## SIEMENS

Background information

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# SmartGuard - the largest cloud-based traffic computer in the world

Despite tight budgets, many municipalities are facing the challenge of having to invest in traffic control systems. With the Siemens Sitraffic smartGuard solution, smaller cities and municipalities can build virtual, web-based traffic control systems without having to invest in costly hardware. The equipment is fully operated by Siemens in Munich, and the municipality is only charged for the services it uses. More than 5,000 light signal systems in 18 countries are currently connected to Sitraffic smartGuard.

#### Traffic control via the cloud

Cities can now not only use a traffic computer but also the cloud to manage their traffic. This is made possible by a new controller and traffic computer called the "smartGuard." The new controller can be housed in the gray roadside cabinets that control traffic lights at intersections. Authorized users can connect to the new smartGuard traffic computer via a private cloud, i.e. a secured IT environment, and access the new controller from there just as easily as if they were standing in front of the cabinet itself.

#### The big picture is just a click away

The smartGuard eliminates the need for a costly traffic control center because the software provides all the basic functionality required to monitor and control small town traffic and to safeguard operations. This requires system access to the Siemens Private Cloud as well as an HTML5.0-capable browser on a PC, tablet or smart phone. City officials use their mobile terminals for virtual access to a centralized traffic control system. In a matter of seconds, they can access and control their connected traffic light systems, detectors and parking spaces from anywhere in the world - for example, if they need to enter special traffic light settings. The availability, reliability, and safety of the Sitraffic smartGuard have all been certified by the TÜV Süd German Technical Inspectorate. In the event of a malfunction, the "Service Alarm" function sends an error message to the local service technician who can then log in with a tablet via the private cloud access to start troubleshooting. Likewise, the technician can access the traffic controller via the internet and check which spare part is needed and how urgently the replacement needs to be carried out. Since the traffic computer resides in the cloud and the new controllers connected to it can be fully operated and serviced from a remote location, this solution is also attractive for countries where Siemens has no local service team and therefore cannot provide first level support. This is exactly the

kind of support that the RCM Service Support Center and its experts can provide from Munich to remotely ensure safe and trouble-free operation.

### SmartGuard - the largest cloud-based traffic computer in the world

More than 5,000 traffic signal installations, 12,000 detectors, 250 parking garages, and 50 buses in 18 countries are already connected to smartGuard. That makes the Siemens web-based traffic control center the largest traffic computer in the world. Communities that choose the system reap huge benefits.

• They can monitor and control their traffic systems with any mobile, internet-capable device

(smartphone, tablet, notebook).

- Users do not need any of their own traffic computer hardware.
- They always have the latest software without any effort on their part and they do not have to worry about anything else.