

Bringing the Meeting Room into the Digital Age

New Approaches to Brainstorming and Group Collaboration for 21st Century Meetings

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Executive Summary

Whiteboards – as simple as they are – create a powerful, unconstrained workspace that enables a group of people to communicate, think, collaborate, build, and solve problems. And meeting rooms – where they historically have been placed – are the “town hall” of the workplace, meant to provide a forum for teams to get together to make decisions, learn, share information, contribute ideas, build plans, and so on.

With the advent of the digital world, however, the freedom of being able to naturally develop ideas on a writing surface became limited to what could be expressed through the mechanisms required to input ideas into digital media – typically the PC. The resulting output is fairly static: text documents, spreadsheets, and presentation content. The true promise of going digital, the ability to capture and manipulate and save information using an intuitive user interface; transmit it at a distance using real-time media; and keep archives, has been largely missing from group behaviors in meeting rooms.

This has changed with the advent of the 21st century meeting room. Today the new breed of collaborative platforms enable the ability to create connected meeting rooms where distributed staff can instantly join a virtual conference, share any application and write on it using digital ink, participate in discussions and save and distribute their work as if they were in the same room. These technologies are designed for business applications – and offer the ability to regain the freedom to work freely on a surface with content, ideas, and other material, and manage/manipulate that content in the digital realm.

At the heart of the new corporate interactive whiteboard and display solution is a set of recent developments in:

- Digitizer technologies – those tools that transparently capture user motions and annotations in high resolution, while providing a natural feel to the user as they work intuitively on an analog surface
- Display technologies – the capabilities of output devices, which offer the resolution, form factors, and durability necessary to effectively exchange visual information
- User interfaces – a crucial element of interactive whiteboard and display solutions because they strive to improve on the low-tech, dry erase whiteboard which we all know how to use. The experience must be just as simple and natural, while offering enough options to take advantage of the digital realm to collaborate effectively with other meeting attendees both locally and remotely.
- Integration – the ability to meld with PC, personal productivity applications, storage systems, collaboration software, and third-party devices – all with the goal of sharing or mining content as necessary – going far beyond flip charts, which in the past had their own way to be shared: the copier.

The benefits – in an age of globalization, virtual teams, mobile workers, and distributed campuses – broadly put are the ability to streamline business processes, improve time to market, catalyze creativity, and achieve greater productivity. Drilling down, these benefits play out for organizations by providing:

- Faster and better idea development and faster overall development cycles
- Improved productivity
- Improved project management

- Improved team collaboration, such as brainstorming, developing best of breed ideas out of a group collaboration, and greater ability to reach team consensus
- Faster overall decision making
- Faster deployment of overlapping internal capabilities – the ability to ensure that teams work efficiently instead of duplicating their work
- Workflow integration
- Faster delivery of meeting content
- Shorter/more efficient transcription times
- Travel savings
- Accommodation of environmental considerations
- Entering the digital age (with all of the implied benefits).
- Improved ability to communicate

Wainhouse Research believes that the new solutions are an evolutionary step towards improved team collaboration and brainstorming, while offering a new digitally-driven paradigm for group work by freeing knowledge workers from the individual-based PC. Based on interviews conducted for this project with real-world users, the timing is right for enterprises to take a new look at their meeting room technologies.

Introduction: What's in a Meeting Room?

Ever since the first caveman picked up a chalky rock, we have written on walls – and blackboards – and whiteboards – to help us communicate, think, collaborate, build, solve problems, and create a workplace narrative. With the advent of the digital world, however, the freedom of being able to naturally develop ideas on a writing surface became constrained to what could be expressed through the mechanisms required to input ideas into digital media – typically funneled through the keyboard and mouse. The resulting output is fairly static: text documents, spreadsheets, and presentation content such as PowerPoint. Only within the past few years, however, has the merger of several key technologies arrived in concert to change this. A new breed of interactive whiteboard and display technologies has emerged – powered by software that enables business applications and processes – that offers an evolutionary milestone: the ability to regain the freedom to work freely on a surface with content, ideas, and other material, and manage/manipulate that content in the digital realm with others without boundaries or limitations. The benefits – in an age of globalization and virtual teams – are the ability to streamline business processes, improve time to market, catalyze creativity, and achieve greater productivity. This white paper sheds light on the new methods of interacting – not only in meeting rooms themselves, but outside the walls of those rooms over distance to include team members in other rooms – using interactive whiteboard and display technologies. This paper also discusses the barriers they help overcome, and their unique benefits.

