
Container Transport Tracking System (CTTS)

for

Shipping X Corporation

CS 325 T-TH 6:50 PM – 7:20 PM

Professor T. Czernik

Version 1.12

Prepared by <Gardner Evan>

<Patel, Premkumar>

<Reichard, Robert>

Team 1

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Revision History

Name	Date	Reason For Changes	Version
Premkumar Patel	09/28/22	Adding information to Introduction, Business Objectives, Assumptions and Dependencies, CTTS Concept of Operations.	1.1
Premkumar Patel	10/03/22	Adding Personas - Reservation Specialist, Unloading and loading crew, and customer	1.2
Evan Gardner	10/04/22	Adding Tracking Specialist persona, Truck Driver Persona, and SX Manager	1.3
Premkumar Patel	10/12/22	Adding Design and Implementation Constraints	1.4
Evan Gardner	10/16/22	Adding The Dashboard and updating the Introduction, Business Objectives, Issues List	1.5
Evan Gardner	10/24/22	Updating Concept of Operations, and Issues List	1.6
Premkumar Patel	10/26/22	Epics and User Stories <ul style="list-style-type: none"> ♠ User/Epic Story 1.1-1.12 ♠ User/Epic Story 2.1-2.6 ♠ User/Epic Story 3.1-3.13 	1.7
Evan Gardner	10/26/22	Completing the issues list, Adding to the glossary, Reorganizing content within Assumptions/ Dependencies, Working on Epics 1 ,2, 3, 4, 5, 6, 7, 8, 9, 10	1.8
Evan Gardner	10/27/22	Continue working on epics 1,2,3,4,5,6,7,8,9,10	1.9
Evan Gardner	10/28/22	Continue working on epics 1,2,3,4,5,6,7,8,9,10	1.10
Evan Gardner	10/29/22	Continue working on epics 1,2,3,4,5,6,7,8,9,10	1.11
Evan Gardner Premkumar Patel	10/30/22	Completing The Journey Map, Adding To Glossary, Reading Through The Entire Document Making Corrections, Updating epics 1,2,3,4,5,6,7,8,9,10	1.12

1. Introduction

1.1 Purpose

The purpose of this document is to define the requirements of the CTTS. It will outline everything the tracking system will be doing and give the location, and ETA of objects on the cargo ships. It will provide information on what each persona will have to be doing and the access they have to the process. Given the information provided you will know how the system operates and how what job roles contribute to the system functioning as made.

2. Business Objectives

RPE Company wants to make their ships and containers more modernized by bringing in a new tracking system allowing them to be able to reserve, schedule, track and monitor the ships, trucks, containers, crew, and events that might have an impact on the contents in the container. This system would increase customer satisfaction and improve the company in total by getting all of this information.

Theme: SX company wishes to modernize its ship and container tracking system providing the ability to reserve, schedule, track, and monitor ships, trucks, containers, loading/unloading crews, and events that may impact the shipping or contents of a container.

Epic 1: Order Processing and Scheduling: SX needs to be able to accept and process shipping container orders, reserve and schedule containers, space on the ship, trucks, and loading/unloading crews to ship containers from an origin to a destination. SX also needs to be able to update shipping requests and schedules as events mandate. //Account creation needs to be addressed as either another epic or under this epic

Epic 2: Billing and Payments: SX needs to be able to ensure shipping container customer bills are calculated by the billing system and are paid before reserving and scheduling the container shipment.

Epic 3: Ship and Container Tracking: SX needs to be able to track the location of the ship, each container, and trucks.

Epic 4: User Interface: SX needs to be able to view and access CTTS capabilities through a web browser. SX needs a smartphone application to scan container bar codes and Q-codes to identify a container and access CTTS capabilities using a smartphone application.

Epic 5: Customs: SX needs to report to customs ship and container manifest, and request permissions to leave/enter the port. Ships will be notified (via radio) of any request approvals or denials.

Epic 6: Weather Alerts: SX needs current weather information so it may warn its ship crew (via radio) of upcoming weather events.

Epic 7: Homeland Security: SX needs current threat and terrorism information so it may warn its ship crew (via radio) of possible attacks.

Epic 8: Dashboard: SX needs dashboards at SX head to be able to quickly view the status of ships and containers.

Epic 9: Authentication and Authorization: SX needs to have various roles, users, and interfaces authenticated and authorized.

Epic 10: Reporting: SX needs to produce monthly reports of shipping activity.

3. Assumptions and Dependencies

- ♠ The CTTS system will rely on Google Maps or some other form of mapping application to show the location of the shipped items within its container to the customer at any point 24/7/365.
- ♠ Weather affecting ETA status needs to increase the time to arrive.
- ♠ The system depends on a reliable network in order to function properly.
- ♠ The shipping container sensors are assumed to be in working order.
- ♠ All external systems are assumed to be functional.
- ♠ The system depends on the ship crews' ability to transport the containers efficiently between land and the ship, as well as pilot the ship safely to its destination.
- ♠ The system needs to be active 24/7 to ensure the reports and communication between workers and customers stay active.
- ♠ Additionally, the CTTS System is hosted in a cloud-based system, so it depends on the cloud's functionality to execute its processes and deliver value to customers.
- ♠ The system also depends on the containers passing customs inspections when shipping internationally, as the container will not arrive if it fails inspection.

4. CTTS Concept of Operations

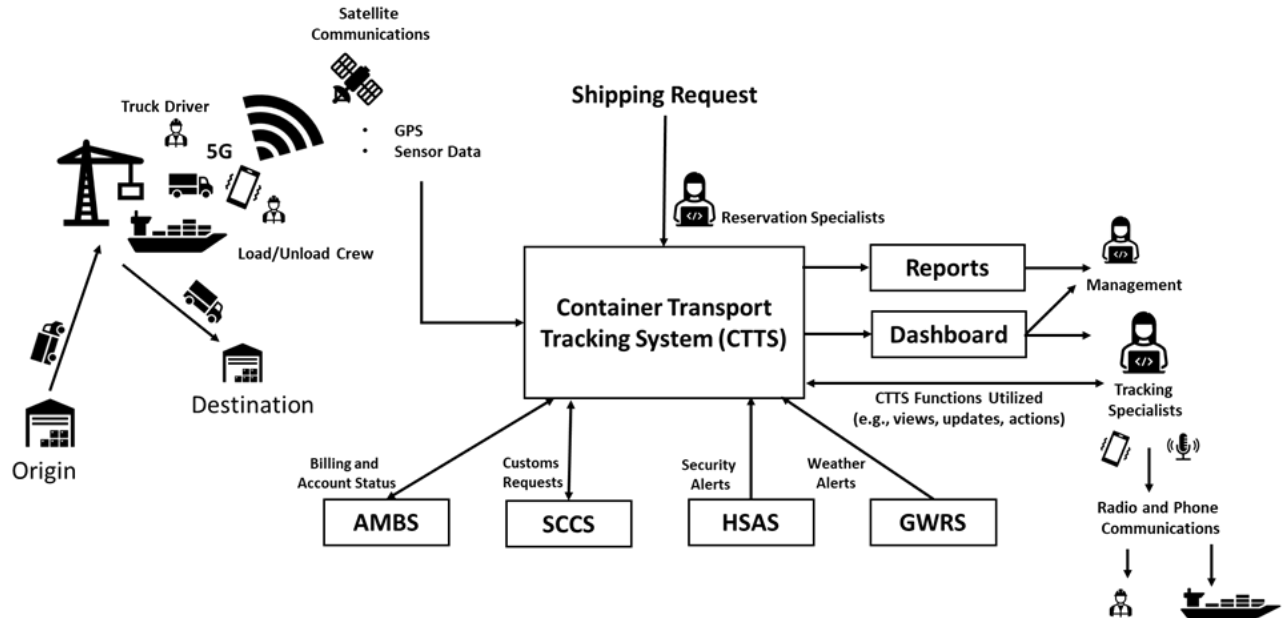
The company Shipping X abbreviated to SX runs an advanced technological container shipping business. The business itself has many different forms of equipment that allow the business to function including large cargo ships able to hold large amounts of containers, shipping containers

equipped with sensor packs that will track/maintain the requirements specified by the customer, and transport trucks for deliveries that need to be made on land. The three main destinations that are associated with Shipping X include Japan, Los Angeles (CA), and Baltimore (MD). The new order and tracking system will be named Container Transport Tracking System (CTTS). CTTS maintains ships, containers, trucks, loading/unloading team, ordering, ship tracking, weather, customs, and special alert data. CTTS capabilities include reserving, scheduling, tracking, monitoring ships, trucks, containers, loading/unloading teams, and events impacting the shipping or contents. For example, if a container temperature must be maintained at 60 degrees or less and the temperature goes above the threshold, the CTTS will create an alert of possible content spoilage so the ship team can respond and attempt to correct the problem before it is too late.

