

Innovative Enforcement Technology: Georgia's *I-85 Express Lanes*

IBTTA All-Electronic Toll Conference
July 2015



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Keep Moving.

Christopher Tomlinson
Executive Director



I-85

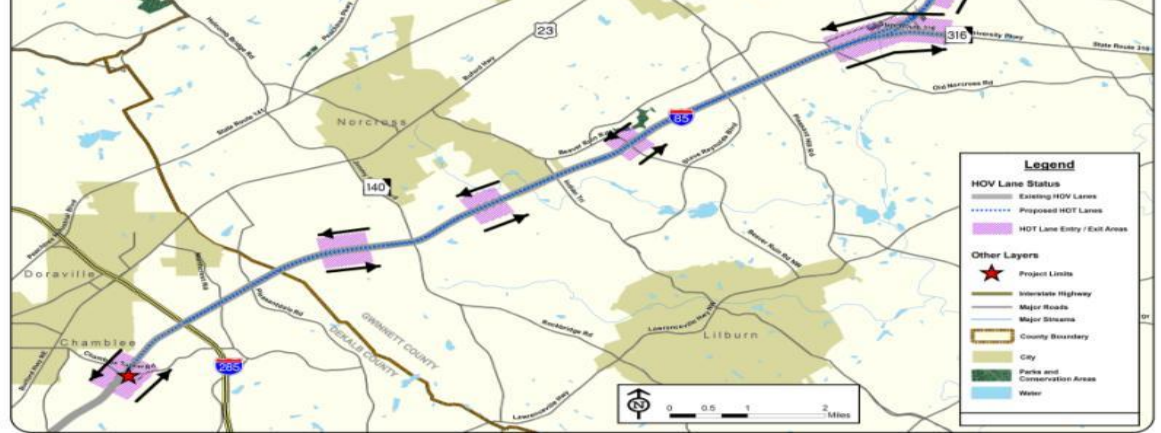
Express Lanes



- ☐ Won federal CRD grant in part due to electronic enforcement schema
- ☐ Opened October 1, 2011
- ☐ HOV-2 to HOT-3 Conversion

I-85 Express Lanes Overview

- ❑ 15.5 miles
- ❑ 1 lane in each direction
- ❑ 5 Segments SB; 6 NB
- ❑ Painted buffer; no physical barriers
- ❑ 67 toll points, ½ mile apart
- ❑ Dynamically priced
- ❑ Lanes operate 24/7
- ❑ Registered lane, even for toll-exempt vehicles
- ❑ 2 axles; no more than 6 wheels



3 Types of Violations Enforcement

Std. Unregistered Vehicle Enforcement:

Use of Express Lane without a Peach Pass



SRTA's video tolling technology detects unregistered vehicles, takes picture of license plate and automatically sends out violation notices to registered owner of the vehicle.

Automated DWL Enforcement

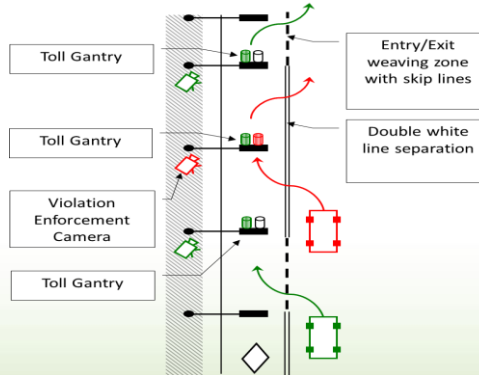
Physical roadway constraints prevented barrier separation of ELs from GPs.

Solid, double white lines are used instead to act as a barrier with dashed, double white lines denoting a "weave zone," or legal access area.



Gantry Controlled Access (GCA) deters improper crossing of solid, double white lines using entry/exit logic.

US Patent # 8,044,824



Innovative ALPR-Based Occupancy Enforcement:



Occupancy is enforced by law enforcement aided by Automatic License Plate Recognition (ALPR) system.

