Selecting a Web Conferencing Solution. Case Study for a Non-Profit Organization

Presentation to the IEEE Toronto Section Executive Committee

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Abstract

Web conferencing has been acknowledged as a valuable organizational resource. Diverse geographically dispersed project teams gain benefits from real time online collaboration, e-learning and document sharing. Web conferencing tools have entered the mainstream of business applications and multiple vendors offer over 100 different types and systems. This presentation is showcasing an approach to defining business requirements and selecting a web conferencing tool for a local chapter of a non-profit professional organization (IEEE – Institute of Electrical and Electronic Engineers).

Key Words: web conferencing, webinar, webcasting, online meeting, virtual meeting, virtual team, collaboration, technology, business requirements, vendor evaluation, tool selection, non-profit.

Presentation Outline

- Developing web conferencing business requirements

- Exploring available options

- Selecting web conferencing tools

- Making recommendations for the next steps (pilot trials)

Methods and Resources

- Business Analysis

- Statistical analysis of the Google Analytics data

- Survey of the Needs and Expectations of the Events Organizers (sent to 37 ExCom members, 43% response rate)

- Literature review (analytical firms web conferencing rankings, vendors' websites)

- Consultations with vendors

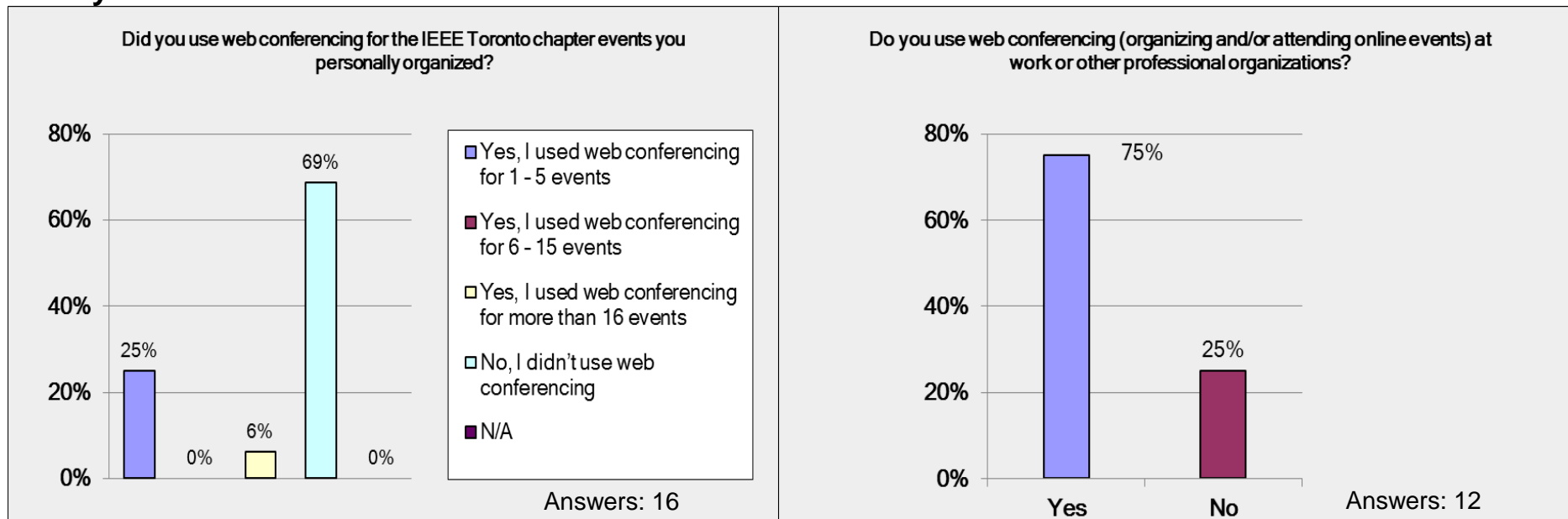# Web Conferencing Solution Selection Logic Model
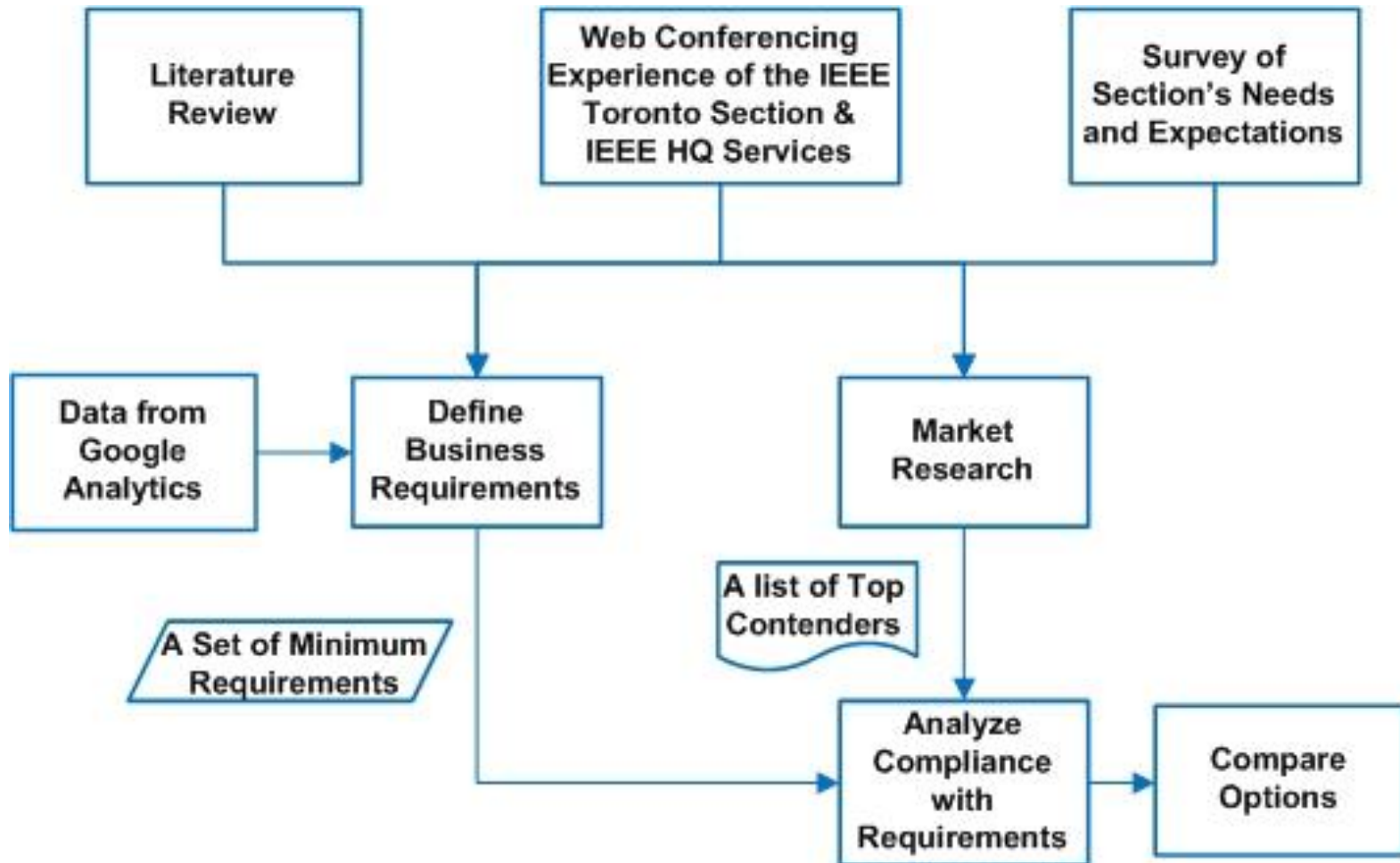
Web Conferencing Terminology
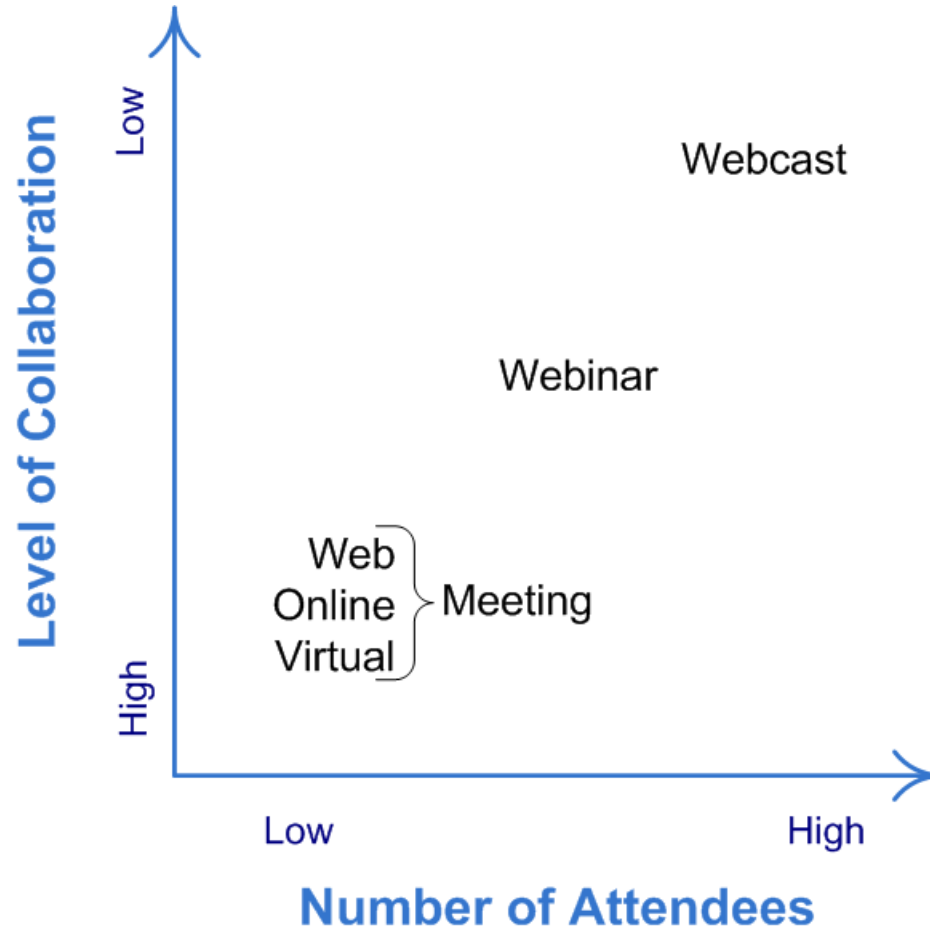
Section's Web Conferencing Experience