Historically, meeting rooms have been the “town hall” of the workplace, meant to provide a forum for making decisions, learning, sharing information, planning, teaming, and so on. The traditional, typical meeting room technologies have consisted of:

- Conference room phone
- Projector and screen systems
- Audio system
- Perhaps videoconferencing
- Dry erase boards and/or flip charts

All of these technologies offer tremendous value for local and/or remote meetings. Yet while the digital revolution and its information promise loudly transformed the knowledge worker's desktop, it has touched the meeting room only quietly. Of course, control touch screens and electronic whiteboards have been digital for years. Videoconferencing and projection systems have made their way into many meeting rooms. Lecture capture systems are just beginning to find their way into auditoria and meeting rooms. But the true promise of going digital, the ability to enter / edit / manipulate / save information; transmit it at a distance using real time rich media meetings, and keep archives, using an intuitive user interface, has been largely missing from group behaviors in meeting rooms. While the individual could live with the keyboard and mouse in the digital revolution, PC-centric content has not always worked well in group situations – PC's are by definition *personal* and not designed for sharing content in group settings. Meeting rooms were built more for presentations that are driven by one person and not for interactivity, as there was no easy way for the group to visually interact with the built-for-one-person digital media and enhance their thoughts. Thus the PC in some respects stagnated meeting room technologies because of the one-dimensional, single-user, passive nature of PC-driven presentation applications. People have had

enough “death by PowerPoint,” have become starved for interaction, and fortunately group meeting rooms in the digital age are now ready to play catch up.

The evolution of several technologies is making the interactive whiteboard and display poised to transform how people meet and brainstorm in the corporate meeting room. These include:

- Display technologies, combining high-resolution with adequate light output and form factors (plasma / LCD flat panels, projection systems) to use in meeting rooms
- Digitization technologies, the essential core to capturing hand-written input and commands and the ability to store and/or transmit the resulting digital content
- Web conferencing, which can push real-time digital content to other meeting rooms around the world – while also serving as the “glue” to share data between disparate output devices
- Easy-to-use user interface, the ability for novice users to walk up to an interactive whiteboard and be effective from the start using software designed specifically for a meeting context.

Wainhouse Research believes that the arrival of new solutions, containing these and other technologies will – over time – transform how groups of people collaborate both locally and with remote teams. These solutions will make possible new forms of sharing, teaming, and brainstorming for knowledge workers that will nonetheless feel very familiar – because they *should* enable people to collaborate naturally and comfortably.

Methodology

In March and April 2008 Wainhouse Research conducted a targeted set of interviews with individuals responsible for meeting room technologies – including interactive whiteboards – in their organizations. Those interviewed included the following:

- Curriculum Advisor, Engineering, oil/gas industry
- IT Director, gas utility
- IT Manager, state department of motor vehicles
- VP Multimedia, financial services firm
- Senior Solutions Engineer, service provider
- Engineer, managed services firm (supporting aerospace industry client)
- IT Director, automotive services
- Collaboration and Visualization Coordinator, university
- Director, Learning Technology, university
- Instructional Designer, university
- Videoconferencing specialist, university

All of these interviews were with individuals who work at a group of primarily large enterprises (ranging from Fortune 2000 companies to a handful of universities and governmental agencies) located throughout

North America and Europe. We supplemented this interview process with secondary research – some academic and behavioral analyses – exploring how teams meet and collaborate today and how they are likely to do so in the future.

The Changing Face of Collaboration in the Enterprise

As the workplace changes, companies now need more flexible tools and solutions to bring together an increasingly sophisticated, *knowledge-based* workforce. As strategist and business writer Charles Handy predicted, “*The end of labor-intensive manufacturing leaves us with organizations which receive their added value from the knowledge and the creativity they put in rather than the muscle power. Fewer people, thinking better, helped by clever machines and computers, add more value than gangs or lines of unthinking ‘human resources.’*”¹ In his oft-quoted book “The World is Flat,” journalist Thomas L. Friedman refers to the latest wave of globalization as possessing a “*force that gives it its unique character – ...the newfound power for individuals [and companies] to collaborate and compete locally.*”²

