Yutraffic smartGuard

The web-based mobile traffic control center

YUNEX TRAFFIC

You can use Yutraffic smartGuard to ...

... control traffic lights (on, off, switching)

... monitor traffic infrastructure such as:
- traffic signal installations
- detectors and measurement points
- route sections
- parking facilities
- detector systems (TEU)
- automatic number plate recognition (ANPR) cameras
- mobile objects as well as registration points for satellite-based prioritization systems (Yutraffic Stream)

... connect
all devices and systems featuring one of the following interfaces:
- Yutraffic Canto
- OCIT
- XKOM
- NCOM

The Plug&Play functionality makes connection to Yutraffic sX traffic controllers fast and easy.

Yutraffic smartGuard is the world's biggest traffic computer. But without the hardware needs.

More than 7,500 traffic signal systems (TSS), 11,000 detectors, 100 parking facilities and 167 municipalities with TSS in 18 countries are already linked up to Yutraffic® smartGuard. This makes the web-based traffic control center from Yunex Traffic the world's biggest traffic computer and offers huge advantages to all municipalities which have decided to use this innovative Yunex system.

- Yutraffic smartGuard allows them to use any web-enabled mobile device (smartphone, tablet PC, notebook) to monitor and control their traffic equipment.
- They do not need to buy and maintain any traffic computer hardware of their own.
- They can always use the latest software versions without any need for software administration or updates.

Yutraffic smartGuard has been equipped with three very useful new functions:
"Visu SZP" for the second-by-second visualization of signal timing plans, "Yutraffic Statistics" for highly convenient statistical analyses, and "Yutraffic Stream" for monitoring a satellite-based prioritization solution.

Yutraffic smartGuard is the ideal system in two different setups:
1. As a virtual basic traffic control center for small towns
We call it "virtual" because the control center hardware is leased and the customer pays only for the service. And "basic" because it covers simply the key functions of a traffic control center.

2. As a perfect addition to traffic control centers such as Yutraffic Concert and Yutraffic Scala
With Yutraffic smartGuard, the user can access data and functions not only via the classic 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.

"All our dispatchers appreciate Yutraffic smartGuard as a definitely helpful tool. The program operates reliably and requires minimal operator training."

Olaf Hary,
Police Headquarters in Karlsruhe, Germany

Is there an easy way to control and monitor traffic infrastructure via mobile devices? Yes, there is: Yutraffic smartGuard!

Would you like to see at first glance if there are any malfunctioning traffic lights or detectors, if there is any risk of congestion, or if a parking facility is approaching its capacity limit? And when on standby duty, wouldn't it be great if you could stay at home and still easily modify the signal timing plan of an intersection as soon as a major event is over, so that visitors can leave the parking facility quickly? With Yutraffic smartGuard, these convenient options become a routine part of your daily work – even if your municipality does not operate a traffic control center of its own.

Renting performance instead of buying hardware – the smart choice

Yutraffic 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 since the fully equipped traffic control center is operated by Yunex. Yunex also takes care of all maintenance work as well all updates to the latest software versions and upgrades to state-of-the-art technology. You as the customer can simply rent the key functions of a modern traffic control center and pay only for their use, without troubling yourself with maintenance and updates. No need to buy computer hardware and software, hire IT staff, rent special premises or install safety and security systems.

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

Two-tier security architecture for 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 to traffic signal system timing plans, require an additional PIN as a second protection level, just like with many tele-banking applications.

Yutraffic smartGuard – successful applications across the world!

Yutraffic smartGuard has passed the test of numerous reallife deployments. Municipalities in 18 countries are already benefitting from this innovative technology: Angola, Austria, Colombia, Czech Republic, Finland, Georgia, Germany, Greece, Hungary, India, Italy, Norway, Poland, Portugal, Slovakia, Switzerland, Turkey, USA.

"The graphical user interface is well designed and clearly structured. The stylish graphical symbols allow easy access to the detailed data of each intersection. An excellent product!"

Johannes Wetzinger, municipality of Innsbruck, Austria

Clearly structured, easy to use – and offering everything you need to control and monitor the traffic in your area

The graphical user interface of Yutraffic smartGuard is setting new standards in traffic control technology. The display shows only those functions that are supported by Yutraffic 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 Yutraffic smartGuard!

The map display – your one-click overview

OpenStreetMap is the smart way to obtain 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 typical for smartphone or tablet use, 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 needs to be modified or a traffic light must be switched off. And it is just as easy to access the archive, where all traffic light signal plan changes and detector data from past months are stored.

The list format – sorting and grouping objects according to your criteria

Those preferring to work with lists will choose the list format to display the key data of the objects that are part of 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 by a particular traffic light system will open a window with all the relevant data in detail. And if detectors are assigned to the installation in question, the related information can be accessed directly from here as well.

The dashboard – easy monitoring with 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 quickly 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 to 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 objects – individually or in hourly, daily or weekly summaries.

Map display

List format

Dashboard

Signal plan archive

The signal plan archive – all operational data in clear view

Yutraffic smartGuard also offers user-friendly visualization functions for operational data. You can access the signal plan switching routines for certain periods of time, or display past error messages and status changes. This means that you will have an automatically generated operating log for each traffic signal installation.

Yutraffic Stream – monitoring satellite-based prioritization systems

Yutraffic smartGuard now also offers access to Yutraffic Stream, Yunex´s satellite-based prioritization system for buses and emergency vehicles. This means that the registration points and the current locations of buses and emergency vehicles can be displayed on the map and in list format.

