally be in service or use; may be required to have features not found on a backup vehicle, e.g., primary subcontracted transit vehicles are painted in Metro colors, are lift-equipped, have two-way radios, etc.

PRODUCTIVITY: A measure of the ridership of a transit route, as a ratio of the route's capacity.

PSS: Pioneer Square Station, one of five stations in the DSTT

PSRC: Puget Sound Regional Council

PT: Pierce Transit

PUBLISH: The process of an originating subsystem placing data on the VAN for retrieval by subscribing subsystems.

PULL IN: The time a vehicle is scheduled to arrive at the base.

PULL OUT: The time a vehicle is scheduled to leave the base.

PULSE SCHEDULING: A form of scheduling that insures that all routes with coordinated schedules converge at a common point with a brief layover, to allow for transfers between any of the routes.

PUSH: When data is pushed from its originating subsystem over the VAN to a subscribing subsystem(s).

QUALIFICATION: Process by which an employee becomes trained to do her ASSIGNMENT. Route qualification is a requirement for transit operators.

RAM: Random Access Memory

RCU: Radio Controller Unit, a device that is required in order to replace the legacy MDT with a new driver display unit (DDU). The RCU will enable the DDU to connect to and support the functionality of the legacy radio/AVL equipment until it is replaced. It will also handle analog switching functions for the PA, PA microphone, and the Operator handset.

RECOVERY: Part of the layover time scheduled between trips at a terminal point for headway spacing and/or to improve the on-time performance of the subsequent trip. See LAYOVER.

RELIEF COACH: A coach sent to replace a disabled or defective coach.

RELIEF OPERATOR: An operator scheduled to make a road relief.

RELIEF POINT: A timepoint and associated zone where a change of operator is allowed.

RELIEF RUN: Any straight through run that is completed after 8:00 p.m. Need not actually make a road relief. Also know as an "R" run. An "RB" is an R run that gets off after 3:00 a.m.

REPORT OPERATOR: A transit operator who reports to a base at a certain time and waits for assignment due to absenteeism of other operators.

REPORT TIME: The time interval necessary for an operator to prepare for a run; also, time of day at which an operator is to report to work.

REROUTE: A series of streets which leaves an established route at a specified point and rejoins it at a specified point. A temporary routing used to avoid traffic blockages due to construction, emergencies, etc.

REVALUE EVENT: The process by which transit value (period pass or stored value) is loaded onto an already issued transit fare card.

REVENUE HOURS: Aggregation of time during which service is/was available to carry passengers; excludes layover, deadhead, or other “non-revenue” service time.

REVENUE MILES: Miles of travel operated while a service is available to carry passengers; excludes mileage associated with “deadhead” travel and other “non-revenue” mileage.

REVENUE SERVICE: A portion of the scheduled operation of a transit vehicle that is advertised in public timetables as available for public transportation service. Includes Ride Free Area service. Excludes layover, may include deadhead.

REVENUE VEHICLE: A coach or van that operates revenue service.

RFCS: Regional Fare Coordination System. A regional project to implement a single, common fare collection system, utilizing a "smart card," for bus, rail, ferry, and vanpool travel in the Central Puget Sound region.

RFP: Request for Proposals, an explanatory document used to solicit proposals for a project.

RIDE FREE AREA (RFA): An area of downtown Seattle, defined by specific boundaries, within which no fare is charged to ride the bus between 4:00 a.m. and 7:00 p.m.

RIDERSHIP: Count of all one-way, unlinked passenger trips. Various sources provide product-specific ridership. Transit ridership reports include Waterfront Streetcar and DART patronage.

RIO: Rider Information Office

ROAD JUMP: The process in which the operator of a disabled bus gets off that bus and relieves the operator of the next bus that arrives. The displaced operator then remains with the broken-down bus until a) a replacement vehicle in which that operator can continue his route arrives, or b) the next scheduled bus arrives, causing the Road Jump process to be repeated.

ROAD RELIEF: Process of a scheduled change of operators on an in-service revenue vehicle.

ROLLOVER: Process of replacing current files with next; part of shakeup implementation on the computer systems.

ROM: Read Only Memory

ROUTE: A specific series of streets, roads, and highways on which Transit service is regularly scheduled. A collection of paths related by serving some passenger trips in common, identified by a route number.

ROUTE CLUSTER: Two or more interlined or linked routes. See The Book: Transit Operating Instruction, January 31 – June 4, 2004, *Route/Base Cross Reference List and Relief Points*, pages 64-71.

ROUTE DEVIATION: A route path requiring a vehicle to depart from its general direction of travel, circulate within an area nearby, and then return to the original direction of travel.

