

WHITE PAPER

Reducing Operational Costs and Increasing Staff Efficiency by Integrating the Communications Environment with Microsoft Office Communications Server 2007 R2: A Case Study on Aspect

Sponsored by: Aspect

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EXECUTIVE SUMMARY

In 2007, Aspect, a unified communications solutions and services provider, was faced with an outdated telephony infrastructure and heavy conferencing services usage. The company is a Microsoft strategic partner, which led to an internal deployment of Microsoft® Office Communications Server 2007 R2 in 2008 and 2009. Since the deployment, Aspect has slashed conferencing costs, cut local circuits, and improved end-user productivity, which has produced an average annual benefit of \$2.4 million for a company with more than 1,800 Microsoft Office Communications Server 2007 R2 users.

IDC conducted an in-depth interview with managers from Aspect in order to assess what benefits had been realized since deployment. This study examines Aspect's experience and provides IDC's opinion on the likelihood that other companies might be able to achieve similar results. A summary of Aspect's benefits includes:

- ☒ Aspect's annual spending on conferencing services was roughly \$1.2 million in 2008. Bringing the vast majority of calls onto the company's internal system will lower this expenditure to about \$200,000 in 2009.
- ☒ Session Initiation Protocol (SIP) trunking has allowed Aspect to save \$20,000 per month on long distance circuit costs.
- ☒ Aspect has removed 16 PBX boxes and reduced the associated maintenance costs by \$176,000 annually.
- ☒ Average annual cost reduction was \$1,577,699.
- ☒ During division meetings held twice a month, users experienced a 28% productivity increase directly related to file-sharing time savings.
- ☒ Average annual user productivity savings was \$810,772.
- ☒ ROI was 374% with a payback period of eight months.

SITUATION OVERVIEW

Economic Crisis Impact on Enterprise Communications Initiatives

The unified communications (UC) market could benefit in the near term from the economic panic of 2008 caused by the rapid collapse and subsequent bailout of the global banking system. The new operational reality under which most companies are operating dictates that they examine existing practices and determine if expenses and infrastructures that were good enough when everything was going well can also exist in a very different economic reality.

Due to the economic unraveling, all companies paused to assess the degree to which they were affected. IDC believes most IP telephony and UC deployments that are already in progress will continue, although a minority will certainly be delayed, downsized, or reevaluated. In many cases, the desire for optimizing existing resources continues to drive many efforts. This optimization effort is driven by both availability of new functions and companies taking an increasingly holistic view of communications across voice, data, email, instant messaging (IM), and other internal and external collaborative efforts such as social networking and Web 2.0 communities.

Environmentally conscious companies may look to green IT elements to help cut down on HVAC costs as well as decrease their carbon footprint due to the elimination or reduction of commutes and flights. Despite the current uncertainty in the market, IDC believes that six core trends combine to drive network capital expenditures faster than IT spending, regardless of economic conditions. They are:

- ☒ Migration of voice and video traffic to IP
- ☒ Expansion of network-based businesses
- ☒ Intelligent networks winning over dumb pipes
- ☒ Endpoint growth
- ☒ Centralization of communications
- ☒ Virtualization of compute, storage, and client resources

Because voice infrastructure is the backbone of most unified communications architectures, future UC plans are also likely to be affected by the current economic situation. Companies will need to assess if their UC plans are in alignment with their overall corporate priorities; how they can leverage what they have currently; and what incremental steps they can take in continuing forward progress, albeit at a decreased cost and/or pace. More astute IT staffs are looking at the savings that IP telephony and many UC applications can provide. Outright savings (such as decreased long distance charges, SIP trunking, internal support of conferencing services, and least cost routing) and indirect savings (such as travel, utility costs, productivity

improvements, and improved collaboration) can both be achieved. IDC notes that a flexible UC architecture can be a strategic asset to the business. Successful companies should identify ways to invest strategically in order to both maximize current savings and ensure a level of operational excellence that can survive in tough times and thrive in good times. Now is the time to do that thinking.

