

Black & Veatch transformed communications, enhancing global collaboration and productivity

Innovative, HP-deployed unified communications solution from Microsoft® will more than pay for itself in just 18 months



“The unified communications (UC) model created opportunities to improve collaboration — by bringing people together *virtually* to solve our clients’ problems.”

— Brad Vaughan, Senior VP and CIO, Black & Veatch

Objective

Modernize aging communications to improve collaboration, mobility and, ultimately, productivity

Approach

- Collaborated with Microsoft to design the UC solution and configure the supporting architecture
- Set up infrastructure, including servers, load balancers and gateways in the data center to support UC deployment
- Tested UC software and Voice over Internet Protocol (VoIP) functionality for optimal performance before transition
- Provided enhanced service desk and on-site support to resolve issues during the cutover
- Furnished on-site and online training that helped users adapt to new system

IT improvements

- Enabled new capabilities such as instant messaging (IM) and mobile access, plus application and desktop sharing
- Replaced conventional phone systems at headquarters with enterprise voice and Web-based softphones
- Integrated fax and voicemail with e-mail
- Minimized the risk of outages through built-in redundancy

Business benefits

- Enabled tighter user collaboration by unifying communications
- Allowed users to work with each other from any device virtually anywhere
- Completed UC implementation — from design to deployment — in just 20 weeks
- Projected to pay for itself and save additional \$650,000 in just 18 months



Black & Veatch wanted to consolidate and modernize voice and data systems

Black & Veatch is a global leader in the consulting, engineering, construction and operation of what the world needs now and in the future in the crucial areas of energy, water and telecommunications. It provides up-to-the-minute services in the fast-changing federal and environmental markets. Founded in 1915, the employee-owned, \$2.7 billion company operates out of over 110 offices worldwide and has completed projects in more than 100 countries.

Managing professionals distributed across more than 100 countries on six continents made timely, effective communication not only important, but business critical.

“We had an immediate need to modernize an aging telephone Private Branch Exchange (PBX) and voicemail system at our headquarters,” said Brad Vaughan, Senior VP and CIO at Black & Veatch.

HP customer case study:

HP deployed a unified communications solution from Microsoft — creating a fast, streamlined collaboration environment and vastly improving the way Black & Veatch professionals communicate

Industry: Manufacturing



“Our system was 12 years old. It had failed several times before and parts were becoming unavailable,” explained Vaughan. “We had to make a decision to replace it with something similar, or take this opportunity to modernize Black & Veatch with new feature-rich technology.”

In addition to updating voice capabilities, Black & Veatch wanted to revolutionize collaboration between its business partners, clients and highly mobile workforce. It turned to long-time technology outsourcing partner, HP. Since 2006, HP has managed, developed and supported the company’s global IT infrastructure — including desktops, servers, networks and applications.

Black & Veatch compared voice and data solutions based on cost and ROI

Black & Veatch considered various communications solutions — from a new PBX system to a unified communications solution. It evaluated the costs and ROI of removing PBX systems, telephony line consolidation, phone system move/add changes and other cost-saving opportunities such as less cabling.

“One advantage of our contract with HP is knowing definitive costs. That helped us create a very succinct ROI model.”

Brad Vaughan, Senior VP and CIO, Black & Veatch

UC provided innovative IM, desktop sharing and presence capabilities

Instead of merely replacing PBX and voicemail systems with newer systems, Black & Veatch decided to add value to its organization with a unified communications model.

Replacing legacy systems with an innovative UC solution enabled Black & Veatch to cost-effectively enhance mobility, overcome geographical diversity, improve collaboration and deploy new capabilities.

UC would enable Black & Veatch to integrate unprecedented, real-time features, such as IM, presence awareness and desktop sharing, with existing communications services, like voice, e-mail and fax.

Presence awareness enables Black & Veatch users to see whether other professionals are available for online meetings. This way, they can quickly choose the best method of contact — whether it’s real-time messaging, e-mailing, phoning or sharing desktops.

