

Hotsec introduction

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Introduction

Development of Hotsec software started in 2004. The main reason for starting a new integration platform for security and building management software was that there were no flexible systems on the market. Usually our customers have various needs of software level system integration and big companies want to sell their products as it is. You can order some changes from them but it will take much time and money if you want to order some customer specific changes from a big manufacturer.

Estonia has strong IT starting platform. Estonian programmers have made big software solutions like Skype and Estonian e-Government.

Our decision was to use good and reliable hardware and make our own software platform for that hardware.

First steps started with access control from **Soyal**, which is good hardware for big and medium size buildings.

Very soon we faced the problem that most of the customers have very many small sites (like substations, pumping stations, telecom stations etc.) which are needed to manage centrally.

In 2009 we integrated EVO series alarm panels from **Paradox** into Hotsec software. It turned out to be a great success.

It is useful to have central user management, visualization and control for small panes which can be connected via IP network into one management system to have complete solution.

At the moment there is more than 700 sites connected using Hotsec system here in Estonia and the number is increasing.

Currently there are Hotsec installations in Finland, Latvia, Lithuania, Ukraine and Russia.

Hotsec software is available in variable languages including English, Latvian, Finnish, Swedish, Russian and Estonian. There is language file available to be translated.

Main functionality in keywords

- Client-Server architecture
- TCP/IP based communication between software and hardware
- SSL based secure connection between client and server
- Firebird SQL based open platform database
- Modular design and licensing
- Centralized event management
- Centralized user management
- Centralized alarm management with alarm acknowledgement
- Centralized visualization of sites and/or alarm locations
- Vector graphics support of the drawings (CAD support)
- Easy remote control of objects on drawings (arming, disarming, open door, switch relay etc.)
- Built in reporter to filter out event log or even print photo-ID badge
- E-mail trigger allows sending e-mails in case of any predefined event appearance in the log.
- Web browser integration onto plans and connect web pages to an alarm (any predefined webpage can pop up in case of alarm)

Hotsec modules

Hotsec system consist of several different modules which are connected together to form one central system. The main idea is that cost and complexity of the system depends how many and what kind of modules will be in use. It makes the system affordable from small households to big and multi-site systems.

Hotsec Core

Core is the main module of Hotsec. It implements the client-server structure of Hotsec. Core has all the main functionality of Hotsec system which can be used with different hardware modules. It means that no matter what kind of Hotsec modules are in use, the main functionality and handling of Hotsec remains the same.

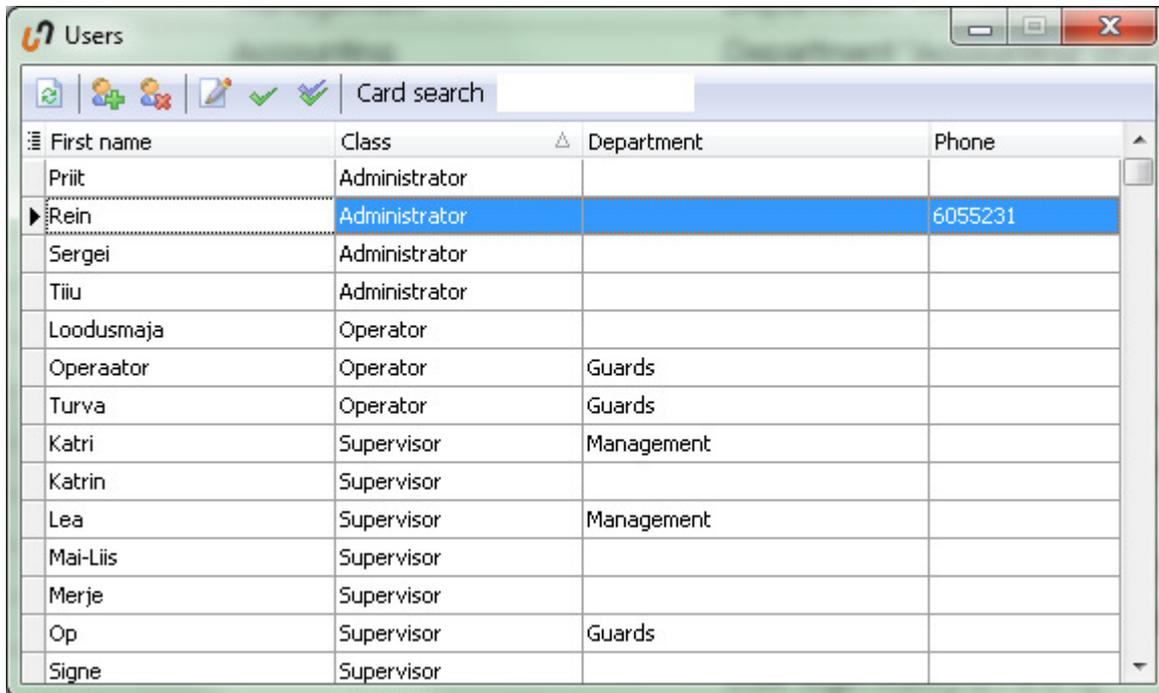
For example the plans and webpage pop-up is implemented in Hotsec core.



