ECTR + MobAg Feature Set with Case Study
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**Enterprise Commute Trip Reduction (ECTR) software feature set**

ECTR app feature set will include:
- Integration with one or more smartphone mobility aggregation apps.
- Real-time employer dashboard with commute mode split, GHG, and parking space utilization. Employer senior staff will not be able to access data on individual trips by individual employees. Only anonymized, aggregated data will be exposed to the employer.
- Employer administration panel supporting: a) multiple benefit tiers of union/non-union employees, b) Customizable commute program intranet web portal.
- A per-employee commute calendar (and dashboard) supports commute incentives and parking charges (“feebate”) reflected in payroll processing. Informs employees of true cost of parking, subsidies, GHG, etc. Deep integration with major payroll systems such as ADP, Paychex, Workday, Oracle, SAP, and Ceridian is expected, with all payroll systems supported in a lightweight manner.
- Employer-centered ridematching (some ECTR apps may rely on Mobility Aggregator support for dynamic ridematching apps)
- E-bike/scooter loan-to-own, where an employee rents personal electric transport that transforms to ownership after a specified number of green commutes.
- Customer Relationship Management (CRM) combined with employee surveys, enabling geo-targeted commute program marketing within the context of each employee’s obstacles.
- Employee intranet threaded commute chat boards for commuter rail, biking, major line-haul bus transit service areas, 10-20 mile ridesharing sub-regions (example: Google’s internal “Carpoogler” ridematching chat board), 20+ mile ridesharing sub-regions.
- New employee on-boarding, to form green commute habits from Day 1
- Commute shed GIS (geographic information systems) mapping and commute option gap analysis (also called GIS cluster map analysis).
- Aggregated dashboards: large landowners, business parks, city-wide reporting, and region-wide reporting.
- Gamification.
- Standards-based support for top parking access hardware brands as well as custom implementations.

**Smartphone Mobility Aggregation feature set.**

Smartphone Mobility Aggregation apps:
- In 2016, one Mobility Aggregation smartphone app will likely support: public and private transit; Carma ridesharing; Motivate bike share; Lyft Line and Flywheel; Car2Go, DriveNow, and Zipcar carsharing; and smartphone e-ticketing.
- In 2016, a second app will likely aggregate: public and private transit; (no rideshare); Motivate bike share; UberPool; Car2Go and DriveNow; and smartphone e-ticketing.

Smartphone Mobility Aggregation Feature Set will include:
- Commute mode detection (98% accurate commute mode detection) including differentiating between biking, SOV, and carpooling. This will be an “opt-in” feature.
- Pay for transit with smartphone.
- Better planning for 3-mode trips. Real-time “hand holding” at transfer points. Alerts so you don’t miss your station/stop - waking you up if you are asleep.
- Use stored ECTR funds to pay for trips.
Ecosystem software stack

In the future, we expect three or more combinations of ECTR integrated with Mobility Aggregation. Faster-than-realtime intelligent agents (Siri, Google Now, Cortana) may further advance the customer experience, by understanding an individual’s context and accessing their calendar to plan trip-making on behalf of the individual.

Luum ECTR Case Study: From 50% to 40% SOV

Seattle Children’s Hospital and Luum worked closely in developing ECTR software. Luum’s Children’s Hospital implementation features: parking garage access hardware integration, tiers of commute benefits for union/non-union staff, real-time cloud-based Hospital-wide commute dashboard (parking space utilization, benefits accounting, daily commute mode split, peer-employer comparisons), automated bike commute tracking via Strava and MapMyRide, a carrot/stick feebate (integrated with payroll processing) including a phased transition away from monthly to daily parking charges, Orca transit pass card “re-filling,” an employee shuttle bus smartphone app, a one-stop employee commute tools/assistance web portal, a cloud-based employee commute calendar (with performance tracking, accurate GHG impact, and carrot/stick accounting), employer administration panel with detailed accounting by commute tool/activity, new employee onboarding (the best time to change behavior is before the first day of employment), ridematching, vanpooling, guaranteed ride home, (discounted) Zipcar integration, “carpool multi-badge garage swipe with fair apportionment of parking charge,” and gamification. The implementation shifted mode from 50% to 40% SOV between November 2013 and March 2014.

Any two employees can carpool and access the parking structure. Both badges are read by the reader. Luum then distributes the parking charge, 50% to each employee.