

The Compelling Business Case for Cloud Communications:

*A Detailed Assessment of the ROI/TCO Benefits of Cloud UCC
and Contact Center*

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EXECUTIVE SUMMARY

Businesses increasingly trust the cloud for their communications and customer care solutions. The North American hosted Internet protocol (IP) telephony and unified communications and collaboration (UCC) user base is expected to grow at a compound annual growth rate (CAGR) of 25 to 30 percent from 2014 until 2020.

Compelling Benefits Drive Adoption

Frost & Sullivan research shows that 80 percent of North American information technology (IT) investment decision makers deploy cloud communications to gain access to advanced features and capabilities; 76 percent choose cloud technologies to supplement limited in-house IT/telecom resources and to eliminate the hassle of integrating multi-vendor products and solutions.

Customer organizations are also increasingly moving their contact center operations to the cloud. Eighty-five percent of Frost & Sullivan survey respondents cite ease of use and improved business continuity/disaster recovery capabilities as key factors driving this migration; reduced cost of ownership is a key driver for 81 percent of respondents adopting cloud contact center solutions.

A Structured Approach Required to Future-Proof Cloud Communications Investments

When evaluating a move to the cloud, it is critical that business decision makers conduct proper due-diligence research, so they can future-proof their communications investments. The first step is to thoroughly assess their specific business needs and create an inventory of existing IT assets and capabilities. For example, an existing CRM system might dictate the need for a cloud communications offering that is designed to use that system. The next step is to carefully evaluate the available offerings in order to make wise investments that best address their specific needs.

A key element of the due-diligence process is analyzing the anticipated total cost of ownership (TCO) and return on investment (ROI) associated with the move to a hosted/cloud-based solution. Here, we detail the costs and savings of three different communications and contact-center solutions, and discuss the methodology used in an ROI calculator application that performs these calculations based on each individual company's need.

Key Cost and Productivity Benefits of Cloud Communications

Specifically, this paper discusses the following benefits of hosted IP telephony, UCC and contact-center solutions:

- CAPEX and OPEX reduction
- Efficiency benefits (i.e., greater employee productivity)
- Other cost savings (e.g. reduction in desk phones, elimination of redundant hardware and redeployment of IT staff resources)

In this study, we present detailed ROI calculations based on cash flows and net present value (NPV) of cloud communications investment costs and potential cost-savings. The paper is a result of the analysis Frost & Sullivan completed in preparation and creation of the Cloud Communications and Contact Center Cost/Benefits Calculator (the Calculator hereafter), which takes into account key metrics such as:

- Premises-based system and endpoints costs
- System and endpoint maintenance costs
- Connectivity costs (access line and dial-tone charges)

- Long-distance call charges
- IT staff costs
- Cloud communications one-time (e.g., installation) and monthly recurring fees
- First-call resolution (FCR) rates (for contact centers)
- Audio, web and video conferencing charges
- Employee time gained due to increased efficiencies
- Other costs and benefits

For illustration purposes and to accurately assess the costs and benefits of cloud communications and contact center solutions, Frost & Sullivan's model uses industry-average equipment, maintenance, voice toll, broadband and other charges, as well as the actual costs and benefits associated with cloud solutions delivered by leading provider 8x8.

Substantial Cost Savings Calculated

Scenario analyses using the Calculator indicate the substantial cost savings that can be realized by switching from a premises-based communications and contact center infrastructure to a cloud-based solution. Cost savings, as well as efficiency and other benefits, vary based on the number of users and specific costs. Still, cloud solutions typically deliver a more favorable TCO and ROI compared to a status-quo legacy installation or a migration to a next-generation premises-based solution.

INTRODUCTION

The ability of a company to efficiently communicate and collaborate with its customers, partners and suppliers is a crucial element in its quest for success. Enterprise chief information officers (CIOs) are increasingly concerned with tasks such as managing their geographically dispersed workforces and expanding their global reach. In addition, the recent soft macroeconomic backdrop has led many businesses to seek more cost-effective communications solutions as a way to reduce overall expenses.

To remain competitive in the ever more competitive global environment, businesses are also looking for solutions that enhance worker productivity and overall business agility. These solutions must deliver critical applications, including a broad set of UCC tools such as presence, instant messaging (IM), web collaboration and video conferencing, as well as contact center. Effective communications solutions also support mobile integration and bring-your-own-device (BYOD) strategies, and enable desktop virtualization.

Legacy time division multiplexing (TDM) premises-based solutions can't address these evolving business requirements, and are quickly reaching obsolescence. They are also costly and complex to manage. As a result, a growing number of enterprises have been migrating away from traditional communication systems to IP-based solutions. Moreover, the availability of ubiquitous broadband connectivity, significant improvements in service quality, and the need to streamline business processes (by focusing on core competencies) are all driving businesses to consider hosted, cloud-based communications solutions.

