

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
InterCall, Inc. Appeal of Decision)	
of the Universal Service Administrative Company)	
and Request for Waiver)	
)	CC Docket No. 96-45
InterCall, Inc. Petition for Stay of the)	
Decision of the Universal Service)	
Administrative Company)	
Universal Service)	

**PETITION FOR PARTIAL RECONSIDERATION AND CLARIFICATION OF THE
INTERCALL ORDER**

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Global Conference Partners (“GCP”), by its attorneys and pursuant to Section 1.106 of the Commission’s Rules, 47 C.F.R. § 1.106, files this Petition for Partial Reconsideration and Clarification of the Federal Communications Commission’s (“FCC” or “Commission”) Order,¹ denying in part and granting in part the InterCall, Inc. (“InterCall”) Petition seeking review of the decision of the Universal Service Administrative Corporation (“USAC”).²

INTRODUCTION AND SUMMARY

GCP respectfully requests reconsideration of the finding in the *InterCall Order* that the stand-alone conference service of InterCall, and the services of similarly-situated providers, is not an “information service” as a matter of regulatory classification under the Communications

¹ See, *Request for Review by InterCall, Inc. of Decision of the Universal Service Administrator, Order*, FCC 08-160 (2008) (“*InterCall Order*”).

² See, *Request for Review by InterCall, Inc. of Decision of Universal Service Administrator*, CC Docket No. 96-45, (filed Feb. 1, 2008) (“*InterCall Request for Review*” or “*InterCall Petition*”).

Act (“Act”), 47 U.S.C. § 153(20), and applicable precedent.³ The *InterCall Order* erred as a matter of law and contradicted the FCC’s well-established classification precedent in two respects:

- The order erroneously narrows and contradicts existing precedent and law regarding “information services.” Among other things, the rejection of the “information service” classification in the *InterCall Order* conflicts inexplicably with the holding of the *Pulver.com Order*, wherein the Commission found that the Free World Dialup (“FWD”) offering of “conference bridging capabilities to members” is an “information service” under the Act.⁴
- The regulatory classification analysis in the *InterCall Order* failed to examine the finished conference service from the consumer’s perspective, taking into account all of the integrated features and functions of the service, consistent with FCC precedent.

Further, GCP respectfully requests clarification that the FCC’s finding of “telecommunications” in the InterCall service that “allows end users to transmit a call” is the bundled long-distance transmission component of the InterCall service. In light of the purported breadth of the *InterCall Order*, this clarification is critically important and would significantly assist all providers of unified communications services, and their investors, to understand better the reach and scope of Title II regulation in this burgeoning communications market.

Ultimately, the Commission should re-examine the *InterCall Order* because it effectively deviates from and substantially undermines without explanation the FCC’s long-standing *Computer Inquiry II* policy establishing that non-facilities based providers offering enhanced services “in conjunction with basic transmission services have historically been treated as

³ GCP uses the term “conference service” herein because it better describes the set of enhanced features and functions offered as a single service to the American public, as described more fully in Section II below. The term “audio bridging services” used in the *InterCall Order* is inadequate and a misnomer because the services in question are not just use of a bridge; the services also use computer servers, stored content, etc. as further described herein.

⁴ See, *Petition for Declaratory Ruling that pulver.com’s Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, Memorandum Opinion and Order, 19 FCC Rcd. 3307 (2004) (“*Pulver.com Order*”).

unregulated enhanced service providers.”⁵ Instead, the *InterCall Order* throws the unregulated status of any unified communications services into question and jeopardy, squelching and dampening ongoing innovation and investment in information services. This “unintended regulatory consequence” is not a hypothetical concern. As synopsisized by the attached report by Wainhouse Research entitled “Bringing the Meeting Room Into the Digital Age” (July 2008) (attached),

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.

Far from “clarifying” regulatory obligations for the many non-telecommunications companies deploying and investing in unified communications services with a voice component, the *InterCall Order* immediately begs the following questions: Who is and is not within “*all similarly situated audio bridging service providers?*” What is the scope of Title II regulation when a unified communications service offers a virtual conference with several media capabilities – voice, video, data, etc. – to the public for a fee?

Consumers pay the price for this regulatory uncertainty, as investors and innovators will logically rein in their investment of resources in companies deploying such enhanced services, regardless of whether they improve and expand the utility of group voice and data

⁵ See, *In the Matter of IDCMA Petition for Declaratory Ruling That AT&T's InterSpan Frame Relay Service Is a Basic Service*, Memorandum Opinion and Order, 10 FCC Rcd. 13717, 13720 (1995); *NTCA v. Brand X*, 545 U.S. 967, 993 (2005) (explaining that the FCC under Computer Inquiry II precedent does “not subject to common-carrier regulation those service providers that offer[] enhanced services over telecommunications facilities, but that d[o] not themselves own the underlying facilities – so called ‘non-facilities-based’ providers.”); See also, *Amendment of Section 64.702 of the Commission's Rules and Regulations*, Final Decision, 77 FCC 2d 384 (1980) (“*Computer Inquiry II*”).

communications.⁶ The strong message sent by the *InterCall Order* is that the Commission can and will undermine lynchpin *Computer Inquiry II* policy in increments and without so much as a single Federal Register notice to innovators and their investors.

Ironically, this sweeping action was unnecessary. The Commission possesses the statutory authority, using its “permissive” Section 254(d) authority, to extend USF contribution obligations to those conference service providers, like InterCall, that bundle long-distance with conferencing “information services.” Before it can exercise that authority, however, the Commission is required to reach a finding that it would be “in the public interest” to do so.⁷

BACKGROUND

I. GCP: ENHANCED CONFERENCING UNLEASHED FROM THE CARRIER-MODEL

As a leading provider of stand-alone conference services to the American public for six years, GCP has a significant interest in the Commission’s far-reaching decision declining to classify InterCall’s stand-alone conference service as an information service. GCP is a small business, with approximately 20 employees, but it has continuously invested heavily in the invention and development of hardware and software technology in order to bring innovative,

⁶ As the Commission noted in the *Wireline Broadband Order*, “[the Commission’s] rules should not force technological development in another, less efficient direction.” *See, Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Report and Order*, 20 FCC Rcd. 14853, ¶ 68 (2005) (“*Wireline Broadband Order*”).