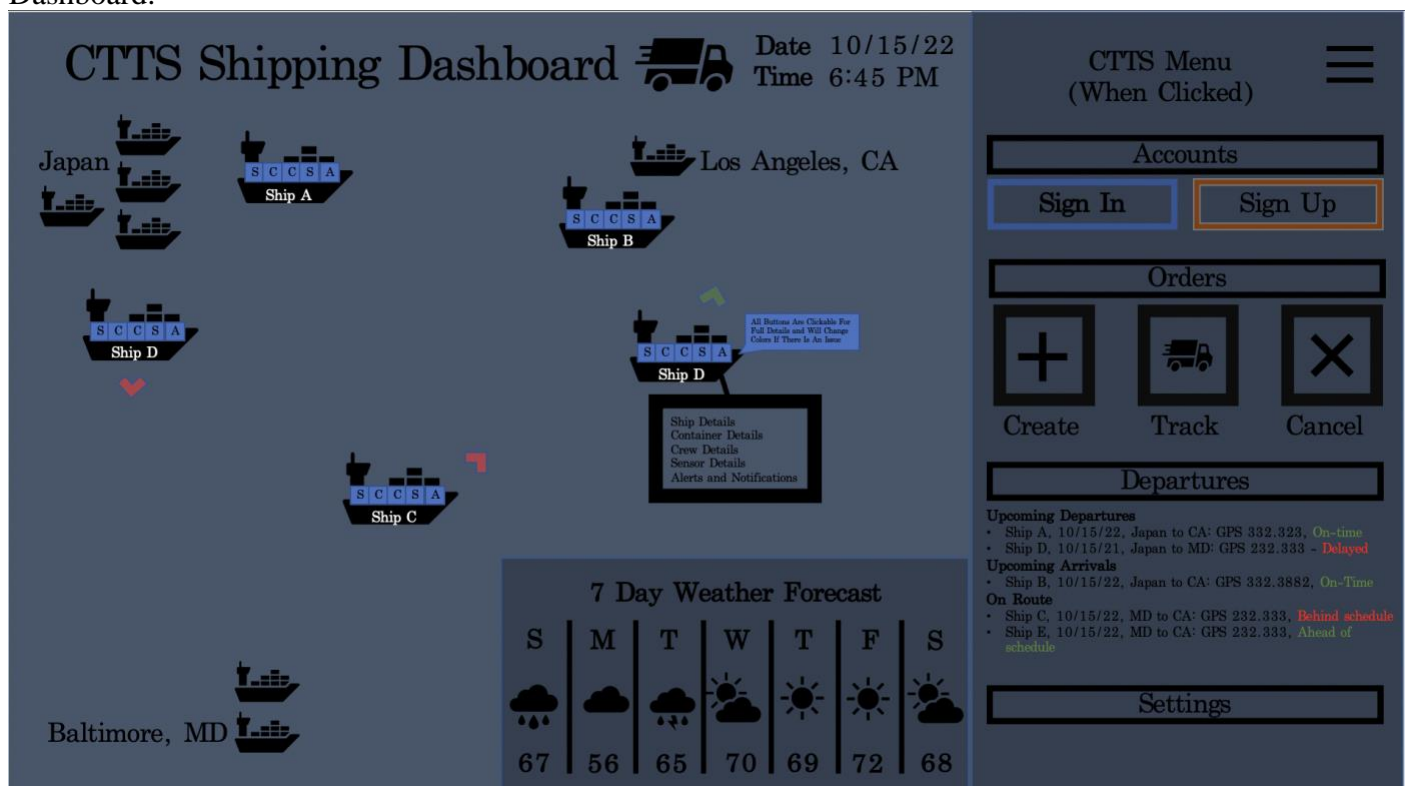
Each cargo ship is equipped to report its GPS location via satellite link. Each brilliant container contains a small device that reports its GPS location, internal temperature, internal humidity, and battery life via a satellite link. An assumption that can be made is that the container device is already installed, and the solution will require each device to be configured to communicate to the CTTS. The configuration information includes the RESTful API URLs, container ID, credentials, and reporting time interval. Each shipping container also has a barcode and/or Q-code that can be scanned to identify the container and view container information such as container number, contents (manifest), size, weight limits, and the contents owner. The CTTS also interfaces with the USA Ship and Container Customs System (SCCS), the SX company billing system called Account Management and Billing System (AMBS), the Global Weather Reporting System (GWRS), and the Homeland Security Alerting System (HSAS).

A truck driver will pick the container up from its original location and bring it to the loading crew to load it onto the ship. Shipping Requests go through the reservation specialist who then goes to management and accounting. AMBs receive payments and will send back confirmation when they receive payment. Satellite communication connects to the CTTS giving GPS and sensor data that is needed to function. Customer requests are sent in and viewed by a tracking specialist. Security alerts are sent to CTTS to ensure management is activated. Weather alerts go into the system to notify anyone near an affected area of the changing weather. In the end, the uploading crew removes the containers loading them onto a truck. In which the truck brings the load to the final location while still tracking the container.

Shipping X Concept of Operations




Dashboard:




5. Personas


1. A **Reservation Specialist** receives a phone or email request for containers to be shipped from one location to another. The Reservation Specialist confirms availability and enters the order. The order is sent to the AMBS for account management and billing. Once the account has been verified or denied, the AMBS will send a message to the CTTS with the order disposition. The Reservation Specialist will receive a notice from the CTTS on a work list to inform the customer of the order status.

Reservation Specialist			
	Job Title: Reservation Specialist Responsibilities: confirms availability and enters the order for crates Experience: 5 years in the industry	Quotes: "If my containers aren't sent to the correct location the crate will take longer to reach its' intended location."	
	Commitments: Get crates out as quick and efficient as possible. Work Preferences: In the office Training Preferences: Recorded Video	Goals: 100% of containers sent to the correct location with the fastest time to the location needed Needs: As the Reservation Specialist Member I need the CTTS to send out the order disposition. What others need from me: I need to be able to report to my manager and billing the status of crates and user.	Think: I hope the CTTS sends out my messages for all who need to see it. Say: I hope the CTTS informs me when the info is received on my message. Feel: Good with new system enhancing reactive time on sending out crates. Do: <ul style="list-style-type: none"> receives a phone or email request for containers to be shipped from one location to another. will receive a notice from the CTTS on a worklist to inform the customer of the order status.

2. Cargo Loading Team Member will scan container bar codes or Q-codes as the containers are loaded onto the ship. The loader verifies the correct container is being loaded into the correct holding position on the ship..


Loading Crew			
	<p>Job Title: Loading Crew Member(s)</p> <p>Responsibilities: Ensure all containers are Loaded to the correct bay area.</p> <p>Experience: 2 years in the industry</p>	<p>Quotes: "If my containers are not sent to the correct location the crates won't reach the intended location on time."</p>	
	<p>Commitments: Load all containers needed.</p> <p>Work Preferences: Loading bay area</p> <p>Training Preferences: Recorded Video/On hands experience</p>	<p>Goals: 100% of containera are taken care of in time range given and in the correct location.</p> <p>Needs: As the Loading Member, I need the CTTS to provide me the correct location for the crates.</p> <p>What others need from me: I need to be able to report to my manager the status of crates.</p>	<p>Think: I hope the CTTS system makes checking on the correct crates easier.</p> <p>Say: I hope the CTTS will inform me when missed crates are not checked in.</p> <p>Feel: Good with new system making the job easier to do.</p> <p>Do:</p> <ul style="list-style-type: none"> • Will scan container's bar code and/or QR-code as the containers are loaded onto the ship and placed on a truck transportation. • Verifies the correct holding positions on the ship(s)>

3. Cargo Unloading Team Member will scan container bar codes or Q-codes as the containers are unloaded onto the ship and placed on a truck for transportation. The loader verifies the correct container is being loaded onto the correct truck


