Card Game


Players
1-10+
Ages
7+
Time
10-30
SITE-SAVVY
THE SRE GAME
THE MANUAL

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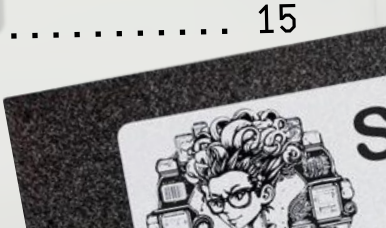
* Start here if you just want to jump into the game



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https://www.thegamecrafter.com/games/site-savvy

A Journey Into Systems: What Is SRE?

Have you ever wondered how your favorite game loads so fast? Or how you can text a friend across the country instantly? Behind every app, game, and website, there are teams of people making sure those systems are reliable, safe, and fast. That's what **Site Reliability Engineering (SRE)** is all about.

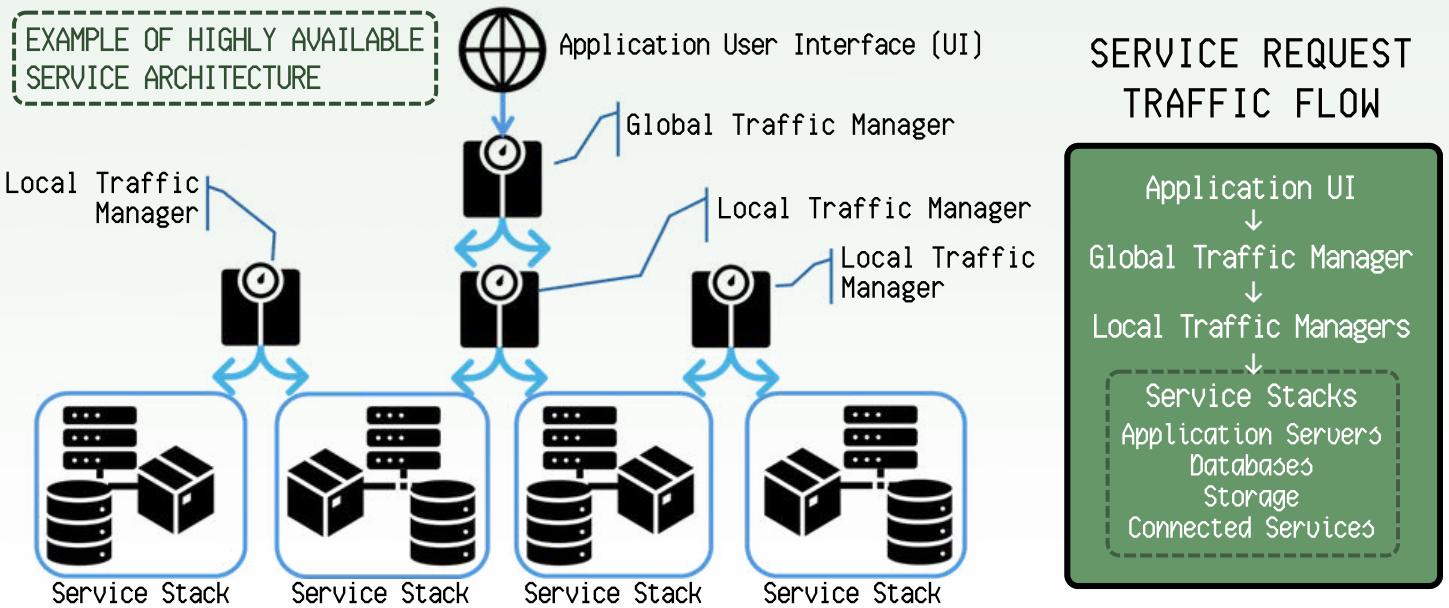
Why It Matters

Back in 2003, Google had a problem. Their services were growing fast, but downtime—even for a second—meant millions of users were affected. So, they asked: *What if we treated running systems like engineering problems?* That's how SRE was born.

