



*This project is co-funded  
by the European Commission with the FP7*

# **Best practices for mitigating consequences of railway suicide & trespassing incidents**

**UIC World Security Congress, Bratislava,  
October 26, 2012**

**Presented by MTRS & NICE**



# Agenda

- Consequences mitigation information reference source
- Information, situation management & decision support platform
- Improving decision support processes and incident management



# RESTRAIL WP4 objectives

*Develop methods and tools that mitigate the potential impact of suicides and trespasses on railway infrastructures*

## These should be

- Integrated into existing procedures and technologies
- Safe, effective and cost-efficient

## Partners involved

- Railway – Deutsche Bahn AG, ProRail B.V.
- Research – Instytut Kolejnictwa
- Industry – Ansaldo STS, NICE Systems, MTRS3



**ProRail**



**NICE**



**MTRS**<sup>LTD</sup>  
Mass Transit and Railway  
Security ■ Services ■ Solutions



# **CONSEQUENCES MITIGATION INFORMATION REFERENCE SOURCE**



# Consequences mitigation is all about 'shut down time'

- A key factor in consequences mitigation is the reduction of the system's 'shut down time', leading to:
  - Delays and cancellations of trains
  - Cost of alternative transport
  - Direct cost of incident management
- Other, relatively negligible costs, such as:
  - Damage to rolling stock
  - Damage caused to infrastructure
  - Repair of fences, etc.

**Consequences mitigation  $\approx$  Reduction of 'shut down' time**



# Incident response arrangements include three steps

- IM's response arrangements to incidents can be divided into three phases:
  - Phase 1 – immediate safety actions on site, reporting of the circumstances
  - Phase 2 – on-site management of an incident and provision of support to responding bodies
  - Phase 3 – restoration of routine operation
- Key issues in managing the actions, including the following:

IM actions	Police actions	RU response	Fire & EMS
<ul style="list-style-type: none"><li>• Assist responding bodies</li><li>• Ensure safety at the site</li><li>• Brief responders</li><li>• Provide engineering support</li><li>• Support police investigation</li><li>• Aim for the earliest traffic restoration</li><li>• Liaise with 3<sup>rd</sup> parties</li></ul>	<ul style="list-style-type: none"><li>• Collect evidence and refute suspicion of third party involvement</li><li>• Establish contact with decision makers who are not present at the site</li><li>• Liaise with the IM and RU</li></ul>	<ul style="list-style-type: none"><li>• Ensure passengers' safety &amp; welfare</li><li>• Cooperate with police investigation</li><li>• Provide rolling stock engineering support</li><li>• Substitute driver</li><li>• Arrange alternative transport for passenger evacuation</li></ul>	<ul style="list-style-type: none"><li>• Ensure safety at the site</li><li>• Liaise with the police, the IM and RU</li></ul>



# Police is pivotal for traffic restoration!

- Incidents with casualties always involve either full stoppage of train traffic or operation in degraded mode in the specific segment of the tracks
- Traffic restoration is always a function of two considerations:
  - Rail operations safety
  - Police permission
    - ✓ Whether there are suspicious circumstances
    - ✓ Need to interview witnesses
    - ✓ Need to gather evidence at the site

**Police, either directly or indirectly (general prosecution, judge on call), is pivotal, as they give the permission to restore traffic**



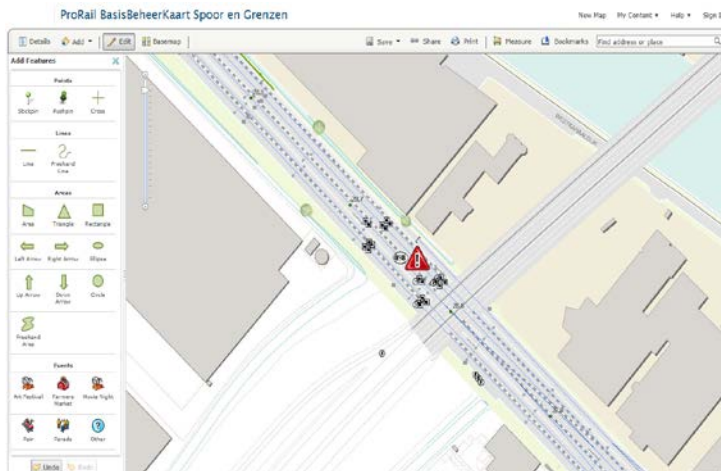
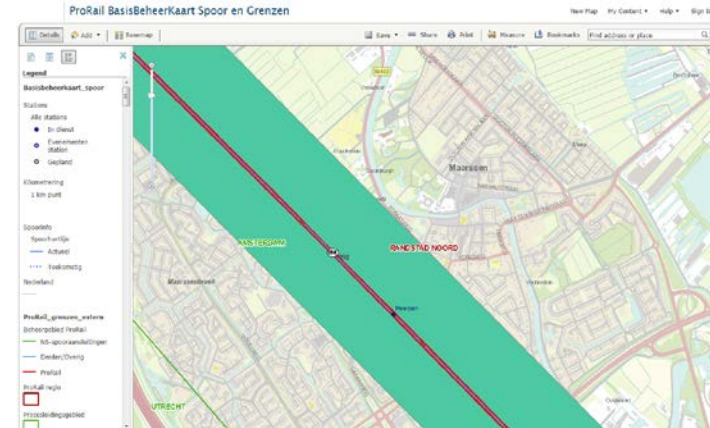
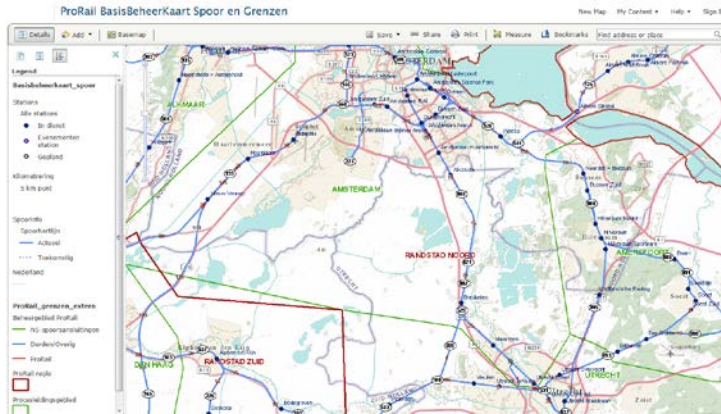
## Information sharing & lines of communication are key to effective incident management