- IEEE Toronto Section has certain experience in using web conferencing:

  – IEEE Toronto International Conference: Science and Technology for Humanity (IEEE TIC-STH 2009) http://toronto.ieee.ca/tic-sth2009

  – Signals & Computational Intelligence Joint Chapter webinars – Bruno Di Stefano.

  – Aerospace and Electronic Systems Society (AESS) Chapter webinars – Hassan Kojori, Ali Nabavi.

Survey Results

Did you use web conferencing for the IEEE Toronto chapter events you personally organized?

25% 0% 6% 69% 0%

- Yes, I used web conferencing for 1 - 5 events
- Yes, I used web conferencing for 6 - 15 events
- Yes, I used web conferencing for more than 16 events
- No, I didn't use web conferencing
- N/A

Answers: 16

Do you use web conferencing (organizing and/or attending online events) at work or other professional organizations?

Yes 75%   No 25%

Answers: 12

Web Conferencing at IEEE TIC-STH 2009

- The use of the web conferencing technologies has been envisioned as a differentiating feature in the delivery of the IEEE TIC-STH 2009 since its inception (September 2008)

- A concept of **Truly Integrated (Onsite and Online) Conference (TIC)** was proposed:

  Multi-point worldwide-distributed network of conference online authors/participants will enhance the standard (centralized) IEEE conference model, which requires attendance of the participants in person at the main conference location.

  The participants are given a choice of delivering conference papers, tutorials, etc. either at the central conference site (hotel) or from their home/office computers wherever they are, eliminating the need of costly and time-consuming travel.

- The concept entails seamless integration of the onsite and online conference systems, including data/presentation, video, audio channels.

- IEEE TIC-STH 2009 was the first IEEE "Truly Integrated Conference".

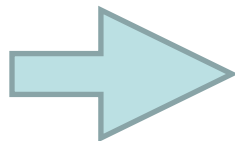- Analysis of the results is published in IEEE Canadian Review [10,11].

High-Level Business Requirements

- Web conferencing applications - complex systems that are usually defined with the help of several dozen requirements.

- This effort is focused on defining a Minimum set of requirements, i.e. no technical details, reflecting only high-level business needs.

- The purpose of this minimum set of business requirements is to guide the selection of the web conferencing vendor.

- Business requirements are determined by the answers to the following questions:
  - Who we are?
  - What is our target audience?
  - What is the scenario for using web conferencing (use case)?

High-Level Business Requirements (continued)

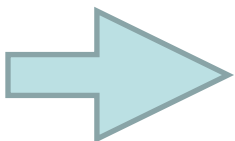- ## Who we are?

- Volunteer organization with no dedicated staff for event management, IT support, help desk. - Very tight budget.	- Solution should be easy to use for hosts, presenters, end-users. - Solution should not require any equipment other than standard personal computers.

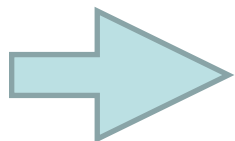- ## What is our online target audience?

Broad public using an unrestrained variety of personal and corporate/institutional computers. Section is unable to "enforce unification" in the technologies used.	- Solution should be able to support multiple types of operating systems and browsers. - Users (e.g. corporate) may not have admin rights to install any software.

- ## What is the scenario for using web conferencing (use case)?

Augment traditional classroom seminars with internet broadcasting. Online attendees should have learning/ collaboration experiences similar to those of on-site participants.	Solution should provide online attendees abilities to: • listen (audio channel) to presenter; • see (video channel) the presenter/audience; • see the slides (data); • ask questions (text chat).

Webinar Use Case

- Single host at the event site

- Presenter is located at the event site

- Simultaneous sessions are possible, but not likely.

- Solution should provide:
  - audio channel;
  - video channel;
  - data channel;
  - text chat.
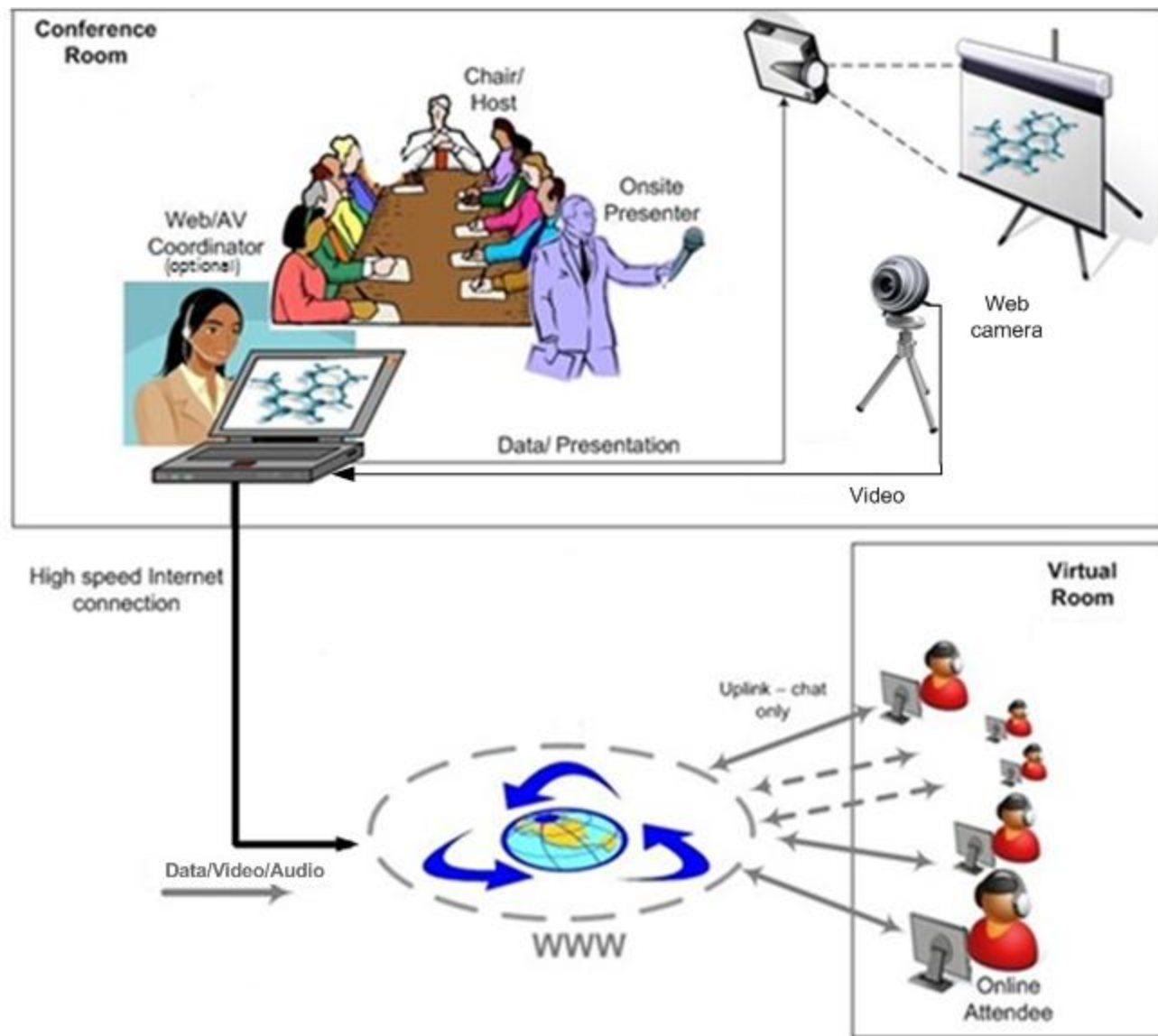
Second Use Case – Online Only Events

