

## Black Hills Energy Case Study

Improving Efficiency and Productivity  
with VPI Call Recording System



“VPI is the perfect fit. They’re a partner who listens and really cares. We’ve come to rely on VPI’s call recordings – they’re always there when we need them and the software interface is super easy to use!”

Brandon Olsen  
Technical Project Manager, Black Hills Corporation

### About Black Hills Corporation

Black Hills Energy is a diversified energy company with a tradition of exemplary service and a vision to be the energy partner of choice. The company is based in Rapid City, South Dakota and has corporate offices in Denver, Colorado and Papillion, Nebraska. Black Hills Energy serves 777,000 natural gas and electric utility customers in Colorado, Iowa, Kansas, Montana, Nebraska, South Dakota and Wyoming.

The company also has a business segment that generates wholesale electricity, produces natural gas and crude oil, and mines coal. More-than 1,948 employees are treated as partners to produce results that improve life with energy.

### Challenge

- Need to monitor employee phone and radio communications to protect the company from liability exposure
- The quality and focus of employee training is very important for handling situations where human safety and lives are at stake

### Solution

- VPI EMPOWER award-winning interaction recording solution for the capture of Cisco IP calls and Avtec IP telephone and radio communications
- Redundant recording configuration for rock-solid reliability and performance

### Benefits

- Improved productivity
- Reduced dependence on IT services
- Improved procedural compliance
- Improved turnaround time in accessing and utilizing recorded telephone and radio communications
- Improved employee morale
- Reduced costs



## Challenges

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Recording of telephone and radio communications is a critical component to Black Hills Corporation strategy of delivering superior service. It helps the customer contact center team capture and promptly resolve residential and industrial customer questions, requests and complaints. The company also records internal radio communications between operators in the reliability center and on-site electric utility service staff, in order to monitor compliance with equipment safety protocols and standards. Mistakes can lead to injuries, lost lives and costly liability law suits.

While recording and playing back phone conversations is typically straightforward, it's a different matter with radio communications. A single radio conversation can be broken up into fifty pieces, which is inherent to recording radio traffic. But that shouldn't be the reason for hassle with internal reviews of these communications. Well, unless you are stuck with a basic open-source recorder that makes you search for, retrieve and export each of those fifty recordings individually before you can play them back. And it gets even worse when system interfaces make claims on IT personnel's time every time a recorded call is needed for playback. If they get lucky and the calls can actually be found at all, the IT personnel has to export them, and send them to the contact center or legal department for playback – through a laborious process. This is just what Black Hills was faced with.

Clearly, this situation needed to change. Enough waste and frustration with the tedious processes.

## The Solution

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Black Hills Corporation selected VPI's award-winning interaction recording system to record its IP-based communications which included Cisco telephones and dispatch radio and telephone communications from Avtec.

The [VPI CAPTURE](#) recording system integrates with Cisco Unified Communications Manager platform for streamlined, software-only Automatic Call Recording (ACR). The system receives Operator and Customer voice streams from Built-in Bridge (BIB) of agent IP phones in SIP protocol, managed by the Cisco Unified Communications Manager (UCM). Cisco UCM provides for capture of the call attribute details that are

automatically entered into the recorder's database and associated with interaction recordings.

The recording system also integrates with Avtec Scout systems. Avtec VPGate forwards the incoming and outgoing audio transmission to both, the VPI CAPTURE recorder and Scout console simultaneously. All Scout audio resources (Radio base stations, Talk Groups, Telephony circuits) are managed on an IP basis by Avtec's VPGate software gateway. Whenever audio is active, VPGate uses RTP and audio forwarding to send packets to the Avtec Scout consoles and simultaneously to the VPI recorder. For search and playback purposes, recorded calls can be found by console ID, channel name or channel number. You can also use the start/date/time and call duration information for call searches. VPI's advanced, certified integration with Avtec also allows for the capture of additional searchable data tagged to call recordings: Endpoint Name, ANI or Caller ID, Frequency, Unit ID, Talkgroup, Call Type (Unit or Group), Emergency State, and Audio Direction.

Recordings of both, Cisco and Avtec communications are duplicated at a backup site for redundancy. "Having recordings backed up in a redundant system was an important benefit of the VPI project, one that our legal department truly appreciates," said Brandon Olsen, Technical Project Manager at Black Hills Corporation. "We need to be absolutely sure that all phone and radio communications are recorded, so we can produce evidence when legal issues come up. This used to be a problem for us, especially because of IP communications, but VPI's recording system has proven reliable."

## Intuitive, Easy to Use Interface

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"The ease of use was absolutely critical in our decision to purchase VPI EMPOWER," said Olsen. "Thanks to VPI's ease of use, we were able to move the responsibility of accessing call recordings from IT and our network group to the operators and supervisors themselves. The system is intuitive and very easy to use, so they can use it themselves and they love it. They just log into it, pull up their recordings, and export them whenever they need to."



*Multiple calls can be easily selected and played back in a chain, for a true reproduction of the conversations.*

Contact center and legal departments no longer have to rely on expensive IT resources to look up and export recordings. Freed from this burden, network administrators now have more time to do what they should for the recording system – make sure the infrastructure is running. “This was an improvement opportunity that has saved us time and money. We pay our senior network admins to care for the network, not to deal with recordings,” remarked Olsen.

## Multiple Teams Benefit from VPI

### Liability Protection

Recordings are very important as **legal evidence** for Black Hills, due to the nature of the company’s field work. “We are liable for people’s lives – if our people don’t take the right steps, somebody could get hurt,” stressed Olsen.