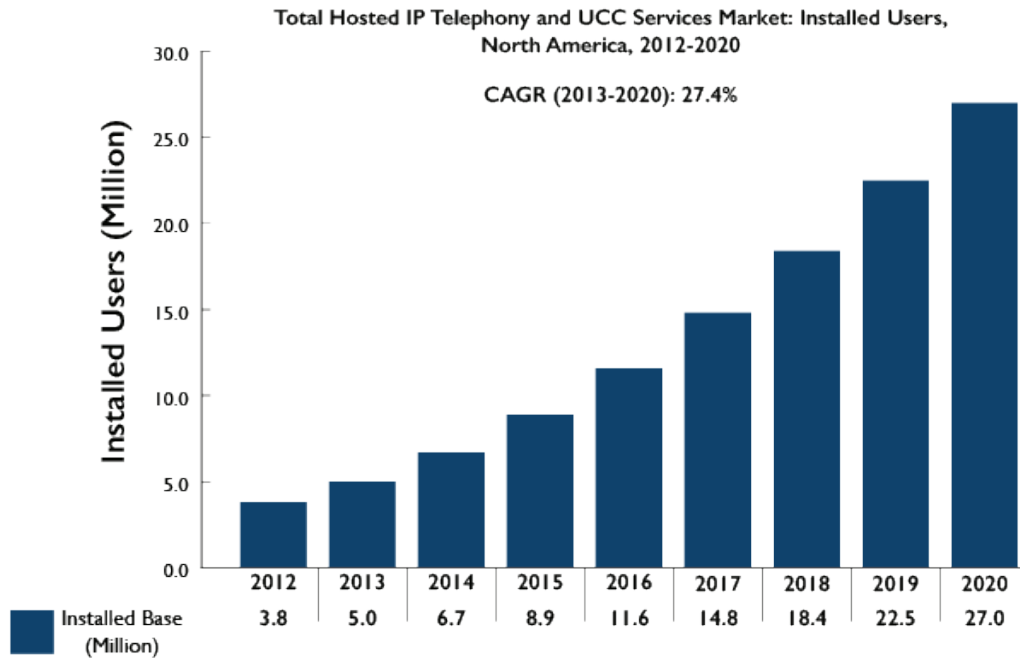
As businesses move their communications and customer care capabilities to the cloud, they must base their investment decisions on a compelling business case driven by reduced TCO, increased cash flow. Frost & Sullivan analysis identifies key cloud communications and contact center benefits, and proves the compelling ROI/TCO advantages of cloud solutions through a case study using Frost & Sullivan's Cloud Communications and Contact Center Cost/Benefits Calculator.

COMPELLING BENEFITS DRIVE CLOUD COMMUNICATIONS ADOPTION

The hosted IP telephony and UCC markets are maturing fast, with the user base projected to expand at an annual rate of 25 to 30 percent through 2020, indicating an increased level of customer trust in voice over Internet protocol (VoIP) and cloud technologies. Due to the compelling cost and business benefits offered by the cloud, the hosted IP telephony and UCC industry is one of the fastest growing markets in the telecom space.

The majority of the early adopters are small and medium businesses (SMBs) up to 500 users, which is consistent with the appeal of attributes such as lower upfront costs, flexibility and ease of deployment to that particular market segment. However, enterprises with an extensive footprint or multi-branch office topologies are also increasingly adopting cloud-based offerings as they seek to more effectively support global operations and a growing number of remote and mobile workers.

Exhibit I – Hosted IP Telephony and UCC Services Adoption, North America 2012-2020



Source: Frost & Sullivan

The primary driver for this growth remains the ongoing migration away from legacy premises-based systems that are becoming obsolete and can no longer meet today's business requirements. Although next-generation converged communications solutions deployed on the premises provide significant cost savings and operational efficiencies, they also increase infrastructure complexity. Technology advancements (such as the advent of ubiquitous broadband connectivity), coupled with a challenging macro-economic environment, have given rise to new technology delivery and consumption models, including hosted IP telephony and cloud UCC services. Cloud-based solutions are appealing because of their ability to reduce costs, advance strategic goals and enhance business processes.

More specifically, hosted/cloud communications delivers the following business benefits:

Cost Benefits:

- Lower CAPEX and streamline OPEX costs
- Reduce costs for associated applications (audio/web/video conferencing, fax, call recording, etc.)
- Reduce risk of technology obsolescence and sunk costs
- Eliminate system redundancy expenditures
- Reduce IT personnel needed to manage cloud services

Strategic Benefits:

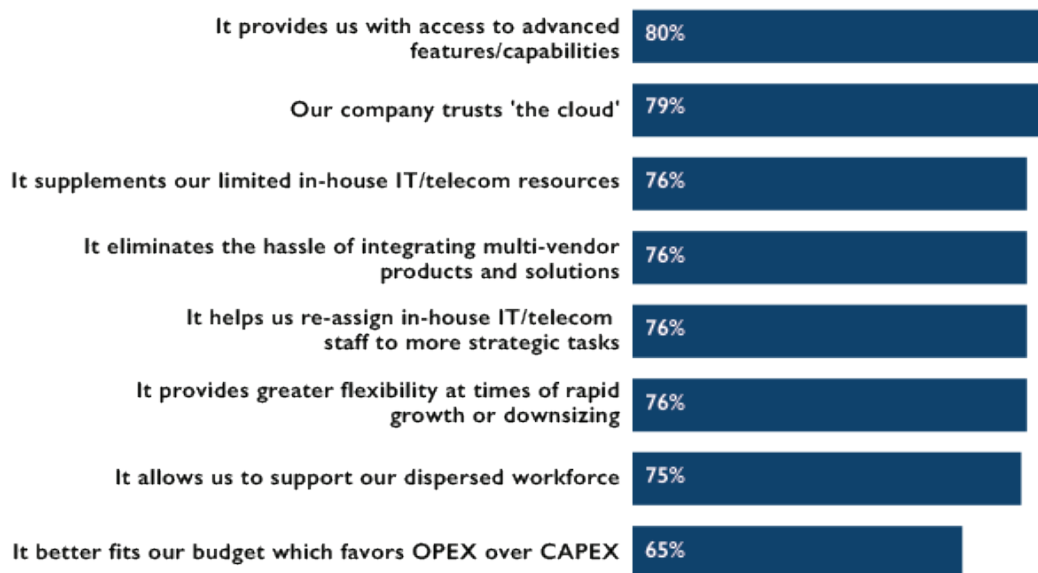
- Facilitate the integration of multiple technologies and tools in an end-to-end unified communications solution
- Enable distributed organizations to more flexibly support mobile workers and remote branches
- Ensure regulatory compliance (HIPAA/HITECH, PCI-DSS, FISMA, etc.)
- Allow the organization to focus more on core business activities thereby improving business agility