Gantry-Controlled Access (GCA)



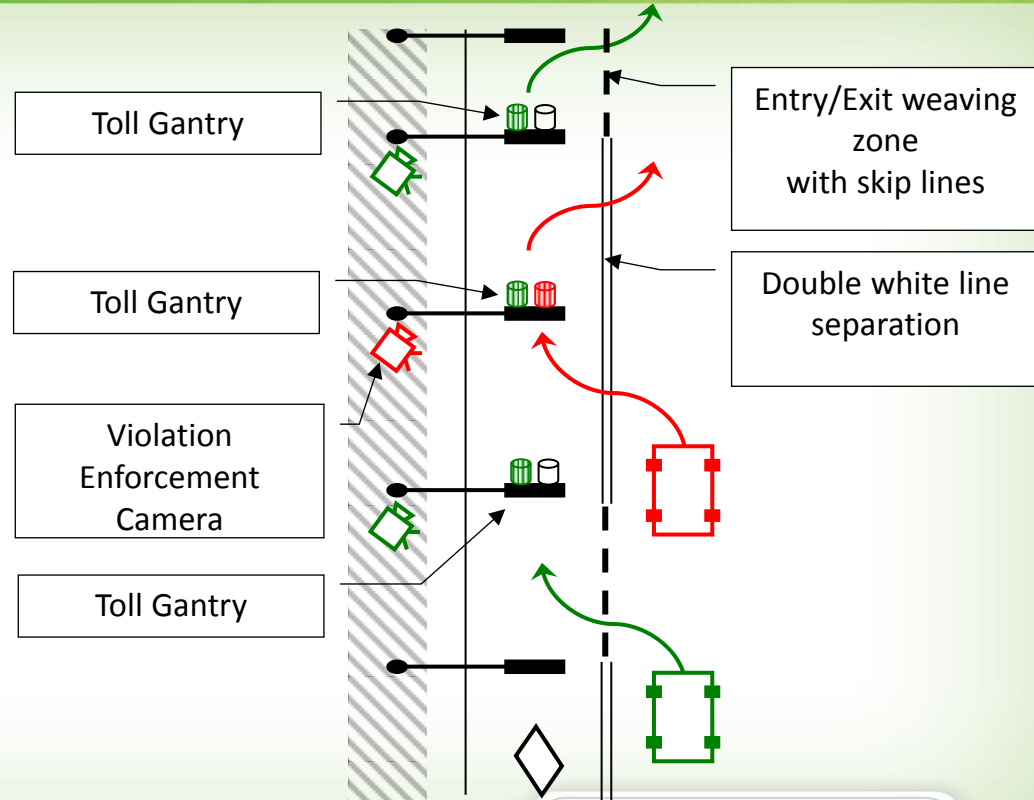
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Gantry-Controlled Access

US Patent # 8,044,824

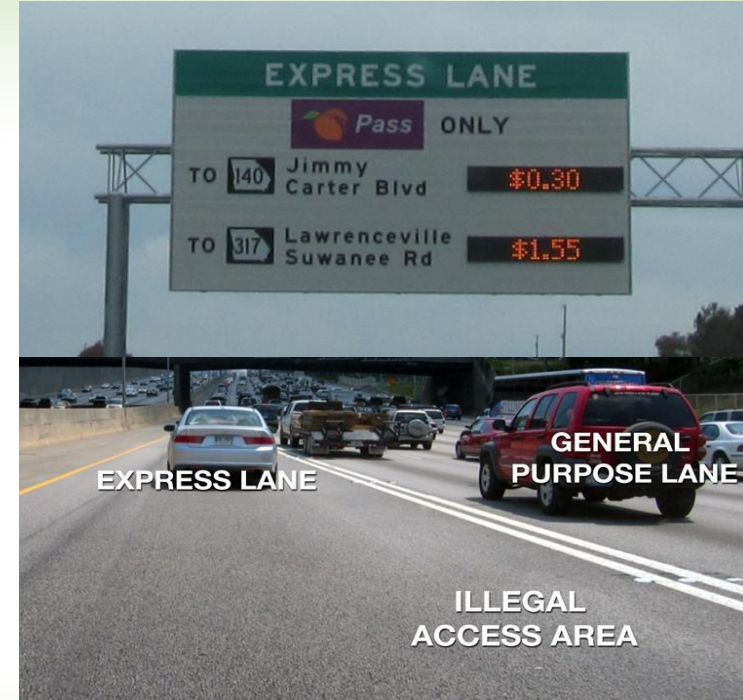
“Invisible Barrier” solution

- ☐ Enforces double white line weaving
- ☐ Overhead tolling system detects vehicle entry/exit
- ☐ Gantry spacing deters dodging into the HOT lane
- ☐ Gantry to gantry monitoring detects entry/exit violations
- ☐ Tolling system logic will issue toll violation notices, based on number of missed gantries



