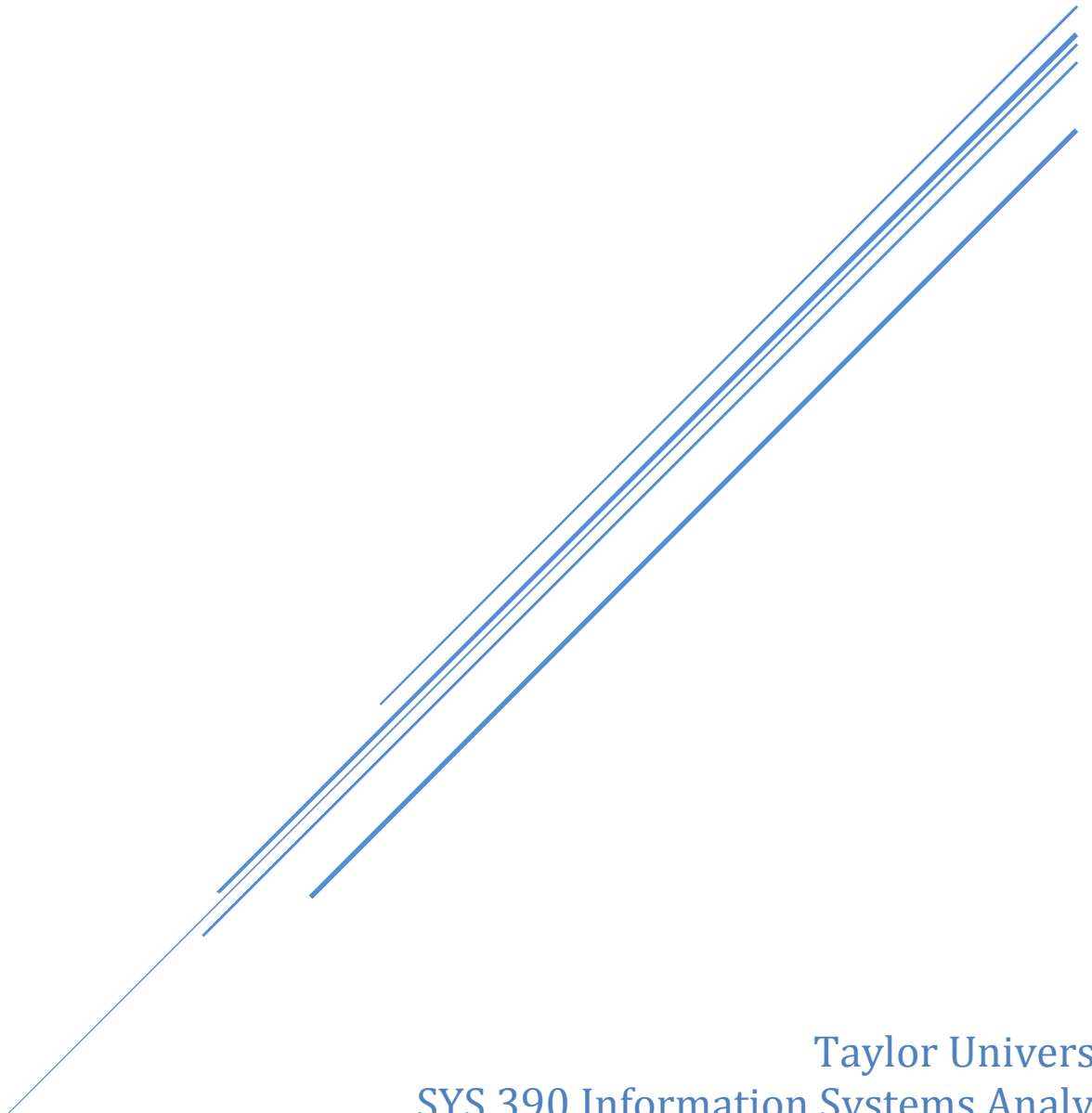# BUSINESS PROPOSAL

Verbo Church Cuenca Attendance Tracker

Taylor University
SYS 390 Information Systems Analysis
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T A B L E   O F   C O N T E N T S

1 INTRODUCTION

The purpose of this Business Proposal is to document the customer's business problem and evaluate potential solutions. This proposal will clearly state the customer description, non-customer stakeholders, customer's current situation, alternatives evaluated to solve the problem, analytical tools used in assessment of those alternatives, and our recommended solution.