Business Process Benefits:

- Improve sales processes (higher connect rates and close rates, shorter sales cycles and response times, etc.)
- Enhance customer support (higher FCR rates in contact centers, reduced missed- and abandoned-call rates, higher customer retention, improved agent skills and retention rates, etc.)
- Evolve internal communications (more accessible and productive mobile workforce, greater organizational responsiveness, etc.)

Exhibit 2 – Factors Driving Cloud Communications Adoption

Attitudes Toward Use of Cloud Computing/Hosted Communications—Percent of Agree/Strongly Agree Responses, NA, 2014



Source: Frost & Sullivan

As the market evolves and customer adoption accelerates, many well-established as well as emerging providers are vying for customers' attention with a variety of cloud communications and contact center solutions. It is therefore critical that business decision makers conduct due diligence and thoroughly assess the available offerings in order to make wise investments that best address their specific needs.

Most businesses start their assessment process by comparing competitive offerings based on the specific hosted communications capabilities included in the service bundles. However, selecting the right solution and provider requires a structured approach that goes beyond features and functionality. Businesses must evaluate service providers and solutions based on a comprehensive set of criteria, including features and functionality; ease of use and management; infrastructure and endpoint requirements; reliability and security; integration capabilities; solution value for the price paid; and service provider track record, vision, and financial viability. A critical step in the process is to evaluate service provider offerings based on their specific ROI and TCO when compared to the status-quo implementation; a possible upgrade to a next-generation, premises-based solution; or other cloud communications solutions.

8x8: PIONEER AND LEADING PROVIDER IN THE CLOUD-BASED UCC AND CC MARKET

8x8 is a leading provider in the rapidly growing IP telephony/UCC and hosted contact center market for SMBs, mid-market and distributed enterprises. A pioneer in the cloud communications space, 8x8 has gained a leadership position through its visionary growth strategy and strong execution. Key tenets of its success include a compelling price/performance value, a tight focus on the customer ownership experience, strong brand equity, focus on security and compliance, excellence in financial performance, accelerated customer acquisition in the mid-market business segment, and continued investment in expanding the company's growth potential worldwide. 8x8 serves more than 42,000 business customers, totaling more than 500,000 subscriptions.



Phone systems were before considered commodities—buy one, get rid of it, buy a new one, etc. With the introduction of 8x8, our previous notion of a phone system was challenged. It [8x8's solution] helped us to increase productivity and improve personnel retention, and enabled our sales staff to better manage their account books. It has become an identifiable part of who we are—it's part of your psyche, you are on the 8x8 app because you want to resolve a client's situation, onboard a client, or earn an extra commission.

—William Stern, Managing Director, Bank of Cardiff



The company's solution portfolio encompasses cloud telephony, virtual contact center, virtual meeting, virtual desktop and business analytics. In addition to a standard set of PBX functionality, voicemail and unified messaging, 8x8's Virtual Office cloud UCC solution also includes instant messaging (IM) and presence, conferencing, soft clients, mobility, short messaging services (SMS) and video conferencing. Frost & Sullivan research shows that 8x8 offers one of the most comprehensive cloud UCC solutions available in the market today.

8x8 also provides a highly secure and reliable contact center offering that enables customer service across a variety of communications channels. 8x8's Virtual Contact Center solution is tightly integrated with various customer relationship management (CRM) systems for more effective customer care. 8x8 Virtual Contact Center is supported by globally distributed data centers—a key requirement in multi-national organizations, especially those managing 24/7, follow-the-sun customer care operations. Workforce and quality management capabilities can also be tightly integrated with the Virtual Contact Center solution.

8x8 leverages a patented, homegrown platform that has enabled it to rapidly and economically innovate. It has developed an extensive set of hosted communications and collaboration applications that rivals the capabilities provided by premises-based UCC solutions and ranks among the most compelling hosted communications offerings. 8x8's platform was designed to be maintained and updated with modifications that can be made behind the scenes, thus avoiding service disruptions while constantly enhancing the value delivered to customers. Other features include the ability to integrate distributed enterprise locations onto a single virtual PBX while allowing each site to operate autonomously, making overall system administration and disaster preparedness/recovery simple and easy to manage. The company also boasts a significant portfolio with over 100 patents to protect the intellectual property rights (IPR) of its services platforms.