CASE STUDY: THE BUSINESS VALUE OF ASPECT'S INTERNAL DEPLOYMENT OF OFFICE COMMUNICATIONS SERVER 2007 R2

Company Profile: Aspect

Aspect is a unified communications solutions and services provider that was created through a series of acquisitions pulling together a variety of contact center technologies and services, most recently with the merger of Aspect Communications and Concerto in 2005. The acquisition trail began in 2001 when Davox purchased CELLIT and became Concerto. This was the beginning of several rounds of acquisitions that have allowed Aspect to build quality offerings for the enterprise contact center. Aspect provides six unified communications applications for contact centers that use specific capabilities from the Aspect® Unified IP® and PerformanceEdge® platform products and are based on the Microsoft .NET Web services platform. Aspect Unified IP unifies customer contact capabilities and PerformanceEdge synchronizes workforce optimization capabilities to help organizations execute on their UC strategies.

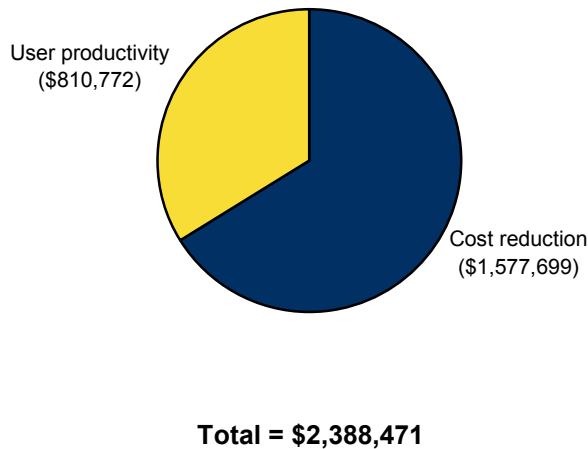
Aspect's professional services and systems integration help organizations plan, deploy, support, and customize Microsoft Office Communications Server 2007 R2. Aspect's IT organization leveraged the Aspect Professional Service UC team to help plan the internal global rollout of Office Communications Server 2007 R2 to more than 1,800 employees worldwide.

The quantitative and qualitative information contained in this study results from IDC's ongoing unified communications research. Both primary and secondary sources of information were used in the development of this study. Primary sources include interviews with Aspect and surveys completed by IP telephony vendors and unified communications solution providers. Secondary sources include vendors' publicly registered financial statements, news releases, vendor-provided marketing material, and consultation with other IDC offices. Aspect has more than 450 employees who work from home or remote offices. The company employs more than 1,800 people in 20 countries. This user base supports more than 3,000 customers in 50 countries.

Where possible, IDC has called out savings that are likely to be consistent with other unified communications efforts and that are likely to be limited to Microsoft Office Communications Server. IDC found that the benefits of Microsoft Office Communications Server 2007 R2 fall into two main categories: end-user productivity and cost reduction. Figure 1 shows the average annual savings in these areas.

FIGURE 1

Benefits of Microsoft Office Communications Server 2007 R2



Source: IDC, June 2009

Cost Reduction

Conferencing Savings

Conference calling services can represent significant variable costs for companies of many sizes. Migrating conference calls from a service provider to premises-based IP voice products can generate significant savings and a reduction in variable costs. IDC recommends performing a full assessment of conference calling usage patterns to identify the number of participants — both internal and external users. Companies that already have deployed conference bridges instead of using other services are unlikely to find similar savings from integrating conferencing with other communications methods.

In the longer term, IDC expects many organizations to adopt a hybrid premises and cloud-based model where the premises-based resources are optimized to support 80% to 90% of the session volume and the rest of the volume is offloaded to service providers in cases of abnormally large events or session volumes. This hybrid model may eventually be useful on a per-function basis where the bulk of key functionality is sourced from premises-based resources and more advanced functions such as security monitoring, recording, or intercompany video exchanges are sourced from cloud services.

Aspect was spending roughly \$1.2 million a year in conferencing costs alone. Since deploying Microsoft Office Communications Server 2007 R2, the company has been able to dramatically reduce that cost by \$900,000 per year.