Problem Statement:

Verbo Church Cuenca is currently using Excel spreadsheets to keep track of attendance in their home churches. This system is time-consuming and ineffective, as home church leaders do not maintain the information. Verbo desires a new method of attendance tracking that is more efficient and user-friendly for people who are not necessarily technically -savvy.

2 CUSTOMER

2.1 Customer Description

Verbo Church Cuenca is a growing, self-governed church in Cuenca, Ecuador, which meets on Sundays at two main locations. Within the church body, smaller groups meet in "home churches" around the city on Tuesdays. These home churches drive the ministry of Verbo Church Cuenca. Our primary customer contacts were Joel and Jonathan Guido, who are leaders at the church.

Verbo Church Cuenca is an elder-led church. It has around a dozen elders, who make unanimous decisions for the church as a council. Elders preside over the approval process for new home churches, and each elder has a number of home churches which he covers.

The elders of Verbo Church Cuenca oversee the leaders. The leaders include the four pastors, any team leaders (such as the worship leader and the youth pastor), and the home church leaders. Home church leaders meet with their respective elders once a month, and all home church leaders meet together at the main church once every four months.
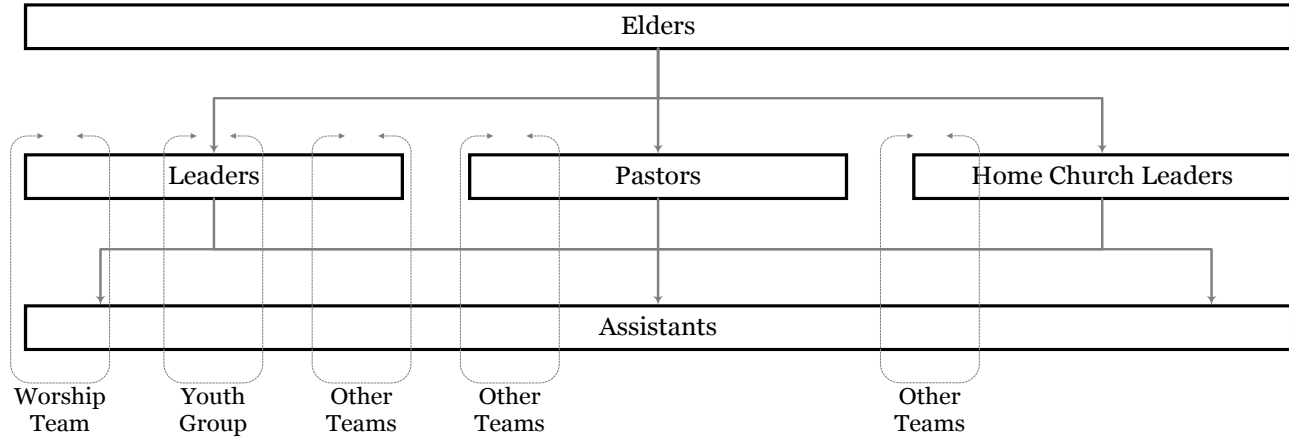
Furthermore, the leaders of the church have assistants under them. Ideally, home church leader's assistants are married couples.

2.2 Customer Mission Statement

The purpose of Verbo Church is to "fulfill [their] individual and corporate calling to bring God's love to the world through evangelism discipleship and loving service." Verbo's vision is "to grow together in covenant relationship under the Lordship of Jesus Christ. "

2.3 Customer Organization Chart

Verbo Church Cuenca Organization Chart

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                                    Elders

        Leaders              Pastors              Home Church Leaders

                                  Assistants

Worship      Youth      Other      Other                    Other
Team         Group      Teams      Teams                    Teams
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3 NON-CUSTOMER STAKEHOLDERS

Home church leaders
Home church leaders are the most important non-customer stakeholder. There will be more home church leaders than administrators, and home church leaders will have to use the system on a weekly basis. They will be affected by its usability and functionality. It is crucial that home church leaders feel comfortable with and understand the system.

Visitors & Members
Both visitors and members will interact with the system when referring to the home church map, home church calendars, and list of leadership classes. There will be more visitors and members than home church leaders or administrators, but the visitors and members will not use the system very frequently. Visitors and members should be able to find the information they need efficiently and not be distracted by user-specific functionality when using the system.

