



# The Project Charter

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# Stakeholders

Stakeholder	Interest	Influence	Potential Conflicts	Role	Objective	Strategy
L.T. Scully	+1	10	The project must meet goals for future of Husky Air	C.E.O of Husky Air A.C.E. Project	Oversight	Accept his advice to integrate the Avionics Core Engine to his desired intent.
A.C.E Consultation	+1	8	Time, Budget, Scope	A.C.E runs the project management office	Hiring, equipment acquisition, benefits	Project Matrix organization. Weekly check-ins and quarterly meetings at the office.
Sharlene McDermott	+0	5	Sharlene may find the new process difficult to grasp. Her proper training is extremely important to the success of the project.	Master and oversee the Avionics Core Engine system after its implementation.	Train into the A.C.E.	Provide training and experience with the A.C.E. system.
Evan Brian	+1	5	None. A.C.E. helps to make better sales decisions	Utilize sales data on customers to make accurate pricing decisions	Train into the A.C.E.	Provide training and experience with the A.C.E. system. He will also determine a pricing scheme for the rewards program.

L.T. Scully - Husky Air opened for business in January, 1999 when L.T. Scully and several other investors pooled their life savings and secured a rather large loan from a Chicago bank. He is currently the CEO of the Avionics Core Engine project. L.T. Scully is present at each of the quarterly meetings held at the temporary Husky Air office.

(815) 748-2000 x2001  
lt.scully@huskyair.com

A.C.E. Consulting - A newly formed Information Technology consulting firm, A.C.E. is dedicated to implementing the Avionics Core Engine to revolutionize the way Husky Air conducts business.

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Sharlene McDermott - The resident operator of the Air Charter office. Sharlene currently records all data required to record, calculate, and process an order for a client is recorded in pen. Her ability to transform a phone call into a charter contract for Husky Air will double in speed with the Avionics Core Engine. She will not have to worry about taking days off, the core engine is easy for other associates to use if she cannot come to work.

(815) 748-2000 x2002  
sharlene.mcdermott@huskyair.com

Evan Brian - Leave the sales decisions up to Evan! He decides what a customer will pay should a frequent flier discount be given. Evan will benefit from the Avionics Core Engine by being provided with hard data to justify his decisions and maximize profits in the Air Charter program.

(815) 748-2000 x2003  
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# The Core Engine Plan

The Avionics Core Engine System is a digital interface to Husky Air's Charter program. It includes a companion website and hardware required to run the applications suite across three terminals and a server. The project will require light renovations of the 1600 square foot DeKalb Taylor Municipal Airport office. The office will need to be outfitted with Ethernet and an electrical circuit breaker and wiring to handle the heavier load caused by the additional computing devices. This solution will migrate Husky Air from paper resources; it is free of software licenses and will be implemented at a flat rate.

Flight planning software suite that will automatically calculate the distance and cost of a journey chartered by a client will assist the pilots. The software will allow them increased flexibility for quickly changing flight itineraries of chartered aircraft.

Sharlene McDermott will retain her position and continue to maintain contact with customers when creating quotes, though many of the processes she performs will be automated, benefiting from increased accuracy. Double bookings, misquotes, and aircraft status information will be available when making decisions during the booking process.

A frequent flier program will assist Evan Brian in his challenge to accurately quote prices for fliers that frequently use Husky Air's Charter Service. The Avionics Core Engine seeks to impact the accuracy, speed, and decision making abilities of Husky Air.

## Increased Value: Avionics Core Engine

**Husky Air seeks to gain additional market share in the Midwest. It is widely recognized for its charter service, maintenance program, and quality flight instruction. Generating higher revenues for reinvestment into Husky Air will encourage growth, expansion, and competition with other flight based operations in the region.**

**This project will be successful if booking times are reduced by 80%, 5800 new bookings are produced, and if revenues are doubled over a period of five years after the implementation of the Avionics Core Engine.**

# Project Scope

## Objective:

A.C.E. Consulting will produce and implement digital system for Husky Air's Flight Charter program. Remaining on schedule, within budget, and positively affecting the accuracy, speed, and decision making abilities of the program are the top priorities of the project.

