THE 7 KEY CHALLENGES FLEETS FACE AND A SOLUTION TO THEM ALL

KEYSTONE

by irdeto

The Challenge

- Mismanagement of keys
- Difficulty in tracking vehicle usage
- Security concerns
- Accountability
- Fleet optimization
- Maintenance and repairs
- Compliance and regulatory issues

The Solution

- Digital keys eliminate physical keys and key fobs altogether
- Truck hardware and a mobile app with BLE or NFC
- Easy integration with an existing connected vehicle solution
- On-board command controller to validate mobile devices

The Benefits

- Improved security
- Enhanced fleet management
- Reduced costs
- Improved driver experience and safety
- Regulatory compliance
- Automated logging
- Real-time monitoring
- Easy record-keeping
- Compliance reporting

The Challenge

Fleets face a number of challenges in their operations ranging from productivity and security, through compliance and safety to rising costs. Let's have a closer look at them one by one.

1. MISMANAGEMENT OF KEYS

With a large number of drivers and vehicles to manage, there is a risk of keys getting lost or misplaced. This can result in delays in vehicle dispatch and potentially impact delivery schedules.

2. DIFFICULTY IN TRACKING VEHICLE USAGE

Equally important, in a busy trucking environment it's difficult to keep track of which driver is using which key/vehicle and when. This can lead to confusion and inefficiencies in vehicle allocation and dispatch.

3. SECURITY CONCERNS

The security of the vehicles and the cargo they carry is of utmost importance. If keys are lost or stolen, it can lead to unauthorized access to the vehicles and potentially result in theft or damage to the cargo. Furthermore, when fleets utilize the same key methodology to improve their current efficiencies, there are additional security risks.

4. ACCOUNTABILITY

Keys can make it difficult to hold users accountable for their actions, particularly if multiple users have access to the same vehicle. Without a clear record of which Driver ID used a particular key and when, it can be difficult to attribute any issues or incidents to a specific user.

5. FLEET OPTIMIZATION

Keys management can impact the ability to optimize a fleet, particularly if there are inconsistencies in key usage across vehicles. This can make it challenging to identify opportunities for improved vehicle allocation, maintenance scheduling and fuel efficiency.

6. MAINTENANCE AND REPAIRS

If keys are not properly managed, vehicle maintenance and repairs cannot be provided efficiently, which can result in delays and additional costs.

7. COMPLIANCE AND REGULATORY ISSUES

On top of all that, in the US, there are several regulations and guidelines related to key management and digital access in the trucking industry. Failure to comply with those requirements can result in fines and other penalties.

The Federal Motor Carrier Safety Administration (FMCSA) has established regulations that require motor carriers to maintain and inspect commercial motor vehicles, including key fob and ignition systems. These regulations include Part 396 – Inspection, Repair and Maintenance (motor carriers need to ensure that commercial motor vehicles are properly maintained and inspected, including ignition and key fob systems) and Part 395 – Hours of Service of Drivers (motor carriers need to maintain accurate records of driver hours of service, including vehicle usage and inspections).

The Solution

It appears that some of largest challenges in the entire fleet ecosystem are time to road and operational and yard efficiencies. So, the solution is simple: eliminate physical keys and fobs altogether and instead, switch to a digital keyless solution.

Enter the digital key – a purpose-built solution for fleets that enables multiple drivers to share vehicles without the need for physical key handovers. All they need is a piece of specialized hardware in their trucks and a mobile application. The digital key gives fleet managers the highest level of control over when, how and by whom the vehicle can be used.

THIS IS WHAT THE DAILY ROUTINE INVOLVING DIGITAL KEYS LOOKS LIKE:

Driver is notified on smartphone of today's route.

