

LiquidVoice  
Smart business analytics

BEST PRACTICE GUIDE:

HIGH AVAILABILITY RECORDING,  
INCIDENT RECONSTRUCTION  
& ANALYTICS FOR RAIL OPERATORS

# Incident Management

Rail Operators need to be able to respond to any incident in order to minimise disruption to their services and more importantly, to protect public safety. Key to this is operating command and control centres that are able to quickly ascertain the full picture and be able to push critical information to those who need it to coordinate and manage a response.

There are many sources of information: calls from the public, radio interactions, video feeds, public announcements, GEO-location data, and the information captured in your command and control systems. How do you ensure that all of these feeds are captured, chronologically linked together and can be instantly replayed as a holistic reconstruction?

How do you ensure that your systems are resilient and that every perspective is captured, secured and retained in order to provide admissible evidence, and how do you leverage this wealth of information to learn lessons, refine procedures and support ongoing training?

We have extensive experience in providing recording and analytics to the rail sector with clients including **Arc Infrastructure**, **Newcastle Light Rail**, **VicTrack** and **Yarra Trams**. In this best practice guide we will outline how we have helped these organisations to address their key challenges.







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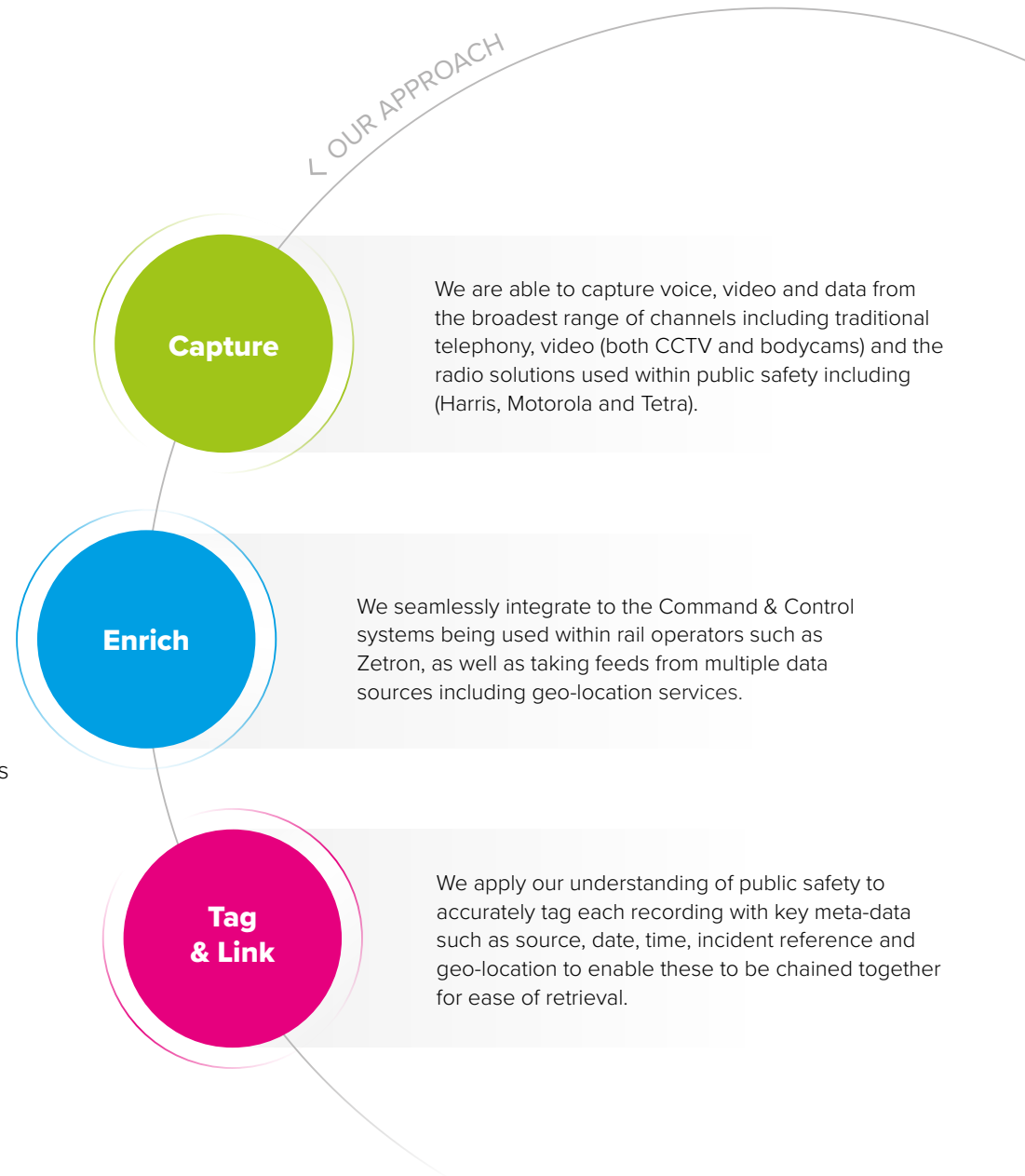
## Step One - Capturing Every Feed

When an incident occurs, your team needs to be able to see and capture the full picture. Having different recording solutions for phone, radio, video etc is not only inefficient, but prevents your team from quickly accessing key information across all channels to effectively respond.

