Atlas Online Network (the “Internet”)

The Atlas Online Network, commonly referred to as “the internet” (or “net” or “web”), is an Atlas-controlled super-system for digital communications and data transfer across Remnant. It’s purpose is to connect all of Remnant’s citizens into a unified system and manage the world’s data. It is designed to maximize efficiency and productivity across Remnant, particularly as a means of survival and combating the Grimm.

Overview

The internet has become an integral part of society. It has transformed the world, generally for the benefit of humanity. Though it is still possible to function in society without a scroll, it is becoming increasingly difficult to remain relevant while doing so. As such, it is important to consider the impact it has on the world.

Perspective

One of the most important pieces of context is that the citizens of Remnant are not at the top of the food chain. They are directly or indirectly struggling to stay alive. Most people have lost someone they know or care about to the Grimm. Their priorities and perspectives are different than a society that lives in relative safety. Technology that can save the lives of their family, even if it is heavily invasive or shrouded in hidden motives, is likely to be seen in a positive light.

In general, Atlas technology is revered. It’s many benefits are obvious. It has contributed to a considerable expansion of wealth and safety across Remnant. It is the leading cause that began to mitigate the decline of population since the Great Decline began. Countless services have been automated, and military services have been improved considerably. Many people can now live in relative peace within the kingdoms because of what the internet has provided.

Faunus have varied opinions, but are generally more suspicious of the internet than humans. They come from a background of being enslaved, abused, and treated unfairly by humans. It’s reasonable that they’re suspicious of having a device can theoretically track their scrolls. In practice, however, this is rarely done. Most illegal activity of meaningful concern happens on the Dark Net.

Dark Net Alternative

There is a fully-encrypted dark net that works with specific scrolls designed for it. It is primarily used by criminals to conceal illegal activities. It is unable to access GPS (or any related functions) and cannot use any of the operations or services on the Atlas Network. It’s primary purpose is to provided encrypted regional communication, and that’s generally all it does. Most people with access to the dark net still use the Atlas Network, just not on the same device.

Core Technologies

Underlying Systems	Details
ID	Everyone on the Atlas Network is assigned a short alphanumeric ID that personally identifies them. It is impossible to perform any functions on the network without this ID.
Personal Records	Personal records are tracked by the individual’s ID and can be accessed with the appropriate permissions. These include: Certifications, Licenses, Educational Records, Medical Records, Legal Records, Financial Records, Occupational Records, etc.
Notifications	Notifications appear in a feed based on priority, but can be filtered by subject: news, finance, entertainment, etc. Emergency notifications trigger physical alerts, particularly for mobile devices (scrolls).

Storage	A system-wide document and organizational storage system is available to maintain files. Documents use consistent formats to allow interconnected retrieval such as calendars, legal filings, etc.
GPS	The Atlas Network can track one's current global position based on their scroll's location, which is used in countless mapping operations, contextual features, and communications.
Physical Sensors	The system expects (and adapts to) the use of accelerometers, gyroscopes, and other physical sensors that can assist with important technologies and interacting with a connected device.
Context-Aware	Can detect local code based on GPS positioning and map data, allowing users to automate simple actions just by being near something (such as to receive voting options by walking near a voting zone, or review shopping lists by entering a shop).