⁷ That is, after all, the procedural approach taken in the 2005 *Wireline Broadband* proceeding when the Commission declared the LECs’ broadband transport and Internet access service to be an information service, and allowed the LECs to stop substantial USF payments. *See, Id.*, ¶112. There, the Commission properly sought comments on whether it would be in the “public interest” to obligate the broadband ISPs to have a USF contribution obligation. The conference service provider industry should be treated to no less than the same procedure.

award-winning,⁸ and advanced conference services to the public at their normal long distance rates, with low or no additional fees. The regulatory classification analysis in the *InterCall Order* impacts not only GCP's ability to plan and deploy new service roll-outs, it affects all other providers of unified communications services that include a voice component.

Unlike some services of GCP and other independent conferencing providers, the large interexchange carriers ("IXCs") offer 800-number conferencing services that bundle high-cost long distance telecommunications charges with enhanced conference features and generally have charged American consumers \$0.12 to \$0.28 per-minute per-participant.⁹ In contrast to the "host pays all" model offered by these carriers, GCP's feature-rich standard reserved and unreserved services do not bundle transport with the conferencing service, which allows long distance charges to be distributed among the call participants. GCP also offers premium paid and 800-number services.¹⁰ GCP developed these services to meet the needs of consumers, businesses, and non-profit institutions, including those that were historically un-served, underserved, or poorly served, and the services are used to facilitate business meetings, product marketing, family reunions, home-based businesses, web-collaboration, and other group communications. The conferencing services of GCP and many other non-carrier providers also offer consumers the ability to communicate visually in real-time by integrating web-based desktop sharing

⁸ For example, GCP's conference services have been awarded the 2008 Communicator Award and the American Business (Stevie) Award for new products, a 2003 Webby Award, and Finalist position for the 2006 "Product of the Year Award" from Small Business Technology Magazine.

⁹ These rates range from 33% to more than 300% above the rates charged by GCP for even its premium, 800-based service. See <http://www.globalconferencepartners.com/Global-Conference.aspx>.

¹⁰ GCP premium services have per-participant costs of only \$0.09/minute (for 800-number based service) and \$0.03/minute (for participants accessing the service using a long distance service of their choice).

features with the service offering, which allows consumers to access documents or other visual information relevant to the group communications.

While GCP's services bring conferencing within the reach of all consumers, the high quality of its services is attested to by GCP's customer base that includes, for example, General Electric Company, the University of Michigan, the Federal Aviation Administration, and Teach for America.¹¹ GCP is continually enhancing its services and investing in technological improvements, most recently offering collaborative desktop sharing options and Microsoft Outlook integration that allows hosts to set up conferences from their calendaring software. Conference recording is also an integral and free service option for some GCP users, allowing dial-in access using this stored information after a conference has ended. Recording of multiple conferences with long term storage is a paid option for GCP users. The popularity of GCP's service demonstrates that it fills a previously unmet need and is highly valued by the public. As consumers become more familiar with the service and cost advantages of its competitive conference and unified communications services, unaffiliated with large carrier offerings, GCP anticipates that increasingly large portions of its revenues will come from expanded use of paid premium and enhanced services, such as call transcriptions.

Significantly, the cornerstone of the stand-alone conferencing service model of GCP and others has *nothing to do with* telecommunications or voice transmission, and *everything to do with enhancing and adding to* the long-distance telecommunications services consumers already

¹¹ The largest organizations using GCP's services include General Electric, Monitor Consulting, Mary Kay, Frost & Sullivan, INS Consulting, Teach for America, Georgia Pacific, Incode Wireless, Prepaid Legal, My Arbonne, the Federal Aviation Administration, Duke University, the United States Postal Service, the University of Chicago, the University of Michigan, City Year, ACORN, Wharton, Columbia University, and UCLA. Additionally, there are more than 25,000 individually-registered GCP service users from government, education, and non-profit organizations.

buy from IXCs. Thus, for example, conferencing services without any bundled long-distance component are telecommunications agnostic: consumers may use any transport service they choose – traditional IXC long-distance, VoIP, or wireless – to transport their voice (or data) to and from GCP’s service. The operating assets of stand-alone conference services – bridge equipment (which does not transmit, route, or switch telephone calls), servers, and content – also confirm that these companies offer services that *significantly enhance* what consumers can do with the telecommunications services they purchase from their wireline and wireless carriers.

II. THE INTERCALL SERVICE AND THE INTERCALL ORDER

On February 1, 2008, InterCall filed a Request for Review of a USAC decision that concluded the conference services offered by InterCall are “toll teleconferencing” services subject to USF contribution requirements.¹² InterCall described that its “conferencing service [] allows multiple end users to communicate and collaborate with each other using telephone lines.”¹³ InterCall described that its audio bridge equipment “links multiple communications together and feeds to each station a composite audio input minus the user’s own audio” and stated that:

“[t]he audio bridge also performs conference validation functions, collects billing and participant information for each bridge call and enables numerous conference control features, including recording, delayed playback, mute and unmute of callers and operator assistances. The most common forms of audio bridging services are operator-assisted conferences and on-demand ‘reservationless’ conferencing services.”¹⁴

¹² See, *InterCall Request for Review*, 1. The term “toll teleconferencing” was added to the FCC’s Form 499A without explanation from the Commission, and was never a category identified by the Commission or the Bureau as a “telecommunications service.”

¹³ See, *Id* at 4.