The prime scenario of using web conferencing in the Section is to augment our traditional classroom events with internet broadcasting of the presentations for online attendees. The second scenario is to organize completely online events (all attendees are participating from their own computers). How important/useful is the second scenario?
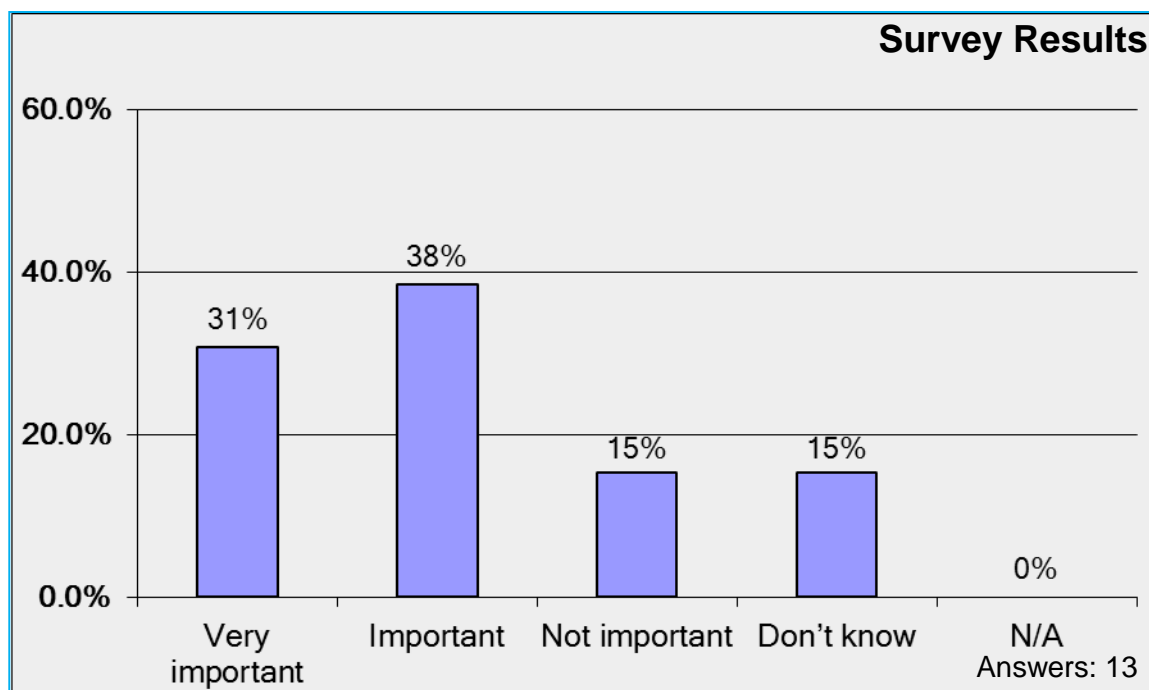
This scenario was not considered at this point.

Software as a Service (SaaS)

- Methods of software application delivery: on-premises, cloud or hybrid.

- The Section doesn't have capabilities (neither workforce, nor budget) to develop and maintain it's own information technology infrastructure.

- Another need is portability of the web conferencing tool – ability to be used from any location.

- SaaS (Software as a Service) model means that the software is web based, hosted by the service provider on the Cloud and accessed by users when it's needed.

Requirement
The web conferencing solution shall be delivered according to a SaaS (cloud-based) model.

Fully Browser-based

- Attendees may be using corporate/institutional computers for which they do not have administrative rights. In this case, they are not able to install any software.

- Web conferencing application should require only web browser as a user interface on the attendee's computer.

Requirement
The web conferencing solution shall be fully browser-based.

Defining the Audience Needs with Google Analytics Data

- Google Analytics data has been used to determine what types of operating systems and browsers must be supported by the web conferencing solution.

- By using Google Analytics, we ensure that we base our requirements on the needs of our actual members/participants.

- Google Analytics (*www.google.ca/analytics*) internet traffic and visitors' computer parameters for the following websites were analyzed:

  - 24th Canadian Conference on Electrical and Computer Engineering, 2011 (CCECE2011, Niagara Falls, ON. http://ieee.ca/ccece11). From May 1, 2010 to Aug 13, 2013. Visits 23,854. Unique 14,650.

  - IEEE Toronto Section (http://toronto.ieee.ca). From May 1, 2010 to Aug 12, 2013. Visits 1,892. Unique 1,556.

  - IEEE Electrical Power and Energy Conference (EPEC2012, London, ON. http://www.ieee.ca/epec12). From Aug 1, 2011 to Aug 13, 2013. Visits 15,857. Unique 8,032.

Google Analytics: IEEE Toronto Section Website
From Nov. 22, 2008 to Aug. 15, 2013

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Google Analytics: User Operating Systems

- Support must be provided for the operating systems that are used by the majority of the participants:
  - Windows – used by 87 – 88%;
  - Macintosh – used by 6 – 9%;
  - Linux – used by 2 – 4%
- Other operating systems used: Android, iPad, iPhone, iPod, iOS, BlackBerry, SymbianOS, FreeBSD, Nokia, OS/2, Windows Phone, SunOS, Firefox OS
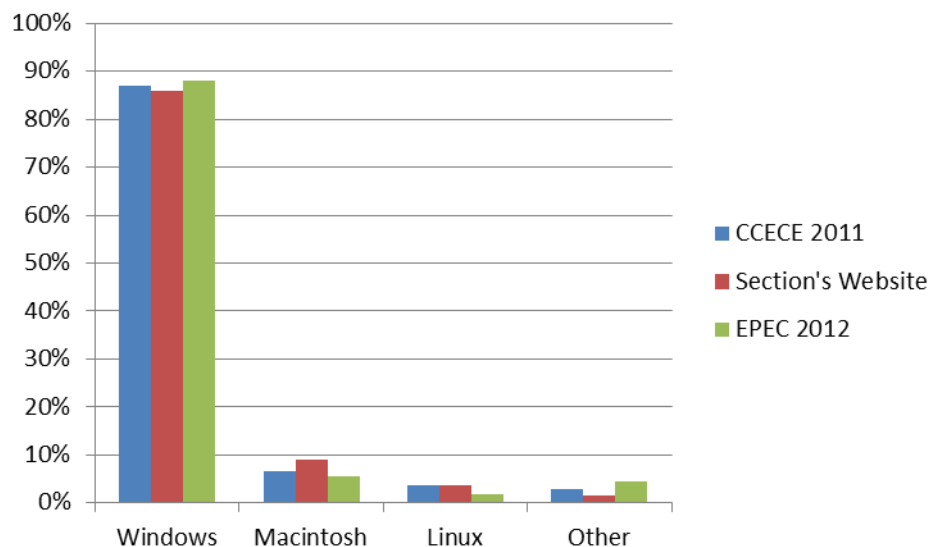
	CCECE 2011	Section's Website	EPEC 2012
Windows	86.9%	85.8%	88.0%
Macintosh	6.5%	9.1%	5.6%
Linux	3.7%	3.7%	1.9%
Other	3.0%	1.5%	4.5%

Requirement   The web conferencing solution shall support Windows, Macintosh and Linux operating systems.