ROUTE GROUP: Routes combined on a pair of schedule pages, one for each direction. The route group's number becomes the route number of the route/run numbering system for blocks scheduled on the schedule pages.

ROUTE LEVEL RIDES: Inbound Ons plus Outbound Offs excluding the Ride Free Area; used in TRAM for route-level ridership analysis and higher-level summaries.

ROUTE MILES: Distance traveled on routes followed by vehicles when in revenue service (between terminals).

ROUTE NUMBER: The number assigned to a specific route. May be followed by an "express" or "local & express" designation in bus stop signage. May be followed by a "to" and/or "via" location on destination signage.

ROUTE PART: Segment of a two-part route N,S,E or W of the primary attraction or transit center.

ROUTE/RUN: An internal numbering system to identify individual coach assignments. See BLOCK. Conventionally numbered with the route number of the route group of its first trip. May operate trips on routes of a different number. Run is displayed on coach dash.

RTA: Regional Transportation Authority, d.b.a. Sound Transit

RUN: Any straight through work or combo of not more than three pieces of work that exceed 7:11 platform time, including report and travel time, and within a spread of 12:30 or less. See DRIVER ASSIGNMENT.

RUN CARD: Card given to the DRIVER to indicate scheduled trips to be driven, timepoints to be met, and comments.

RUNCUTTING: Process of dividing service schedules into pieces of work and organizing them into efficient driver assignments in compliance with Metro/ATU contract, giving consideration to impacts on operating costs. Metro currently uses the HASTUS software for this.

RUNNING TIME: Amount of time allocated to travel from one timepoint to another at a given time of day on a given day of the week. In current Metro scheduling software, a standard for all routes using the same timepoint interchange.

SAE: Society of Automotive Engineers. SAE J1708 and 1939 are two industry-standard networks.

SAVED EVENT: 5 to 10 minutes of video, associated with a security incident or Emergency Alarm, that an operator saves using the DVRS. Saved events are automatically off-loaded via a wireless LAN to the Transit Police server when a coach returns to the base.

SCHEDULE ADHERENCE: Operation within guidelines defining EARLY and LATE schedule performance.

SCHEDULE MAINTENANCE: Scheduling changes intended to improve on-time performance or reduce overloads. May include changes in running time, layover time, deadhead time, headway, or number of trips.

SCHEDULE PAGE: A table of timepoints and trips in a given direction for a ROUTE GROUP.

SCHEDULED EVENT: A projected time and location such as a specific block arriving at a specific timepoint at a specific time. See EVENT.

SECURITY CAMERA: A component of the Digital Video Recording System that captures color images that are stored on the DVRS hard drive. .

SERVICE ADJUSTMENT: Temporary change in routing, trips, or times initiated by the Scheduling Section. Includes special event service.

Formerly known as Supplements, or "Supps." May be cancelled or replaced by changes in regular schedules and/or route maps.

SERVICE AREA: The geographic area in which a municipality collects taxes and is obliged to provide services.

SERVICE CHANGE: The addition, deletion or modification of service resulting in the physical realignment of a transit route, or a change in the type or frequency of service provided; may also include schedule or vehicle-type changes. See SHAKEUP.

SERVICE CHANGE PERIOD: An entire shakeup from its start to finish date.

SERVICE CHANGE PACKAGE: A report that is generated and distributed prior to each new shakeup that explains the changes to be implemented at the new shakeup.

SERVICE FOOTPRINT: The streets served by at least one revenue service trip during a given shakeup. A map of theTransit network.

SERVICE ROUTE: A block's assigned route at the trip level.

SERVICE ROUTE GROUP: Service routes grouped logically, (e.g. geographic, equipment or service type groupings) for the purpose of assigning service routes.

SERVICE SUPERVISOR: A road supervisor who drives a “D” CAR, or a supervisor without a car but equipped with a portable 2-way radio who assists the coordinator and operators with matters concerning transit operations. See SUPERVISOR.

SHAKEUP: The period of time during which a service change or a particular set of operator assignments is in effect.

SHUTTLE: In METRO destination signage, non-CBD service on a route which ordinarily serves the CBD.

SIGNAGE SYSTEM: Includes all signs used by Metro. The system is intended to be cohesive both visually and mechanically.

SIGNOUT: The process of assigning coaches to blocks; the results of this process.

SIGNPOST ANALYSIS TOOL: A software utility which analyzes the service and deadhead patterns associated with a shakeup to determine the optimal location of signpost transmitters in the AVL system.

SIGNPOST EMITTER: A small, battery-powered radio transmitter mounted on telephone or power poles that identifies a point used to inform a radio receiver of the location of a vehicle. Term used for APC. See SIGNPOST TRANSMITTER.