Gantry Controlled Access Benefits

- ☐ Automated Violations for Unregistered Vehicles
- ☐ Automated Violations for DWL Violations
- ☐ Toll payment and entry/exit point violators receive violation notice by mail
- ☐ 24/7 automated enforcement, allowing police to focus on other violations
- ☐ Mailed citations = less need to stop violators, disrupt traffic flow, or risk officer safety
- ☐ Less right-of-way required, less traffic disruptions, reduced design, engineering & construction costs



Automatic License Plate Readers (ALPR) for Occupancy Enforcement



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Vehicle Occupancy Enforcement

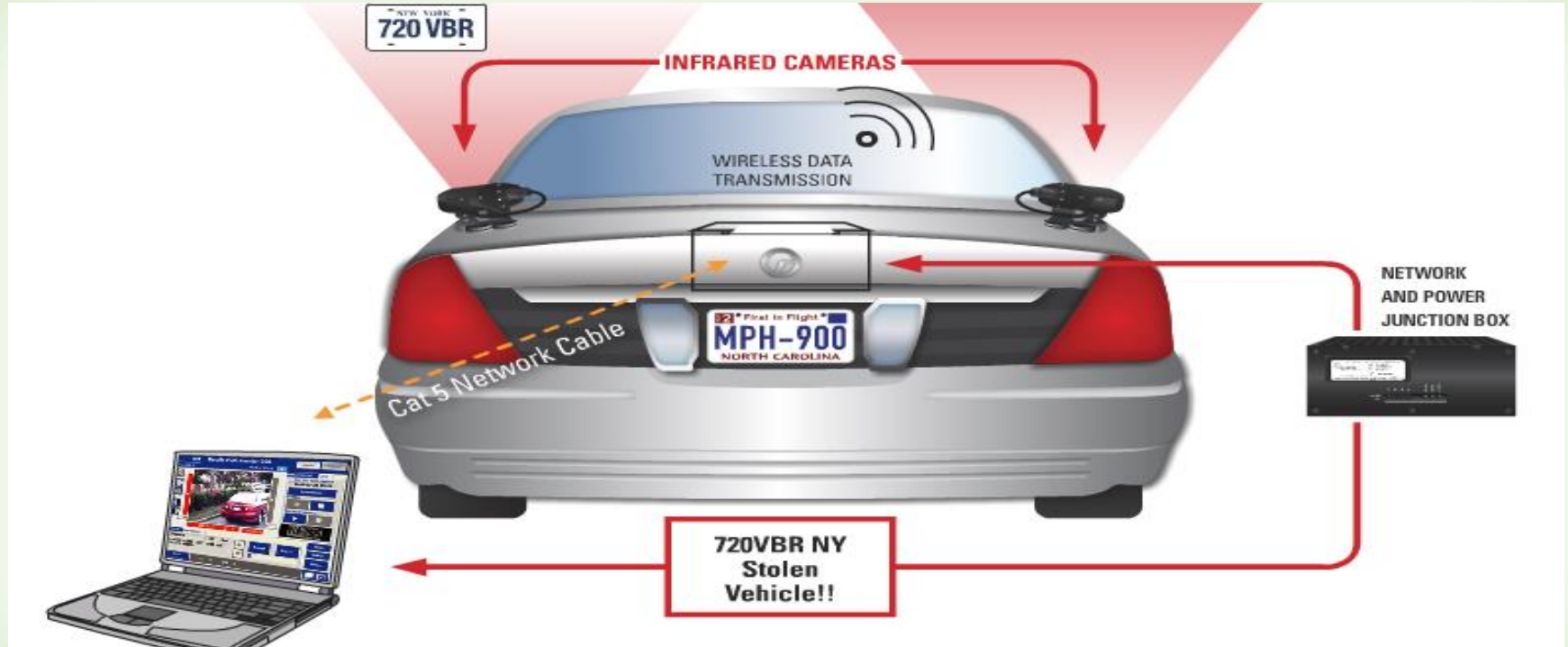


Vehicle Occupancy Enforcement

- ☐ 3+ carpoolers self-declare non-toll status via CSC, Online or mobile app
- ☐ Occupancy Status is a Back Office Account-based status – No transponder-based self-declaration
- ☐ SRTA transmits list of registered vehicles in the 3+ non-toll mode
 - Full list downloaded daily
 - Incremental updates every 5-10 minutes
- ☐ ALPR scans license plate and notifies officer to check occupancy for vehicles whose occupancy has been declared as 3+ non-toll mode
