DELL Technologies

Dell Technologies
Urban Mobility Customer Ready Solutions

Dell Technologies Urban Mobility Customer Ready Solutions are highly scalable pre-validated ISV partner solutions designed on purpose-built Dell Technologies Infrastructure Solutions. They are purpose-built to deliver cost effective paths to transition to modern situational awareness, effective traffic management and law enforcement including a wide range of use cases.

Building for humanity's Urban Future

Cities have always been at the forefront of innovation and human progress. Today, two powerful forces are propelling humanity to the next chapter in our urban story.

On one hand, city populations are rising both in absolute terms and as a proportion of global population. UN figures predict that by 2050 some 6.7 billion people – 68% of humanity – will live in cities.

Today's preparation for this growth will define how tomorrow's cities meet its challenge. From health, transport and housing to education, security, waste management, culture and tourism, every facet of urban life will have to operate at greater scale than ever before.

The role of Digital Cities

Maintaining and improving citizens' quality of life in the megacities of tomorrow needs a fresh approach. At Dell Technologies, we're pioneering solutions to empower cities to thrive in the next phase of their evolution.

Our vision is of Digital Cities – built on foundations of robust technology and flexible IT infrastructures – that provide essential services from a common platform. From open-source software and standardised hardware economies to frictionless scalability, predictive and preventative data services and cutting-edge security, we offer the tools to start building your city of tomorrow.

Urban Mobility Challenges

Big cities with large population growth generate increasingly complex issues in the fields of transportation and mobility. Additionally, with new modes of urban mobility new complex issues on how to manage these are surfacing. The increase in the number of vehicles on the road is leading to traffic congestions, shortage of parking spaces, and pollution impacting the quality of life and productivity of citizens. Though city governments are investing on improving infrastructure and public transport systems, they are finding it hard to keep up with the growing demand. With the adoption of simulation tools, intelligent traffic management systems, automated violation detection systems, automated traffic data collection and integration of these systems, city officials can tackle transportation issues.

Dell Technologies Customer Ready Solutions for Urban Mobility

Dell Technologies Urban Mobility Customer Ready Solutions give civic government, business and public institutions clear, cost effective pre-validated paths to transition to modern infrastructure for implementing solutions to solve urban mobility issues.

The Dell Technologies Customer Ready Solution for Urban Mobility can help cities realize a range of outcomes like the following

- Pre-integrated, pre-tested, lab validated solutions for use with your own data and your choice of devices and sensors, software (e.g. analytics) and services

- Built around a modular approach that addresses situation al awareness's unique requirements in compute, storage, analysis, and command and control
- Solutions that are ready to deploy and manage quickly, delivering advanced civic safety capabilities efficiently, predictably and to clearly defined budgets
- Proven use cases around Traffic Management, Law enforcement and unique solutions built based on video analytics to ease urban mobility issues
- A flexible and open architecture that's massively scalable and ready to adapt to changing demands

Built by the sector's #1 global infrastructure provider[1]. Urban Mobility Customer Ready Solutions offer:

Road Safety and Enforcement

To monitor and detect violations at traffic intersections and highways and automatically capturing the Image of vehicle that violates the rules. Captured video and image will be stored as evidence for future prosecution purpose. Combined with the Automated Number Plate Recognition (ANPR) feature, this can be used to automatically identify the violators and generate penalties as per local regulations, thus reducing such violations and easing the traffic flow. The following violations can be detected :

- Red Light Violation Detection
- Speed Violation Detection
- Wrong-way Violation

Urban Mobility Outcomes

Road Traffic Monitoring

Detect the queue of vehicles at the intersection and identify additional details to categorize the traffic. This information can be integrated with Adaptive Traffic Light Systems. This will allow for intelligent control of traffic light by the Adaptive Traffic Light Systems based on the queue of the vehicles at the intersection. The following additional information can also be gathered to gain more insights:

- Vehicle Count & Type Identification 2 wheelers, 4 wheelers (Cars Trucks, Vans)
- Unauthorized stopping
- Tracking Vehicle Of Interest

Dell Technologies Advantage

Dell Technologies is a unique family of businesses that provides the essential infrastructure for organizations to build their digital future, transform IT and protect their most important asset: information.

With Dell Technologies, customers can have a one-point-of-contact for lab validated components, domain expertise and integration capabilities instead of having to work with multiple vendors to achieve the end to end goals.

Dell Technologies also has a wide infrastructure portfolio and extensive experience with processing video workloads for urban mobility and analytics use cases and can help deliver end to end validated solutions.

Dell EMC PowerEdge Servers: Industry's leading Compute platform

Dell EMC Storage Portfolio: Industry's leading Storage platform

Conclusion

Dell Technologies Urban Mobility Customer Ready Solutions are enabled by Dell Technologies Infrastructure for Compute, Storage and Networking resources. These hyper-converged solutions are purpose-built for demanding, multi-sense situational awareness, such as video, sound, and barometric pressure. The IoT solutions include both hardware and software.

Our pre-integrated solutions deliver a consistent foundation from edge to distributed core to the cloud, in an open, flexible architecture.

By pre-integrating, testing and validating solutions in our labs using customer data, we help reduce deployment risk, increase system reliability, reduce support costs and gain a proven, repeatable architecture.

Our Customer Ready Solution architectures also provide a flexible, scalable infrastructure on which to build future smart cities initiatives. At a time of rapid urban growth, this facilitates faster technology uptake and maximizes return on civic resources.