- Parties involved in incident response require different types of information during the incident (summarised in a matrix)
- An information sharing platform is key to effective incident response, coordination & communication
  - Information sharing: arrival at the site:
    - ✓ Incident location
    - ✓ Identified 'track access point'
  - Information sharing: response process, coordinated tasks management
- Lines of communication (LOC)
  - On-site LOC are characterised by interpersonal communication
  - Off-site IM OCC and on-site IM's incident manager
  - Involved IM, RU and external C&C centres (OCCs, SOC, etc.)
- Communication means – commercial and/or railway cellular network (e.g. GSM-R), designated radio communication





# GIS enables a common operational picture and fast access to tracks



GIS web services and interoperable lines of communication are essential for an effective response



# Organisational interfaces, competences, training & exercises require constant maintenance

- Organisational interfaces & liaison - links at a senior level with external organisations (especially police & fire brigades)
- Memorandum of Understanding (MoU)
- Procedures
  - On site
  - Off site
    - ✓ Traditional media – never report railway incidents as suicide
    - ✓ New media – ‘flash announcements’ concerning the delays, never report railway incidents as suicide
- Involvement of external agencies – knowledge expansion (workshops, DVD, leaflet, dedicated training for police)
- Competences & training
- Exercises



# Simple, 'stand-alone' off-the-shelf technology can support the decision making process

- Potential support of technologies
  - Information sharing platforms
  - Business process and information management
  - Mobile devices
  - Forward facing CCTV
  - Interoperable protocols for information sharing
- Debriefing and analysis of response arrangements



**Forward facing CCTV can expedite and facilitate the decision making process of the police, thus reducing the shut down time**



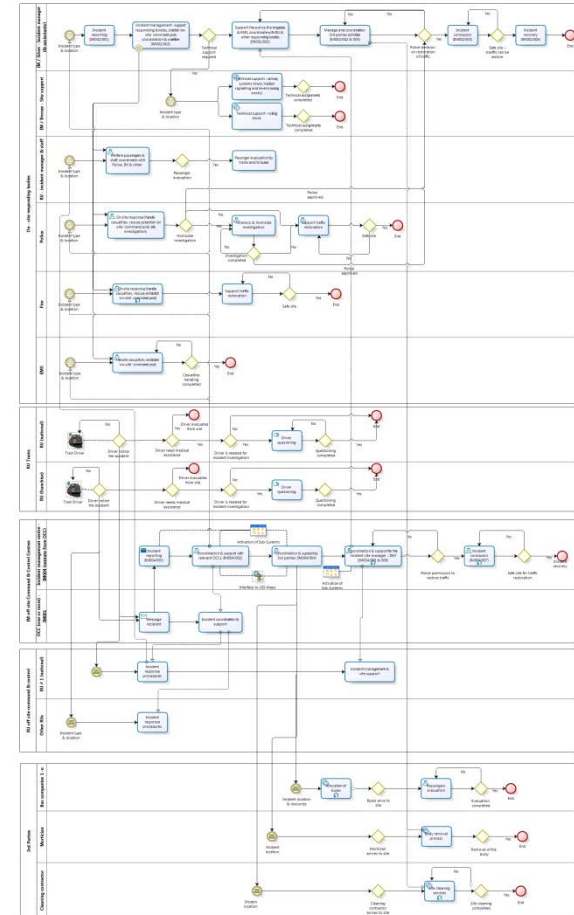
# 'Translation' of the incident response procedure into a business process