Core Apps	**Details**
License	Reveals the individual's license, including their address and any essential permits they possess. This is particularly important for Huntsmen, Alchemists, Military Officers, and certain government workers.
Communications	Provides access to phone calls and texting to any account, which works across systems (social pages, discussion boards, etc). Communication is free for emergency services or if the account has whitelisted your ID. Users that aren't whitelisted must pay to make contact with the account.
Discussion Boards	Users subscribe to discussion servers to chat with others with similar needs or interests. Servers are organized into multiple channels and are useful for educational discussions, work coordination, or personal hobbies. Organizations can register private work servers through official channels in the AON.
Map Suite	Provides a mapping system of Remnant, primarily used to review Grimm activity, GPS, directions, and local events. Local officials, employers, and key figures can add official map pins within their legal jurisdiction. Citizens can add certain pins, but are restricted to specific channels and other limitations.
Job Suite	Provides a full-service suite for businesses and employees: scheduling, clocking in, assignment boards, task management, document storage, payment automation, performance reviews, etc. Many jobs types (government, military, academic, etc) have custom applications and functionality tailored for them.
Civil Suite	Provides a system for government-related tasks: find job postings, review civilian notifications, vote in elections, review candidates and appointments, review law and government policies, handle legal filings, see pending cases and rulings, etc.
Banking App	Users can transfer money, review past purchases, review credit and loan options, create bills, and otherwise handle their financials through this app.
Social App	Users have a public social profile automatically populated with basic details, public records, connections to family and friends, etc. It can optionally include interests, hobbies, and other details the user adds.
Gaming Suite	A full gaming suite application that hosts an expansive network for single and multiplayer gaming. Users must pay for this service. Atlas profits quite heavily from it, particularly for it's "meta-world" system.
Learning Suite	Hosts a free platform for learning educational topics through study materials, videos, and active practice. This platform is regularly updated by Remnant's top alchemists and scientists.
Research App	An online encyclopedia of information that's being regularly updated by Remnant's top alchemists and scientists. All research is publicly available, except for certain classified research. Each topic also interlinks with the Learning Suite where applicable.
Live Broadcasts	Provides a live televised broadcasting service. Users can view regional and local broadcasts for free, as well as any emergency and national broadcasts. Additional broadcasting services can be purchased.
Video App	A full video suite application that hosts movies, shows, broadcasts, documentaries, tutorials, and other user-created content. Users pay to use the service, which funds both Atlas and the content creators.
Office Tools	A suite of productivity tools for writing, maintaining spreadsheets and records, doing calculations and algorithms, etc.
Design Suite	A suite of design tools for drawing and painting, graphic design, photography filters, and other digital artwork.
Gallery	Provides an organized collection of photos and videos that can be easily categorized, dated, and searched according to meaningful filters.
Library	Provides an organized collection of books, articles, and other written documents that can be easily categorized, dated, and searched according to meaningful filters.
Calendar	A calendar application that allows you to set important dates, repeating dates, weekly schedules, provide

	reminders, etc.
Reminders	A reminder system that creates alerts for specific times. Repeating reminders can also be assigned to specific week days, days of the month, days of the year, etc.
Devices App	Provides a list of all devices that the scroll is synchronized with. The primary screen is filtered by "local devices," which lists devices nearby for quick access to interactions.
Shopping Suite	Only available within Atlas' borders. Provides a unified interface for shops that want to offer online delivery for goods or services.

Account ID

The Atlas ID is a uniquely-identifying alphanumeric alias that each registered account has, and guarantees a uniquely matching identity regardless of any other naming conflicts between citizens. Citizens of Remnant are only allowed one account, which requires the citizen (often while still a child) to participate in an in-person registration process and genetic review. Any attempt to cheat the system (which is essentially impossible due to the genetic review) would likely result in a total ban from the network.

IDs are generally eight to twelve characters long for most citizens. Citizens can choose a free 12-character ID when their account is registered, or pay for an ID between 8 to 11 characters long. Military personnel have the option to pay for an ID between 6 and 7 characters. ID's can be changed up to one time every two years for the appropriate fee.

IDs with fewer than 6 characters are reserved for special, high-ranking individuals: top government and military officials, professional Huntsmen and Alchemists, top Atlas engineers and administrators, etc. These can only be purchased if the appropriate clearances are achieved.

If a registered citizen dies, their ID is modified by appending an underscore, followed by an incremental number that ensures it remains unique for historical record-keeping.

Personal Records

Personal records track the user's personally identifying information, allowing those with the appropriate permissions to quickly recover information. This automates most government services (and many corporate services), considerably improving efficiency among the population. It also allows Atlas to mine for helpful patterns within the system, such as for scientific and medical research, recruitment, etc.

Records include:

- Identifying Information: Full Name, Birth Date, Date of Death, etc.
- Permissions: Licenses, Clearances, Certifications, etc.
- Residential Records: Current Address, Previous Addresses, Tenant History, etc.
- Relationship Records: Family, Friends, Known Associates, Engagements, etc.
- Employment Records: Current Employer, Previous Employers, Work Filings, etc.
- Civil Records: Legal Disputes, Civil Documents, etc.
- Criminal Records: Criminal Filings, Disciplinary Record, Court Documents, etc.
- Financial Records: Transaction Records, Credit History, etc.
- Educational Records: Grades, Disciplinary Record, Club & Sport Participation, etc.
- Medical Records: Medical History, Known Conditions, Genetic Record, etc.
- Military Records: Rank, Service History, Clearances, etc.
- Monitoring Records: Call History, Event Attendance Records, etc.

