



Why should your company buy a Digital Collaboration Bridge?

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Abstract

Because of the reduction in travel budgets due to the downturn in the economy, the demand for conferencing services has gone up significantly. Conferencing services mostly in use are audio conferencing and web conferencing followed by video conferencing. Enterprises often outsource these services to their telephone service providers or to specialized service bureaus. As these services are billed on per minute per user basis, the usage charges add up quickly.

As an alternative to outsourcing these services, enterprises can bring them in-house by deploying their own conferencing equipment. This paper examines the pros and cons of deploying an in-house 'collaboration server'.

Audio Conferencing – current method

Typically service providers provide a toll-free dial-in number for accessing their audio conference bridge. The service providers charge anywhere from 10 – 25 cents¹ per minute per user. This charge includes the cost of the long distance call. As multi-party conference calls usually last for half an hour or more the charges add up quickly. For example a typical 6 person, 60-minute call at 15 cents per minute per user rate will cost the company \$54.

Web Conferencing – current method

Web conferencing allows multiple participants to share a document in an online session. Any changes made to the document by the chairperson are made visible to all other participants in real time. The web conferencing related data communication occurs over the Internet.

The web conferencing service is typically billed on a per seat per month basis. The charges range from \$100 - \$150 per month per seat. So a 5 seat license would cost a company \$500-\$750 per month. Of late some of the newer service providers have also started offering web conferencing services on per minute per seat basis (similar to audio conferencing). Typical charges in that case are 20 – 50 cents per minute per user.

Bring the conferencing functions in-house

One way to reduce the conferencing expense is to bring both audio and web conferencing functions in-house. On the audio conferencing side, enterprises have basically two choices. One – they can procure a proprietary multi-party conferencing card from their PBX vendor and add it to their PBX. Two – they can purchase an external conferencing server and deploy it behind their PBX.

¹ The actual number depends on number of minutes per month a company signs up for

Option 1 - Add Multi-party Conferencing to the PBX

Most of the PBX vendors offer multi-party conferencing cards for their PBXs. However, being proprietary solutions they lack the feature richness of the outsourced service. Typically they are limited to 3-8 users, support only one conference call at one time and seldom provide any of the call management functions (roll-call, volume control, mute/unmute etc.) the participants have become accustomed to with outsourced services. Some of the conferencing cards do not support Automatic Gain Control and adequate amount of Echo Cancellation – two key attributes that are necessary to have good quality audio conferencing. Furthermore being proprietary solution, the IT personnel responsible for the PBX find it cumbersome to determine any usage patterns or be able to charge different conference calls to their respective cost centers. Needless to say, a better solution is to invest in an external collaboration server that can provide the same or better conferencing experience as is available from the outsourced service providers.

The legacy PBXs are not equipped to support any type of web conferencing application.

Option 2 – Deploy an in-house integrated audio and web collaboration server

Another approach for bringing the conferencing function in-house is to deploy a standalone conferencing system behind a company's PBX. As most of the PBXs provide loop start analog interfaces to support dial-up modems, Fax machines and voicemail systems, the same analog interface can be used to also connect with the in-house collaboration server.

Xop networks manufactures a line of in-house collaboration servers, marketed as xw DCBs that support both audio and web conferencing applications. Figure 1 shows a xw DCB-16, a 16-port collaboration server deployed behind a company's PBX using analog loop start trunks. In case of larger PBXs, a T1/E1 trunk can be used to interface with the collaboration server as shown in Figure 2.

The xw DCBs also support an Ethernet interface for connectivity to the company's LAN or to the Internet. This interface is used for carrying web conferencing traffic.

The Ethernet interface is also used to allow access to xw DCB's web based user and administrative interfaces. Using the web based user interface moderators can schedule audio and web conference calls on their own from any PC/terminal connected to the Internet.

