



Cyber Threat Defender

Cyber Threat Defender™ | The Collectible Card Game

Introduction

In Cyber Threat Defender (CTD), the cybersecurity collectible card game, the goal is to build your network as quickly as possible so you can “do more business” and gain more points. While you are doing this, you have to remember to defend your network because your opponent is going to try and disrupt your systems and network. For every attack there is a defense. For every defense there is an attack to get around it. The player with the most complete set of security defenses will be the one who is able to protect their critical systems and emerge victorious.

TABLE OF CONTENTS

Preparation	3
Game Objectives	3
Card Types	4
Anatomy of a Card	6
Setup	7
Keeping Score	8
About CTD: Digital	9
Frequently Asked Questions	10
Players Turn	12
Building a Custom Deck	21
Rebuilding a Starter Deck	22
Thank You to Our Sponsors	22
CIAS Marketplace	23



Preparation

- A. You will need to have paper and pencil, or some other way to keep track of scores.
- B. All players will need to have their own CTD deck of at least 50 cards.
- C. Players may add to their CTD deck by way of booster cards. Customizing is allowed.
- D. See the Player Options section for alternative ways to play the game.



Game Objectives

- A. The game is played until a player obtains at least **30 points**. If both players reach 30 points during the same round, then the player with the highest total wins. If both have the same total after reaching 30 points in the same round, the game continues until one player has more points than their opponent (with more than 30 points).
- B. If a player has no cards in their deck and they must draw a card, they lose the game.
- C. If a player has -45 points or less at the end of a round, they lose the game.
- D. Points are calculated at the end of each round.

Game Over

DefenderBot
Points Earned
18

OK

WINNER: ChaoticBot
Points Earned
35

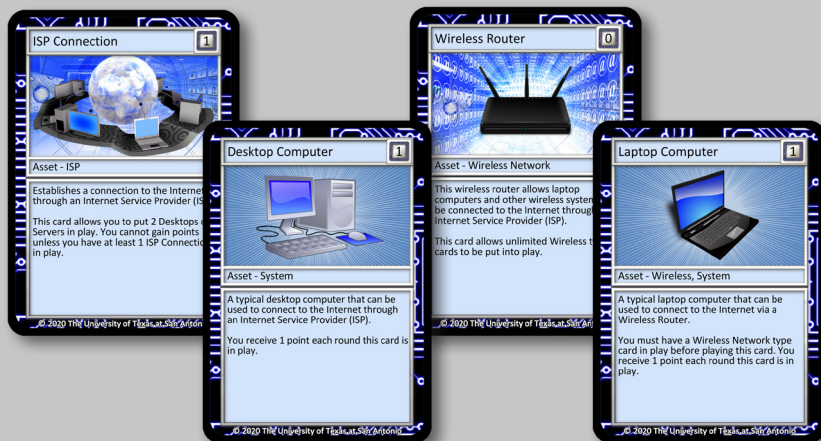
Note: Image taken from PC Version of Cyber Threat Defender.



CTD Card Types

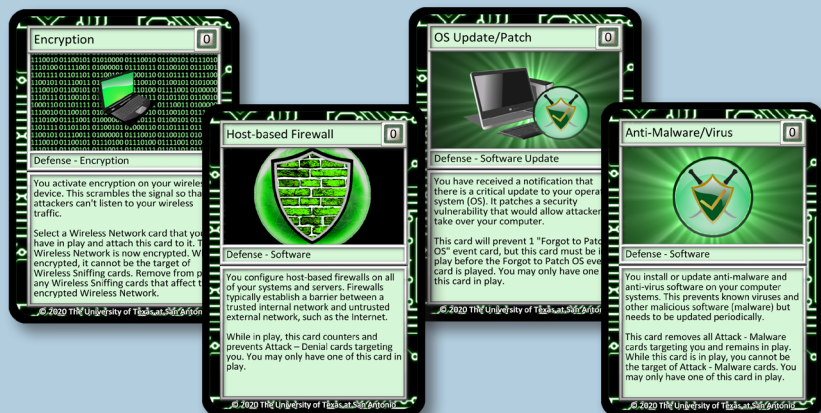
Asset Cards

These are your primary cards to build your network infrastructure. They represent the core of your physical assets you would encounter in a business or organization. Your starting cards are the foundation of your network.