The following concept implements best-practice procedures

## 1. Business Process – Suicide on the Tracks

1 – INITIATION OF EVENT / INCIDENT																																					
Incident location	Line of route (between city A and city B) (or from city A to city B)																																				
Initiation of incident	<ul style="list-style-type: none"> <li>Train driver calls IM (OCC) and reports the incident</li> <li>OCC calls the "incident manager" and reports a train accident with a person</li> </ul>																																				
Event / incident type	Incident																																				
Event / incident category	Level 2																																				
Participants	<table border="1"> <thead> <tr> <th>Code</th> <th>Participant</th> </tr> </thead> <tbody> <tr> <td>IM001</td> <td>IM – relevant OCC</td> </tr> <tr> <td>IM002</td> <td>IM – incident manager on site</td> </tr> <tr> <td>IM003</td> <td>IM – mobile team</td> </tr> <tr> <td>IM004</td> <td>IM – Off-site incident manager</td> </tr> <tr> <td>IM005</td> <td>IM – infrastructure maintenance team</td> </tr> <tr> <td>RU001</td> <td>RU – On site command post (RU on call manager)</td> </tr> <tr> <td>RU002</td> <td>RU – off-site incident management (RU's OCC)</td> </tr> <tr> <td>RU003</td> <td>RU – mobile team</td> </tr> <tr> <td>RU004</td> <td>RU – technical team</td> </tr> <tr> <td>PL001</td> <td>Municipal police</td> </tr> <tr> <td>PL002</td> <td>General prosecution / judge (on call)</td> </tr> <tr> <td>PL003</td> <td>Transport / railway police</td> </tr> <tr> <td>FR001</td> <td>Fire brigade</td> </tr> <tr> <td>FR002</td> <td>Emergency medical services</td> </tr> <tr> <td>OT001</td> <td>Bus company</td> </tr> <tr> <td>OT002</td> <td>Mortician</td> </tr> <tr> <td>OT003</td> <td>Cleaning contractor</td> </tr> </tbody> </table>	Code	Participant	IM001	IM – relevant OCC	IM002	IM – incident manager on site	IM003	IM – mobile team	IM004	IM – Off-site incident manager	IM005	IM – infrastructure maintenance team	RU001	RU – On site command post (RU on call manager)	RU002	RU – off-site incident management (RU's OCC)	RU003	RU – mobile team	RU004	RU – technical team	PL001	Municipal police	PL002	General prosecution / judge (on call)	PL003	Transport / railway police	FR001	Fire brigade	FR002	Emergency medical services	OT001	Bus company	OT002	Mortician	OT003	Cleaning contractor
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2 – BUSINESS PROCESS DESCRIPTION		
Entity / Task no.	Activity title & operator's actions	Interface handling
IM004/001	<b>Incident reporting</b> <ol style="list-style-type: none"> <li>Obtain details from the reporting person on the incident location and description.</li> <li>Fill in an Incident Report form.</li> <li>Call the duty incident manager and verify details.</li> <li>Call the police and report the incident.</li> <li>Call the fire brigade and report the incident.</li> <li>Call the EMS and report the incident.</li> <li>Open communication channel with other relevant OCCs.</li> <li>Open communication channel with the OCC/ lead person of the RU.</li> </ol>	<ul style="list-style-type: none"> <li>Communications – autodial landline &amp; mobile phones according to list</li> <li>Indicate the incident location on a GIS map</li> <li>Show relevant GIS layers (track no., track access points, LC, switches, signals)</li> <li>Distribute GIS data to police, fire brigades, EMS &amp; RU mobile team</li> <li>Send SMS &amp; e-mail messages according to the distribution list</li> <li>Send the Incident log form by e-mail according to the distribution list</li> </ul>
IM004/002	<b>Coordination and support by other relevant OCCs (IM001)</b> <ol style="list-style-type: none"> <li>Estimate the shut down time with other relevant OCC / OCCs.</li> <li>Decide whether the incident can be managed as part of routine OCC arrangements or requires separate off site management;</li> <li>Ensure safety on site:               <ul style="list-style-type: none"> <li>Traffic management;</li> <li>Traction current.</li> </ul> </li> <li>Coordinate &amp; verify infrastructure engineering support.</li> <li>Coordinate passenger welfare activities with RU.</li> <li>Coordinate logistical support.</li> </ol>	<ul style="list-style-type: none"> <li>Communications – autodial to landline &amp; mobile phones according to predetermined list.</li> <li>Send Incident logform by e-mail according to the distribution list</li> </ul>
IM004/003	<b>Support the arrival of responding bodies at the site</b>	





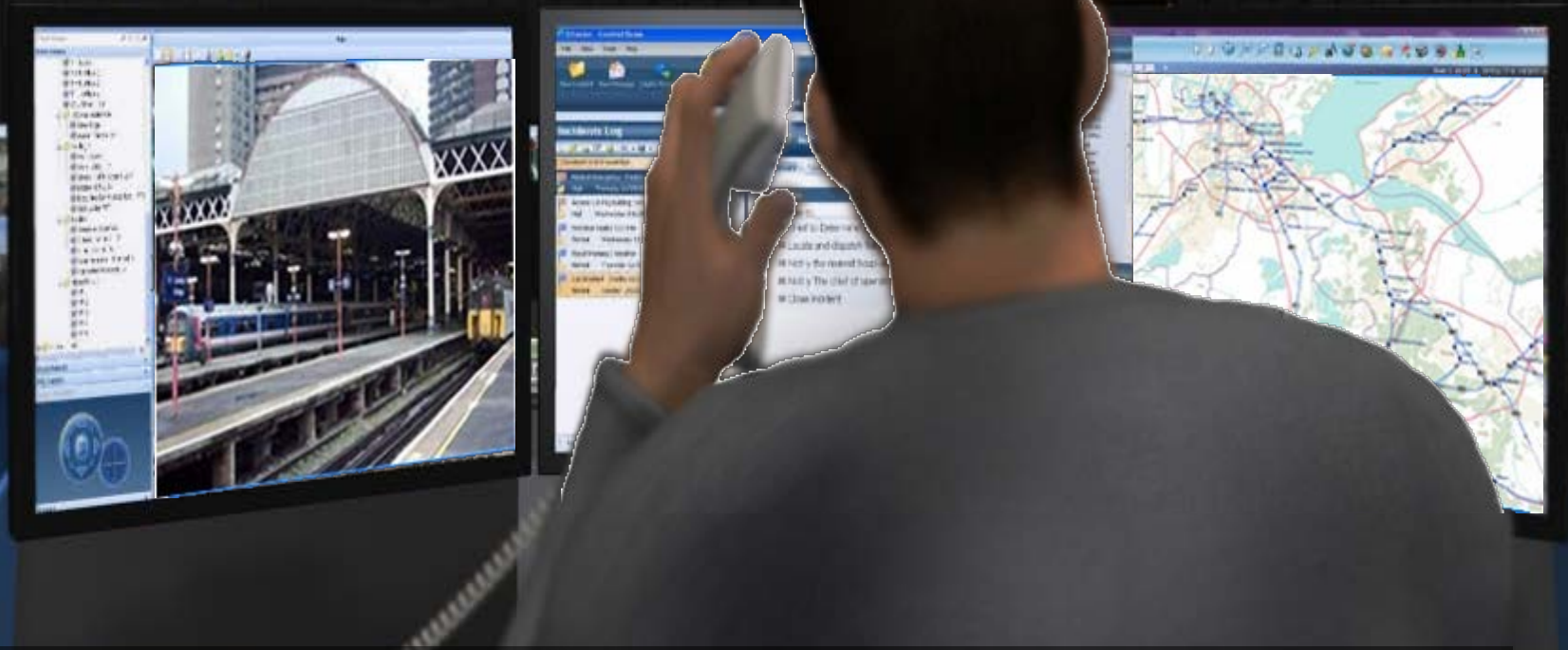
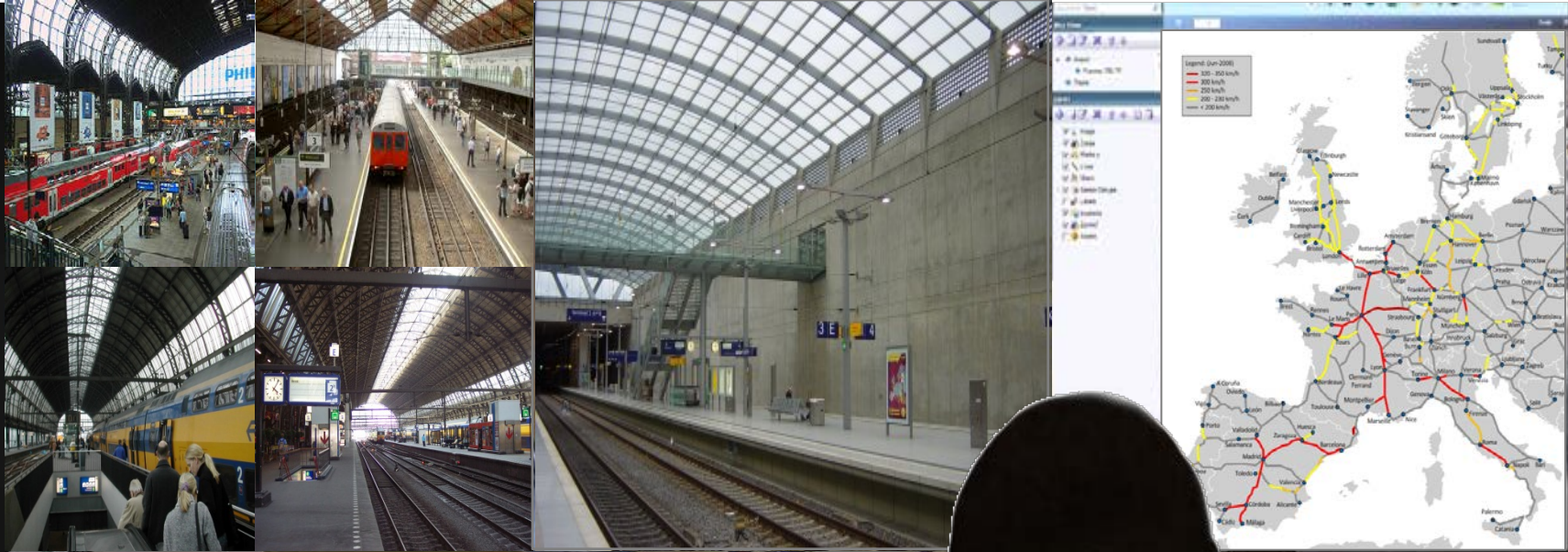
# **INFORMATION, SITUATION MANAGEMENT & DECISION SUPPORT PLATFORM**



