



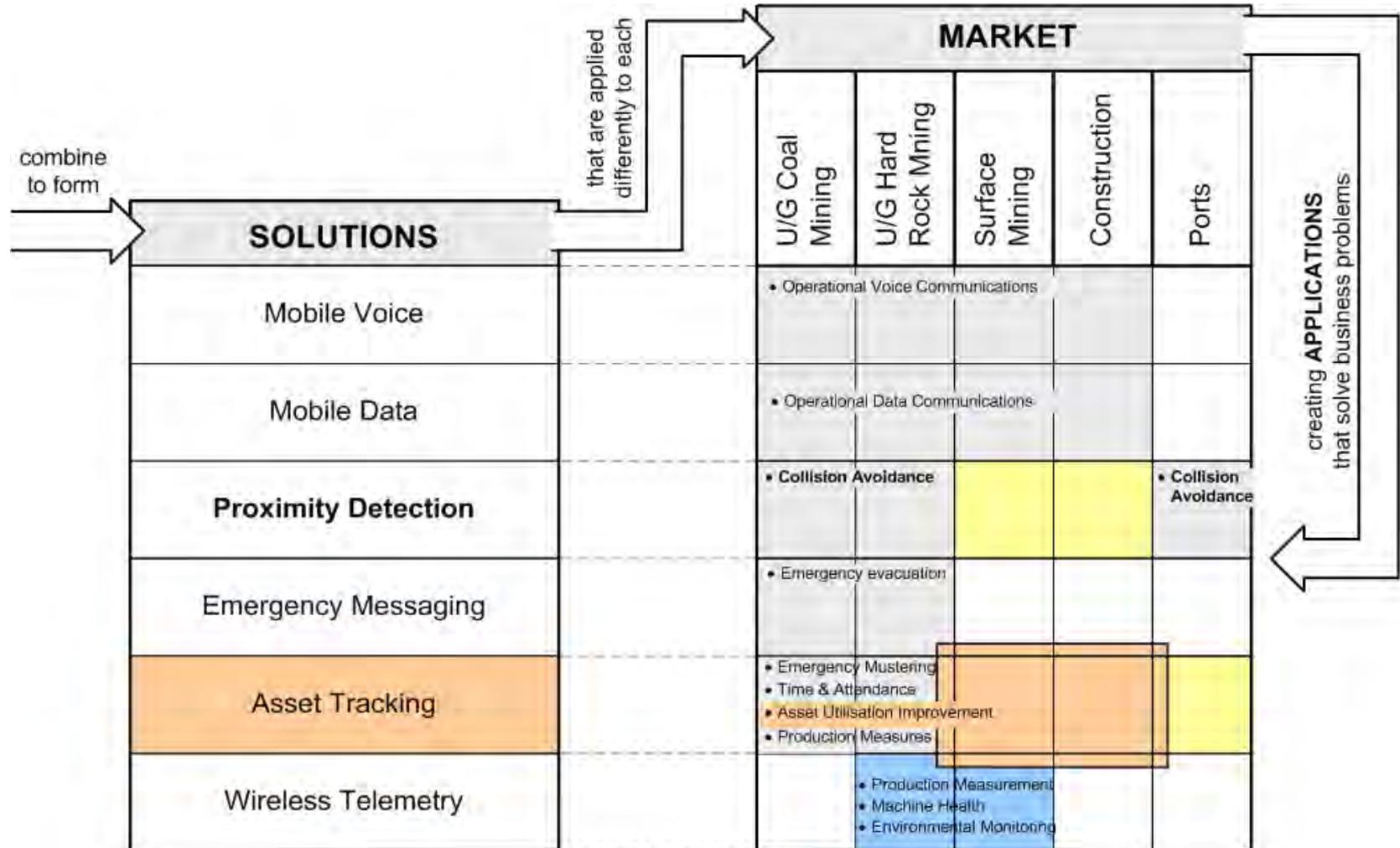
TRK - Real Time Tracking (Time & Attendance)

Posicionamiento y localización de personas,
equipos y activos



IMPACT – The Complete Solution

IMPACT Underground Mine Communications Platform



Para que se utiliza?

Que es "Time & Attendance"?

- Registra el tiempo de entrada y salida de todo el personal a la mina incluyendo vehículos

Para que se utiliza ?