## Deliverables:

- a. An attractive website and software package with inclusion of a database back-end and flight planning system.
- b. Upgraded electrical wiring; breakers and outlets with increased load bearing capability, Ethernet cable drops and wall jacks, and an enterprise level broadband service capable of hosting a website and its traffic.
- c. Modified office layout; Reserved space along with required furniture and work areas for the new system.
- d. The installation and configuration of hardware and software which includes: a web server, mail server, FTP server, application server, workstation cluster, anti-virus/spy ware suite, automated backup system, office productivity suite, backup uninterruptable power supply, ventilated cooling system for the server cabinet, printer, scanner, and fax machine. Company phones should be distributed to pilots for flight plan updates.
- e. A secured, configured, wired, computer network including, cat5 Ethernet/fiber optic cable media, switches, routers, wireless access points, and VoIP/teleconference communications.

The Avionics Core Engine will be completed in phases. The first phase requires a programmer capable of using Google Maps API, HTML, JQuery, Cascading Style Sheets, JavaScript, PHP, Adobe Flash, SQL, and Python.

Many avionics utilities already use the Google Maps API with an aeronautical chart overlay to successfully plan flights. These tools would greatly improve the speed at which Husky Air's pilots generate their flight plans. Because of the Google Maps API, the pilots would be able to access their saved flight plans with an Internet connection even if they were not at the office.

These skills will be used to create an attractive website front end for customers to quote charters. Quotes can be saved along with customer information within a database and can be referenced by the customer or the charter office. The Avionics Core Engine will calculate the distance and cost of the journey, as well as record and apply special discounts using frequent flier program should the trip be booked and completed by the client.

In order to support these new capabilities, the existing facilities must be retrofitted for their use. It is important to

upgrade the existing electrical system in the office suite to support the heavy usage of electricity. Wiring systems that are not fortified may catch fire under intense load. Since it is not in our best interests to prevent fires from occurring, we will consider separate circuits for our major systems; the printers, copiers, personal computers, and server racks should be on separate circuits to avoid power fluctuations. The wiring in the server room should be upgraded to a 220V system to handle the additional load. The building is also unwired for an Ethernet network connection. A small room should be procured to house the switch and centralize the cable drops leading to wall outlets. Finally, the preparations for a broadband Internet connection will need to be negotiated with a service advisor. Any internal modifications to the office required to accommodate the line should be made. Finally, adequate cooling for the space occupied by critical systems should be prepared to preserve the life of the electronics. While furniture needs to be set up for the equipment and personnel to use, it is expected that the information technologist receive any assistance from the general contractor for its setup. The general contracting electrician is capable of performing these upgrades to the office space to allow the paper to digital transition to be smooth.

With the foundation of the system created, an information technology engineer is needed for the setup of the web server, mail server, FTP server, application server, workstation cluster, anti-virus/spy ware suite, automated backup system, office productivity suite, backup uninterruptable power supply, printer, scanner, and fax machine. This must happen before the Avionics Core Engine goes live.

The router needs to be configured for use within the office; its security is necessary for the privacy of customer data that may include methods of payment. A database created by the programmer should enforce strong typing rules -- it is designed to be accessed from the web, where it is easy to compromise entire sets of data. Hypothetically, if the database and network are compromised, backups are necessary to restore important data.

While the Avionics Core Engine promises to double the amount of business that Husky Air is currently able to produce, buying additional aircraft or hiring additional pilots as a result of the workload is outside of the scope of this project. It is also considered outside of the scope of this project to help Evan Brian consider pricing schemes as a result of this additional business.

# Project Schedule Summary

**Start Date:** January 1, 2012

**End Date:** December 31, 2012

## **Phases and Milestones:**

### **Phase 1:**

Start of Project; Procurement of Hardware and Software along with Electrical and Remodeling work.

