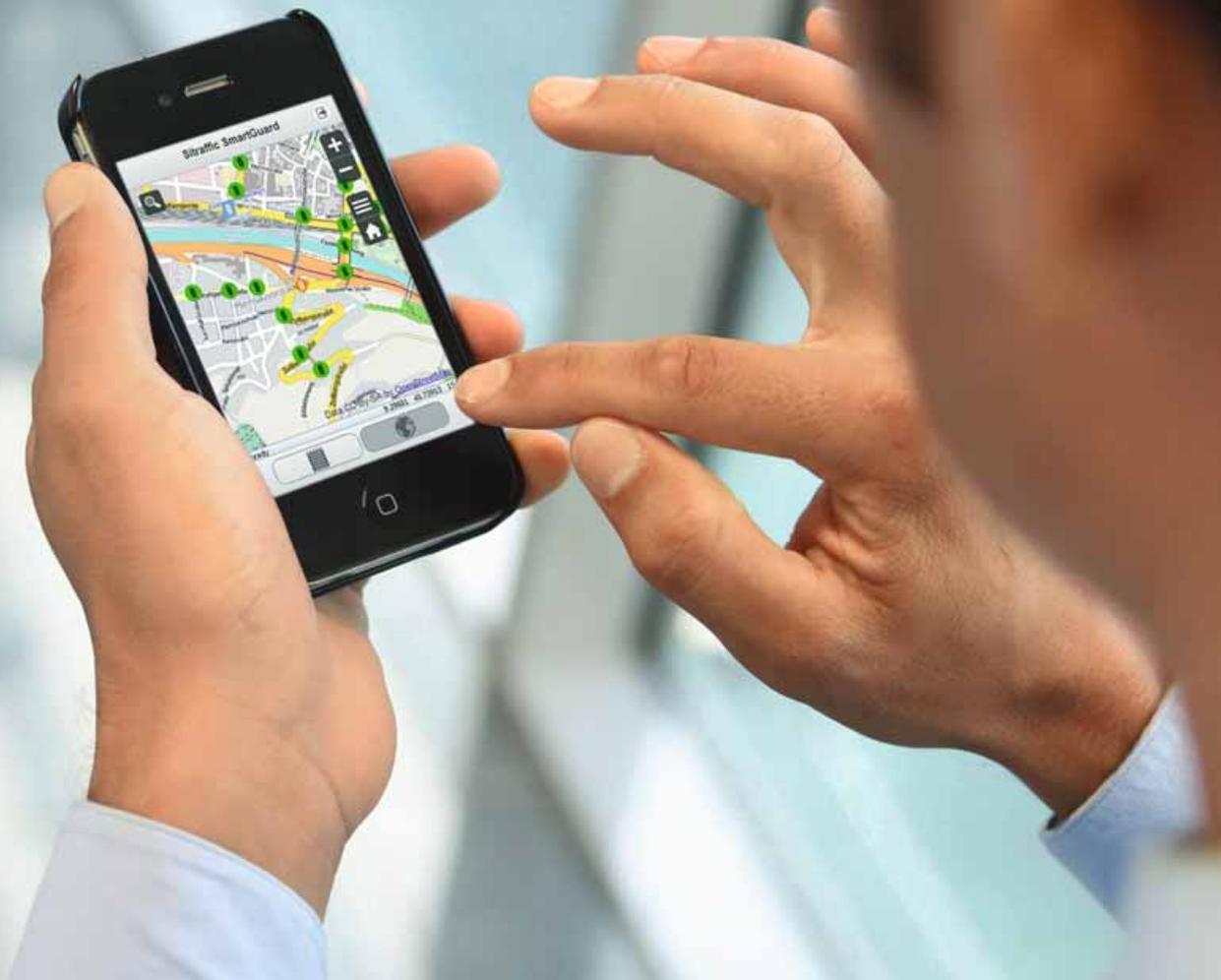


**SIEMENS**



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## Sitraffic smartGuard

The web-based mobile traffic control center

“ All our emergency service dispatchers appreciate Sitraffic smartGuard. It is definitely a helpful tool. The program operates reliably and requires minimal operator training. ”

Olaf Hary,  
Police Headquarters Karlsruhe,  
Germany



### Sitraffic smartGuard – perfect for two different scenarios

#### 1 Sitraffic smartGuard as a 'virtual' basic traffic control center for small towns.

We call it 'virtual' because it's Siemens Munich who operates the control center hardware – the customer pays only for the use of the system. And 'basic' because it covers only the key functions of a traffic control center. So the customer can rent traffic control center functionality without having to invest in hard- or software.