- ☐ Officer's on board computer system will send "stop/citation" information back to SRTA



ALPR – Elsag MPH-900



Occupancy Alert - Example

LPR - Mobile Plate Hunter 900

Pending Alerts 0

Vehicle: Vostro-IT

Management Diagnostics

Hot list last update
7/17/2012 07:58

Operations

Readers

||

GEORGIA
BKT 9298

RtFrnt BKT9298 G 0806:56

Alarm Last events

#9 NON-TOLL MODE(01/09/2012 07:37)

Accept Reject

Info Setup Menu

ELSA North America
A Finmeccanica Company

LPR DB GPS COM

Unique tone alert

Unique text

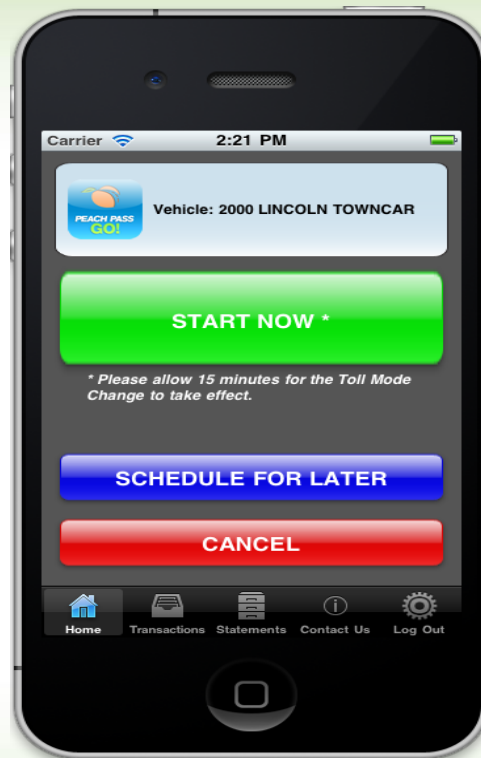
Innovative Mobile App-based Declaration

Toll Mode/HOV Policy:

Registered Toll-paying and Registered non-toll-paying (HOV3+) users both allowed to use lane.

| Mode | Occupants |
|----------|-------------|
| TOLL | Less than 3 |
| NON-TOLL | 3 or more |

- ☐ Change toll modes by phone, online, in person or mobile app
- ☐ ***Changes must be made 15 minutes in advance***
- ☐ Toll mode Duration (4 options)
 - 4 hours
 - Weekdays
 - 1 day
 - Indefinite



Peach Pass GO! 2.0

❑ Relaunch-2.0- Full redesign and interface with Peach Pass Online Customer Service Center

