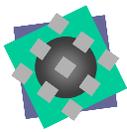


# **WareLite Total Security Hub (TSH)**

*Powered by WareLite BOSS*

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## WareLite Total Security Hub: the Market Need

- The increased awareness of the potential of terrorist attacks to business facilities has prompted an acceleration of Business Continuity/Disaster Recovery initiatives within those sectors (e.g. Financial Services, Telecoms) where the capability of providing revenue generating services to customers totally depends upon the uninterrupted functioning of IT infrastructures
- In the last few years this acceleration has been matched by a growing demand for innovative security solutions integrated with existing access control systems:
  - *The global market for security and access control systems is expected to show a steadily increasing annual average growth rate, from 10.2% in 2005 to 36.9% in 2009\**
  - *More than 39% of businesses across the world are considering integration of access control and security systems for their premises, which will assure market sale for hardware and software systems to surge by 2007 worth US \$3.8 billion\**

**The market is ready to invest in innovative PREVENTIVE security solutions totally integrated with current access control systems for the protection of critical IT facilities**



\*Research & Consultancy OutSourcing Svcs, Access Control Technologies and Market Forecast World over (2007)

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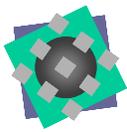
From: Research & Consultancy OutSourcing Svcs, 'Access Control Technologies and Market Forecast World over' (2007)

<http://www.marketresearch.com/product/>

'Demand for electronic access control systems to exhibit double-digit gains through 2007. The US market for electronic access control systems is projected to rise ten percent per year through 2007 to over \$7 billion. Fueling gains will be ongoing preoccupation with upgrading homeland security in the face of high domestic crime rates and geopolitical instability. Access controls, whose basic function is to assure that only authorized personnel are allowed access to sensitive areas, are uniquely suited to perform homeland security tasks. Access-Control system has added a repertoire to the security market worldwide. The fear of terrorist attacks after September 11, 2001 has led to an increase in the number of access-control customers. This has brought about an atmosphere of heightened security awareness. The report also talks about the conventional security systems that can be prone to errors. Access control technology has benefited the commercial applications the most. A detailed mention of special security software has also been done in our report. A forecast of the Access-Control market growth by more than 16% per year has also been made on the basis of the facts and data collected through reliable sources.

The demand for access control and security surveillance technologies have registered a boom in the recent years, and the market analysts estimated that this will further proliferate at an AAGR (annual average growth rate) of 10.2 to 36.9 percent till 2009.

Market studies on the access control market confirm that sale of access control and security applications in US registered massive growth after the 9/11 debacle, registering total sales of approximately US \$1.7 billion by the end of 2005. They further confirm that more than 39 percent of businesses across the world are considering integration of access control and security systems for their premises, which will assure market sale for hardware and software systems to surge by 2007 worth US \$3.8 billion.'



## WareLite Total Security Hub (TSH): the Business Benefits

- **WareLite Total Security Hub allows companies to add real time Location Tracking capabilities to their current Access Control Systems - with no need for customization or further system integration**
- **The precise facilities coverage thus achieved allows enterprises and institutions to achieve a dramatic reduction of uncontrolled access to sensitive areas, consequently decreasing the risk of thefts, accidents, sabotages etc.**

**WareLite Total Security Hub is the first solution of Esiet & WareLite Total IT Infrastructure Management product line – for real time, automated IT infrastructure management at zero impact over existing systems**



