



# TRACKING SERVICES

## Sector Review

May 2020

**SERVICE DEFINED**

Generally tracking is the observing of persons or objects on the move and supplying a timely ordered sequence of respective location data to a model e.g. capable to serve for depicting the motion on a display capability.

**TYPES OF TRACKING DEVICES**



- PERSONAL TRACKING



- VEHICLE TRACKING



- FLEET TRACKING



- CONTAINER / CARGO TRACKING

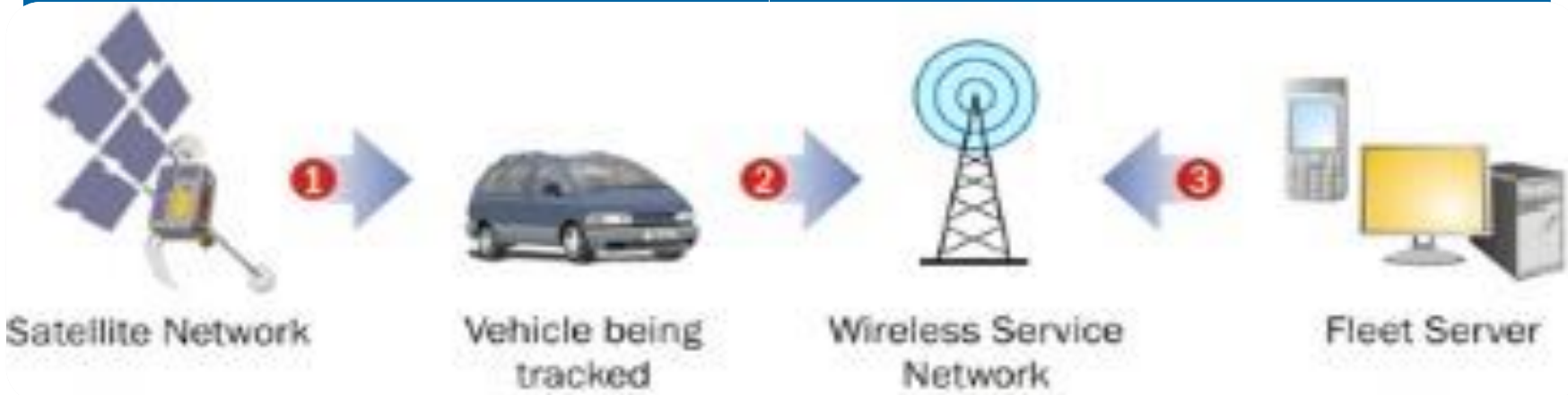
Tracking companies provide total visibility and control of mobile assets, using technology of Global Positions system (GPS), Global System for mobile communication (GSM) and General Packet Radio Service(GPRS).