One huge advantage with 8x8 was a much higher uptime. A simple power outage due to weather—for example, one day due to wind storm—could translate into considerable lost revenue, and that has happened before ... but not since we had the new 8x8 system.

—Greg Meyer, WMPH Vacations



Deployed over any high-speed internet connection, 8x8's services follow a software-as-a-service (SaaS) delivery model whereby the provider charges its customers monthly licensing fees for selected applications without the need to purchase any on-premises equipment. 8x8 also provides subsidized equipment (e.g., IP phones, video conferencing products, etc.) in case the customer desires to purchase equipment from the company (not a requirement as customers can utilize most IP devices with 8x8's services).

In addition to a strong set of communications and contact center capabilities, 8x8 also enables interoperability with third-party applications such as enterprise resource planning (ERP), CRM and human capital management (HCM) solutions, including Salesforce.com, NetSuite, Zendesk, and Sugar CRM (to name a few), in order to provide a unified suite. The company's solutions are compliant with federal regulations such as the Health Insurance Portability and Accountability Act (HIPAA), the Health Information Technology for Economic and Clinical Health (HITECH) Act, the Federal Information Security Management Act (FISMA), and Payment Card Industry Data Security Standards (PCI DSS).

Overall, 8x8 customers receive the benefits of a secure and highly reliable service, and a tightly integrated IP PBX, UCC and contact center portfolio. By providing a one-stop shop for a broad array of capabilities, 8x8 enables business customers to eliminate the cost and hassle associated with deploying, integrating and managing disparate multi-vendor technologies. It allows customers to consolidate vendor relationships and thus realize operational efficiencies related to vendor management, service provisioning, billing and upgrades.

Exhibit 3 – 8x8 Virtual Office UCaaS Solution



Source: 8x8

CASE STUDY: XYZ CORPORATION

A Note about the Calculator

In order to perform a full TCO and ROI analysis of a potential move to cloud communications, Frost & Sullivan developed a ROI/TCO model to evaluate an 8x8 deployment versus premises-based UCC and contact center solutions. The model was developed in Excel with Visual Basic for Applications (VBA) and provides decision makers with an effective tool to assess the benefits of replacing their premises-based solution (either an existing legacy or an upgraded next-generation system) with the 8x8 Virtual Office and/or Virtual Contact Center solution.

Exhibit 4 – Frost & Sullivan Cost/Benefits and Payback Period Model Evaluates Hosted vs. Premises-Based Solutions

Line Item	Category	Value
1	8x8, Inc.	
2	Frost & Sullivan	
3	Main Office (HQ) PBX Parameters	
4	Enterprise Variables - Licenses	
5	Total # of Employees on Legacy PBX	150
6	Total # of Employees on Legacy VMUC	290
7	Total # of Voice Conferencing Licenses	120
8	Total # of Web Conferencing Licenses	105
9	Total # of Video Conferencing Licenses	35
10	Enterprise Variables - Costs / Maintenance	
11	Legacy PBX Cost per Station	\$425.00
12	Maintenance % for Legacy PBX (Annual)	15.0%
13	Legacy VMUC Cost per License	\$80.00
14	Maintenance % for Legacy VMUC (Annual)	15.0%
15	CPE PBX Additional Costs	
16	Extra CPE PBX One-Time Costs	\$0
17	Extra CPE PBX Monthly Recurring Costs	\$0
18	Telecom Services - Usage	
19	LD MCMU/Employee/Month (Legacy PBX)	350
20	Telecom Services - Costs	
21	Cost (\$/min) of LD minute	\$0.03
22	Voice Conferencing Service Cost/User/Month	\$17.00
23	Web Conferencing Cost / License / Month	\$20.00
24	Video Conferencing Cost / License / Month	\$28.00
25	Total # of Broadband Connections	9
26	Broadband Cost per Month per Connection	\$450.00
27	Total # Analog Lines Eliminated	9
28	Analog Line Monthly Cost	\$50
29	Hardware Costs	
30	Avg. Cost of Desk Phone	\$275.00
31	Maintenance % for Desk Phone (Annual)	5.0%
32	Avg. Cost of Redundant PBX	\$25,000
33	Maintenance % for Redundant PBX (Annual)	20.0%
34	# Redundant PBXs Eliminated	1
35	Other IT Cost Items	
36	% Employees No Longer Needing Desk Phone	15.0%
37	% Phones Eliminated due to Office Hosting	5.0%
38	Avg. # IT Hours Saved per Month	30
39	Avg. Annual IT Staff Salary	\$80,000
40	Sum	0

Source: Frost & Sullivan

The Calculator takes into account the premises-based solution employed (status quo or a next-generation upgrade) and various telecom services, IT and miscellaneous costs at both the main headquarters location and other satellite offices. For simplicity, the calculator performs an apples-to-apples comparison between the premises-based solutions and the 8x8 cloud solutions for hosted IP telephony/UCC and contact center or a combined offering.

The Calculator then determines the total benefits of 8x8's cloud-based approach over a three-year window in terms of direct cost savings (due to lower CAPEX and OPEX), employee efficiency/productivity gains (employee accessibility improvement, more optimized planning and staffing efficiency, enhanced FCR rates, lower agent training requirements) and other miscellaneous savings (including the elimination of redundant hardware, reduction of the number of desktop phones and IT staff redeployments).