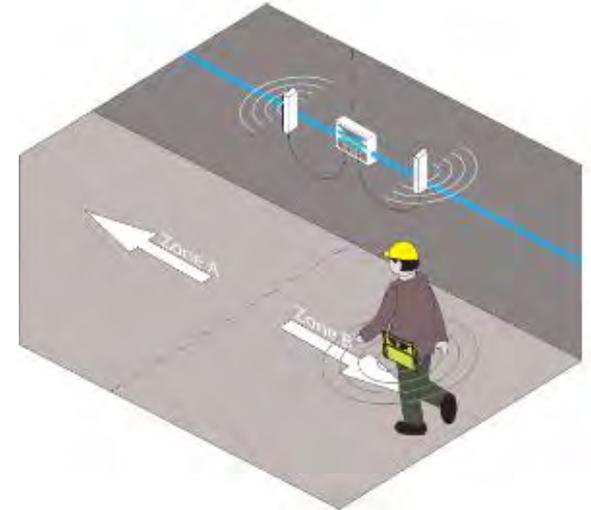
- Análisis y eficiencia operacional y Seguridad
 - Tiempos en los frentes de trabajo o zonas importante por diferentes cuadrillas
 - Contabilizar en casos de siniestro o emergencias
- Gestión de los trabajadores / tiempos y gastos contractuales
 - Asegura eficiencia por los contratistas
 - Control y visión en la facturación por servicios y HH
- Visualización en Tiempo Real
 - Confiabilidad y mejoras en la seguridad del personal

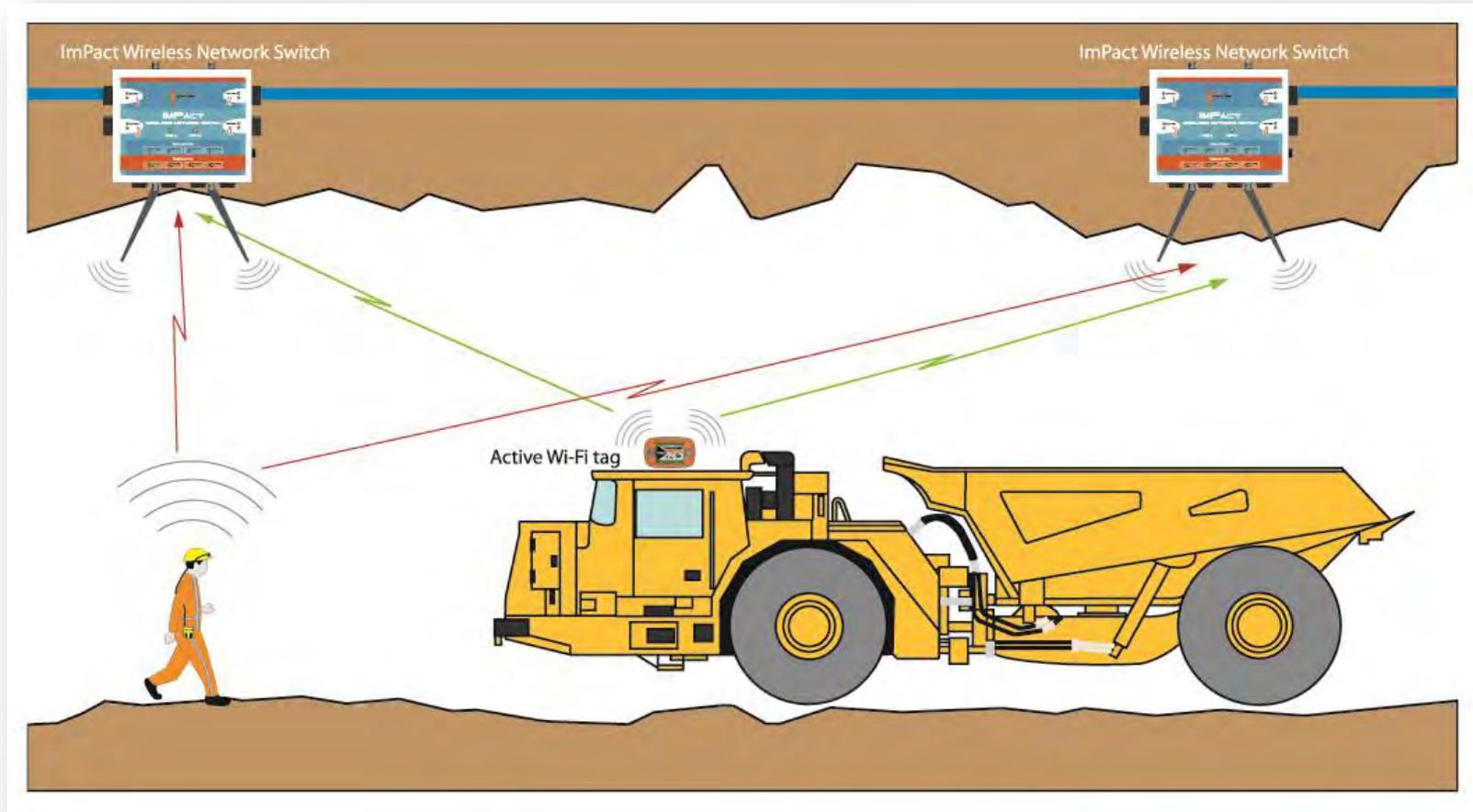
Por que Implementar la solución MST?