Unloading Crew	
	<p>Job Title: Unloading Crew Member(s)</p> <p>Responsibilities: Ensure all containers are unloaded to the correct bay area.</p> <p>Experience: 2 years in the industry</p>
	<p>Quotes: "If my containers are not sent to the correct location the crates won't reach the intended location on time."</p> <p>Think: I hope the CTTS system makes checking on the correct crates easier.</p> <p>Say: I hope the CTTS will inform me when missed crates are not checked in.</p> <p>Feel: Good with new system making the job easier to do.</p> <p>Do:</p> <ul style="list-style-type: none"> • Will scan container's bar code and/or QR-code as the containers are loaded onto the ship and placed on a truck transportation. • Verifies the correct holding positions on the ship(s)>
<p>Commitments: Unload all containers needed.</p> <p>Work Preferences: Unloading bay area</p> <p>Training Preferences: Recorded Video/On hands experience</p>	<p>Goals: 100% of containera are taken care of in time range given and in the correct location.</p> <p>Needs: As the Unloading Member, I need the CTTS to provide me the correct location for the crates.</p> <p>What others need from me: I need to be able to report to my manager the status of crates.</p>

4. Tracking Specialist: Responsible for monitoring the shipping activities and responding to specific events. These events may be the following:


- ♠ Notifying the ship that Customs has approved it for leaving or entering port
- ♠ Troubleshooting when a wrong container is being loaded into the wrong place
- ♠ Responding to Customs denials of request to exit/enter port

The Tracking Specialist Persona			
	Job Title: Tracking Specialist Responsibilities: Is responsible for monitoring the shipping activities and responding to events as needed, such as: <ul style="list-style-type: none"> • Notifying the ship that Customs has approved it for leaving or entering port • Troubleshooting when a wrong container is being loaded into the wrong place • Responding to Customs denials of request to leave/enter port Experience: <ul style="list-style-type: none"> -At least 10 years in the industry -Geospatial Tracking Specialist Training Level 1 & 2 -Strong Tracking device troubleshooting and operation skills -Moderate technical skills with (computers, hardware, and applications such as Microsoft office) -Security Clearance to be working with the companies tracking system 	Quotes: "I will monitor and track all of the shipments that are occurring to ensure that all of the containers make it to their destination as per the customers specification "	
	Commitments: Be able to maintain all requirements for each container including the location, temperature, and any other specifications given. Work Preferences: In the office, remote on occasion, or even on site if an operation is facing issues. Training Preferences: Recorded Video, or in person training to get a better understanding of the systems	Goals: Ensure that all containers are accounted for and maintained at all times throughout shipment. Needs: As the tracking specialist I need to be able to be able to access the system that has control over the sensors so that I am able to monitor the location and specifications for each container. I also must be able to speak to staff and management at all times so that when an issue is occurring the issue can be fixed promptly to ensure safe deliver of products. What others need from me: Customers and staff need to be able to receive alerts if a container is missing or if it needs maintenance to ensure that the product makes safe deliver	Think: I hope I am able to maintain all of the containers throughout shipment to make sure that all of the shipments arrive to their destination in perfect condition, and they are tended to through deliver if needed Say: I will ensure that all shipments are tracked and monitored throughout shipment while also tending to the staff if there is a repair needed and speaking with the customer if there is any issue such as a delay Feel: That tracking all of the shipments and ensuring that all of them make it to their destination in perfect condition will be difficult due to malfunctions in systems, weather conditions delaying ships, and many other situations that can occur Do: <ul style="list-style-type: none"> • Track the status of all shipments as well as monitor each of the containers throughout delivery • Will respond to any malfunction of the system by letting the staff know so that they can fix the issue


5. Truck Driver will confirm via Cargo Loader/Unloader that pickup or delivery has been made by signing on to the mobile app.

Truck Driver Persona		
	<p>Job Title: Truck Driver</p> <p>Responsibilities: will confirm via Cargo Loader/Unloader that pickup or delivery has been made by signing on to the mobile app As well as will be delivering the cargo to its destination ensuring that it is safe throughout transport</p> <p>Experience:</p> <ul style="list-style-type: none"> -At least 7 years of truck driving experience -Must be adaptable to using new technology through our app -Must be able to drive from point A to point B with as little disruption with the cargo as possible to ensure the customers are satisfied with how it is delivered 	<p>Quotes: “I will deliver all of the products that I am responsible for on my route in a timely and safe manner to ensure that the customer is satisfied with deliver so that it can be marked on the the mobile app”</p>
<p>Commitments: Be able to drive the long distances from point A to point B safely as well as in a timely manner.</p> <p>Work Preferences: Inside driving the truck or on the loading bay restocking the products that are being shipped</p> <p>Training Preferences: Recorded Video, and in person training to get a better understanding of the truck and systems that will be used throughout the position</p>	<p>Goals: Ensure that shipping materials are safely and quickly transported from point A to point B to satisfy the customer's needs. Also ensuring that there is no cargo left behind and that all packages are loaded on the truck through mobile app</p> <p>Needs: As a truck driver I need to be able to access <u>all</u> of the systems within the mobile app that will enable me to ensure all my cargo is loaded on the truck and then off the truck when being delivered. I also need to be able to drive large vehicles/ cargo trucks safely and timely so that delivers are made on time in pristine condition</p> <p>What others need from me: Others need to be able to rely on me to deliver the products being shipped from point A to B in a safe and time friendly manner. They also need to make sure that the shipping products are loaded on to my truck which is indicated through the mobile app</p>	<p>Think: I hope I <u>am able to</u> consistently deliver the customer's shipped products on a timely and safe manner while also maintaining a balance of monitoring the app to ensure all packages are loaded and unloaded at each drop off point</p> <p>Say: I will maintain contact with the destinations so that they can monitor my status of delivery throughout transport of the packaged materials. I will also <u>keep in contact</u> with the unloading and loading crew to ensure all packages are accounted for and if there is a problem with the app</p> <p>Feel: I feel as though maintaining deadlines that ate set by the company may be hard to meet due to traffic or other issues throughout transport. I also feel that learning the app that will be used when unloading and loading at each destination will be difficult since there must be a very methodical way to do it to ensure that all boxes are accounted for.</p> <p>Do:</p> <ul style="list-style-type: none"> • will confirm via Cargo Loader/Unloader that pickup or delivery has been made by signing on to the mobile app • As well as will be delivering the cargo to its destination ensuring that it is safe throughout transport

6. SX Management will review the dashboard and monthly reports as part of their managerial responsibilities

The SX Management Persona		
	<p>Job Title: SX Management</p> <p>Responsibilities: will review the dashboard and monthly reports as part of their managerial responsibilities to ensure that the company is profiting and satisfying all customers while also managing <u>all</u> of the staff</p> <p>Experience:</p> <ul style="list-style-type: none"> -At least 10 years of Management experience and at least 5 years of relevant work experience - Basic Education Requirement - Bachelor's Degree or equivalent experience -Need to be able to work both horizontally and vertically within both organizations and have outstanding presentation skills -Strong communication skills, both verbal and written -Organized with strong administrative skills -Ability to manage staff 	<p>Quotes: “I have high hopes that this company has potential to grow to one of the top ranked shipping companies in the industry through hard work of my staff and hardware produced to ensure that all customers needs are met”</p>
<p>Commitments: Will ensure that the business is running smoothly by managing financial reports, dashboard information, staff, and customers</p> <p>Work Preferences: In the office, remote on occasion</p> <p>Training Preferences: Trainings/meetings with higher ups within the company such as the CEO to get the highest form of understanding</p>	<p>Goals: Ensure that the company is expanding to new customers and satisfying all returning customers. Continue to gain profits to upgrade systems and become a more successful business</p> <p>Needs: As a manager I need to be able to access the dashboard of the of the company to overview the orders that are being processed and shipped. I also must be able to get <u>all</u> of the information needed to create reports to try and attract new customers. I also must have the ability to manage all my staff and formulate adjustments to services to maximize efficiency as well as profit margins</p> <p>What others need from me: Others need me to be able to make important decisions in terms of hiring well suited employees for openings. Ensuring there is no issues for any customers and that all needs are met to their standards. Creating a <u>well rounded</u> work environment for all employees to make all the staff more willing to work. Grow the company to make a larger corporation to ensure success with all staff</p>	<p>Think: I hope that I <u>am able to</u> manage <u>all</u> of my staff and complete of the reports that are necessary to make this company as successful as possible.</p> <p>Say: I will provide <u>all</u> of my staff and <u>well rounded</u> place to work so that all employees are more inclined to do their best in their positions to increase productivity. I will also interact with the customers to ensure their needs are met while also meeting the higher up within the companies needs</p> <p>Feel: Managing all my staff and completing <u>all</u> of my managerial responsibilities will be tough due to the high stress atmosphere of the position. I do believe that I can handle it and take on this role so this company can continue to profit and grow to unknowing heights</p> <p>Do:</p> <ul style="list-style-type: none"> • Create Monthly reports for the business to ensure that there is growth within the company and to <u>make adjustments</u> to positions that can grow • Drive productivity within the company to ensure the highest profit margins • Access the dashboard to manage orders and customers

