

UC5: “Enforcement”

- *Context of use.* This UC deals with the automatic enforcement on behalf of the Police or the competent authority in case traffic or other type violation (transit against local transportation rules, etc.) is detected, that presupposes the Police involvement in mitigation or at least notification and presence. The system provides an alarm to the enforcement for intervention, taking into consideration the values of key data (vehicle speed, vehicle and driver profile, type and amount of cargo, total weight per axle, etc.), compared to defined thresholds on local, regional (i.e. instantiated per infrastructure) level. The alarm is provided to a local or central checkpoint. *It may be the case that the alarm is provided either by the driver or the infrastructure, depending on the system’s architecture.*
- *Primary actor.* The system/infrastructure (which identifies need for enforcement) and finally the enforcement nodes.
- *Input (trigger).* The system identifies need for enforcement, taking into consideration key info values or critical incident detection.
- *Output.* The system provides alarm to central or local enforcement nodes for intervention, gives all needed info (vehicle and driver ID, vehicle position, type of cargo, etc.) and indicates type of violation or type of incident.
- *Main success scenario(s).*
 - ⇒ **Step 1:** The system identifies need for enforcement and provides relevant alarm to the enforcement nodes (central/local) with all required info.
 - ⇒ **Step 2:** The enforcement actor proceeds with intervention (which may include check of the vehicle, the driver or the cargo, change of route, issue of fine, etc.).
 - ⇒ **Step 3:** *All interested parties (company, gas stations) are notified on changed route plans, if this is the case (UC6) and the system proceeds with re-routing if enforcement actor gives approval (UC3.4).*
- *Connected UCs and extensions.* A potential extension of the UC is the notification of all involved actors of the changed plans on route, if this is the case (UC6 + UC3/4).
- *Indicative scenarios of use.*
 - ⇒ “Exceeding traffic limit of Vehicle X is detected”.
 - ⇒ “Vehicle X¹ is not allowed to pass tunnel Z due to exceeding amount of total load”.
 - ⇒ “Vehicle X has excessive load to an axle after subsequent loadings”.

¹ X refers to the ID of the vehicle and the load.