SRE is a mindset. It starts by asking:

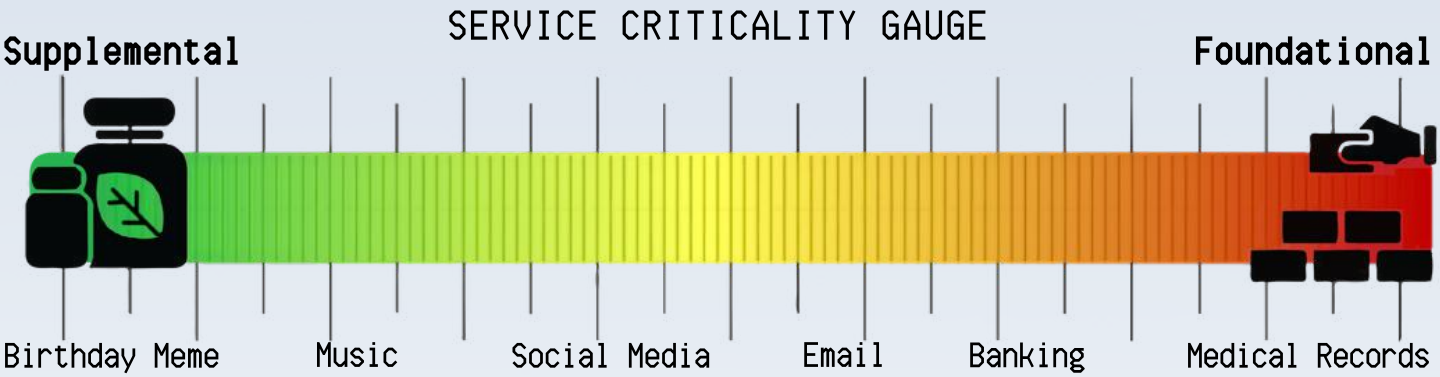
- How do things fit together?
- Why do they work the way they do?
- What happens if something breaks—and how can we make it better next time?

Understanding systems is a lot like being an explorer. Before you can build, you have to survey the land. That's what this game helps you do. It's your first map.



What Makes a System Critical?

Not every system is equally important. Some things, like sending a birthday meme, can wait. Others, like getting paid or accessing medical records, can't afford downtime. That's why reliability isn't one-size-fits-all. Some services need more attention—more focus to ensure availability. That's where strategy (and empathy) comes in.

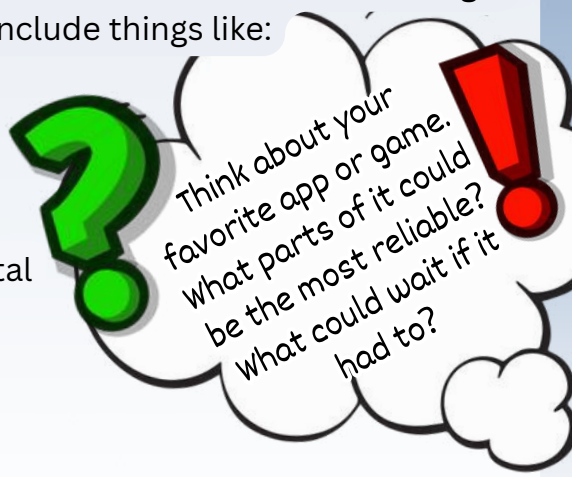


Supplemental = *"Nice-to-have services that can tolerate some downtime"*
Foundational = *"Essential services requiring maximum reliability"*

Each organization defines criticality differently. What's supplemental for one business might be foundational for another. The determining factors often include things like:

- Financial Impact
- Customer Experiences
- Brand Reputation

For example, a video streaming service might be supplemental for a bank but foundational for an entertainment company.



This is a Starting Point

Whether you're a student, a parent, or a teacher, Site-Savvy is designed to provide insight and spark curiosity. **You don't need to know it all right now.** This game is about learning how systems talk, how people connect, and how everything relies on cooperation.

Why People Matter in Every System

Before we talk about computers, let's talk about people.

Every button you press, message you send, or service you rely on exists for someone—made by someone—for someone. Whether it's a game server, a medical app, or a social platform, the real magic starts with understanding the humans behind the screens.

That's why this game—and real-world Site Reliability Engineering—starts with empathy.

Just like an explorer starts with a map, we start with a simple question:

"Who are we doing this for?"