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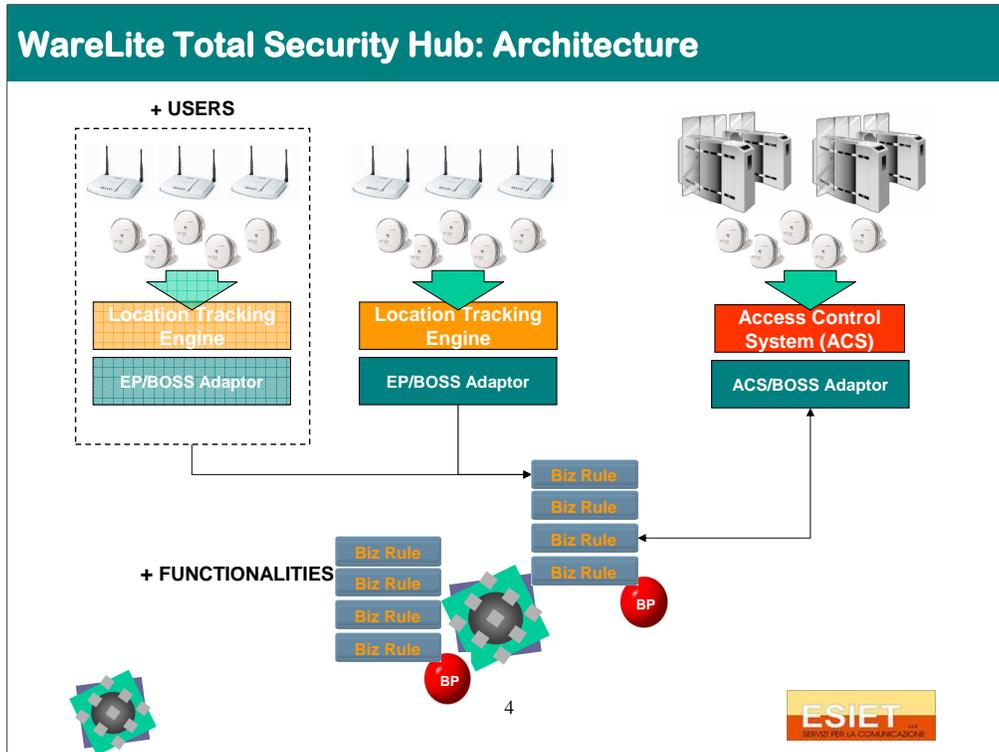


WareLite TSH allows companies to increase dramatically their security levels with no impact on users' habits. Visitors/employees will be provided with a single badge that will both open doors/gates/turnstiles and monitor their movements. Security operators will monitor visitors movements, and respond to them, using current access control systems interfaces and capabilities – e.g. inactivating a badge if, based on his/her profile, a visitor is moving through a non permitted area. Over time companies will have the option of adding new types of responses, not available within their access control systems, such as e.g. sending a SMS to an employee entering a non permitted area, sending an alert to the relevant IT facilities manager's etc.

The investment in WareLite TSH will be phased, increasing proportionally to the number of visitors/employees that will be provided with the new badge.

The technology infrastructure implemented with WareLite TSH supports other solutions related to people's positions, such as integration with domotics (e.g. turning off lights as people leave a room).

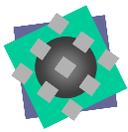
The software infrastructure implemented with TSH (WL BOSS, see slide 7) supports other business solutions, such as Esiet & WareLite other Total IT Infrastructure Management products, Total Rack Automation and Total Service Performance Monitoring



As we have discussed in the previous slide, the initial implementation of WareLite TSH will appear as a simple extension of the capabilities of existing Access Control Systems. Visitors will be provided with a single device (or 'badge'), containing both the proximity sensors currently in use (necessary to open doors/gates/turnstiles) and the location tracking tags used by our solution. This new badge will allow the monitoring of individuals' movements within the building and its rooms and within each room.

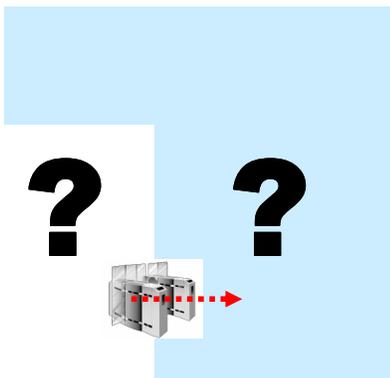
Powered by WL BOSS, TSH transforms the continuous position information coming from location tracking devices into the discrete gates/doors crossing information recognised by access control systems. The Access Control Software will thus 'see' individuals entering e.g. not just room 12, but room 12 Area A, then moving to Room 12, area D, then to corridor X etc. Individual areas will have variable sizes, with the minimum size possible currently being 2 square metres. The responses to illicit behaviour will be those already existing within current Access Control systems.

