

Leveraging Off The Shelf Technology & Communications to Enhance Response to Oil Spills

February 2013

REALITY  VISION
Instantly There.

A REAL-TIME CONNECTION BETWEEN THE FIELD AND OFFICE



In the Event of an Oil Spill

- Time & Distance = Money & Safety
 - » Time is of the essence
 - » Resources & expertise is rarely located at the scene in the moment it is needed
 - » There are human safety and environmental issues that need to be addressed quickly
 - » The longer it takes for a unified and informed response, the more costly for all parties involved
 - » There is a pressing need to link those in the field to those in command centers and corporate resources potentially located throughout the world



What Customers Tell Us Needs to Be Available in the Event of a Spill

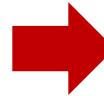
- Real-Time Video/Visual Data of event from first to arrive on scene showing situation until situation is resolved:
 - » Location-based information regarding area of response, location of responders and other key assets (GPS coordinates with time and date stamp on the video)
 - » Ability to connect mobile responders to other assets and resources regardless of their location
 - » Ability to easily and readily add outside parties and responders to collaboration efforts
 - » Ability to seamlessly coordinate response based on both visual and voice communications
 - » Real-time visual status on actions - where responders are and their current status
 - » Interoperability with existing systems and platforms.
 - » Post action event review, assessments and reporting using archived visual data

Are We Really Ready to Accomplish This?

- Hardware is capable
- Networks/Transport Layer are capable and available
- Software & Toolsets tested and certified
- Platforms exist that can be easily deployed and integrated into existing architecture
- Users are interested and capable to leveraging the technology

Market Need: Real Time Collaboration & Decisions

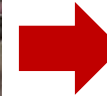
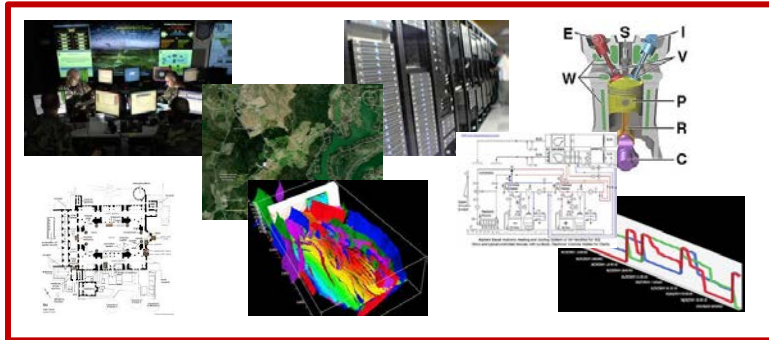
High Value Fielded Assets



Field personnel with eyes on activity

Subject Matter Experts visualizing activity in their head

Silos of Information, Expertise, Decision Making



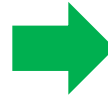
Ops Centers & Experts with information

Field personnel relying on verbal instructions



With Existing Technology: Mission Accomplished!

High Value Fielded Assets

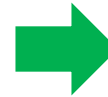
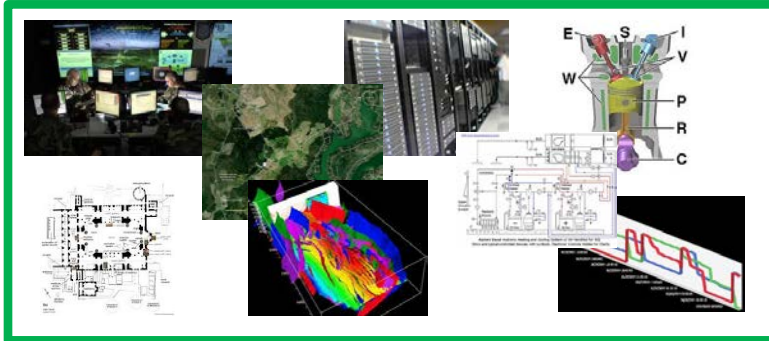