On the next page, you'll meet the OSI model—a guide for how computers talk to each other. But remember: Layer 8 (The Human Layer) is the heart of it all. It's where we listen, care, and build things that make life better.

Empathy Map

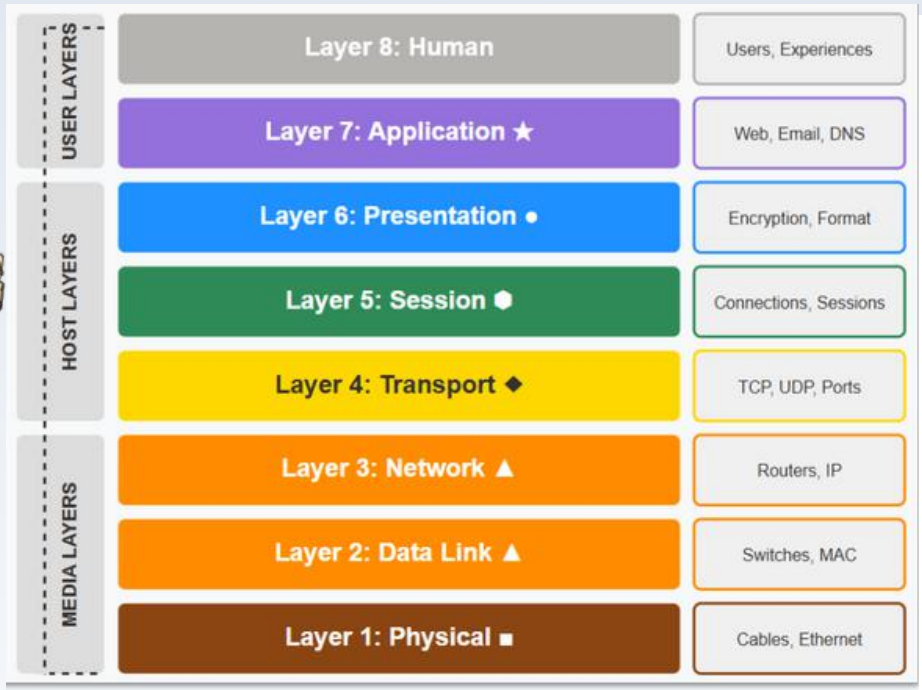
How Systems Talk: The OSI Model

Before phones could video chat and games could be played with friends around the world, engineers had a problem: computers didn't know how to talk to each other.

In the early 1980s, the International Organization for Standardization incorporated a common language called the OSI Model, short for:

Open Systems Interconnection

It was designed to help different computers—made by different companies—connect, communicate, and reliably exchange data.



Layer 8: That's you. The most important layer of all.

Layer 7: The apps you use-email, games, messages.

Layer 6: Decodes stuff. Turns data into images, sound, text.

Layer 5: Keeps the connection open while devices talk.

Layer 4: Makes sure everything arrives. If not, it resends.

Layer 3: Finds the best route. Think google maps for messages.

Layer 2: Adds labels so data travels safely.

Layer 1: Wires, cables, Wi-Fi. Your message's first mile.

How This Connects to the Game

Each **color and shape** in *Site-Savvy* cards match one of these layers. Playing the right card means you're learning how services stack up and support each other—from cables to clicks to people.

You don't need to memorize this. Just notice the colors, play the game, and let the layers reveal themselves.

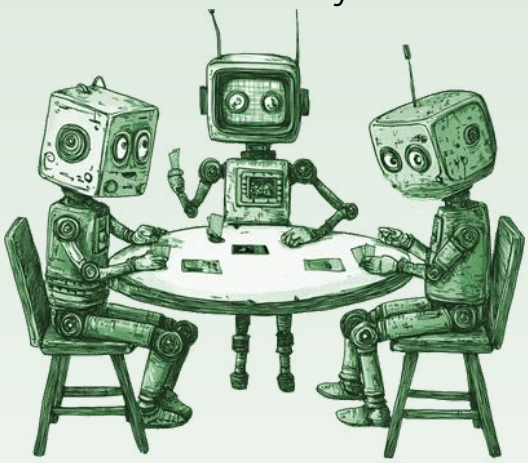
OSI Model

How to Play

Your mission? Be the first player to run out of cards by building up systems and navigating setbacks—just like in real life.