¹⁴ *Id*. InterCall went on to describe that for one of its typical reservationless conferences, “the conference host is assigned a pre-established dial-in number, typically a toll-free 8YY number (footnote continued)

On June 30, 2008, the FCC issued the *InterCall Order*, which denied in part and granted in part the Request for Review, finding that InterCall’s conference service, and the services of other “similarly situated” “stand-alone providers” is the provision of “telecommunications” under the Communications Act.¹⁵ The *InterCall Order* held that InterCall’s stand-alone conferencing service did not meet the “information service” definition under the Act.¹⁶ Specifically, the FCC found that “InterCall’s service allows end users to transmit a call (using telephone lines), to a point specified by the user (the conference bridge), without change in the form or content of the information as sent and received (voice transmission).”¹⁷ The FCC found that the functionalities of InterCall’s bridging equipment did not alter its analysis: “the purpose and function of the bridge is simply to facilitate the routing of ordinary telephone calls,” which results “in ‘no more than the creation of the transmission channel chosen by the customer.’”¹⁸ The *InterCall Order* further held that the InterCall service was not an “information service” because the enhanced functions and features of the service were not sufficiently “integrated” with the transmission component of the service.¹⁹ The Commission also stated, however, that

uniquely assigned to the host or the host’s company for conferencing services. ... Participants connect to the bridge using the dial-in number and, if enabled, enter a conference code/passcode assigned to the host. During a conference, the host has available a number of features, including operator assistance, the ability to poll participants, the ability to obtain a roll-call of participants, the ability to mute and unmute lines and the ability to lock or unlock the conference from additional participants.” *Id.* At 5.

¹⁵ *See, InterCall Order*, ¶ 1.

¹⁶ *Id.*, ¶¶ 11-13.

¹⁷ *Id.*, ¶ 11.

¹⁸ *Id.*, ¶ 11.

¹⁹ *See, Id.*, ¶ 11 -13.

“[n]othing in this order is intended to address issues relating to access charge tariffs or other types of intercarrier compensation.”²⁰

As a result of its statutory classification, the Commission upheld USAC’s decision that InterCall must contribute to federal USF based on end-user interstate conference service revenues, but granted InterCall’s request to contribute on a prospective-basis only. The FCC required InterCall to file 499 quarterly and annual forms, and also directed USAC to ensure that all “similarly situated” providers contribute in the same manner.²¹

DISCUSSION

I. THE COMMISSION SHOULD RECONSIDER ITS FINDING THAT INTERCALL’S CONFERENCE SERVICES ARE NOT INFORMATION SERVICES.

As discussed below, GCP respectfully submits that the rejection of the “information service” classification in the *InterCall Order* (¶¶ 11-13) was in error for three independent reasons set out in Subparts A, B, and C below. On reconsideration, the Commission should properly conclude based on the facts of the record of this proceeding, and applying the Commission’s existing law and policy, that the InterCall service is an information service.

A. The InterCall Order Narrows and Contradicts Existing Precedent and Law Regarding “Information Services.”

The *InterCall Order* articulates a legal standard for regulatory classification of conference services that flatly contradicts the FCC’s well-established precedent in three significant ways.

²⁰ *Id.*, n.49; *See also, Id.*, ¶ 22 (conference provider’s end-user “classification in the context of purchasing telecommunications does not, in turn, preclude the provider from also being a telecommunications provider in terms of its USF contribution obligations”).

²¹ *See, Id.*

First, in the 2004 *Pulver.com Order*, the Commission held that the FWD service of Pulver.com is an “information service” under the Act, and not to be subjected to Title II regulation. In reaching this finding, the Commission’s stated objective was to “remove any regulatory uncertainty”²² and to “to bring a measure of regulatory stability to the marketplace and therefore remove barriers to investment and deployment.”²³ Significantly, the Commission described the FWD service as offering “*conference bridging capabilities to its members . . .*”²⁴ Based on this and other “specific functions FWD provides its members,” the Commission “determin[ed] the regulatory classification of FWD” to be “an unregulated information service subject to federal jurisdiction”²⁵ Again, the *Pulver.com Order* reiterated that “the FWD service as described in this Order . . . is an unregulated information service and any state regulations that seek to treat FWD as a telecommunications service or otherwise subject it to public-utility type regulation would almost certainly pose a conflict with our policy of nonregulation.”²⁶

The rejection of the “information service” classification of the conference service of InterCall is a mistake of law. It is readily apparent that the Commission, in a decision issued three to four times more rapidly than usual,²⁷ wholly failed to consider its prior holding in the

²² *Id.*, ¶1.

²³ *Id.*

²⁴ *See, Id.*, ¶ 6; *See also Pulver.com Order*, n. 50 (explaining that FWD’s functions are different from that of a telecommunications signaling network because FWD provides features not offered by signaling networks, including “directory look-up, voice mail, emailed responses, *conferencing capabilities . . .*”) (emphasis added).

²⁵ *Id.*, ¶ 8.

²⁶ *Id.*, ¶15.

²⁷ The Commission typically deliberates on an appeal of a USAC decision for *18 to 20 months* (and oftentimes longer) from the filing of the appeal to the date of release of an FCC order; in this case, however, the Commission issued an order in only *five months* after the InterCall appeal was filed on February 1, 2008.

Pulver.com Order. Indeed, the *InterCall Order* does not reconcile, acknowledge, or even cite to the *Pulver.com Order*, a critical omission that renders the Commission’s decision arbitrary and unreasonable.²⁸

Second, the *InterCall Order* inexplicably rejects the “information service” classification on the basis of its (erroneous) factual finding that conference services “simply [] *facilitate* the routing of ordinary phone calls.” *InterCall Order*, ¶ 11 (emphasis added). That, however, is not the “information service” test. As the Commission held in its *Pulver.com Order* rejecting Verizon’s contention that FWD simply “facilitated” phone calls:

[t]he fact that the information service Pulver[‘s offering happens *to facilitate a direct disintermediated voice communication . . . cannot and does not remove it from the statutory definition of information service. . . .*²⁹

In the same way, it is also true that voice-mail services may “facilitate” ordinary phone calls, but that is not an element of the legal test as confirmed by long-established law correctly classifying voice-mail as an “information service.” The *InterCall Order* is thus predicated on an erroneous legal standard that undertakes without basis to balance the FCC’s “facilitate” finding with the enhanced features and functions of the service (and largely ignoring those features and functions, as discussed below).

