

ESSENTIAL



MANAGERS

INTELLIGENT COMMUNICATIONS



OPTIMIZATION
CONTACT CENTER



SIP
IP



ROUTING
TELEPHONY

UNIFIED COMMUNICATIONS



CONVERGENCE
TRANSFORMING



AVAYA

LIMITED EDITION

ESSENTIAL



MANAGERS

INTELLIGENT COMMUNICATIONS



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First American Edition 2007
Published in the United States by
DK Publishing, Inc.
375 Hudson Street
New York, New York 10014

03 04 05 06 07 08 10 9 8 7 6 5 4 3 2 1

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CONTENTS

4 INTRODUCTION



THE CHANGING NATURE OF COMMUNICATIONS

6 THE INCREASING SPEED OF BUSINESS

8 CUSTOMER EXPECTATIONS

10 BUSINESS PROCESS CHALLENGES

12 COMMUNICATIONS FOR COMPETITIVE ADVANTAGES

14 NEW COMMUNICATIONS STRATEGIES, NEW OPPORTUNITIES



TRANSFORMING BUSINESS WITH INTELLIGENT COMMUNICATIONS

16 EVOLUTION OF IC

18 OPTIMIZE YOUR COMMUNICATIONS, REGARDLESS OF LOCATION WITH IP TELEPHONY

20 IP TELEPHONY IN THE REAL WORLD

22 OPTIMIZE YOUR CUSTOMER RELATIONSHIPS WITH CONTACT CENTER SOLUTIONS



24 CONTACT CENTER SOLUTIONS IN THE REAL WORLD

26 OPTIMIZE YOUR WORKFORCE WITH UNIFIED COMMUNICATIONS

28 UNIFIED COMMUNICATIONS IN THE REAL WORLD

30 OPTIMIZE YOUR BUSINESS WITH CEBP

32 COMMUNICATIONS- ENABLED BUSINESS PRACTICES IN THE REAL WORLD

ROADMAP TO INTELLIGENT COMMUNICATIONS

34 EMBEDDING COMMUNICATIONS INTO BUSINESS PROCESSES

36 CAN YOUR BUSINESS BENEFIT FROM THE NEWEST STRATEGIES FOR INTELLIGENT COMMUNICATIONS?

38 INTELLIGENT COMMUNICATIONS IN ACTION: A BEFORE AND AFTER SCENARIO

40 CEBP IN THE REAL WORLD

42 ASSESSING YOUR ABILITY

46 INDEX

48 ACKNOWLEDGMENTS





INTRODUCTION

How can you improve the efficiency of your business processes? What is the strategic approach that will deliver a competitive advantage today? Discover answers here in the Essential Managers Guide for Intelligent Communications. Embedding communications into the fabric of your business processes enables you to optimize the connections among your people, customers, and processes. Explore the benefits you can achieve with communications enabled business processes—protect investments, increase productivity, and differentiate your business by offering a unique and competitive level of customer service, responsiveness to market situations, and new service offerings.



THE CHANGING NATURE OF COMMUNICATIONS

Change can bring disruption to your business, but it can also bring opportunity. When you embrace new Intelligent Communications technology, you more easily adapt to the changing marketplace.

THE INCREASING SPEED OF BUSINESS

Our world is in a continuous state of change—and the rate of change keeps increasing. The faster the changes, the more our personal and professional lives are affected.

THE PACE OF CHANGE

The marketplace keeps speeding up. The pace of business appears to be accelerating at every turn, from the pressures of quarterly financial reporting to the onslaught of constant product innovation. No matter the topic, the flow of available information has turned into a torrent. No sooner have you gotten up to speed on the latest developments, something new appears. In today's marketplace, the only constant is change.

1 Intelligent Communications accelerates the speed of your business.

2 Make smarter, faster use of information that is already available.

KEY FACTORS

Three factors contribute to the rapid pace of today's marketplace; when these factors combine, the potential for cost disruption is enormous. These factors include the following:

- **The Internet.** The Internet has changed the rules of the game. New and faster competitors have learned to use this new type of information handling and processing to increase their internal and external velocity. The old ways just aren't good enough or fast enough anymore.
- **Globalization.** The elimination of trade barriers has led to new competitive market entrants. There has also been an unleashing of entrepreneurial cultures in the emerging marketplaces, creating a vast array of new competitors that are using technology to eliminate the traditional constraints of physical markets to reach customers globally.
- **Financial reaction to opportunity.** Global investment has grown enormously. The opportunities for growth under stable governments have replaced older measurements of capital investment and risk assessment.

EMBRACE THE OPPORTUNITIES OF CHANGE

By embedding communications solutions into your business processes, you enhance employee productivity and customer service, accelerate the speed of your business, and deliver a competitive advantage to your customers. And it can all happen today, with available Intelligent Communications solutions.

QUESTIONS TO ASK YOURSELF

- Q** Does more information cross your desk than it did two years ago?
- Q** Do you have more competitors today than you did two years ago?
- Q** Do you have new global competitors?
- Q** Do you have more reporting demands than you did two years ago?
- Q** Do you have to interact with more people today to get things done?



Businesspeople need to be equally productive from any location—on the road, from home, in transit, in a foreign country, or at a customer site.

CUSTOMER EXPECTATIONS

In today's rapidly evolving marketplace, customers expect fast, high-quality service. Is your business equipped to handle these ever-increasing customer demands?

CHANGING EXPECTATIONS

Open markets and better information flow are fueling higher levels of expectation and requirements at the customer level. Customer requirements for quick turnaround, constant access, and customized solutions from their suppliers are increasing across the board. Customers also expect better service support, in terms of speed of response, ease of operations, and lower pricing.

CUSTOMER
EXPECTATIONS



The successful enterprise of the 21st century will exploit the convergence of voice, data, and video.

3 Satisfied customers translate into current and potential revenue.

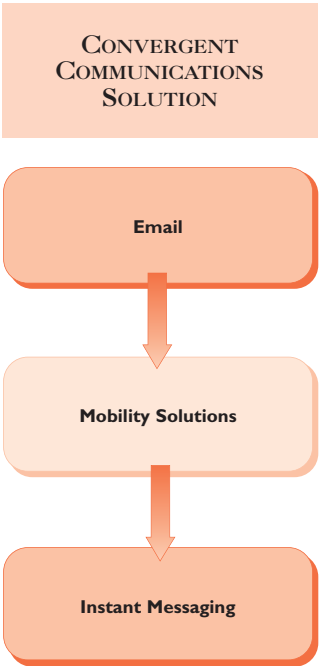
4 Converging voice and data on a single network increases productivity and reduces costs.

ADAPTING TO CHANGE

There is considerable pressure on enterprises to adapt to these market changes, and to do so quickly. Going forward, competitiveness will be gauged by your ability to communicate clearly and effectively with your customers. How is your business adapting?

CONVERGENT SOLUTIONS

In the past, your only alternative to change was to maintain disconnected solutions: email for online users, mobility solutions for travelers, instant messaging for those who wanted a more real-time experience. Communications solutions and business processes were never mentioned in the same sentence, let alone considered as complementary and inter-dependent parts of the business. However that's not the way of the future. Tomorrow's businesses will exploit the convergence of voice, data, and video, layered on a standardized, pervasive IP infrastructure. The solution is integrated, not disconnected.



5 By embedding real-time two-way communications into key business processes, your organization become more responsive.

Voice, email, and Web integration provides a consistent brand experience.