- Captura de Datos Automatizado y Reportabilidad
 - Elimina errores accidentales y/o a propósito
 - Aumenta la eficiencia (menos esfuerzo humano)
- Reportabilidad In-Situ o de Forma Remota completamente en tiempo real.

Highlights

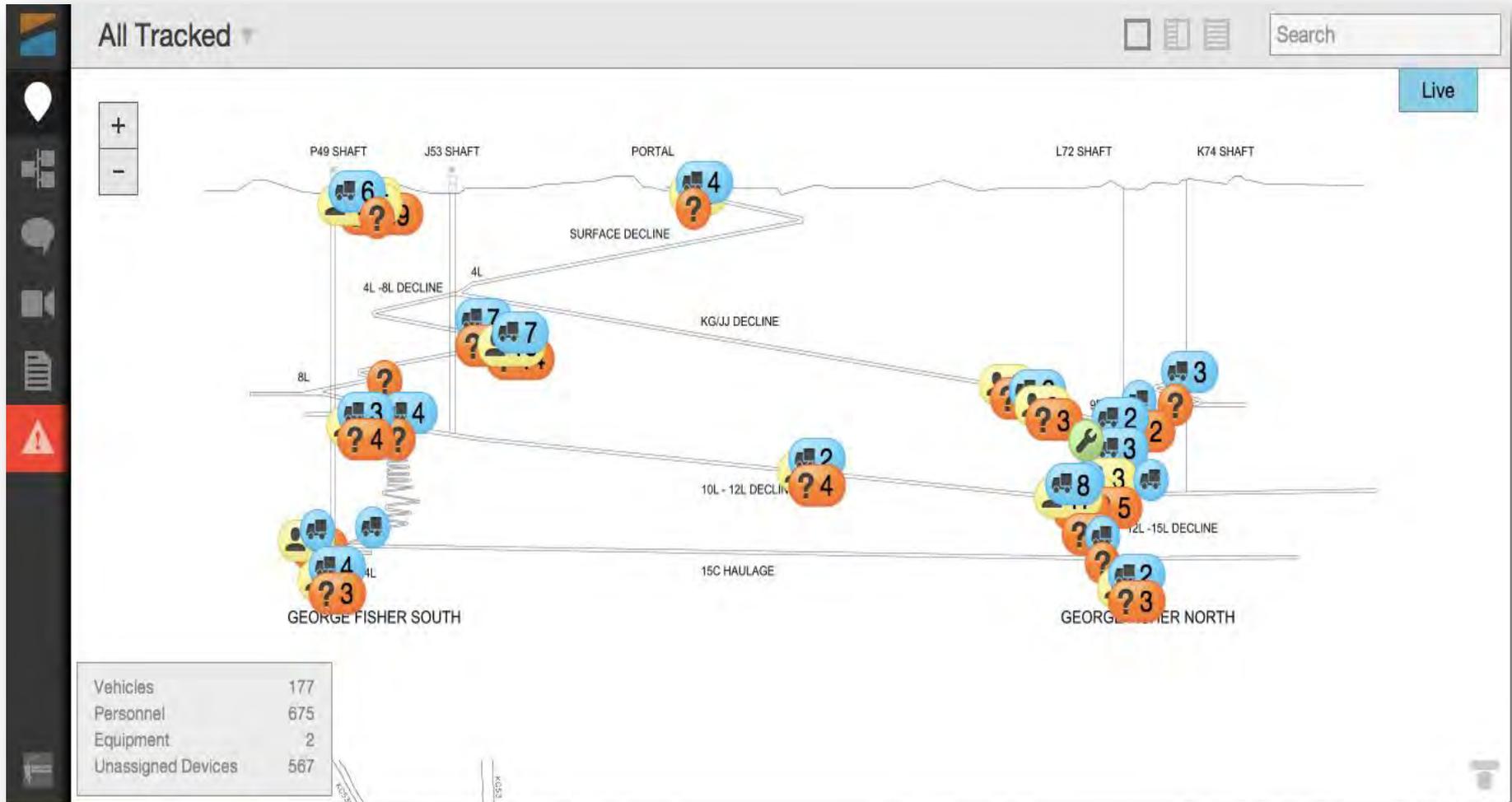
- ❑ Sistema de Rastreo y Control de Acceso Multi-Servicio
- ❑ Permite monitorear sobre 10,000 usuarios y clientes
- ❑ Software de gestión integrable con Multiple aplicaciones para mayor **seguridad, visualización y gestión.**
- ❑ Escalable capaz de incorporar otras soluciones como gestión de flota, gases, telefonía IP, video, Anti Collision, integración con terceros