**HOW CAN WE LEVERAGE BEST PRACTICES AND TECHNOLOGY TO MITIGATE THE CONSEQUENCES OF SUICIDES AND FATAL TRESPASSING INCIDENTS?**



**Train-pedestrian collision occurs on the railway tracks**



**Train driver calls the OCC operator, reporting the event using GSM-R**





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File View Tools Help

New Incident New Message Deploy Procedure **Quick Launch** Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

NICE Situitor™ Low

Incidents Log Line Maintenance \ Maintenance 12:15:42

Quick Launch

(1) Incidents to Acknowledge

- Panic Button Activated \ Alarm Urgent Today 11:56:14 AM
- Medical Emergency \ Medical High Yesterday 08:21:43 PM
- Line Maintenance \ Maintenance Medium Today 12:08:17 PM**
- Weather Alert \ Weather Medium Today 03:15:52 AM
- Computer Theft \ Robbery Normal Yesterday 11:32:33 PM

Train Pedestrian Collision Train & Vehicle Crash Level Crossing Accident Maintenance Trespassing Accident Extreme Weather

Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

Comments

(1) New, ( ) Acknowledged

Logged in as: Ron Smith Change User

OCC operator manually initiates an incident using a Quick Launch button



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### Incidents Log

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Normal Yesterday 11:32:33 PM

### Line Maintenance \ Maintenance

12:15:42

Summary Tasks Details

#### Tasks

**My Tasks**

- Update Manager when maintenance is over
- Close Incident and generate report

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment

**1 Notification**

**New Incident**

Name: [Train Pedestrian Collision](#)

Description: **Person on track reported by train driver to OCC**

Location: **TBD**

(1) New, ( ) Acknowledged

Appropriate incident is created and relevant checklist is deployed



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### Suicide Attempt \ Emergency

12:15:42

Summary Tasks Details

#### Tasks

**My Tasks**

- Place incident on map
- Fill Incident Report Form
- Call incident manager on duty and verify details

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
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#### Comments

(1) New, ( ) Acknowledged

Logged in as: Ron Smith [Change User](#)

OCC operator is requested to locate the incident on the map



Maps

Search Map

Map Views

Restrail

Layers

- Image
- Lines
- Labels
- Zones
- Zone Names
- Switches
- Track No.
- Track Acc. Points
- LC
- Assets
- Signals

Scale: 1 : 650,562,296 + 337°27'40.68" N 85°13'55.91" W

**Placement of the incident on a GIS-layered map**

**Additional supportive layers are revealed while zooming in**



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New Incident New Message Deploy Procedure Quick Launch

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Print... Save and send...