7. Customer

Customer		
	Job Title: Customer Responsibilities: Wait for delivery of crate Experience: N/A	Quotes: "I would like to have my ordered item(s) to get to me without much delay."
	Commitments: To order products/deliveries Work Preferences: N/A Training Preferences: N/A	Goals: Receive order(s) from company Needs: As the customer, I need the CTTS to give me the location of my ordered items. Also how long the package order will take to get to me. What others need from me: I need to be able to contact workers to give them any info about my order(s).

6. CTTS Customer Journey Map

CTTS Customer Journey Map						
Attributes/Phases	Establish Account	Request/ Cancel Shipping	Check Status of Origin	Check Status at Sea	Check Destination Status	Review & Approve Bill
Activities Performed	Contact CTTS to open an account Or Maybe I'll use their self-service portal an open account myself	Contact the CTTS Dashboard to place an order or go through the reservation specialist to place an order	Contact CTTS through the dashboard or through the reservation specialist to check the status on all of the containers for the order.	Contact CTTS through the dashboard or through the reservation specialist to check the status on all of the containers for the order.	Contact CTTS through the dashboard or through the reservation specialist to check the status on all of the containers for the order.	Review The order that has been received and sure it is in quality condition so that the bill can be approved for the service provided
Emotions	I hope it isn't difficult or take long to open an account. I'm under so much pressure I can't afford extra delays.	I am very nervous playing an order for the first time through CTTS and I am worried that the shipment might take too long or will arrive damaged	Knowing that my order is ready to ship I am very excited to receive it. I am also nervous at the same time for if this was the right shipping company to order from	I am very nervous that something bad will happen while the package is at sea, but I am trying to stay excited since it is getting closer	I am nervous that it will not meet my expectations when it is delivered but once again trying to stay positive throughout shipment	Relieved that the order was delivered on time with no damage. It felt like the first breath of fresh air from the moment this started
Customer Past Experiences & Pain Points	I know from experience I better have all CTTS's information ready when I go to open an account.	If the shipping order gets messed up when the order is processed there is no way the package will arrive in time, so I better ensure it is correct by continuing to check the dashboard	I am annoyed that the system is not updating the status of my order fast enough so it is making me unsure if it will arrive on time	I will be very annoyed if my package gets lost at sea during transport because it will ruin my experience with the company	I will be upset if the company delivers the package in a poor condition or late since I am so excited for it	This experience opened my eyes to the company and even through all the anxious thoughts they managed to pull through and get my order to me just the way it should be
Expectations	Once I set up the CTTS account I will be able to immediately put in a shipping request.	Once the order is in it will be ensured that the order will be placed so that it will be scheduled to arrive on time	I expect that this item will be here soon since it is being processed to ship and it is making me want it now	I expect that my package is monitored and updated throughout the shipment across the sea	I expect that my package is left in perfect condition at my door in a timely manner	The Order was delivered in a timely manner and now the bill is looking to be approved so that the service can be paid for from a happy customer
Opportunities	A good first experience will be a good start to the customer relationship.	This first shipment is very crucial to the future that we have with the company since this will decide whether this relationship will be long term	Hopefully this package is maintained through the long journey that this has ahead of it	I am happy to see that Shipping X has managed to get my package out to sea and follow through with the completion of the order	This opportunity will make more interested in pursuing a relationship the future	After this first shipment this opened my eyes to the company, and I look forward to a long relationship in the future even with the price

7. Design and Implementation Constraints

Limitations include the budget, in which there is a set amount of money available. An Agile approach to this limitation is being used to develop the system. The system must use restful APIs and cloud Microsoft Azure. If anything happens to the restful APIs or the cloud we must wait on them to be fixed. Max amount of 100 user stories should be enough to work with but if we need more we can't go over that threshold. The system needs to have everything working and if something stops working we need it to alert Management so they may fix the issue. Needs to check regularly that nobody has a clearance level higher than they should be given. The system must run 24/7 and always be a tracking container. It should alert Management as soon as an interruption occurs. SX has a limited budget and requires an agile approach to be used in developing the system. SX requires that CTTS is a 24x7x365 system. SX company has requested releases of CTTS use 4-week sprints with demonstrations. SX releases to the production environment occur every three months

Privacy & Security:

- ♠ AMBS must be secure so that the user's personal information is protected
- ♠ Tracked system must be secure at all times for the cargo and overall sales

Users:

- ♠ Must be able to place and review their order(s) either through an app or website
- ♠ Must be able to track orders through numbers, therefore trackers must be designed to remain online and constantly communicate with satellites

Interfacing with other Systems:

- ♠ CTTS must interface with the following systems to receive relevant information, etc.
 - ♠ USA Ship and Container Customs System (SCCS)
 - ♠ Account Management and Billing System (AMBS)
 - ♠ Global Weather Reporting System (GWRS)
 - ♠ Homeland Security Alerting System (HSAS)

8. Epics and User Stories

8.1 Epic 1: Order Processing and Scheduling

Epic Description: SX needs to be able to accept and process shipping container order(s), reserve and schedule containers, space on the ship, trucks, loading/unloading crews to ship containers from an origin to a destination. SX also needs to be able to update shipping requests and schedules as events mandate.

Acceptance Criteria: The CTTS system will be used to create an account in which the order from the customer will be processed/ delivered so that billing can follow.

8.1.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Order Processing and Scheduling describing actions that this portion of the CTTS will perform.

User Story 1.1: Utilization Of CRUD	
User Story	As a Reservation Specialist, I need to be able to create read, update and delete orders so that all orders are correctly processed for the customer
Acceptance Criteria	Customer's orders can be created, read, updated, and deleted within the CTTS system

User Story 1.2: Creation Of An Account	
User Story	As a customer, I need to have the ability to create an account in the CTTS system for the purpose of utilizing its features of creating, tracking, and canceling orders
Acceptance Criteria	The customer must be able to create a account that is able to create orders, track orders, and cancel orders

User Story 1.3: Creation Of An Order	
User Story	As a Reservation Specialist, I need to have the ability to receive emails, phone calls, or requests from a user account for the purpose of creating an order for the customer
Acceptance Criteria	Access to the customer's information within the system is pivotal to create their order

User Story 1.3: The Acceptance Of An Order	
User Story	As a Reservation Specialist, I need to confirm the information is correct for the customer and the order for the purpose of approving the order to be processed
Acceptance Criteria	The customer's information is confirmed and the order details are established after which the order is processed

User Story 1.4: Product Description and Delivery Details	
User Story	As a Reservation Specialist, I need to approve the product details to get the specific requirements of the product so that accommodations can be met and the delivery can be made to the correct location
Acceptance Criteria	The customer must provide the product details, specifications, and the delivery location.