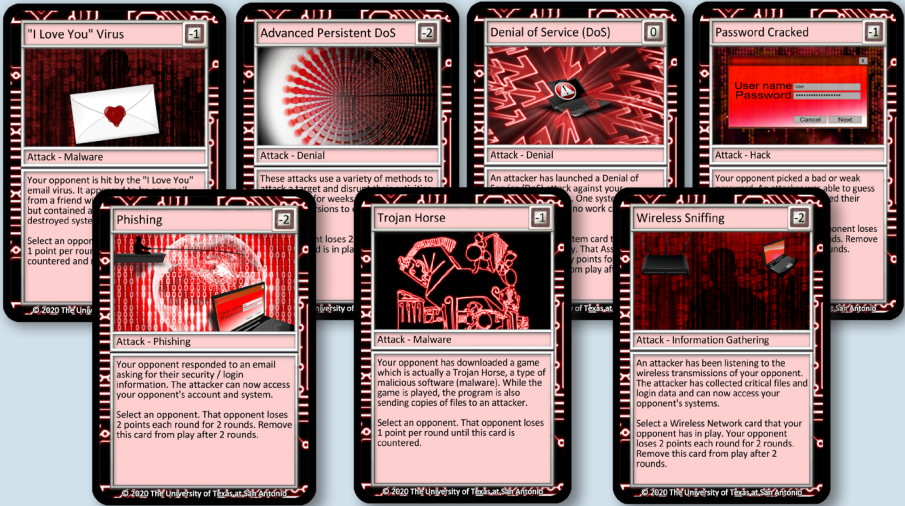
Defense Cards

These cards are utilized to protect your network just as you would at home or in an organization. Defenses must be kept up to date. Failure to do so could have significant consequences for your network.



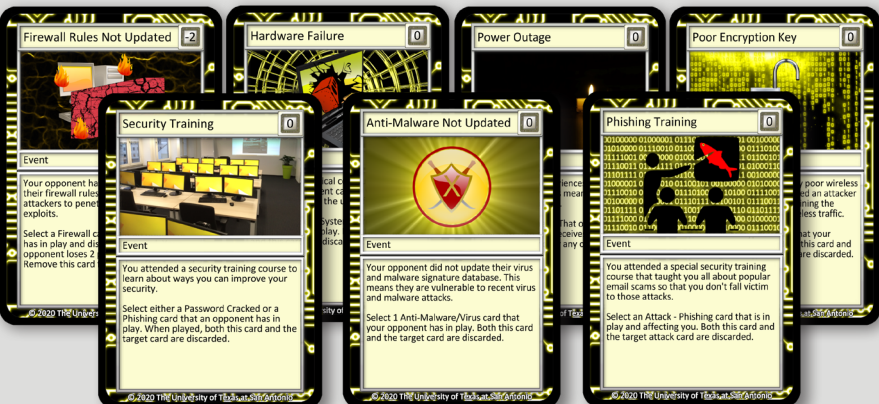
Attack Cards

These cards represent the various disreputable forces that exist on the Internet today and not the player playing the card. Each of these cards can be protected against with proper use of your defense cards.



Event Cards

These cards can help or hinder your network. These are various scenarios or events that take place in the real world. Carefully played, these cards can lead to a winning strategy. **NOTE: Events cards can be played at any time, except during scoring, and there is no limit to the number that can be played per turn. Additionally, Event cards are not counted as part of the three cards that can be played during a turn.**