4 CURRENT SITUATION

4.1 Motivation

Verbo Church Cuenca is currently keeping track of home church attendance using an Excel spreadsheet. While Excel can be useful for providing basic attendance-taking features, it is not designed to provide the level of control that Verbo wants. As a result, the data is limited, the interface is difficult to use, and users are manipulating the data in a way they should not. In addition, users of this spreadsheet do not use it consistently. The data is often very incomplete, and some churches have not filled anything out for six months. Furthermore, there are too many steps and people to go through: building the spreadsheet, emailing it to the home group leader, inputting information each month, and sending it back to the church secretary. Because of the limitations of the current attendance-taking system, Verbo cannot answer questions such as "Is there growth in the home churches?" and "Do people in the home churches stick around?"

4.2 Kepner-Tregoe Situation Appraisal

The following Kepner-Tregoe Situation Appraisal (KTSA) assesses the concerns involved with Verbo's current system and their severity, urgency, and growth. For our purposes, severity is defined as the concern's present impact on Verbo as an organization. Urgency is a measure of how difficult the problem will be to solve over time. Growth is defined as the growth in severity over time.

Concern	Clarify Concern	Severity	Urgency	Growth
Too little information about each home church	Home church leaders are not inputting attendance	Moderate Some home churches have not filled out attendance data for six months	Same	Increase As the home churches grow, there is greater lack of information
	Not obtaining enough statistics about who is attending			
Current attendance tracker is not user friendly	Volunteers are not computer savvy Planning Center	High Current system is preventing users from optimum use of attendance tracker	Same	Flat
	Current system is an Excel spreadsheet			
	Group leaders are taking out names and adding names			
	Groups is too expensive - $250 a month			
Home church information is not readily accessible to community	Have to talk to church members to find home churches	Moderate	Same	Flat
	No easy access to calendar of events			

Current means of communication within home churches is lacking functionality	Currently using WhatsApp, an external application More difficult to share documents and PDFs of sermons	Low Current system has no negative effects	Same	Increase As the church grows, communication difficulties increase
Reluctance to learning new technology	Older generation is not tech savvy Community is not used to technological change	Low As long as the new system is good, the church will implement it anyway	Less	Decrease Over time people become more comfortable with technology, and there is an increasing amount of young people
Current church website is not fully functional	Still being developed – anticipated launch in November Only fully working component is church bulletin	Moderate	Same	Increase As culture shifts toward technology-centeredness, expectation for functional website increases

5 SOLUTION ALTERNATIVES

Our goal is to find a software solution that will meet all of the customer's requirements. After an interview process with the customer, we feel confident that we can differentiate the most important requirements. For each solution that we analyse, it must satisfy our "Musts", which are the requirements that *absolutely* need to be fully satisfied by the product. There are also "Wants" which we would like to have incorporated, and we have assigned a weighted score to each to signify which are the most important. Using these requirement lists, we conducted a Kepner-Tregoe Decision Analysis to give each solution a score and objectively compare them to each other. The customer's requirements are listed below:

MUSTS
Track Attendance
User-Friendly
Member Database
Home Church Map

Wants	Weight
Easy to add new members	8
Detailed database	11
Demographics for members	11
Keep track of classes	4
Add new home churches/leaders	11
Generate stats on churches	7
Maintainable home church map	10
Calendar for each Home Church	5
Simple attendance tracking	11
Different roles/permission levels available	6
Mobile Device	5
Easy to understand, operationable for all users	11
Total Score	**100**

5.1   Buy Options

5.1.1 Elvanto

Elvanto is a popular Church Management Service that is meant to provide church leaders and members with an all-in-one tool for church communication, administration, pastoral care, service planning, and finances. With large database capability, a user-friendly online and mobile app interface, and numerous, well-developed features to aid in managing a church, Elvanto "covers all the bases" for what a church would need.

In comparison with the other alternative solutions researched for Verbo Church Cuenca, Elvanto clearly scores the best in our analysis, as the software almost perfectly matches all the customer's requirements. One ideal feature is that Elvanto gives the church an extensive database for members, with each member's profile having a lot of potential demographic fields that can be used if desired. Adding new members, searching for members, and editing their information is simple for an administrator. There is even a specific "courses" section listed for each member, which fulfills the customer's requirement for the software solution to keep track of church member courses taken. Overall, the program is aesthetically pleasing, and easy to navigate, even for a first time user. Administrator and Group Leader roles are nicely set up, and any church member can access certain church-wide features, such as the member directory, without having permission to access or change sensitive information.