The Calculator is further explained in the Appendix of this document. The Appendix also describes the assumptions used in our case study for XYZ Corporation, and presents the set of variables that can be defined by an end user of the Calculator to analyze various other scenarios.

A Look at XYZ Corporation

For our example, we considered a mid-market customer in the services industry. XYZ Corporation has 500 employees across 10 sites. Its main headquarters site has 350 users, while the other 150 users are spread over nine regional offices. Most of the parameters utilized are based on default values provided in the Calculator, except for the following:

Headquarters PBX Parameters—Enterprise Variables—Licenses

- Total # of employees on legacy PBX: 350
- Total # of employees on legacy VM/UC: 290
- Total # of voice conferencing licenses: 120
- Total # of web conferencing licenses: 105
- Total # of video conferencing licenses: 35

Branch Offices PBX Parameters—Enterprise Variables—Licenses

- Total # of employees on legacy PBX: 150
- Total # of employees on legacy VM/UC: 110
- Total # of voice conferencing licenses: 50
- Total # of web conferencing licenses: 45
- Total # of video conferencing licenses: 5

XYZ Corporation also has two contact centers, a main one with 100 agents and a second informal contact center with 20 agents. The parameters used were also mostly based on the default inputs provided with the Calculator except for the following:

Main Contact Center Parameters—Enterprise Variables—Licenses

- Total # of agents on premises-based contact center solution: 100
- Total # of agents on premises-based UC solution: 100
- Total # of voice conferencing licenses: 10
- Total # of web conferencing licenses: 10
- Total # of video conferencing licenses: 10

Other Contact Center Parameters—Enterprise Variables—Licenses

- Total # of agents on premises-based contact center solution: 20
- Total # of agents on premises-based UC solution: 20
- Total # of voice conferencing licenses: 2
- Total # of web conferencing licenses: 2
- Total # of video conferencing licenses: 2

XYZ Corp. still has a few years of useful lifetime left on its current premises-based telephony system and would like a comparison between the “status quo” versus 8x8’s Virtual Office hosted IP telephony/UCC offering. On the contact center side, XYZ is pondering a small upgrade to its existing contact center solution and needs to know the tradeoff between that approach and 8x8’s Virtual Contact Center offering.



The 8x8 platform increases productivity, lowers cost, helps work become more fluid as opposed to a phone on a desk that is almost like a ball and chain. Our parents’ generation was like that—missing a call meant losing a customer. 8x8 has given us our freedom back.

—William Stern, Managing Director, Bank of Cardiff



Analysis Results

A run of the Calculator with the above parameters yields the following results:

Costs savings associated with migrating from current premises-based telephony solution to 8x8’s Virtual Office solution: ~ \$294,000

- Systems maintenance costs: ~ \$40,000
- Long-distance calling expenditures: ~ \$68,000
- Conferencing expenses: ~ \$95,000
- Broadband cost reduction & elimination of analog lines: ~ \$91,000

Employee efficiency/productivity gains via migration from current premises-based telephony solution to 8x8's Virtual Office solution: ~ \$116,000

- Employee accessibility improvement: ~ \$47,000
- Single-number reach (one phone #): ~ \$31,000
- Consolidated UC message box: ~ \$22,000
- Ad-hoc conferencing: ~ \$16,000

Other savings entailed by migrating from current premises-based telephony solution to 8x8's Virtual Office solution: ~\$47,000

- Reduction in phones: ~ \$1,000
- Elimination of redundant hardware: ~ \$23,000
- IT staff that can be redeployed: ~ \$23,000

The business case for 8x8 Virtual Office (stand-alone, without counting the contact center piece of the equation) is as follows:

- Cash flow savings over a three-year period of more than \$600,000
- A 78 percent, three-year ROI (based on the three-year net present value (NPV) of incremental costs and cash flow)
- A four-month payback period

On the contact center side, the comparison is between an upgrade of the existing premises-based contact center solution versus a migration to 8x8's Virtual Contact Center solution. The results again are in favor of 8x8.

Costs savings associated with choosing 8x8's Virtual Contact Center solution instead of an upgraded premises-based contact center solution: ~ \$463,000

- Systems maintenance costs: ~ \$21,000
- Long-distance calling expenditures: ~ \$389,000
- Conferencing expenses: ~ \$10,000
- Broadband cost reduction & elimination of analog lines: ~ \$43,000

Employee efficiency/productivity gains via choosing 8x8's Virtual Contact Center solution instead of an upgraded premises-based contact center solution: ~\$125,000

- FCR rate improvement (fewer transfers): ~ \$80,000
- Improved planning/staffing efficiency: ~ \$20,000
- Reduced agent training requirement: ~ \$25,000

Other savings entailed by choosing 8x8’s Virtual Contact Center solution instead of an upgraded premises-based contact center solution: ~ \$39,000