Field personnel with eyes on activity



Subject matter experts have access to activity in real time

Unlocking Information, Expertise & Decision Making



Field personnel accessing same information



Ops Centers & Experts with information

Value Proposition

See	Collaborate	Learn
<ul style="list-style-type: none"> • I see what you see (video streamed from mobile device camera) • See video from relevant video sources (on mobile device) • See people & video sources on map (on mobile devices & PCs) • See application critical data, e.g. diagrams (on my mobile device) 	<ul style="list-style-type: none"> • Share what I see with all relevant parties (both mobile & computer) • Share data on enterprise network (streamed to mobile devices) • Integrate with enterprise systems (e.g. telepresence, process) • Record visual & audio information for non real-time use 	<ul style="list-style-type: none"> • Access stored video & data for <ul style="list-style-type: none"> • Repeat activities • Training • Root cause • Tag & comment on stored video and data for quick access

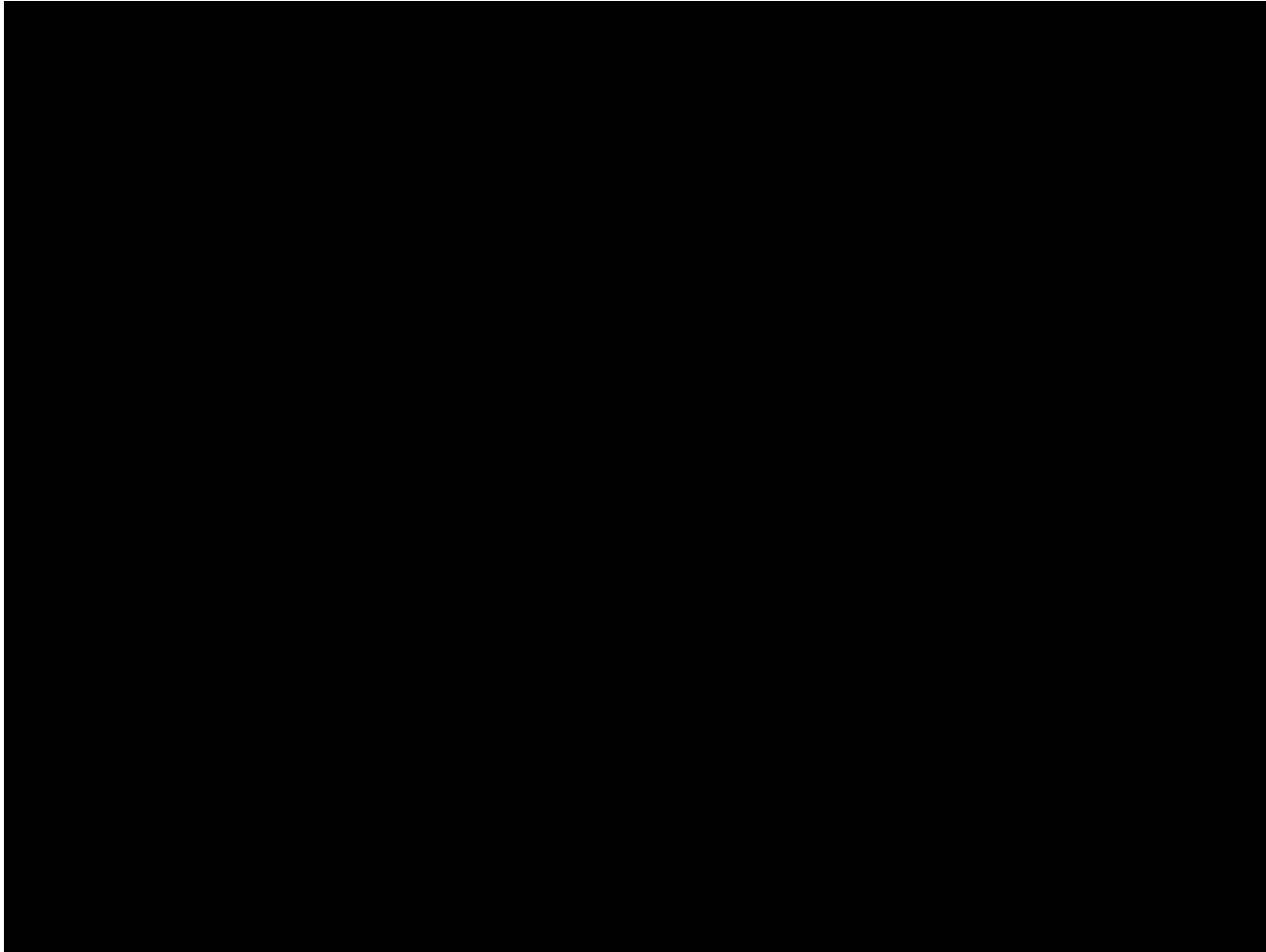
- Video offers field and aerial views in real time to the command centers, remote parties and the field providing up to date information that can help define the event and the necessary response.
- Video can put the experts and decisions makers in the shoes of the responders and vice-versa
 - » Provide ability to share information between the responders in the field and the command center or other locations
 - » Provide first hand information that is critical in decision making for the clean up / containment efforts