GENERAL INFORMATION																																																																			
Name	Reporting of a security event/incident																																																																		
Reference																																																																			
REPORTING PERSON DETAILS																																																																			
Position of the reporting person	<input type="checkbox"/> RU OCC <input type="checkbox"/> Train driver <input type="checkbox"/> Staff <input type="checkbox"/> Passenger <input type="checkbox"/> Other																																																																		
Telephone number																																																																			
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Transport system	Mainline / Suburban / Regional / Metro / LRT / Tramway																																																																		
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OK Cancel

Access Control Guard Tour Administration

Low

12:15:56

**Info**

Group: Security  
 Site: Global  
 Assigned to: Ron Smith

**Operations**

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

**Comments**

Operator is requested to fill digital intake forms

(1) New, ( ) Acknowledged

Logged in as: Ron Smith

[Change User](#)



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New Incident New Message Deploy Procedure Quick Launch Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

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### Suicide Attempt \ Emergency

12:16:49

Summary Tasks Details

#### Tasks

**My Tasks**

- Report incident to EMS, police and fire brigade
- Communication with other relevant OCC's
- Communication with RU's OCC\ leader
- Support safe access to tracks

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

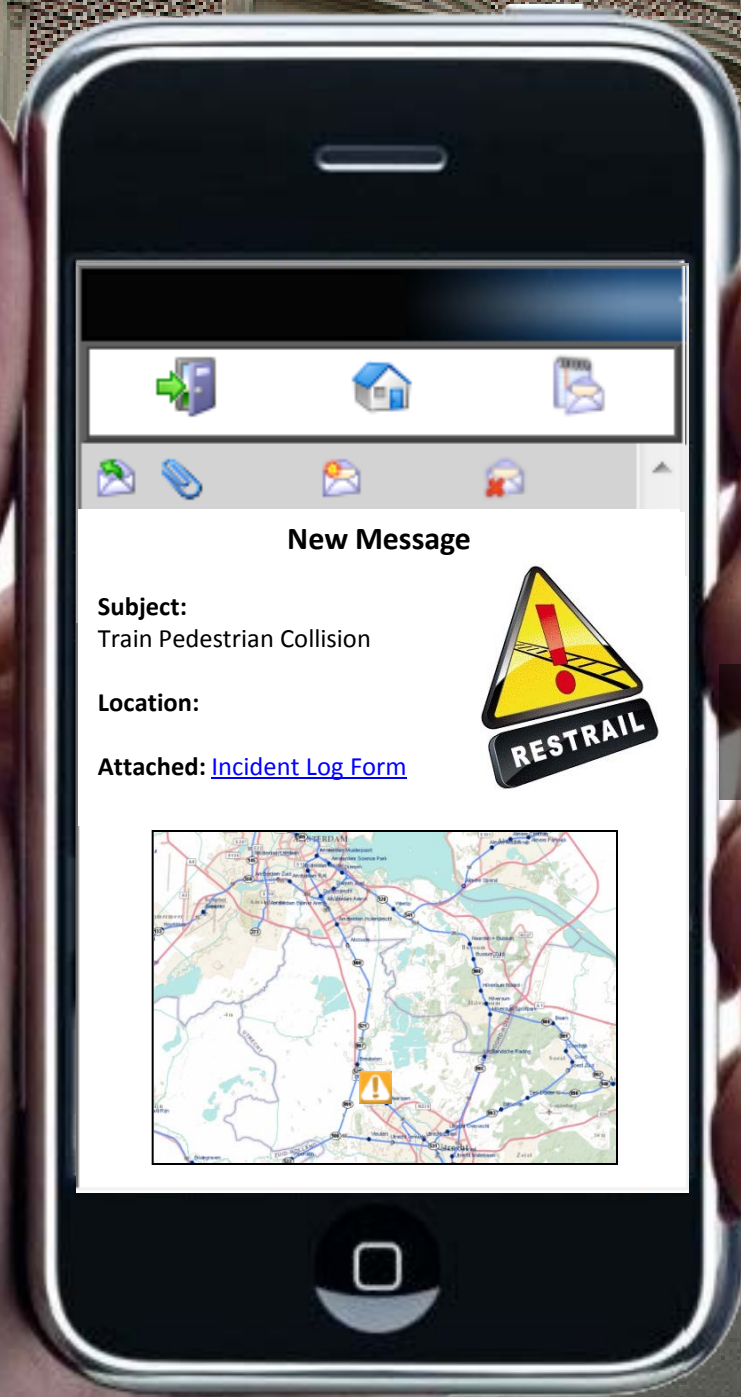
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#### Comments

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Logged in as: Ron Smith [Change User](#)

Incident reporting to rescue services can be automated

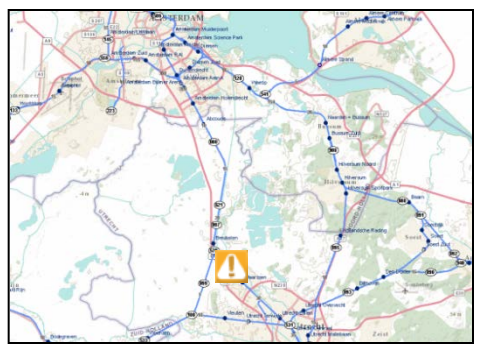


**New Message**

**Subject:**  
Train Pedestrian Collision

**Location:**

**Attached:** [Incident Log Form](#)



**Relevant stake holders can get incident Location and basic details to their mobile**



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#### Tasks

**My Tasks**

- Communication with other relevant OCC's
- Communication with RU's OCC\ leader
- Support safe access to tracks

#### Info

Group: Security  
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- Acknowledge
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#### Comments

Operator is instructed to liaise with relevant OCC's





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Incidents Log Suicide Attempt \ Emergency 12:17:03

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Control Room

### Communication with other relevant OCC's

Tasks

- Open communication channel with other OCC's
- Estimate shutdown time
- Re-route trains traffic in zone
- Get infrastructure engineering support
- Coordinate logistical & welfare support

OK Cancel

Info

Group: Security  
Site: Global  
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Operations

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New Incident New Message Deploy Procedure Quick Launch Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

- Suicide Attempt \ Emergency 12:19:22
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**Urgent** Today 11:56:14 AM
  - Train Pedestrian Collision \ Emergency**  
**High** Today 12:15:42 PM
  - Medical Emergency \ Medical  
High Yesterday 08:21:43 PM
  - Line Maintenance \ Maintenance  
Medium Today 12:08:17 PM
  - Weather Alert \ Weather  
Medium Today 03:15:52 AM
  - Computer Theft \ Robbery  
Normal Yesterday 11:32:33 PM

Control Room

### Communication with RU's OCC\ leader

Tasks

- Coordinate incident response with RU**
- Coordinate logistical & welfare support
- Coordinate mobile team support
- Coordinate action for care of passengers
- Coordinate rolling stock maintenance team support

OK Cancel

Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

Comments

(1) New, ( ) Acknowledged



Nice Situator - Control Room

File View Tools Help

New Incident New Message Deploy Procedure Quick Launch Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

(1) Incidents to Acknowledge

Panic Button Activated \ Alarm  
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Line Maintenance \ Maintenance  
**Medium** Today 12:08:17 PM

Weather Alert \ Weather  
**Medium** Today 03:15:52 AM

Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

### Suicide Attempt \ Emergency

12:21:28

Summary Tasks Details

#### Tasks

##### My Tasks

- Try to obtain forensic evidence from location
- Support safe access to tracks

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
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- Close...