The only customer requirement that Elvanto does not satisfy is the need for a home church map that can be viewable by the public. In order to still meet this requirement, it is suggested that the customer use the separate online program called ScribbleMaps, which is a cheap solution that allows for custom map building. The church admin would simply place each home church on a custom map by location and list the church info in the "Description" portion of each location tab. The link to the map can be published on the church website, or even on the public portion of Elvanto. More information can be found at www.scribblemaps.com.

The biggest drawback to using Elvanto is the cost, which is much higher than any of the other software alternative solutions, at $2,592 per year. This high annual rate makes using Elvanto much less feasible, even though it does meet almost all of the customer requirements excellently.

Since Elvanto is cloud-based, there would be no funds needed for upkeep, other than the annual required fee, and the staff at Elvanto would be entirely responsible for keeping it running. The church wouldn't need to provide their own storage space or computers to host it, since the database is all accessed remotely through the cloud. All of the features that the customer needs would be able to be accessed right away after the product is purchased, without further customization being needed. To find out more about Elvanto, visit www.elvanto.com

KT Decision Analysis			
Alternative		**Elvanto**	
MUSTS	Comments		Y/N
Track Attendance	Enter attendance in on site		Y
User-Friendly	Visually pleasing, easy to navigate		Y
Member Database	Can add members and their info		Y
Home Church Map	Map provided through ScribbleMaps		Y

Wants	**Weight**	**Comments**	**Score**	**Weighted**
Easy to add new members	8	Adding new members simple	10	80
Detailed database	11	Easy to navigate and filter	10	110
Demographics for members	11	Lots of demographics options	10	110
Keep track of classes	4	Has specific "courses" section for each person	10	40
Add new home churches/leaders	11	Easy to add home churches and leaders	10	110
Generate stats on churches	7	Each group online displays statistics automatically	10	70
Maintainable home church map	10	Easy using ScribbleMaps separate app	10	100
Calendar for each Home Church	5	Can make each event viewable to a specific group	10	50
Simple attendance tracking	11	Easy to find group online and enter attendance	10	110
Different roles/permission levels available	6	Super admin, group leader, and member roles available	8	48
Mobile Device	5	Elvanto free mobile app available	10	50
Easy to understand, operationable for all users	11	Quick to learn, layout professional	10	110
Final Score	100			**988**

Cost Benefit Analysis - Elvanto							
		Year 0	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Discount Rate (8%)		1	0.925925926	0.84175084	0.76522804	0.69566185	0.63241987
Annual Cost	*Elvanto*	($2,592)	($2,592)	($2,592)	($2,592)	($2,592)	($2,592)
	ScribbleMaps	($100)	($100)	($100)	($100)	($100)	($100)
Benefits	*None*	$0	$0	$0	$0	$0	$0
Cash Flow		($2,692)	($2,692)	($2,692)	($2,692)	($2,692)	($2,692)
Present Value		($2,692)	($2,492.58)	($2,265.98)	($2,059.99)	($1,872.71)	($1,702.47)
Net Present Value		**($13,086)**					

Rough Budget:

Initial Investment: $0

Annual Cost: $2,692

Support and Maintenance: Free

5.1.2 Planning Center Groups

Planning Center is another church management software that offers churches different services based on their specific needs. The service that most benefits our customer is Planning Center Groups, an online group management program built specifically to help church leaders organize their small groups, youth groups, and other teams successfully. In buying Planning Center Groups, the customer would also get access to the "People" section of Planning Center as well.

This software meets most of the customer requirements for the system satisfactorily. The most helpful feature of Planning Center Groups is the group management capabilities themselves, as the application is specifically designed to make this task easy and efficient. Each created group can be chosen as "public" (viewable by anyone) or "private" (only people in the group can see it). Because the software offers large database capabilities for keeping track of church members, adding members to groups is a very easy process. The built-in group attendance tracking method is also handy, as the system will email each group leader, at the designated start time of their group meeting, with a link to easily tap each group member who is present and add members not listed. Planning Center also has a free mobile app that has all the same capabilities as the desktop online version has.

Another major customer requirement that Planning Center successfully meets is the need for a public home church map. Once a group is created and the address is entered, the application automatically adds the group to its built-in group location map, which is accessible to anyone online. Anyone who clicks on a location will see all the needed group information listed there. Each group can choose whether the exact location is listed on the map, or just an approximate range.