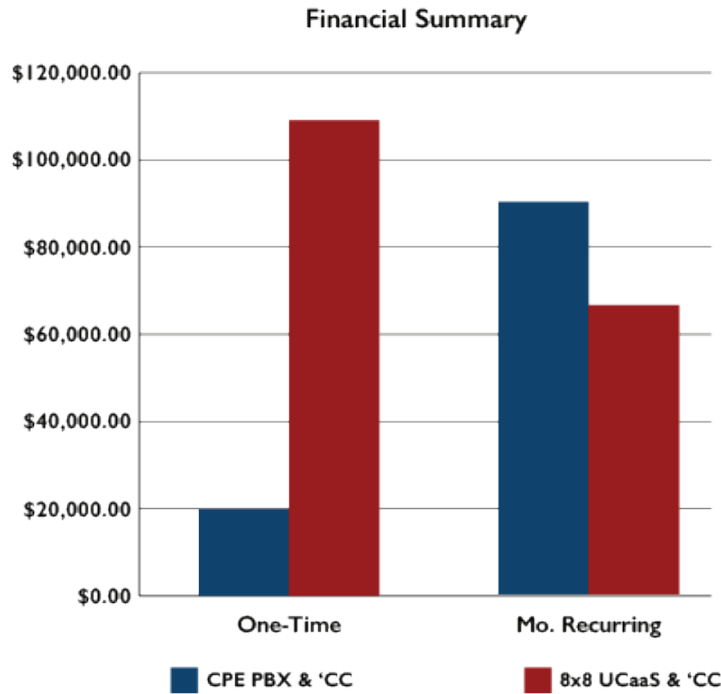
- IT staff efficiency (can be redeployed): ~ \$18,000
- Elimination of redundant PBX hardware: ~ \$21,000

The business case for 8x8 Virtual Contact Center (stand-alone, without counting the UCC piece of the equation) is as follows:

- Cash flow savings over a three-year period of over \$113,000
- A 6.3 percent, three-year ROI (based on the three-year Net Present Value (NPV) of incremental costs and cash flow)
- A five-month payback period

Blending the two business cases, the analysis shows the following:

Exhibit 5 – Blended UCaaS and CCaaS Business Case for XYZ Corporation



Source: Frost & Sullivan

The blended business case for 8x8 Virtual Office and Virtual Contact Center versus current premises-based telephony and upgraded premises-based contact center solution yields:

- Cash flow savings over a three-year period of over \$718,000 (or a three-year Net Present Value of almost \$623,000)
- A 27.9 percent, three-year blended ROI (based on the three-year Net Present Value (NPV) of the combined UC and contact center incremental costs and cash flow)
- A four-month payback period

The results strongly indicate the attractive economics of 8x8's solution, with a solid ROI and a payback period that is fairly quick, about four to five months. This is particularly compelling considering that XYZ Corp. elected to maintain the status quo on its premises-based telephony solution and only modestly upgrade its premises-based CC solution as an alternative to migrating its communications and contact center capabilities to 8x8's cloud-based solution.

CONCLUSIONS

Geoffrey A. Moore wrote in his best-seller “Crossing the Chasm” that fighting one’s way into the mainstream market is an act of aggression, drawing the analogy to D-Day. The early market base is England, the strategic market target is Normandy, and the English Channel represents the chasm. The ultimate goal is Europe, which represents the mainstream market.

Enterprise cloud communications technologies are getting closer to crossing that chasm, finally reaching the early majority that is mainly constituted by pragmatists. At this stage in this rapidly growing market, businesses must choose a provider that is able to make a compelling business case by achieving meaningful product differentiation, providing a good customer pedigree and demonstrating the ability to scale.

As detailed in this paper, 8x8 has been growing its business substantially by being a pioneer in cloud-based communication systems; achieving a solid solutions portfolio; growing its installed base to today’s impressive levels; making its solutions interoperable with a host of important third-party applications; delivering industry compliance to standards such as FISMA, HIPAA, PCI, etc.; and remaining committed to continually improving features and functionality via a “zero-touch” approach.

Frost & Sullivan believes that the proposed financial model can assist CIOs and enterprise decision makers to choose from three alternative scenarios:

- a. Maintaining the existing premises-based telephony or contact center solution;
- b. Upgrading existing premises-based infrastructure to next-generation premises-based solutions; or
- c. Migrating to 8x8’s innovative cloud-based products.

Our case study of a fictitious mid-market, multi-branch company (XYZ Corporation) presents a compelling business case for 8x8’s solutions, with attractive ROIs, cash flows and payback periods.

As a result, Frost & Sullivan believes that 8x8’s Virtual Office and Virtual Contact Center are both compelling solutions that can deliver considerable benefits to mid-market distributed organizations looking to optimize their communications and customer care solution costs and management.

APPENDIX

Frost & Sullivan Cost/Benefits and Payback Period Calculator

In this section, we present the ROI/TCO model that was developed by Frost & Sullivan to evaluate 8x8's UCaaS and CCaaS (Contact Center as a Service) solutions compared to other vendors' cloud and premises-based solutions. The ROI modeling approach has increasingly become the critical determinant in the decision-making process related to modernizing the enterprise telephony and contact center architecture. In essence, this represents a cost-benefit analysis, taking into account the capital expenditures associated with deploying each solution. The model also determines the payback period of the investment in an 8x8 solution, or in other words, the time it takes (in months) for that investment to pay off based on the savings realized by choosing a cloud solution versus a premises-based solution.