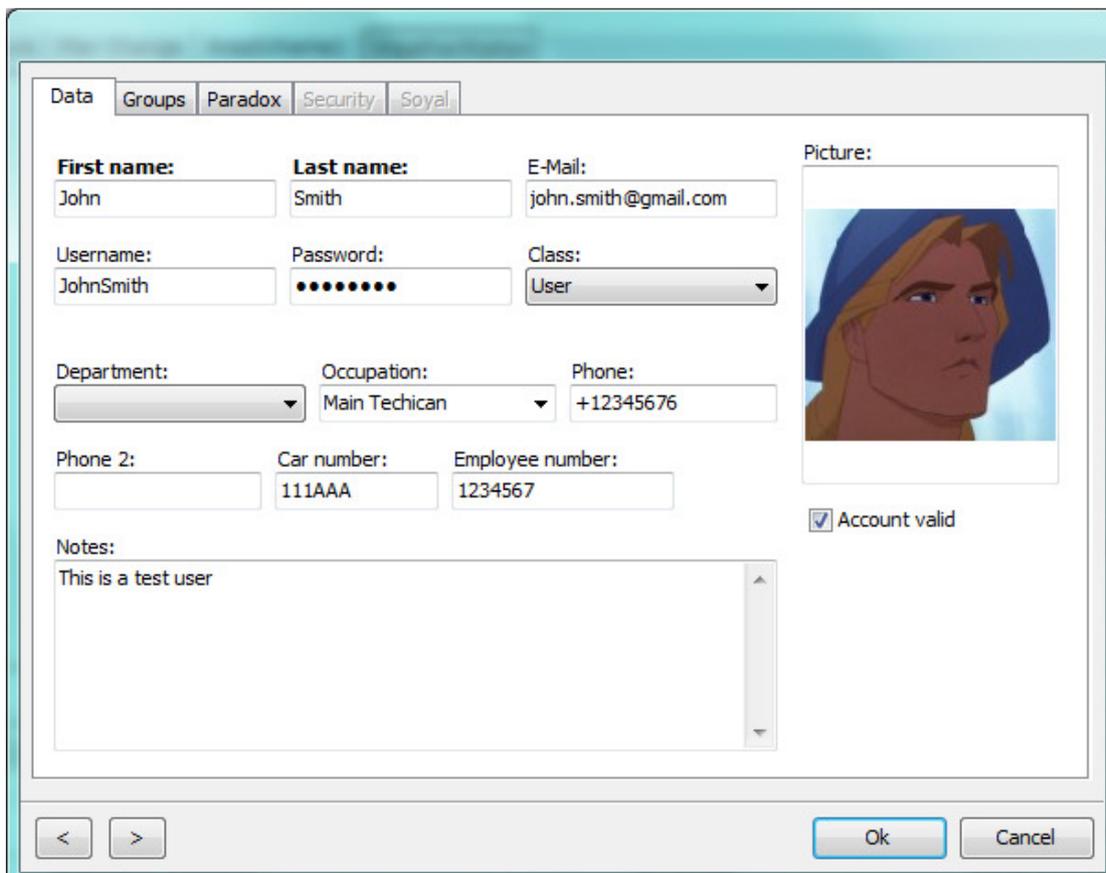
The Web pop-up feature of Hotsec provides many different possibilities. You can link any webpage to the specific alarm or event. In case of that event the predefined page will open. It is useful for displaying an image from an IP camera, instructions to the operator etc. Whatever information can be displayed on webpages - it is up to imagination how to use it with Hotsec.