BUSINESS PROCESS CHALLENGES

The human factor is important. Too much automation can result in rigid business processes. Customers want easy-to-use processes and systems—that is, users want flexibility.

PEOPLE ARE IMPORTANT

Like it or not, business processes involve people. You can't automate everything. Even a process that is almost fully automated, such as the working of an automated teller machine, needs a human customer to enter information and receive cash, and it needs human maintenance staff to fill the machine with cash and keep the whole ATM network in working order. You may be able to use technology to automate individual tasks, but you can't automate entire business processes.

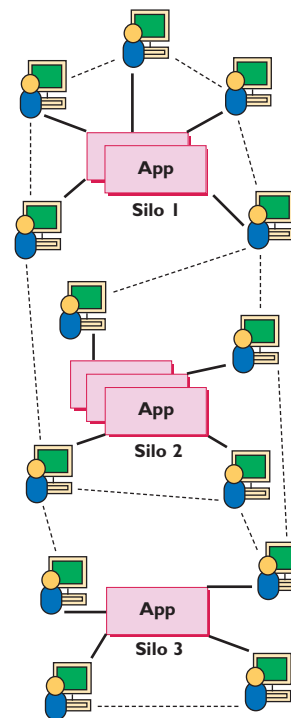
BUSINESS PROCESSES IN THE WORLD OF SILOED APPLICATIONS

Since the evolution of computers and software, the primary goal has been to automate tasks or groups of related tasks. The goal has rarely been to automate entire business processes. Until recently, software developers have built so-called "silo applications." In the diagram you will see connections from PCs to applications as solid lines and interactions between people involved in the business process as dotted lines. In reality, though, the software used (whether built in-house or purchased) does not fit the business need exactly. As shown in a siloed environment, the necessary connections between people go well beyond the connections supported by individual applications.

6 The primary benefits of CEBP and Intelligent Communications are a reduction in latency and an increase in flexibility.

7 With CEBP you can automate and manage the many ad hoc activities that are part of a business process.

8 An Intelligent Communications solution leverages existing investment in communications technologies and business applications.



WHY AUTOMATION SOMETIMES FAILS

It's a reality of most business processes today—the software you use doesn't always fit your business needs exactly. Why is this? Historically, software applications cannot be quickly or easily changed; this makes it difficult to modify business processes over time. In addition, many person-to-person communications were poorly automated or not automated at all. Applications rarely (if ever) catered to the communications activities that are a necessary part of the business processes they serve. To make the process work, the people engaged in the process often have to compensate for the areas where the software doesn't fully support the process.

PEOPLE IN THE PROCESS

This is where your organization's employees come in, working within and outside of the process to get the job done. They do this by communicating with other staff involved in the business process, in order to resolve day-to-day problems or exceptional situations that arise. People will also build small *ad hoc* applications to supplement the main applications, using PC-based spreadsheets or databases, email, and other collaboration software. As such, the necessary connections between people typically go well beyond the connections supported by individual applications. This *ad hoc* activity by your staff allows the whole machine to run smoothly.

How business processes run within siloed environments.

COMMUNICATIONS FOR COMPETITIVE ADVANTAGE

How can your business improve the efficiency of your processes without trying to automate the people? You can do this by automating the connections between the process and the people by using new Intelligent Communications solutions.

ACCELERATING THE SPEED OF BUSINESS

With CEBP, business decisions can be made faster, easier, and more accurately.

Intelligent Communications solutions help you create a no-delay enterprise, removing human latency through automatic triggers to dramatically compress cycle times. For example, in a retail business, Intelligent Communications can reduce the cycle time for inventory replenishment; if inventory problems arise, Intelligent Communications processes can notify key decision makers and automatically initiate a conference call to help them solve the problem. Intelligent Communications accelerates the speed of your business, shortening problem resolution from days to hours, and from hours to minutes.

9 CEBP reduces latency by initiating and tracking real-time communications among decision-makers.



OPTIMIZING COMMUNICATIONS

Intelligent Communications solutions help to optimize the communications of all people—employees, customers, suppliers—regardless of location. When implemented, Intelligent Communications provide simplified and seamless communications experiences for users across devices, networks, and interfaces. It doesn't matter where a person is or what device or technology he's using to communicate; communication is fast and simple and uniform, making it easier for workers to both collaborate among themselves and serve customers.

DELIVERING A COMPETITIVE ADVANTAGE TO YOUR CUSTOMERS

Intelligent Communications solutions make your employees more available to your customer, so they can answer their questions, meet their needs and make sure that your customers stay loyal. And with intelligent access to more information and to fellow workers, employees can make decisions faster and with greater precision, so you get it right the first time. That's a competitive advantage all customers will recognize.

REDUCING COSTS

Converging voice and data on a single network doesn't just increase possibilities for greater productivity and customer satisfaction—it also reduces costs. Converged communications make it possible for Intelligent Communications solutions to be deployed throughout an enterprise in cost effective ways—to not only reduce the costs of communication, but improve the productivity of the communications. Charges for long-distance calls and teleconferences can be eliminated. Moves, adjustments, and changes can be done easily without causing a drain on your IT department. The combination of reduced costs and increased revenues result in higher profits for your organization—while better serving your customer base.

10 Unified Communications creates a seamless communications experience across multiple devices and platforms.

NEW COMMUNICATIONS STRATEGIES, NEW OPPORTUNITIES

The emergence of the virtual enterprise presents an opportunity to enable productivity gains, to improve responsiveness to your customers, and to increase your competitive reaction to today's changing market dynamics. But to take advantage of this opportunity and to succeed in this new environment, enterprises need to create communication strategies that establish tighter connections among their employees, as well as with partners and suppliers.

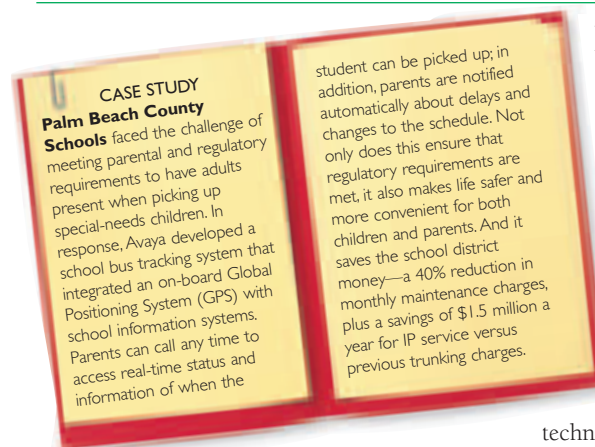
EMBEDDING INNOVATIVE COMMUNICATIONS SOLUTIONS INTO BUSINESS PROCESSES

How communications are integrated into business processes is continually evolving. Recently, we've progressed from freestanding telephones to integrated voice and data networks over IP, to Unified Communications devices, networks, platforms, and applications. The next step is embedding these communications into the fabric of your business processes, for true Intelligent Communications. In this type of solution, human interaction is embedded into, and controlled by, the business process; communications are invoked as required for immediate human input.

II Speech-enabled routing provides enhanced customer self-service.



Intelligent Communications are a fully closed loop, enabling key decision-makers to not only receive information, but also respond with information that the business process can use to take next steps.



ENHANCING EMPLOYEE PRODUCTIVITY

Intelligent

Communications solutions improve employee productivity through enhanced collaboration. Collaboration is not new, your employees have been collaborating all along to enhance your current processes. But

technology to truly leverage knowledge management, to put people at the right place at the right time on the right device, to let them work however they need to work, is now available. Intelligent Communications make it easier for employees from across your enterprise to collaborate—to the customer's benefit, and to the benefit of your organization.