Google Analytics: User Browsers

- Support must be provided for the browsers that are used by the majority of the participants:
  - Internet Explorer – used by 35 – 37%;
  - Firefox – used by 27 – 36%;
  - Chrome – used by 20 – 28%;
  - Safari – used by 5 – 6%
- Other browsers used: Android Browser, BlackBerry (various versions), Camino, HTC_Touch_Pro2_T7373, IE with Chrome Frame, JUC, Konqueror, Maxthon, Mozilla, Netscape, Nokia (various versions), Opera, Opera Mini, OurBrowser, SeaMonkey, UCWEB.
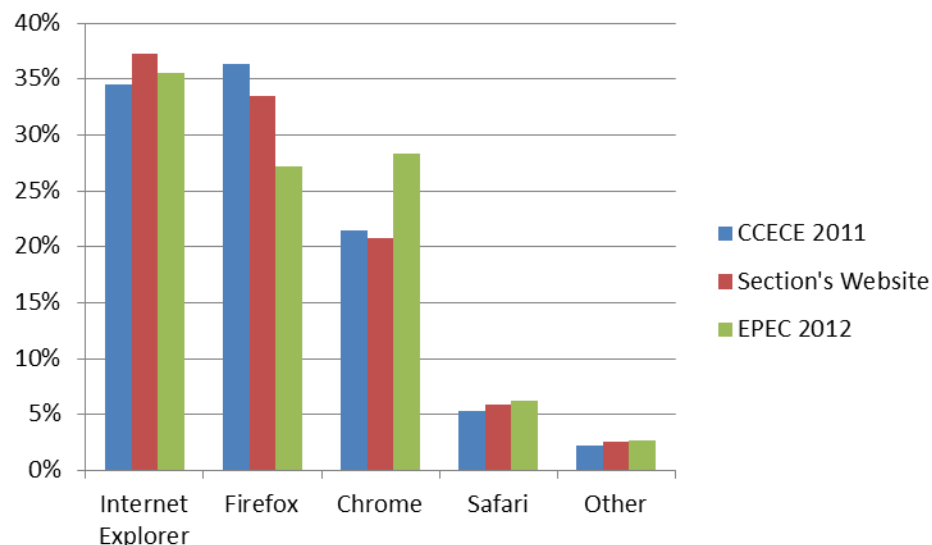
	CCECE 2011	Section's Website	EPEC 2012
Internet Explorer	34.6%	37.3%	35.5%
Firefox	36.4%	33.5%	27.2%
Chrome	21.4%	20.8%	28.3%
Safari	5.4%	5.9%	6.3%
Other	2.2%	2.6%	2.7%

Requirement   The web conferencing solution shall support Internet Explorer, Firefox, Chrome, Safari browsers.

Functional Requirements: Audio - VoIP

- Presenter's voice should be transmitted through Voice over IP to avoid additional costs.
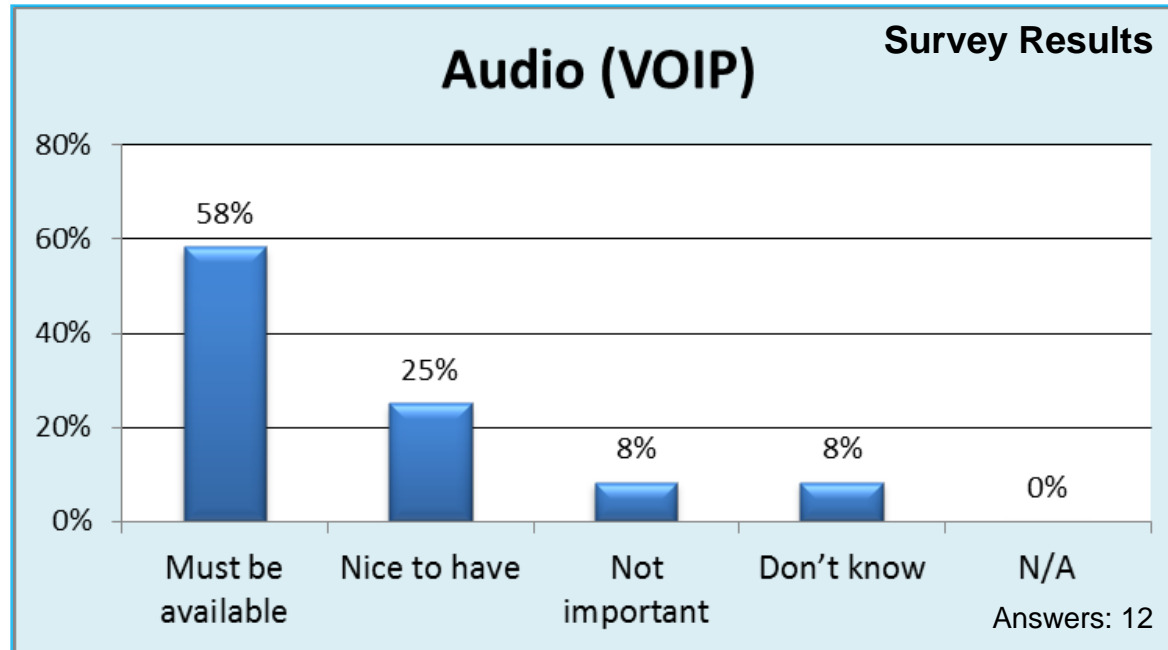
Audio (VOIP) — Survey Results

Category	Percentage
Must be available	58%
Nice to have	25%
Not important	8%
Don't know	8%
N/A	0%

Answers: 12

Requirement   The web conferencing solution shall provide audio channel through Voice over IP (VoIP).

Note: Communication of presentation slides (in PowerPoint or pdf formats) is an inherent feature of web conferencing applications and is not used as a selection criteria.

Functional Requirements: Audio - Teleconferencing

- The survey shows strong support for the use of phones and teleconferencing bridge for audio.

Survey Results

Audio - Teleconferencing

54%
23%
8%
0%
8%

Must be available | Nice to have | Not important | Don't know | N/A

Answers: 12
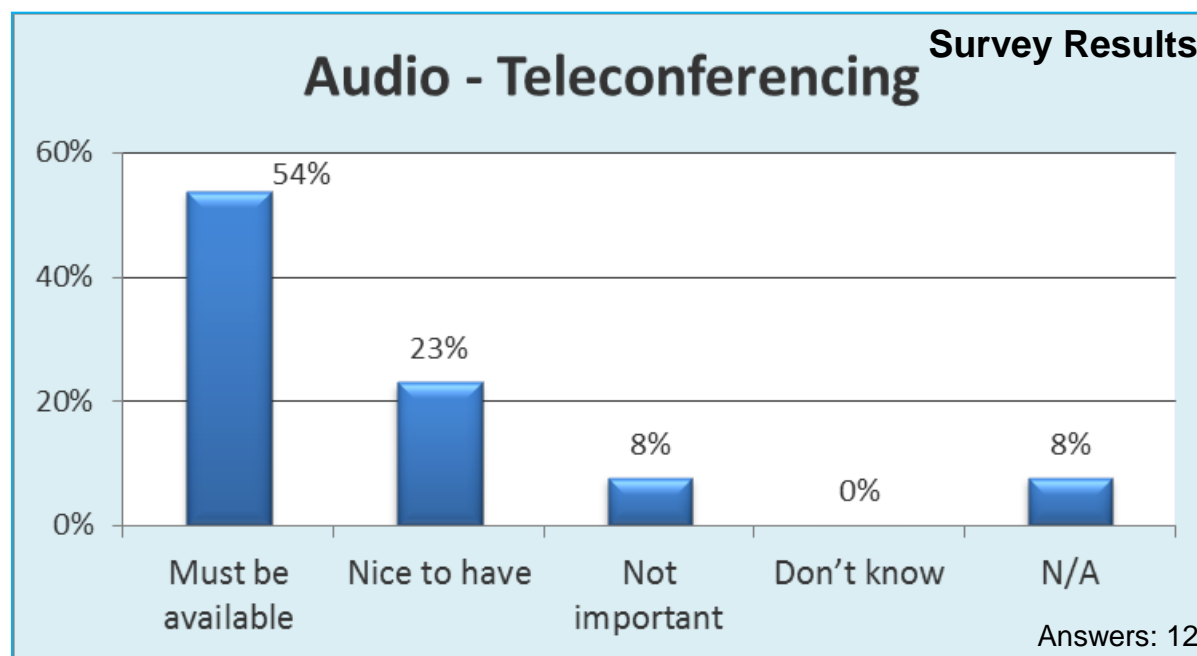
- On the one hand, phones, arguably, provide better sound quality than VoIP.