Third, paragraph 19 of the *InterCall Order* asserts that conference services provide “telecommunications” while chat line services provide “information services” on *the sole basis* that the chat service “randomly pair[s] callers” whereas the conference service “brings together

²⁸ *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983) (Agency changing course “is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance”).

²⁹ *See, Pulver.com.*, ¶ 12 (emphasis added).

specific participants to talk with one another.”³⁰ This distinction begs the question: When did “randomness” attain legal significance in regulatory classification decisions? Regulatory classification has never turned on the “random” status of users of a service and indeed, it has no basis in the Act’s statutory definitions of “information service” or “telecommunications” or in relevant FCC precedent, including the cited *Jefferson Telephone* case. Thus, the Commission has failed to provide a reasoned distinction between InterCall’s service and the chat line “information service” in *Jefferson Telephone*.³¹

B. InterCall’s Conference Service Is An Information Service

In classifying InterCall as a provider of “telecommunications,” the Commission characterized InterCall’s service essentially as a “plain old” telephone service. According to the Commission, “InterCall’s service allows end users to transmit a call (using telephone lines), to a point specified by the user (the conference bridge), without change in the form or content of the information as sent and received (voice transmission).”³² In doing so, the Commission failed to apply the Act’s “information service” definition and applicable precedent correctly which requires examining the whole service, including all of its features and functionality, from the perspective of the consumer.

An “information service” is defined in the Act as “the offering of a capability for generating, acquiring, transforming, processing, retrieving, utilizing, or making available

³⁰ See, *InterCall Order*, ¶ 19.

³¹ This failure is even more glaring given the facts well-known that both chat line and conference service providers essentially use the same bridging equipment, except that chat line services generally offer participants fewer integrated enhanced features.

³² See, *id.*, ¶ 11. Indeed, the Commission here noted that the “heart of ‘telecommunications is transmission.’” See, *id.*, ¶ 11 (citations omitted).

information via telecommunications”³³ When considering the regulatory classification of a service, the Commission examines it as a whole from the consumer’s perspective.³⁴ That examination essentially asks whether the service in question: (a) offers bare transport or transmission, and no more; or (b) offers *features and functions that are more than* bare transport or transmission, including access to stored information, computer capabilities, the ability to acquire, process or retrieve information? If the service falls into the latter category, it is an “information service” even if a component of the service has a transport or transmission capability.³⁵

Here, the Commission’s characterization of InterCall’s service (and, by extension, “similarly situated” services) as bare transmission significantly overlooked and abruptly dismissed the facts that demonstrate that the conference services are squarely “information services.” As InterCall and others explained in the record of this proceeding,³⁶ a stand-alone

³³ 47 U.S.C. § 153(20).

³⁴ Commission precedent makes clear that in classifying a service as a telecommunications or information service, the Commission must first determine, from the perspective of a customer using the service, if the service provider provides “a single information service with communications and computing components” or “two distinct services, one of which is a telecommunications service.” *See, Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd. 11501, ¶ 60 (1998) (“*Universal Service Report to Congress*”). The Commission’s general classification approach has its roots in the *Computer Inquiries* line of decisions, which were maintained after the passage of the Telecommunications Act of 1996. *See, Id.*, ¶ 58 (1998). The Commission has determined that the information service classification will apply “regardless of whether subscribers use all of the functions provided as a part of the service...” *See, Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd. 4798, ¶ 38 (2002) (“*Cable Modem DR*”).

³⁵ Of course, extant FCC *Computer II* precedent also establishes a distinction between facilities-based and non-facilities-based providers, rendering the latter category of providers wholly unregulated.

³⁶ It is in the public interest for the Commission to consider evidence not included in the record that describes the enhanced functions and features of other similarly situated conference
(footnote continued)

conference service typically has several enhanced features and functionalities that are markedly different from a bare call-transmission function, including:

Ability to Generate Information: Conference services offer consumers the ability to (a) “record some or all of the conference, thereby creating new information that can be assessed at a later time;”³⁷ (b) record an announcement of himself or herself, “generat[ing] new information, which is stored and made available to the host during the conference call;”³⁸ (c) “poll participants during the conference, creating new information that is available to the host; and (d) allow participants to enter a conference call “only after the bridge verifies the passcode and collects user input, such as name and affiliation.”³⁹ Other standard conference service features include: e-mail and Internet-based text message reminders immediately prior to conference,⁴⁰ and conference reports for each conference. Increasingly, the conferencing industry is meeting consumers’ demands for better services by converting the recordings of conference sessions into MP3 files and either sending those recordings in MP3 via the Internet or allowing consumers to access the provider’s computer servers and download the MP3 files via the Internet.

Retrieving and Storing Information: Conferencing services allow consumers to (a) retrieve and store a recording of the conference communications; (b) retrieve and obtain enhanced post-conference information, such as the number of conference participants and

providers, including the attached Declaration and Report, as the *Order* extends these USF contribution requirements and the “telecommunications” classification to some (but not all) of the services of these providers. *See*, 47 C.F.R. § 1.106(c)(2).

³⁷ Letter from Steven A. Augustino, Counsel for InterCall, Inc., to David Capozzi, Acting General Counsel, USAC, at 15 (June 5, 2007) (“*InterCall Letter to USAC*”). This feature is substantially the same as the voicemail feature offered by Pulver.com’s FWD service. *See*, *Pulver.com*, ¶ 11 (“Second, FWD ‘stores’ both member information (e.g., assigned numbers) and, if a member opts-in, voicemail messages on its server, that are accessible to other members.”).