Having tracked unified communications, conferencing, and collaboration technologies for almost a decade, Wainhouse Research has witnessed a significant change in attitudes towards these technologies. Where meeting rooms once were relegated to status as an “afterthought” as far as workflow processes were concerned – to be built with cosmetics in mind more than functionality – they now are understood to be integral to organizational workflow and processes. This has arisen for a variety of reasons:

- Audio and web conferencing are now essential, “core” tools for business communications.
- Unified communications – the blending of telephony with collaboration and IP capabilities – is now a key IT concern, rising fast on the radar screen of CIOs, CTOs, and others who plan for technology adoption.
- Other synchronous and asynchronous, person-to-person and person-to-group tools like instant messaging and social networking portals are emerging both formally and informally in the enterprise.
- Collaborative archival workspaces, such as SharePoint and eRoom, have become essential to teams working from their desktops.

IP networks and the Internet have made one-to-one and one-to-many collaboration more easily realized than ever before – again, at the personal level. And this has led the workforce to not just expect, but almost demand, these and other technologies in their daily lives.

At the business level, however, other changes are leading enterprises to examine how they enable their workforces with collaborative technologies. Some of the business drivers include:

- Distributed workforces, business partners, and markets – all the result of globalization and the flattening of the world

¹ Charles Handy, *The Age of Unreason*, Harvard Business School Press, 1990. pp. 51-52.

² Thomas L. Friedman, *The World is Flat*, Farrar Strauss and Giroux, 2005, p. 10

- Continued need to drive productivity in an ever-competitive, highly dynamic business climate – with the need for faster time to market while catalyzing the creation of the best ideas to gain competitive advantage and achieve improved financial returns
- The rapid pace of the business environment, with the need for immediate access to external subject matter experts and more spontaneous and immediate decisions in lieu of planned meetings
- The need to make distributed corporate campuses and locations more efficient and more tied together – for both competitive and budgetary reasons
- The need for disaster recovery and continuity of operations planning, which in a post Katrina, 9/11, and Asian flu/SARS world are now understood to be crucial to an organization’s very survivability. Put simply, an organization must enable its people to work anywhere, anytime if the need arises.
- Business travel hassles and costs, which are leading many organizations to make travel reduction central to cost savings policies
- Concerns about the environmental impact of travel, with companies assessing their carbon footprints and attempting reductions in whatever ways are possible
- Concerns about rapidly escalating costs of energy, which is leading companies to consolidate workplaces and equip fewer meeting rooms with more robust technologies
- Greater emphasis on training of business partners, internal stakeholders, and end user customers
- Greater desire for work/life balance and the ability to provide employees with the option of avoiding business travel when possible
- Greater understanding that diversity of thought and input can be a crucial driver of the best business decisions and their eventual outcomes

The changing characteristics of the workforce – based on globalization – are undoubtedly changing how products are developed. Today’s teams are more likely to be virtual and distributed than to sit in the same building, and more likely to speak the same business lingo than the same native languages. One researcher has actually argued that innovation is improved when team members are apart; another group of researchers has shown that virtual teams avoid the “excessive politeness” of face-to-face meetings, allowing them to reach a deeper consensus.³

No one has measured the numbers of teams that work together virtually, but we know that there are more than 1.89 billion workers worldwide⁴ While Gartner Dataquest has claimed that almost 41 million employees worldwide will be Teleworkers by the end of 2008 (working at least one day a week from home),⁵ Wainhouse Research believes that the numbers of distributed and mobile workers far exceed

³ An Overview of Remote Virtual Teams & Productivity: A Research Synopsis, June Langhoff, New Ways of Working LLC, March 2006, p. 6

⁴ www.europaworld.com

⁵ Gartner Dataquest (April 2007)

that number – and that the total number of distributed workers, including Teleworkers, could reach as much as 100 million worldwide.

The combination of outsourcing and offshoring – as well as the need to localize products and services for a global economy – has led to the need for highly distributed organizations. Furthermore, an increase in outsourcing partners for many enterprises has led to very complex supply chains – and the need to manage those supply chains. Meanwhile, the latest trend among facilities managers is the concept of hot desking and sharing workspaces as a means of reducing real estate needs. Finally, training and e-Learning are now understood to be important elements in retaining human capital (employees), encouraging career development, and ensuring compliance with regulatory bodies.