ENHANCING CUSTOMER SERVICE

Perhaps the biggest opportunity Intelligent Communication provides is the competitive advantage gained by enhanced customer service. Speech-enabled routing provides enhanced self-service and personalized content; expertise on-demand leverages people from across your enterprise to provide real-time answers; virtual infrastructure provides seamless delivery of applications and services; and voice, email, and web integration provides a consistent brand experience, no matter how the customer contacts you.

I2 Intelligent Communications solutions improve employee productivity through enhanced collaboration.

TRANSFORMING BUSINESS WITH INTELLIGENT COMMUNICATIONS

Intelligent Communications is the pinnacle of the natural evolution of business communications technology. Adopting Intelligent Communications solutions provides a competitive advantage for any organization.

THE EVOLUTION

The first stage in the communications evolution was that of basic communications—primarily dial-tone voice telephony. Basic communications relied on closed, proprietary telephony applications with limited user tools (phone, voice mail, email). Success in implementing a basic communication system was measured solely in terms of cost savings, not employee productivity.

13 The next step in communications evolution is embedding communications into the fabric of your business.

CONVERGED COMMUNICATIONS

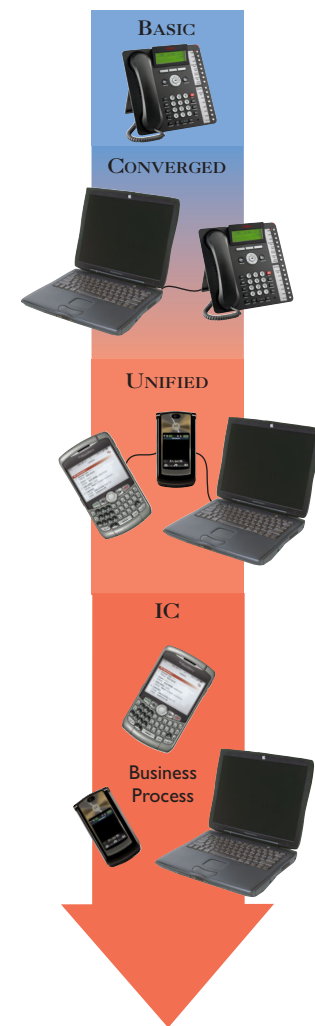
The next stage was converged communications, with an IP-based voice and data network infrastructure designed to improve productivity. By integrating voice and data, users gained collaboration tools; management was able to track both infrastructure consolidation and productivity enhancements; and the net result is cost savings.

UNIFIED COMMUNICATIONS

With Unified Communications, the enterprise unified networks, devices, platforms, locations, experiences, and applications. New user and customer tools were implemented, including speech-enabled self-service, video-based collaboration, and interactive Web messaging—with unified access across applications. The creation of a virtual enterprise accelerated workflow, improved customer loyalty, and enhanced employee productivity, regardless of location, network, or device.

INTELLIGENT COMMUNICATIONS

The final evolutionary stage is that of Intelligent Communications. With Intelligent Communications, the business process is streamlined; communications are embedded into business processes. This results in communication-enabled customer service applications, personal assistant tools, and real-time, multi-modal, process-driven interactions. Success is defined as the automation of communications within business processes; communications achieve a strategic importance not previously seen within the enterprise.



The primary benefits of Unified Communications and Intelligent Communications are a reduction in latency, and an increase in flexibility.

OPTIMIZE YOUR COMMUNICATIONS, REGARDLESS OF LOCATION, WITH IP TELEPHONY

Intelligent Communications based on IP telephony changes the way your organization does business. The communications of all employees, customers, and suppliers are optimized, regardless of their individual locations.

IP TELEPHONY: CHANGING YOUR BUSINESS FOR THE BETTER

IP telephony does more than just bring voice, data, and video together. It opens a new world of opportunities that can make your workers more productive, your processes more intelligent, and your customers more satisfied. It changes the way you communicate—and the way you do business.

LOWERING COSTS

One of the primary benefits of IP telephony is that it significantly reduces your communications-related costs. Charges for long-distance calls and teleconferences can be eliminated. In addition, changes to your system—moves, adjustments, and the like—can be done easily, without causing a drain on your company's IT department.

14 IC solutions help to optimize the communications of all people, regardless of location.

UNDERSTANDING SIP

One of the foundations of IP telephony is Session Initiation Protocol, or SIP. This is a technology standard that enables equipment to get and use presence information; it provides a rich “presence” that understands and reports on who is available, where they are available, and at which devices they can be reached. SIP delivers all these rich capabilities across multiple modes of communication—voice, video, and data—all in a single session, enabling device and application interoperability.

RAISING THE COMPETITIVE ADVANTAGE

Converging voice and data on a single network doesn't just reduce costs, it also increases possibilities for greater productivity and customer satisfaction. IP telephony makes your employees more available to your customers, no matter their location. With IP telephony, your employees can better answer customer questions, meet customer needs, and ensure that your customers remain loyal. Employees also get more intelligent access to more information and to colleagues across the enterprise, which helps them make decisions faster and with greater precision.

15 IP telephony gives employees intelligent access to more information and to fellow workers across the enterprise.

Intelligent Communications tools and applications help increase mobility, productivity, and flexibility.



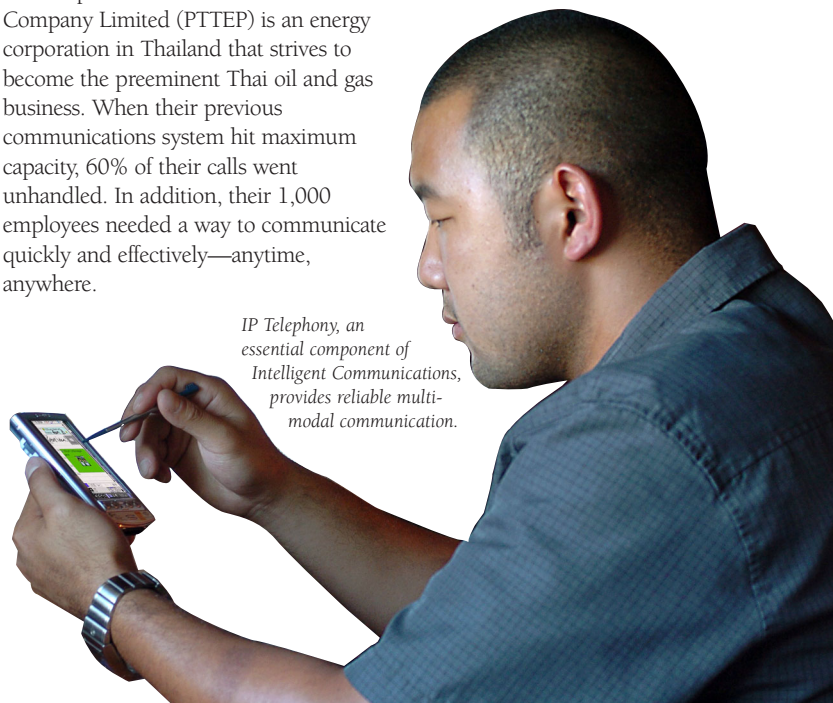
IP TELEPHONY IN THE REAL WORLD

IP telephony sounds great in theory, but it's even better in practice. Let's examine a real-world example of IP telephony at work.