Planning Center Groups comes with a few obvious drawbacks. First, the application doesn't offer the customer many demographic options to input for each member, compared to what is needed. Generating graphs and reports on group attendance is also nearly impossible, as an admin can only view member attendance by person, for each specific meeting. Furthermore, although the software isn't as expensive as Elvanto, the annual rate is still pretty hefty, at $1,788 a year.

Planning Center is all run through the cloud, so it does not need to be downloaded onto a computer or have its own storage space dedicated for it by the customer. The annual fee covers all of the needed support and upkeep, as the Planning Center staff are in charge of keeping it running. Once purchased, the customer wouldn't need to personalize the software, since all attributes needed would be already available. Information on Planning Center can be found at https://planning.center/groups/.

KT Decision Analysis		
Alternative	**Planning Center Groups**	
MUSTS	Comments	Y/N
Track Attendance	Scheduled email sent to leader for attendance	Y
User-Friendly	Simplicist design	Y
Member Database	Can add members and their info	Y
Home Church Map	Link provided with map of group locations	Y

Wants	Weight	Comments	Score	Weighted
Easy to add new members	8	Adding new members simple	10	80
Detailed database	11	Easy to navigate and filter	10	110
Demographics for members	11	Limited on what demographics can be entered	5	55
Keep track of classes	4	Can do using workflows tool	8	32
Add new home churches/leaders	11	Easy to add home churches and leaders	10	110
Generate stats on churches	7	Can only view attendance by person for each specific meeting	2	14
Maintainable home church map	10	Has built-in map function that can be viewed by anyone	10	100
Calendar for each Home Church	5	Calendar can be public or private to group	8	40
Simple attendance tracking	11	System sends email to leader at start of meeting for easy attendance link	10	110
Different roles/permission levels available	6	Can assign specific members to be group leaders and have more permissions	8	48
Mobile Device	5	Planning Center free mobile app available	10	50
Easy to understand, operationable for all users	11	Easy to find everything needed	10	110
Final Score	100			859

Cost Benefit Analysis - Planning Center Groups			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Discount Rate (8%)			1	0.925925926	0.84175084	0.76522804	0.69566185	0.63241987
Annual Cost	Planning Center		($1,788)	($1,788)	($1,788)	($1,788)	($1,788)	($1,788)
Benefits	None		$0	$0	$0	$0	$0	$0
Cash Flow			($1,788)	($1,788)	($1,788)	($1,788)	($1,788)	($1,788)
Present Value			($1,788)	($1,656)	($1,505)	($1,368)	($1,244)	($1,131)
Net Present Value			($8,691)					

Rough Budget:

Initial Investment: $0

Annual Cost: $1,788

Support and Maintenance: Free

5.1.3 Ministry Tracker

Ministry Tracker is a cloud-based product developed by Phipps Custom Solutions, designed to provide churches with all the best tools needed for church management, at a very affordable price. Similar to Elvanto, Ministry Tracker is a full-feature program, having a plethora of options for church leaders, intended to meet all of a church's needs.

In comparison with the other alternative software solutions, Ministry Tracker's largest asset is its low cost, at only $449 per year. Considering the fact that the application meets most of the customer's requirements to a good degree, the low price makes it worth consideration. One of the biggest strengths of the program is the ability for an admin to add custom demographic fields for all members that can be filled out for each. This would allow the customer to choose exactly what data should be kept for all members, including courses that are taken. Ministry Tracker also has a number of options for how mobile device usage could be implemented by a user. Adding new members to the database is very easy.

Although Ministry Tracker is generally easy to use, it may take a little bit of practice for a new user to learn all of the features, and the graphics are subpar compared to the other alternatives. Another customer requirement that isn't wholly met is the need for individual home church calendars. The software allows for events to be added for specific churches, but they are only viewable on the whole church calendar, as opposed to each group having its own calendar. User roles and permissions aren't very flexible either, as a group leader would have to have the same access to the system as admins in order to make changes to their groups or take attendance. Ministry Tracker does not have a map function, so use of ScribbleMaps is required, like in Elvanto, in order to have a map of home churches available to the public.

Just like the other alternative solutions, Ministry Tracker is an online software, with data stored in the cloud. The only support costs needing to be supplied by the customer are the annual fees for the program, plus the $100 a year for ScribbleMaps. The support staff at Ministry Tracker regularly receive excellent reviews for their customer help, so all support needs would be comfortably handled by them. As mentioned previously, an administrator would be able to add all customizations necessary, such as chosen demographic information for each member. More information can be found at https://umc.ministrytracker.com/.