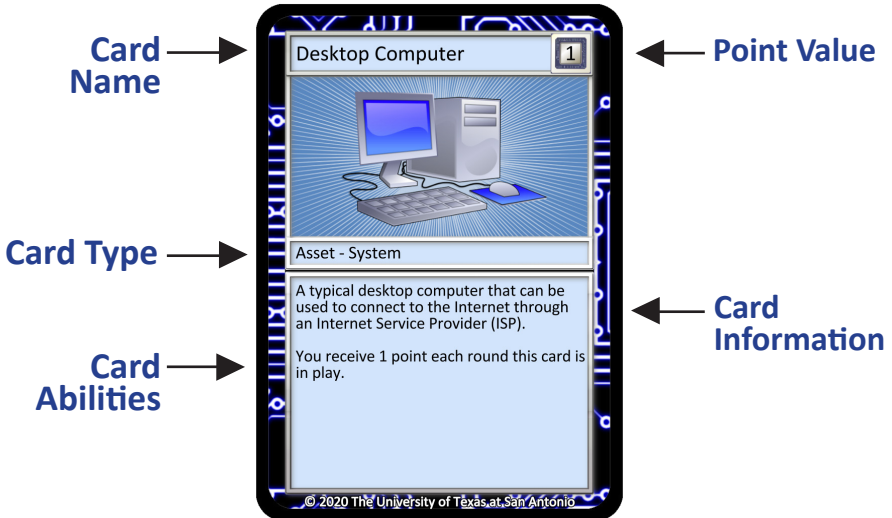


CARD TYPES



Anatomy of a Card

A description of information found on a typical playing card:



How to identify card interactions

The two cards below are examples of how two cards may interact with each other. The card abilities paragraph on each card specifically mentions the other card's name or the card type that it may defend against or attack. Additionally, the card images may (not always) be similar in style. Read the card abilities carefully to determine how to play the card.

Note:
Both cards specifically identify the other card's name.



Game Setup

- A. Each player places one (1) **Asset - System** and one (1) **Asset - Service Provider** card face up on the table to start their network. (*see figures to right*) From the starter deck, the Desktop Computer and ISP Connection are your starting network, which you must defend.
- B. Players then shuffle the rest of their cards and deal themselves 7 cards. The remaining cards are placed face down in the Draw Pile. A Discard Pile will be placed next to the Draw Pile when a card is discarded.
- C. Decide who will go first. The turn order will remain the same for every round of play.



Recommended Layout (without a game mat)

When placing cards in the play area between you and your opponent, it is recommended that you create three distinct rows to easily identify each card type: Asset, Defense and Attack. The event cards may be temporarily placed on top of an asset it may be attached to or in the Attack card's row.

Since a primary goal is to build your network, place the Asset cards closest to you. Next place the Defense cards directly above the Assets so that they may protect—or defend—those Assets from attacks. The third row is where you place the Attack cards that are targeting your opponent.

Sample below:





Keeping Score

- A. A round consists of one turn for each player.
- B. At the end of each round, scores are tallied. Each player will add the points gained from their cards in play and subtract points from opponent's attack cards.

Example 1:

The active player would gain 1 Point from the Desktop Computer, 1 point from the ISP Connection and 1 Point from the Laptop Computer that is connected to the Wireless Router. Assuming there are no Attack cards played against them, than the active player is awarded 3 Points during this round.

Note: Read the Card's Abilities Paragraph

The second paragraph at the bottom of each card indicates points gained or lost, as well as who is affected by it when played.

Not all cards are worth points. However, playing an Attack card (usually) makes your opponent lose points, not you!



Example 2:

In this example, player one gains 1 point for the round (gains 2 points from Assets, loses 1 point from an Attack by player two). Player two gains 3 points for the round (gains 2 points from Assets and 1 point from an Event).

Player One



Player Two



CTD: Digital

Did you know?

Cyber Threat Defender (CTD): Digital is a video game simulation of the tabletop collectible card game. Players challenge non-player, or computer-based, opponents with varying levels of difficulty.

CTD: Digital is hosted within the “CIAS Launcher”, which can be downloaded to PC and Mac computers for free! Visit CyberThreatDefender.com to download it today.



Once you download the CIAS Launcher and select CTD: Digital . . . players can begin each game by choosing one of four play modes. Depending on the play mode, a player’s difficulty level can be more defensive or attack driven. All new players begin with the standard 54 cards from the starter deck. However, players can earn digital currency, or bytes, for the number of games played and for each round that they win. Those bytes can be used to collect additional booster cards to expand their decks and create winning strategies.

CTD: Digital is also a great opportunity to learn the rules and game mechanics of the tabletop card game.

How to Download the CIAS Launcher

Go to CyberThreatDefender.com and select the “Windows Launcher” or “CTD for Mac” option. The CIAS Launcher will download as a Zip file. Within the Zip file is the “CIASLauncher” file; move this to your desktop or preferred location. If not prompted, make sure to select the “CIASLauncher” application file and extract/run the files. Once this step is completed, you can open the Launcher and access CTD: Digital.