User Story 1.4: Reserving Cargo Ship Containers	
User Story	As a Reservation Specialist, I need to contact the Loading Team Crew to determine if there is space onboard the Cargo ship heading to that destination or if staff is available so that the order processing can be carried out
Acceptance Criteria	The Loading Team Crew must be able to establish if there is room on board the cargo ship heading to a specific destination and staff available to load the containers

User Story 1.5: Cargo loading Team Notify Reservation Specialist	
User Story	As a Cargo Loading Team Member, I need to be in contact with the Reservation Specialist so that I am able to check if there is space onboard the ship for a customer's order and staff available
Acceptance Criteria	The Cargo Loading Team Member needs to be alerted by the Reservation Specialist to establish if there is room on the cargo ship and staff available

User Story 1.6: Cargo Loading Team Verification	
User Story	As a Reservation Specialist, I need to receive feedback from the Cargo Loading Team Members if there space within the ship and staff available so that the customer can be notified in the event there isn't room
Acceptance Criteria	The Cargo Loading Team must inform the Reservation Specialist if there is space within the ship and staff available

User Story 1.7: Cargo Unloading Team Confirmation	
User Story	As a Reservation Specialist, I need to be able to contact the Cargo Unloading Team to ensure that there is a team of staff available at a specific destination so that all cargo can be unloaded successfully

Acceptance Criteria	The Cargo Unloading Team is contacted to notify whether there is a team of staff and space available when an approaching ship is arriving
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User Story 1.8: Cargo Unloading Team Notify Reservation Specialist	
User Story	As a Cargo Unloading Team Member, I need to ensure that there is enough space on the unloading bay and that there is a team available when the ship arrives so that the Reservation Specialist can be notified that there will be no issues when the cargo ship docks.
Acceptance Criteria	The Reservation Specialist needs to be updated that there is a unloading team available with space open for the process of unloading to be completed

User Story 1.9: Reserving Truck Driver	
User Story	As a Reservation Specialist, I need to contact the port that the incoming delivery is being made at so that a Truck Driver can be reserved to have the Cargo Loading Team load the truck with the shipment and have the driver deliver the customer's order
Acceptance Criteria	The Truck Driver must ensure that they are available for the incoming deliver to be loaded on their truck so that they can deliver the good to the customer

User Story 1.10: Confirmation With Truck Driver	
User Story	As a Truck Driver, I need to check to make sure that my vehicle is ready to have the ship's cargo loaded onto it so that I can make the deliveries to the customer without issues after notifying the Reservation Specialist
Acceptance Criteria	The Reservation Specialist will receive a notification stating that the Truck Driver will have newly delivered packages loaded onto his truck for deliver to the customer

User Story 1.11: Truck Driver Delivery	
User Story	As a Truck Driver, I need to ensure that the package is delivered to the customer by labeling it in the CTTS system so that the order's completion can be made visible to the costumer
Acceptance Criteria	The Customer must be able to see that the order has been delivered after the truck driver drops off the package which notifies the reservation specialist

User Story 1.12: Upon Order Completion	
User Story	As a Reservation Specialist, I need to send out the confirmation that the deliver has been made with an attached bill so that the customer is able to pay Shipping X for the services that it has provided to the user

Acceptance Criteria	The Reservation specialist must be notified when the deliver is made through CTTS so that the bill and confirmation can be sent out
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8.2 Epic 2: Billing and Payments

Epic Description: SX needs to be able to ensure shipping container customer bills are calculated by the billing system and are paid before reserving and scheduling the container shipment.

Acceptance Criteria: Confirm the order details by calculating a price for the service being requested by the user in which they will provide a payment method that will be sent to the AMBS for verification until it is approved for production.

8.2.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Billing and Payments describing actions that this portion of the CTTS will perform.

User Story 2.1: Composing The Bill For Customer	
User Story	As a Reservation Specialist, I need to calculate the value of the service that we are providing the user within the order so that I am able to send the bill to the customer to begin the payment process
Acceptance Criteria	The customer's bill must be calculated so that it is able to be sent to the customer for payment

User Story 2.2: Customer Agreeing To Pay The Amount Due	
User Story	As a Customer, I need to agree to the amount of the service that is being provided by providing a payment method to the Reservation Specialist such as a credit card so that my order can be processed/ shipped.
Acceptance Criteria	The Reservation Specialist must receive a payment method from the customer that can be processed to pay for the amount due

User Story 2.3: Verifying The Order Through AMBS	
User Story	As a Reservation Specialist, I need to send the order through the AMBS system to ensure that the order is valid and the account for the Customer is acceptable so that this can move forward in the production line to payment processing.
Acceptance Criteria	The customer's order is verified by the AMBS to confirm the details are correct and valid while also proving that the customer has a verified account

User Story 2.4: Verifying The Payment Made By The Customer	
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User Story	As a Reservation Specialist, I need to send the payment method through the AMBS system to check to ensure the payment method is valid and will process when the payment is made so that Shipping X gets paid for the service.
Acceptance Criteria	The customer's payment method is verified by being sent through the AMBS

User Story 2.5: Payment Process Is Completed

User Story	As a Reservation Specialist, I need to ensure that the payment is confirmed through the AMBS system so that the Shipping service order can be processed and begin production.
Acceptance Criteria	The Reservation Specialist must verify the payment was verified before sending the order to be processed

User Story 2.6 Customer Receives Order Confirmation

User Story	As a customer, I want to receive a confirmation of my order so that I know that CTTS is on it.
Acceptance Criteria	Given an order confirmation when user payment has been processed then the customer knows that their order is on the way.

8.3 Epic 3: Ship and Container Tracking:

Epic Description: SX needs to be able to track the location of the ship, each container, and trucks.

Acceptance Criteria: The Tracking Specialist should receive the order details in which throughout the shipment all aspects can be monitored such as location, temperature, humidity, and battery life so there can be a response if any of these systems fail

8.3.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Ship and Container Tracking describing actions that this portion of the CTTS will perform.

User Story 3.1 Ship Manager Ensures Tracking System is in Working Order

User Story	As a Ship Manager, I want to perform periodic checks so that I know that the tracking system is working.
Acceptance Criteria	Given access to the tracking system when the ship is at sea then the Ship Manager can confirm that all is in working order.

User Story 3.2: Order Details Being Transferred To Tracking Specialist

User Story	As a Reservation Specialist, I need to transfer the order details of the customer's package to the Tracking Specialist so that the
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	order can be reviewed to understand the requirements for the specific order
Acceptance Criteria	The Tracking Specialist must receive the order/ package details from the Reservation Specialist for further processing

User Story 3.3: Tracking Specialist Order Understanding

User Story	As a Tracking Specialist, I need to review the order details that have been transferred so that I may get a stronger understanding of how this package should be tracked and how its requirements may be fulfilled
Acceptance Criteria	The customer's package is reviewed to build a stronger understanding of the package at hand with all of it's requirements

User Story 3.4: Order's Initial Tracking

User Story	As a Tracking Specialist, I need to be able to monitor that the package's initial movements lead it to the correct destination so that in the end the package will eventually make it to the customer's desired location.
Acceptance Criteria	The customer's order must be confirmed that the initial movements of the package have led it to the correct destination with the set requirements functional

User Story 3.5: GPS Location Is Able To Map Cargo Ship Route

User Story	As a Tracking Specialist, I need to be able to check the GPS location of all cargo ships at all times to ensure that all of the ships are on route and are not delayed or lost.
Acceptance Criteria	The cargo ship's GPS location must be known at all times

User Story 3.6: GPS Location Is Able To Map Container Route

User Story	As a Tracking Specialist, I need to be able to check the GPS location of all containers at all times to ensure that all of the containers are on route and are not delayed or lost
Acceptance Criteria	The container's GPS location must be known at all times

User Story 3.7: Ensuring The Internal Temperature Is Meeting The Requirement

User Story	As a Tracking Specialist, I need to ensure that the internal temperature within each of the containers being shipped is holding the internal temperature that was specified so that the customer can receive their order in the condition they expect it to be in.
Acceptance Criteria	The container's internal temperature must be monitored through the sensor pack on each of the containers

User Story 3.8: Testing Protocol For Emergencies

User Story	As a Tracking Specialist, I need to be able to alert the Cargo Loading/ Unloading Team as well as the ship crew that there is an
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	issue with a container so that the customer's package can be guaranteed to show up the way that it is expected.
Acceptance Criteria	The staff and crew must be able to respond to any issues with the products being shipped whether it be the sensor pack or a lost container

User Story 3.9: Alerting The Shipping Crew

User Story	As a Tracking Specialist, I need to be able to alert the ship crew or Cargo Loading/ Unloading Team that there is a potential issue with the customer's order so that the order's resolution can be created for the staff and customer
Acceptance Criteria	The Cargo Loading/ Unloading Team and shipping crew must be able to receive alerts if there is an issue throughout transport with a customer's order