³⁸ *See*, *InterCall Letter to USAC*, at 15

³⁹ *See*, *Id.* at 14. The passcode and verification feature is substantially the same as the “identifying numbers and passwords” offered by Pulver.com’s FWD service. *See*, *Pulver.com*, ¶ 11 (“Third, Pulver provides members with certain information (i.e., identifying information and passwords) that they ‘utilize’ first to register for the FWD service and then to contact other members who are online.”).

⁴⁰ The Internet-based delivery of passcode and confirmation information, including Internet-based confirmation and messaging, the FWD features providing FWD “members with certain information (i.e., identifying numbers and passwords) that they ‘utilize’ first to register for the FWD service and then to contact other members who are online.” *Pulver.com*, ¶ 11.

when each participant initiated and terminated the session;⁴¹ and (c) engage in call preparation by selecting among the consumer's user lists and/or user group information stored on the conference provider's servers.⁴²

Making Information Available: Conferencing services allow consumers to: (a) play back pre-recorded information; (b) interact with a menu of options, including access to pre-recorded information; and (c) obtain online access to the consumer's conferencing history, transaction history, user preferences and profile for conference management.

Transforming Information: Conferencing services allow consumers to send a SMS text message to forward conference information to participants' cell phone (as an alternative or in addition to e-mail notifications). Conferencing services typically offer an Outlook add-in for Outlook-based scheduling and invitations; thus, information is sent from the consumer's computer, through the conference provider's computer where it is transformed and manipulated, and then sent out to the computers or other CPE (*e.g.*, wireless PDA) of the conferencing participants.⁴³

Computer Capabilities: Most stand-alone conferencing services are web-based, and effectively require the conference host to interact directly with the conference provider's computer servers.⁴⁴ All user preferences, pre-recorded and stored information, user lists and/or user group information typically require the conference host to interact online with the computer servers of the conference provider. Typical stand-alone conference services send out email and web-based conference requests and confirmations through the conference provider's computer servers. The conference with integrated voice and web-

⁴¹ These conference features allow users to "acquire" information in substantially the same manner as offered by Pulver.com's FWD service. *See, Id.*, ¶ 11 ("FWD enables its members to 'acquire' information about other members' online presence at any particular time (similar to an instant messaging service)").

⁴² This feature is substantially the same as the stored member information provided by FWD. *See, Id.*, ¶ 11 ("Second, FWD 'stores' both member information (*e.g.*, assigned numbers) and, if a member opts-in, voicemail messages on its server, that are accessible to other members.").

⁴³ This feature is substantially similar to the "SIP invite" offered by Pulver.com's FWD. *See, Id.*, ¶ 11 ("Fourth, the FWD service 'processes' the 'SIP invite' (*i.e.*, the information an initiating member sends to the FWD server indicating it wishes to communicate with a recipient member) by determining both the recipient member's Internet addresses and online availability. Once FWD determines that the recipient member is available online, it 'makes available' the SIP invite to that recipient member. Making available the Internet addresses of the intended recipient member enables the initiating member to 'retrieve' this information.").

⁴⁴ Similarly, Pulver.com's FWD offered access to its computer servers, and was a web-based system. *See, Id.*, ¶ 11 ("Through its server accessible over the Internet, FWD makes available to its members information that enables them to determine whether other members are available to talk; information on how to contact other members; and an optional voicemail capability that enables members to leave messages for unavailable members who have chosen this feature.").

based desktop sharing features that allows customers to access documents, as well as other visual information communicated during the conference, require the offering of the conference provider's computer capabilities. Typical stand-alone conference services also offer the host the ability to modify in real-time the parameters of the conference from the end user's perspective (e.g., change mute settings, impose restrictions on some or all users' level of participation, etc.), which is managed through the provider's servers and other computers.

Tellingly, the *InterCall Order* cites only one precedent to support its regulatory classification decision, analogizing conference services to the incumbent LECs' 1980's Centrex-based Automatic Route Selection ("ARS") service, which the Commission found to be not an "enhanced service" but rather an "adjunct-to-basic" service.⁴⁵ The analogy fails completely. The 25-year old ARS service bears no resemblance or similarity to today's conferencing and unified communications services. ARS was deemed a "basic" Centrex service of the incumbent LEC switch because all it offered consumers was the ability to direct long distance traffic seamlessly to the least-cost long distance provider, without any customer interaction. From the consumer's perspective, the conference services at issue here require direct interaction with stored information, enhance the communications experience and capabilities as compared with what unenhanced telephone service can provide, and provide the ability to store and retrieve a variety of information. Further, while ARS functions established a "transmission channel," conference bridges do not. Unlike ARS, and as discussed in Part III below, a conference bridge does not establish or facilitate a circuit between conference participants, and it provides no outbound routing, switching, or transmission functionality.

⁴⁵ See, *InterCall Order*, ¶ 11 (citing *North American Telecommunications Association Petition for a Declaratory Ruling, Memorandum Opinion and Order*, 101 FCC 2d 349, ¶ 31 (1985) ("NATA Order")).

C. The InterCall Order Misapplied the FCC’s “Integration” Precedent

Further, the *InterCall Order* found that the statutory definition of an information service was not met because the enhanced functions and features of the InterCall service were not sufficiently integrated with transmission component, relying on the 2006 *Prepaid Calling Card Declaratory Ruling*,⁴⁶ misapplying the relevant “integration” legal standard.