FAQs

Q. IS THERE A MAXIMUM NUMBER OF CARDS ALLOWED IN MY PERSONAL CTD DECK?

- A. Generally, there is no maximum number of cards in deck. You may customize your deck by adding as many booster cards to your starter deck as you want. However, the maximum number of “unique” cards per deck is four (4). In other words, you cannot have more than four cards of the same name (e.g., you can have no more than four Power Outage cards).

Q. CAN ONE DECK BE SPLIT BETWEEN TWO PLAYERS?

- A. Yes. While Cyber Threat Defender (CTD) is designed for each player to have their own deck, two players can share one Starter Deck. If this happens, the two players can either randomly distribute or remove one copy of each of the following cards:

Desktop Computer; Laptop Computer; OS Update/Patch; Poor Encryption Key; Security Training

Once those cards are distributed or removed, shuffle the deck and split the remaining cards evenly between each player.

Q. CAN MORE THAN TWO PLAYERS COMPETE?

- A. Yes. More than two players can compete in a game of CTD. The rules are the same, but the game may take longer to complete. You’ve probably noticed the “Choose an opponent” message within the paragraph describing a card’s abilities. This is designed to support games that feature three or more players. And remember, each player should have their own personal starter deck to play.

Q. HOW MANY CARDS DO I DRAW WHEN MY TURN ENDS?

- A. Each player is required to draw two cards at the end of every turn. Keep in mind that each player can have no more than seven cards in their hand at the end of each turn. So, if a player ends their turn with six cards, they must discard one card of their choice and then draw two cards. This will leave the player with seven cards at the end of their turn.

Another Example: A player chooses not to play any cards during their turn, but they already have seven (7) cards in their hand. They must discard two cards and must draw two cards from their draw pile.

FAQs

Q. DO I GAIN POINTS IF MY TURN IS SKIPPED?

- A.** No. If your turn is skipped, such as when your opponent plays a Power Outage event card or a card states you do not receive any points during your turn, then you do not receive any points for assets that you own during the round.

Q. DO I LOSE POINTS IF MY TURN IS SKIPPED?

- A.** Yes. If your turn is skipped, such as when your opponent plays a Power Outage event card, you still lose points from your opponent's attacks during that round/turn.

Q. CAN I STACK DUPLICATE DEFENSE CARDS?

- A.** No. You cannot have duplicate defenses in play at a time. For game purposes, whether it is stated on the card or not, you can have only one of each defense card in play at a time to ensure cards remain balanced throughout the game when playing against attack cards.

Q. CAN I STACK DUPLICATE ATTACK CARDS?

- A.** Yes, unless an attack card specifically states only one of its kind may be in play at a time.

Q. HOW DO I KNOW IF MY ATTACK AND/OR DEFENSE CARD CAN COUNTER MY OPPONENT'S CARDS?

- A.** Each card states, whether an Event, Defense or Attack card, what cards it can counter against. Pay attention to both your cards and your opponent's cards to ensure the appropriate cards are being removed when countered and that they are (potentially) removed after a specific number of turns. The second paragraph of each card will explain if the card can counter an opponent's cards.

Q. WHERE CAN I GO TO FIND MORE INFORMATION ON CTD?

- A.** For videos that help explain Cyber Threat Defender, presentation slides to help you get started and other resources, visit CyberThreatDefender.com.



A Player's Turn

(An Example of One Round of Play)

Step 1

Start of the game. Each player puts out one (1) Asset – System and one (1) Asset – Service provider card (in image below, a Desktop Computer and an ISP Connection). Players then shuffle their decks and draw seven cards. Player One goes first.



Player Two's Hand ▲

▼ Player One's Hand



Step 2

Up to three non-Event cards can be played during a turn. Player One puts an Advanced Persistent DoS card into play. This counts towards the limit of three non-Event cards that can be played during the turn.