#### 2 Sitraffic smartGuard as a valuable add-on module for existing traffic control centers such as Sitraffic Concert or Sitraffic Scala.

With Sitraffic smartGuard, the user can access data and functions not only on the classical user interfaces at the control center, but also via mobile terminals. This makes it possible, for instance, to provide the police with direct access to on-street traffic control equipment and turns Sitraffic smartGuard into an ideal complement of existing traffic control centers that communicate via open interfaces.



# Is there an easy way to use mobile devices for controlling and monitoring traffic infrastructure? Yes, there is: Sitraffic smartGuard!

Would you like to see at first glance if there are any malfunctioning traffic lights or detectors, if tailbacks are forming, or if a parking facility is approaching its capacity limit? Using any HTML 5.0-capable smartphone, tablet or notebook? Whatever the operating system – Google’s Android, Apple’s iOS or Microsoft’s WindowsPhone? With Sitraffic® smartGuard this will become an ordinary and very convenient part of your daily work – even if your municipality does not have a traffic control center of its own.

## **Renting performance instead of buying hardware – the intelligent choice**

Sitraffic smartGuard offers traffic control center functionality under an operator contract. So you can always use the latest traffic control software without having to buy it. Because the traffic control center, including all hard- and software, is located at the premises of Siemens Munich, and owned and operated by Siemens. Siemens as the system operator takes care of the entire maintenance as well as of all updates and upgrades to the latest technical advances. And you as the customer simply rent the key functions of a modern traffic control center without troubling yourself with maintenance and upgrades. No need to buy computer hard- and software, hire IT staff, rent special premises or install safety and security systems.

Positive side effect of the rental concept: Sitraffic smartGuard connects considerably faster to the traffic control center than conventional solutions – simply open the browser, log in and start the desired functions.

## **Two-level security architecture for safe monitoring and intervention**

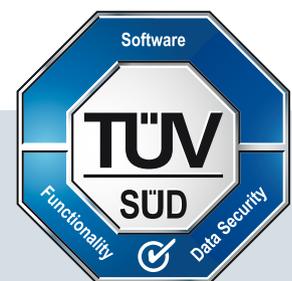
For full access to the monitoring functions, only a user name and a password are needed. But active interventions such as changes in traffic light switching plans, require an additional PIN as a second protection level, just like with many telebanking applications.

## **Open interfaces for connection with existing controllers and control centers**

As Sitraffic smartGuard is equipped open interfaces such as Canto, OCIT-O, OCIT-C, OCPI2 for connection with today’s commonly available controllers and control centers, it can also be used with third-party traffic control components and systems.

## **Pilot projects in seven countries have proven Sitraffic smartGuard to work perfectly!**

Sitraffic smartGuard has already passed the test of numerous real-life deployments. As shown in pilot projects in Germany, Austria, Poland, Hungary, Norway, Greece and Finland, this innovative, web-based traffic control tool is the ideal solution for towns and cities to implement an intelligent traffic control system and enable reliable incident intervention – even in the face of today’s rather limited municipal budgets. In Germany, there are pilot projects in Düsseldorf, Esslingen and Karlsruhe. Currently more than 1,500 traffic light installations are connected to Sitraffic smartGuard.