Goal of the Game

Be the first to run out of cards by playing matching services, roles, advantages, or disadvantages. Just like in real life, you'll need a working service stack—and maybe a little help from your team.



Players

- 2 to 10 players per deck (based on a 64 card deck)
- Want to play with more? Just combine multiple decks!

Setup

- **2–3 players:** 7 cards each
- **4–5 players:** 5 cards each
- **6+ players:** 3–4 cards each
- Flip one card face-up to start the discard pile (but don't start with a red or green card)

Card Types

- **Service Cards:** These form your system! Match by color or symbol.
- **Role Cards:** People that keep systems running.
- **Advantage Cards:** Perks that boost your system or slow others down (play wisely).
- **Disadvantage Cards:** Real-world setbacks. Use them to challenge your opponents!

How to Play

- Play a card that matches the color or symbol on the discard pile
- Can't match? Draw a card
- Down to one card? Say **"Site-Savvy!"** or draw two more
- Match the first color of a service card and you get a bonus turn!

Understanding the Cards

Each card in *Site-Savvy* represents something real from the tech world—and each type plays a different role in helping (or hindering) your system. **Let's break it down:**

Service Cards

These are the **building blocks** of your system—servers, storage, containers, routers, databases, and more. Match these by color or shape to keep your stack growing.

Disadvantage Cards

These are your real-world setbacks—downtime, latency, misconfigurations. Use them to **slow down your opponents**, but beware: others can block you with the right Role card.

Advantage Cards

These give your system a **boost**! Maybe you've got monitoring set up or redundancy in place. Play them to gain an edge, like drawing extra cards or skipping setbacks.

Role Cards

These represent the **people** behind the systems—developers, SREs, support engineers. Role cards matching the same color and can **block Disadvantage (Red) cards** played against you.

Strategic Quick Tips

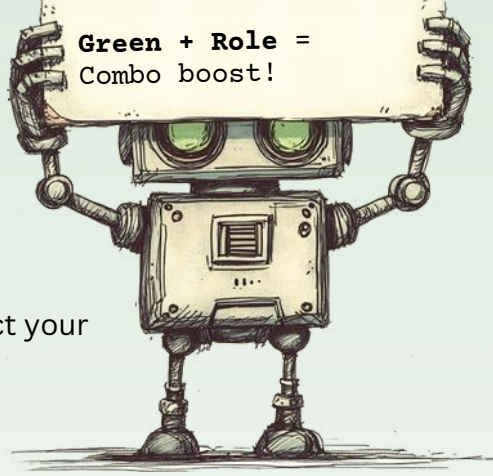
- **Stack related services to stay flexible.**
- **Hold on to green cards for big plays.**
- **Disadvantage cards are powerful—but only if timed right.**
- **Watch what layers your opponents are building in!**

Additional Red/Green Cards

Service, Role, and Layer Relationships

Every card in *Site-Savvy* is more than just a card—it represents a real-world piece of technology, career, and situation.

> QUICK SUMMARY
>
> **Service + Role (same layer)** = Blocks red cards
>
> **Same color services** = Stack and play more in one turn
>
> **Green + Role** = Combo boost!



Service Cards

These are your building blocks. Each one maps to a layer of the OSI model and includes real systems like:

- **Application Layer (Layer 7):** Application Servers, Databases
- **Network Layer (Layer 3):** Routers
- **Physical Layer (Layer 1):** Cables, Wi-Fi

Role Cards

Role cards represent the people—system engineers, administrators, developers—who manage the services.

- **Match a Role card** to the same layer as the Service card to protect your stack or block a Disadvantage.
- **Think of it like:** Right person, right place, right time.

How They Work Together

Each card plays a part in building your system. Here's how they interact:

Stack Your Services

You can build systems across different layers by playing Service cards on top of each other.

Want to make your system stronger?

- Stack **multiple Service cards** in the same color to play multiples at once!

Roles Defend the System

A **Role card** protects your system from **Disadvantage cards** (the red ones).

- If the Role and Service are in the **same OSI layer**, the Role can block that red card. It's like assigning the right person to fix a problem at the right time.