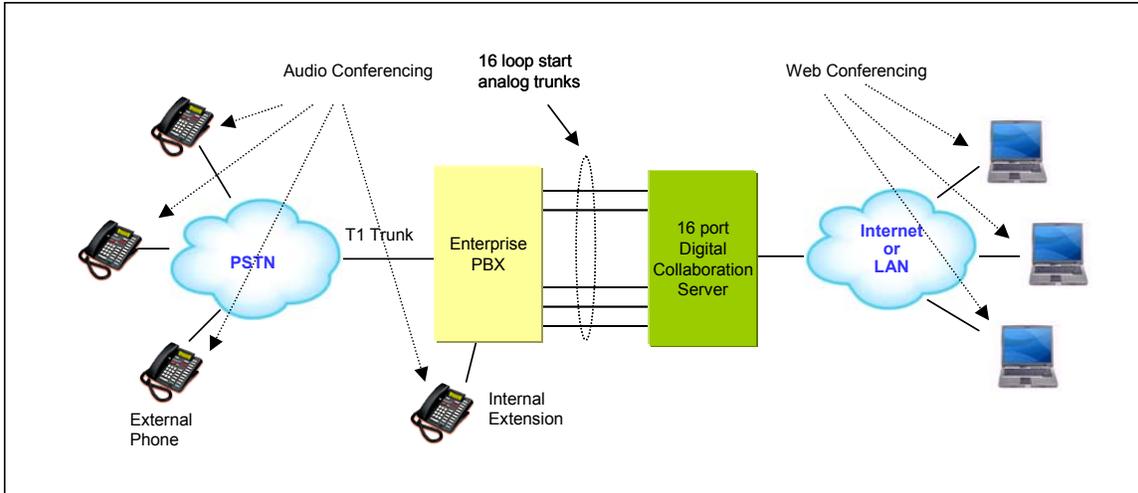


Figure 1: Small Enterprise Application

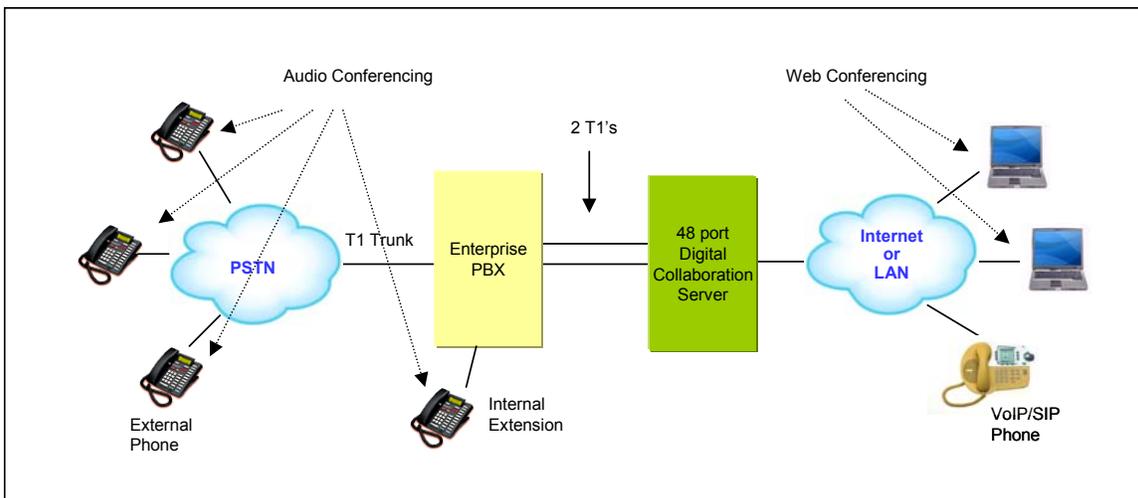


Figure 2: Large Enterprise Application

Benefits of in-house collaboration server

75-80% monthly cost savings

As the company no longer pays external service providers for use of audio and web conferencing service on a per minute per user or per seat basis, company can save 75 – 80% of the cost associated with these services. Please see the section where Return On Investment (ROI) associated with in-house deployment verses outsourced service is discussed.

Predictable expenses

Since the monthly costs are mostly fixed, businesses can budget appropriate amount for their monthly conferencing needs. The only variable cost is long distance usage, which is typically 4 cents per minute and that too only for the distant users. With the various free Long Distance packages available on cell phones these days, if used for calling in, much of the long distance charge also vanishes further improving the ROI.

Enhanced user experience

Currently, if users want to use both audio and web conferencing simultaneously, then they have to co-ordinate the time with two separate service providers, go through two separate authentication processes and eventually process and pay two separate bills. The xw DCB products on the other hand provide integrated audio and web conferencing. Both the services share a common scheduling process and user can enable either one or both services using the same authentication process. The integrated service besides being user-friendly, also leads to a more productive use of the time spent on the conference call.

Employee productivity gain

Given the expense associated with the outsourced conference calls, typical company allows this facility to be used only for its executives or important sales/marketing calls. With an in-house collaboration server all employees of the company can do free audio and web conference calls internally which improves employee productivity and takes the load off of conference rooms. With a free conference resource employees can use conferencing for functions such as document reviews, training etc., further boosting employees productivity. The productivity gains are even more important if the employees are in different physical locations.

Reduction in travel costs

As users learn that audio and web conference calls do not generate large expense and are easy to use, they are likely to use it more frequently, which in turn will reduce travel expenses.

ROI analysis

The following sections provide Return On Investment (ROI) analysis for a small, a medium and a large size company.

Small company case:

The company ABC Small Inc has 200 employees. It provides a Toll-free number to its clients for dialing into the conference bridge when an audio conference call is needed. The audio conferencing service provider charges 15 cents per minute per person for audio conference call. The company has also taken 5 web conferencing seats and pays \$500 per month for using that service. The company averages 2 conference calls per day. On a typical call, out of eight participants there are four internal employees and four

external users. The average call lasts for 60 minutes.

Table 1 compares the cost of the outsourced service with that of in in-house collaboration server. It is assumed that the company will purchase a 16-port collaboration server (assuming additional future demand) at a price of approximately \$1000 per port.