For example, employees at its reliability center are involved in coordinating customer requests to turn off power in residential, industrial, or commercial buildings with technicians in the field. The field personnel must follow prescribed steps to assure their safety and the safety of the company’s customers. Once the work is completed, they report back to the reliability center. The entire flow of communications must be captured and safely stored, until a customer complaint requires its retrieval.

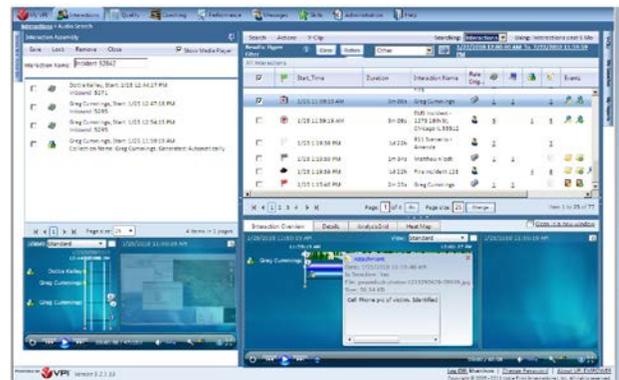
“We are not dealing with standard call center agents,” explained Olsen. “We have system operators in our reliability center – they talk to the folks who work in the electric utility industry. The system operators pull requirements and specs and address any electrical requirements – such as for substations at private residences. The reliability center walks the field technicians through required steps per process guides.”

### Internal Issue Resolution

**Internal issue resolution process** may involve call recordings too, such as in the event of a reported field employee injury. Investigation entails review of all required steps, such as how the circuits were de-energized, and whether the technician followed all steps required in specifications.

### Quality Assurance and Training

Supervisors who manage dispatchers and system operators are now the most frequent users of recorded communications. They use recordings primarily for **quality control, employee coaching, and the preparation of training sessions**. In the past, it was too difficult for supervisors to use recordings for these purposes, especially radio communications. “Now that we implemented VPI EMPOWER, supervisors can finally piece together all elements of a conversation for seamless, continuous playback as if it were just one recording. It is now much more conducive for them to use recordings for training,” remarked Olsen.



*Users can export and share individual recordings or entire scenarios. This screen shot shows a split screen interface for the assembly of multi-call incident into one set of recordings that can be exported as one file*

When new operators are brought into the reliability center, they need to be thoroughly trained. Recorded conversations are used to demonstrate actual scenarios in training sessions. Once their active duty starts, supervisors review their recorded communications frequently, to confirm that all required protocols are followed. Recordings also uncover any needs for further guidance and coaching. Reliability center employees are given access to the playback of their own recordings, for **self-review and self-coaching** purposes. They also respond to requests from their supervisor to review their calls from a specific date and time. Apart from this basic information, they also search for calls based on the user or endpoint that made a call, such as specific Radio ID or a DID from a Cisco phone.

## Administration and Security

“We can now rely on our recording system to always record our communications” said, Olsen. “And if there is an issue, the technology notifies you by sending you an alert that your attention is needed. With our previous recorder, we were always concerned whether the required recordings would be actually there as the reliability was inconsistent. VPI CAPTURE does a way better job, without any issues.”

It is important for Black Hills to define different user profiles for different user types, to limit access to recordings, data, and system features. For example, when supervisors give the operators the ability to go into the system and pull their own calls, they need to be sure that operators are not able to make any changes or delete any recordings, just playback their own calls. With VPI EMPOWER, the right security is built in to keep everybody limited to what they need to see and hear.

## VPI as a True Partner

Now that a variety of different users at Black Hills directly interact with VPI EMPOWER across multiple shifts, proper training is a must. “The VPI trainer did a fantastic job and our users were very happy with their experience,” said Olsen. “She trained IT admins and our power users, such as supervisors. They in turn trained the operators.” Black Hills needed this train-the-trainer learning format because their operators and supervisors work round the clock in multiple shifts. And when they are at work, they have to monitor their consoles at all times. They can’t really go to training meetings and get away from their calls – they need to remain available at all times to monitor the grid.

VPI provides tools to make learning about the use of software easy, so that everyone becomes more efficient at what they do. “That’s exactly why we chose

VPI – the software has to be user friendly and the vendor has to be easy to work with. VPI is the perfect fit.” confirmed Olsen.

VPI offers recorded multimedia training clips on-line for people to playback when time permits, either to supplement the initial training or as a refresher. Recorded clips also assist with re-training due to any turnover or employee moves. “We have also used these clips to introduce our new group to VPI’s interface and wet their appetite for it by showing them how easy it is to work with,” said Olsen with a smile.

And he added: “VPI’s support team is great as well. They’ve been checking on us and notifying us about options for upgrades. We’ve been very pleased.”

## Plans for Further Optimization

Black Hills recently upgraded their VPI EMPOWER to the latest version. After the completion of this upgrade, they will be installing the system for another department so that the entire operation is standardized on VPI.

Olsen concluded: “We appreciate VPI’s model of giving us so many options without charging for services at every turn. Prioritizing needs of the customer over the vendor’s quick gains is a great vision for long-term success. I really like and agree with the way you guys do business.”

## About VPI

Founded in 1994, VPI is the world's leading provider of call recording and contact center workforce optimization software. VPI EMPOWER™, a powerful Web-based software suite, integrates call recording, speech analytics, quality assurance performance management, workforce management and E-learning to help you rapidly identify and solve your critical contact center operational and customer experience issues. For more information, visit [www.VPI-corp.com](http://www.VPI-corp.com) or call 1-800-200-5430.



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