Green Cards Boost You

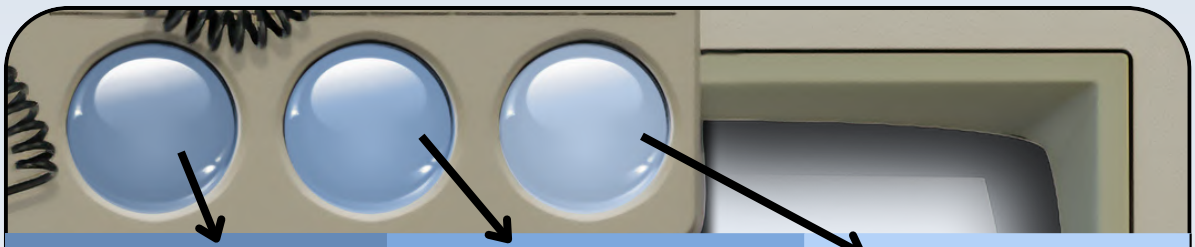
Play Green (Advantage) cards to get a boost—like skipping a red card, drawing extras, or replaying.

Pro tip: Green cards work best when you already have a Role in place.

Service Card Relationship Matrix

Each **service card in *Site-Savvy*** includes three symbols that show how it connects to other services and OSI layers in a stack. This table helps you see which OSI layers and card types support one another based on symbol position.

- **First Position:** Foundational service for the layer (if matched you can discard again)
- **Second Position:** Frequently supports the first layer
- **Third Position:** Broader or situational support within the same stack



	First Position	Second Position	Third Position
Square	Data Center, Virtual Machines, Storage, Router, Switch		
Triangle	DNS, Load Balancer	Data Center, Router, Switch	
Diamond	Application Server, Containers, Databases	DNS, Storage, Load Balancer, Virtual Machines	Data Center, Router, Switch
Hexagon	Web Server, Log Management, Message Queuing	Application Server, Containers, Databases, Authorization	DNS, Load Balancer, Virtual Machines, UI
Circle	Code	Virtual Machines, Log Management, UI, Web Server	Application Server, Containers, Databases, Authorization, Email, Storage, Authentication
Star	UI	Email, Authentication, Code	Web Server, Message Queuing, Log Management
Heart	Authorization, Email, Authentication	Message Queuing	Code

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Role & Career Reference

Role cards in *Site-Savvy* map to a real careers in technology.

Title	Description	Rel	OSI Layers
Facilities Manager	Manages the physical infrastructure of an organization, such as buildings, utilities, and equipment.	■	1-3
Data Center Tech	Maintains servers, storage devices, and networking equipment.	■	1-4
Network Engineer	Responsible for designing, implementing, and maintaining networks.	▲	1-3
Network Technician	Provides support and assistance to network engineers, fix network issues, and help maintain network infrastructure.	▲	1-7
Network Technician	Responsible for the installation, configuration, and maintenance of servers, including applications, and hardware.	▲	1-7
Web Developer	Develops websites, using technologies like HTML, CSS, and JavaScript, as well as back-end technologies like Python.	●	5-7
Cloud Admin	Manages and maintains cloud infrastructure and services, including servers, storage, and networks.	◆	1-7
Database Admin	Manages and maintains databases, ensuring data security, and database performance.	★	1-4
Data Engineer	Designs, builds, and maintains the systems and infrastructure that support processing of large volumes of data.	★	1-7
Security Engineer	Designs and implements solutions to protect networks, systems, and data from unauthorized access, attack, or theft.	♥	1-7
IAM Specialist	Manages and controls user access to systems through the use of authentication, authorization, and encryption tech.	♥	1-4
Storage Admin	Manages and maintains storage systems for team data integrity.	◆	1-4
Email Admin	Manages and maintains email systems and infrastructure, including email servers, clients, and security measures.	●	5-7
Email Engineer	Designs and implements email systems and infrastructure, ensuring reliability, security, and performance.	●	5-7
Developer	Writes and tests code to create software applications.	●	5-7
UX Designer	Designs user interfaces for applications and systems, with a focus on usability, accessibility, and user satisfaction.	●	5-7
Software Engineer	Designs, develops, and maintains software applications and systems with new technologies.	●	5-7

The System Reference

Service card in *Site-Savvy* maps to a real part of how systems work.