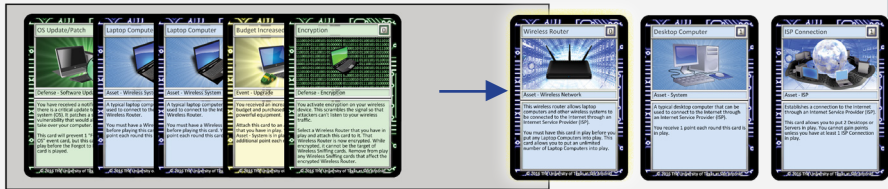


▼ Player One's Hand



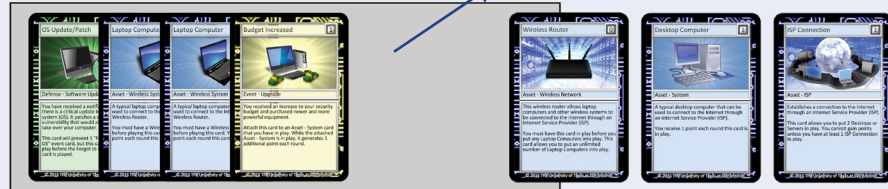
Step 3

Player One puts a Wireless Router card into play. This is the second of three non-Event cards that they can play.



Step 4

Player One puts an Encryption card into play. This is the last non-Event card that they can play.





A Players Turn *(continued)*

Step 5

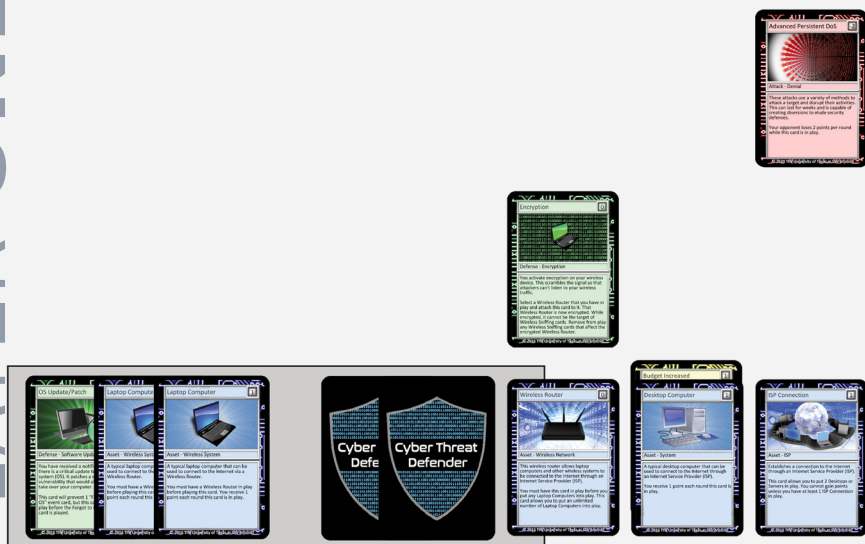
Player One uses a Budget Increased card, which is an Event card that can be played at any time and does not count toward the three card limit, and attaches it to their Desktop Computer.

Budget Increased card attached to Desktop Computer card



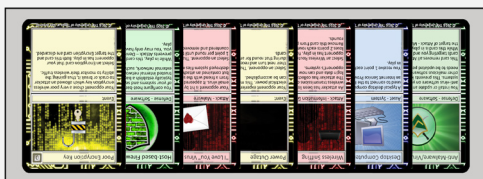
Step 6

Player One decides to end their turn. They do not have more than five cards in their hand, so they do not discard any cards from their hand. They proceed to draw two cards from their draw pile, and their turn ends.



Step 7

It is now Player Two's turn.



▲ Player Two's Hand



▼ Player One's Hand



Step 8

Player Two uses their Poor Encryption Key card, which is an Event card that can be played at any time, and targets the Encryption defense card of Player One.



Step 9

Per the effect of the Poor Encryption Key card, it is discarded along with its target.



Step 10

Player Two puts a Wireless Sniffing card into play (which was not usable when Player One had Encryption in play). This counts toward their three non-Event card limit.



PLAYER TWO

Step 11

Player Two puts a Firewall card into play, which removes from play any Spoofing/Hacking cards that affect the owner of the Host-based Firewall card. This is the second of three non-Event cards that they can play.



Step 12

Player Two puts an "I Love You" Virus into play. This is the last non-Event card they can play for this turn.





A Players Turn *(continued)*

Step 13

Player Two uses a Power Outage card, which will affect Player One in the next round.



Step 14

Player Two decides to end their turn. Since they do not have more than five cards in their hand, they simply draw two cards and end their turn.