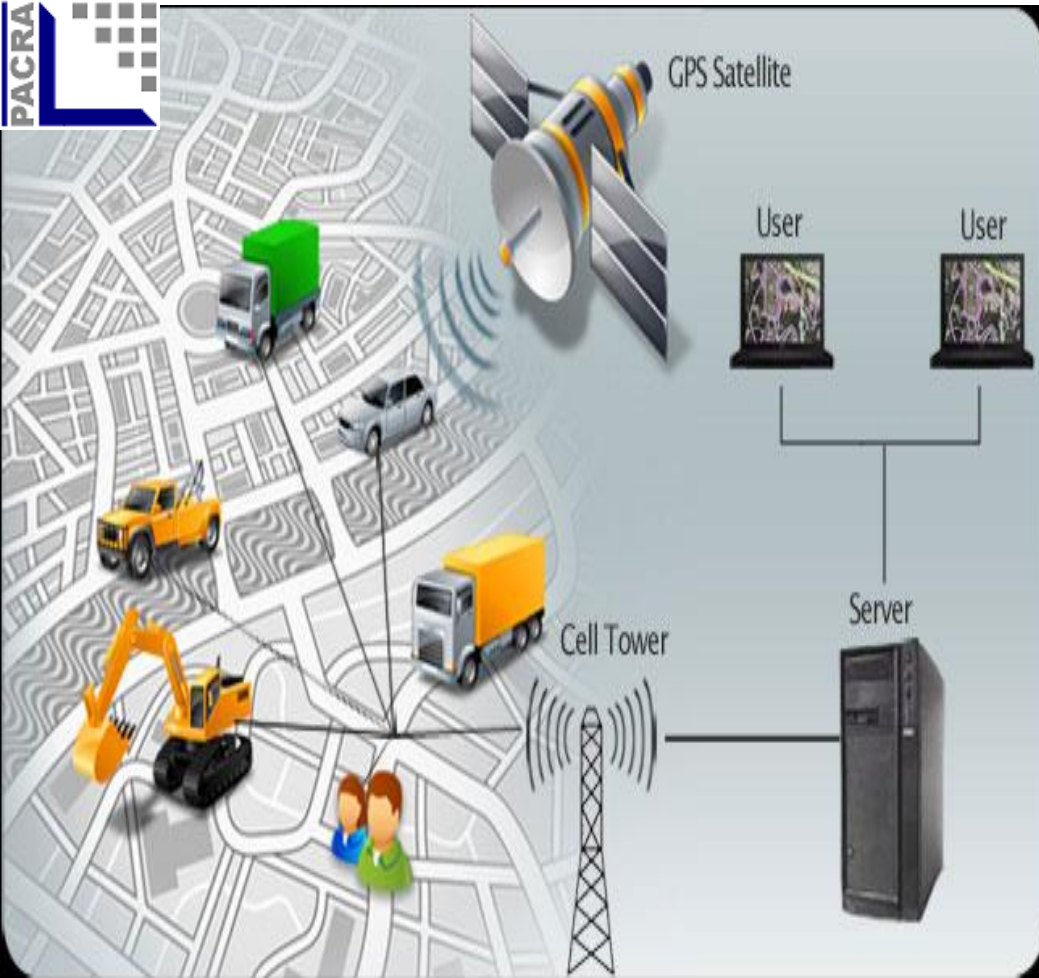
**What is GPS:**  
The Global Positioning System (GPS) is a technical marvel made possible by a group of satellites in Earth's orbit. It transmits precise signals, allowing GPS receivers to calculate and display accurate location, speed, and time information to the user.

**What is GPRS:**  
General Packet Radio Service (GPRS) is a packet-based mobile data service on the global system for mobile communications (GSM) of 3G and 2G cellular communication systems.

# HOW GPS TRACKING DEVICE WORKS

<p>GPS satellite sends location, speed and heading of the vehicle to the controller unit located in the Vehicle</p>	<p>When requested, the controller unit retrieves the GPS data and sends it to the wireless service provider network using the GPS receiver</p>	<p>The Wireless service network forwards the notifications and location data received from the controller unit to the central fleet server using SMS/GPRS or to any mobile phone.</p>	<p>A web based interface allows graphical tracking of your entire fleet as well as receiving notifications via emails or SMS on your mobile devices.</p>
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*Services offered are generally categorized into:*

**1. ASSET TRACKING SOLUTIONS**

- I. Vehicle Tracking solutions
- II. Fleet management Solution
- III. Personal Tracking
- IV. Power Generator Monitoring
- V. Dashboard Monitoring System | M.I.S etc.
- VI. Real Time Tracking
- VII. Engine Kill & Safety Alarms
- VIII. Backup Battery & Anti Jammer
- IX. Anti-Theft Sensor & Crash Detector

**2. CONTAINER TRACKING SOLUTIONS:**

*Cargo tracking requirements of commercial and military transporters; tracking and in transit visibility, protection against intrusion or pilferage, and other services.*

**TYPES OF SERVICES**

### TECHNOLOGY LICENSE

#### License Issued by Pakistan Telecommunication Authority (PTA)

- Class Value Added Services License (CVAS) [broader category], regulated under Class Value Added Services Licensing and Registration Regulations, 2007.
- License Type: Data CVAS –non-voice data communication.
- Services allowed [specific license]: Vehicle Tracking Services(VTS).
- Other data services (non-voice telecommunication), in addition to VTS, can be allowed by PTA under the same license;