Savings from SIP Trunking/Long Distance Circuit Costs

As the number of locations in a company increases, the potential savings from removing local PRI circuits and using SIP trunking also increases. Often, not all the circuits are removed from branch offices in order to keep some for local calling survivability in case of a problem with the primary IP connection back to corporate datacenters. While Aspect chose to install several single lines to the traditional phone network in central locations to serve as emergency lines to use for dialing into the local 911 system, that approach may not work for some organizations. In IDC's experience, while savings from circuit reduction and toll bypass are highly likely to materialize in many deployments, these savings are often difficult to quantify while planning for a migration. Dealing with emergency calling issues is getting easier, with several products and services that can deal with the fluid nature of communications devices on modern packet networks; however, IT planners will want to research how they are able to handle emergency calling issues across multiple localities. Aspect was able to save \$20,000 per month on circuit costs since the deployment.

Since the deployment of Microsoft Office Communications Server 2007 R2, maintenance and repair fees associated with old, legacy PBXs have been reduced. Microsoft Office Communications Server 2007 R2 requires less support than the previously deployed PBXs, and since removing 16 PBXs, Aspect saved \$176,000. In addition to time savings to support PBXs, Aspect has seen a moderate savings on the travel required to support that equipment. An Aspect manager said, *"Our challenge was that three people maintained the PBXs deployed around the world. So when we had an issue, a field service engineer might have to go out to the remote site."* Aspect has been able to moderately reduce travel expenses by an estimate of approximately \$50,000 per year.

The average annual cost reduction was \$1.6 million.

User Productivity

Productivity in the workplace manifests itself in metrics such as time saved executing daily tasks, faster problem resolution time, and end-user satisfaction. One of the capabilities offered by unified communications tools is the ability to monitor and track communications activity across an organization. For those who come from the school of "You can't manage what you can't measure," modern communications platforms offer managers a plethora of information on the habits and behavior of the organization. From the users' perspective, unified communications facilitates locating the right people in the right department, viewing whether they are available or not, and sharing information in real time.

Aspect users experienced an increased ease of collaboration. As one user said, *"I don't work in the same building as my manager. So before, if we were working on a presentation, we would have to email it back and forth. Just waiting for things to go back and forth on email can take 15 to 20 minutes per a one-hour meeting. But now, we're sharing it — we're actually seeing what someone is working on it real time."* The result of multiplying these time savings across all of Aspect's more than 1,800 users is a productivity improvement of approximately 1,000 hours per month.

Since the deployment, users more easily share their desktops and now have the ability to conference quickly and easily. During conferences, if necessary, users can share their desktop and collaborate within the same common interface and without leaving the IM or voice conference they have under way. These have been the greatest changes in Aspect's user environment. As one manager said, *"Probably the biggest fundamental shift is the amount of time people share their desktops and collaborate in small group discussions. Before, I used to talk to one person, take that information, go to someone else, and so on."*

Aspect users now have the ability to not only collaborate in real time but also see the status or "presence" of other users, which allows Aspect users to connect with the right people quickly. An Aspect manager said, *"Regardless of what another person is doing, I know if they are available, what their status is, and if I start an IM session, I can progress very easily from that IM session to IM conference, voice conference, or video conference."* The presence capability has resulted in significant productivity improvements. As employees of a global organization, Aspect users save time because they have the ability to receive information or collaborate in real time. Users are able to solve customer problems, complete sales proposals, and make important business decisions much faster than in the past — and this improves customer satisfaction and business results. As an Aspect manager said, "Presence allows us to get to the right available people at the right time, using the most efficient communication method."

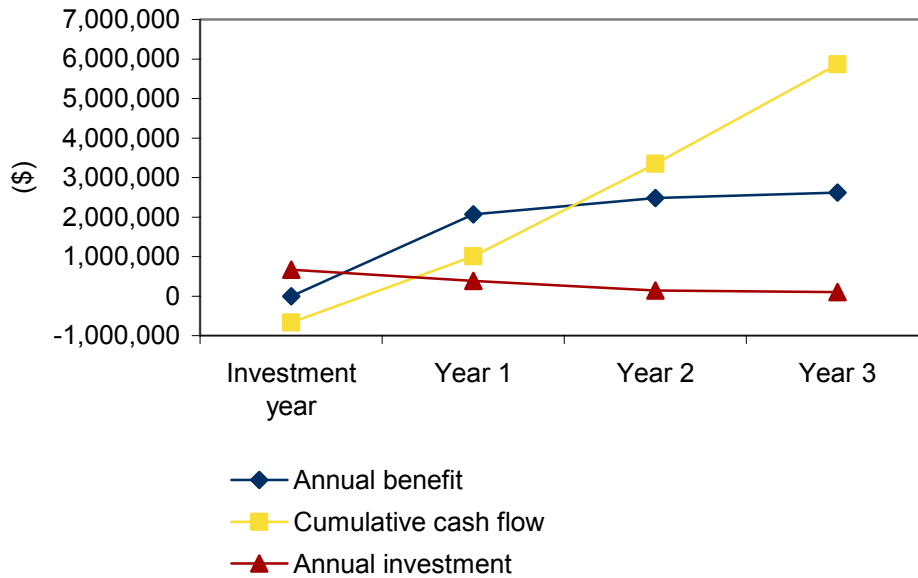
User productivity is the amount of time saved by all Aspect users annually, which, as mentioned, is approximately 1,000 hours per month. IDC calculated the value of these hours saved over three years. Because Aspect's user base is growing, the total annual hours saved increases for the company. Multiplying these hours saved over three years by an hourly salary reveals an average annual benefit of \$810,772, or an average of 9.2 hours saved per user per year.