SIGNPOST TRANSMITTER: A small, battery-powered radio transmitter mounted on BUS STOP poles and INFORMATION SIGNS that identifies a point used to inform a radio receiver of the location of a vehicle. Term used for AVL. See SIGNPOST EMITTER.

SKIP STOP: Pattern of alternating bus stops to increase capacity of CBD streets, e.g. 2nd and 4th Avenues.

SOUND TRANSIT: A regional transit agency covering parts of Snohomish, King, and Pierce counties.

SOW: Scope of Work, a detailed list of project tasks and expectations contractually agreed upon between a vendor and King County.

SPECIAL POINT: Within DACS, an active TIMEPOINT, a SIGNPOST TRANSMITTER location, or the TIMEPOINT at a BASE.

SPECIAL SERVICE/EVENT: Planned bus service for sporting events, festival, fairs or other major Puget Sound area events.

SPLIT COMBO: An operator drives one or more parts of a combo but not all of the parts. The Operator is not eligible for the original combo's spread Time, Paid Straight Bonus, or Run Bonus.

SPLIT RUN: A regularly scheduled run that has been divided into two or more different assignments in the assignment planning or dispatching process.

SQL: Structured Query Language

ST: SOUND TRANSIT

STAGING AREA: A holding area where transit vehicles wait until they can depart this location in a specific scheduled sequence.

STOP POINT ZONE: A linear distance from a central geographical point which runs parallel to the street that describes the area considered to be part of the scheduled stop. The vehicle uses geographical location information to determine if it is currently inside or outside of a specific stop point zone, e.g. whether to accrue collected information to a specific stop or relate it to an unscheduled stop.

STORE: To copy or transfer data from a computer to a storage medium such as disk or tape.

STORED VALUE: A monetary value that is loaded onto a smart card; e.g. $10 worth of Transit rides.

STP GRANT: Federal Surface Transportation Program Grant

STRAIGHT THROUGH RUN: A run that works straight through or has a split of 60 minutes or less.

STRATEGIES: A process used in the CCS and Legacy CAD/AVL system that ensures Coordinator coverage of every service route as well as a balanced workload for Coordinators.

STREET BY STREET: A listing of the exact turns a bus route makes on the street system; for instance, as listed in The Book.

STREET LINK: The linear representation of a street between two street nodes. See also LINK.

STREET NODE: A point that represents an intersection of two or more street links. See also NODE.

STREETCAR: Also TROLLEY, street transit mode consisting of electrically powered rail vehicles operating in one to three car trains. See LIGHT RAIL TRANSIT.

STRING: A group or sequence of characters.

SUBSCRIPTION: When a component is configured to receive data directly from another component. The component where the data originates will PUSH the data over the VAN directly to the subscriber as it becomes available.

SUBSYSTEM: A hardware device or interconnected set of devices that are external to the VLU. A subsystem must 1) exchange data with the VLU's Master System, and 2) have an open interface described by a published ICD (interface control document).

Subsystems and their connectivity to the Master System should be designed to facilitate replacement or upgrade. Application software within the subsystem may be proprietary providing that the required configurable parameters and management tools are included as part of the associated use case interface.

SUPERVISOR: 1) An employee's immediate lead; 2) A First Line Supervisor as per ATU Local 587 labor agreement; 3) In the Metro non-represented hierarchy, the position directly above a Chief and below a Manager.

TAG: 1) The action of a user bringing a smart card in close proximity to a card reader so that it can be read. 2) A TSP device that is situated on the front end of a bus and continuously updated with schedule adherence and other data for use at TSP intersections. See AMTECH RF TAG.

TBD: To Be Determined

TCIP: Transit Communications Interface Profiles are data interface standards for transit subsystems. The family of standards represents many of the data concepts, data elements, and messages exchanged between transit subsystems.

TCIP 1 represents the Framework and eight Business Area standards describing data elements and messages (i.e., NTCIP 1400 series). The eight Business Area standards include: Common Public Transportation (CPT), Incident Management (IM), Passenger Information (PI), Scheduling/Runcutting (SCH), Spatial Representation (SP), On-board (OB), Control Center (CC), and Fare Collection (FC).

TCIP 2.x represents the TCIP specifications for dialogs under development by APTA; all eight Business Area standards are incorporated in the TCIP 2.x documentation. [Contact APTA for information on how to obtain TCIP documentation.] An ISO TCIP-XML profile is also under development.