KT Decision Analysis		
Alternative	**Ministry Tracker**	
MUSTS	Comments	Y/N
Track Attendance	Choose attendees on site	Y
User-Friendly	Not hard to master once learned	Y
Member Database	Can add members and their info	Y
Home Church Map	Map provided through ScribbleMaps	Y

Wants	**Weight**	**Comments**	**Score**	**Weighted**
Easy to add new members	8	Adding new members simple	10	80
Detailed database	11	Easy to navigate and filter	10	110
Demographics for members	11	Can make custom demographics	10	110
Keep track of classes	4	Would use custom demographic fields	10	40
Add new home churches/leaders	11	Easy to add home churches, give leaders staff access	10	110
Generate stats on churches	7	Can't show graph of group attendance, but lots of other options	8	56
Maintainable home church map	10	Easy using ScribbleMaps separate app	10	100
Calendar for each Home Church	5	Can only list events on whole church calendar	5	25
Simple attendance tracking	11	Have to enter each person's name and select them for attendance	7	77
Different roles/permission levels available	6	Would have to give group leaders access to whole system, like admins	5	30
Mobile Device	5	Number of options for mobile use	10	50
Easy to understand, operationable for all users	11	Graphics are not great on site	7	77
Final Score	100			**865**

Cost Benefit Analysis - Ministry Tracker		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Discount Rate (8%)		1	0.925925926	0.84175084	0.76522804	0.69566185	0.63241987
Annual Cost	*Ministry Tracker*	($449)	($449)	($449)	($449)	($449)	($449)
	ScribbleMaps	($100)	($100)	($100)	($100)	($100)	($100)
Benefits	*None*	$0	$0	$0	$0	$0	$0
Cash Flow		($549)	($549)	($549)	($549)	($549)	($549)
Present Value		($549)	($508.32)	($462.11)	($420.10)	($381.91)	($347.19)
Net Present Value		**($2,669)**					

Rough Budget:
Initial Investment: $0
Annual Cost: $549
Support and Maintenance: Free

5.2 Custom Build – miVerbo

The miVerbo application will be a custom-built program, developed by Taylor students, that will completely meet all of the customer's requirements. Since it will be built at Taylor, there will be no annual fee needing to be paid by the customer to keep using the software. Once the construction of the software is completed by Taylor students in May of 2017, periodic upkeep would need to be provided by a contracted worker. The suggested approach would be to hire a Taylor student on a part-time basis to provide any customer support needed, or to fix problems with the program. If a student is hired to work once a month for three hours, this would be equivalent to paying $324 a year, at a rate of $9 an hour, which is slightly larger than the pay rate that a student would make in a regular on-campus job.

Since miVerbo would be built to entirely meet the customer's requirements, every single need would be fully incorporated into the software. The program would be equal or superior to all the alternative solutions for various reasons. First, the member database would be easy to use, and would have all the demographic information needed already built-in for each member, including having a "courses" section. Group leaders can easily take attendance using computer or mobile device by simply clicking on each group member's name who was present. Helpful statistics and graphs will be automatically available for a user to view for any group, allowing church leaders to track group growth, attendance over time, and individual attendance records.

Based on the customer's requirements, there will be dedicated permissions for several defined roles: Visitor, Member, Home church leader, and Administrator. All members will be able to view the home church calendars corresponding to the home churches they attend. These calendars will be only viewable by each home church, whereas the main church calendar can be seen by any visitor or web user online. The home church map will also be automatically integrated, as any home church that is added will be instantly added to the map viewable online, with church details included. The interface will be easy to use and understand for any new user.

MiVerbo will also have an easy-to-use mobile app with full functionality, having every feature that a group leader or administrator will need. Both the app and desktop versions will be very user-friendly, since this was a clear requirement from the customer. The app will fall under the category of "Database as a Service." Assuming the customer doesn't have servers already, we would recommend using a service such as Heroku in order to run the software without providing the space for the data. The professional plan that would provide the right amount of data and capabilities to meet customer requirements would cost around $75 a month, which is $900 annually.