Milestone 1: March 31, 2012. Office and Electrical set up completed.

Milestone 2: May 31, 2012. All coding is completed; Final releases of Software/Website build.

### **Phase 2:**

End of Project; Integration of Hardware and Software, Training, and Finalization of System Implementation.

Milestone 3: July 31, 2012. Network setup, security, and configuration are completed. IT Hardware is setup, configured, networked. Software is loaded; website/database is Online and ready for testing.

Milestone 4: September 31, 2012. Hardware and Software are fully integrated, configured, tested,; Ready to go live with the new digital system. Staff is trained. Materials and training documentation will be written and given to the Husky Air. Ongoing support of the project will continue.

## **Meetings & Reviews:**

### **Stakeholders meeting:**

A reoccurring stakeholders meeting will be scheduled for every 2 weeks beginning on the 9th of January and continuing until the end of the project. These meetings will include A.C.E. contractor teams along with their team leads, project manager, and Husky Air stakeholders to track the progress of the project.

### **Design/Quality Assurance Reviews:**

These reviews will be held a month prior to each milestone to assure the quality and progress of the on-going work of A.C.E. contractor teams, along with any issues, engineering or budget changes that need to be made. The meetings will include A.C.E. contractor teams along with their team leads, project manager, and Husky Air stakeholders.



# Project Budget Summary

Budget by Project Phase				
	Personnel	Equipment	Other Costs	Total
<b>Phase 1:</b>	\$89,834.40	Provided	\$2,759.50	\$92,593.9
<b>Phase 2:</b>	\$37,334.4	\$27,093.39	\$2,099.50	\$66,527.29
<b>Total Costs:</b>	\$127,168.8	\$27,093.39	\$4,859.00	\$159,121.19

Phase 1 will have contractors Jonathan Hayes, Joe A., and Billy G. on staff completing Projects 1 and 2. It also requires the first six months of rent on the office as well as airfare for the A.C.E. team.

Phase 2 will have Billy G. serving the other half of his 6mo contract with A.C.E. implementing the programming created by Jonathan Hayes upon the framework created by Joe A. who have already completed their contracts.

## Quality Issues

City and state building codes need to be followed prior to performing modifications to the building.

A permit is usually required before these modifications can be performed, but Joe A. is bonded, insured, and works only to code to preserve these ratings.

The business will require broadband Internet for at least four users, and must be scalable for multiple users to eventually be added in the future.

The server rack needs to be firmly bolted to the floor and locked with a key. It is necessary for there to be at least two backup keys.

The chosen backup solution utilizes a rack mounted automated tape drive to create daily backups of customer data. The backups must be created daily, as a single day of business can mean quite a bit to a customer's mileage points gained through the frequent flier program.

**Personnel:**

Jonathan Hayes - 14+ years exp. web dev, gfx design, 3d - Freelancer - Website / Graphic Designer  
website-development, web-design, ColdFusion, php, sql, adobe-photoshop, JavaScript, jquery, autodesk-autocad, autodesk-revit, adobe-Dreamweaver, adobe-indesign, adobe-illustrator.

This position is on contract for the first 12-weeks of the project. It is Jonathan Hayes' job to develop the website, database, and the Avionics Core Engine.

Salary: \$22,000

Required Equipment/Materials: This creative position requires no equipment/materials.

Salary with benefits: \$27,500

Billy G. - Network Engineer - Freelancer - Consultant

DNS, switches, routers, juniper, firewalls, apache, Cisco-routers, tcp-ip, wireless, electronics, antenna-design, vpn.

This position is on contract for one year to see the development of the Avionics Core System from its beginning through to its final phase.

Base Salary: \$56001.60

Required Equipment/Materials: \$27093.43

Salary with benefits: \$74668.80

Joe A. - Electrician, 17 years of experience. Licensed, bonded, and insured.