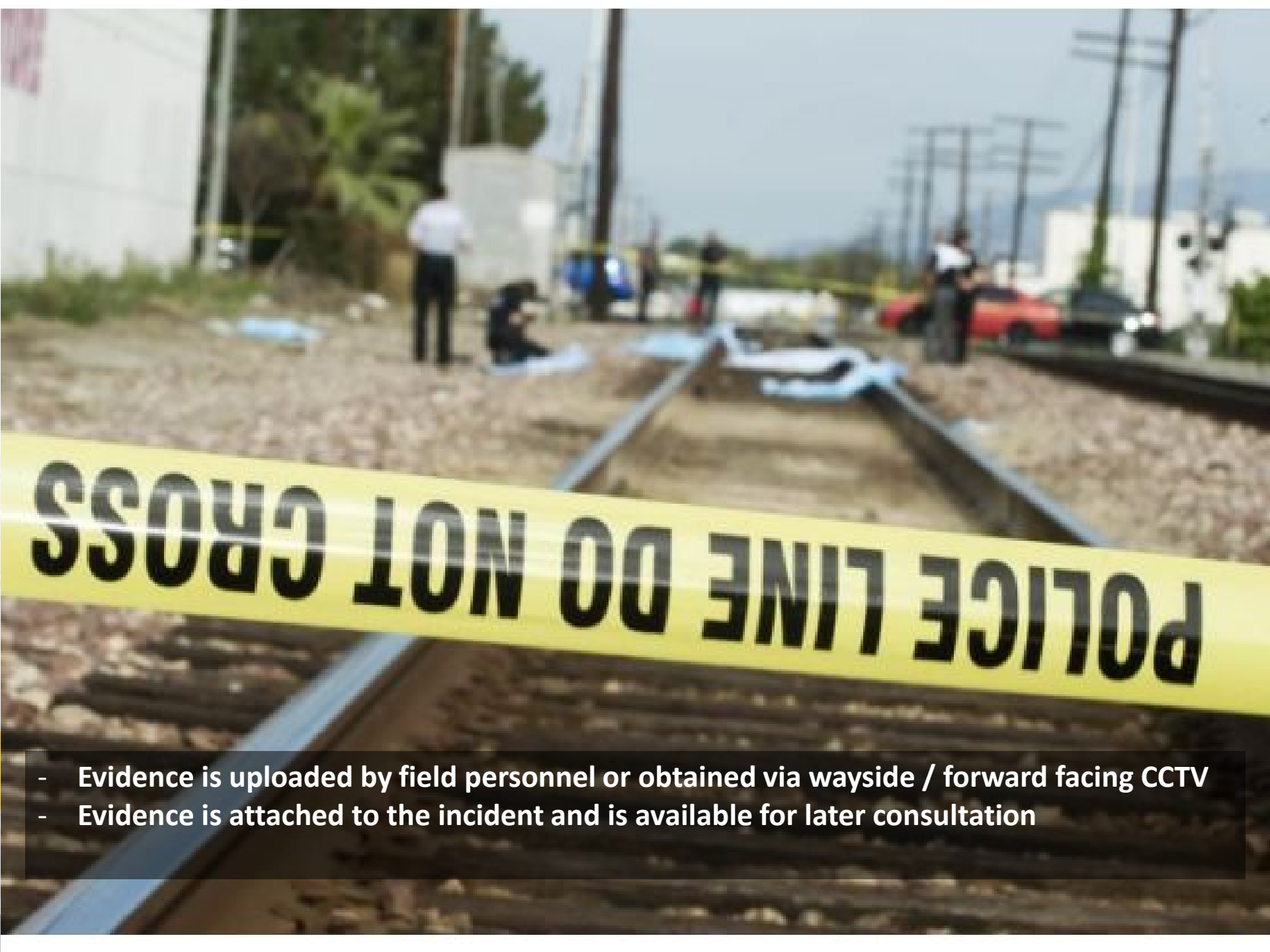
#### Comments

Request for forensic evidence can be sent to on-site personnel

(1) New, ( ) Acknowledged

Logged in as: Ron Smith

[Change User](#)



- Evidence is uploaded by field personnel or obtained via wayside / forward facing CCTV
- Evidence is attached to the incident and is available for later consultation



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File View Tools Help

New Incident New Message Deploy Procedure Quick Lat...

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### Incidents Log

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- Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

12:21:42

Security Global Ron Smith

Operations

Acknowledge Edit Incident New Task Deploy Procedure Add comment Add Similar Generate Report... More Info... Add Scheduled Task Use...