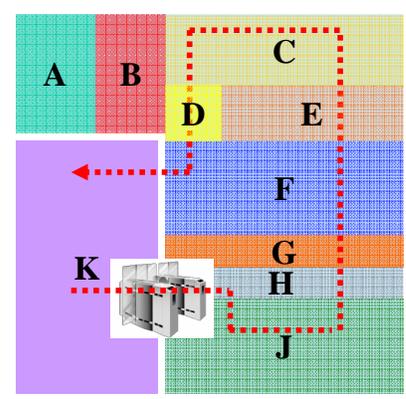
The initial 'base' TSH implementation – providing location tracking capabilities to current access control systems - can be extended over time both in terms of capacity – more users wearing the new badges – and with added functionalities – e.g. the capability of providing differentiated responses to illicit behaviour based upon the user's profile, using media/channels not originally available within the access control system, e.g. SMS, sound alarms etc.



### WareLite TSH: Results

**With Access Control only**





**With Access Control and WareLite TSH**

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Using WareLite TSH, a physical room is divided into a number of smaller 'virtual rooms'. Esiet and WareLite have tested wireless location tracking equipment within large server rooms in major banks, obtaining a maximum resolution of about 2m x 2m. This granularity level allows the visualization of an individual's movement around different racks within the same room.

Thus, facilities and IT managers can maintain a much closer control over access to specific facilities or equipment within the same room. This can be used to trigger alarms if a person is where he/she should not be, or simply to record all staff positions at the time of any incident. The same information can be used to aid decision-making when responding to an emergency.

WareLite TSH tackles a number of Security related issues:

#### Un-controlled facilities access

*Today it may happen that a single proximity badge be used to allow access to several individuals. With TSH each person's access is always individually tracked*

#### Room entry and exit control

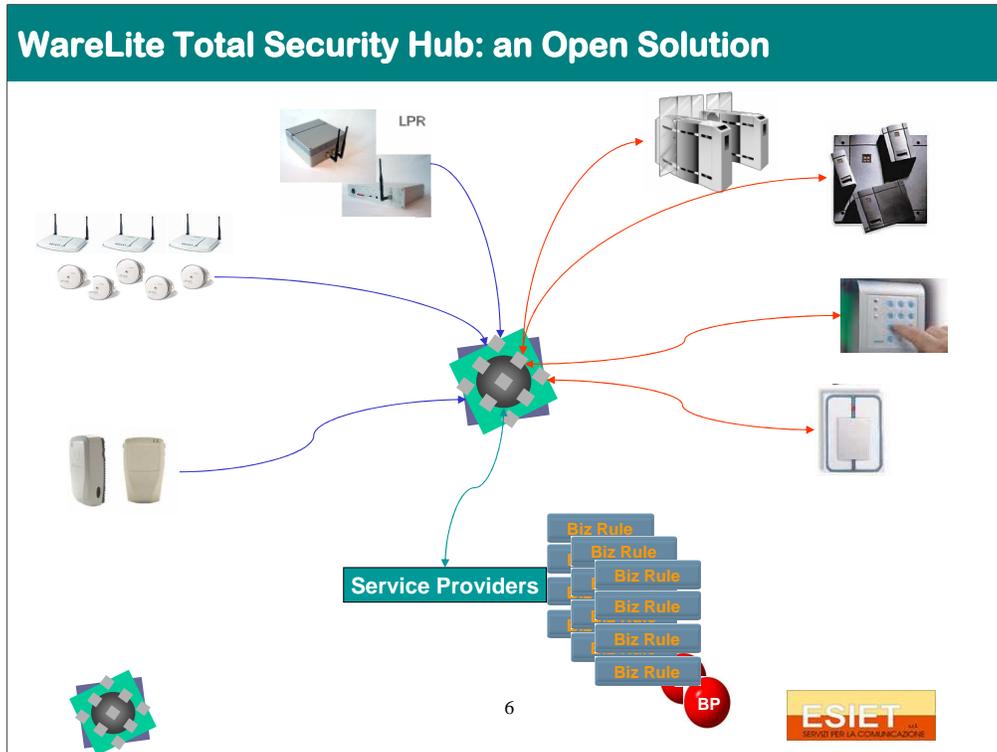
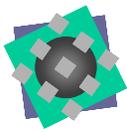
*Currently it is often only possible to monitor room entry, but not exit. With TSH this is no more an issue.*

#### Need to escort external technicians

*With TSH it is possible to know in real time each visitor's position and his/her movements, even of a couple of metres, eliminating the need for personnel to supervise them*

#### Privacy

*TSH represent a simple extension of current access control systems, in that it controls access to areas which, rather than being delimited by walls and doors, are defined by virtual boundaries. This means that, while today we just know that an individual is e.g. in room 12, with TSH we will know that he is in room 12, area A: this does not represent a higher threat to privacy than that posed by current access control systems.*

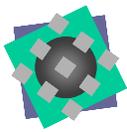


With its 'base' installation, WareLite TSH provides enterprises with location tracking capacities integrated with existing access control systems.