This electrician is on contract for a 12 week period on a flat rate with included materials to prepare the offices for the eventual equipment that will be added. Joe will also help to set up furniture and take directions from Information Technology Engineer Billy G. on what upgrades will be necessary to properly run the Avionics Core Engine.

Base Salary: \$20,000

Required Equipment/Materials: ~\$140/drop with 4 drops required.\*

Salary with benefits: \$25,000

\*estimated cost after jacks, cable, wall plate, drywall cutting, at an average hourly rate.

**Equipment:**

Cube farm - Set of 4 Workstations HFA076 - \$6997.00

Cube farm chairs - BALD Seaflex Series Swivel/Tilt Executive Chair w/Headrest, Black - \$1147.96

Servers and PCs - Vostro 260s Slim Tower x3, APC AR100HD 13U NetShelter WX, Dell PowerEdge R910 4U, NETGEAR JGS524 Gigabit Ethernet Switch, Ethernet cabling, Cisco RV220W Wireless Network Security Firewall) - \$8544.53

Rackmount Tape-Drive Backup - HP AK377A -\$4360.99

Backup UPS - TRIPP LITE SmartPro SMART5000RT3U - \$2752.99

All-In-One Printer - Canon imageCLASS MF7460 2237B001 MFC - \$1709.99

Operating systems - Microsoft Windows 7 Professional SP1 64-bit (four licenses) - \$559.96

Office Productivity Software - Microsoft Office 2010 Professional - \$849.98

Anti-Virus Software - TREND MICRO Titanium Maximum Security - 10 User - \$169.99

The above items are based on current estimates and do not include sales tax.

**Other costs:**

While relocation to Illinois incurs a cost to the A.C.E. in order to complete this project, they cannot be considered part of the Budget Summary show to Husky Air, as they are not directly related to the outcome or success of the project.

Office -A.C.E. will relocate its office to 100 S Main Street Elburn, IL 60119-9117. Executive suite Unit 201C with 165 square feet of space. \$4,199 annual rent.

Airfare to DeKalb, IL - ~\$660 one way for three, though these quotes may not reflect airfare in different seasons.

<b>Resources Provided</b>				
	<b>Resource</b>	<b>Provider(s)</b>	<b>Cost</b>	<b>Date</b>
<b>People</b>	Programmer	Jonathan Hayes	\$22,000	January 1, 2012
	Contractor	Billy G.	\$20,000	January 1, 2012
	Information Technologist	Joe A.	\$56001.60	January 1, 2012
	Training staff	A.C.E. Team	Free Training/support	January 1, 2012
<b>Equipment</b>	Hardware, software, and furniture.	Joe A.	\$27,093.43	July 31, 2012
<b>Programming</b>	The Avionics Core engine and website	Jonathan Hayes	Included in salary	May 31, 2012
<b>Contracting</b>	Electrical fortification	Joe A.	Included in salary	April 31, 2012
<b>Facilities</b>	Small office for A.C.E to use as a base of operations.	A.C.E. Team	\$4,199/year	January 1, 2012
<b>Other</b>	Benefits/airfare	A.C.E. Team	\$29,167.20	January 1, 2012

# Assumptions and Risks

Assumptions	Key Risks	Probability of risks	Impact Constraints
A.C.E team members will meet for project reviews determining course of next action	What if an A.C.E. team member is unable to attend a meeting for project review?	1	Deadlines Budget
Project Manager and A.C.E. team members will research resource availability (technology, people, facilities, miscellaneous) to determine costs	What if certain resources are not available in the area? For example, limited technology products, unqualified contractors, non vacant facilities, etc. May have to search elsewhere.	3	Budget Resources
Contracted workers will follow project schedule	What happens if a contracted worker is unable to complete work by the scheduled date?	3	Deadlines Budget
Contracted workers will collaborate on tasks that may coincide with each other in order for the project to run smoothly	What if there is miscommunication between contractors (programmer, electrician, IT Engineer) on requirements and standards?	5	Budget Resources
Contracted workers will agree to complete assigned tasks stated in project agreement for which they were hired	What happens if a contractor resigns from participation in this project?	1	Deadlines Budget

\*If successfully implemented, this project will immediately reduce booking times 80%, generate at least 5800 new bookings, and double revenues a period of five years.