- On the other, this approach contradicts with the main requirement – simplicity and ease of use - by adding new type of equipment. Also, the cost of teleconferencing may be high.

- Provision of a teleconferencing bridge can be considered additional benefit giving attendees a choice (for better sound quality – use phone lines, but you pay for it).

- Teleconferencing was not included in the minimum set of requirements at this point.

Functional Requirements: Video

- Providing a current video image from an on-site web camera to attendees will allow for better experience.

Video/web cam

Survey Results

Category	Percentage
Must be available	42%
Nice to have	42%
Not important	17%
Don't know	0%
N/A	0%
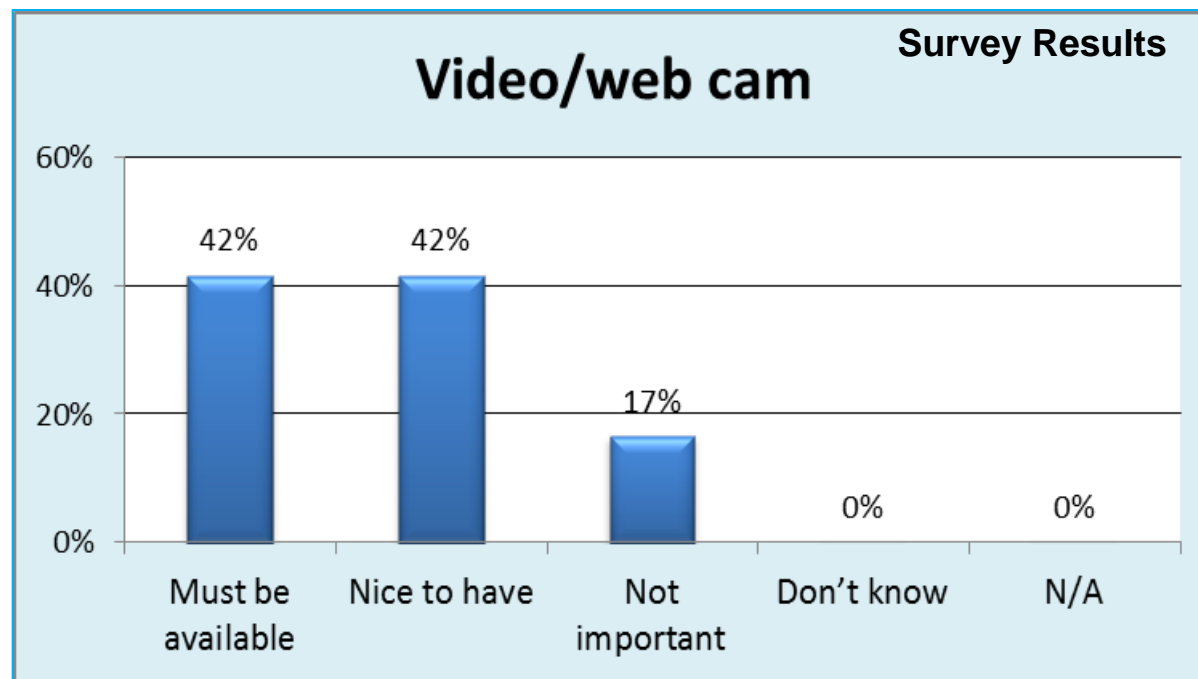
Requirement The web conferencing solution shall provide video.

Functional Requirements: Text Chat

- **Text chat (feedback).** The main purpose of text chatting is to enable attendees to ask questions and send feedback to the presenter.

Survey Results

Chat Feedback

- 46% — Must be available
- 31% — Nice to have
- 23% — Not important
- 0% — Don't know
- 0% — N/A

Answers: 13
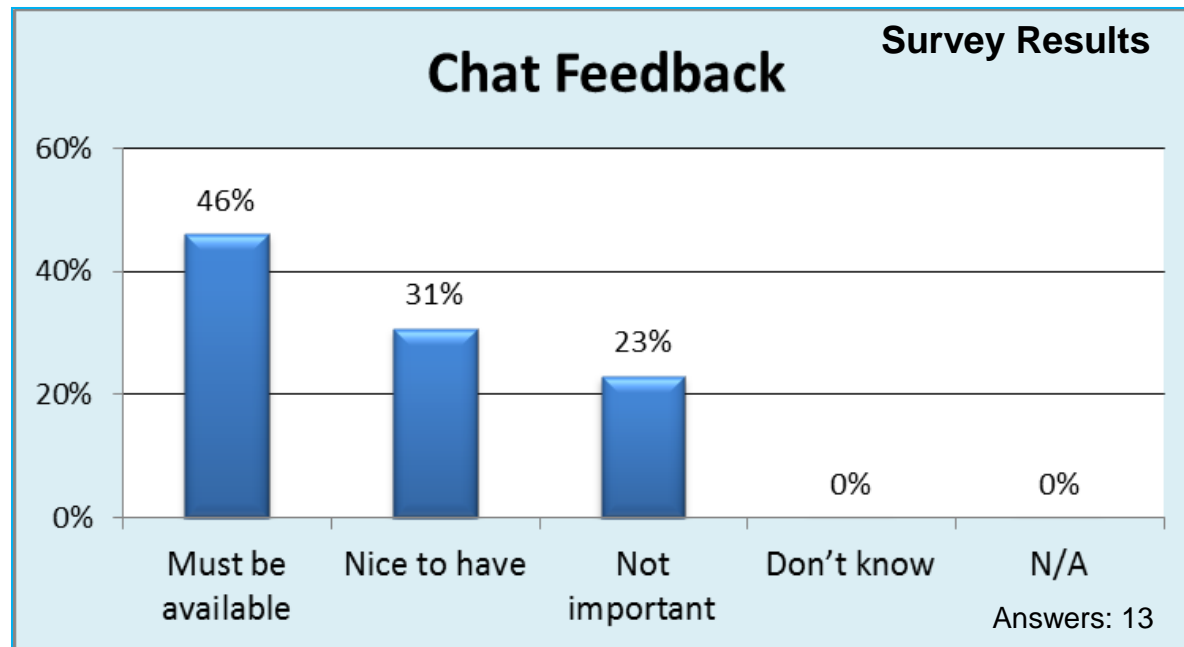
Requirement	
	The web conferencing solution shall provide texting capability.

Other Functional Requirements

- Several other web conferencing functionalities were evaluated in the survey, but didn't get much support as "Must Be Available".

Survey Results

Options	Must be available	Nice to have	Not important	Don't know
Data (multimedia, HD video)	33%	67%	0%	0%
Polling	25%	58%	8%	8%
Whiteboard	25%	42%	25%	8%
Screen sharing	17%	58%	25%	0%

Answers: 12

- These functionalities were not included in the minimum requirements set.

Number of Attendees

- Number of attendees that can connect to the system simultaneously vary from vendor to vendor.

- The survey has shown expectations of the chapters.