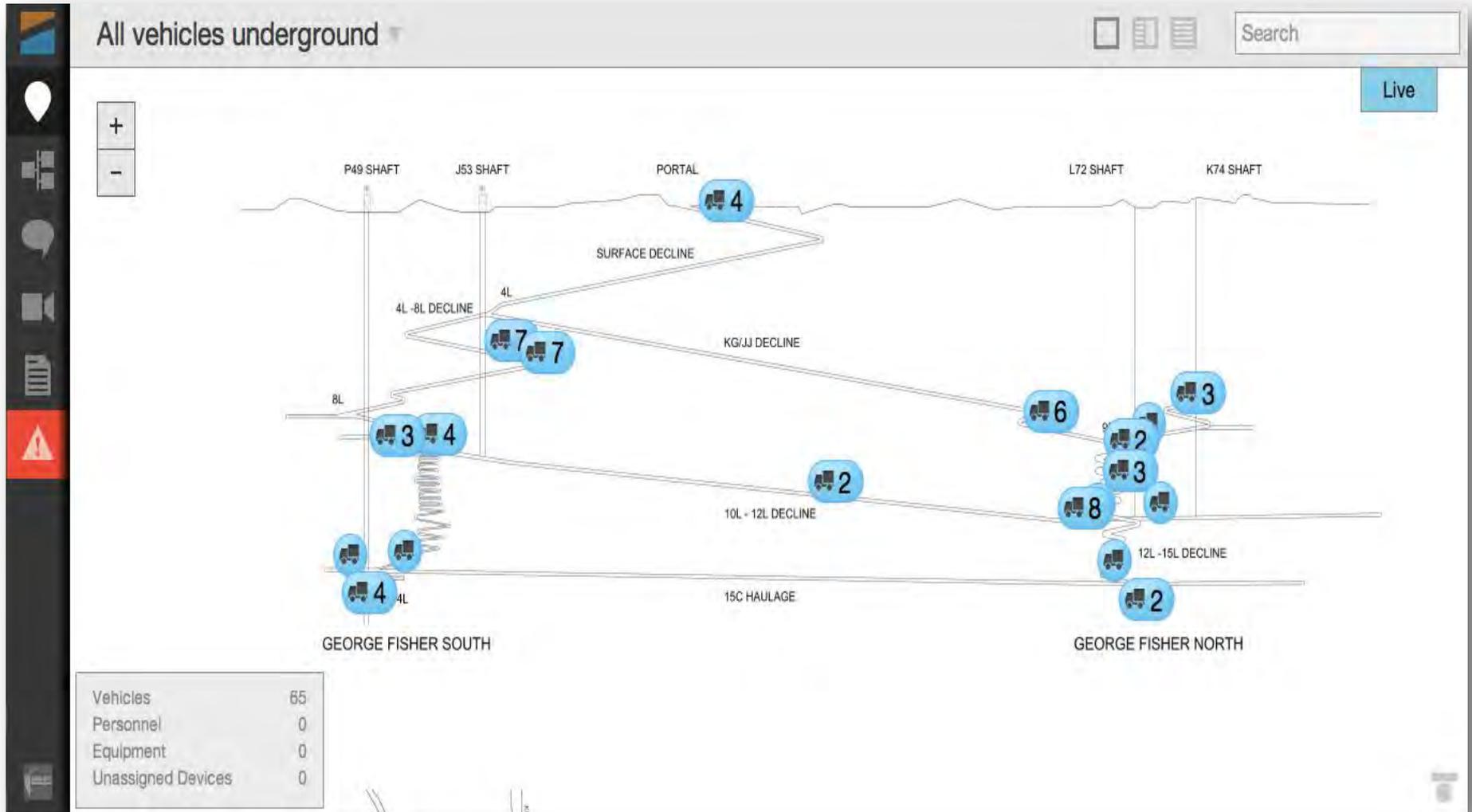




- ❑ TAGS portados por personal o vehículos logran ser rastreados a medida que cada dispositivo se traslata o pasa por un lector.

Ejemplo del Software de Gestión (MINEDASH) registrando el movimiento de los activos interior mina.





Capacidad de filtrar por nivel o zonas de cobertura

All Tracked ▾

Search

Live

Ian Mansell
and 1 other Person

Tags	000CCC756402
Underground	05:43 AM, Today
MAINS 3	10:29 AM, Today
DHDG 56CT to 60CT	11:04 AM, Today
Last Read	11:04 AM, Today
No Active Alarms	

Vehicles	24
Personnel	32
Equipment	14
Unassigned Devices	26

Capacidad de filtrar por nivel o zonas de cobertura

MineDash

- Tracking
- Network
- Messages
- Video
- Reports
- Alarms

admin
Logout

Show All

- Show All
- 17L LVM - All
- 17L LVM - Equipment
- 17L LVM - Minephones
- 17L LVM - People
- 17L LVM - Vehicle Haulage
- 17L LVM - Vehicles
- 17L LVM - Vehicles: Light
- 19B X41 - All
- 19B X41 - Equipment
- 19B X41 - Minephones
- 19B X41 - People
- 19B X41 - Vehicles
- 19B X41 - Vehicles: Light
- 19L R62 - All
- 19L R62 - Equipment
- 19L R62 - People
- 19L R62 - Vehicles
- 19L R62 - Vehicles: Light
- 20L R62 - All
- 20L R62 - Equipment
- 20L R62 - People
- 20L R62 - Vehicles
- 20L R62 - Vehicles: Light
- 21C R62 - All
- 21C R62 - Equipment
- 21C R62 - People
- 21C R62 - Vehicles
- 21C X41 - All
- 21C X41 - Equipment