User management

Hotsec Core provides complete user management tool for all different hardware modules connected to the system. The same user can grant access through doors, arm/disarm areas, access to the software in various rights, etc.



First name	Class	Department	Phone
Priit	Administrator		
Rein	Administrator		6055231
Sergei	Administrator		
Tiiu	Administrator		
Loodusmaja	Operator		
Operaator	Operator	Guards	
Turva	Operator	Guards	
Katri	Supervisor	Management	
Katrin	Supervisor		
Lea	Supervisor	Management	
Mai-Liis	Supervisor		
Merje	Supervisor		
Op	Supervisor	Guards	
Signe	Supervisor		



Data | Groups | Paradox | Security | Soyal

First name: John **Last name:** Smith **E-Mail:** john.smith@gmail.com

Username: JohnSmith **Password:** ●●●●●● **Class:** User

Department: [Dropdown] **Occupation:** Main Techican **Phone:** +12345676

Phone 2: [Empty] **Car number:** 111AAA **Employee number:** 1234567

Notes:
 This is a test user

Account valid



All the hardware integrated with Hotsec is specifically chosen to have local user memory (local user's database). The reason is that it makes the system much more reliable and the hardware works independently even in case of network failure. Hotsec uses special method to download users from its database to the hardware. Even if the hardware is temporary offline, all the user changes are loaded when the hardware is back online. It is possible to write users and their credentials directly to Hotsec database using 3rd party software. It gives perfect possibility to have various integrations with other databases (personnel, student and etc. systems)

Hotsec Paradox module

Intro

Classically in multi-site installation all the small security panels are working stand-alone. It means that even if they are connected to security center there is no central management. You can connect to each panel via modem, IP or locally using laptop and a cable. This is done each panel separately. It causes the situation that user PIN or card management is very complicated for the security managers and usually many users are using the same PIN code.