What is the largest number of online attendees that your chapter's regular events could attract (and the web conferencing application should be able to support)?
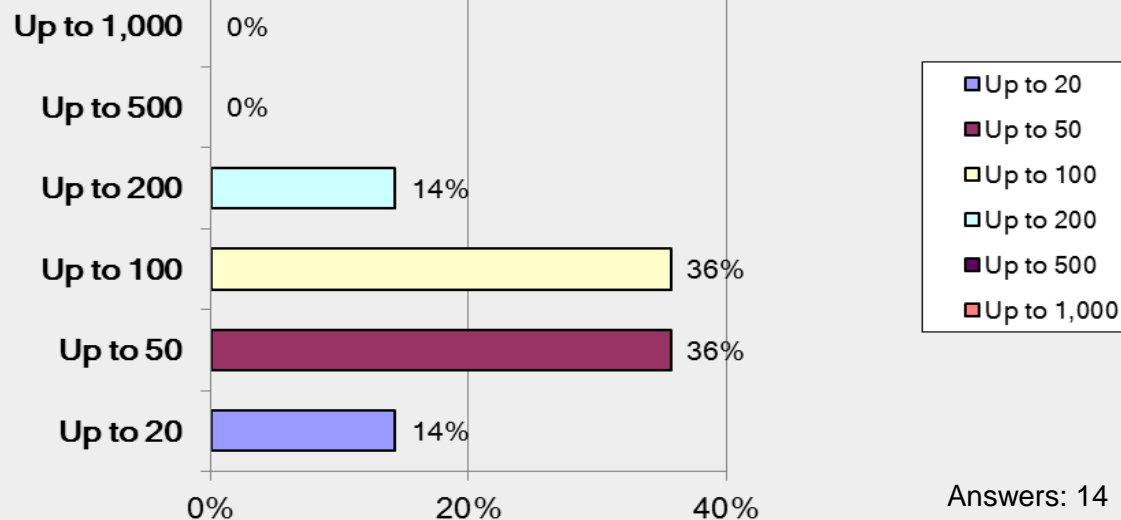
Category	Percentage
Up to 1,000	0%
Up to 500	0%
Up to 200	14%
Up to 100	36%
Up to 50	36%
Up to 20	14%

Legend:
- Up to 20
- Up to 50
- Up to 100
- Up to 200
- Up to 500
- Up to 1,000

Answers: 14

Requirement   The web conferencing solution shall be able to accommodate connection of minimum one hundred (100) simultaneous attendees.

Other Selection Criteria

- Before subscribing to a web conferencing service, we'll need to perform hands-on testing.

- Provision of a free trial period (from two weeks to a month) is a standard offer of web conferencing vendors.

Requirement

The web conferencing vendor shall provide a trial period free of charge.

- Web conferencing services have become a "commodity" and prices for standard services are usually published.

- If prices are not available, and in order to get prices customer needs to submit a formal request or talk with an "implementation manager" that can mean that the system is either too complex (and requires customization) or prices are too high.

- In some cases, prices need to be clarified, but still basic prices should be available on the vendor's website.

Requirement

The web conferencing vendor shall have openly published prices.

Section's Business Requirements - at a Glance

1. The web conferencing solution shall be delivered according to a SaaS (cloud-based) model.

2. The web conferencing solution shall be fully browser-based.

3. The web conferencing solution shall support Windows, Macintosh and Linux operating systems.

4. The web conferencing solution shall support Internet Explorer, Firefox, Chrome, Safari browsers.

5. The web conferencing solution shall provide audio channel through Voice over IP (VoIP).

6. The web conferencing solution shall provide video.

7. The web conferencing solution shall provide texting capability.

8. The web conferencing solution shall be able to accommodate connection of minimum one hundred (100) simultaneous attendees.

9. The web conferencing vendor shall have openly published prices.

10. The web conferencing vendor shall provide a trial period free of charge.

Web Conferencing Tools

Over 100 web conferencing tools are available on the market.

Application	Ref	Application	Ref	Application	Ref	Application	Ref
4Webcom	4	Fuze Meeting	8	Mega Meeting	5	Skype Conferencing	3
AccuConference	4	FuzeBox	2	Microsoft Lync	4	SMART Bridgit 4.0	8
Adobe Connect	4	Gather Place	5	Microsoft NetMeeting	8	Spreed Meeting	8
AnyMeeting	4	Genesys Meeting Center	4	Microsoft Office Communications Server	1	TalkPoint	6
Arkadin	3	Glance.net	3	Microsoft Office Live Meeting	3	TeamHangout	4
AT&T Connect 9.3	8	Global Crossing Web Meeting	1	Mikogo	4	TeamViewer 8	8
AVIDO Web Conference	4	GoMeetNow	4	Nefsis Web Conferencing	5	Teleskill Live	4
BabelTree	4	Google Open Meetings	3	Netspoke PGi	1	Teletaleem	4
Banckle Online Meeting	4	GoToMeeting	9	Netviewer	4	Tokbox	4
Beam Your Screen	3	GVConference	7	Omnijoin	4	Ubipitch	4
BigBlueButton	4	Hot Comm	3	omNovia Web Conference	8	VenueGen	4
Blackboard Collaborate	8	Hot Conference	3	On Stream Media	3	VeriShow	4
Bridgit	3	HP Virtual Rooms	3	ON24	6	VIA3 Professional Edition	8
Brother OmniJoin	8	Huddle	3	OnSync	3	Video Seminar Live	5
BuddyMeeting	4	IBM Lotus Sametime	4	Open Text Eloquent Media Server	3	VoxWire Webinars	5
Cisco Unified Meeting Place	3	IBM SmartCloud Meetings	8	Openmeetings	4	Vyew	5
Cisco WebEx Event Center	5	ICU Live!	4	PGi GlobalMeet	8	Watchitoo	5
Citrix GotoMeeting	4	iLinc	4	PharmaCAST|PharMethod	4	WebHuddle	4
Citrix GoToWebinar	5	Infinite Conferencing	9	Pow Wow Now	3	WebTrain	4
Click Webinar	5	Instant Presenter	5	Presenter Net	3	WizIQ	4
ClickMeeting	8	InterCall Unified Meeting	8	Project Place	5	Yugma Webinar	5
Collaborate Blackboard	2	InterCall Webcast Studio	5	R Hub Communications	3	Yuuguu	3
Communique Conferencing	3	Interwise	3	RadVision	3	Zoho Meeting	5
Connect AT&T	1	INXPO	6	ReadyTalk Webinars	5		
Dialcome	2	iVocalize	8	RHUB GoMeetNow (TurboMeeting)	8		
Digital Meeting	8	Live Meetings IBM Lotus	1	SaasBoard	4		
eLecta Live	4	LiveOn	4	Saba Webinar	5		
FaceMe Web Conference	4	Meetecho	4	Same Page	3		
FastViewer	4	Meeting Burner	5	Sametime IBM Lotus	1		

To shorten the list, several (eight) published industry rankings of top web conferencing tools have been used including ones from Forrester and Gartner research firms.

Forrester Research [1]

	Rank	Score
Connect AT&T	1	10
Connect Adobe	2	9
Sametime IBM Lotus	3	8
Microsoft Office Communications Server	4	7
WebEx Cisco	5	6
Netspoke PGi	6	5
Microsoft Office Live Meeting	7	4
Unified Meeting InterCall	8	3
LotusLive Meetings IBM Lotus	9	2
Global Crossing Web Meeting	10	1

Forrester research does not explicitly rank the tools in its Forrester Wave™. Rankings shown in the table are based on the Forrester's "Current Offering" scoring (assessments of the companies' Strategy and Market Presence were not used due to the objective of this evaluation).

For this and other rankings:

- Only top ten tools were included for further consideration (some rankings had more than 10 contenders listed).
- Each tool has been assigned a score reversed to its rank (e.g. Rank 1 was given Score 10)

1. Forrester Research, Inc. (2010), By Ted Schadler, The Forrester Wave™: Web Conferencing, Q2 2010. July 25, 2010. http://www.forrester.com/search?N=20062+10001&sort=3&everything=true&source=browse&#/The+Forrester+Wave+Web+Conferencing+Q2+2010/quickscan/-/E-RES48064 Accessed August 2, Full Report at: http://wwwimages.adobe.com/www.adobe.com/content/dam/Adobe/en/enterprise/pdfs/wave-web-conferencing-q2-2010.pdf Accessed August 2, 2013

Gartner Research [2]

	Rank	Score
WebEx Cisco	1	10
Connect Adobe	2	9
Microsoft	3	8
Citrix Online	4	7
Sametime IBM Lotus	5	6
Saba	6	5
Connect AT&T	7	4
PGi	8	3
Unified Meeting InterCall	9	2
Dialcom	10	1

Gartner research does not assign quantitative ranks to the tools in its Magic Quadrant™. Rankings shown in the table are based on the Gartner's "Ability to Execute" visualization (assessments of the companies' Completeness of Vision were not used due to the objective of this evaluation).