Vehicles	208
Personnel	1031
Equipment	17
Unassigned Devices	245

Capacidad de filtrar por nivel o zonas de cobertura - incluyendo alarmas

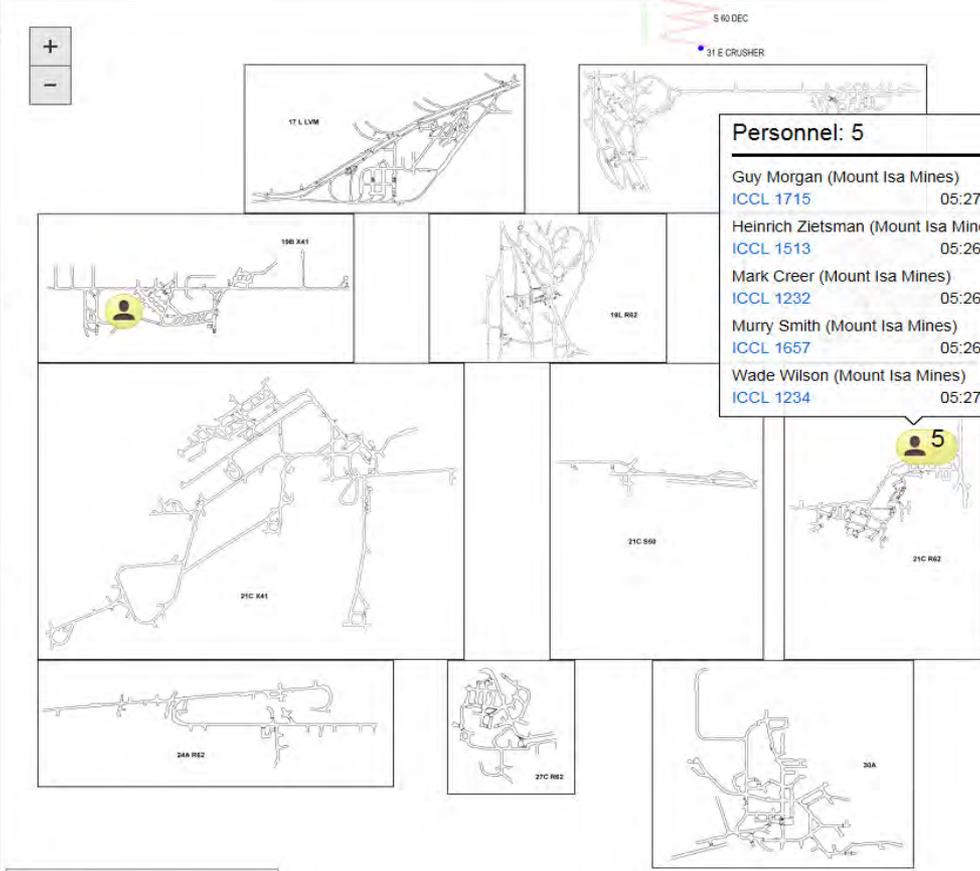
MineDash

- Tracking
- Network
- Messages
- Video
- Reports
- Alarms

admin
Logout

CRIB/ERB - People

- 21C X41 - All
- 21C X41 - Equipment
- 21C X41 - People
- 21C X41 - Vehicles
- 21C X41 - Vehicles: Light
- 30A - All
- 30A - Equipment
- 30A - People
- 30A - Vehicles
- 30A - Vehicles Haulage All
- 30A - Vehicles: Light
- All Equipment
- All People
- All VIPS
- All Vehicles
- Blastpeds
- CRIB/ERB - People**
- Comms - All
- Comms - Surface
- Comms - UG
- Comms - Vehicles
- Comms Elec Projects - Surf...
- Comms Elec Projects - UG
- Comms Elec Projects - Veh...
- Enterprise Mine - All
- Enterprise Mine - Vehicles
- Enterprise Mine - Equipment
- Enterprise Mine - People
- Minephones
- R62 - All



Personnel: 5

- Guy Morgan (Mount Isa Mines)
ICCL 1715 05:27 AM, 4/12/2013
- Heinrich Zietsman (Mount Isa Mines)
ICCL 1513 05:26 AM, 4/12/2013
- Mark Creer (Mount Isa Mines)
ICCL 1232 05:26 AM, 4/12/2013
- Murry Smith (Mount Isa Mines)
ICCL 1657 05:26 AM, 4/12/2013
- Wade Wilson (Mount Isa Mines)
ICCL 1234 05:27 AM, 4/12/2013