As *Brand X* made clear, a service is deemed integrated when a “consumer uses the [transmission component] always in connection with the information-processing capabilities provided by the [service]”⁴⁷ In the case of cable modem-based Internet access, *Brand X* elaborated that the “integration” standard was met because the service providers are not “‘offering’ to consumers each discrete input that is necessary to providing, and is always used in connection, with [the] finished service.”⁴⁸ Furthermore, as the *Prepaid Calling Card Declaratory Ruling* noted in finding that the information service features offered with menu-driven prepaid calling cards are not sufficiently integrated with the transmission component, a

⁴⁶ See, *Id.*, ¶12 (“the Commission has previously found that the features offered in conjunction with InterCall’s service are not ‘integrated’ and thus do not change a service form telecommunications to an information service.”) (citing, *Prepaid Calling Card Declaratory Ruling*, ¶¶ 14-15)

⁴⁷ See, *NCTA v. Brand X*, 545 U.S. 967, 990 (2005). As the Commission has also explained,

An Internet Service Provider is purchasing the DSL service for the sole purpose of combining the telecommunications service with its own information service and offering a new retail service, i.e., high-speed Internet service, to the ultimate end-user. In this process, the Internet Service Provider adds value to the bulk DSL telecommunications service by dividing that service for individual consumer use and adding the Internet service, thus enabling the Internet Service Provider to offer and sell the newly created information service to the ultimate consumer

In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability, Second Report and Order, 14 FCC Rcd. 19237, ¶ 14 (1999). The same holds when a conference provider purchasing resold long-distance transport, combines enhanced features and functions, and selling a “finished service” of conference services.

⁴⁸ *Id.*

service “does not include a separate telecommunications service offering” when the telecommunications input used to provide the service ““is not ‘separable from the data-processing capabilities of the service’ and is instead ‘part and parcel of the [information service] and is integral to the [information service’s] other capabilities.’”⁴⁹

In the case of the InterCall conferencing service, the enhanced features are fully integrated with the transmission component, which is the bundled long-distance transport connecting the user to the conference bridge.⁵⁰ For example, as the record demonstrates, call participants can only join a conference after their pass code is verified against the conference provider’s database (stored information) and the participant’s user information is collected.⁵¹ The service additionally “validates the participant information and then generates a record of the participant’s date, time and originating phone number.”⁵² Not only do these functions occur via the participant’s use of the bundled long-distance transport, but the participant may only use that transport when it is conjoined with those enhanced functions. Thus, the transmission and information components are integrated with one another – the long-distance component is used “always in connection with the information-processing capabilities provided by the” conference service, and it is ““part and parcel of the [information service] and is integral to the [information service’s] other capabilities.’”

⁴⁹ See, *Prepaid Calling Card Declaratory Ruling*, ¶ 15 (citing *Brand X*, 545 U.S. 967, 990 (2005) (citing, *Cable Modem DR*, ¶ 39).

⁵⁰ Of course, a conference service that has no bundled transport component may still qualify as an “information service.” See *Pulver.com Order*, ¶ 9 (“Pulver neither offers nor provides transmission to its members. Rather, FWD members ‘bring their own broadband’ transmission to interact with the FWD server.”), *Id.*, ¶ 14 (FWD’s service is an ““information service” because it is accessed “via telecommunications”).

⁵¹ See, *InterCall Letter to USAC*, at 14 (June 5, 2007).

⁵² *Id.*, at 15.

Additional integration of the transport and enhanced components occurs as the conference commences. The service records each participant as they “announce himself or herself, providing his or her name and affiliation” upon joining the call via the long-distance transport, “generat[ing] new information, which is stored and made available to the host during the conference call. . . . The host also may poll participants during the conference, creating new information that is also available to the host.”⁵³ These functions occur both at the beginning and during each conference call, and the host may access the recordings created during the conference call, providing assistance to the host with call management obligations.

Nothing in the *NATA Order* changes this conclusion.⁵⁴ Here, the record demonstrates that the wide range of enhanced functions do not merely provide InterCall’s management with billing and traffic management assistance; rather, the enhanced functions are offered for the convenience and benefit of the customers – the call host and participants – all of whom have access to the enhanced functionalities offered with the conferencing service.⁵⁵ In fact, the bundled long-distance transport is available “part and parcel,” *i.e.*, integrated, with these enhanced functions.

Neither do the functions offered by the InterCall service bear any legitimate resemblance to the services at issue in the *Prepaid Calling Card Declaratory Ruling*, which offered prepaid card holders a choice of making a telephone call or accessing a live operator to provide them with “directory information, time, reverse directory assistance, hotel and restaurant information,

⁵³ *Id.*, at 15.

⁵⁴ *See, InterCall Order*, at ¶ 12 (citing to *NATA Order*, ¶ 15 for the proposition that “data concerning a customer’s use may be gathered, stored, processed, and provided to a customer in the form of an itemized bill or a traffic management study. . .” and this does not convert the service to an information service.”).

⁵⁵ *See, infra.*, I.B.

weather forecast, directions, movie and theater information, stock quotes, sports scores and schedules, and horoscope information.”⁵⁶ The Commission there found those features to be “minimally linked” to the telecommunications component, and not functionally integrated, because the “customer may use only one capability at a time and the use of the telecommunications transmission capability is completely independent of the various other capabilities that the card makes available.”⁵⁷ Further, the Commission noted that the calling cards were “marketed to consumers as a vehicle for making traditional telephone calls.”⁵⁸ In essence, the Commission found there that those minor and incidental “tweaks” to basic long distance service were essentially added for the purpose of engaging in regulatory arbitrage.

In contrast, InterCall’s enhanced functions are far from “minimally linked” to the bundled long-distance transport component. Instead, those features provide users a group communications experience that it cannot obtain either by obtaining the features separately or from using solely the transport. The two sets of service components are inextricably combined for the consumer. Unlike horoscope, weather forecasts, and movie listings, the conference features offer consumers enhancements that build upon the long-distance transport component. This is confirmed by the facts that the conference features and long-distance transport are used at the same time and in conjunction with each other, unlike in the *Prepaid Calling Card Declaratory Ruling* where the consumer used the long-distance offering *for distinct communications* and *at different times* than the access to horoscopes or weather information offering.

⁵⁶ See, *Prepaid Calling Card Declaratory Ruling*, ¶ 11.