Comments

Ready 1 / 3 69%

Logged in as: Ron Smith [Change User](#)

Bus Companies & Work Order.pdf - Foxit Reader - [Bus Companies & Work Order.pdf]

File Edit View Comments Forms Tools Help Modify your PDFs with Phantom

### Bus Companies

Company	Max Buses	Contact / PO	Phone	Phone 2
Happy Bus	5	#43500	31-20-6664433	-
Utrecht Bus Corp.	10	A545	31-20-3409400	-
NL Trips Ltd.	5	#00994	31-20-3408844	-

Relevant logistics information is displayed



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File View Tools Help

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 Messages
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 Access Control
 Guard Tour
 Administration

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### Incidents Log

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**Medium** Today 03:15:52 AM
- Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

(1) New, ( ) Acknowledged

### Suicide Attempt \ Emergency

12:23:16

Summary Tasks Details

#### Tasks

##### My Tasks

- Contact cleaning contractor
- Issue SAP maintenance work order
- Click when police arrived on site
- Click when EMS arrived on site
- Click when fire brigade arrived on site

#### Info

Group: Security  
 Site: Global  
 Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

#### Comments

Logged in as: Ron Smith

[Change User](#)



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File View Tools Help

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### Incidents Log

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### Suicide Attempt \ Emergency

12:23:16

Summary Tasks Details

#### Tasks

##### My Tasks

- Issue SAP maintenance work order
- Click when police arrived on site
- Click when EMS arrived on site
- Click when fire brigade arrived on site

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
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- Add comment
- Find Similar
- Generate Report...
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- Add Scheduled Task
- Close...

Subcontractors receive maintenance work orders and arrival maps to site

(1) New, ( ) Acknowledged

--- NEW MESSAGE ---

**Active Incident:** Train Pedestrian Collision  
**Type:** Emergency  
**Severity:** High

[Work Order attached](#) [GIS map](#)



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File View Tools Help

New Incident New Message Deploy Procedure Quick Launch Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

Navigation icons for the Incidents Log panel.

(1) Incidents to Acknowledge

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**Medium** Today 03:15:52 AM
- Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

### Suicide Attempt \ Emergency

12:23:33

Summary Tasks Details

#### Tasks

##### My Tasks

- Click when police arrived on site
- Click when EMS arrived on site
- Click when fire brigade arrived on site

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
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- Add Scheduled Task
- Close...

#### Comments

Emergency forces arrival is time stamped and audited

(1) New, ( ) Acknowledged

Logged in as: Ron Smith

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File View Tools Help

- New Incident
- New Message
- Deploy Procedure
- Quick Launch
- Phone Dialer
- Summary
- Incidents**
- Maps
- Messages
- Sensors
- Video
- Access Control
- Guard Tour
- Administration

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### Incidents Log

(1) Incidents to Acknowledge

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Weather Alert \ Weather  
**Medium** Today 03:15:52 AM

Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

(1) New, ( ) Acknowledged

### Suicide Attempt \ Emergency

12:28:07

Summary Tasks Details

#### Tasks

##### My Tasks

Click upon incident conclusion

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

#### Comments

Logged in as: Ron Smith

[Change User](#)



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File View Tools Help

New Incident New Message Deploy Procedure Quick Launch Phone Dialer

Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

Suicide Attempt \ Emergency

12:28:10

(1) Incidents to Acknowledge

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Train Pedestrian Collision \ Emergency  
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Line Maintenance \ Maintenance  
**Medium** Today 12:08:17 PM

Weather Alert \ Weather  
**Medium** Today 03:15:52 AM

Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

Summary Tasks Details

Control Room

Identify on-site police incident cause:

Suicide

Attempted  
suicide

Fatal  
trespassing  
accident

Serious  
trespassing  
accident

Trespassing  
incident

Uncategorized  
fatality

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

Acknowledge  
Edit Incident  
New Task  
Deploy Procedure  
Add comment  
Find Similar  
Generate Report...  
More Info...  
Add Scheduled Task  
Close...

#### Comments

(1) New, ( ) Acknowledged

Logged in as: Ron Smith

[Change User](#)



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File View Tools Help

New Incident New Message Deploy Procedure Quick Launch Phone Dialer

Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

(1) Incidents to Acknowledge

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**Medium** Today 12:08:17 PM
- Weather Alert \ Weather  
**Medium** Today 03:15:52 AM
- Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

(1) New, ( ) Acknowledged

### Suicide Attempt \ Emergency

12:28:19

Summary Tasks Details

#### Tasks

##### My Tasks

- Mark on Police permission to restore traffic
- On-site IM confirms safe for resumption
- Complete incident form

#### Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

#### Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

#### Comments

Logged in as: Ron Smith

[Change User](#)



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File View Tools Help

New Incident New Message Deploy Procedure Quick Launch Phone Dialer Summary Incidents Maps Messages Sensors Video Access Control Guard Tour Administration

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### Incidents Log

- (1) Incidents to Acknowledge
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- Line Maintenance \ Maintenance  
**Medium** Today 12:08:17 PM
- Weather Alert \ Weather  
**Medium** Today 03:15:52 AM
- Computer Theft \ Robbery  
**Normal** Yesterday 11:32:33 PM

Suicide Attempt \ Emergency

12:29:03

Control Room

### On-site IM confirms safe for resumption

Tasks

- Ask to confirm the following:
- Body removed from site
- Site has been cleaned
- Infrastructure engineering and technical work finished
- RU work concluded
- Safe operations possible (tracks clear)

OK Cancel

Info

Group: Security  
Site: Global  
Assigned to: Ron Smith

Operations

- Acknowledge
- Edit Incident
- New Task
- Deploy Procedure
- Add comment
- Find Similar
- Generate Report...
- More Info...
- Add Scheduled Task
- Close...

Comments

Internal traffic resumption procedures are verified

(1) New, ( ) Acknowledged

Logged in as: Ron Smith [GIS map](#) [Change User](#)



Nice Situitor - Control R  
File View Tools H

New Incident New Message

NICE Situitor™

Incidents Log

(1) Incidents to Acknowledge

- Panic Button Activated  
Urgent
- Medical Emergency  
High
- Weather Alert \ W  
Medium
- Computer Theft  
Normal

# Suicide Event

<b>Owner:</b>	Ron Smith
<b>Type:</b>	Security
<b>Severity:</b>	Normal
<b>Status:</b>	Acknowledged
<b>Opened on:</b>	18-Jan-12 12:36:19 AM
<b>Opened by:</b>	Ron Smith
<b>Acknowledged on:</b>	18-Jan-12 12:36:19 AM
<b>Acknowledged by:</b>	Ron Smith
<b>Location:</b>	