Vehicles	0
Personnel	855
Equipment	0
Unassigned Devices	0

Vehicle Status
Search

All Vehicles Surface - Count

22

All Vehicles Workshop - Count

7

All Vehicles In Transit - Count

60

Trip History Last 8h - All Vehicles - Count

198

Parking Bay Camera



Workshop Camera



All Vehicles In Transit

UTR083	LV 4900 Ramp
UTR084	LV 4380
UFL028	LV 4900 Ramp
UHT061	LV 4400
UFR008	LV 4450
UTR145	LV 4315 Belts
USL008	LV 4315 Belts
ULD054	LV 4490-95
UTR147	Full House
ULD065	LV 4450
UHT051	LV 4400
UJM043	LV 4359
UCR063	LV 4490-95
UTR073	LV 4315 Belts
UFR012	LV 4315 Belts
UHT062	LV 4400
UTR067	LV 4315 Belts
USL003	LV 4315 Belts
ULT007	LV 4450
LWT007	LV 4450
UTR146	LV 4450
UCR001	One Bin 2
UDR051	LV 4490-95
UTR144	Turf 4180
UTR114	LV 4315 Belts
UHT064	Turf 4200
ULD068	LV 4510
UGR005	LV 4380

Trip History Last 8h - All Vehicles

Name	Vehicle	Location	Time
UTR083	LV Decline South R.	LV 4900 Ramp	11:24 PM, 23/5/2013
UTR084	LV Decline South R.	LV 4380	11:23 PM, 23/5/2013
ULD054	LV Decline South R.	LV 4490-95	07:35 PM, 23/5/2013
UTR147	LV Decline South R.	Full House	06:54 PM, 18/6/2013
ULD065	LV Decline South R.	LV 4450	11:24 PM, 23/5/2013
UHT051	LV Decline South R.	LV 4400	11:10 PM, 23/5/2013
UJM043	LV Decline South R.	LV 4359	11:16 PM, 23/5/2013
UDR063	LV Decline South R.	LV 4490-95	11:20 PM, 23/5/2013
UTR073	LV Decline South R.	LV 4315 Belts	11:18 PM, 23/5/2013
UFR012	LV Decline South R.	LV 4315 Belts	09:42 PM, 23/5/2013
UHT062	LV Decline South R.	LV 4400	11:24 PM, 23/5/2013
UTR067	LV Decline South R.	LV 4315 Belts	11:16 PM, 23/5/2013
USL003	LV Decline South R.	LV 4315 Belts	11:15 PM, 23/5/2013
ULT007	LV Decline South R.	LV 4450	11:14 PM, 23/5/2013
LWT007	LV Decline South R.	LV 4450	10:12 PM, 23/5/2013
UTR146	LV Decline South R.	LV 4450	11:24 PM, 23/5/2013
UCR001	LV Decline South R.	One Bin 2	11:25 PM, 23/5/2013
UDR051	LV Decline South R.	LV 4490-95	03:45 AM, 22/5/2013
UTR144	LV Decline South R.	Turf 4160	07:51 AM, 23/5/2013
UTR114	LV Decline South R.	LV 4315 Belts	10:58 PM, 23/5/2013
UHT064	LV Decline South R.	Turf 4200	11:23 PM, 23/5/2013
ULD068	LV Decline South R.	LV 4510	09:26 PM, 23/5/2013
UGR005	LV Decline South R.	LV 4380	10:17 PM, 23/5/2013
UFR009	LV Decline South R.	LV 4315 Belts	11:22 PM, 23/5/2013
UFL027	LV Decline South R.	LV 4675	11:25 PM, 23/5/2013
LWT012	LV Decline South R.	LV 4450	11:12 PM, 23/5/2013

All Vehicles Surface

UHT144	Maintenance Building
UTR083	Maintenance Building
UTR084	Maintenance Building
UFL028	Admin Building
UHT061	Admin Building
UFR008	Admin Building
UTR145	Admin Building
USL008	Maintenance Building
ULD054	Maintenance Building
UTR147	Admin Building
ULD065	Admin Building
UHT051	Admin Building
UJM043	Admin Building
UDR063	Admin Building
UTR073	Admin Building
UFR012	Maintenance Building
UHT062	Admin Building
UTR067	Admin Building
USL003	Maintenance Building

All Vehicles Workshop

UDR050	4450 Mobile Shop
UFL023	4450 Mobile Shop
UTR113	4450 Mobile Shop
UTR138	4450 Mobile Shop
UTR093	4450 Mobile Shop
UTR072	4450 Mobile Shop
UGR004	4450 Mobile Shop