⁵⁷ See, *Id.*, ¶ 15.

⁵⁸ See, *Id.*, ¶ 13.

Further, unlike calling card users, who could merely bypass the enhanced features before making a long-distance call, conference participants can only join a conference session after: (a) they have had several interactions with the provider's stored information (as discussed above); (b) user information is collected and validated; (c) records are created and stored by the bridge for use by the host both during and after the duration of the conference call; and (d) the caller makes a recording of her name or greeting that is then stored and played back for other conference participants.⁵⁹ These functions occur both at the beginning and during each conference call, and the host may access the recordings created during the conference call, and after the call is complete, assisting the host with call management obligations. Further, unlike the services in question in the *Prepaid Calling Card Declaratory Ruling*, conference features and functions are heavily marketed as components of the finished service, rather than as mere incidental bells and whistles that are completely unrelated to the conference calling service. Consumers make decisions between providers in the highly competitive conferencing market based on the enhanced features/functions as well as a provider's support of those features. In sum, from the consumer's perspective, today's conferencing service is an offering that is far different from what any consumer could expect from a long-distance calling service.

Finally, the *InterCall Order* found that certain enhanced features of the service – “muting, recording, erasing, and accessing operator services” – were not sufficiently integrated into the finished service solely on the basis that “the customer can still conduct its conference call with or without accessing these features.”⁶⁰ This conclusion rests on a misapprehension of the law. The “information service” classification turns on the “offering” of the finished service,

⁵⁹ See, *InterCall Letter to USAC*, at 14-15.

⁶⁰ See, *InterCall Order*, at ¶ 13.

it does not depend on the consumer's usage patterns. Thus, a service offering with a bundled transport component is an information service "regardless of whether subscribers use all of the functions provided as part of the service . . ." ⁶¹

II. THE COMMISSION SHOULD CLARIFY THAT INTERCALL'S BUNDLED LONG-DISTANCE COMPONENT IS THE TRANSMISSION COMPONENT OF THE SERVICE.

GCP requests that the Commission provide further clarification of paragraph 11 of the *InterCall Order*, and clarify that the aspect of the InterCall service that constitutes "transmission" for purposes of the "telecommunications" statutory definition is the bundled long distance transport component. As InterCall explained in its Request for Review, "[t]o obtain the necessary telecommunications input, an audio bridging provider purchases toll-free, international and/or local number-based services from one or more telecommunications vendors."⁶² The *InterCall Order* (¶ 8, emphasis added), therefore, states:

We find that the service described by InterCall is telecommunications. As the Commission has recognized, 'the heart of 'telecommunications' is transmission.' InterCall's service *allows end users to transmit a call (using telephone lines)*, to a point specified by the user (the conference bridge), without change in the form or content of the information as sent and received (voice transmission).

From this language, and in the context of InterCall's service description in the record, it would seem apparent that the Commission reached its finding of "telecommunications" from the fact that InterCall offered a conference service that *bundled a long-distance telephony*

⁶¹ See, *Cable Modem DR*, ¶ 38; see also, *Pulver.com Order* ¶ 11-12 (FWD meets information service definition because it offers "an optional voicemail capability that enables members to leave messages for unavailable members who have chosen this feature"); See, 47 USC § 153(20) ("The term 'information service' means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.").

⁶² See, *InterCall Petition for Appeal*, at 5 (internal citations omitted).

component. Further, the paragraph's subsequent statements (dicta) addressing the "existence of a bridge" articulate the Commission's conclusion that the bridge itself does not alter that finding. As the Commission put it, "[t]he existence of a bridge that users dial into does not alter this classification. Rather, the purpose and function of the bridge is simply to facilitate the routing of ordinary telephone calls."

The latter statements concerning the conference bridge, however, require clarification and correction. Perhaps most important, the statements are incorrect as a matter of fact. A conference bridge does not engage in outbound routing or switching of a participant's voice signal. As stated in the attached declaration of Clifford Kaylin, GCP's Chief Technical Officer (attached hereto):

A circuit is established between the participant's Customer Premises Equipment ("CPE") and the GCP Customer Premise Equipment. That circuit terminates at the conference bridge; the transmission of signals along that circuit is established and maintained by the equipment and facilities of the providers of the underlying long-distance transport, not by the conference bridge.

...

The GCP conference bridging equipment does not route, switch or forward telephone calls outbound to any other call participant. The GCP conference bridging equipment receives voice signals as well as other data inputs from within the GCP server; it does not forward, route or switch a participant's voice signal to some other location (e.g., a network termination point on a PSTN or wireless network). The conference bridge equipment functionality is best viewed as establishing a "meeting place" for callers to enter, to interact with conference features and stored information, and to engage in group voice and data communications. This bridge functionality is in addition to the functionalities provided by the GCP computer servers (the stored information, e-mail, voice mail, whiteboarding, and other computer capabilities) that are also available to and used by the conference participant.

Further, there is no support in the record for a finding that the "telecommunications" component of the InterCall service is anything but the bundled long-distance transport. Neither InterCall, nor any commenter, including Verizon, AT&T, and Qwest, offered any evidence in the

record to support the suggestion that conference bridges “facilitate the routing of ordinary telephone calls.”⁶³ Moreover, this errant factual conclusion is contradicted by Commission precedent that the call of a conference participant *terminates* at the conference bridge; the bridge is not, in fact, routing callers’ circuits through the bridge to other callers participating in a conference call.⁶⁴

This clarification and correction requested is vitally important. As the Commission has acknowledged, the *InterCall Order* and the regulatory implications stemming from it were unexpected by the conference services industry. GCP believes that, regardless of intention, the Commission’s decision may well significantly impact the business model, cost structure, staffing demands, and legal obligations of the conferencing and unified communications industry. Clarification and correction by the Commission at this time will be a significant step toward assisting all companies in the unified communications marketplace, including GCP, to understand more fully their legal and regulatory rights and obligations. Further, this clarification and correction will also help all companies to deploy and invest in services that remain unregulated and, ultimately, better meet the information and communications needs of the American public.