VISU SZP – second-by-second visualization of signal groups and detectors

The "signal timing plan visualization" (VISU SZP) function provides a clear overview of the status of signal groups and detectors installed at the individual intersections. You can access historic data (90-days archive) and current data (delay of max. 3 minutes, depending on the interface type used).

Yutraffic Statistics – wide range of analysis options

Peak hours, traffic density and congestion, annual summaries – the Yutraffic Statistics app turns your Yutraffic smartGuard device into a powerful analysis tool. The measured values from the system are aggregated and processed accordingly and displayed in diagram or tabular form. You can export the statistical data in PDF or CSV format and import it into Microsoft Excel for further customized analyses. The following statistics can be displayed:

• peak hours
• percentage of truck traffic
• minute-by-minute profiles
• annual summaries of daily traffic volumes
• quality assessment

Valuable additional functions

On top of the basic functions, Yutraffic 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 e-mail or text message to the responsible service technician – for quick and efficient troubleshooting and repair.

Automatic annual switching routine

This time-dependent control plan defines the switching events 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

The strategy management function allows the user to define specific control strategies, including threshold values and time-based conditions, for individual systems and processes. Then the strategy module automatically assigns the optimum signal timing plan to recurrent traffic situations such as "high inbound traffic volumes" or "pre-event traffic to sports arena". With Yutraffic smartGuard, these strategies can be monitored and manually activated.

Layout plans

The user can upload detailed traffic signal system layout plans in PDF format.

User administration

Authorized users can enter user-specific information and modify 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 position traffic infrastructure objects on the map.
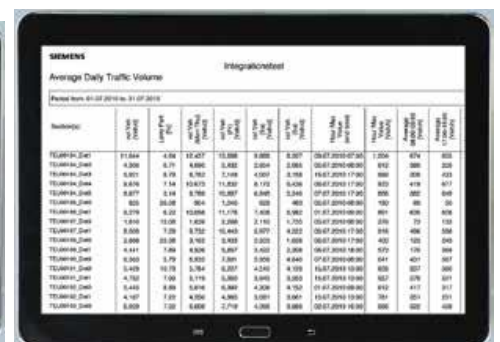
Yutraffic smartGuard offers you optimized access from smartphones and tablet PCs using iOS or Android, as well as Firefox and Chrome.

Yutraffic Stream

VISU SZP

Yutraffic Statistics

Yutraffic smartGuard | Yunex Traffic | 2023

Yutraffic smartGuard – the most important display options

1. **Map display:** your one-click overview
2. **List display function:** sorting and grouping of objects according to your criteria
3. **Dashboard*:** easy monitoring with the watchlist
4. **Signal plan archive:** all operational data in clear view
5. **Yutraffic Stream*:** monitoring of satellite-based prioritization systems
6. **VISU SZP*:** second-by-second visualization of signal groups and detectors
7. **Yutraffic Statistics*:** wide range of analysis options

* Not suitable for the small display sizes of smartphones or iPhones.

High IT Security

As a supplier of traffic technology, Yunex Traffic is certified to the international information security management standard ISO/IEC 27001. All Yutraffic products, systems and services are developed, integrated and operated in this certified environment.

As a result, potential IT threats are systematically identified, analyzed and monitored and the right IT security technologies and processes are implemented to effectively and efficiently minimize the risks. One of our key objectives is the continuous improvement of IT security.

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Yutraffic Stream gives priority to buses and fire engines – Yutraffic smartGuard keeps you updated!

The satellite-based prioritization system Yutraffic Stream makes bus or emergency routes safer for all road users, allowing buses and emergency vehicles to travel much faster without blocking cross traffic longer than absolutely necessary. The Yutraffic Stream option for Yutraffic smartGuard allows you to use your mobile device for watching the system in action and monitoring the current position of all vehicles, the location of the registration points, which points have just been passed, and much more.

The new Yutraffic sX controller can be monitored and operated via PC, smartphone 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 Yutraffic smartGuard user interface.

Yutraffic smartGuard is the tool that will truly simplify your daily work!

Plug&Play connection to Yutraffic sX traffic controllers – all data immediately available

One of the "core competences" of Yutraffic smartGuard is to provide mobile terminals with access to traffic infrastructure components via the Internet. The combination with the new Yutraffic sX traffic controller ideally plays to this strength because Yutraffic smartGuard provides the user with full access to the controller. Yutraffic sX offers Plug&Play functionality for automated data synchronization with Yutraffic smartGuard. When new traffic lights are installed, these are immediately integrated into the system and displayed on the map.

Like Yutraffic smartGuard, Yutraffic sX is web-based and its unique operator control and diagnostics 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 graphical layout ensures instant familiarity with the user interface.

Systematic troubleshooting – mobile access to equipment data enables optimum preparation

When a service technician receives a malfunction message, for instance via the "maintenance alert" function, he uses his tablet PC to log in to the Yutraffic smartGuard traffic control center platform on the Internet. On the map, he can spot the failed red light at first glance. Then he can access the Yutraffic sX controller via Yutraffic smartGuard to find out how urgent the repair actually is and if it requires an aerial platform. Thanks to this advance information, the repair work can be carried out without delay and systematically.

Stay at home while on standby duty – interventions can be initiated from anywhere

Major events often require one or several traffic engineers to be on standby duty. With Yutraffic smartGuard, however, nobody needs to spend their evenings or weekends in front of a monitor in the traffic control center or the town hall. The engineers on duty can monitor the traffic situation around the event venue from the place of their choice and, if needed, modify the traffic light switching routines so as to enable a smooth and fast trip home for the visitors after the event.

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