THE CHALLENGE: AN OVERLOADED SYSTEM

PTT Exploration and Production Public Company Limited (PTTEP) is an energy corporation in Thailand that strives to become the preeminent Thai oil and gas business. When their previous communications system hit maximum capacity, 60% of their calls went unhandled. In addition, their 1,000 employees needed a way to communicate quickly and effectively—anytime, anywhere.

IP Telephony, an essential component of Intelligent Communications, provides reliable multi-modal communication.



16 Intelligent Communications results in more satisfied and loyal customers.

THE SOLUTION: IP TELEPHONY

The company turned to Avaya to build a scalable and cost-effective communications infrastructure that supported its growth plans. The logical solution was an IP telephony-based system that integrated data, voice, and video onto a single IP-based network. This system was designed to reduce the company's network expenses while creating a pathway for flexible growth.

COST SAVINGS

PTTEP's new IP telephony network offers 100 times the bandwidth at 10% of the previous cost.

FOUR ESSENTIALS FOR IC

- IP Telephony—for reliable multi-modal communication
- Contact Centers—for improved customer service
- Unified Communications—for enhanced worker productivity
- CEBP—for improved business efficiency

CREATING A MORE EFFECTIVE WORKFORCE

With the new IP telephony system, PTTEP workers got access to voice, fax, and email messages on the go. The new system let them serve customers better, save time, and work more effectively, even when they were out of the office. Employees also could travel and still be reached through their office phone number. Thanks to higher bandwidth, the new IP telephony system could support 100 times more voice and data communications. Intelligent Communications made PTTEP's employees more productive, more mobile, and more effective.

REDUCING COSTS

In addition, PTTEP's new infrastructure saved them money and provided a rapid return on the company's investment. By converging voice and data onto a single network, the company eliminated duplicate equipment and maintenance, resulting in a reduction of telecommunication charges and manpower requirements. Avaya IP telephony helped PTTEP realize a savings of almost \$150,000 a year in long distance calls—and they expect to save an additional \$60,000 per year when they expand IP telephony to their office abroad.

17 With Unified Communications, employees always can be reached, wherever they are, with just one number.

OPTIMIZE YOUR CUSTOMER RELATIONSHIPS WITH CONTACT CENTER SOLUTIONS

In today's some times impersonal world of customer interactions, how can your business adapt to a customer's needs, increase satisfaction, and deepen customer loyalty? How can you personalize customer interactions so that each time a returning customer interacts with your company they feel more welcomed than they did the time before? The answer is an Intelligent Communications contact-center solution.

YOUR CONTACT CENTER IS YOUR COMPANY

Your company's contact center is your face to both current and prospective customers. Each time you have an interaction with a customer, your reputation and your business are on the line. Long wait times, multiple handoffs, and an inability to fulfill customer requests cause you to lose customer loyalty. Immediate access, fast answers, and satisfactory solutions not only make your customers happy, they ensure repeat business.



18 Each time you have contact with a customer, your reputation and your business are on the line.

With CEBP, communications become an auditable part of the business process—when any event occurs, your business knows what communications took place, who was contacted, their responses, and the subsequent actions that were triggered as a result.

THE CONTACT CENTER AS A REVENUE GENERATOR

Whether your customer is contacting you or you are proactively contacting them, customer service can mean the difference between customer delight and frustration—and between profit and loss. It's not about reducing costs; it's about using your contact center as a marketing tool to enhance your brand and ensure customer loyalty. Contact-center solutions combined with converged communications means that you do not have to sacrifice efficiency to get quality. New solutions improve both efficiency and effectiveness. Satisfied customers translate into current and potential revenue, via real-time up-selling and future sales.

CASE STUDY
Convergys Corporation.
a global leader in providing customer care, human resources and billing services, conducted a trial of 3,000 contact center agents who were performing the same work. Meanwhile, using IP-based contact-center solutions from Avaya, 1,500 of the agents were then hired to work from home.

19 New contact center analytics enable you to fully assess the complete customer experience.

The productivity of these agents was 10% higher than those in the corporate office; the turnover was 6% lower; and customer satisfaction was 3.6 points higher when dealing with home-based contact center agents. At-home agents also were more successful in up-selling and cross-selling.

QUESTIONS TO ASK YOURSELF

- Q** How many ways do your customers interact with you—branch offices or stores, online, on the phone, or via e-mail?
- Q** Is the experience customers get when they interact with you consistent with your brand?
- Q** Is the customer experience consistent across all channels?
- Q** Are your stores high touch and your contact center purely economical?

MEASURING SUCCESS WITH NEW ANALYTICS AND INSIGHTS

Statistics can tell you the true story of what's going on right now in your contact center—and of how satisfied your customers are. New analytics capabilities enable you to fully assess the complete customer experience. You can use new operational and customer interaction statistics to tell you what you should do to differentiate services for various customer segments, point out the best path to increased revenue, clue you into customer expectations and how best to meet them, and determine how to make your contact center into the experience you want for your customer.

CONTACT CENTER SOLUTIONS IN THE REAL WORLD

The need to satisfy customers is crucial to organizations of all types. Let's examine a real-world example of how an intelligent contact-center solution improved productivity in the public sector—and resulted in a more satisfied citizenry.

THE CHALLENGE: UNRELIABLE AND EXPENSIVE COMMUNICATIONS

The Government of Chihuahua, a state in northwestern Mexico, represents and supports more than four million residents, including citizens in remote areas. They have a total of six contact centers that handle everything from emergency responses to surveys for various state initiatives. Two years ago, communication between state entities and citizens was difficult, unreliable, and expensive. The government sought a better solution.



Your company's contact center is your face to both current and prospective customers.

20 Your contact center can be a revenue generator, instead of a cost center.

THE SOLUTION: INTELLIGENT CONTACT-CENTER TECHNOLOGY

In an effort to improve its communications capabilities, the government turned to Avaya. The solution was to leverage the government's robust IP network and add enhanced feature functionality to their call centers.

ENHANCED PRODUCTIVITY

Within two years, the improved contact-center solution helped the Government of Chihuahua not only lower communications costs, but also increase the productivity of employees by over 90%. Today, employees spend less time trying to reach colleagues at other state entities, and more time working directly with citizens. Employees also enjoy enhanced internal collaboration and the ability to stay in touch anywhere and anytime.

COST SAVINGS

Chihuahua employees gained the ability to manage voice messages via email, send email messages by phone, listen to email using text-to-speech conversation, and convert email attachments to faxes. This let employees work both smarter and faster—and stay connected to their work even when they were out of the office, giving a higher level of satisfaction to their constituents.

21 IP Telephony significantly reduces communications-related costs.

22 New contact center analytics enable you to fully assess the complete customer experience.

INCREASED CUSTOMER SATISFACTION

Even better, new contact-center functionality helped improve Chihuahua's communication and interaction with its citizens. Intelligent contact-center solutions decreased waiting time and automatically routed customers to appropriate agents. And the Avaya Interaction Center, with email, fax, voice, and web channels, enabled citizens to check the status of applications and process paperwork quickly and easily—satisfied customers and more productive employees are the ideal contact-center solution.

OPTIMIZE YOUR WORKFORCE WITH UNIFIED COMMUNICATIONS

A missed phone call can be a missed opportunity. An email that isn't responded to quickly enough can mean a lost customer. And a fellow employee who's unreachable can create delays and even mistakes when important decisions need to be made. The solution? Unified Communications applications and services that create seamless employee communications.