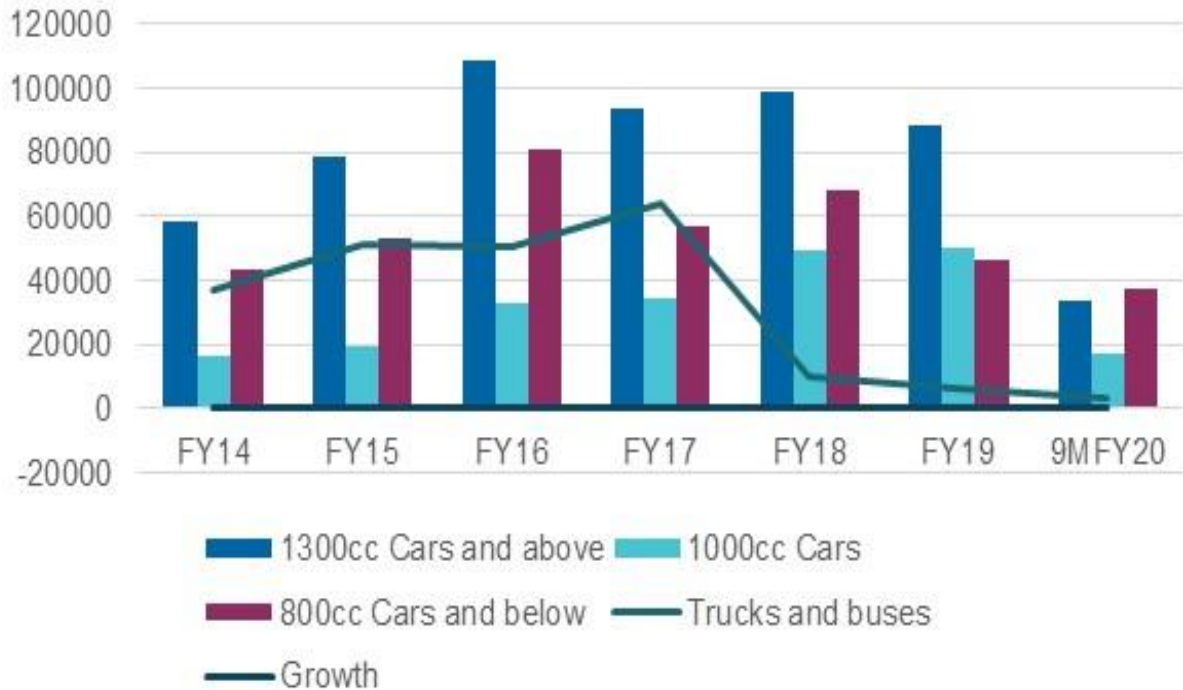
Jan 2020    April 2019

<b>Total CVAS (Data) licensees</b>	<b>601</b>	<b>600</b>
<b>VTS licensees</b>	<b>136</b>	<b>149</b>

- Many Vehicle Tracking Solution - VTS licenses have been obtained by corporates and logistic companies to meet internal requirements and does not offer services for commercial use. The industry is **fragmented**.
- From 2006 till Jan 2020, VTS licenses of 521 companies were terminated on the back of continuous losses and failure to maintain competitive technology infrastructure.



## Automobile Offtake



As evident, automobile offtake has notably reduced in 9MFY20 and is expected to further reduce in 4QFY20 under the prevailing Covid-19 situation. In the long run, the Industry may shift more towards monitoring business and other avenues from vehicle tracking. Tracking business, going forward, is expected to be more dependent on fleet management and container tracking.

Source: <https://www.pama.org.pk/images/stories/pdf/production-sales.pdf>

- Market of tracking service is subjected to technology innovation which is limited in Pakistan.
- The segment has reached its maturity
- Competition lies in cost effectiveness and value added services

## NEW ENTRANTS

- All industry players import tracking devices; vendors provide application and software. Covid-19 impacted import of devices from China to certain extent.
- Supplier power lies in the uniqueness of the service provided

## SUPPLY POWER

# INDUSTRY FORCES

## DEMAND OUTLOOK

- Slowed down growth in Automobile post Covid-19 outbreak.
- Disposal income of masses has been reduced amidst economic meltdown.
- General Law and order situation of the country remains a concern which triggers demand for tracking services
- Government departments requirements are increasing

## SUBSTITUTION

- Different type of new handy gadgets with built in GPS
- Built in MIS dashboards in the automobiles is another alternative

- CPEC related projects provide new avenues for container tracking
- Low penetration in retail market provides huge growth potential
- Amidst competition, large players are diversifying in more innovative solutions

## Opportunities

- **Covid-19 Impact : Economic Slowdown: Substantial impact on the Automobile Sector and delays in CPEC related projects.**
- In-built Automobile technology( GPS & MIS dashboards) to avert theft has improved
- High competition, keeps operating margins thin for Industry players.
- Inclusion of cheaper tracking devices hampers quality services by small players.

## Challenges



- PACRA Desktop & in house research research
- PAMA
- [https://www.pta.gov.pk/assets/media/list\\_cvas\\_lic\\_150120.pdf](https://www.pta.gov.pk/assets/media/list_cvas_lic_150120.pdf)

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