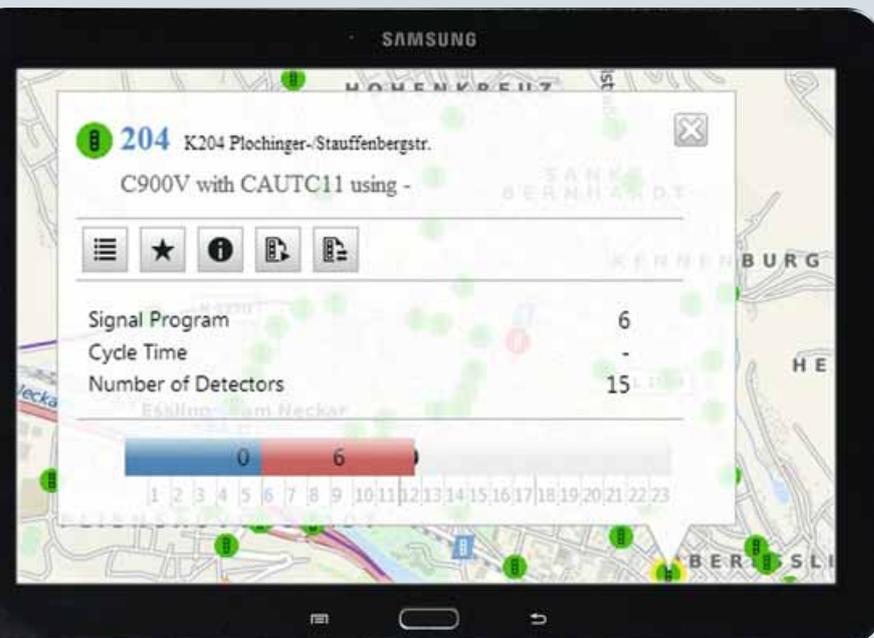


Sitraffic smartGuard has been certified by TÜV Süd for availability, reliability, and security. The security features include a two-level security architecture and high security standards for server operation and data transfer, especially between server and field devices.

# Clearly structured, easy to use – everything you need to control the traffic in your city

The graphical user interface designed for Sitraffic smartGuard is setting new standards in traffic control technology. The display shows only those functions that are supported by Sitraffic smartGuard – for an uncluttered user interface and easy operation. Even persons who have not yet worked with a traffic computer will quickly and intuitively learn how to handle the system, without formal training. Anybody who knows how to use a smartphone and smartphone apps, knows how to work with Sitraffic smartGuard!

**The map display – one-click overview**  
OpenStreetMap is the smart way to a complete overview of your entire system. The map contains integrated 'bubbles' with key information on the different objects such as traffic lights, detectors or parking facilities. Swiping the mouse cursor or your finger tip across such a bubble will display a tool-tip and a window with the related details. You can zoom in or out with the pinch gesture, move between map sections with a swipe and use object search and filter functions. From the map you can also directly access other functions, whenever a traffic light signal plan must be modified or a traffic light needs to be turned off. It is just as easy to access the archive, where all traffic light signal plan changes and detector data from past months are stored.



1 The map display

“The graphical user interface is well designed and clearly structured. The stylish graphical symbols allow easy access to the detail data of an intersection. An excellent product!”

Johannes Wetzinger,  
City Administration of Innsbruck,  
Austria

2 The list display



3 The dashboard

2

**The list display – flexible sorting and grouping functions**

Those preferring to work with lists will chose the list format to display the key data on the objects included in the traffic control system. Very convenient in this respect are the flexible sorting and grouping functions: Objects can be sorted on device type, control level or even name and number. A simple click on a particular traffic light system will open a details window with all relevant data. And if detectors are assigned to the system in question, the related information can be accessed directly from here as well.

**The dashboard – staying informed by the watchlist**

The dashboard provides you with a one-look overview of the system’s current status: Red is the color used for alarms, yellow for warning messages, and the cause of the alarm or warning can be directly queried. Objects that you want to monitor even more closely can be included in the integrated watchlist, which makes it easy to keep track of any changes of individual objects over an extended period of time. The dashboard also permits the display of all status changes, including time stamp, of any traffic infrastructure object – individually or in hourly, daily or weekly summaries.