INCREASING EMPLOYEE PRODUCTIVITY

The way we work today and how we communicate with customers is rapidly changing. Businesspeople need to be equally productive from any location—on the road, from home, in transit, in a foreign country, or at a customer site. Unified Communications can make your company more competitive by helping your employees remain in touch, wherever they are at any given moment. By unifying different modes of communication (voice, email, instant messaging, fax) over converged networks, you free your workers to choose devices and modes based on personal preference and current circumstance. Since employees are more accessible, they become more productive and more effective to your organization.

23

Employees that are more accessible are more productive and more effective to your organization.

UC APPLICATIONS & SERVICES

Unified Communications applications include telephony, voice mail, conference, presence, personal workspace, and video. Unified Communications services include conference on-demand, find resident expert, event processing, escalating, alerting, contacting, telephony, notification, presence, and logging.

THE SEAMLESS COMMUNICATIONS EXPERIENCE

Unified Communications creates a seamless communications experience across multiple devices and platforms. It facilitates the convergence of real-time and non-real-time business communications applications and services. These applications include telephony, conferencing, email, voice mail, instant messaging, video, and collaboration across a variety of interfaces—PC or web-based clients, telephones and mobile devices, and speech. All of the supporting systems and services must work together in a reliable and secure fashion, ideally with a consistent user interface.

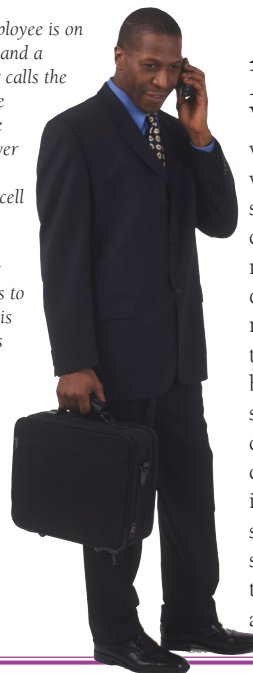
24

Expertise on-demand leverages people from across your enterprise to provide real-time solutions.

25

UC can help your employees remain in touch, wherever they are at any given moment.

If an employee is on the road and a customer calls the office, the employee can answer that call from his cell phone—and the customer never has to know he is not in his office.



ANY DEVICE, ANY LOCATION, ALWAYS IN TOUCH

With UC, your employees can always be reached, wherever they are, with just one number. Plus, workers only need one voice mailbox, which can serve both their office and mobile phones. Workers can access and respond to all email, voice, and fax messages from the email client while working at their desk, or from the telephone while on the road—making it easier and faster to find out who's sending the message, the contents of the message, and the best way to respond quickly. Even better, it's easy to shift between communication modes, like moving a call from a desk phone to a mobile device while the call is in progress, which accelerates workflow. It also is easy to set up different rules for different contacts, so calls from more important people can be put straight through, while other calls can be sent directly to voice mail. It's communication from any device in any location, so your employees are always in touch.

UNIFIED COMMUNICATIONS IN THE REAL WORLD

Unified Communications tools and applications have helped many companies increase mobility, productivity, and flexibility. That's what happened at PricewaterhouseCoopers, as revealed in this case study.

HOW UNIFIED COMMUNICATIONS CAN BENEFIT YOUR BUSINESS

- Give employees choices by letting users control their own communications experience.
- Accelerate workflow through a wide variety of unified clients.
- Control costs by shifting communications costs to the enterprise through your communications system.
- Provide single-number access by extending communication capabilities through web clients and other interface.

26 With Unified Communications, your employees always can be reached, wherever they are, with just one number.

THE CHALLENGE: MORE RELIABILITY AND SECURITY

PricewaterhouseCoopers provides industry-focused assurance, tax, legal, and advisory services for their clients and stakeholders. They have locations in 148 countries and employ more than 130,000 people who work collaboratively. In 2004, it became vital for the company to find a reliable, secure solution that would keep them connected, as well as help them successfully relocate their Swiss headquarters in Zurich to a new building.

27 Unified Communications facilitates the convergence of real-time and non real-time business communications applications and services.

28 Enterprises must create communications strategies that establish tighter connections between their employees, partners, and suppliers.

THE SOLUTION: UNIFIED COMMUNICATIONS TOOLS

To meet this need, Avaya delivered a set of Unified Communications tools and applications tools to the company's employees and customers. The company employed a variety of media servers, IP telephones, and communication management products. Included was "Meet Me" conferencing, which enabled the company to hold reservationless, multi-party conference calls with colleagues around the globe. And with a call-management service, customers could call and

Unified Communications can reduce costs by providing high-level modular communications services that can be reused across all business processes.

speak directly to a person who routed their calls appropriately.

OPTIMIZING BUSINESS PRACTICES

Unified Communications helped PricewaterhouseCoopers optimize their business processes. Staff members could be more responsive to customers and each other, thanks to modular messaging. Calls were automatically forwarded to designated mobile phones, regardless of the carrier. The company realized increased mobility, productivity and flexibility—and is planning to add Unified Communications tool to its other 14 locations by 2008.



OPTIMIZE YOUR BUSINESS WITH CEBP

For a business to stay competitive, it needs to have the information to make decisions as quickly as possible. But even while moving faster, there is no room for any errors or misjudgments; a fast decision that is wrong is bad for your customers and bad for your business.

BUSINESS PROCESSES TODAY

Today, communications are separate from most business processes—but still necessary. When human response and action is necessary, the business process stops and waits for that response. In addition to being inefficient, this introduces human latency into the process, and slows things down. The process is also vulnerable to human error.



With CEBP, human interaction is embedded into, and controlled by, the business process.

29 CEBP helps you better manage enterprise-wide response to important events.

HOW CEBP CAN BENEFIT YOUR BUSINESS

- Reduce latency by initiating and tracking real-time communications with decision-makers.
- Better manage enterprise-wide response to important events through automated communication activity.
- Drive business results through two-way communications that respond to decision-maker input.
- Reduce costs by reusing communication services across all business processes.

EMBEDDING COMMUNICATIONS WITH CEBP

With communications-enabled business processes (CEBP), human interaction is embedded into, and controlled by, the business process. Communications are involved as required, so interactions are fully closed-loop. The result is a faster, more efficient process with fewer errors.

ACCELERATING THE SPEED OF BUSINESS

Communications-enabled business processes help your business keep up with the fast pace of today's business environment. Business decisions can be made faster, easier, and more accurately than ever before. Communication is built right into the business process, which means a lot more can be accomplished with less effort and less room for error. This results in better service for your customers, and more business for your business.

CEBP accelerates the speed of business, and provides a distinct competitive advantage.



CEBP results in better services for your customer.

COMMUNICATIONS-ENABLED BUSINESS PRACTICES IN THE REAL WORLD

For many organizations, CEBP is essential for integrating communications services into their business processes. This is especially true in the healthcare industry, where timely communication is essential to achieving customer satisfaction.

30 CEBP results in a faster, more efficient process with fewer errors.

THE CHALLENGE: COMMUNICATION DELAYS JEOPARDIZE PATIENT CARE

It's an unfortunate fact: Doctors at many healthcare facilities lose untold time trying to network with one another. Communication delays may jeopardize patient care, undercut patient satisfaction, and reduce hospital profitability.