2. Gartner Research (2012), By David Mario Smith, Whit Andrews. Magic Quadrant for Web Conferencing. December 10, 2012. http://www.gartner.com/technology/reprints.do?id=1-1D78VS4&ct=121212&st=sb

Web Conferencing Tools Rankings (continued 1)

Number1Reviews.com – Webinar Services [5]

	Rank	Score
GoToWebinar	1	10
Click Webinar	2	9
Adobe Connect Webinars	3	8
Cisco WebEx Event Center	4	7
Omnovia	5	6
Instant Presenter	6	5
InterCall Webcast Studio	7	4
Infinite Conferencing	8	3
Zoho Meeting	9	2
Mega Meeting	10	1

Number1Reviews.com – Web Conferencing [5]

	Rank	Score
GoToMeeting	1	10
Webex Meet Me Now	2	9
Acrobat Connect	3	8
Nefsis	4	7
Glance.net	5	6
Skype Conferencing	6	5
Omnovia	7	4
Yugma Pro	8	3
Yuuguu	9	2
Cisco Unified Meeting Place	10	1

5. Reviews of the Best Webinar Services. No1Reviews.com. http://webinar-services.no1reviews.com Accessed August 2, 2013

Web Conferencing Tools Rankings (continued 2)

BestTopTrends.com [6]

	Rank	Score
Adobe Connect	1	10
Onstream Media	2	9
INXPO	3	8
ON24	4	7
TalkPoint	5	6
MegaMeeting	6	5
ClickMeeting	7	4
Cisco WebEx	8	3
Video Seminar Live	9	2
InstantPresenter	10	1

BestWebinar.com [7]

	Rank	Score
FuzeBox	1	10
GoToMeeting	2	9
GoMeetNow	3	8
ClickMeeting	4	7
AnyMeeting	5	6
Instant Presenter	6	5
GVConference	7	4
Glance	8	3
Yuuguu	9	2
Voxwire	10	1

6. David Fabyo. Top 10 Best Webcasting Services 2013 Lists. http://best10trends.com/best-webcasting-services Accessed August 2, 2013

7. Top Webinar Providers. BestWebinar.com. http://www.bestwebinar.com/top-10-webinar-providers Accessed August 2, 2013

Web Conferencing Tools Rankings (continued 3)

WebConferencing-Test.com [8]

	Rank	Score
Citrix GoToMeeting 5.5	1	10
Mikogo 4.7 (BeamYourScreen)	2	9
FastViewer Instant Meeting	3	8
TeamViewer 8	4	7
ClickMeeting	5	6
WebEx Meetings Premium	6	5
RHUB GoMeetNow (TurboMeeting)	7	4
Adobe Connect 9	8	3
Saba Meeting 8	9	2
Spreed Meeting	10	1

TopTenReviews.com [9]

	Rank	Score
Infinite Conferencing	1	10
InterCall	2	9
ClickMeeting	3	8
ReadyTalk	4	7
Adobe Connect Pro	5	6
MegaMeeting	6	5
GoToMeeting	7	4
FUZE Meeting	8	3
iLinc	9	2
WebEx	10	1

8. Rating and comparison of online conferencing and webinar software. http://webconferencing-test.com/en/online-meeting-home Accessed August 2, 2013
9. 2013 Best Web Conferencing Service Reviews. Top Ten Reviews http://web-conferencing-services.toptenreviews.com Accessed August 2, 2013

A Combined List of Top Ranking Tools

Vendor, Product	Total Score
Adobe Connect	53
Citrix GoToWebinar	50
Cisco WebEx	41
Click Webinar	34
InterCall Unified Meeting	18
AT&T Connect	14
IBM Lotus Sametime	14
Fuze	13
Infinite Conferencing	13
RHUB GoMeetNow	12
Microsoft Office Live Meeting	12
Mega Meeting	11
Instant Presenter	11
Omnovia	10

Vendor, Product (continued)	Total Score
Onstream Media	9
Mikogo	9
Glance.net	9
GlobalMeet PGi	8
INXPO XPOCAST	8
FastViewer Instant Meeting	8
Saba Meeting	7
Microsoft Office Communications Server	7
Nefsis	7
ON24	7
TeamViewer 8	7
ReadyTalk	7
TalkPoint	6

Vendor, Product (continued)	Total Score
AnyMeeting	6
Skype Conferencing	5
Yuuguu	4
GVOConference	4
Yugma Pro	3
LotusLive Meetings IBM Lotus	2
Zoho Meeting	2
Video Seminar Live	2
iLinc	2
Global Crossing Web Meeting	1
Dialcom	1
Voxwire	1
Spreed Meeting	1
Cisco Unified Meeting Place	1

- A combined list has 42 products (compared to over 100 on the initial list).

- Top three products on the list are Adobe Connect, Citrix GoToWebinar and Cisco WebEx – well-known web conferencing market leaders with over 80% of market share. That confirms consistency of the approach and results.

- The way this list was complied ensures at least vendors' viability.

- However, the question of how good are the products in meeting our specific requirements remains open.

Compliance with Section-Specific Requirements

Vendor, Product	SaaS	Browser-based (No software to install for attendees)	Operating Systems Support: Windows, Mac, Linux	Browsers Support: Internet Explorer, Firefox, Chrome, Safari	Audio (VOIP)	Video	Text Chat	Number of Attendees 100 or more	Free Trial	Published Prices	Comment	Compliance with Requirements
Adobe Connect	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash Player	**C**
Citrix GoToWebinar	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes		**No**
Cisco WebEx	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Java	**C**
Click Webinar	Yes	Yes/No	No	Yes	Yes	Yes	Yes	Yes	Yes		No Linux. Adobe Flash	**No**
InterCall Unified Meeting	Yes	Yes	No	Yes	Yes	Yes		Yes	Yes	No	No Linux. Host must download s/w.	**No**
AT&T Connect		No			Yes							**No**
IBM Lotus Sametime	No											**No**
FuzeBox Fuse Meeting	Yes	No			Yes	Yes	Yes	Yes	Yes	Yes		**No**
Onstream Media Corporation Infinite Conferencing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		**Yes**
RHUB GoMeetNow (TurboMeeting)	Yes	Yes			No	Yes	Yes		Yes	Yes		**No**
Microsoft Office Live Meeting	No	No			Yes	Yes			Yes			**No**
MegaMeeting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		**Yes**
InstantPresenter	Yes	Yes/No	No	Yes	Yes	Yes		Yes	Yes	Yes	No Linux. Adobe Flash.	**No**
omNovia Technologies Omnovia	Yes	Yes/No			Yes	Yes		Yes	Yes	No	Adobe Flash Player	**No**
Onstream Media Visual Webcaster	Yes	Yes			Yes	Yes	Yes			No		**No**
Mikogo 4.7 (BeamYourScreen)	Yes	Yes			No			No	Yes	Yes		**No**
Glance.net	Yes	Yes			No			Yes	Yes			**No**
GlobalMeet PGi	Yes	Yes/No	No		Yes	Yes	Yes	Yes	Yes	Yes	No Linux. Javascript and Adobe Flash.	**No**
INXPO XPOCAST	Yes	Yes			Yes	Yes	Yes		No	No		**No**

- "Yes/No" stands for requirement is met partially.
- "C" stands for compliance with requirements is conditional.
- Non-compliance is marked with red font.

Compliance with Section-Specific Requirements (continued)

Vendor, Product	SaaS	Browser-based (No software to install for attendees)	Operating Systems Support: Windows, Mac, Linux	Browsers Support: Internet Explorer, Firefox, Chrome, Safari	Audio (VOIP)	Video	Text Chat	Number of Attendees 100 or more	Free Trial	Published Prices	Comment	Compliance with Requirements
FastViewer Instant Meeting	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes		No
Saba Meeting (SABA Webinar)	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Java Applet	C
Microsoft Lync	Yes	No			Yes	Yes		Yes	Yes	Yes		No
Nefsis	Yes				Yes	Yes		Yes	Yes	No		No
ON24	Yes	Yes			Yes	Yes	Yes	Yes	Yes	No		No
TeamViewer 8	Yes				Yes	Yes	Yes	No		Yes		No
ReadyTalk	Yes	Yes/No	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Java and Adobe Flash	C
TalkPoint	Yes	Yes			Yes				No	No		No
AnyMeeting	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash	C
Skype Conferencing	Yes	No			Yes	Yes		No	Yes	Yes		No
Yuuguu					No				Yes			No
GVO Conference	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No Linux	No
Yugma		No			No	No						No
IBM LotusLive Meetings	Yes	Yes			No				Yes			No
Cisco Unified Meeting Place	No											No
Desire2Learn Web Capture (ePresence)	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash	C

- The table was not intended to be fully completed. Information for each tool was collected until the first instance of non-compliance.