WareLite 'base' TSH uses the location tracking technology best suited to a Company's specific needs and is integrated with whatever access control system the Company has in the place.

WareLite and Esiet envisage the development of strategic alliances with:

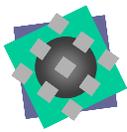
- Vendors of Location Tracking Technology – TSH will use a range of different location tracking technologies, always adopting the one best suited for a specific Client needs
- Access Control Systems Vendors – they will have the opportunity of adding location tracking functionalities to their current offer at no cost
- Service Providers – thanks to TSH taking care of all the logic needed to transform continuous position change information into the gates crossing information that Access Control Systems recognise, Service Providers will be able to quickly develop new adaptors towards their Clients' specific Access Control Systems, with no need for system customisation. In addition, they will have the possibility of easily and quickly develop new business processes, adding extra functionalities to the TSH solution – e.g. the capability of sending SMS/other messages to IT managers/operators as visitors move across forbidden areas. Moreover, Service Providers will have the opportunity of using the WL BOSS infrastructure already in place to support TSH to implement other solutions from WareLite/Esiet Total IT Infrastructure Management range, and to develop brand-new event driven solutions for their clients (e.g. Real Time Customer Loyalty Management, Credit Card Fraud Detection, Mobile Banking, Real Time Position Keeping, Real Time Settlement etc.)



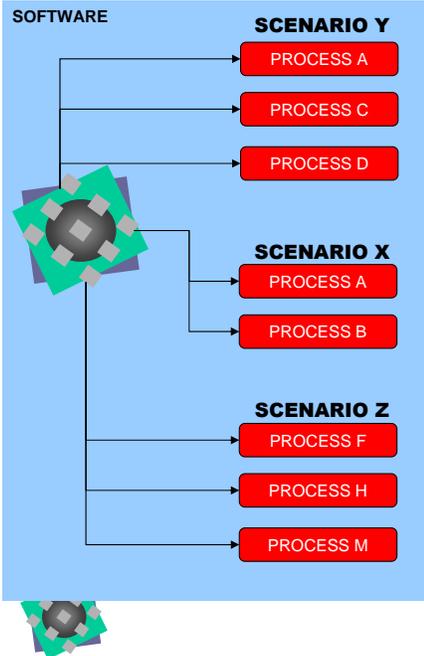
## WareLite Total Security Hub: Target Sectors

- **Potential Clients for TSH and all other WareLite/Esiet Total IT Infrastructure Management solutions**
  - **Companies which revenues depend entirely upon uninterrupted functioning of the IT infrastructure**
    - **Business Need: ensure uninterrupted IT infrastructure functioning by preventing sabotages and accidents**
      - Financial Services
      - Telecoms
- **Potential Clients for TSH and WL BOSS powered Operational Solutions**
  - **Companies where IT infrastructure is a support to operations**
    - **Business Need: protect industrial/IT facilities from sabotages, accidents and theft, guarantee visitors/employees safety**
      - Manufacturing (e.g. Chemical plants, Off-shore plants)
      - Logistic
      - Airports
      - Defense





## WareLite Total Security Hub is powered by WareLite BOSS



WareLite TSH is powered by WareLite software platform **WL BOSS (Business Operating Support System)**. Thanks to WL BOSS, WareLite and their Partners can offer enterprises innovative business solutions, where all Business Scenarios are made of **EVENT DRIVEN, FLEXIBLE** and **HORIZONTALLY SCALABLE** Business Processes.

WL BOSS can execute in parallel N different Business Scenarios, e.g. Total Service Performance Monitoring, Total Security Hub, Total Rack Automation, Customer Loyalty Management etc.