Title	Description	Rel.	OSI
Data Center	Centralized location for servers and networking equipment, often with backup power and cooling	■▲◆	Layer 1
Application Server	System that provides access to a specific application or service	◆●●	Layer 7
Web Server	Handles HTTP requests from web clients, such as web browsers	●●★	Layer 7
DNS	Service that translates domain names to IP addresses	▲◆●	Layer 7
Load Balancer	Distributes network traffic across multiple servers	▲◆●	Layer 4
Containers	Lightweight software packages that contain all the necessary code and dependencies to run an application	◆●●	Layer 7
Virtual Machines	Software environment that emulates a physical computer and runs its own operating system and applications	■◆●	Layer 2-3
Databases	Data stored in a structured format that can be queried and manipulated	◆●●	Layer 7
Authorization	Process granting or denying access to users	♥●●	Layer 7
Storage	Data storage solutions, such as SAN and NAS containing hard drives or solid-state drives	■▲◆	Layer 2-3
Router	Device that forwards data packets between computer networks	■▲◆	Layer 3
Email	System for exchanging electronic messages between users	♥★●	Layer 7
Log Management	Process of collecting, analyzing, and storing logs generated by computer systems and applications	●●★	Layer 7
Message Queuing	System for transmitting and receiving messages between applications	●♥★	Layer 5
Authentication	Process of verifying the identity of a user or system	♥★●	Layer 7
Switch	Connects network segments and forwards data packets to their destination	■▲◆	Layer 2
UI	User interface for computer systems and software applications	★●●	Layer 7
Code	Written instructions executed by computers to perform specific tasks	●★♥	Layer 5-7

Alternative Game Play: Build the Stack (Group or Classroom)

Use this version when you want to explore how systems work together without the competitive gameplay. It's collaborative, visual, and helps everyone understand how services, roles, and layers connect.

Setup

- Separate the deck into Service Cards and Role Cards.
- Remove Green (Advantage) and Red (Disadvantage) cards—you won't need them here.

How to Play

Layer Callouts

- Start from Layer 1 (Physical) and call it out.
- Any player with a Service card matching that layer brings it forward.
- Place it in a shared space (floor or table) to start building the system stack.
- Repeat for Layers 2–7.

Match Roles to Layers

- Distribute Role cards.
- Have players match their Role card(s) to the Service(s) they support.
- Encourage quick intros like: "I'm a Network Engineer, and I help with Layer 3—routing traffic!"

Talk About Criticality

- Use real-life prompts to gauge importance:
- "Would you need this layer to send a birthday meme?"
- "What about for a hospital monitoring system?"
- "If this layer failed, what would break?"

Double Up for Redundancy

- Use multiple decks to show how systems add redundancy.
- Highlight that critical services often require backups across layers and roles.

Alternate Gameplay: Incident Mode (Co-op)

In this cooperative version, players act as a real-world SRE team responding to a service outage. You'll need collaboration, role coordination, and a touch of luck to bring your system back online.

Setup:

- Players: 3–5 (ideal), 2 (with tweaks), or 6+ (play in teams)
- Deck: Use only Service and Role cards (no Red/Green)
- Incident Stack: Place 4–6 Service cards face down (this is your “down system”)
- Draw 3–4 Role cards per player (depending on player count)
- Goal: Work together to match a Role card to each Service card in the stack

How to Play:

1. Flip over one Service card at a time (as if a service alert just fired).
2. As a team, choose a Role that matches the layer (color) of that Service.
3. Use one Role per Service. Once a Role is used, it's gone.
4. Continue until all Services are restored (or you run out of Roles).

Optional Rule – “Postmortem Reflection”

After the game, ask:

- What roles were most helpful?
- What was missing?
- What made this service “go down”? This is a great opportunity to explore system criticality, redundancy, and how people solve problems in real systems.

Team Variant (6+ Players)

- Play in teams of 2–3.
- Each team gets their own set of Roles.
- Take turns responding to incidents in the stack.
- Encourage teams to negotiate and explain why their Role is best suited.

SERVICES

ROLES

github.com/Coryfoss/site-savvy-SRE-card-game