Benefit, Investment, and Cash Flow over Time

Figure 2 displays the benefit, investment, and cash flow results from the IDC ROI model. Aspect's projected growth over the next three years drives the increasing annual benefit, which is tied to user productivity. Investments are greatest in the deployment year. Areas of Aspect initial investments include storage, load balancing/networks, a three-year license, and staff time required for deployment. Following the deployment year, annual investment drops dramatically. Ongoing costs include maintenance and Microsoft Office Communications Server 2007 R2 licenses.

FIGURE 2

Investment, Benefit, and Cash Flow over Time



Source: IDC, June 2009

The Return on Investment in Microsoft Office Communications Server 2007 R2

IDC examined Aspect's increased user productivity and reduced costs and entered this data into a three-year forecast model. These benefits were then compared against initial and ongoing investments in order to derive the ROI. Over three years, Aspect will save \$5.7 million and enjoy a benefit of \$3.74 for every dollar invested in Microsoft Office Communications Server 2007 R2. Aspect's original investment will be paid back in eight months. Complete ROI results are shown in Table 1.

It is important to note that Aspect experienced several other cost savings as a result of implementing voice over Internet protocol (VoIP) at the same time it deployed Office Communications Server 2007 R2. In this analysis, the return on investment in Office Communications Server 2007 R2 is above and beyond the savings directly related to switching VoIP solutions.

TABLE 1**Three-Year ROI**

Three-year benefit (discounted)	\$5,686,094
Three-year investment (discounted)	\$1,199,075
NPV	\$4,487,019
ROI	374%
Payback	8.0 months
Discount	12%

Source: IDC, June 2009

CALL TO ACTION**Where Should IT Managers Start?**

If you've bought into the idea that migration to IP telephony (and eventually unified communications) is worth considering, IDC suggests that you start by doing the following:

- Complete an inventory of what you have.
- Be sure to have good visibility into application use and a good gauge on the desire for video and other communications tools. Solicit views from a diverse set of users on what types of communications tools they demand to address new challenges and opportunities.
- Determine which equipment leases are expiring and the cost of supporting that equipment internally. Also, review all telecommunication and network vendor contracts to understand terms, minimum levels of specific type of traffic that may be committed to, and minimum revenue commitments on both a yearly basis and a life of the contract basis.
- Ensure that solutions do not lock you into a rigid IT architecture that cannot be adapted for growth and/or new communication needs. Examine each vendor's architectural approach to see how it allows customers to leverage existing equipment, to centralize network intelligence, and/or to distribute UC applications to all business users.

The Risk of Doing Nothing Now

It may be easy for some companies to stop existing projects or forgo planning for new communication needs due to fiscal constraints. However, there is a financial risk to doing nothing. Companies cannot afford to lose communication with their customers; especially in tough times, customer retention is crucial to financial success. IDC has found that the cost of new customer recruitment in the future may be more expensive than protecting existing customers. IDC also notes that the cost of supporting legacy infrastructure that doesn't support a UC vision may end up being more costly once the economy recovers. Above all else, companies that don't do anything with their current communications environments may open the door for competitors to leapfrog them in the deployment of next-generation technology and make it impossible for them to recover.