## Deployed procedures and tasks

### Tasks deployed at 6/10/2012 12:41:23 PM, by Administrator

Task	Assigned to	Job Title/Group	Status	End Time	Completed by	Comments
Obtain details from the reporting person on the incident location and description.	All CR Operators	All CR Operators	Completed	6/10/2012 12:41:31 PM	Administrator	
Fill in an Incident Report form.	All CR Operators	All CR Operators	Completed	6/10/2012 12:41:32 PM	Administrator	
Call the duty incident manager and verify details.	All CR Operators	All CR Operators	Completed	6/10/2012 12:41:34 PM	Administrator	
Call the police and report the incident.	All CR Operators	All CR Operators	Completed	6/10/2012 12:41:35 PM	Administrator	
Call the fire brigade and report the incident.	All CR Operators	All CR Operators	Completed	6/10/2012 12:41:37 PM	Administrator	

Full incident report including all tasks completed by different stake holders

Guard Tour Administration

Security Global Ron

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Report...  
...  
uled Task

Change User



# Summary - information, situation management & decision support platform

- Combining best-practices and technology can assist in the mitigation of trespassing and suicide consequences and reduce the shutdown time
- Some of the supportive functionalities demonstrated were:
  - Enforcement of consistent response checklists
  - Improving inter-agency collaboration and communication channels
  - Sharing common operating picture between all stakeholders
  - Automation of tasks
  - Context sensitive presentation of supportive information
  - Impact analysis
  - Incident reporting and reconstruction (complete audit trail)
  - Integration with field sensors (e.g. SCADA, CCTV, mobile devices)



# **IMPROVING DECISION SUPPORT PROCESSES AND INCIDENT MANAGEMENT**



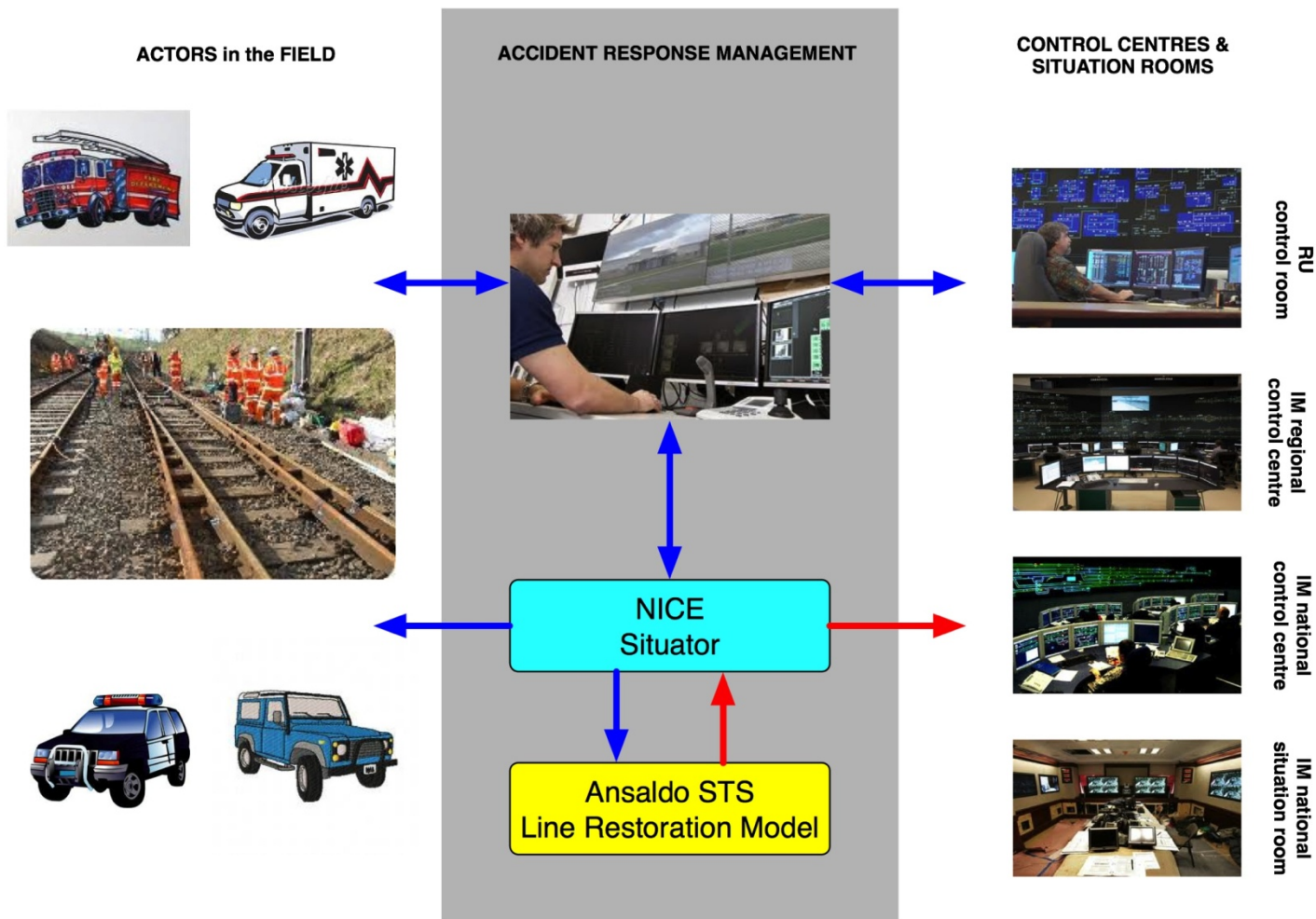
# Traffic restoration assessment model

- **Objectives:** develop a traffic restoration time forecasting model
- **Benefits**
  - Optimising the rescheduling of mainline rail traffic (passenger & freight)
  - Providing better and more accurate information to on- and off-site decision makers, enabling:
    - ✓ To optimally allocate internal and external resources
    - ✓ Provide alternative means of transport
    - ✓ Improve site logistics
    - ✓ Mitigate bottlenecks
  - Provide better information to passengers (stations, trains & Web)





# Solution architecture



System architecture & information flow



**THANK YOU**