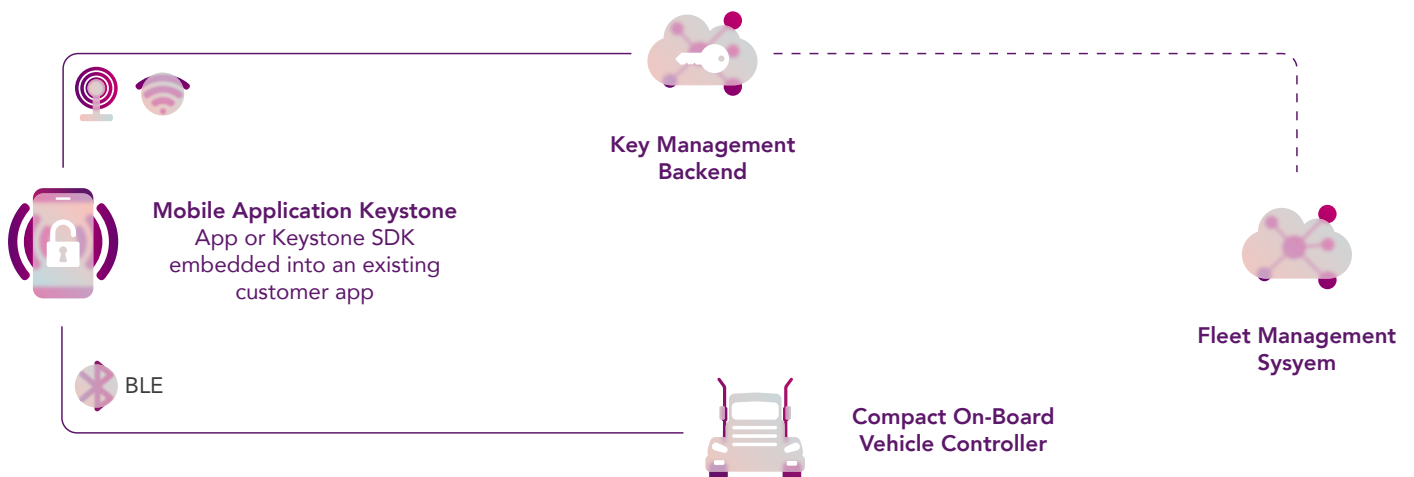"Today's route is 253 miles from St. Louis to Louisville in tractor #455 located in Bay #22".

Driver goes straight to Bay #22, saving a mile of walking and time spent retrieving keys.

As Driver approaches, truck automatically flashes, unlocks, and starts electrical system.

When safely at end of shift, Driver's digital key expires, locks truck, and repeats same process for the next shift's Driver.

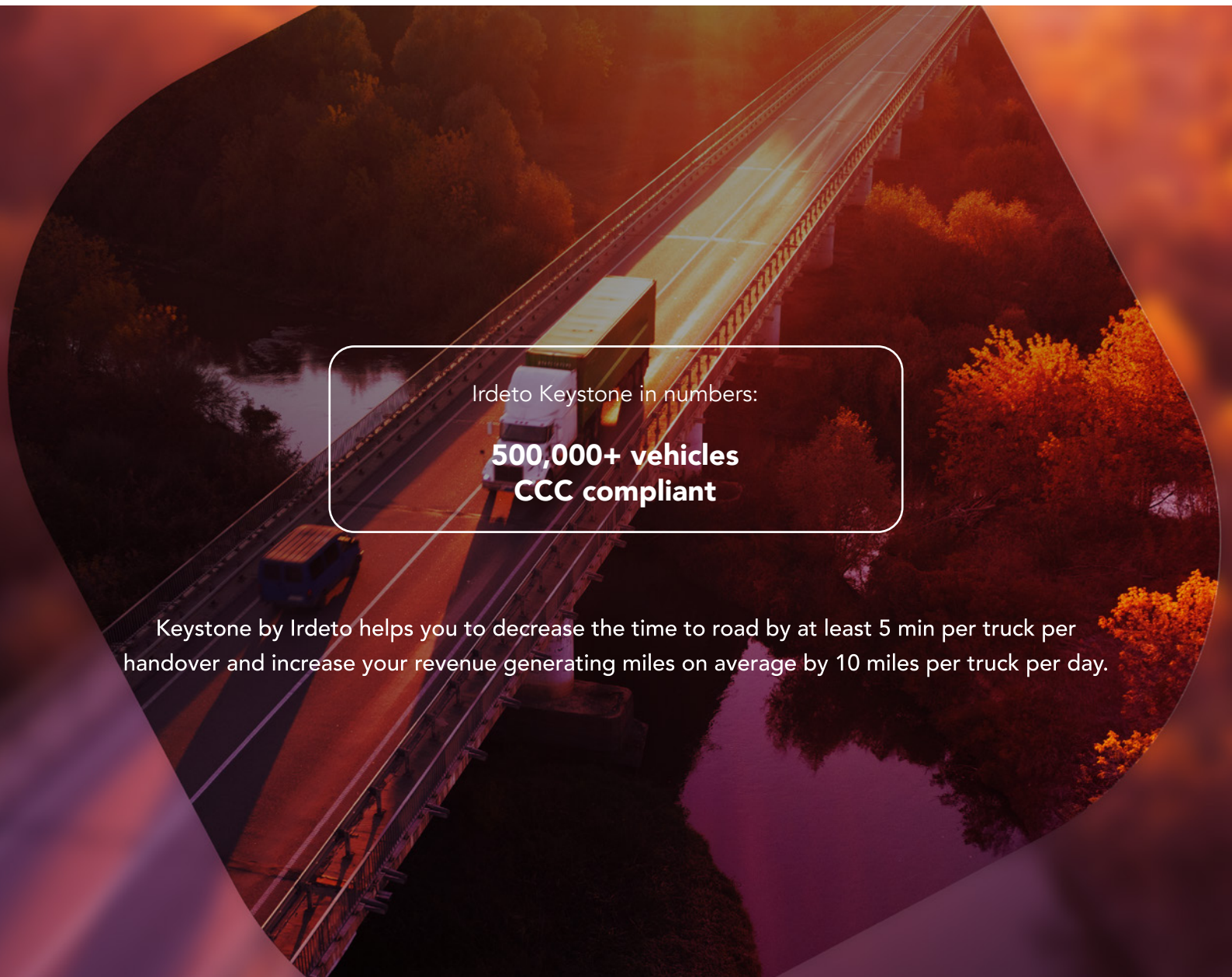## HOW DOES THE DIGITAL KEY WORK?