ROI METHODOLOGY

IDC performs a three-step process to calculate the ROI and payback period:

1. Measure the benefits from reduced downtime, improved customer service, and reduced IT costs and efficiency since the deployment.
2. Ascertain the total investment made while deploying the solution (hardware, software, FTE requirements for deployment and annual maintenance, customization, training, and consulting).
3. Project the investment and benefit over three years and calculate the ROI and payback for Microsoft Office Communications Server 2007 R2. The ROI is shown as the three-year NPV of the benefit divided by the discounted three-year investment.

To account for the time value of money, IDC bases the ROI and payback period calculations on a 12% discounted cash flow.

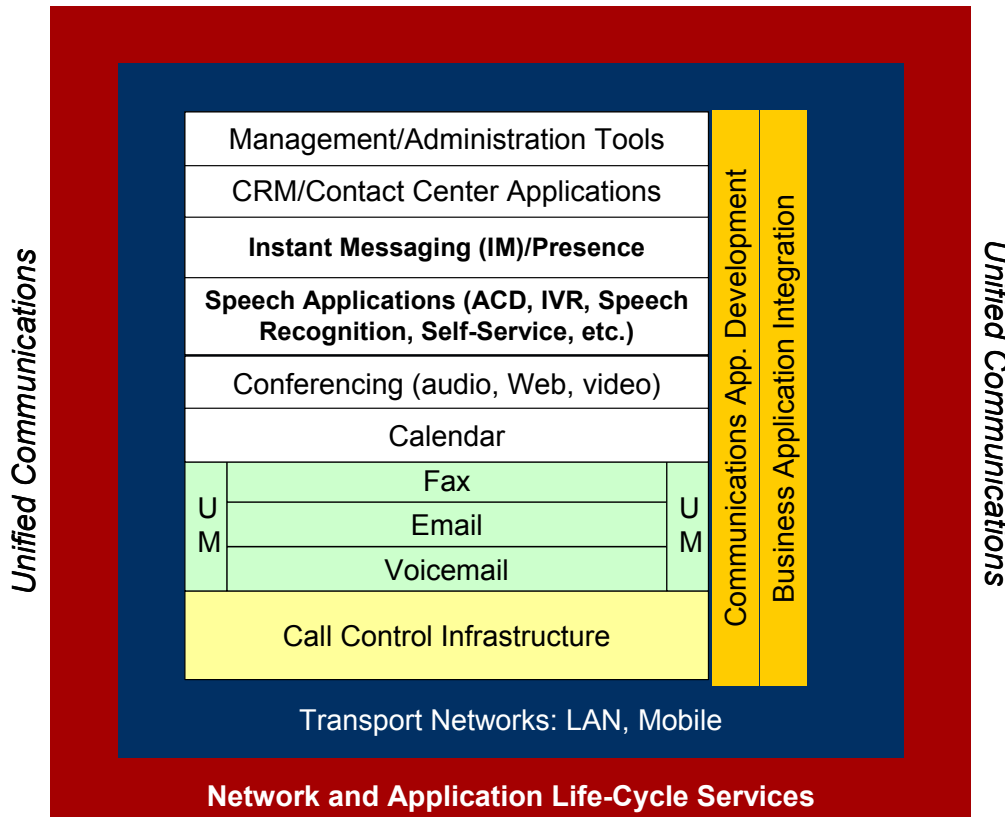
The Role of Unified Communications in a Business Environment

Unified communications as an industry concept is an apt description of the convergence in communications applications that will be deployed in the enterprise as new communications investments are made. IDC's own definition for UC is a platform that combines advanced IP telephony calling and management; unified messaging (email, fax, and voice messaging combined); Web, audio, and videoconferencing; instant messaging; and pervasive presence management and awareness. All of these become accessible through common user interfaces on desktop and mobile devices using voice or manual controls. UC solutions are designed to provide a way of delivering, managing, and supporting the various types of IP communications that an organization or individual requires in both horizontal and vertical industry business processes and applications.

Figure 3 illustrates the major solution components of unified communications as defined by IDC.