- Change toll mode
- Open and manage account
- Receive notifications and alerts

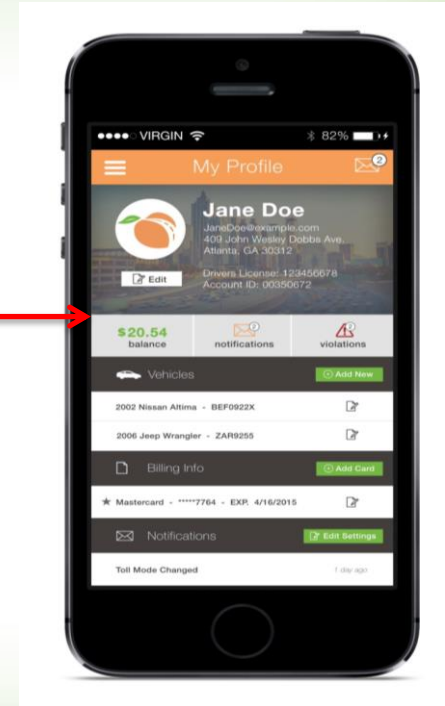
❑ Simple User Interface

- Flat minimal designs
- Familiar interface to other common apps (facebook, twitter, etc)

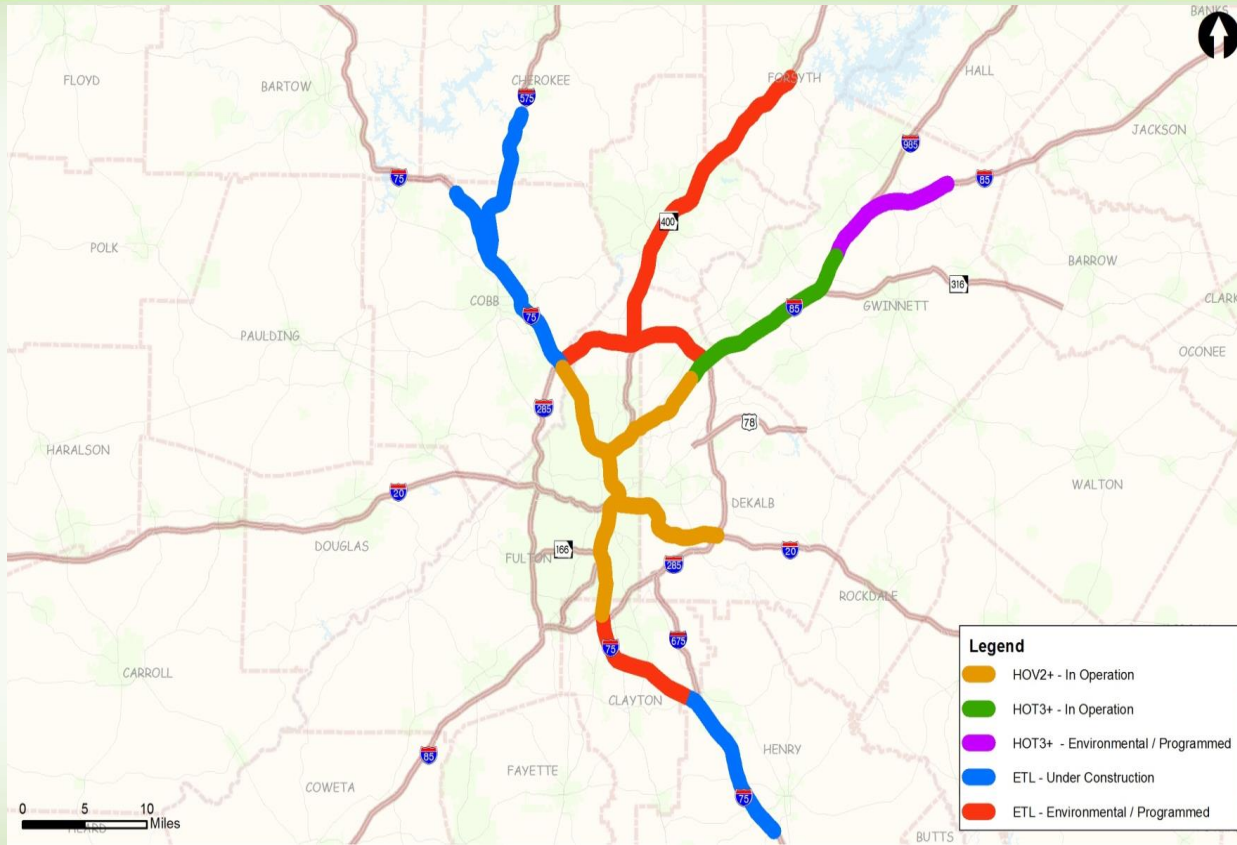
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2.0