User Story 3.10: Ensuring The Internal Humidity Is Meeting The Requirement

User Story	As a Tracking Specialist, I need to be able to monitor each of the containers if the internal humidity is severely affecting the internal temperature so that the shipping crew will be able to adjust each of the containers to ensure proper delivery.
Acceptance Criteria	The containers sensor pack must be able to track the internal humidity to ensure that all containers are matching the temperature requirements that the customer has set

User Story 3.11: Ensuring That The Sensor Pack Has Enough Battery Life

User Story	As a Tracking Specialist, I need to be able to monitor the battery life on each of the sensor packs attached to a container so that there is a lower possibility that there will be an issue with a customer's order throughout shipment
Acceptance Criteria	The container's GPS must be able to remotely checked and monitored throughout shipment

User Story 3.12: GPS Location Is Able To Map Delivery Truck Route

User Story	As a Tracking Specialist, I need to be able to check the GPS location of all delivery trucks at all times to ensure that all of the trucks are on route and are not delayed or lost.
Acceptance Criteria	The delivery truck's GPS location must be known at all times

User Story 3.13: Troubleshooting When Cargo Ship Issues Occur

User Story	As a Tracking Specialist, I need to be able to transfer the cargo onto a new cargo ship if an issue occurs at any time through shipment so that the customer's order is safely maintained throughout shipment.
Acceptance Criteria	A new ship can be called so that the goods can be transferred onto the new ship so the old one can be repaired in time for the next delivery

8.4 Epic 4: User Interface:

Epic Description: SX needs to be able to view and access CTTS capabilities through a web browser. SX needs a smartphone application to scan container bar codes and Q-codes to identify a container and access CTTS capabilities using a smartphone application.

Acceptance Criteria: Each of the positions within the company will monitor and report each of the containers to the CTTS so that throughout shipment the customer's orders are never lost or mishandled

8.4.1 User Stories

The Following is a concise list of the user stories that fall under the epic: User Interface describing actions that this portion of the CTTS will perform.

User Story 4.1: Cargo Loading Team Reporting To The CTTS	
User Story	As a Cargo Loading Team, I need to scan and review each of the containers that are being loaded onto the cargo ship so that the Tracking Specialist can monitor each of the containers throughout the course of shipment.
Acceptance Criteria	Each container must be reviewed and scanned by the Cargo Loading Team when pickup and dropoff occur

User Story 4.2: Cargo Unloading Team Reporting To The CTTS	
User Story	As a Cargo Unloading Team, I need to scan and review each of the containers that is being loaded onto the Truck Driver's vehicle from the cargo ship so that the Tracking Specialist can monitor each of the containers throughout the course of shipment
Acceptance Criteria	Each container must be reviewed and scanned by the Cargo Unloading Team when pickup and dropoff occur

User Story 4.3: Truck Driver Reporting To The CTTS	
User Story	As a Truck Driver, I need to scan and review each of the containers that is loaded onto my truck or delivered so that the tracking specialist can monitor its location and the customer can view what the status of their package is
Acceptance Criteria	Each container must be reviewed and scanned by the Truck Driver when pickup and dropoff occur

User Story 4.4: Tracking Specialist Reviewing The CTTS System	
User Story	As a Tracking Specialist, I need to be able to review the CTTS system to ensure that all cargo ships, trucks, sensors, and containers are on route, working, or being unloaded/ loaded so the customer will received the shipment they expect

Acceptance Criteria	The cargo ships, trucks, sensors, and containers are all double checked to ensure that their no issues throughout the shipment process
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User Story 4.5: SX Management Review	
User Story	As a SX Manager, I need to be able to review all aspects of the CTTS system and staff so that I can fill out all necessary reports and make any changes important to have this company run smoothly
Acceptance Criteria	The ability for the SX Management to review and report on all aspects of the CTTS system

8.5 Epic 5: Customs:

Epic Description: SX needs to report to customs ship and container manifest, and request permission to leave/enter the port. Ships will be notified (via radio) of any request approvals or denials.

Acceptance Criteria: For international shipments to Japan and back requests must be made through the SCCS to be approved or Denied Access to enter and leave a port for delivery

8.5.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Customs describing actions that this portion of the CTTS will perform.

User Story 5.1: Reporting To SCCS For International Shipments	
User Story	As a Tracking Specialist, I need to report to SCCS prior to the departure of the cargo ship that a shipment is being made to Japan or from Japan so that the customer's order can be delivered on time to the destination
Acceptance Criteria	The shipment must be reported to the SCCS prior to the departure of the cargo ship so that it can be approved

User Story 5.2: Deliver To A Port	
User Story	As a Tracking Specialist, I need to request permissions for a cargo ship to be able to dock at a port so that the cargo can be unloaded and delivered to the customer
Acceptance Criteria	Access must be requested to be able to dock at a port to unload the delivery

User Story 5.3: SCCS Communication Stating Access Granted To Enter	
User Story	As a Tracking Specialist, I need to communicate with the cargo ship after SCCS has reached out granting access so that the cargo ship can dock and unload the delivery onto the port.

Acceptance Criteria	An alert must be sent to the cargo ship stating that the SCCS has approved access to the port and they are able to dock
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User Story 5.4: SCCS Communication Stating Access Denied To Enter	
User Story	As a Tracking Specialist, I need to communicate with the cargo ship after SCCS has reached out denying access so that the issue can be resolved before the cargo ship docks at the port
Acceptance Criteria	An alert must be sent to the cargo ship stating that the SCCS has denied access to dock at the port so they must wait to dock until it is approved

User Story 5.5: SCCS Communication Stating Access Granted To Leave	
User Story	As a Tracking Specialist, I need to communicate with the SCCS to request for a cargo ship to leave the dock so that if it is denied then the issues can be resolved before the ship leaves port.
Acceptance Criteria	An alert must be sent to the cargo ship stating that SCCS has denied their access to leave the port after communicating with them so they must wait until it is approved until they may leave

User Story 5.6: SCCS Communication Stating Access Denied To Leave	
User Story	As a Tracking Specialist, I need to communicate with the SCCS to request for a cargo ship to leave the dock so that the cargo ship can move to its next required destination.
Acceptance Criteria	An alert must be sent to the cargo ship stating that SCCS has approved their access to leave the port after communicating with them

User Story 5.7: Notifying The Customer Of Delays Due To SCCS	
User Story	As a Tracking Specialist, I need to contact the customer directly through email or the CTTS so that they can be informed that there will be a delay of their shipment due to problems occurring with the SCCS
Acceptance Criteria	The customer must be informed of the delays that are occurring because of the SCCS system through the CTTS or email

8.6 Epic 6: Weather Alerts:

Epic Description: SX needs current weather information so it may warn its ship crew (via radio) of upcoming weather events.

Acceptance Criteria: The Tracking Specialist must determine whether the weather is safe to travel in and then notify each of the different positions and the customer that there will be a delay in the shipment

8.6.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Weather Alerts describing actions that this portion of the CTTS will perform.

User Story 6.1: Tracking Specialist Procedurally Checks The Weather On Delivery Routes	
User Story	As a Tracking Specialist, I need to communicate with the GWRS to determine if there are any inclement weather events scheduled to occur at any point through the delivery of a customer's order so that the cargo ship or delivery truck can be notified
Acceptance Criteria	Communication with the GWRS needs to occur so that there can be a determination if there is an inclement weather event on delivery routes which will appear in the dashboard

User Story 6.2: Notifying The Cargo Loading Team Of The Weather	
User Story	As a Tracking Specialist, I need to communicate with the Cargo Loading Team to extend the news that the shipment will be delayed because of inclement weather so that they can prepare for the storm
Acceptance Criteria	The Cargo Loading Team will be advised to prepare for the storm and delay the process of loading cargo ship

User Story 6.3: Delay Being Placed On Shipment For The Cargo Loading Team	
User Story	As a Cargo Loading Team, I need to receive a notification from the Tracking Specialist of Inclement Weather so that the process of loading the cargo ship can be delayed for safety concerns
Acceptance Criteria	The Tracking Specialist needs to notify the Cargo Loading Team to delay the process of shipping due to inclement weather

User Story 6.4: Notifying The Cargo Unloading Team Of The Weather	
User Story	As a Tracking Specialist, I need to communicate with the Cargo Unloading Team to extend the news that the shipment will be delayed because of inclement weather so that they can prepare for the storm
Acceptance Criteria	The Cargo Unloading Team will be advised to prepare for the storm and delay the process of unloading the ship on to the delivery truck