Multiple parameters were taken into consideration in the ROI calculations for Virtual Office and Virtual Contact Center versus premises-based solutions:

- Physical size of deployment, expressed in the number of seats (for UC and contact center) at the headquarters and other satellite office locations;
- Additional enterprise licenses (again at the main headquarters and other branch offices) for voice/web/video conferencing and messaging solutions;
- Running costs such as maintenance of existing systems;
- Usage costs for various telecom services, including long distance (domestic and international), voice/web/video conferencing license costs per month, broadband and analog line costs, etc.;
- Other miscellaneous parameters, such as redundant hardware and IT expenditures; and
- Employee efficiency parameters, such as improved performance via a hosted solution, including employee accessibility improvement, single-number reach, consolidated UC message box, improved first-call resolution (FCR) rates, etc.

The end user of the ROI/TCO calculator can run the model using all of the above parameters or just a few from the list. Alternatively, there is an option to revert back to a set of default values.

Throughout the case study analysis, the following set of assumptions were used in the UCaaS calculations:

Main Office PBX Parameters	
Enterprise Variables—Licenses	
Total # of Employees on Legacy PBX	350
Total # of Employees on Legacy Voicemail/UC	290
Total # of Voice Conferencing Licenses	120
Total # of Web Conferencing Licenses	105
Total # of Video Conferencing Licenses	35
Enterprise Variables—Costs/Maintenance	
Legacy PBX Cost per Station	\$425
Maintenance % for Legacy PBX (Annual)	15.0%
Legacy Voicemail/UC Cost per License	\$80
Maintenance % for Legacy Voicemail/UC (Annual)	15.0%
Premises-Based PBX Additional Costs	
Extra Premises-Based PBX One-Time Costs	\$0
Extra Premises-Based PBX Monthly Recurring Costs	\$0
Telecom Services—Usage	
Long-Distance Minutes of Use/Employee/Month (Legacy PBX)	350
Telecom Services—Costs	
Cost (\$/min) of Domestic Long-Distance Usage	\$0.03
Voice Conferencing Service Cost/User/Month	\$17
Web Conferencing Cost/License/Month	\$20
Video Conferencing Cost/License/Month	\$28
Total # of Broadband Connections	9
Broadband Cost/Month/Connection	\$450
Total # Analog Lines Eliminated	3
Analog Line Monthly Cost	\$50
Hardware Costs	
Average Cost of Desk Phone	\$275
Maintenance % for Desk Phone (Annual)	5.0%
Average Cost of Redundant PBX	\$25,000
Maintenance % for Redundant PBX (Annual)	20.0%
# Redundant PBXs Eliminated	1
Other IT Cost Items	
% Employees No Longer Needing Desk Phone	15.0%
% Phones Eliminated due to Office Hoteling	5.0%
Average # IT Hours Saved per Month	30
Average Annual IT Staff Salary	\$80,000

Other Branch Offices' PBX Parameters	
Enterprise Variables—Licenses	
Total # of Employees on Legacy PBX	150
Total # of Employees on Legacy Voicemail/UC	110
Total # of Voice Conferencing Licenses	50
Total # of Web Conferencing Licenses	45
Total # of Video Conferencing Licenses	15
Enterprise Variables—Costs/Maintenance	
Legacy PBX Cost per Station	\$425
Maintenance % for Legacy PBX (Annual)	15.0%
Legacy Voicemail/UC Cost per License	\$80
Maintenance % for Legacy Voicemail/UC (Annual)	15.0%
Premises-Based PBX Additional Costs	
Extra Premises-Based PBX One-Time Costs	\$0
Extra Premises-Based PBX Monthly Recurring Costs	\$0
Telecom Services—Usage	
Long-Distance Minutes of Use/Employee/Month (Legacy PBX)	350
Telecom Services—Costs	
Cost (\$/min) of Long-Distance Usage	\$0.03
Voice Conferencing Service Cost/User/Month	\$17
Web Conferencing Cost/License/Month	\$20
Video Conferencing Cost/License/Month	\$28
Total # of Broadband Connections	6
Broadband Cost/Month/Connection	\$450
Total # Analog Lines Eliminated	2
Analog Line Monthly Cost	\$50
Hardware Costs	
Average Cost of Desk Phone	\$275
Maintenance % for Desk Phone (Annual)	5.0%
Average Cost of Branch Office PBX	\$10,000
Maintenance % for Branch Office PBX (Annual)	20.0%
# Branch Office PBXs Eliminated	9
Other IT Cost Items	
% Employees No Longer Needing Desk Phone	15.0%
% Phones Eliminated due to Office Hoteling	5.0%
Average # IT Hours Saved per Month	20
Average Annual IT Staff Salary	\$65,000

8x8 Solution Costs

IP Phones for Virtual Office	
Total # of Employees on Virtual Office UCaaS	500
Total # of IP Phones	450
Average Cost per IP Phone	\$105
Maintenance % for IP Phone	0.0%
Extra Costs for Virtual Office	
Extra 8x8 One-Time Costs	\$0
Extra 8x8 Monthly Recurring Costs	\$0
Virtual Office Long-Distance Costs	
Cost (\$/min) of 8x8 Long-Distance Usage	\$0.01

Efficiency Benefits Parameters (All Employees)

Enterprise Variables	
Average Annual Salary/Employee	\$65,000
Efficiency Savings (Average # Minutes/Employee/Month)	
Employee Accessibility Improvement	15
Single-Number Reach (One Phone #)	10
Consolidated UC Message Box	7
Ad-Hoc Conferencing	5