FIGURE 3

IDC's Definition of the Unified Communications Ecosystem Components



Source: IDC, 2009

MARKET CHALLENGES AND OPPORTUNITIES

The biggest stumbling block for customers investigating UC solutions is making the business case for incremental integration of existing investments. It is hard for line-of-business managers to get excited about long distance savings and least cost routing. In light of the current economic situation, customers will need a more compelling value proposition to bring to their C-level executives to justify an upgrade to IP telephony and a migration toward a UC strategy. Although more people are now aware of the term *unified communications*, customers often say, "I've run the numbers, but it just doesn't seem to be worth the effort."

Another key challenge for customers when looking to adopt unified communications is identifying which tools and features are most appropriate for their organization and, more importantly, which source they should implement for those selected features and tools.

The four primary sources for UC functionality are:

- ☒ Collaborative applications (e.g., Microsoft Exchange, IBM Lotus Sametime)
- ☒ Service providers (sometimes referred to as "the cloud") — also includes "over the top services" provided by Verizon Business and AT&T
- ☒ PBX/voice infrastructure equipment (e.g., Cisco, Avaya, Nortel)
- ☒ Mobility solutions (e.g., Agito Networks, DiVitas)

Because there is no "one size fits all" solution for UC adoption, customers can choose from a wide array of features from these four sources, which may require some or extensive integration efforts to make the solution run on customers' existing network infrastructure and/or within the bounds of their existing services/carrier contracts. Because this market has only begun to gain momentum, customers are still grappling with the UC concept within the context of their own businesses. All will experience the trials and tribulations of UC projects.

Lastly, exploiting technology convergence often presents more cultural challenges than technology challenges. Customers and vendors that wish to harness the power of creating new role-based and situational communications applications are operating at the seam of multibillion-dollar industries that are in the midst of either colliding or appropriating the best of each domain, depending on your perspective. Investments must proceed with the awareness that a company's cultural assumptions will affect the future organizational structure given that over the past five years many telecom groups have been absorbed by the IT organization.

Market Opportunities

On a more positive note, there are some clear benefits with hard ROI savings that can be achieved through an IP telephony and unified communications deployment. Some of these benefits include:

- ☒ **Significant reduction in conferencing costs.** One of the easiest benefits to identify and quantify is the reduction in conferencing costs. Organizations may spend thousands of dollars per month on a pool of conferencing minutes or dedicated conferencing bridges for employees. Because many unified communication solutions allow users to create ad hoc conference calls, without the use of external bridge lines, IT managers can quickly identify and reduce or eliminate the conferencing costs.
- ☒ **PBX consolidation.** By using IP networks, organizations do not have to have a physical PBX at every location. This can yield significant savings in operational costs, power and cooling, and maintenance services.

- ☒ **Toll bypass/SIP trunking.** By keeping voice traffic on their own IP network, organizations can avoid long distance charges from their carrier. Long distance savings has been muted due to rock-bottom TDM pricing by carriers. However, companies that have significant international operations can realize significant savings in this category.
- ☒ **Additional cost savings from SIP** come as a result of being able to eliminate the need for "local circuits" at a site to deliver local and long distance calls. Instead, these calls are carried over the WAN to the centralized SIP trunks and out to the PSTN. Significant circuit cost is eliminated in this model, and companies can better aggregate their voice traffic to reduce overcapacity.
- ☒ **Moves, adds, and changes (MAC).** IP telephony is much easier to manage than traditional telephony and thus allows normal IT staff, instead of high-priced telecom specialists, to deal with moves, adds, and changes. At companies where employee changes are frequent, MAC savings can be significant. Similarly, if a telecom department does not exist at all, an IP PBX that can be managed by current IT staff is often less expensive than one that requires significant outsourced help.
- ☒ **Remote worker productivity.** Now remote employees can have the same functionality as office-bound workers. This has proven to be a significant savings and enabler for companies with seasonal employees or companies with large numbers of employees who are rarely in the office. In some cases, the savings is tied to ease of communication and the morale of being connected to headquarters. In other cases, the savings is tied to reducing calling card and international cell phone bills. Workers who travel extensively also see positive benefits as their "office number" travels with them wherever they go, and they have "officelike" functionality everywhere in the world.
- ☒ **Disaster recovery.** During recent natural disasters, businesses that had IP telephony were often back up much faster than those with traditional voice communications systems. The ability to easily reroute calls to an entire company of remote workers is considered a critical part of any business continuity plan. Prior to IP telephony, voice-based business continuity was much more expensive and often outside the reach of most businesses.

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