How This Translates During An Oil Spill



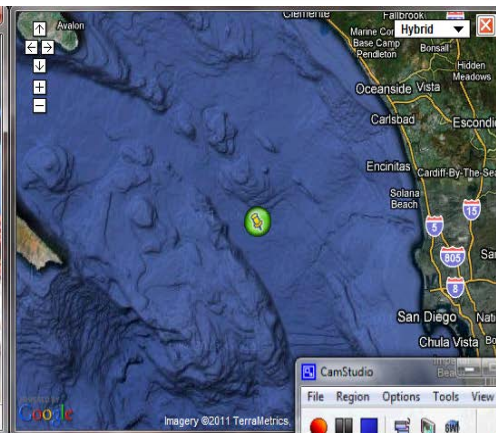
Time-Synched, Simultaneous Views of Spill as Recorded by RealityVision



UAS Drone for Spill Monitoring



Location: Pacific Ocean
Networks: Satellite
Equipment: Aerial Drones



End of Prepared Deck

For More Info:

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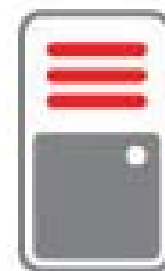
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How RealityVision Serves the Market

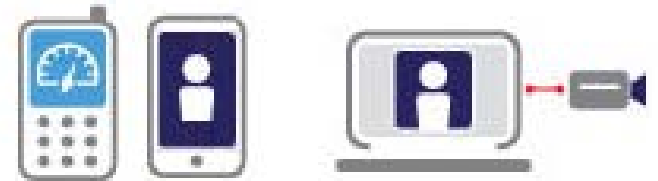
RealityVision Server

- The system hub
- Deployed on the customer's network—dedicated or virtual—and creates a private communications channel for authorized users
- Stores all system data
- Windows Server / SQL Server / Active Directory
- SSL / VPN
- Can be bundled with existing SIP Audio server for Push-to-Talk within RealityVision



Mobile Clients

- Stream video feeds from virtually any camera source
- Access available live or archived video sources on the server
- Dynamically share video feeds you are transmitting or watching with other authorized users, along with associated mapping information and other contextual data.
- Automatically report your location
- Utilize playback controls



Transportation

- Cellular
- Wi-Fi
- Satellite
- Wireless Mesh Networks
- Any TCP/IP Network



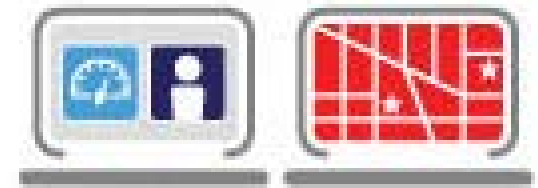
IP Cameras

- The system supports the use of multiple video formats and camera types.



Management Console

- Visualize, monitor and control all the data traffic within the system
- View User Locations
- Access Archived Information
- Read receipt for console interactions with users
- Designed to be absorbed into existing Command & Control systems
- Not required for P2P sharing



Screencasting

- From a Windows-based screen, share all or part of the contents as a live video source.
- Floorplans, 3-D images, schematics, charts, photos — anything that can appear on a computer screen — can be instantly pushed to another team member anywhere in the world.