For more information: [www.wlboss.com](http://www.wlboss.com)

### Bloor Research on WL BOSS:

['Simple infrastructure for EDA processor agent'](#)

['Business processes, not technology, show who's BOSS in RFID'](#)

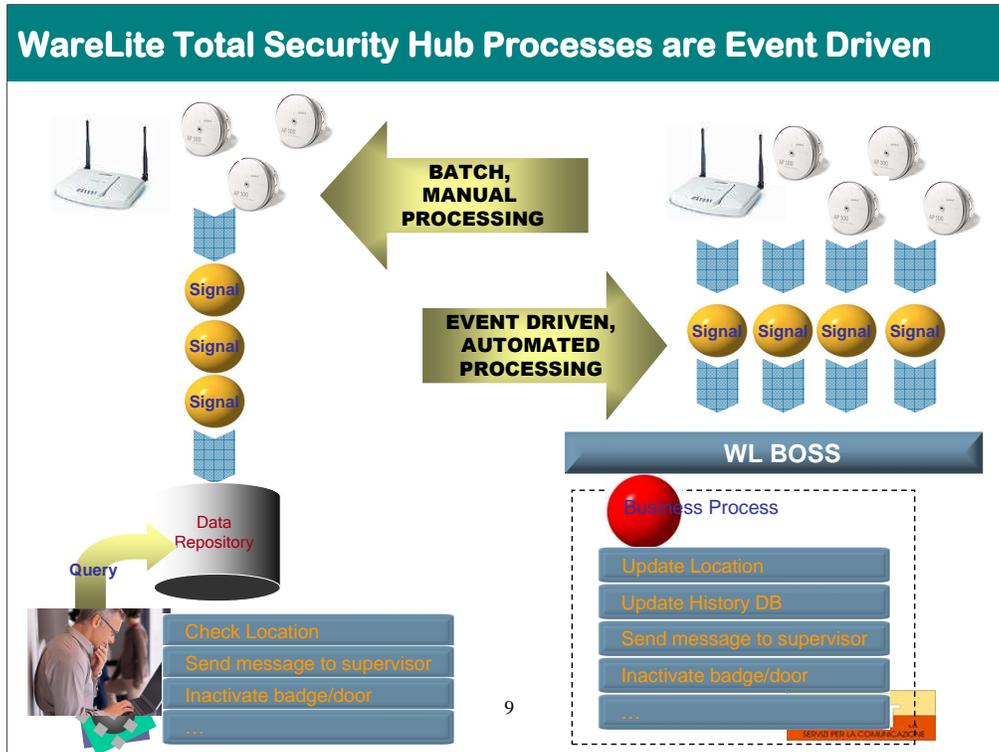
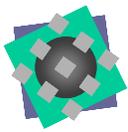
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The software component of WareLite TSH is represented by a series of Business Processes – i.e. a Scenario – designed and executed by WareLite software platform WL BOSS.

Thanks to the services offered by WareLite platform, the processes implemented with WareLite TSH are event-driven (i.e. triggered by events and executed in real time), flexible and horizontally scalable. In the following slides we'll describe these features of WL BOSS Business Processes.

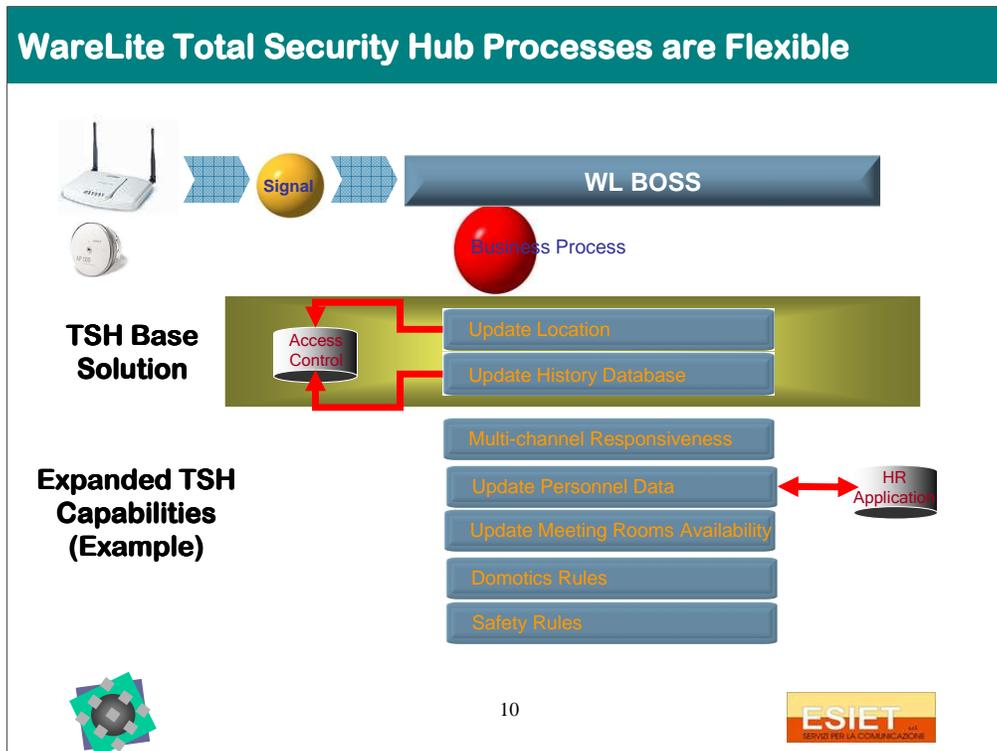
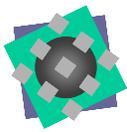
It is important to remember that WL BOSS can execute any number of event-driven scenarios in parallel – e.g. TSH + Total Rack Automation + Total Service Performance Monitoring. Enterprises will be able to add these and other scenarios to TSH, with no further investment in WL BOSS software infrastructure (see slide 12 for an example implementation roadmap).