Challenges for Virtual – and Local – Teams

Researchers have identified a number of challenges specific to virtual teams face in working together.⁶ These include (in rank order):

- Reduced trust – the challenge of being certain about teammate intentions
- Power issues/cliques – the tendency to group together in factions
- Poorly integrated collaboration tools – the traditional inability to share work or collaborate because of a lack of integration
- Conflicting work processes – the challenge of keeping everyone on the same page in terms of workflow
- Low commitment – the rare instance in which, by not being together, individuals may become de-motivated through lack of contact with teammates
- Social isolation – the sense that one is working alone because – again, of a lack of face-to-face contact
- Steep learning curve – the need for distributed workers to learn to work together in new ways
- Information overload – the challenge of processing information appropriately

Becoming “One” With Technology

It [interactive whiteboard and display technologies] has been more of an effective tool for conveying ideas and getting across points. People look at the projector display and say, ‘I want to write it this way.’ Now one is ‘one with the screen’ and that has proven to be a powerful, productive tool. People instantly get their ideas out using the SMART board technologies. Most of the engineers here are visual. It’s much faster than conventional ways [of collaborating.]

– Conferencing Engineer,
High Tech Services

While many of these barriers to virtual teaming fall into the realm of sociology and workplace etiquette – almost all of them also impact local as well as remote teams. Keeping everyone certain about intentions, reaching consensus, sharing work through integrated technology, keeping everyone on the same page, motivating team members, ensuring interactivity to minimize isolation, and addressing learning curves and information overload face the local, cubicle-based worker as much as the remote, distributed

⁶ An Overview of Remote Virtual Teams & Productivity: A Research Synopsis, June Langhoff, New Ways of Working LLC, March 2006, p. 7

knowledge worker. Fortunately the tools have now arrived that can bring forth that cubicle-based worker into a newly enabled collaborative environment: the 21st century meeting room.

The 21st Century Brainstorming Solution

New solutions now exist for augmenting and enhancing the meeting experience. These collaborative platforms enable the ability to create connected meeting rooms where distributed staff can instantly access a data conference, write in digital ink over any application and save their work, share desktops and notes and participate in discussions as if they were in the same room. Figure 1 shows how such a solution might work for a distributed team contributing their ideas from two different meeting rooms.

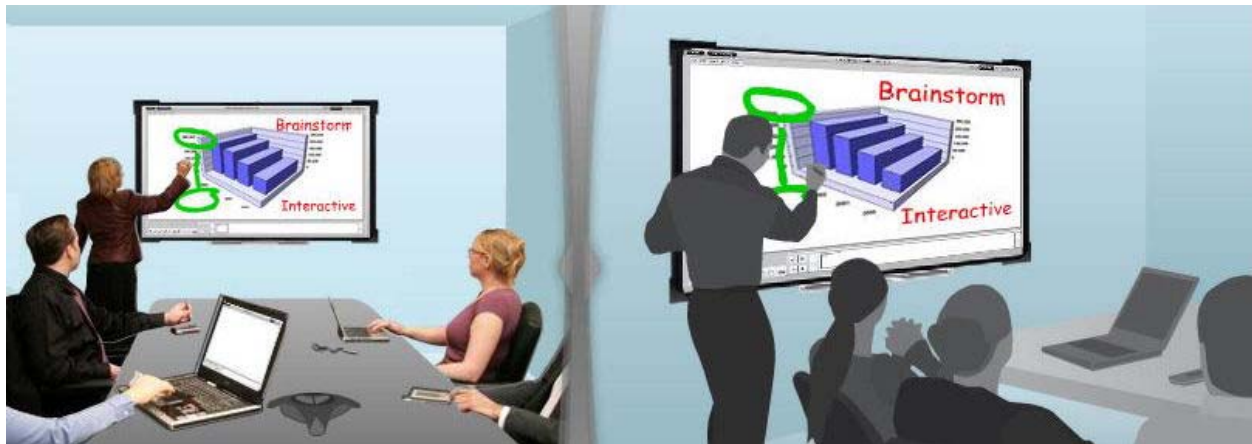


Figure 1 Distributed Team Annotating a Shared Image

At the heart of the new corporate interactive whiteboard and display solution is a set of developments in digitizer technologies, display technologies, integration capabilities, and the ability to deliver a simplified user experience.