# Outstanding Issues

Like any major project, there are assumptions that describe the project expectations. This includes effective communication between all individuals involved, making sure the proper resources are available to conduct the project, and following the project's schedule to meet deadlines to ensure successful completion of Husky Air's flight charter program.

With expectations, also comes the possibility of potential risks that could hinder the project's productivity. For example, what if an A.C.E. team member is unable to be present at a meeting, and resources are unavailable to conduct the project? In addition, what if contracted workers are unable to meet project deadlines, have miscommunication through collaboration with other workers, and a contracted worker decides to resign from the project altogether? The project's deadline, budget, and use of resources may be affected as a result of these potential risks. However, A.C.E. consulting is dedicated and committed to improvising a risk management plan that will handle such events keeping risk scores low or nonexistent as shown in the table. This will be explained in greater detail in the following section.

The flight charter program is the core of Husky Air. It is the central foundation that will accelerate business resulting in increased profit. There are other departments within Husky Air whose systems could integrate with the updated flight charter digital system once it is implemented. For instance, Sharlene McDermott may have to gather information on a plane such as its maintenance status and availability to be booked from the services department. She may also need to refer to the pilot angels department to gather information on volunteer pilots' availability when booking charters for patients in regards to their medical appointments.

# Project Administration

When proceeding with the project, A.C.E. will organize the contractors using a Project matrix. Information Technology Engineer Billy G. is especially important. He will be supporting the two other contractors while they perform their projects. A.C.E. Consulting will support him when the final phase of the project, the implementation of the hardware and software. A.C.E. is solely responsible for creating the documentation needed for training, as well as its application on the Husky Air staff.

	Programming	Electrical/General Contracting	Information Technology	A.C.E. Consulting
Project 1: Programming the Avionics Core Engine Managed by: Jonathan Hayes	Development of the website, database, and application by Jonathan Hayes.	No involvement	Supported by Quality Assurance by Billy G.	Project office
Project 2: Fortifying building infrastructure Managed by Joe A.	No involvement	Ethernet drops, 220V outlets. Thicker wiring. Electrical breaker upgrade. Furniture assembly.	Supported by direction, compliance, and furniture placement by Billy G.	Project office
Project 3: Deploying A.C.E. Managed by: Billy G.	No involvement	Setup of: Rack devices. Network. PCs, Printer and much more...	Supported by the A.C.E. Consulting Information Techs	Project office
Project 4: Training on a live system Managed by: A.C.E. Staff	No involvement	No involvement	Supported by training assistance by Billy G.	Training documentation. On hands training when A.C.E. goes live.

## Communications plan:

Telecommuting is an option for Jonathan Hayes, should he decide to not relocate to the greater Chicago area where the DeKalb Municipal Airport and nearby A.C.E. office is located. Teleconferencing should occur weekly, quarterly, and when milestones have been reached. The desktop application, “Skype” is suitable for teleconferencing. Communicating is not enough however. In communicating the status of individual projects, it is important to have a written report on their current status for documentation and accountability with A.C.E. Consulting and the stakeholders of the company.

## Scope management plan:

With the inclusion of progress reports required by the communications plan, their review would allow the C.E.O., Project Management Office, and Project managers to make decisions on how the project’s scope may need to change. The scope of the Avionics Core Engine project includes the required resources, budget, quality, personnel, equipment, and other associated costs that are subject to change. The proposed changes need to be submitted to the

project management office, and then to the C.E.O. L.T. Scully before they are committed.

**Quality management plan:**

Each project will have a specific focus for quality management.

Project 1 will have quality assurance through code review by Billy G. The database web forms will need to be tested for strong typing rules to prevent it from being compromised.