User Story 6.3: Delay Being Placed On Shipment For The Cargo Unloading Team	
User Story	As a Cargo Unloading Team, I need to receive a notification from the Tracking Specialist of Inclement Weather so that the process of unloading the cargo ship onto the truck can be delayed for safety concerns
Acceptance Criteria	The Tracking Specialist needs to notify the Cargo Unloading Team to delay the process of shipping due to inclement weather

User Story 6.6: Notifying The Truck Driver Of The Weather	
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User Story	As a Tracking Specialist, I need to communicate with the Truck Driver to notify the driver of the inclement weather so that their deliveries can be placed on hold until area is clear and safe
Acceptance Criteria	The Truck Driver must be notified of the inclement weather so that they can halt deliveries for the time being

User Story 6.7: Delay Being Placed On Shipment For The Truck Driver

User Story	As a Truck Driver, I need to receive a alert from the Tracking Specialist that there is inclement weather too unsafe to deliver in so that I can pull off the road until the storm clears
Acceptance Criteria	The Tracking Specialist must notify the Truck Driver of the inclement weather and instruct them to not deliver until it clears

User Story 6.8: Notifying The Customer Of The Delay

User Story	As a Tracking Specialist, I need to update the status of the deliver on the CTTS system stating that it will be delayed due to the weather while also sending a message to the customer so that they can understand that it is too unsafe to deliver their package
Acceptance Criteria	The Customer must be notified that there will be a delay with the delivery of their package to its destination because of the weather through CTTS

8.7 Epic 7: Homeland Security:

Epic Description: SX needs current threat and terrorism information so it may warn its ship crew (via radio) of possible attacks.

Acceptance Criteria: The Tracking Specialist would be the first to notify all of the employees of Shipping X to stop what they are doing and evacuate to a safe area while also contacting the customer of the potential threat

8.7.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Homeland Security describing actions that this portion of the CTTS will perform.

User Story 7.1: Tracking Specialist Taking Precautions For Any High-Level Threats

User Story	As a Tracking Specialist, I need to notify all of the employees and workers about any high-level threats that have been found within the dashboard so that the authorities can be called to investigate the situation
Acceptance Criteria	Must all parties involved with the company about a high-level threat that has been placed on the company so that the situation can be handled with the proper care.

User Story 7.2: Notifying The Cargo Loading Team About Potential Threats	
User Story	As a Tracking Specialist, I need to notify the Cargo Loading Team about a potentially high-level threat within the company so that the team can evacuate to a safe area for the time being
Acceptance Criteria	The Cargo Loading Team must receive a notification that there has been a potentially high-level threat detected within the company

User Story 7.3: Delay The Cargo Loading Team Due To Potential Threats	
User Story	As a Cargo Loading Team, I need to receive a message from the Tracking Specialist that will instruct us to evacuate due to a potentially high-level that so that no one gets hurt
Acceptance Criteria	The Tracking Specialist will send out a message to the Cargo Loading Team to evacuate to avoid a potentially high-level threat

User Story 7.4: Notifying The Cargo Unloading Team About Potential Threats	
User Story	As a Tracking Specialist, I need to notify the Cargo Unloading Team about a potentially high-level threat within the company so that the team can evacuate to a safe area for the time being
Acceptance Criteria	The Cargo Unloading Team must receive a notification that there has been a potentially high-level threat detected within the company

User Story 7.5: Delay The Cargo Unloading Team Due To Potential Threats	
User Story	As a Cargo Unloading Team, I need to receive a message from the Tracking Specialist that will instruct us to evacuate due to a potentially high-level that so that no one gets hurt
Acceptance Criteria	The Tracking Specialist will send out a message to the Cargo Unloading Team to evacuate to avoid a potentially high level threat

User Story 7.6: Notifying The Truck Driver About Potential Threats	
User Story	As a Tracking Specialist, I need to notify the Truck Driver about a potentially high-level threat within the company so that they can evacuate to a safe area for the time being
Acceptance Criteria	The Truck Driver must receive a notification that there has been a potentially high-level threat detected within the company

User Story 7.7: Delay The Truck Driver Due To Potential Threats	
User Story	As a Truck Driver, I need to receive a message from the Tracking Specialist that will instruct us to evacuate due to a potentially high-level that so that no one gets hurt
Acceptance Criteria	The Tracking Specialist will send out a message to the Truck Driver to evacuate to avoid a potentially high level threat

User Story 7.8: Notifying The Customer Of The Delay	
User Story	As a Tracking Specialist, I need to update the status of the deliver on the CTTS system stating that it will be delayed due to a potential threat within the company while also sending a message to the customer so that they can understand that it is too unsafe to deliver their package
Acceptance Criteria	The Customer must be notified that there will be a delay with the delivery of their package to its destination because of the potentially high level threat through CTTS

8.8 Epic 8: Dashboard:

Epic Description: SX needs dashboards at SX head to be able to quickly view the status of ships and containers.

Acceptance Criteria: This must describe the processes that will be carried about by each of the different personas through the CTTS dashboard

8.8.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Dashboard describing actions that this portion of the CTTS will perform.

User Story 8.1: Providing The Tracking Specialist With Procedures	
User Story	As a Reservation Specialist, I need to add the order to the dashboard so that the Tracking Specialist can begin working on the different procedures that come with a new order being processed through CTTS
Acceptance Criteria	The order will be added CTTS dashboard for the Tracking Specialist so that they can begin breaking down the order into all of the procedural components

User Story 8.2: Tracking Specialist Notifying The Cargo Loading Team About A New Order	
User Story	As a Tracking Specialist, I need to notify The Cargo Loading Team that a new order needs to be processed through the CTTS dashboard so that the order can be packaged and be ready to be placed on the ship by the crew
Acceptance Criteria	The Cargo Loading Team is notified of a new order so that it can be processed and there will be a team ready to bring the cargo on the ship

User Story 8.3: Cargo Loading Team Begin Processing The Order
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User Story	As a Cargo Loading Team, I need to process the order on the dashboard and load it on the ship so that the shipment can be sent to its destination with no issues or problems.
Acceptance Criteria	The order is reviewed by the Cargo Loading Team and then is processed so that it can then be loaded onto the ship for transport

User Story 8.4: Reservation Specialist Logs Back In To Ensure Shipment Has Begun

User Story	As a Reservation Specialist, I need to log back on to CTTS dashboard to check to make sure the shipment has been made to its destination so that I can contact the Cargo Unloading Team to be prepared for an incoming shipment
Acceptance Criteria	The Cargo Unloading Team is notified that there is a new order that has been shipped that will be arriving soon to be unloaded and delivered

User Story 8.5: Cargo Unloading Team Await The Arriving Ship To Begin Unloading

User Story	As a Cargo Unloading Team Member, I need to check the CTTS dashboard after being notified by the Reservation Specialist so that I can gather the crew to prepare for the new shipment of the order
Acceptance Criteria	The Cargo Unloading Team will be notified by the Reservation Specialist so that a crew is gathered after reviewing the order

User Story 8.6: Truck Driver Uses Dashboard To Confirm Pickup

User Story	As a Truck Driver, I need to confirm on the dashboard that the Cargo Unloading Team loaded the order from the cargo ship onto the delivery truck so that it can be delivered to the customer's destination
Acceptance Criteria	The Truck Driver updates the dashboard to confirm that the Cargo Unloading Team loaded the order onto the truck for delivery

User Story 8.7: Tracking Specialist Notifies Customer Of The Status Of Order

User Story	As a Tracking Specialist, I need to update the order status on the dashboard when the Truck Driver Delivers the package so that the customer is notified when the package is delivered to their desired destination
Acceptance Criteria	The Truck Driver must notify the Tracking Specialist so that they can update the order status that the order has been delivered to the customer

User Story 8.8: SX Management Provides Routine Check-Up For Report

User Story	As a SX Manager, I need to provide a check up on the dashboard to ensure that business is running smoothly without any problems and to get the monthly reports prepared from the data in the dashboard
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Acceptance Criteria	The SX Manager will use the CTTS dashboard to ensure that business is running smoothly and to gather data for monthly reports
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8.9 Epic 9: Authentication and Authorization:

Epic Description: SX needs to have various roles, users, and interfaces authenticated and authorized.