UC also supports all four pillars of Black & Veatch’s “Reinvent IT” initiative — modernize, globalize, mobilize and economize. The strategy involves:

- Modernizing systems to enhance personal and business mobility
- Overcoming geographical diversity by communicating from anywhere, any time, on any device
- Reducing human latency in communications
- Deploying communications capabilities on private and public networks
- Reducing costs and increasing value

Black & Veatch selected Microsoft UC

Black & Veatch selected a UC solution from Microsoft, a member of HP’s Agility Alliance and a premier partner of HP.

“The Microsoft stack works very well together; that’s one of its key strengths,” said Vaughan. “We compared several companies and Microsoft won out on a number of factors. Its interoperation with Outlook and Exchange is strong, and it’s easy for people to understand the technology.”

HP worked with Microsoft to deploy supporting servers and software

To enable UC features, HP collaborated with Microsoft to implement Microsoft Office Communications Server 2007 R2 (OCS) and Microsoft Office Communicator 2007 R2 for approximately 8,000 Black & Veatch professionals. OCS provides the infrastructure to support UC from practically anywhere with an Internet or mobile connection.

“Microsoft and HP played a critical role in implementing Office Communications Server for us. Because they were able to work so well together to meet our needs throughout planning and deployment, the whole project was a success in terms of cost and schedule.”

Jeff Phillips, Director of Global IT Performance and Security, Black & Veatch

HP set up and tested back-end technology to support IP telephony

Once OCS was established, Black & Veatch wanted to integrate VoIP functionality into UC in stages.

Black & Veatch, HP and Microsoft began to design the Web-based softphone technology and architecture that would soon replace existing conventional desktop phones and voicemail systems. The new phone system would deliver voice communications over the Internet. This would enable professionals to make and receive toll-free domestic and international phone calls simply by connecting a headset to their desktops.

HP set up and tested all infrastructure — including servers, load balancers, gateways and software — needed to support the complete UC solution. Then, to ensure high reliability, HP incorporated priorities into Black & Veatch's disaster recovery plan and built redundancy into the infrastructure.

After a pilot program, HP rolled VoIP out to approximately 2,700 professionals at Black & Veatch's Overland Park, Kansas headquarters. The implementation was so successful, Black & Veatch decided to have HP deploy the new capabilities at 20 additional regional offices.

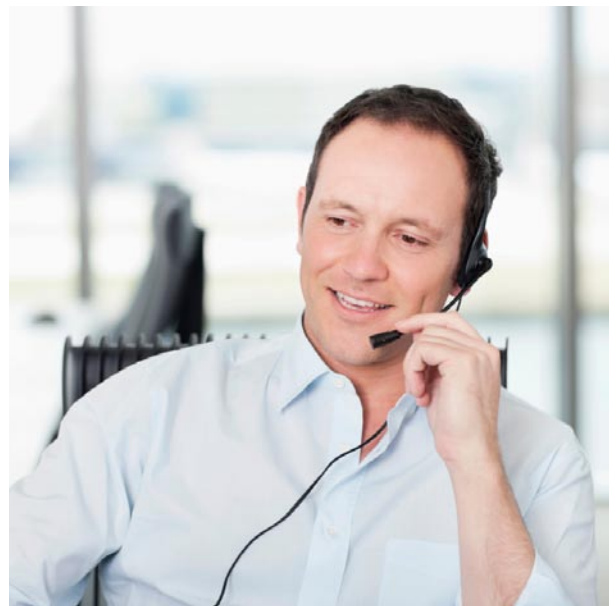
“HP brought some amazing talent to the table. There could have been dozens of stumbling points, but we were able to do it with virtually no problems.”

Jeff Phillips, Director of Global IT Performance and Security,
Black & Veatch

Proactive, on-site and online support ensured a smooth cutover

Black & Veatch addressed the upcoming changes to professionals in an internal newsletter and video — easing concerns, expressing support and explaining the benefits of UC.