As we have seen, WL BOSS executes processes that are Event Driven. Let us see what this means.

Most current applications execute processes in batches, usually with a conspicuous manual component. This means collecting data coming from various sources – in our case, from wireless indoor location tracking equipment – within a data repository (typically a database) that is then queried by an operator (through appropriate interfaces – think of a classic 3 tier architecture) who will then execute a number of actions in response to the observed data (again, using appropriate interfaces). This manual approach obviously becomes inadequate in case of large numbers of events generated at high frequency, such as might be the signals produced by hundreds of moving individuals (and by any other sensor monitoring constant changes in a large number of objects, e.g. RFID, GPS etc.)

With event-driven processing, each SINGLE event – in our case, the fact that an individual moves from A to B – triggers an automated response, i.e. not requiring human intervention. This response – or process – will be specific for the type of event and for the agent generating it. The benefits of event-driven processing are many, and they include the normalization and automation of the response to incoming events/signals, with a dramatic reduction in response times and operators workload, and the elimination of costs related to the infrastructure needed to process high volumes of events in batches.



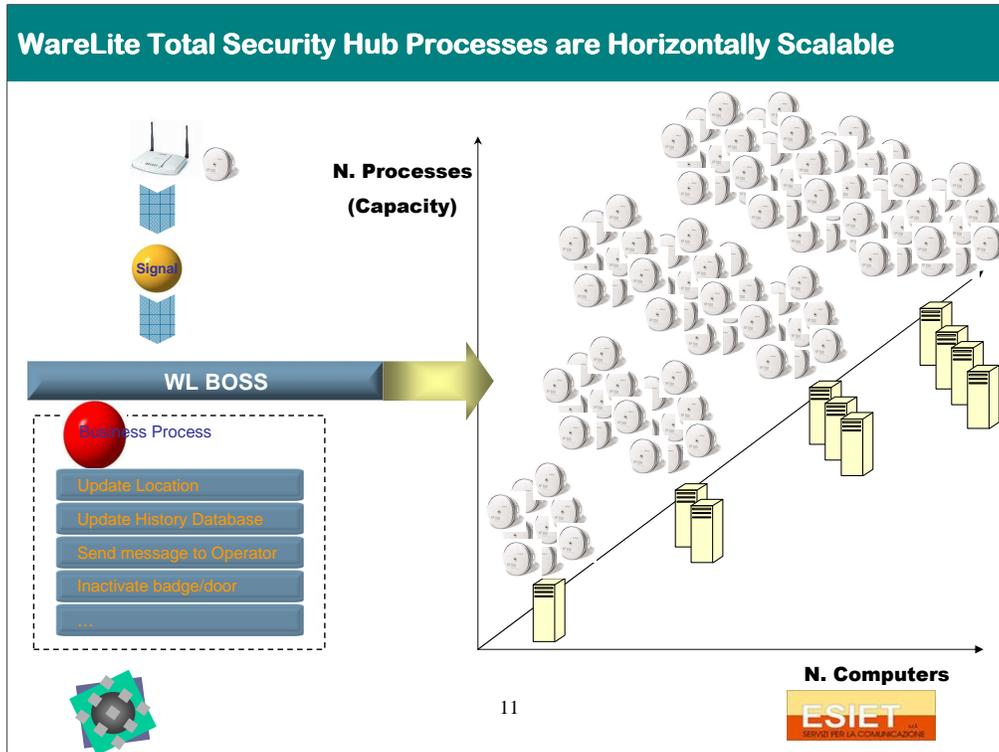
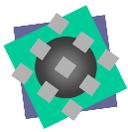
A WL BOSS process is made of a logical sequence of functions – or business rules – that are independent one from another. This means that, within a process, a single business rule can be modified without impacting on the other rules in the same business processes. Similarly, new business rules can be added to a process with no impact on existing business rules. And the same business rule can be reused in any business process.