Throughout the case study analysis, the following set of assumptions were used in the CCaaS calculations:

Main Contact Center Parameters	
Enterprise Variables—Licenses	
Total # of Agents on Premises-Based Contact Center Solution	100
Total # of Agents on Premises-Based UC Solution	100
Total # of Voice Conferencing Licenses	10
Total # of Web Conferencing Licenses	10
Total # of Video Conferencing Licenses	10
Enterprise Variables—System/Maintenance	
Legacy Contact Center Solution Cost per Agent	\$1,100
Legacy Contact Center Solution Upgrade Cost per Agent	\$175
Annual Maintenance % for Legacy Contact Center Solution	15.0%
Legacy UC Solution Cost per Agent	\$80
Annual Maintenance % for Legacy UC Solution	15.0%
Premises-Based PBX Additional Costs	
Extra Premises-Based Contact Center One-Time Costs	\$0
Extra Premises-Based Contact Center Monthly Recurring Costs	\$0
Telecom Services—Usage	
Outbound Domestic (North America) Long-Distance Minutes of Use/Agent/Month	880
Outbound International Long-Distance Minutes of Use/Agent/Month	220
Inbound Minutes of Use - Toll Free/Agent/Month	6,500
Telecom Services—Costs	
Cost (\$/min) of Domestic (North America) Long-Distance Usage	\$0.02
Cost (\$/min) of International Long-Distance Usage	\$0.17
Cost (\$/min) of Inbound Toll-Free Usage	\$0.03
Voice Conferencing Cost/License/Month	\$17
Web Conferencing Cost/License/Month	\$20
Video Conferencing Cost/License/Month	\$28
Total # of Broadband Connections	5
Broadband Cost/Month/Connection	\$450
Total # Analog Lines Eliminated	2
Analog Line Monthly Cost	\$50
Other IT Cost Items	
Average # IT Hours Saved per Month	25
Average Annual IT Staff Salary	\$80,000
# Redundant PBXs Eliminated	1
Average Cost of Redundant PBX	\$15,000

Other Contact Centers' Parameters

Enterprise Variables—Licenses	
Total # of Agents on Premises-Based CC Solution	20
Total # of Agents on Premises-Based UC Solution	20
Total # of Voice Conferencing Licenses	2
Total # of Web Conferencing Licenses	2
Total # of Video Conferencing Licenses	2
Enterprise Variables—Costs/Maintenance	
Legacy Contact Center Solution Cost per Agent	\$880
Legacy Contact Center Solution Upgrade Cost per Agent	\$135
Annual Maintenance % for Legacy Contact Center Solution	15.0%
Legacy UC Solution Cost per Agent	\$80
Annual Maintenance % for Legacy UC Solution	15.0%
Premises-Based PBX Additional Costs	
Extra Premises-Based PBX One-Time Costs	\$0
Extra Premises-Based PBX Monthly Recurring Costs	\$0
Telecom Services—Usage	
Outbound Domestic (North America) Long-Distance Minutes of Use/Agent/Month	880
Outbound International Long-Distance Minutes of Use/Agent/Month	220
Inbound Minutes of Use – Toll-Free/Agent/Month	6,500
Telecom Services—Costs	
Cost (\$/min) of Domestic (North America) Long-Distance Usage	\$0.02
Cost (\$/min) of International Long-Distance Usage	\$0.17
Cost (\$/min) of Inbound Toll-Free Usage	\$0.03
Voice Conferencing Cost/License/Month	\$17
Web Conferencing Cost/License/Month	\$20
Video Conferencing Cost/License/Month	\$28
Total # of Broadband Connections	2
Broadband Cost/Month/Connection	\$450
Total # Analog Lines Eliminated	1
Analog Line Monthly Cost	\$50
Other IT Cost Items	
Average # IT Hours Saved per Month	13
Average Annual IT Staff Salary	\$65,000
# Redundant PBXs Eliminated	1
Average Cost of Redundant PBX	\$6,250

8x8 Solution Costs	
IP Phones for Virtual Office	
Total # of Employees on Virtual Office UCaaS	500
Virtual Contact Center Costing Parameters	
Total # of Agents on Virtual Contact Center	120
Total # of IP Phones	100
Average Cost per IP Phone	\$90
Maintenance % for IP Phone	0.0%
Extra Costs for Virtual Contact Center	
Extra 8x8 One-Time Costs	\$0
Extra 8x8 Monthly Recurring Costs	\$0
Virtual Contact Center Long-Distance Costs	
Cost (\$/min) of Domestic (North America) Long-Distance Usage	\$0.01
Cost (\$/min) of International Long-Distance Usage	\$0.15
Cost (\$/min) of Inbound Toll-Free Usage	\$0.02

Efficiency Benefits Parameters (All Employees)	
Enterprise Variables	
Average Annual Salary/Agent	\$40,000
Efficiency (Increased Revenue Generation or Savings)	
Average FCR Rate for Contact Centers	70.0%
% Improvement in FCR Rates	15.0%
Average Cost per Call Transfer	\$5
% Staffing Efficiency/Improved Planning	10.0%
Total # IT Staff	5
% Reduction in Agent Training Time	25.0%
Average Agent Training Time/Year (in Hours)	40

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