Digitizer technologies are now high resolution, transparent and natural feeling to the user, durable and ergonomically designed as never before. This translates into greater facility for capturing analog content (e.g., writing and drawing on surfaces), and manipulating, transmitting, and storing it without any loss of detail. The digitizer technology must also meld well with the display technology – not detracting from the display’s clarity, and resolving perfectly so that the “ink” from the marker lights up the right pixels on the display – which gets tougher to do as display resolution increases. While the operation may sound simple in concept, it is a challenge to get right. Think of it: technology is attempting to take the natural feel of a marker on a whiteboard and duplicate it in a way that feels natural. If it isn’t done correctly, users will quickly conclude it does not feel right compared to their previous experiences. For this reason, the arrival of display technologies that are now high resolution, high definition, and durable, when combined with digitizers that are equally accurate, transparent, and ergonomically designed to mimic a real whiteboard pen, result in a virtual surface with electronic ink that is truly familiar and usable.

User interfaces are now understood to be a crucial element of interactive whiteboard and display solutions, because they must be as simple and natural to use as the standard low-tech, dry erase whiteboard with which they are being subconsciously compared. No one should need to read a manual to use a whiteboard. This latest generation of user interfaces, which are the result of decades of iterations between user experience and UI development, make it easier for novices to walk up and use them,

selecting from a limited but clear set of options that allow users to collaborate effectively with other meeting attendees both locally and remotely.

Finally, the perfect interactive digital whiteboard would not be so useful were it not easy and straightforward to benefit from the digitization of created content – which is the real reason for the existence of the product class. To this end, integration is important on several levels. First, the whiteboard must be able to integrate not only with a PC from a hardware perspective, but also be able to extend the reach of monolithic personal productivity applications into the group realm. For example, a whiteboard user must be able not only to conduct a PowerPoint presentation, but also to use the marker to annotate and brainstorm on the PowerPoint slides, and save the resulting content as output from the meeting. Meetings should be able to be held between groups in different meetings rooms on different whiteboards using web conferencing technology. Whole pages of images should be easy to manipulate much like a flip chart can be manipulated – to save and recall from digital storage, or post on other displays that may be in the meeting room.

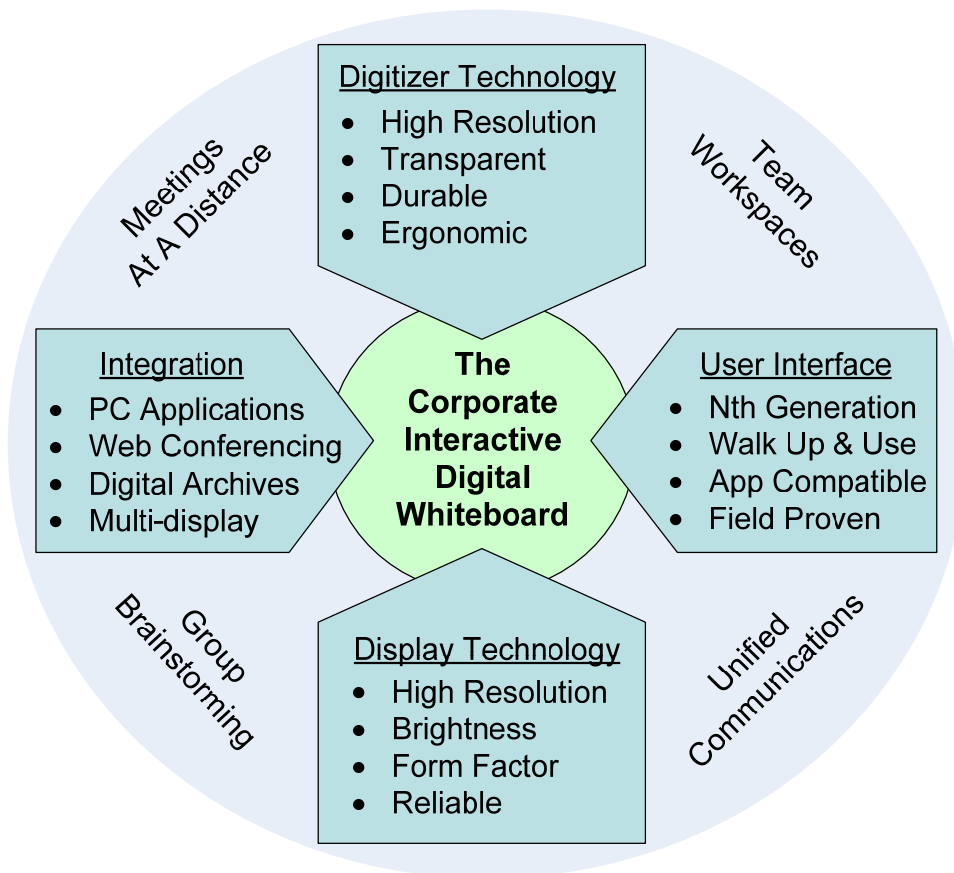


Figure 2 The Corporate Interactive Digital Whiteboard

The new interactive whiteboard and display technologies offer an alternative to or fundamentally change certain other technologies. For example:

- Videoconferencing traditionally has been used to enable individuals to see one another and creates context for understanding the intent of others. But though interactive whiteboards have

been “hand-integrated” into videoconferencing-enabled meeting rooms over the years, typically by VARS and integrators or video manufacturers, videoconferencing itself has often focused more on the video and less on the data. These new solutions bring the emphasis back to true collaborative work.

- Web conferencing has focused on keyboard/mouse-driven input, which has been acceptable for individuals, but the shift now is to digital whiteboard input and display, which enables group collaboration locally and remotely (in an informational context that exists independently of and is complemented by video).

In many respects the new room to room (or room to other device) whiteboard collaboration blends the *human, group* aspect of videoconferencing with the *content-centric* aspect of web conferencing. It creates a different type of context for interacting, its own kind of platform that – for teams – addresses all of the eight challenges to teaming discussed earlier. It does so in these ways:

- Sharing content and being able to review that content creates trust and a sense of teamwork
- The ability to team effectively and openly share and contribute ideas overcomes the challenges of special interests, power and cliques – and can result in a better final “output” or product
- Having a platform that integrates with industry-standard tools (PCs, LANs, unified communications) overcomes disaggregated, stand-alone tools and leverages other investments
- Having a single tool for brainstorming and sharing overcomes conflicting work processes
- The very act of interacting with others overcomes social isolation and lower commitment.
- Having a simple-to-use UI, consistent across all meeting rooms, reduces the slope of traditionally steep learning curves

Having a tool that allows one to manipulate and distribute the right meeting content helps the information overload people complain of suffering today become more manageable, because meeting content can be retrieved, edited, managed, and manipulated in ways that enable knowledge workers. The ability to start a meeting and work efficiently, get quality decisions made through group involvement, and save and distribute that content results in less time later sifting through source after source of data. Group consensus has been reached – and a record exists of how that agreement was reached. That information overload issue is very real: some researchers have identified what they refer to as *Continuous Partial Attention*...the tendency of knowledge workers to be distracted through source after source of new information. Effective use of interactive whiteboard and display technologies can in fact lead knowledge workers to focus on key, important material at hand – and ignore the extraneous.

The fact is, now available are one software solution and/or set of devices that are universal in nature and that can work locally, remotely, or both. These tools:

Brainstorming

Capture and review is critical. But interactive whiteboards also allow for spontaneity. Doing digital work, briefing in video and audio, we can also leverage into the discussion “what do you think about this?” With multiple screens, we do great group work. So we get another layer of interactivity that was missing with traditional whiteboards is now there. – Instructional Designer, Higher Education

- Enable spontaneity, capture ideas as quickly as they happen and refine them easily.
- Support naturalness of collaboration in group setting; the person holding the marker can concentrate on managing and building on ideas from the group and not struggle with the tools to record them.
- Are compatible with the digital world because they support manipulation / saving / working both locally and at a distance.

Most important, these new solutions – once mastered with ideally minimal training – enable people to work together in the most creative ways, even when fighting against deadlines and all of the day-to-day obstacles that can prevent delivering on work begun.

These new collaborative platforms, exemplified by recently announced products from SMART Technologies – sponsor of this white paper – combine with single or multiple interactive whiteboards and interactive displays⁷. This class of products tends to support:

- Single or multiple displays with large amounts of device independence – virtually any device that is IP-addressable and screen/projector-enabled should be useable with the new whiteboard and display solutions
- “Walk up and use” simplified UI
- Digital ink that can be used for writing, editing, annotating, and then saved.
- Automated, integrated web conferencing for launching sessions with local and remote attendees
- Some sort of slide/thumbnail organizer – a mode for screen/file management
- Ability to organize material and save to PC,USB drive, or network
- The ability to use the pen, touch the screen, and have the system automatically capture all content entered and edited.
- The ability to manipulate images so they can be treated as discrete objects, which may be delivered to other output devices, annotated on those devices, and returned to other devices.
- Access to network-based content as well as local digital video if desired.