- Information was gathered from a variety of sources: vendor documents, third-party materials.

- Information was gathered in June – August 2013 and its currency couldn't be warranted in a dynamic market.

- Additional clarifications were requested and received from some vendors by email (GoToWebinar, WebEx, Fastview, Onstream Media Corporation Infinite Conferencing, Adobe Connect, Saba, MegaMeeting).

Section-Specific Requirements Matrix - Finalists

Vendor, Product	SaaS	Browser-based (No software to install for attendees)	Operating Systems Support: Windows, Mac, Linux	Browsers Support: Internet Explorer, Firefox, Chrome, Safari	Audio (VOIP)	Video	Text Chat	Number of Attendees 100 or more	Free Trial	Published Prices	Comment	Compliance with Requirements
MegaMeeting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		**Yes**
Onstream Media Corporation Infinite Conferencing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		**Yes**
Adobe Connect	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash	**C**
AnyMeeting	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash	**C**
Cisco WebEx	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Java	**C**
Desire2Learn Web Capture (ePresence)	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Adobe Flash	**C**
ReadyTalk	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Java and Adobe Flash	**C**
Saba Meeting (SABA Webinar)	Yes	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Java Applet	**C**

- Only two (2) tools were found to meet all requirements: MegaMeeting and Onstream Media Corporation Infinite Conferencing.

- Another six (6) tools could be considered conditionally. The issue with these tools is that they require installation of Adobe Flash software, i.e. they are not fully browser-based. Verification is required as some tools may need Adobe Flash only for certain modes (which may or may not include webinars).
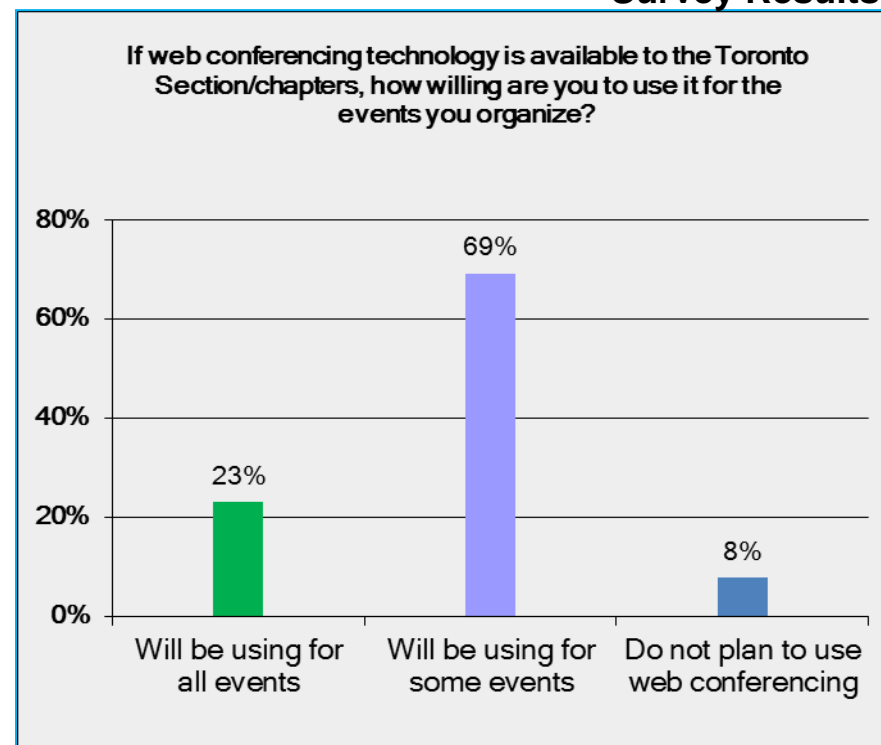
IEEE Remote Conferencing

- IEEE HQ web conferencing is part of vTools.

- Currently, IEEE is migrating from a variety of Remote Conference solutions for staff and volunteers (moving from the use of Dim-Dim to InterCall and WebEx).

- Migration to WebEx solution is currently in progress.
  http://www.ieee.org/about/volunteers/remote_conferencing/faq_page_vol_remote_conf.html

- The service is available to MGA Board members and MGA Board Committees, as well as Region and Section executive committee officers.

- The WebEx service provided to geographic organizational units (OUs) by IEEE MGA is not self-administered. Meeting set up request turn-around time is five (5) business days.

Challenges of Using Web Conferencing

- Additional workload for organizers before and during the event. Most likely a dedicated web conferencing coordinator needed for each event (especially for Q&A sessions).

- Some presenters are unwilling to broadcast their lectures to an unlimited/unknown audience.

- Financial. Annual web conferencing subscription is in the range of $1,000 - $1,500 (teleconferencing charges not included).

- Legal/copyright issues for web conferencing are far from being clear.

Survey Results

If web conferencing technology is available to the Toronto Section/chapters, how willing are you to use it for the events you organize?

- Will be using for all events: 23%
- Will be using for some events: 69%
- Do not plan to use web conferencing: 8%

Answers: 13

Next Steps – Discussion and Suggestions

- Form a team of volunteers for the next phase of the web conferencing tool selection.

- Conduct a comparative hands-on (free) testing of the tools which meet all requirements:

  – MegaMeeting - www.megameeting.com

  – Infinite Conferencing from Onstream Media Corporation - www.onstreammedia.com

References

1. Forrester Research, Inc. (2010), By Ted Schadler, The Forrester Wave™: Web Conferencing, Q2 2010. July 25, 2010. http://www.forrester.com/search?N=20062+10001&sort=3&everything=true&source=browse&#/The+Forrester+Wave+Web+Conferencing+Q2+2010/quickscan/-/E-RES48064 Accessed August 2, Full Report at: http://wwwimages.adobe.com/www.adobe.com/content/dam/Adobe/en/enterprise/pdfs/wave-web-conferencing-q2-2010.pdf Accessed August 2, 2013

2. Gartner Research (2012), By David Mario Smith, Whit Andrews. Magic Quadrant for Web Conferencing. December 10, 2012. http://www.gartner.com/technology/reprints.do?id=1-1D78VS4&ct=121212&st=sb

3. Reviews of the Best Web Conferencing Services. No1Reviews.com. http://web-conferencing.no1reviews.com Accessed August 2, 2013

4. Comparison of Web Conferencing Software. Wikipedia, the Free Encyclopedia. http://en.wikipedia.org/wiki/Comparison_of_web_conferencing_software Accessed August 2, 2013

5. Reviews of the Best Webinar Services. No1Reviews.com. http://webinar-services.no1reviews.com Accessed August 2, 2013

6. David Fabyo. Top 10 Best Webcasting Services 2013 Lists. http://best10trends.com/best-webcasting-services Accessed August 2, 2013

References (continued)

7.   Top Webinar Providers. BestWebinar.com. http://www.bestwebinar.com/top-10-webinar-providers Accessed August 2, 2013

8.   Rating and comparison of online conferencing and webinar software. http://webconferencing-test.com/en/online-meeting-home Accessed August 2, 2013

9.   2013 Best Web Conferencing Service Reviews. Top Ten Reviews http://web-conferencing-services.toptenreviews.com Accessed August 2, 2013

10. A. Botchkarev, L. Zhao, H. Rasouli "Designing a Truly Integrated (Onsite and Online) Conference: Concept, Processes, Solutions". *IEEE Canadian Review,* Winter 2010, No. 62, pp. 15 - 19. Full text PDF. ICR online.

(Results of the same project as above, a full-length article)
11. A. Botchkarev, L. Zhao, H. Rasouli "Designing a Truly Integrated (Onsite and Online) Conference: Concept, Processes, Solutions". http://arxiv.org/ftp/arxiv/papers/1001/1001.1794.pdf, 2010. Full text PDF.

Q & A

The views, opinions and conclusions expressed in this document are those of the author alone, and do not necessarily represent the views of the Ontario Ministry of Health and Long-Term Care or any of its individual departments.

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