THE SOLUTION: COMMUNICATIONS-ENABLED BUSINESS PRACTICES

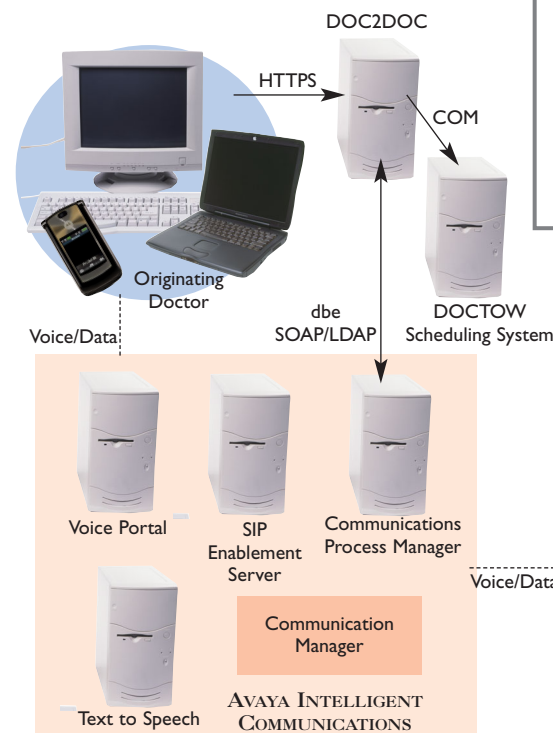
Computer Resources partnered with Avaya to develop the Doc2Doc application. Doc2Doc enables hospital personnel—both in-house and offsite—to discuss and collaborate on patient and case information using communications automated through CEBP. It reduces the amount of time and effort it takes for doctors and other personnel to collaborate, thereby improving both patient care and hospital efficiency—and improving the medical facility's bottom line.



Doctors can focus on patient care, not communications delays.

EXPEDITING PATIENT HANDLING

Doc2Doc and CEBP can also help to streamline the patient-handling process. Currently, a patient can wait hours to be discharged from the hospital, as one doctor contacts all the others involved in treatment. Instead, Doc2Doc lets a single doctor use his PDA, cell phone, or computer to locate the other doctors and then send them his request for discharge. They can reply instantly, using an automated menu. The result? The patient is discharged within the hour, instead of waiting the entire day.



Doc2Doc

Doc2Doc is designed to help doctors initiate life-saving measures even before they are able to arrive on the scene. When a patient is rushed to the hospital with an emergency condition, CEBP facilitates locating the doctor on call, and then automatically conferences in the head nurse so that the doctor can prescribe the necessary treatment. The patient has a better chance at recovery because treatment is initiated faster than ever before.

CEBP initiates the automatic communication of essential information to a team of physicians, facilitating faster patient treatment.



ROADMAP TO INTELLIGENT COMMUNICATIONS

Embedding communications solutions into your business processes enhances employee productivity and customer service.

EMBEDDING COMMUNICATIONS INTO BUSINESS PROCESSES

When it comes to managing your business operations, one of the biggest challenges you face is not getting timely information when an exception or negative incident occurs in your business that could impact your results. Customers want to make smarter, faster use of the information that is already available. It is now possible to do this by embedding communications into your business processes via Communications-Enabled Business Processes.

31 With CEBP, communications are embedded into the process, making best use of both automation and the human factor.

TRADITIONAL FOCUS

Traditionally, the focus within business processes has been on efficiency through automation. The scope of this automation, however, has been limited to tasks that tend to remove the human factor from those business processes. However, it is the human factor within business processes—the ability for key decision-makers to take in information, analyze it, and make appropriate decisions on next steps—that make businesses more adaptable.

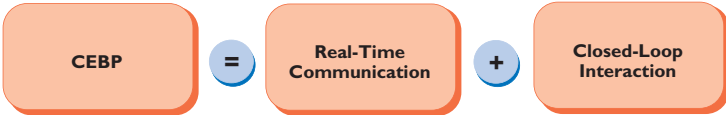
MAKING PEOPLE MORE EFFECTIVE

Unlike automation, CEBP does not replace the human factor. CEBP focuses on making people more effective by making the communications within a business process automated and intelligent. It does this through a combination of technologies: advanced-event processing and detection, IC technologies, and communications orchestration. Vast streams of information are monitored and correlated to detect events in real-time; upon detection a response is orchestrated, selecting the appropriate people and tools needed based on expertise and availability; and then providing them with relevant information. People distributed across multiple locations are automatically brought together by a robust multi-channel communications infrastructure including interactive voice response, email, SMS, text-to-speech, and conferencing.

CLOSED LOOP INTERACTIONS

The equation is simple: CEBP = real-time communications + closed-loop interaction within business processes. The communications are closed-loop in that managers are able to directly affect the business process in real-time by communicating their responses to the CEBP system. This system then acts by performing the following tasks: alerting people with specialized expertise; escalating alerts to managers, triggering a new workflow; or following-up to verify compliance. Valuable time and money then is saved by ensuring responsive actions continue to occur that resolve the issue, and then return the business process to normal actions.

In a closed-loop environment, decision-makers are freed from mobilization and communications issues and can concentrate on what they do best—make decisions.



CAN YOUR BUSINESS BENEFIT FROM THE NEWEST STRATEGIES FOR INTELLIGENT COMMUNICATIONS?

The primary benefits of Intelligent Communications using CEBP are a reduction in latency and an increase in flexibility. These are benefits that can accrue to any business, in any industry.

ANOTHER BENEFIT OF CEBP

CEBP also helps companies comply with personal information privacy laws by removing the need to have contact lists distributed. Contact information can be kept private because the system will do the contacting. (Example: if a school has to notify parents of early closing they used to have to distribute call lists to room parents to initiate a calling chain. Now those lists do not have to be distributed enabling the school to comply with privacy laws.)

32 CEBP provides high-level modular communications that be can reused across the business process.

CIO AND IT BENEFITS

For the CIO or IT Manager, an Intelligent Communications solution leverages existing investments in communications technologies and business applications. It enhances current business processes in a cost-effective manner; standards are used to link communications to business applications, which reduces development times and speeds solution deployment. And since communications associated with an event trigger are auditable, IT can offer the enterprise a more comprehensive monitoring of business processes. Existing business processes are enhanced while current communications assets are reused; your current investment is protected while new benefits accrue.

LINE OF BUSINESS BENEFITS

For the Line of Business Manager, the key benefit to Intelligent Communications is more efficient, adaptable business processes. By embedding real-time two-way communications into key business processes, your organization becomes more responsive. Responsiveness equates to improved revenue or reduced costs depending on the event. Time is money when there is a quality control issue that goes undetected; or missing a delivery commitment, which results in penalties. When latency is reduced the loss of money is reduced.

CUSTOMER BENEFITS

For the customer of the enterprise that implements a CEBP/Intelligent Communications solution, the benefit is all about better, more responsive service. When companies can find and bring experts in to solve a customer problem quickly, customers are happier and more likely to stay loyal or promote your company.



CEBP communications enable decision-makers to receive information, and to respond with information that the process can use to take next steps.



CEBP: APPLICABLE ACROSS ALL INDUSTRIES

- Manufacturing Quality Control—Rapid problem recognition and decision-making in the event of a quality breach.
- Supply-Chain Management—Speed closure of procurement issues.
- Transportation & Logistics—Automatic action plan triggered by material delay.
- Financial Systems—Respond to stock changes with on-demand consultations. Find experts to execute a customer's trade request or information on tax implications.
- Healthcare—Find and connect the right doctors and specialists to the patient for faster care.
- IT Departments—Automate IT escalations or prevent escalations by finding experts more quickly or identifying outage trends more easily.

INTELLIGENT COMMUNICATIONS IN ACTION: A BEFORE AND AFTER SCENARIO

Intelligent Communications can increase the productivity and effectiveness of many business processes. However, before an organization can begin to enhance communications within its business processes, it must identify where to start, how much to change, and how to justify its initial investment.