Project 2 will require Joe A. to perform his work to code. As a licensed and bonded electrician, his work will be tested for its safety and functionality by Billy G.

Project 3 will require Billy G. to implement the hardware, which will be tested by the A.C.E. team before going live.

Project 4 involves documentation of the implemented systems in a user friendly manner. Part of creating a system is knowing how to properly assist its users in a live environment. This support will be ongoing over a five year period, allowing the staff to further contract Programmer Jonathan Hayes and Billy G. to resolve issues uncorrectable by the A.C.E. staff.

**Change management plan:**

The Avionics Core Engine will not necessarily be integrated into the organizational environment as much as it will BECOME the environment around which the Flight Charter Program will organize itself, perhaps including pilots from other sections of Husky Air. How the projects product will be integrated into the organizational environmental. Perhaps the biggest change that the Core Engine will make is in the operations section. The system seeks to completely streamline the Flight Charter Office, eliminating costly errors and decreasing the amount of time required to produce charters. Rather than have Sharlene McDermott personally manage the calculation of each charter program, the core system will take over for her, accurately quoting travel legs.

The discount program will no longer be directly micromanaged by Evan Brian either. Instead, the customer information will be recorded by the core system database in order to calculate frequent flier points that may be used to gain discounted airfare. It will only be Evan Brian's responsibility in the future to make the most of the system, perhaps by offering travel incentives during certain portions of the year, or by offering double the normal number of points by having frequent users of Husky Air be part of a membership program unlike normal fliers.

Financially, the Avionics Core Engine does not seek to manage as much as it attempts to cut losses in areas that lack efficiency. Saving money and increasing market share have their strategic benefits, as well as positive social consequences. Husky Air will make more money as well as donate more back to its community.

**Human Resources:**

The selection process for contractors to help build the Avionics Core Engine began with a list of skills required to complete each section of the project. When we found potential candidates for the project on the website oDesk.com, we were able to view a list of their achievements with other employers, with which we were able to grade their reliability. Upon finding reliable contractors, we compared them for their price for hour, and negotiated a contract or annual salary with benefits to be pitched.

**Implementation and Closure:**

The Avionics Core Engine will be implemented by Billy G. with support of the A.C.E. team over a period of six months, during phase two of the project.

The project will be considered complete after its successful implementation, where A.C.E. will continue to service and support the system on contract with Husky Air for an additional five years.





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# Terminology

**A.C.E.** - A consulting firm that is subcontracted to improve Husky Air's flight charter program.

**Avionics Core Engine System** - Implementation of a custom built digital system for Husky Air's flight charter program.

**Change Management Plan** - Specifies how the project's product will impact the organizational environment

**Communications Plan** - Outlines the project's status or progress that will be reported to various stakeholders reporting and resolving significant issues or problems as they arise.

**Human Resources Plan** - Staff acquisition and team development.

**Implementation Plan** - Specifies how the project's product will be integrated into the organizational environment.

**Measurable Organizational Value** - Describes the project goal, measure of success using metric, provides value to the organization, must be agreed upon, and must be verifiable at the end of the project guiding the project. Guides the projects throughout its life cycle and should align with the organization's strategy.

**Project Manager** - Responsible for ensuring that all of the project management and technical processes are in place and are being carried out within a set of specific requirements, defined processes, and quality standards.

**Project Matrix** - Illustrates project organization showing who has the authority and responsibility for defining and completing the project activities.

**Project Scope** - The work to be completed; what will be produced or delivered by the project team.

**Project Sponsor** - Executive or manager with financial authority, political clout, and a personal commitment to the project.

**Project Stakeholders** - The people who are involved in the project, who hold stake in its success. They may have a personal investment or resentment for the project.

**Quality Management Plan** - Details how quality planning, assurance, and control will be supported throughout the project life cycle.

**Scope Management Plan** - Describes how changes to the project's scope will be submitted, logged, and reviewed.