Workflow

There are definitely workflow processes that it has streamlined in our business department. Often the left hand and right hand did not know what each other were doing. Different groups were supporting different OEM customers. Our people [using interactive whiteboards] have streamlined when we have different customers. There is less redundancy and overlap. It really has helped with that.
– IT Director, Business Services

While today’s platforms support these capabilities, there is no reason why tomorrow’s won’t be even more versatile, with functionality beyond today’s. It’s likely that meeting room technologies may find

⁷ The brainstorming products from SMART, available in both appliance and software configurations, include SMART Meeting Pro, Hub SE, and Hub PE.

their way into other locations, such as waiting rooms, atriums, and public areas where meeting content may be repurposed in ways we have not yet even considered.

The Net Benefits for Virtual – and Local – Teams

Based on the interviews Wainhouse Research conducted, the benefits of new ways of brainstorming are loud and clear. To many, they streamline a wide variety of workflow processes, resulting in:

- Faster and better idea development, so that those working together *don't lose trains of thought*.
- Faster deployment of internal capabilities – making it possible for individuals to spontaneously interact and solve problems
- Faster decision making – allowing for groups to reach consensus more quickly and avoid the limbo of unanswered, unsolved problems.
- Reduction of overlapping internal efforts (greater collaboration between groups supporting different clients) – one interviewee with a services firm was very clear that dispersed groups who are not normally parts of the same teams now work together more, simply to leverage their respective sets of expertise and avoid duplicative efforts.
- Workflow integration – Interactive whiteboard and display solutions now can solve workflow issues.
- Saving time through capturing data and transcription capabilities – many respondents cite this as a key benefit, saving literally hundreds of hours yearly for meeting attendees because the work is automatically saved for later review.
- Delivering content more quickly – through use of the web conferencing component of such solutions, virtually anyone with a device that is IP-enabled can now access meeting content.

Interactive whiteboard and display solutions solve problems. These are (in rank order of mentions by those we interviewed):

- Faster development cycles
- Shorter/more efficient transcription times
- Improved productivity
- Improved team collaboration
- Travel savings
- Improved project management
- Accommodation of environmental considerations
- Faster decision making

Improved Team Collaboration

At a 10,000 foot view, it helps us stay on the same page. We have so many different teams, different divisions, satellite offices. Before this we'd have audio or video only meetings. We would draw on a board but it was hard to keep people on the same page. Like the experiment in elementary school, if you whisper in one ear, a statement changes by the time it got to the other side of the room. We have no room for doubt or interpreting differently. We had a lot of problems with that previously, but the whiteboards help us sharpen our focus because we're on the same page. – IT Director, Business Services

- More effective tool
- Entering the digital age (and all that that implies).
- Improved ability to communicate

The above list is by no means comprehensive, and every organization will find its own set of benefits. An engineering or manufacturing firm might rank fast development cycles and improved productivity highest, while a services firm might rank improved project management or faster decision making as top benefits. While some of these benefits are not easily measured on a daily basis (e.g., improved team collaboration or improved project management), they become readily apparent over time – most notably because this is a highly visible set of technologies in the meeting room.

Improved Communication

We use [interactive whiteboards and display solutions] a lot for Legal applications, e.g., presenting car wrecks, vehicular law cases. Those are ideal for drawing out intersections, having a plaintiff or deposition person to illustrate where they were standing. It streamlines the process for describing how an event happened. – Senior Solutions Engineer, Telecom Services

Greater Effectiveness

We have found that if you draw a lot of notes or visual materials, the ability to save, sequence, and distribute those is very powerful. The moment you show you can do that, people get excited. They also see that faculty who have PowerPoint but want to do notes and diagrams, now can do that. What they lost with PowerPoint, when moving from dry erase boards, they were locked into. This lets them add in things as they go. – Instructional Designer, Higher Education

Improved Project Management

[Interactive whiteboards and the new capabilities you are discussing] would greatly facilitate project completion on time. Getting all the correct people in the room, we can make things happen and visually see everything. That would be a great plus. We see in larger projects where multiple vendors are engaged, like EDS and their subcontractors, at least five vendors, and then we have oversight groups and an independent verification group to ensure we are on task and not wasting taxpayer dollars. There are a lot of interested parties. To get those groups together would be a very good thing. – IT Manager, Government Agency

We also identified a trend among those who are using interactive whiteboards and display solutions: the tendency for different types of organizations to gravitate to different types of applications. A client-oriented business services firm may not use it for brainstorming, but instead for sales meetings, finding a *Wow* factor that works well with clients.