THE PROCESS

A retail brokerage firm provides margin accounts for investors to invest in securities without financing the entire amount. This allows investors to borrow money from the brokerage firm, which is secured by the securities the investor purchases. The portion of the purchase price that the investor has to deposit is called the margin, and it represents the initial equity in the account. The securities values fluctuate with the market. If they go beyond a certain threshold, then the brokerage firm will issue a margin call, which is a demand that the investor repay all or part of the loan. If the investor is unable to meet the obligation, the firm can liquidate the account. However, because the firm makes money from the interest the investor pays on the amount borrowed until it is repaid, they want to avoid liquidation if possible.

33 CEBP makes the communications within a business process automated and intelligent.

The benefits of IC to the brokerage firm included reduced risk, cost, increased revenue, and improved customer service.



THE CHALLENGE

When a margin call is triggered, the investor has three days to respond before liquidation. The problem is the volume of accounts—only investors with the highest potential for liquidation receive real-time phone notification. Others receive notice through the mail, which takes two days, leaving one day to respond. Because of this, the firm must liquidate a higher number of margin accounts. Resources to contact high-risk investors are limited and not very scalable. Market events that impact a popular security tend to impact many margin accounts at the same time. In this case, many high-risk investors may not receive an early notification, giving them enough time to meet the margin call. The phone calls generally are informal and are not tracked.

THE SOLUTION

With CEBP, the Avaya Event Processor receives real-time streaming of securities pricing, as well as information relevant to the securities. By correlating this information and doing time-based regression analysis, it can integrate the firm's tracking system to predict accounts at high-risk from a margin call. For these accounts, it triggers an advisory through the Communications Process Manager to give advance notice to those accounts. At the end of the trading day, the tracking system identifies accounts that require a margin call, and triggers a notify-and-respond request that instantly notifies the affected investors via phone or e-mail. It passes their input along to the transaction system to begin processing, and it provides an audit record. If the investor does not respond, CEBP automatically follows-up. At the end of the third day, CEBP contacts the investor and conferences them directly to reach a resolution.

IMPLEMENTING AN IC STRATEGY

An effective IC strategy is tightly linked to tangible business goals. To successfully execute a new strategy, here's how to proceed:

- Identify the processes that are core to your business, and use scenarios to describe them. Which processes have the highest impact on and value to your organization? Identify their shared characteristics.
- Redesign an existing scenario by building in communications. Look for obvious problems, as well as for opportunities to streamline processes with communications capabilities that connect the right people and information at the right time.
- Apply your quick-ROI model to other high-impact processes. The same capabilities that help a sales rep quickly close a deal also can speed decision making for senior executives or enhance supply chain managers.
- Reengineer processes as your understanding grows. Consider in-depth reengineering for those processes where the opportunity for return is greatest.

CEBP IN THE REAL WORLD

Whirlpool Corporation is the world’s leading manufacturer and marketer of major home appliances, with annual sales of \$18 billion. Even a momentary out-of-stock situation in the Whirlpool warehouse can have catastrophic financial impact.



34 With CEBP, human interaction is embedded into, and controlled by, the business process.

WHIRLPOOL AND CEBP: A WINNING COMBINATION

To better manage its manufacturing and inventory processes, Whirlpool has adopted CEBP in the form of the Avaya Communications Process Manager platform. For Whirlpool, CEBP enhances business process efficiency by connecting the right people at any point in the process flow, minimizing or removing lag time and process inefficiencies. This solution promises to deliver operational efficiencies that will improve Whirlpool’s supply chain management and raise the bar on its already excellent customer service.

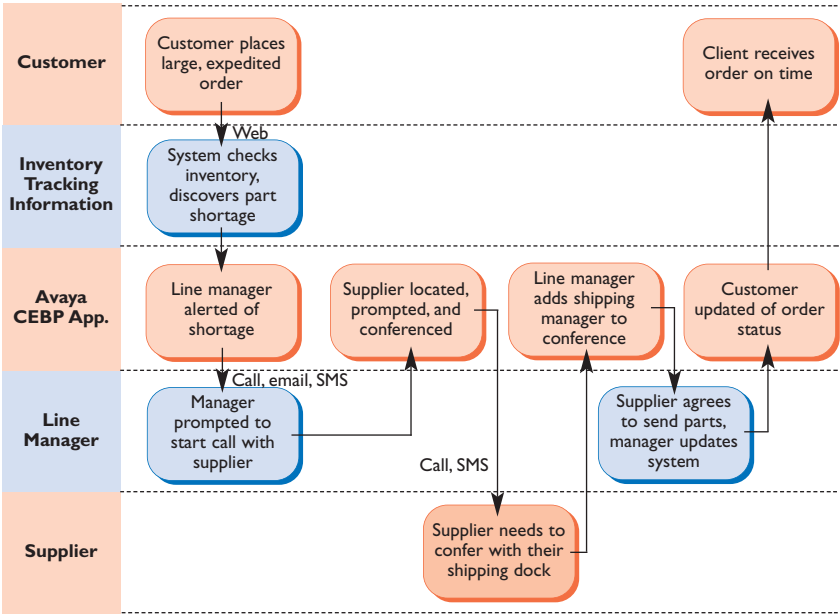
CEBP-enabled companies can respond more quickly to warehousing events, ensuring constant stock levels.

FROM HOURS TO MINUTES

CEBP helps Whirlpool integrate communications applications within the company’s Business Warehouse business process, so that the company can respond more quickly to identifiable Business Warehouse events. The Avaya Communications Process Manager alerts staff to exceptions around the clock, so users don’t have to wait until morning to review updated reports. The staff specifies when and how the solution will notify them, so that they are informed when any problem arises and are therefore able to respond more quickly. For Whirlpool, this has shortened some processes from 2 hours to 2 minutes—ensuring constant stock levels and an uninterrupted manufacturing operation.

CEBP IN INVENTORY MANAGEMENT

The goal of integrating CEBP in inventory management is to speed the resolution of inventory delays and improve order-to-cash time. Use CEBP to automate communications between inventory systems and process owners. This results in improved accuracy and response time to inventory issues, automatic escalation of issues, and automatic monitoring of task assignments.



ASSESSING YOUR STATUS

Creating seamless and efficient business processes is a major undertaking for any organization. The following questionnaire will help you to evaluate your organization's strengths and weaknesses and decide where to place the most effort going forward. If your answer is "Never," mark option 1; if it is "always," mark option 4; and so on. Add your scores together and refer to the analysis to see how your organization scores. Answering as honestly as you can is a good start towards improving your organization's operations.

OPTIONS	
1	Never
2	Occasionally
3	Frequently
4	Always

1

Do you have business processes that are key to your company's continued operation?

1 2 3 4

2

Do you have business processes that are susceptible to risk?

1 2 3 4

3

Are there high costs associated with variability in process performance?

1 2 3 4

4

Do you have business processes that require multiple decision makers?

1 2 3 4

5

Are person-to-person interactions a key bottleneck in your business processes?

1 2 3 4

6

Does your company distribute key process information across multiple systems?

1 2 3 4

7

Do you have geographically distributed decision-makers who span different functions across the enterprise?

1 2 3 4

8

Do you have business processes that exhibit multiple steps for decision making, review, and approval?

1 2 3 4

9

Do you have key events in your business process that are discovered too late to respond to effectively?

1 2 3 4

10

Do your business processes slow down at critical times, e.g., when a key event occurs requiring a response?

