

## Vortex platform is being used by Mentis Services as the real-time data sharing foundation for the City of Nice's Connected Boulevard project

### EXECUTIVE SUMMARY

The Vortex Intelligent Data Sharing Platform is a fundamental part of the City Operating System developed by Mentis Services and has already helped to enable the rollout of a range of E-services for the city including:

- Smart parking guidance
- Public /alternate transport information
- Information about city services

In the future additional E-services to improve city management and the everyday lives of the residents of the City of Nice will be deployed. These new services will include smart street lighting and smart waste management.

*"The Vortex real-time data sharing layer fits perfectly well with the Mentis vision: a global answer to the multi-faceted challenges of the management of urban space,"*

- Jean-Louis Fiorucci, President, Mentis Services

### THE CHALLENGE

In 2008 the City of Nice made a commitment to become a model Eco City and put in place a plan for renovation by launching the Connected Boulevard Project. One of the key areas of focus was to develop green transportation and reduce the negative consequences of urban activity on the citizens of the city.

### THE SOLUTION

As part of the City of Nice's Intelligent Mobility strategy, Mentis Services were contracted to develop an implementation of The City Operating System, an ecosystem that aims to improve the efficiency of city services. These new Smart systems add value to citizens by providing real-

time information on traffic, transportation, wastage, air/water quality etc. countering the problems faced by cities due to rising population and urbanization.



*The City of Nice and the Connected Boulevard Project*

## RESULTS

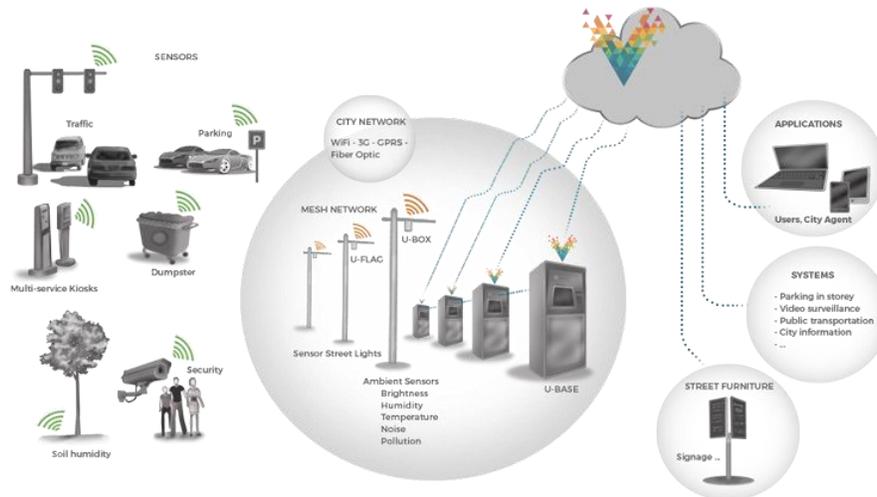
Already the City of Nice and its residents are seeing real benefits from improved city mobility. By having real-time access to car park space availability data via mobile devices, drivers are taking much less time to park and parking income from reduced fraud is up by 35%. This in turn is helping improve traffic flow and has reduced congestion by 30%. Air pollution and noise levels have been reduced by 25%. In the future better city management will see savings of

between 20-80% in areas such as street lighting and waste management while improving overall environmental quality.

## HOW VORTEX HELPED

PrismTech's Vortex OpenSplice was selected to provide the information backbone for this Connected Boulevard project and to help realize the goals of Intelligent Mobility and Environmental Quality in the City of Nice. The initial phase of the project involved the development of a Smart Parking system to allow drivers to make informed decisions on their movement by combining traffic information and parking availability (on street and garage), as well as alternative transportation (public transportation, bicycle sharing and electric car services). Smart Parking increases parking efficiency, safety, and reduces pollution.

Vortex has been deployed throughout the city and has shown its ability to scale extremely well ensuring that critical information is shared reliably and in real-time between different services, information systems and applications. Vortex enables sharing of real-time information about parking availability and traffic density. It enables wireless sensors deployed throughout the city to inform commuters in real-time about the availability of a parking space and is also used to re-route traffic alleviating congestion, while facilitating the availability of this information to the public via mobile devices (e.g. smart phones).



In 2012 the City of Nice started the deployment of the system. Initially a test zone was setup containing 1000 sensors and 80 next generation multi service kiosks. The plan is to eventually deploy over 10,000 wireless sensors and 800 kiosks. The kiosks are connected to the information system via the Vortex enabled “City Message Bus” which is running IP over the power network.

## THE FUTURE OF SMART CITIES

PrismTech’s Vortex Platform is being used successfully by Mentis Services as the real-time data sharing foundation for the City of Nice’s new Connected Boulevard project. The City Of Nice is at the forefront of the next generation of Smart Cities leveraging the Internet of Things. Vortex is a fundamental part of the City Operating System developed by Mentis Services. Vortex supports a range of new Smart systems that add value to citizens by providing real-time information on traffic, transportation, wastage, air/water quality etc. countering the problems faced by cities due to rising population and urbanization. The City of Nice and its citizens are already seeing real benefits from the new systems with parking income up by 35%, traffic congestion reduced by 30% with much better traffic flow and improved air quality in the city. Is expected that even greater savings will be realized in the future when new Smart Lighting and Smart Waste Management systems are deployed.

## ABOUT MENTIS SERVICES

Mentis Services is international software engineering company with offices in France and Belgium. The company was founded on a belief in the extraordinary potential of valuable urban data, gathered through the Internet of Things to create value for cities. This pioneering approach for rendering data intelligence from the Internet of Things (IoT) is helping to make smart city applications, such as smart mobility, a reality. The company’s value-add is founded on three key principles:

- Holistic context-specific use cases adapted to the user(s) or city

## The Industrial Internet in Action

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- Accurate and purposeful information through real-time data-processing rigor, integrity, and anonymity
- Collaborative agile partnerships for the best expertise and solution synergy in urban space and service optimization

Mentis Services' collaborative ecosystem of solutions combine IoT technologies, consulting and engineering expertise with urban space management to deliver integral smart urban solutions.

## ABOUT PRISMTECH

PrismTech's customers deliver systems for the Internet of Things, the Industrial Internet and advanced wireless communications. PrismTech supplies the software platforms, tools and professional services they need to build solutions with the required platform coverage, performance, scalability, efficiency, flexibility and robustness. PrismTech's customers service many market sectors, including: industry, energy, healthcare, transportation, finance, aerospace and defense.

## ABOUT THE INDUSTRIAL INTERNET CONSORTIUM

PrismTech has been a member of the Industrial Internet Consortium (IIC) since March 2014. The Industrial Internet Consortium is a global public-private organization of over 140 members, formed to accelerate the development, adoption and wide-spread use of interconnected machines and devices, intelligent analytics, and people at work. Founded by AT&T, Cisco, General Electric, IBM and Intel in March 2014, the Industrial Internet Consortium catalyzes and coordinates the priorities and enabling technologies of the Industrial Internet. Visit [www.iiconsortium.org](http://www.iiconsortium.org).

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