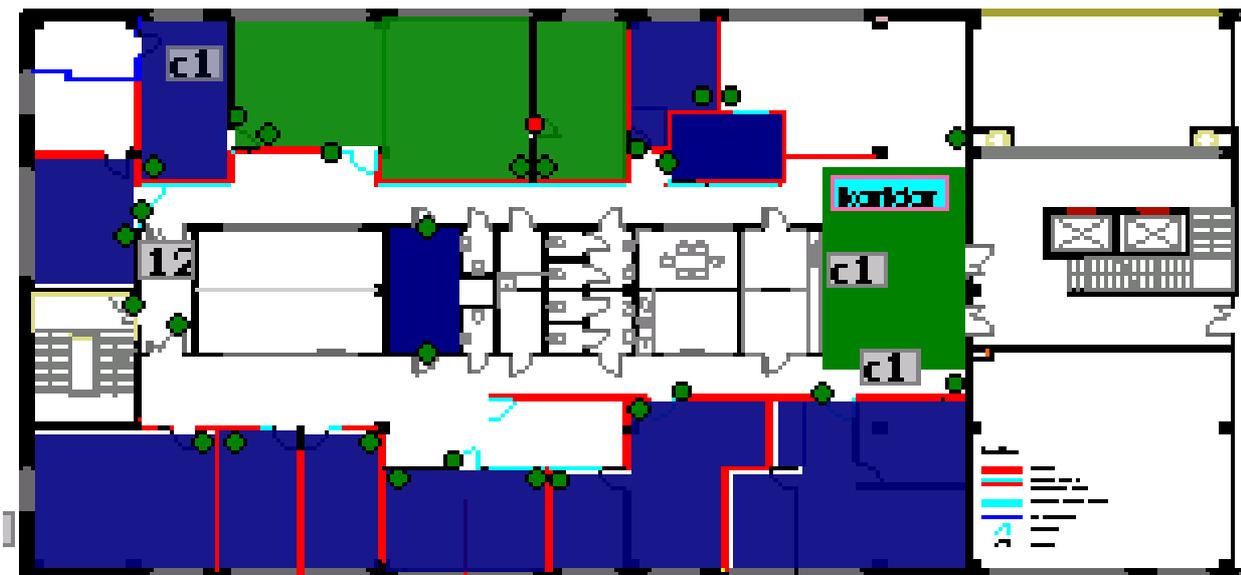
With Hotsec it is possible with just couple of simple clicks disable a user in all panels, change users PIN code or card number.

Hotsec Paradox module provides connection between [Paradox](#) EVO panels and Hotsec server.

Hotsec displays all the events in real-time from Paradox panels. The events (alarms, arm-disarm of a partition) are visualized on graphic plans of the site.

Hotsec will write user information (access level, schedule, PIN, card number, remote control serial etc.) into Paradox panel.

In case of a communication failure the Paradox panel will work independently. When the connection is restored Hotsec will read out all the events from Paradox event buffer.



Hotsec Soyol module

We are the software developers and do not want to make our own hardware. Our goal is to look good and reliable hardware and integrate it with our software. That is the main reason why we are using Soyol for our access control module.

The module provides connection between [Soyol](#) access control equipment and Hotsec server.

Hotsec provides possibility to connect unlimited number of Soyol doors over TCP/IP into one management software. Doors can be in a same building or worldwide locations connected together over the Internet.

In Hotsec it is possible to handle user rights and get all the events from Soyol controllers.

User rights management for Soyol doors is made very easy for the end-user. No specific knowledge needed for the user rights assignment – just assign pre-defined groups to the users.

Door group formation is also very easy – just drag necessary doors into group.

Like with core module Soyol access control doors can be visualized on the graphical building plans. It is also possible to control (open, close, lock) the doors directly on the building plans.

For clear overview of system status the door states (offline, open by schedule, closed, open, alarm, locked) are represented with easy to understand icons.