TCIP Compliance: "The implementation of a system or subsystem has been verified and validated as having met or exceeded all of the measurable criteria expressed in a contract and its accompanying specification." (Battelle Testing Team correspondence)

TCIP Conformance: "The implementation of a system or subsystem has been verified and validated as having met the exacting conformance requirements as stated in the one or more embodied standards." (Battelle Testing Team correspondence)

TCIP-XML: The TCIP standard data elements, frames, and messages specified using the XML Schema Data Description Language.

TCP/IP: Transmission Control Protocol/Internet Protocol

TEA-21: Transportation Efficiency Act for the 21st Century

TED: Transit Enterprise Database, a database that merges original data and additional common data to provide a well-documented and unified source of information as needed by Transit Agency applications and reports.

TERMINAL: A transportation facility for the pickup, transfer, or discharge of patrons. Or, the end of a route. See TERMINAL POINT.

TERMINAL POINT: The end of a route; usually refers to the location of a vehicle layover at the end of a trip or before/beginning in-service operation, or the actual in-service starting or ending point of a route when layover time is not provided.

THE BOOK: Manual of official instructions to Metro coach operators; contains route maps and descriptions, signage information, and rules and information useful for making decisions and responding to the public in a reasonable and consistent manner.

THROUGH ROUTING: Continuous routing of vehicles from one route to another such that a passenger would not have to transfer from one route to reach a destination on the other; may be implemented to achieve efficient use of coaches.

TIMEPOINT: A location (associated in GIS with a node) along a route where trips are assigned a specific arrival and/or departure time.

TIMEPOINT ID NUMBER: A unique integer up to four digits given to a named location, identifying it as a specific timepoint. Associated with a node on the GIS network.

TIMEPOINT INTERCHANGE: A path between two timepoints. Often referenced by the two timepoint ID numbers. May become a source of errors since Metro's data model assumes a single path between two timepoints.

TIMED-TRANSFER: Scheduled connections between two or more routes to allow passengers to transfer; a layover is scheduled to allow transfers to occur in all directions.

TIMETABLE: Bus schedule information indicating coach arrival/departure times for selected locations served by a route; may include other information to aid an individual in making a trip, e.g. map, fares, day(s) service provided, etc.

TIO: Tag Interface Unit. This device is an adapter that enables the signal priority tag to receive operator login data from the LonWorks network. Currently, the dynamic data being passed includes the route and run that the vehicle is operating, which the roadside equipment uses to determine eligibility for signal priority.

TPI: Timepoint interchange, the path between two timepoints.

TRAM: Transit Resource Analysis Model

TRANSFER: Change between vehicles of the same or different modes (intra- and inter- modal, respectively) in the course of passenger travel. Also a ticket indicating payment of fare on a previous vehicle during the same passenger trip.

TRANSGEO: An in-house GIS package customized for use in Transit's applications.

TRANSIT CENTER: A location where groups of buses or other public transportation vehicles can be brought together at the same time, facilitating transfer between the routes.

TRANSIT HUB: A focal point for connection among routes.

TRANSIT NETWORK: The set of all scheduled routes on a given day of service, e.g. weekdays.

TRANSIT OPERATOR: At Metro, job classification responsible for driving a Metro bus or fixed-rail vehicle in revenue service. In the transit industry as a whole, an operating agency as opposed to funding, regulatory, etc.

TRANSIT POLICE: King County Sheriff's Department police officers, contracted by KCM to assist in assuring the safety and security of operators and customers.

TRANSMISSION: Sending data over a communications line.

TRAVEL TIME: Pay time allowed a transit operator to travel between a base and a relief point or between relief points.

TRIGGERS: Events that are based on internal or external state changes.

TRIP: An individual passage from one place to another, e.g. bus trip or passenger trip. One passage of a bus past all the timepoints in a pattern or on a route, or one passage of a passenger from origin to destination.

TRIP LENGTH: The number of miles per trip. This is usually an average number for a specified trip type, area and analysis year.

TRIPPER: A piece of work that is less than 7 hours and 11 minutes. Vehicle Maintenance may put a coach into short-term service with an open work order on a tripper.

TRIPPER STORAGE: The midday storage of peak-hour tripper coaches at a location other than their assigned base.

TROLLEY BUS: A bus that is electrically powered and draws its power from a pair of overhead trolley wires.

TROUBLECALL: A coach problem requiring either a supervisor or a mechanic's assistance (does not include troublecalls outside of Metro's control).

TRS: Transit Radio System project, a Transit project that is replacing the legacy 450 MHz radio system with a 700 MHz radio system, including the radio infrastructure and mobile and portable radios.

TSP: Transit Signal Priority, the system used to obtain priority for buses to speed them through traffic signals. When possible, selected routes/runs will get extended green time or a shortened red light.