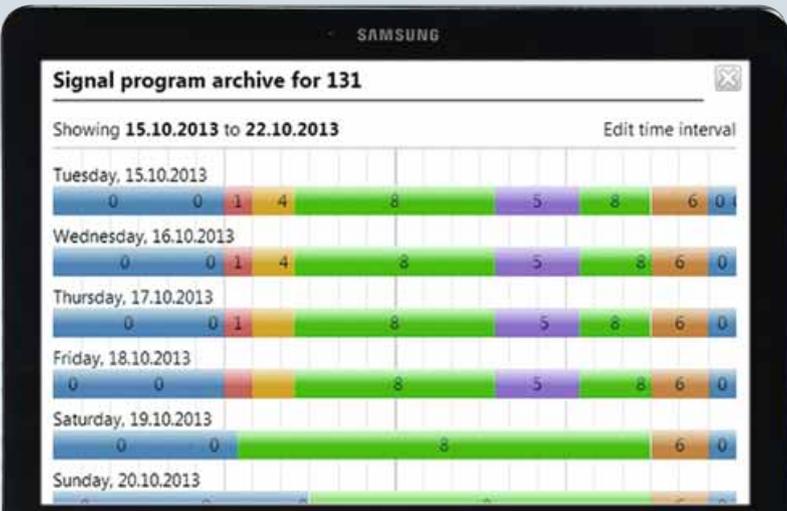
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**The signal plan archive – easy-to-read operational data history**

Sittraffic smartGuard also offers user-friendly visualization functions for operational data. You can display the signal plans defined for specific periods, or retrieve historical data on traffic volumes or speeds recorded by individual detectors or measuring points.

4

4 The signal plan archive



# Sitraffic smartGuard – an ideal match for the new Sitraffic sX controller!

## Sitraffic sX fully configured with Plug&Play

One of the 'core competencies' of Sitraffic smartGuard is to provide mobile terminals with access to traffic infrastructure components via the internet. The combination of Sitraffic smartGuard with the new Sitraffic sX traffic controller ideally plays to this strength because Sitraffic smartGuard provides the user with full access to the controller. Sitraffic sX offers Plug&Play functionality for automated data synchronization with Sitraffic smartGuard. When new traffic lights are installed, these are immediately integrated in the system and displayed on the map. Like Sitraffic smartGuard, Sitraffic sX is web-based and its unique operations and diagnosis concept offers access via web browser from mobile terminals. So wherever you are, you can immediately detect and track any malfunction – and even modify green phases and signal plans. The identical interface layout ensures instant familiarity with the user interface.

## Sitraffic smartGuard – valuable additional functions

On top of the four basic functions, Sitraffic smartGuard offers additional features that make it even easier to monitor traffic infrastructure components and ensure their reliable operation.

- **Maintenance alert:** Status and operational messages of the connected systems can be forwarded per email or SMS to the responsible service technician – for quick and targeted repair.
- **Annual scheduler:** This time-dependent control plan defines the switching schedule for every single day of the year. The schedule to use on a specific day of the week is specified in the calendar.
- **Strategy management:** This function allows the user to set special control strategies, including threshold values and time-based conditions, for individual systems and processes. The strategy module then automatically assigns the optimum signal plan to recurrent traffic situations such as 'high inbound traffic volumes' or 'pre-event traffic to sports arena'. With Sitraffic smartGuard, these strategies can be monitored and manually activated.
- **Visualization:** The signal plan shows the status information of signal groups and detectors.
- **Statistics:** Pre-defined statistical analyses can be activated via Sitraffic smartGuard.
- **Site plans:** The user can upload detailed intersection maps in PDF format.
- **User administration:** Authorized users can enter user-specific information or change data, for instance their password. For security reasons, entering and changing sensitive information such as user names and telephone numbers is only possible via the service.
- **Object location:** It is possible to locate traffic infrastructure objects on the map.



**Fast and easy repair procedure – a practical example**

The service technician receives a malfunction message, for instance via the 'maintenance alert' function. On his tablet, he opens the smartGuard traffic center platform on the internet and enters the log-in data. On the map he

can spot the failed red light at first glance. Also he uses direct internet access to the Sitraffic sX controller to find out how urgent the repair actually is and if it requires an aerial platform. Then the repair work can be carried out without delay or organizational detours.



The new Sitraffic sX controller can be monitored and controlled via PC, smart-phone or tablet, including full remote maintenance functionality and convenient remote data upload. Following automated configuration (Plug&Play), the controller is directly included in the maps and lists of the Sitraffic smartGuard user interface.

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The information in this document contains general descriptions of technical options, which may not be present in every individual case. The desired performance characteristics are therefore to be specified on a case-by-case basis when the contract is agreed.

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