Through our experience of working with many public safety operators, in particular rail operators, we have created connectors into the leading telephony, radio, video and

command & control platforms. This enables you to have a single platform that can take feeds from every communication channel and information source, and smartly chain these together in real-time.

This allows us to capture interactions and feeds, immediately associating these to a particular incident and accurately tagging each recording with key meta-data such as date & time, source, geo-location and incident reference.





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## Step Two - Focus on Resilience

You need to be confident that you are capturing every piece of information as lives and public safety may be dependent upon it.

You need a recording solution that has no single point of failure and can operate at the highest level of resilience. As a provider of public safety recording and analytics solutions, high-availability is built into the design of our solution. Our dual-active solution has two recorders, normally placed

in separate locations, operating in parallel. If one system fails, the other remains in place with no disruption to service.

This approach also ensures a 24x7 solution, where any faults, updates and maintenance can be performed at any time while one of the pair remains active.

### Dual Active

↳ OUR APPROACH

We enable you to have a fully resilient solution with two recorders running in a parallel active state. This ensures that any failure neither disrupts service, nor loses any recordings.

### Mirroring

Every recording captured, regardless of channel, is replicated across our two active recorders ensuring that even if one recorder fails, all historic and current recordings remain accessible.

### Channel Validation

Our solution utilises continuous monitoring, not just at the server level, but testing and validating each channel and flagging any issues on particular lines or feeds that can disrupt quality of service.



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## Step Three - Empowering Highly Effective Incident Response

Your team needs to trust the tools they are using and be empowered with the information and visibility they need to deliver a highly effective response.

They need to see the complete picture; that means being able to access every source of information possible. This includes telephone calls, radio interactions, CCTV, vehicle and body cameras, geo location feeds and the information being captured in your command and control systems.

You need to be able to quickly link all of the component parts in order to reconstruct events and replay these to those in your command centre and to those in the field.

This is why the Liquid Voice solution not only enables you to capture interactions across every channel, but also to instantly analyse these, reconstruct incidents in real-time and trigger alerts, actions and workflow.

OUR APPROACH

### Capture & Transcribe

We capture every element of every incident and immediately analyse interactions, transcribing voice and video to text, appending core meta-data and linking the component parts in chronological order.

### Analyse & Inform

We provide your team with real-time visibility of all events and incidents across your control centre. We analyse every element and are able to utilise key phrase spotting and proximity to trigger alerts and align workflow to your procedures.

### Share & Action

By simultaneously capturing all of the feeds and linking these together, we can immediately provide incident reconstruction and playback both in your control centre and to the field. Where events require specific action, our workflow enables you to automate triggers and escalations.





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## Step Four - Enabling You To Bring The Past With You

The nature of public safety means that the recordings associated with any incident are required to be retained for many years. These recordings can span many systems that you no longer operationally use but have the cost of maintaining for compliance reasons.

We take this issue away by enabling you to bring your past with you into your Liquid Voice solution. We are able to ingest recordings from legacy platforms such

as Nice and Redbox, enrich the tagging data associated with these recordings and create that 'single pane of glass' onto your current and historic recordings.

This ability to ingest recordings from legacy platforms enables organisations to seamlessly migrate to a Liquid Voice solution, taking a phased approach to migrating locations or channels onto our recorder.

OUR APPROACH

### Consolidate & Index

We use our tools & process automation to extract your legacy recordings from platforms such as Nice or Redbox and consolidate these into a single repository. In doing this, we enrich tagging to link every element associated with an incident and sequence these in chronological order.

### Analyse & Secure

We are able to inspect each recording in order to apply your retention policies, archiving recordings no longer needed and securing data required to be retained. Where sensitive data is being held, we are able to redact this if required or use encryption to secure this.

### Access & Share

We provide a single pane of glass that enables you to quickly search for past incidents or related events and to smartly replay these as a full incident reconstruction. We are able to transcribe voice and video recordings to create structured data that can be analysed.



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## Step Five - Creating Insights Through Analytics

The fact that you need to record every interaction across your operation provides you with a great opportunity to use this to learn valuable lessons, continually refine and improve procedures and to train your people.

You need to go back to incidents and be able to fully reconstruct these from start to finish, not only in a way to provide admissible evidence where required, but to analyse how the incident was dealt with and what could have been done differently.

There is also great value to be gained from being able to analyse all events over time and spot trends in the type of incidents you are dealing with and use these to take preventative action where possible, adjust practices and provide necessary training.