A business rule can also act as an adaptor for an external system. This capability allows the introduction of event-driven, automated business processes within existing systems landscapes as completely retrofit solutions, i.e. with no need to modify existing systems and applications.

Thanks to this level of flexibility, and to the built-in services offered by WL BOSS to developers (Determinism, Persistence, Transaction Management, Scalability), designing and changing business processes is quick, easy and it has a very low cost; and, thanks to WL BOSS zero impact on existing systems, enterprises can experiment and refine new strategies with no operational risk.

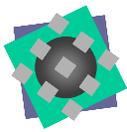
Thanks to WL BOSS capabilities, the TSH Base Solution adds location tracking capabilities to current access control systems without modifying them. The solution is delivered as a pre-integrated package; no further system integration is required.

Over time the TSH Base Solution can be enriched with as many functionalities as needed (as shown in the example above), with no impact over existing systems and at a very low cost.



As we have seen, with WL BOSS each single signal/event triggers a single business process. Obviously, in reality, hundreds, thousands of signals/events will be presented to WL BOSS each second. In order to deal with an ever growing number of signals/events, WL BOSS offers horizontal scalability as a service to each process. This means that the same business process can be executed WITH NO MODIFICATION by one Node/Computer as well as by N Nodes/Computers – incrementing the overall system's capacity from X processes/second to N\*X processes/second. E.g. if a Node/Computer executes 60 processes/second, 2 Nodes/Computers will execute 120 processes/sec, 3 Nodes 180, 4 Nodes 240 etc.

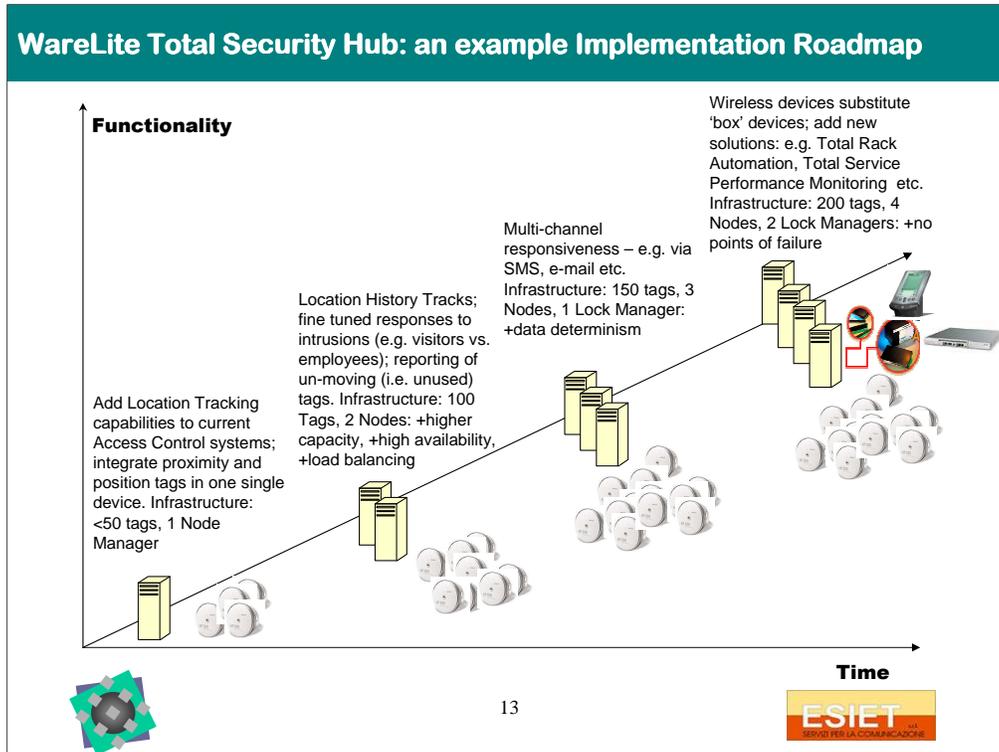
Thanks to this kind of scalability, moving from prototype/pilot to production has zero risk and a very low cost – it is the cost of acquiring new software Nodes (Node Managers) and inexpensive computational units to host them. Thus investments in software and hardware infrastructure can be phased, growing proportionally to the capacity that the new service will have to provide.