Acceptance Criteria: Each employee within the Shipping X company must check in to complete their daily tasks within the CTTS system and the SX management must authorize those who have access to the system

8.9.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Authentication and Authorization describing actions that this portion of the CTTS will perform.

User Story 9.1: Reservation Specialist Check-In	
User Story	As a Reservation Specialist, I need to check into the CTTS system so that I can begin replying to emails and order requests so that we can continue doing business with customers who need a shipping service
Acceptance Criteria	Reservation Specialist checks into the CTTS system

User Story 9.2: Tracking Specialist CTTS Check-In	
User Story	As a Tracking Specialist, I need to check into the CTTS system so that I can track shipments, keep track of the weather updates, and keep track of any threats to the company.
Acceptance Criteria	Tracking Specialist checks into the CTTS system

User Story 9.3: Cargo Loading Team Member CTTS Check-In	
User Story	As a Cargo Loading Team Member, I need to check into the CTTS system so that I am able to scan/ manage shipping containers filled with orders that will be loaded onto a cargo ship to its destination
Acceptance Criteria	The Cargo Loading Team checks into the CTTS system

User Story 9.4: Cargo Unloading Team Member CTTS Check-In	
User Story	As a Cargo Unloading Team Member, I need to check into the CTTS system so that I am able to scan/ manage shipping containers filled with orders that will be unloaded from the cargo ship onto the delivery truck to be delivered to the customer
Acceptance Criteria	Cargo Unloading Team checks into the CTTS system

User Story 9.5: Truck Driver CTTS Check-In	
User Story	As a Truck Driver, I need to check into the CTTS system to confirm the packages that have been loaded onto my truck are all of the orders that I need to deliver so that I can bring all of the customers their orders for drop off.
Acceptance Criteria	Truck Driver checks into the CTTS system

User Story 9.6: SX Management CTTS Check-In	
User Story	As an SX Manager, I need to check into the CTTS system to complete order data and manage all of the positions that are running within the system to ensure there are no issues for any of the customers or employees
Acceptance Criteria	SX Management checks into the CTTS system

User Story 9.6: SX Management Authorizes New User	
User Story	As an SX Manager, I need to authorize any new hires or new customers to the company CTTS so that they can either complete their daily tasks or manage their service that they are paying for
Acceptance Criteria	SX Management authorizes new employees and customers that can access the dashboard and CTTS system

User Story 9.7: SX Manager Distributes Login Details To Employees	
User Story	As an SX Manager, I need to distribute login details to each user to access the CTTS so that they are able to complete their daily tasks without any issues of accessing the system.
Acceptance Criteria	Employees are given Login IDs and login information that they will input to access the CTTS system

8.10 Epic 10: Reporting:

Epic Description: SX needs to produce monthly reports of shipping activity.

Acceptance Criteria: The SX Manager must create a monthly report for the data that has been entered into the CTTS system to determine how well the company is doing and how it can be improved

8.10.1 User Stories

The Following is a concise list of the user stories that fall under the epic: Reporting describing actions that this portion of the CTTS will perform.

User Story 10.1: Reservation Specialist Provides Data To SX Management	
User Story	As a Reservation Specialist, I need to provide SX Management with all of the data that I have retained this past month including

	returning and new customers and how many orders have been made so that a monthly report can be created.
Acceptance Criteria	The Reservation Specialist must provide all of the data from the past month to SX Management to be used for reports and improvements

User Story 10.2: Tracking Specialist Summarizes Data

User Story	As a Reservation Specialist, I need to provide SX Management with all of the data that I have retained this past month including events that have occurred, problems that have been noticed, how tracking is going, and so on so that monthly reports can be created and improvements can be made
Acceptance Criteria	The Tracking Specialist must provide all of the data from the past month to SX Management to be used for reports and improvements

User Story 10.3: SX Management Reviews Data That Was Received

User Story	As an SX Manager, I need to analyze the data received from the Tracking Specialist and the Reservation Specialist so that a report can be created after all the information is reviewed
Acceptance Criteria	The SX Management must review all of the data received from the Tracking Specialist and The Reservation Specialist

User Story 10.4: SX Management Creates Monthly Report

User Story	As an SX Manager, I need to create a monthly report to keep track of the progression of the company so that it can be determined better techniques to use to attract more customers.
Acceptance Criteria	The SX Management will create a monthly report using the data received from the company and the CTTS

User Story 10.5: Board Meeting With SX Management To Discuss Monthly Reports

User Story	As an SX Manager, I need to share my report with all of the highly ranked personnel within the company so that it can be discussed how the company is performing and how business can be improved.
Acceptance Criteria	The Monthly report is shared with all of the highly ranked personnel to gain a better understanding of techniques that can be used to grow the company

User Story 10.6: SX Management Receiving Feedback From The Employees

User Story	As an SX Manager, I need to take employee feedback to better establish a relationship with the employees and understand what can be done to improve the business from a worker's perspective
Acceptance Criteria	This process is to determine what can be done to make the staff accomplish more and what can help them stay motivated while working

Appendix A: Glossary

The following is a concise list of terms within the document that need further explanation by the use of a definition to gain a general understanding:

- I. **CTTS** - Container Transport Tracking System.
- II. **AMBS** - Account Management and Billing System.
- III. **SCCS** - USA Ship and Container Customs System
- IV. **GWRS** - Global Weather Reporting System
- V. **HSAS** - Homeland Security Alerting System.
- VI. **CRUD** - Create Read Update Delete

Appendix C: Issues List

The following is a concise list of issues within the document that has yet to be resolved and will need further examination to correct these imperfections within the system:

- I. The budget is not specified for this project
 - ♠ When creating this brand new Container Transport Tracking System there is no defined budget creating the issue that this project's creation could be miles outside of the company's budget leading to drawbacks. This system's creation also could be unreasonable in the real world due to this unspecified issue.
- II. The ports/ docks schedule of ships being behind on departure or problems docking
 - ♠ When running a shipping company running on land and sea one of the issues that I noticed is that shipping ports can become very congested leading to delays and ships becoming behind schedule. I remember in recent history a period of time when large amounts of cargo ships carrying crates filled with products were being held offshore because they had nowhere to dock and unload.
- III. The number of members of staff that need to access the dashboard
 - ♠ To determine the specific requirements and specifications the CTTS system can handle we need a general number of patrons/ staff that will be accessing the system at one time and how many times. This needs to be determined so that the servers are not overloaded by the number of people accessing the dashboard of the system or using the Shipping X CTTS.
- IV. What will occur if the account management and billing system AMBS goes down
 - ♠ This issue is crucial because if the accounts management and billing system go down then no customers will be able to process orders and no payments can be made to Shipping X for their services. Within this case, alerts need to be sent out to bring the system back to operation so that the business does not become heavily affected.

- V. Accounting for the performance of the CTTS system
 - ♠ This relates to the number of staff members that need to be able to access the dashboard but this will account for how fast the system has to be running at all times throughout the day. Questions such as what sort of speeds should this system be running at indefinitely, and how can that be achieved should be asked.
- VI. The connection between the GPS system/Satellite and tracking specialist/dashboard occurs
 - ♠ This issue relates to the fact that there is no identification of the method that will be used to connect the dashboard to the GPS that then connects to all of the other systems. This is important because we need to know how this connection can occur at a performance rate specific to CTTS. Maybe something like Starlink could be used to connect the system to Japan, Los Angeles, and Baltimore
- VII. Manufacturer of the sensor pack that will be located on each container
 - ♠ This issue deals with the idea that the sensor pack that we will be using does not have the company's brand specified so we will need to determine which business has the best sensor pack for shipping products.
- VIII. What will occur if the container transport tracking system CTTS goes down
 - ♠ Similarly to the severity of the AMBS going down this would be even direr to the company due to the fact that any of the ships/ containers/ or trucks can be lost and the whole business stops because nothing can be done without that system. This issue is the fact that no protocol is explained or examined throughout the project. There needs to be an alert or some sort of alarm that will denote an issue with the system so that it can be resolved so that the dashboard can be placed back online for all those who need it and so that operations can continue.
- IX. What if staff members fail to complete their duties
 - ♠ For example, some of the duties that could lead to disaster is the truck driver forgetting to mark the packages as delivered since this would mean the containers could get lost through transport. Another example is if the SX manager does not complete their duties in managing the staff as well as completing the reports for the company on a monthly basis.