Our analytics-rich solution enables you to gain far more from recording interactions, providing you with the ability to analyse, spot trends and leverage incident reconstruction for review, evidence and training.

OUR APPROACH

### Incident Reconstruction

We uniquely unify all data sources into a single pane of glass and sequence these in chronological order. This enables each event and incident to be reconstructed and replayed providing the complete picture and every element of detail.

### Admissible Evidence

By comprehensively capturing every element of an incident and tagging this with the necessary time stamps and where relevant geo-location data, we are able to create an accurate record of events that provides admissible evidence.

### Trend Analysis

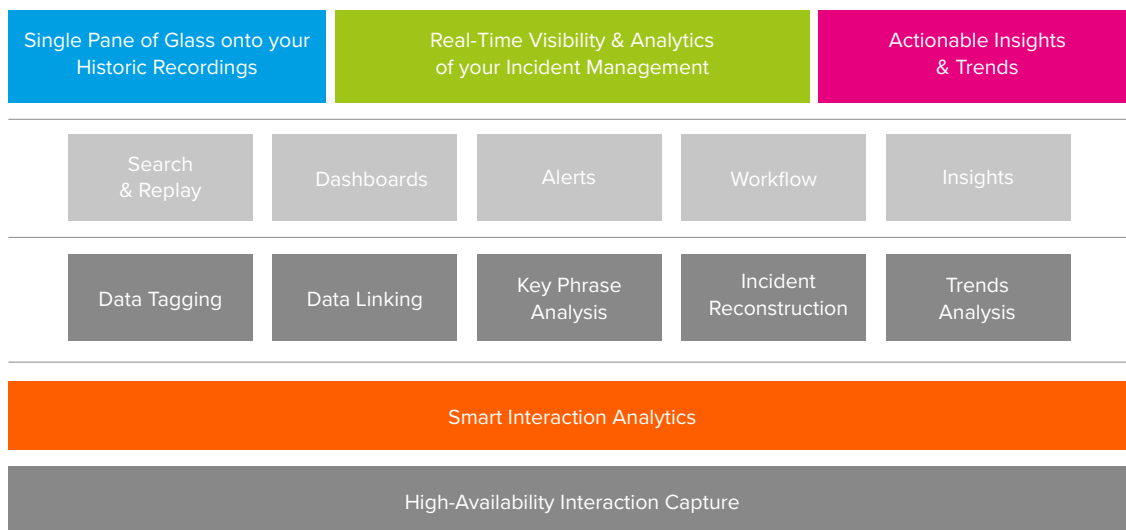
We provide you with the potential to analyse the big picture; analysing every event in order to spot trends that would normally be missed. We are able to flag related incidents and provide insights to guide procedural changes or where possible, preventative actions.

# Addressing What's Important

We understand what is important for rail operators. Our solutions provide the highest-level of resilience, are capable of integrating to the systems and media platforms that you use and leverages our proven analytics to add value.

Liquid Voice – SmartEvidence enables you to consolidate and create a single pane of glass onto your event and incident recording, provides your people with that all important real-time visibility and allows you to gain valuable insights across your entire operation.

## Liquid Voice **SmartEvidence**



### Reduce Costs

By consolidating multiple channels and legacy platforms into a single solution, reducing both maintenance and storage costs.



### Reduce Risk

By providing you with a proven, highly resilient solution that captures every aspect or every incident in a form that delivers admissible evidence.



### Operational Value

By providing the real-time insights that your people need and the ability to reconstruct incidents to ensure the best response.



## How We Help You

We have extensive experience in the rail and transportation sector with customers such as **Arc Infrastructure**, **Newcastle Light Rail**, **VicTrack** and **Yarra Trams**. We understand the unique challenges of operating command and control centres and have proven experience of delivering solutions that are dependable, easy to use and add significant value.

### Advise

We apply our experience to quickly understand your specific needs and advise you not only on what is possible, but what would deliver the outcomes that you are looking for. We work with your team to analyse the detail, leaving no stone unturned and architect a solution that fully meets your requirements.

### Enable

Our technical expertise enables us to quickly provision, configure and customise your solution with a focus on minimising operational disruption and with the ability to deploy either on-premise or in the cloud, we ensure we deliver the resilience you require in the way you want to consume this.

### Manage

Versed in supporting mission-critical environments, it goes without saying that we deliver exceptional support available 24x7. We also take this one step further by offering a comprehensive range of managed services that enables us to reduce the burden on your internal teams and provide cost-effective proactive management of your environment.

## About Liquid Voice

Liquid Voice are specialists in interaction capture and analytics with a proven track record within public safety.

We are uniquely able to capture all of the interactions and data points across a broad range of media and systems used within public safety and to analyse and link these to holistically reconstruct every event and incident.

We provide rich analytics capability that adds considerable value for those organisations looking to identify links between incidents, understand trends and drive procedural improvements or preventative actions.

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