Managed Lane Corridors Currently in Operation or Under Development

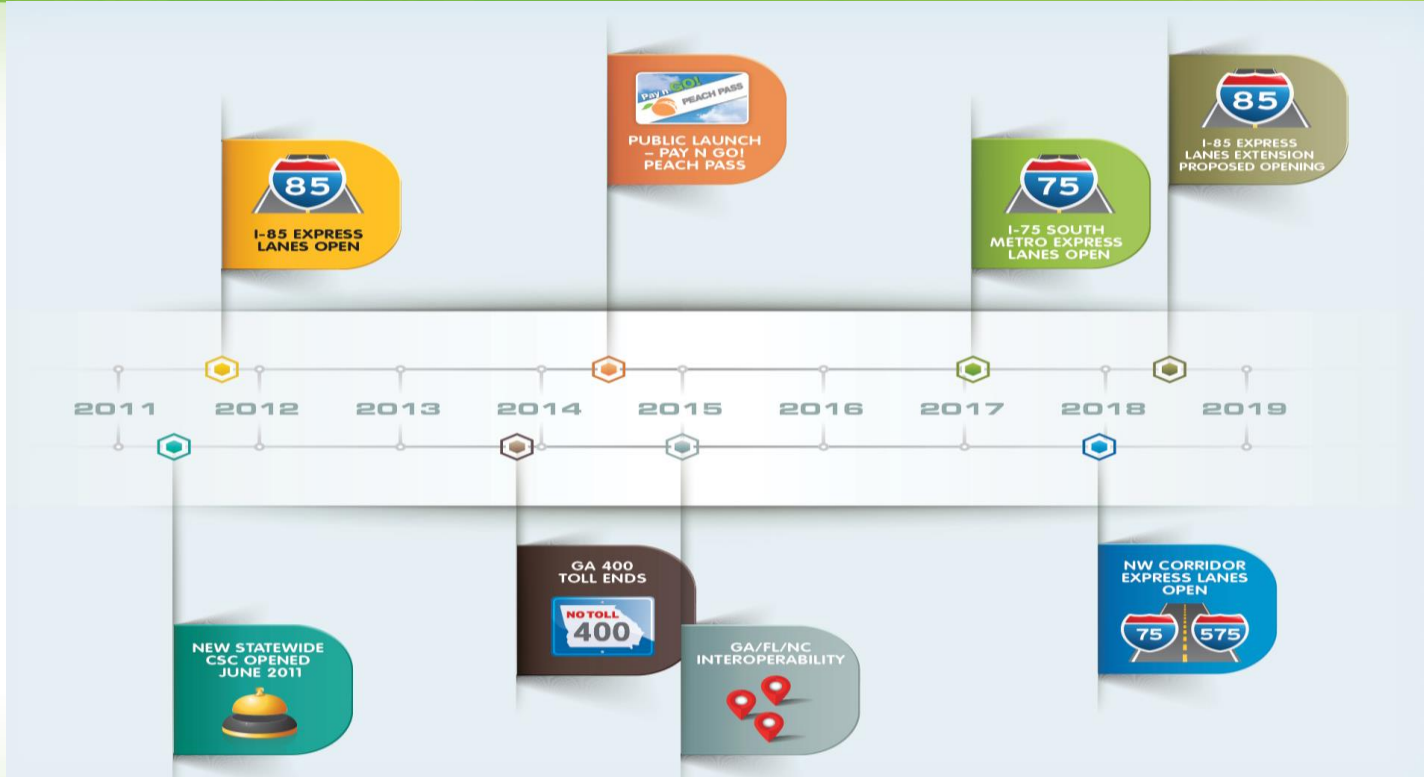


Atlanta Regional **MANAGED LANES** Implementation Plan

Legend

- HOV2+ - In Operation
- HOT3+ - In Operation
- HOT3+ - Environmental / Programmed
- ETL - Under Construction
- ETL - Environmental / Programmed

SRTA At-A-Glance



Thank You!



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