⁶³ While Verizon commented in passing that “InterCall provides for transmission between end users and the conferencing bridge and routes calls between conference participants,” this statement supports that the “transmission” in question is the long-distance component, and not the bridge functionality. In any event, Verizon offered no support for this statement, citing to portions of InterCall’s Petition for Review and web site that do not indicate the InterCall bridge performs a routing function. *See*, Comments of Verizon, at 5 (filed March 25, 2003).

⁶⁴ *See, Qwest Communications Corp. v. Farmers and Merchants Mutual Telephone Co., Memorandum Opinion and Order*, 22 FCC Rcd. 17973 , ¶ 32 (2007) (finding that calls terminate at the conference bridge, and rejecting argument that calls “connect together at” the conference bridge).

CONCLUSION

For the foregoing reasons, GCP urges the Commission to reconsider the decision not to classify stand-alone audio bridging services as an information service. GCP further requests that the Commission clarify and correct its statements regarding the “telecommunications” aspect of InterCall’s service and the nature of conference bridges.

Respectfully submitted,



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July 30, 2008

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
InterCall, Inc. Appeal of Decision)	
of the Universal Service Administrative Company)	
and Request for Waiver)	
)	CC Docket No. 96-45
InterCall, Inc. Petition for Stay of the)	
Decision of the Universal Service)	
Administrative Company)	
Universal Service)	

DECLARATION OF CLIFFORD KAYLIN

My name is Clifford Kaylin and I declare, under penalty of perjury, that the following statements are true and accurate:

1. I am Chief Technical Officer of Global Conference Partners ("GCP"), and I am authorized to make this declaration on behalf of GCP. I began working at GCP in July, 1988. In this capacity, I design and write software programs, engineer conference bridge hardware, oversee software development for the company, act as technical liaison to customers and many other duties.

2. In my capacity as CTO for GCP, I am the principal author of the software we employ in our business as a conference bridge manufacturer. As such, I am well-qualified to make the technical and engineering statements below regarding conference bridges and how they interact with a conference participant's voice signal.

3. Once a conference participant initiates a call to a GCP telephone number and thereby originates the call, the GCP conference bridging equipment receives and answers that incoming call from the conference participant. A circuit is established between the participant's Customer Premises Equipment ("CPE") and GCP's CPE. That circuit terminates at the conference bridge; the transmission of signals along that circuit is established and maintained by the equipment and facilities of the providers of the underlying long-distance transport, not by the conference bridge.

4. The GCP conference bridging equipment does not route, switch or forward telephone calls outbound to any other call participant. The GCP conference bridging equipment receives voice signals as well as other data inputs from within the GCP server; it does not forward, route or switch a participant's voice signal to some other location

(e.g., a network termination point on a PSTN or wireless network). The conference bridge equipment functionality is best viewed as establishing a “meeting place” for callers to enter, to interact with conference features and stored information, and to engage in group voice and data communications. This bridge functionality is in addition to the functionalities provided by the GCP computer servers (the stored information, e-mail, voice mail, whiteboarding, and other computer capabilities) that are also available to and used by the conference participant.

5. Based on my general understanding of conference bridges used by other stand-alone conference service providers, the foregoing statements of functionality and features are true of “standard” conference bridge equipment used by other stand-alone conference service providers in the marketplace today.


Clifford Kaylin

July 30, 2008



Bringing the Meeting Room into the Digital Age

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

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July 2008

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Study sponsored by:

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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.

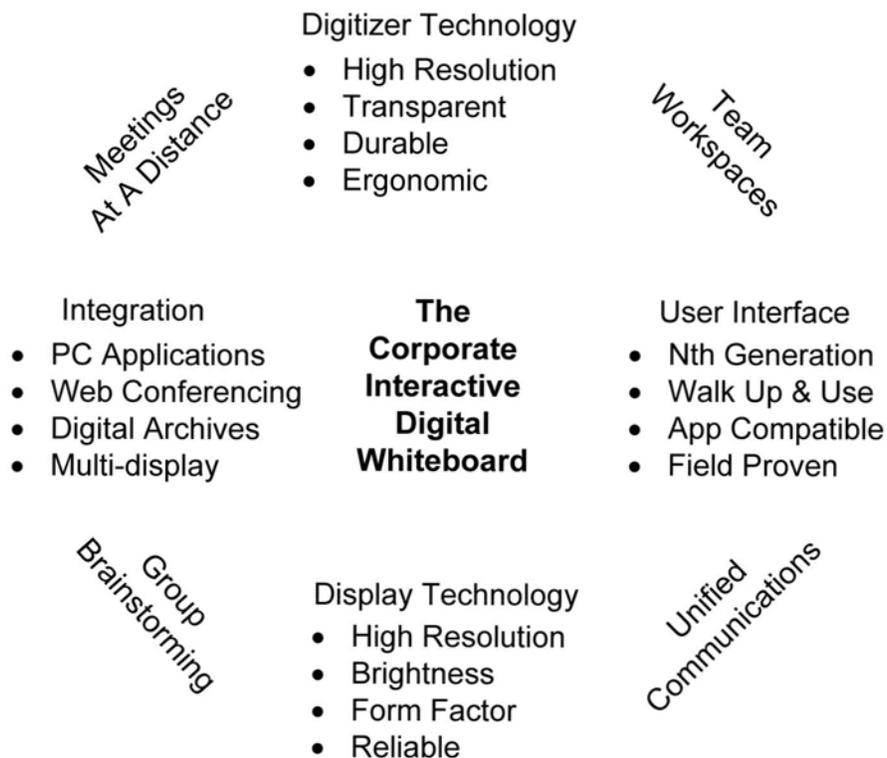


Figure 2 The Corporate Interactive Digital Whiteboard

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

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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.