During the deployment, Black & Veatch, HP and Microsoft provided flexible on-site and online training, as well as additional floor and phone support.



Before eliminating its headquarters' handsets, Black & Veatch gave Plantronics Blackwire™ C220-M headsets — an integral part of the new system — to professionals.

This helped professionals adjust to the cultural change of moving to Web-based softphones.

Users could learn the new system features, such as peer-to-peer voice over computers, while they had a backup — diffusing any issues before they became business critical.

“We knew that if we got headsets in the hands of our users, they would probably form a more rational and informed opinion about them,” said Jeff Phillips, Director of Global IT Performance and Security at Black & Veatch. “When we turned [our headquarters] live on UC, they were already familiar with the headset and comfortable using it.”

“On the day we enabled enterprise voice, we had seven people on site, ready to answer questions, and two people running a hotline. The cutover was literally a non-event. I’ve never personally seen a 3,000-person technology transformation go as smoothly as this.”

Jeff Phillips, Director of Global IT Performance and Security,
Black & Veatch

Customer solution at a glance

Software

- Microsoft Office Communications Server 2007 R2
- Microsoft Office Communicator 2007 R2

HP Services

- Carrier Management Services
- Messaging and Collaboration Services
- Mobile Workplace Services
- Network Management Services
- Service Desk Services
- Site Support Services
- Unified Communications Services

Despite initial apprehension, professionals responded to the new business capabilities with enthusiasm.

"I've been pleasantly surprised at the UC system's ease of use and now prefer it over my old phone," said one user.

"It's revolutionized the way we do our work," said another user.

Company enhanced collaboration and productivity in just 20 weeks

In just 20 weeks, HP helped Black & Veatch change the dynamic of its business collaboration.

By quickly consolidating once disparate communication services, Black & Veatch minimized costs and realized the business benefits of UC sooner.

"Now, our engineers can collaborate to get things done across disparate time zones and geographies," said Phillips.

"[UC allows me to] provide support for my internal clients much easier," said one Black & Veatch professional. "If they have a question while they are on the phone with someone else, they can simply send me an IM to request information and I can share my desktop with them without interrupting their phone conversation. This lets us solve issues on the spot."

VoIP eliminated phone moves, cabling costs and long-distance charges

Moving from legacy PBX to VoIP helped Black & Veatch reduce the high cost of individual phone moves, eliminate the need for voice wiring, and cut long-distance call charges. All of these savings helped Black & Veatch realize greater value from its technology investments.

In addition, Black & Veatch realizes additional savings through its service contract with HP. The company subscribes to UC services through HP on a per-user basis. This lets Black & Veatch pay only for what it needs.

UC improved productivity and is on track to pay for itself in 18 months

"Over the first 18 months of the project, we expect to cover the cost of hardware, software, and labor — and still return about \$650,000 to the business," said Vaughan. "This is a real financial benefit that will only increase as we implement the solution globally."

Today, Black & Veatch relies on UC to send and receive business-critical communications from nearly anywhere around the world — including customer and partner sites.

UC integrated communications across desktops, laptops and mobile devices, enabling users to send messages in one medium and receive the same communication in another medium. It blurred the distinction between voice/data and traditional/mobile communications. Now, for example, users can program inbound calls to ring multiple numbers (including cell phones or home offices) simultaneously, IM from their mobile device or receive voicemails through their e-mail. Users are no longer tethered to their desks or one location the way they used to be. They can collaborate from virtually anywhere.

"What really caught the imagination of our workforce was the simple desktop sharing," said Vaughan. "Instead of sending an e-mail with an attachment, an engineer at a site can easily share plans, photos, blueprints, or specifications and solve problems in real time. That's huge."

"Issues that would have taken hours or days to resolve before over the phone or through e-mail now take minutes."

Brad Vaughan, Senior VP and CIO, Black & Veatch

With its innovative approach to "Reinventing IT", Black & Veatch cost-effectively modernized business processes while unifying communications — improving collaboration, mobility, and ultimately, global productivity.

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