The below diagram describes what Keystone by Irdeto – the leading digital key system – looks like:

Key Management Backend

Mobile Application Keystone
App or Keystone SDK embedded into an existing customer app

BLE

Compact On-Board Vehicle Controller

Fleet Management Sysyem

The cloud-based Key Management Backend provides a set of application programming interfaces (APIs) for key lifecycle management, policy administration and a notification engine. These can easily be integrated with an existing connected vehicle solution and Fleet Management System (FMS). The On-Board Vehicle Controller receives and validates commands from the mobile device and acts in accordance with the user's digital key and permission.

The Keystone Secure Mobile Engine uses Bluetooth Low Energy (BLE), Near-Field Communication (NFC) or another desired communication technology to issue commands (e.g., open door, authorize engine start) and initialize the vehicle.

Keystone by Irdeto is the digital key solution that allows unique control over who, when and how vehicles in your fleet are accessed and driven.

Irdeto Keystone in numbers:

500,000+ vehicles
CCC compliant

Keystone by Irdeto helps you to decrease the time to road by at least 5 min per truck per handover and increase your revenue generating miles on average by 10 miles per truck per day.

The Benefits

IMPROVED SECURITY

Unlike traditional physical keys or key fobs, digital key access systems allow the restriction of access to specific individuals or times, reducing the risk of unauthorized access to vehicles or theft.

ENHANCED FLEET MANAGEMENT

With digital key access systems, fleet managers can track which vehicles are in use, where they are located and who is operating them, making it easier to optimize vehicle allocation, maintenance scheduling and fuel efficiency. They can easily create assignments for specific people: drivers, mechanics, fuelers, washers and so on.

REDUCED COSTS

Digital key access systems are more cost-effective than traditional keys, particularly if they are integrated with other fleet management technologies. For example, if digital keys are used to track vehicle usage, it may be possible to identify opportunities to reduce fuel consumption and other costs as driver identification is known with the specific assignments created for each driver.

IMPROVED DRIVER EXPERIENCE AND SAFETY

With digital keys, drivers can access and start their vehicles in advance, with a mobile app. This particularly increases their comfort and safety.

REGULATORY COMPLIANCE

Digital key access systems can help to ensure compliance with the requirements, reducing the risk of fines or other penalties. Electronic Driver Logs (EDLs) that are used to track Hours-of-Service (HOS) compliance for commercial drivers can be integrated with digital key access systems to provide a more comprehensive solution for regulatory compliance.

By integrating EDL technology with digital key access systems, fleet managers can ensure that their drivers are operating vehicles in compliance with HOS regulations.

AUTOMATED LOGGING

When a driver utilizes digital key, the start and end time of their trip can be validated against their identity, along with the calculations of HOS and regulatory compliance.

REAL-TIME MONITORING

With digital key access systems and EDL technology, fleet managers can monitor driver activity in real-time. This can help to identify potential HOS violations before they occur, allowing carriers to take corrective action.

EASY RECORD-KEEPING

By integrating digital key access systems and EDL technology, fleet managers can streamline their record-keeping processes. Instead of manually logging hours and vehicle usage, the system can automatically track and record this information, reducing the risk of errors and omissions. Also, documenting any "non-designated miles", such as yard activities that may accumulate vehicle miles not attributed to an actual driver, becomes much easier.

COMPLIANCE REPORTING

Digital key access systems and EDL technology can be used to generate compliance reports, demonstrating that vehicles and drivers are operating in compliance with HOS regulations. These reports can be submitted to regulatory authorities as proof of compliance.

Ready to embrace the future of digital technology?

Choose a scalable and secure access control system for your fleet today.

Contact us for a free consultation

Irdeto is the world leader in digital platform cybersecurity, empowering businesses to innovate for a secure, connected future. Building on over 50 years of expertise in security, Irdeto's services and solutions protect revenue, enable growth and fight cybercrime in video entertainment, video games, and connected industries including transport, health and infrastructure. With teams and offices around the world, Irdeto's greatest asset is its people and diversity is celebrated through an inclusive workplace, where everyone has an equal opportunity to drive innovation and support Irdeto's success. Irdeto is dedicated to being the security partner to empower a secure world where people can connect with confidence.