At the end of the day, the new breed of interactive whiteboard and display solutions are about keeping people with a razor sharp focus “on the same page” – ensuring that they see, come away with, and have the same material going forward. The net result is greater productivity, higher-quality idea development, faster time to market, and improved business processes.

Closing Thoughts

A solution of the sort we have described in this paper has traditionally cost ten times what today's products cost. SMART Technologies, sponsor of this white paper, introduced three product platforms in May 2008 that bring new brainstorming technologies to the meeting room at radically lower price points than ever seen before: SMART Meeting Pro, SMART Hub SE, and SMART Hub PE. The three products combine with either single or multiple SMART interactive whiteboards and displays to create connected meeting rooms, while also designed to work with other meeting room components like document cameras, DVD players, and computers. Wainhouse Research believes that the new solutions are an evolutionary step towards improved team collaboration and brainstorming, while offering a new paradigm for group work by freeing knowledge workers from the individual-based PC. Based on the interviews with real-world users, the timing is right for enterprises to take a new look at their meeting room technologies.

The Wow Factor

Our sales teams are the best users. They went through intensive training on it as they needed it for the customer base. It gives support of each other on top of that. We have some customers you cannot just fly off to Asia at the drop of a hat to meet with. We need this technology to make impressions on them. This allows us that capacity without paying for plane tickets all the time. – IT Director, Business Services

About the Authors

Alan Greenberg is a Senior Analyst & Partner at Wainhouse Research. Alan has worked in the telecommunications, videoconferencing, software and services, and multimedia arenas for more than 25 years, holding marketing positions with Texas Instruments and several other technology companies. He has conducted research into dozens of distance learning and e-Learning products and programs and covers web conferencing, managed services, and mobile and 3G wireless conferencing for WR. He is co-lead analyst on the Wainhouse Research WebMetrics research program, and has authored many research notes on web conferencing and e-Learning vendors. Alan holds an M.A. from the University of Texas at Austin and a B.A. from Hampshire College.

Andy Nilssen is a Senior Analyst & Partner at Wainhouse Research, where he leads the WR web conferencing and IM & Presence practice. Andy is a co-author of WR's recent Unified Communications Products report which sized the entire UC market space, and WR's bi-annual WebMetrics study, which tracks web conferencing usage and user preferences. Earlier in his career, Andy managed the planning and launch of PictureTel's second-generation group videoconferencing systems. Andy has over 25 years of experience in high-technology product marketing and market research, earned his MBA and BSEE degrees from the University of New Hampshire, and holds two ease-of-use related patents.

About Wainhouse Research

Wainhouse Research, www.wainhouse.com, is an independent market research firm that focuses on critical issues in the Unified Communications and rich media conferencing fields. The company conducts multi-client and custom research studies, consults with end users on key implementation issues, publishes white papers and market statistics, and delivers public and private seminars as well as speaker presentations at industry group meetings. Wainhouse Research publishes a variety of reports that cover the all aspects of rich media conferencing, and the free newsletter, *The Wainhouse Research Bulletin*.

About SMART Technologies

SMART Technologies supplies Information Communication Technology (ICT) products that are suitable for interactive display applications and facilitate a more interactive, collaborative environment. Using SMART products, groups can access and share the information they need to meet, teach, train and present. SMART has been issued and maintains a broad portfolio of patents with numerous U.S., Canadian and other patents pending. SMART customers include NASA, Texas Instruments, BMW, Toyota Motors, DaimlerChrysler, Boeing, Lucent Technologies, NTT, the Los Angeles Lakers, Novartis, the U.S. Joint Chiefs of Staff, Accenture, Procter & Gamble, British Telecom, Disney Imagineering and Harvard University.

SMART is a private company founded in 1987. Employing more than 1,100 people, SMART is headquartered in Calgary, Alberta, Canada, with assembly facilities in Ottawa, Ontario and offices in Bonn, Paris, Tokyo, Shanghai, New York City, Chicago and Washington, DC. In 1992, SMART formed a strategic alliance with Intel® Corporation that resulted in Intel's equity ownership in the company. SMART

products are sold through dealers across North America and distributors worldwide. For more information, visit www.smarttech.com/corp.