Soyol together with Hotsec provides access control system

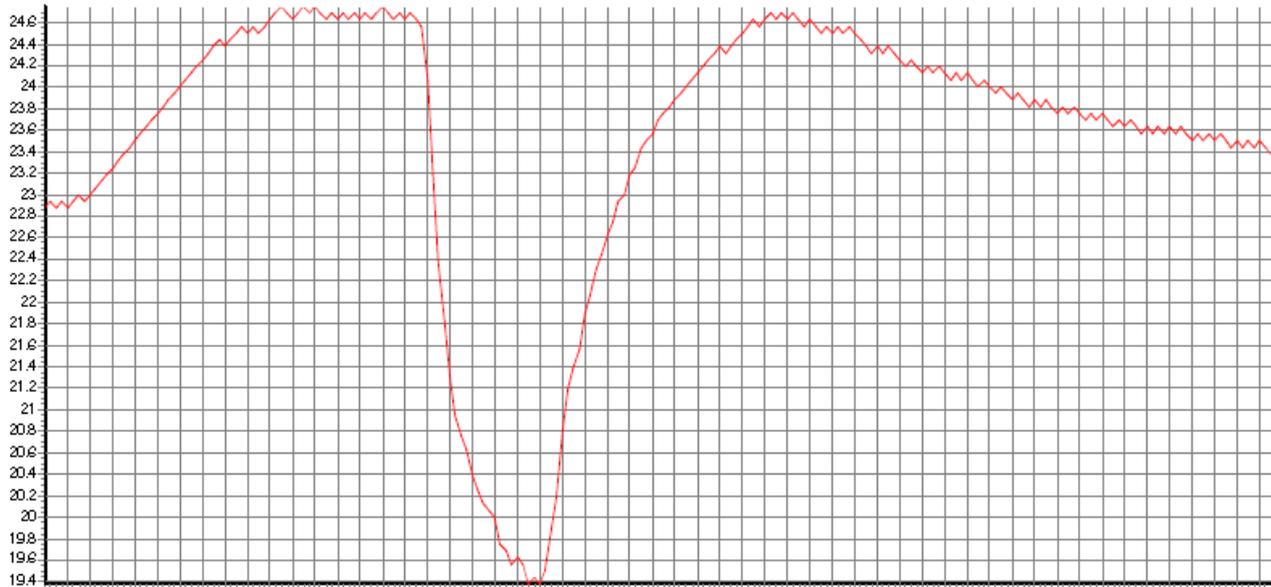
- reliable client-server architecture of the system
- up to 15000 users per TCP/IP channel, unlimited number of users within the Hotsec
- various access levels with different time schedules for each door
- quick response time when presenting the card to the reader
- elevator (locker etc.) control levels where one reader can control multiple outputs
- various integration possibilities with other systems based on the Hotsec SQL database

Our latest development is the implementation of Desfire standard using Soyol hardware and Hotsec software. It is possible to load Desfire keys to the Soyol readers directly from Hotsec software. Desfire has a very strong 3DES security which makes card copying impossible without knowing the right keys.

It is also possible to use NFC SIM cards based on Desfire or Mifare standard with Soyol hardware and Hotsec software. Now it is possible to use your smartphone as a access card to open doors.

Hotsec 1-wire module

The module is reading information from 1-wire devices by [Maxim](#). It gives possibility to use various type of analogue value detectors (temperature, humidity, counters, level meters etc.) to be monitored using Hotsec.



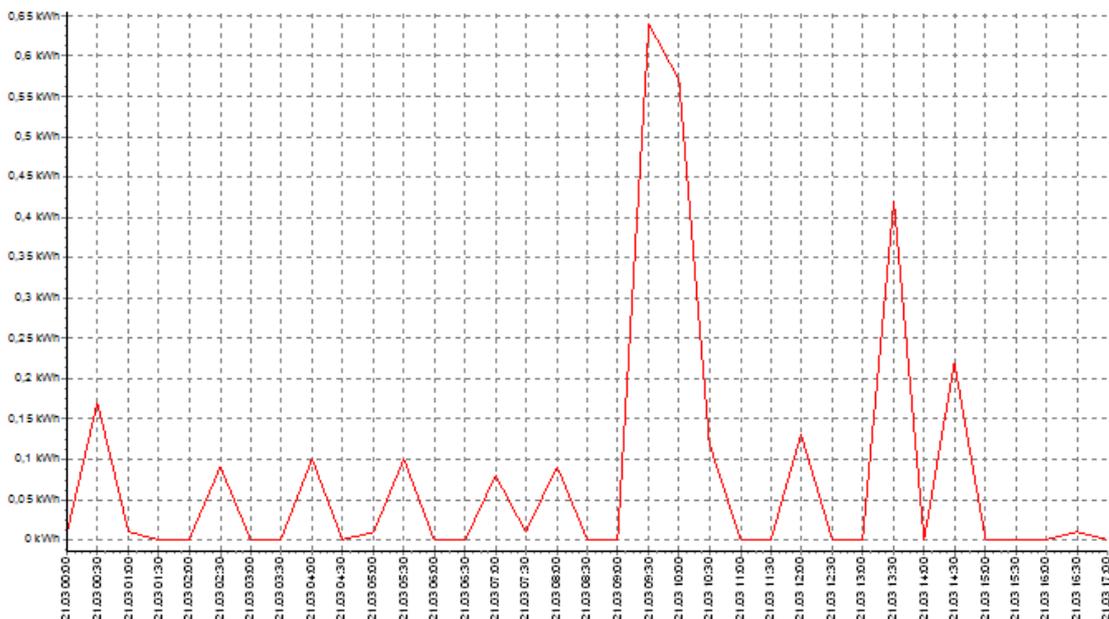
It is possible to define low and high values and Hotsec will trigger an alarm when those values are reached.