Step 15

At this time, the round has ended. It is now time to update the players' scores. While scoring occurs, no cards can be played by any player.



Step 16

The score at the end of the first round is: zero points for Player One, two points for Player Two.





Game Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Building a Custom Deck



To Order additional decks or booster packs/cards, visit CIASMarketplace.com.



Rebuilding the Starter Deck

Below is a list of card types, along with the quantity of each, needed to rebuild your starter deck.

- | | |
|--------------------------------|-----------------------------|
| (1) Dedicated Server | (3) Anti-Malware/Virus |
| (3) Desktop Computer | (2) Backup Power Generator |
| (3) ISP Connection | (2) Encryption |
| (3) Laptop Computer | (4) Host-based Firewall |
| (2) Wireless Router | (3) OS Update/Patch |
| (2) Anti-Malware Not Updated | (3) Advanced Persistent DoS |
| (2) Budget Increased | (2) Denial of Service (DoS) |
| (2) Firewall Rules Not Updated | (2) "I Love You" Virus |
| (2) Forgot to Patch OS | (2) Password Cracked |
| (2) Hardware Failure | (2) Phishing |
| (1) Poor Encryption Key | (2) Trojan Horse |
| (2) Power Outage | (2) Wireless Sniffing |
| (1) Security Training | |

Thank You to Our Sponsors

The Center for Infrastructure Assurance & Security (CIAS) at The University of Texas at San Antonio is committed to providing Cyber Threat Defender: the Collectible Card Game to classrooms across the nation at no cost to middle and high school educators. We would like to take this opportunity to thank our CIAS K-12 Cybersecurity Program supporters for their continued role in helping this unique program continue to grow.

GULATECH
A D V E N T U R E S

MITRE

SAMSAT
USEUM

CYBERTEXAS
FOUNDATION

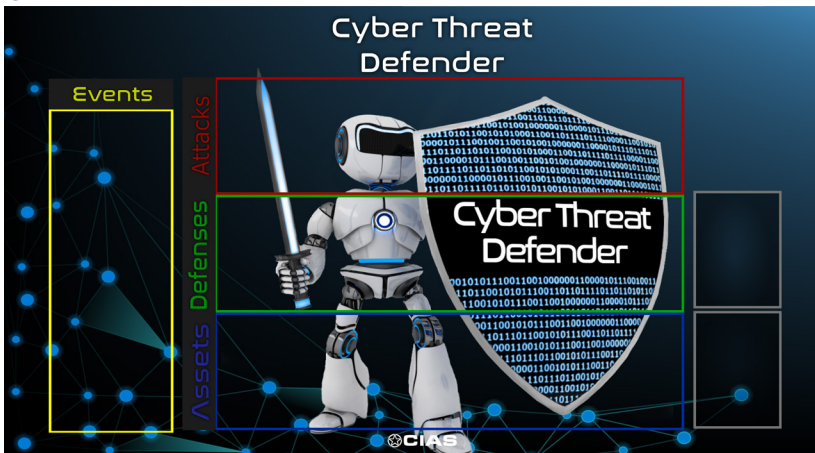


CIAS Marketplace

The CIAS online marketplace is a one-stop shopping experience that enables players to purchase additional starter decks, booster packs and game accessories. Here is a snapshot of the various Cyber Threat Defender cards and accessories available at CIASMarketplace.com.



Game Mat ▼



We'd Love Your Support!

By sponsoring Cyber Threat Defender, you are helping students nationwide learn the basics of cybersecurity in a fun and engaging game that will prepare them for their future in cybersecurity!

Cyber Level sponsors will receive a set of branded booster packs in addition to a custom sponsor card that is integrated into the game! For more information, or to sponsor the Cyber Threat Defender card game/PC version, please visit CyberThreatDefender.com.

To keep up to date on new CTD booster packs, discounts and more, follow the Center for Infrastructure Assurance & Security (CIAS) on: [in](#) [f](#) [t](#) [v](#)



Note to Security Professionals

In developing this game, we recognize that we have taken some liberties with how things actually work. We have attempted to keep true to the spirit of computer security, but for playability reasons have slightly modified how things might actually work in reality. We believe, however, that the game is close enough that individuals playing the game will be able to gain some understanding of basic computer security concepts.