KT Decision Analysis			
Alternative		**Custom Build - miVerbo**	
MUSTS		Comments	Y/N
Track Attendance		Attendance entered on phone app or online	Y
User-Friendly		Very easy to interact with, simplistic design	Y
Member Database		Can add members and their info	Y
Home Church Map		Maps built in	Y
Wants	**Weight**	**Comments**	**Score**	**Weighted**
Easy to add new members	8	Adding new members simple	10	80
Detailed database	11	Easy to navigate and filter	10	110
Demographics for members	11	All needed demographics are included	10	110
Keep track of classes	4	Classes are included in each profile	10	40
Add new home churches/leaders	11	Easy to add home churches and leaders	10	110
Generate stats on churches	7	All needed statistics and graphs can be viewed	10	70
Maintainable home church map	10	Has built-in map function that can be viewed by anyone	10	100
Calendar for each Home Church	5	Has separate calendars for each home church, viewable by only that church	10	50
Simple attendance tracking	11	Phone app allows for easy attendance tracking, can be entered or modified online as well	10	110
Different roles/permission levels available	6	Has Visitor, Member, Home Church Leader, and Administrator roles	10	60
Mobile Device	5	Mobile App available and easy to use	10	50
Easy to understand, operationable for all users	11	Easy to operate and learn	10	110
Final Score	100			**1000**

Cost Benefit Analysis - miVerbo		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
		1	0.925925926	0.84175084	0.76522804	0.69566185	0.63241987
Discount Rate (8%)							
Annual Cost	*Maintenance*	($324)	($324)	($324)	($324)	($324)	($324)
	Heroku	($900)	($900)	($900)	($900)	($900)	($900)
Benefits	*None*	$0	$0	$0	$0	$0	$0
Cash Flow		($1,224)	($1,224)	($1,224)	($1,224)	($1,224)	($1,224)
Present Value		($1,224)	($1,133.33)	($1,030.30)	($936.64)	($851.49)	($774.08)
Net Present Value		($5,950)					

Rough Budget:

Initial Investment: $0

Annual Cost: $900

Support and Maintenance: $27 per month

6 RECOMMENDATION

We recommend our custom-built alternative, miVerbo, as the optimal solution for Verbo Church Cuenca. This solution will deliver business value to the customer by meeting all of their requirements, functional and non-functional, at a feasible price-point for the organization.

Based on our Kepner-Tregoe Decision Analysis of the solutions options, miVerbo scores the highest in meeting all of the customer requirements, perfectly fulfilling each need. Since the application will be custom-built by a team of Taylor students, every single feature that is wanted by the customer will be fully factored into the software.

Not only does miVerbo meet the customer requirements, but it is also a relatively cheaper option compared to the other alternatives, at less than half of the price of Elvanto, which scored a close second in the KTDA weighted score. Since the customer's preferred monthly spending was around $100, using miVerbo would fit nicely around this budget.

Alternatives	KTDA Score	Net Present Value
Elvanto	988	($13,086)
Planning Center	859	($8,691)
Ministry Tracker	865	($2,669)
miVerbo	1000	($5,950)

Decision Statement - miVerbo												
Alternatives		**Elvanto**			**Planning Center Groups**			**Ministry Tracker**			**Custom Build - miVerbo**	
MUSTS		Comments	Y/N		Comments	Y/N		Comments	Y/N		Comments	Y/N
Track Attendance			Y			Y			Y			Y
User-Friendly			Y			Y			Y			Y
Member Database			Y			Y			Y			Y
Home Church Map			Y			Y			Y			Y
Wants	Wgt	Comments	Score	Wgt'd	Comments	Score	Wgt'd	Comments	Score	Wgt'd	Comments	Score	Wgt'd
Easy to add new members	8		10	80		10	80		10	80		10	80
Detailed database	11		10	110		10	110		10	110		10	110
Demographics for members	11		10	110		5	55		10	110		10	110
Keep track of classes	4		10	40		8	32		10	40		10	40
Add new home churches/leaders	11		10	110		10	110		10	110		10	110
Generate stats on churches	7		10	70		2	14		8	56		10	70
Maintainable home church map	10		10	100		10	100		10	100		10	100
Calendar for each Home Church	5		10	50		8	40		5	25		10	50
Simple attendance tracking	11		10	110		10	110		7	77		10	110
Different roles available	6		8	48		8	48		5	30		10	60
Mobile Device	5		10	50		10	50		10	50		10	50
Easy to understand	11		10	110		10	110		7	77		10	110
Final Score	100			**988**			**859**			**865**			**1000**