Newly added feature is 1-wire counter module support in Hotsec. Counter module can be used to log pulse based power, water, gas, heating etc meters data into Hotsec. It gives the possibility to report consumption values based on the time period (hour, month, year etc.).

Counter trend

From 21.03.2013 to 21.03.2013 23:59:59
 Input: Boiler
 Total: 2,95 kWh 0,3688 EUR

Generated by: hot
 21.03.2013 17:16:05



Hotsec CID module

Contact ID module gives possibility to use Hotsec as a Central Monitoring Station or CMS. Hotsec support receiving alarms from alarm receivers (SurGard, Paradox IPRS, Enigma etc.).

Using building plans in background all the alarms received can be visualized to see the exact location of an alarm. It is similar to Paradox module only difference is that CID is one-way communication. You cannot manage or control the alarm panel, it is for receiving only.

The CID module is a perfect start point to replace the alarm system step-by-step. Usually security centers have existing CMS systems and receivers. It is very easy to connect Hotsec with an alarm receiver and the first step to change the system to Hotsec is already done.

Hotsec mass notification module

Predefined types of events (alarms) will be sent via SMS, voice call or e-mail to multiple people in a short period of time. Screen image with plan or CCTV footage can be added to SMS or e-mail.

Notification of alarms can be triggered manually by operator. Multiple receiver grouping options based on event priorities.

Hotsec Fire alarm module

The module is currently integrated with Aritech addressable fire panels. Receives fire alarm and exact detector information.

Hotsec Mini-Client module

Is unique solution to notify building personnel via computers (people working behind computers). In case of alarm pop-up window with alarm description and instructions will be displayed. Alarm can be triggered from miniclient and will be sent to others. Possibility to use keyboard shortcut to trigger panic alarm

Time and attendance report with Hotsec

Hotsec T&A supports both access control systems – Paradox and Soyal. Door IN and door OUT must be predefined to be entry and exit points to start or stop working hours. There can be multiple entry and exit points.

Also it is possible to predefine normal working hours. So in case of working hours seems to be too long those hours will be marked red in the report.

Once the predefinition is done every time the report is launched it will ask period of time and user filter (all users, specific user or user group). After the definitions are done the report will be displayed.

Detailed Time&Attendance report

12.10.12 12:35

From 12.09.12 to 12.10.12 12:31

1/1

User: Maarika Paradox

Beginning:	Door name IN:	End:	Door name OUT:	Time IN:
12.09.12 08:45	Time IN	13.09.12 17:51	Time OUT	33:06:00
14.09.12 08:40	Time IN	14.09.12 16:41	Time OUT	8:01:00
17.09.12 08:47	Time IN	18.09.12 16:57	Time OUT	32:09:00
19.09.12 08:41	Time IN	01.10.12 16:55	Time OUT	296:15:00
02.10.12 08:51	Time IN	04.10.12 17:00	Time OUT	56:09:00
05.10.12 08:52	Time IN	11.10.12 08:47	Time OUT	143:55:00
11.10.12 08:47	Time IN	11.10.12 16:56	Time OUT	8:09:00
12.10.12 08:43	Time IN	Missing		3:49:00

Total time IN: 581 hours ja 32 minutes