Cost components	Outsourced services	In-house equipment
# of conferencing minutes used	19,200	19,200
Audio conferencing rate per minute	\$0.15	
Long distance rate per minute		\$0.04
Audio conferencing charge for 19200 minutes	\$2,880	
Long distance charge for 9600 conferencing minutes (4 internal lines do not require long distance)		\$384
Web conferencing (5 seats)	\$500	\$0
Equipment cost (16 port bridge)		\$16,000
Additional 8 analog port cards for the PBX (2)		\$800
Installation		\$100
Maintenance (@12% of purchase price)		\$1,920
Total equipment cost		\$18,820
Amortized cost per month (60 month amortization schedule)		\$314
Total cost of audio and web conferencing per month	\$3,380	\$698
Monthly savings	\$2,682	
Breakeven period (in months)		8

Table 1

With the assumptions mentioned above, the ABC Small Inc will recoup its investment into the conferencing server in about 8 months and will enjoy monthly savings of approximately \$2600 per month or about 80% thereafter.

Medium size company case:

The company ABC Medium Inc. has 500 employees. It also provides a Toll-free number to its clients for dialing into the collaboration server when an audio conference call is needed. The audio conferencing service provider charges 14 cents per minute per person for audio conference call. The company has also taken 10 web conferencing seats and pays \$1000 per month for using that service. The company averages 3 eight party conference calls per day. On a typical call, out of eight participants there are four internal employees and four external users. The average call lasts for 60 minutes.

Table 2 compares the cost of the outsourced service with that of in in-house collaboration server. It is assumed that the company will purchase a 24-port

collaboration server (assuming additional future demand) at a price of approximately \$950 per port.

Cost components	Outsourced services	In-house equipment
# of conferencing minutes used	28,800	28,800
Audio conferencing rate per minute	\$0.14	
Long distance rate per minute		\$0.04
Audio conferencing charge for 28,800 minutes	\$4,032	
Long distance charge for 14,400 conferencing minutes (4 internal lines do not require long distance)		\$576
Web conferencing charge (10 seats)	\$1,000	\$0
Equipment cost (24 port bridge)		\$22,800
Additional T1 ports on the PBX		\$1,500
Installation		\$200
Maintenance (@12% of purchase price)		\$2,736
Total equipment cost		\$27,236
Amortized cost per month (60 month amortization schedule)		\$454
Total cost of audio and web conferencing	\$5,032	\$1,030
Monthly savings	\$4,002	
Breakeven period (in months)		7

Table 2

With the assumptions mentioned above, the ABC Medium Inc will recoup its investment into the conferencing server in about 7 months and will enjoy monthly savings of approximately \$4000 per month or about 80% thereafter.

Large company case:

The company ABC Large Inc. has 1000+ employees. It also provides a Toll-free number to its clients for dialing into the collaboration server when an audio conference call is needed. The audio conferencing service provider charges 12 cents per minute per person for audio conference call. The company has also taken 15 web conferencing seats and pays \$1500 per month for using that service. The company averages 6 eight party conference calls per day. On a typical call, out of eight participants there are four internal employees and four external users. The average call lasts for 60 minutes.

Table 3 compares the cost of the outsourced service with that of in in-house collaboration server. It is assumed that the company will purchase a 48-port collaboration server (assuming additional future demand) at a price of approximately \$900 per port.

Cost components	Outsourced services	In-house equipment
# of conferencing minutes used	57,600	57,600
Audio conferencing rate per minute	\$0.12	
Long distance rate per minute		\$0.04
Audio conferencing charge for 57,600 minutes	\$6,912	
Long distance charge for 28,800 conferencing minutes (4 internal lines do not require long distance)		\$1,008
Web conferencing charge (15 seats)	\$1,500	\$0
Equipment cost (48 port bridge)		\$43,200
Additional T1 ports on the PBX (2)		\$3,000
Installation		\$200
Maintenance (@12% of purchase price)		\$5,184
Total equipment cost		\$51,584
Amortized cost per month (60 month amortization schedule)		\$860
Total cost of audio and web conferencing	\$8,412	\$1,868
Monthly savings	\$6,544	
Breakeven period (in months)		8

Table 3

With the assumptions mentioned above, the ABC Large Inc will recoup its investment into the collaboration server in about 8 months and will enjoy monthly savings of approximately \$6500 or about 78% thereafter.

Looking at the three ROI models discussed above, it is obvious that bringing the audio and web conferencing services in-house makes good financial sense. The in-house collaboration server will typically pay for itself within 7-8 months and save approximately 75-80% on conferencing costs going forward.

Conclusion

This paper compared the prevalent outsourcing approach for meeting a company's audio and web conferencing needs with an in-house approach. The ROI model clearly shows that an organization that routinely uses audio and web conferencing services as part of its business processes can save substantial sum of money by switching to an in-house collaboration server. In addition to the monthly savings the company will benefit from improved employee productivity and reduced travel costs.