1 2 3 4

11

Do business processes halt when a key decision-maker, or group of decision-makers, is not available?

1 2 3 4

12

Has your company ever lost money or an account as a result of slow decision-making in a business process?

1 2 3 4

ANALYSIS

Now that you have completed the assessment, add up the scores and check your company's performance by referring to the following evaluations:
12-23: Your organization is at risk due to slowed or interrupted business processes. It is time to take action to integrate IC into your company's business processes.
24-35: Your organization has made some progress towards integrating communications into your business processes, but there's room for more improvement. Your business is still susceptible to latency, high costs, and process breakdowns. See the assessment tool on the next page.
36-48: Your organization is doing a good job integrating communications into your business processes. But continued investment is necessary to incorporate state-of-the-art communications enabled business processes into your operation, with the goal of reducing latency and improving decision making.

ASSESSING YOUR PRIORITIES

Every organization is different. To better integrate Intelligent Communications solutions into your company's business processes, you must prioritize what areas are most important to your firm. To that end, the following questionnaire will help you to set your organization's priorities and determine future investment. Rank each item on a scale of 1 to 4, with 1 being "not important" and 4 being "essential," then refer to the analysis on the next page to determine how best to target your contact center investment.

OPTIONS	
1	Not important
2	Somewhat important
3	Very important
4	Essential

1

Deliver cost savings.

1234

2

Enable next-generation communications for today's global enterprises.

1234

3

Ensure that customers are consistently satisfied, regardless of the method they use to contact your company.

1234

4

Improve business process effectiveness in dealing with business exceptions.

1234

5

Increase business agility to embrace change—turn those opportunities to bottom-line business profits.

1234

6

Transform business/human possibilities into realities.

1234

7

Accelerate the speed of business by eliminating human latency.

1234

8

Increase employee productivity, regardless of communications device used or their current location.

1234

9

Provide high-quality customer interactions and contact experiences based on analytics and insights.

1234

10

Easily and securely scale applications across users and locations.

1234

11

Improve speed and flexibility to integrate new solutions and applications.

1234

12

Create processes that can deliver high ROI and low TCO—immediately.

1234

ANALYSIS

Your total score on this assessment isn't as important as the individual scores for each item listed. You should make a list of items ranked by the scores received, and then act as follows:

4: This area is an extremely important for your company. You need to focus your communications investment into processes that affect this area of your business.

- 3: This area is important to your company, and deserves an appropriate level of investment.
- 2: This area, while important, is not necessary for immediate success. Prioritize investment in this area only if additional funds are available.
- 1: This area is unimportant to your organization. You should focus your investment in processes that affect more important areas for your business.

INDEX

A

accelerating speed of
business, 12, 31
ad hoc activity, 11
adapting to market
changes, 9
analyzing contact centers,
23
automation, 10–11

B

benefits
CEBP, 31, 36
CIOs, 36
customers, 37
Intelligent
Communications, 36–37
IP Telephony, 18–19
IT Managers, 36
line of business, 37
unified communications,
18
businesses processes
challenges, 10–11
closed-loop interactions,
14–15, 35
communications,
embedding, 14, 31,
34–35
efficiency through
automation, 35
human interaction, 30
optimizing, 29

C

CEBP (Communications-
Enabled Business
Processes)
accelerating speed of
business, 31
benefits, 31, 36
communications,
embedding, 31, 34–35
customer benefits, 37
Doc2Doc, 32–33
human interaction,
30–31
industry applications, 37
inventory management,
41
Whirlpool example,
40–41
CIO benefits, 36
closed-loop interactions,
14–15, 35
communications
converged, 17
cost effectiveness, 13
customer expectation
solutions, 9
evolution of intelligent
communications, 17
embedding in business
processes, 31, 34–35
innovative, 14
optimizing, 13, 18–19
seamless, 27
strategies, 14–15

unified, 17
benefits, 28
devices, 17
real world solutions,
28–29
services, 26
workforce
optimization, 26–27
competitive advantages,
12–13
contact centers, 22–23
analysis, 23
customer interaction, 22
real world solutions,
24–25
as revenue generator, 23
contact information
privacy, 36
converged
communications
cost effectiveness, 13
customer expectation
solutions, 9
evolution of intelligent
communications, 17
Convergys Corporation
Case Study, 23
cost effectiveness
converged
communications, 13
IP telephony, 18
customers
CEBP benefits, 37
competitive advantages
for, 13

expectations, 8–9
relationships,
optimizing, 22–23
service, enhancing, 15

D – E

devices for unified
communications, 27
Doc2Doc, 32–33
embedding
communications, 14, 31,
34–35
employees
ad hoc activity, 11
contact information
privacy, 36
effectiveness, 35
productivity, improving,
15, 26
unified communications
optimization, 26–27
evolution of Intelligent
Communications, 16–17
expectations of customers,
8–9
F – G
factors for rapid
marketplace, 7
failures of automation, 11
H – I
human interaction with
business processes, 30
implementing Intelligent
Communications, 39
industry applications of
CEBP, 37

innovative
communications, 14
Intelligent
Communications
before/after scenario,
38–39
benefits, 36–37
evolution, 16–17
implementing, 39
inventory management,
41
IP Telephony, 18–19
benefits, 18–19
real world example,
20–21
IT Manager benefits, 36

J – L

line of business benefits,
37

M – N

market changes
adapting to, 9
factors, 7
pace of change, 7

O – Q

opportunities of change, 7
pace of change, 7
Pricewaterhouse Coopers,
28–29
priority assessment,
44–45
privacy of contact
information, 36
productivity of employees,
15, 26

PTTEP (PTT Exploration
and Production Public
Company Limited),
20–21

R – T

relationships with
customers, optimizing,
22–23
ROI, 39
seamless communications,
27
silo applications, 10–11
SIP (Session Initiation
Protocol), 18
speed of business
accelerating, 12, 31
increasing pace, 6–7
status assessment, 42–43
strategies for
implementing Intelligent
Communications, 39

U – V

unified communications, 17
benefits, 28
devices, 17
real world solutions,
28–29
services, 26
workforce optimization,
26–27

W – Z

Whirlpool CEBP example,
40–41
workforce optimization of
unified communications,
26–27

ACKNOWLEDGMENTS

PUBLISHER'S ACKNOWLEDGMENTS

Dorling Kindersley would like to thank the following for their help and participation in producing this book:

Editor Karen Whitehouse
Interior Design and Layout Kelly Maish
Images Katherine Linder
Indexer Heather McNeill

PICTURE CREDITS

All images are from photos.com (Juniperimages),
except p. 7 (cell phone from Verizon);
p. 9, Dorling Kindersley (dkimages.com);
and p. 11 and p. 23 images from PAL images.

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ESSENTIAL  MANAGERS

INTELLIGENT COMMUNICATIONS

ABOUT AVAYA

Avaya enables businesses to achieve superior results by designing, building, and managing their communications infrastructure and solutions. For over one million businesses worldwide, including more than 90 percent of the FORTUNE 500®, Avaya embedded solutions help businesses enhance value, improve productivity, and create competitive advantage by allowing people to be more productive and create more intelligent processes that satisfy customers. For businesses, large and small, Avaya is a world leader in secure, reliable IP telephony systems, communications applications and full life-cycle services. Driving the convergence of embedded voice and data communications with business applications, Avaya is distinguished by its combination of comprehensive, world-class products and services. Avaya helps customers across the globe leverage existing and new networks to achieve superior business results.

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