TSS: Transit Systems Support, a workgroup of KCDOT that includes programming support and services.

TUI: Tag Unit Interface

TURNBACK: A trip that turns around short of the regular outbound terminal

TYPE SERVICE: A two character field in HASTUS that describes one or more patterns as local, express, shuttle, turnback, or containing a variant.

UCS: Use Case Specification

UML: Unified Modeling Language

UPS: Universal Power Supply

UNITS AVAILABLE: Coaches assigned to a base; also fleet assignment.

UNLINKED PASSENGER TRIPS: The number of passenger boardings, regardless of whether the passenger will board another vehicle on the way from origin to destination.

URL: Universal Resource Locator, an Internet site address on the World Wide Web.

UNSCHEDULED STOP: Occurs each time an operator of a vehicle in revenue service stops and opens one or more doors at a location outside a scheduled stop point zone.

UNSERVICED STOP: Occurs when a vehicle operating revenue service passes by, without stopping, a stop that is included in the defined schedule for the service the vehicle is operating.

USE CASE: A UML (Unified Modeling Language) term for a sequence of actions that an Actor performs within a system to achieve a particular goal. A use case describes one specific aspect of the system without presuming any specific design. A use case is represented by a Use Case Diagram and written specification that details the tasks.

USS: University Street Station, one of five stations in the DSTT

VAN: Vehicle Area Network, a means for connecting multiple devices together in order to share and manage data. Devices connected to the VAN can obtain needed information such as time and location and can provide data such as passenger counts for storage and signal priority.

VARIANT: Variation of a route; in zones/route sequence, describes a whole trip; in HASTUS, may be just a segment of a trip.

VEHICLE ASSIGNMENT: See COACH ASSIGNMENT.

VEHICLE ATTRIBUTE: Characteristic of a type of coach, e.g. lift-equipped, articulated, etc.

VID: Vehicle Identification, KCM assigned number for vehicle identification.

VIN: Manufacturer assigned number for vehicle identification.

VLU: Vehicle Logic Unit, a term for the future on-board computer system. The VLU will be capable of supporting the integration and data management for multiple applications. It will need a substantial amount of memory and RAM.

VM: Vehicle Maintenance, the section responsible for maintaining the vehicles in the fleet and for dispatching specific coaches to work assignments.

VOICE MODE: KCM's fallback radio mode in which the Operator and Coordinator use press-to-talk buttons and default open radio channels for communications between a revenue vehicle and the Communications Center when data mode is not available.

WAN: Wide Area Network

WAP: Wireless Access Points

WARM START: When a vehicle is powered back on within a short enough time frame after having been turned off that its OBS and radio are still booted up and running. See contrasting COLD START.

WATCHDOG TIMER: A tool, chip, or process that validates that a system is operating normally.

WATERFRONT STREETCAR: The restored streetcars that run on track from Pier 70 to the International District. Also called Route 99.

WDOLS: Wireless Data On/Off Load System, a point-to-point wireless system existing at all KCM bases that enables the automated exchange of data between the vehicle and a computer at the BASE. The installed WDOLS will provide the infrastructure for the development of the WLAN as part of the planned upgrade for the OBS.

WLS: Westlake Station, one of five stations in the DSTT

WLAN: Wireless Local Area Network. WLAN is used to describe the upgrade to the WDOLS that will enable a single node for each vehicle to support data transfers from multiple sources on a revenue vehicle via tunneling or routing, and also has the similar ability to receive, parse, and distribute files to multiple destinations. The upgrade from WDOLS to WLAN also requires the OBS/CCS Contractor to ensure that the system has sufficient bandwidth to support the OBS requirements.

WMATA: Washington Metropolitan Area Transit Authority

WORK ASSIGNMENT: Piece(s) of work operated by coach operators; developed in compliance with Metro/ATU contract requirements (see also COACH/VEHICLE ASSIGNMENT and ROUTE/RUN).

WSDOT: Washington State Department of Transportation

WWW: World Wide Web; a resource on the Internet.

ZONE: See BUS STOP. Any point along a route that has been designated by Metro and the public works agency having local jurisdiction as a stopping point for loading and unloading. See ACTIVE ZONE.

ZONE FARE: Added cost above the base transit fare that is charged for a trip that crosses a fare zone (e.g. a Seattle city limit). Zone fares are in effect during peak service hours only, and only for adult fares.

ZONE, LAYOVER: Location approved by local public works jurisdiction to stop a bus out of traffic for an extended length of time.

ZONES: Zones/Route Sequence System

ZONES/ROUTE SEQUENCE: A database for establishing zone numbers and tracking their attributes, including which routes serve them.