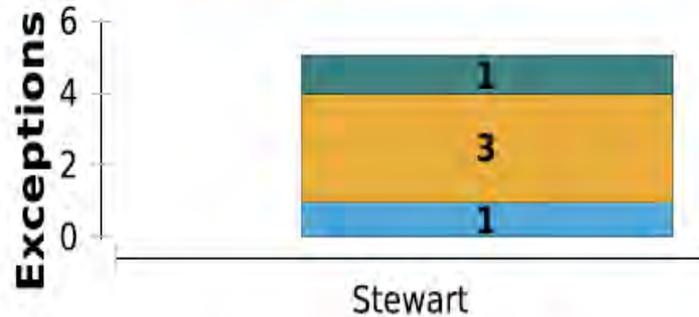


TRK - Tracking - Reportes Especializados

Time and Entry Reporting (Reportes Personalizados)

MINEDASH: SUPERVISOR DAILY CREW REPORT

Report Date : 30/06/2014
 Shift Start Time: 07:30
 Shift Finish Time: 19:45
 Supervisor ID: 046
 Supervisor Name: Stewart
 Supervisor Title: SHIFT SUPV - MINE PRODUCTION A CREW



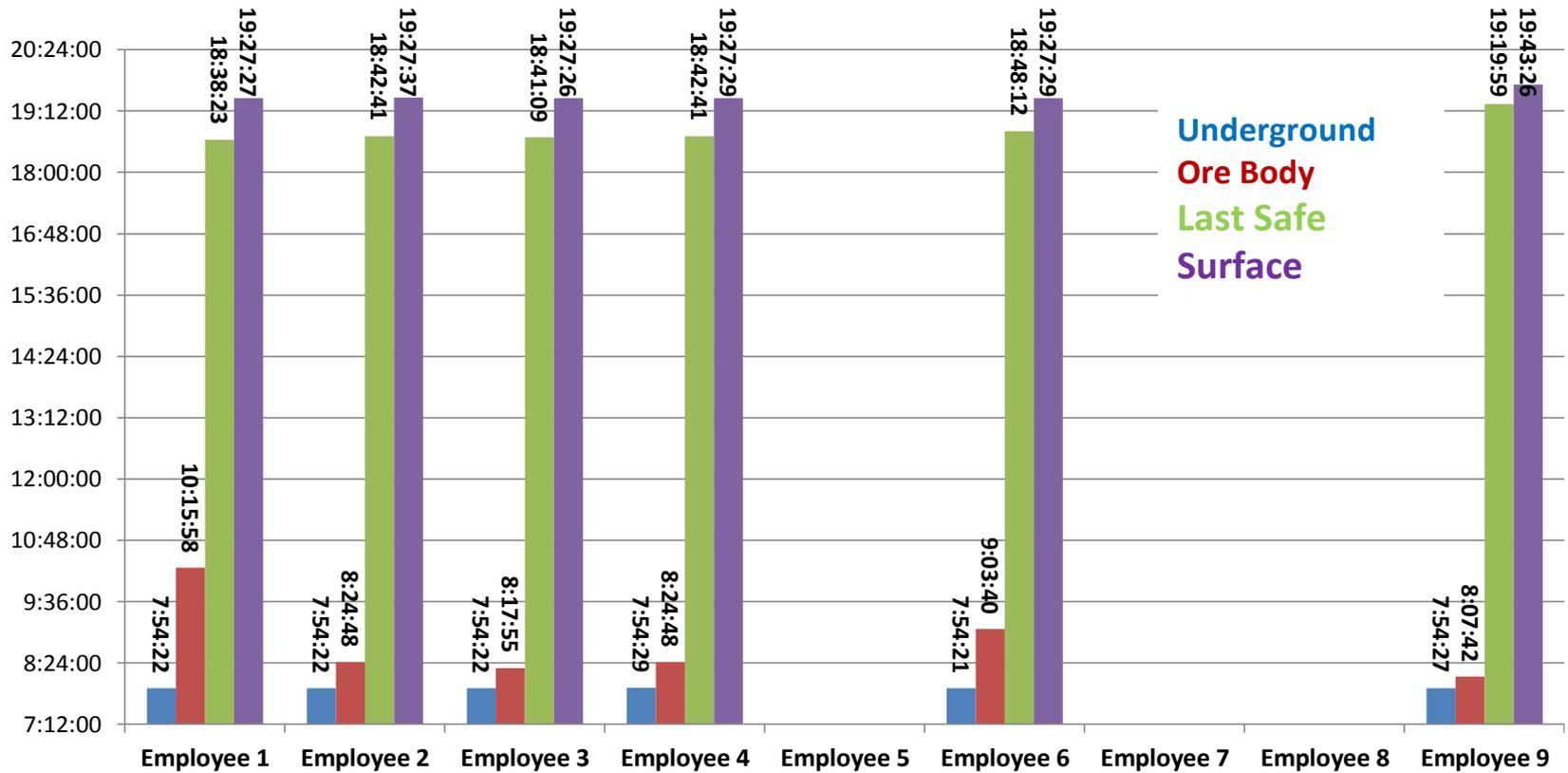
Personnel Entry Exit Times



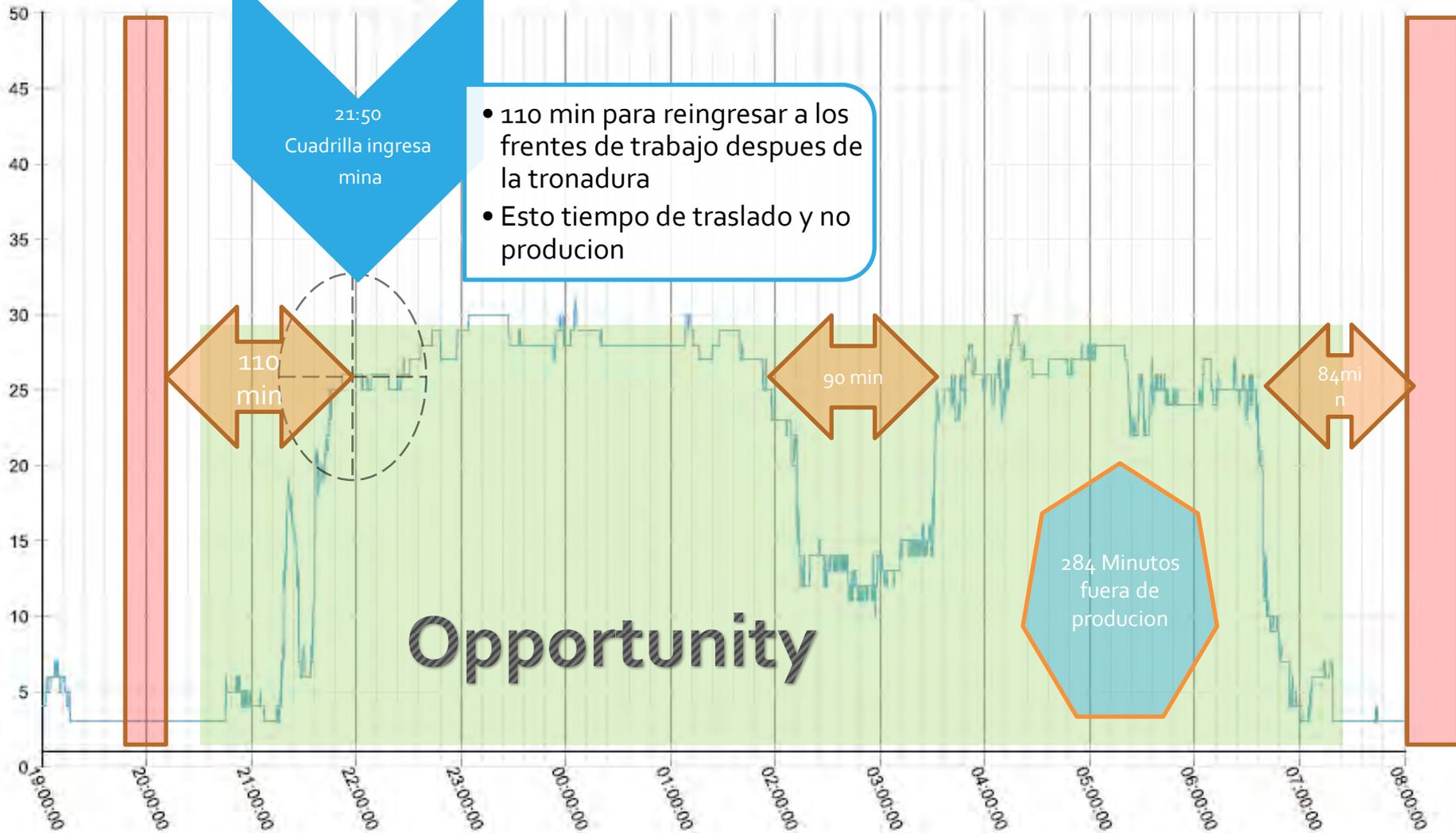


TRK - Tracking

Time and Entry Reporting (Reportes Personalizados)



Night Shift Development Personnel in Firing Areas



Night Shift Development Personnel in Firing Areas



❑ **Solución Escalable**

Desde un simple sistema de control de acceso a un sistema completo de gestión y monitoreo

Portales y zonas de producción + chocke points

❑ **Con precisión escalable y adaptable en momento críticos**

Configurable para incrementar lectura de eventos y notificación para mayor seguridad (Outlook email , sms, txt)

❑ **Fácil de montar y mantener**

Middleware layer and API para integration

❑ **Sistema probado en el mercado con mas 100 plataformas operando a nivel mundial**



Consultas

Ramiro Mesina
Gerente Regional (Latinoamérica)