## WareLite Total Security Hub (TSH): Summary

**WareLite Total Security Hub is an event-driven, flexible and scalable solution for the addition of Location Tracking capabilities to current Access Control Systems. WareLite TSH can use any Location Tracking Technology (*from any Vendor*) and is quickly interfaced (*by any Service Provider*) with any Access Control and HR system (*from any Vendor*). WareLite TSH capacity can be increased by simple unit addition, and new functionalities can be easily added as needed (*by any Service Provider*).**





Thanks to WL BOSS processes flexibility and scalability, it is possible to devise a roadmap that will see progressive functional and infrastructural additions to the initial TSH implementation. For example, a Company could start by implementing the base solution in just one building, providing only selected external visitors with the new type of badge; then they might grow the infrastructure incrementally until having a solution covering the whole enterprise physical infrastructure and all its employees, as well as all visitors. They might even decide to use a different support for proximity/location tracking sensors, e.g. a wireless tool such as Ipaq. As well as extending the solution infrastructure, they might want to extend its functionalities over time, adding e.g. tracking capabilities and multi-channel, fine-tuned responsiveness.

In parallel, it will be possible to experiment other event driven, automated business scenarios from WareLite/Esiet Total IT Infrastructure Management, such as Total Rack Automation (ToRA) and Total Service performance Monitoring.



## WareLite Total Security Hub: Summary of Enterprise Benefits

<b>FEATURES</b>	<b>BENEFITS</b>
<p><b>High resolution in Access Control</b> No more a simple 'inside/outside' but 'in the position xy within room A'</p> <p><b>End-to-end process execution</b> WL Business Processes are sequences of Business Rules capable of dealing with any aspect of access control and position monitoring</p> <p><b>Real Time, automated responsiveness</b> A WL Process is automatically executed (i.e. with no need for human intervention) upon the occurrence of a single business event – e.g. an individual entering an illicit virtual area</p> <p><b>Integration with external systems</b> Within a WL Business Process one or more Business Rules can be developed as interfaces towards external systems – e.g. SMS, sounds alarms, access control applications, HR applications etc.</p> <p><b>Flexibility</b> Thanks to WL Real Time Process Design &amp; Deployment methodology, WL Processes are designed to exactly mirror enterprise strategies; they are quick to develop and deploy and can be easily and quickly modified</p> <p><b>Scalability</b> The same WL Business process can be executed by 1 or N nodes, each running on a low cost computer, thus increasing the system's capacity from X processes/second to N*X processes/second at a very low, incremental cost</p>	<p><b>Refine current Access Control systems, increasing their resolution power up to 2sqm and fine tuning their response capabilities</b></p> <p><b>Track individual movements in real time</b></p> <p><b>Fine tune multi-channel responses (e.g. SMS, sound alarm, door block, badge block etc.) based upon both individual profile (e.g. visitor vs employee) and type of area (e.g. server room vs. office)</b></p> <p><b>Speed up and simplify evacuation and rescue procedures – knowing exactly where everybody is it is possible to deliver rescuers only where necessary</b></p> <p><b>Modify existing control and monitoring processes and create new ones quickly and at low cost</b></p> <p><b>Start from a single building and from a low number of visitors and extend the new processes to all visitors, to employees, to other buildings with no need for further software development</b></p> <p><b>Use the same infrastructure to address other issues, implementing real time solutions for e.g. Total Rack Automation, Total Service Performance Monitoring etc.</b></p>