GPS

GPS tracking allows the internet to locate the exact position of one's scroll anywhere on Remnant. It is one of the

most critical systems available, providing functionality for mapping, directions, positional notifications, location & contextual detection, synchronizing, augmented reality, and more. It is possible to review live GPS positions or record the positions of persons of interest with the appropriate clearance; although that remains firmly in the control of high-ranking military officials, generally for the purposes of top-secret operations.

Alert System

When an emergency occurs (such as a Grimm activity alert), a scroll can vibrate, ring loudly, and prompt alerts to pop up on the screen to notify the user of what the emergency is. These settings may be adjusted to be silent if the user is in stealth mode.

Job Apps

There are specific apps designed for many different jobs, with particularly effort put into any military-related occupations and academic careers. It's possible to have multiple jobs active at once. For example, Huntsmen trainees will have an academy app (which is considered their primary "job") as well as a Huntsmen trainee app for shadowing other Huntsmen. When they attain the status of Junior Huntsmen, their Huntsmen trainee app gets switched out for the new Junior Huntsmen app and so forth.

Job apps may have several variants, roles, and extended functionality. For example, the academic apps include variants and roles for different types of students, teachers, club organizers, sport coaches, school administrators, etc.

The student version of the academic app provides a suite for handling all of a student's schooling needs. It provides a system for handling educational materials, grades, schedules, statuses, tests, clubs, sports, etc. It tracks every student's history, performance, achievements, disciplinary records, and so forth. Major academies may have custom applications for their school.

Examples of a few key Huntsmen Academy Apps available:

Academy Apps	Details
Administrator	Oversee academic institution, manage large-scale tasks, etc.
Professor	Update schedules, school news, events and activities, etc.
Student, General	Review educational materials, grades, schedules, tests, registration, school events & activities, etc.
Student, Alchemist	Reserve laboratory time, coordinate project data, etc.
Student, Huntsmen	Review team + squad statuses, shadow huntsmen info, interact with mission boards, etc.
Student, Clubs & Sports	Provides a list of clubs and sports the student is in. Shows activities, events, news, participants, etc.
Coach	Prepare schedules, team structures, student news, reserve fields and arenas, etc.
Club Organizer	Create club events, organize schedules, etc.

Scrolls

Scrolls are wireless communication devices that also serve as personal computing devices. They are created by Atlas and fully integrated with the Atlas Online Network. There is a high adoption rate of scrolls throughout Remnant, at least within each kingdom's main cities.

Scrolls are assigned a specific account ID, and Atlas has enforced that each account ID can only be assigned to one scroll. This limits every citizen to one scroll, since each citizen is only allowed to possess one account on the Atlas Online Network. Therefore, an individual's scroll is effectively their one connection to the internet and all of the technology it provides.

Anti-Theft Functionality

Atlas makes it nearly impossible to mishandle or abuse someone else's scroll. There are many counter-measures against theft.

Counter-Measures	Details
Facial Recognition	A thief would have to pass a nearly unbeatable facial recognition system to gain any meaningful control. Any abnormal use or action that would requires permission triggers a hidden facial recognition check that locks if it isn't passed within a second. The owner typically won't experience anything happening, but a criminal would be instantly locked out and have their face uploaded as a suspect.
Remote Access	The owner of a scroll (whoever owns the account ID) can remotely set permissions, disable access, and activate certain functions: camera, GPS, etc. This allows them to take photos, videos, and identify the scroll's exact coordinates.
Legal Deterrents	It is generally fairly easy (often guaranteed) to prove theft of scrolls, so a strong legal deterrent acts as a primary counter-measure. Anyone caught stealing or attempting to infiltrate someone's scroll can face prison time for their crime.

Basic Operations

All scroll operations are performed using the scroll's home button, touch screen, cameras, and physical sensors. The touch screen can recognize taps, swipes, and other forms of touch (such as multiple fingers). Most touch-based interactions are taps or swipes.

There are critical shortcuts that allow scrolls to perform common functions quickly:

Shortcut	Details
Open Home Screen	Press the home button once.
Open Camera	Double-press the home button.
Emergency App	Hold the home button and shake the camera twice in rapid succession. Choose from options available.
Rapid Sync	Hold the home button, steady the camera on the desired device to sync, and hold until the circle is filled (about 0.75 seconds). Release to confirm, or point the camera away from the device to cancel.
Rapid Scan	Hold the home button, steady the camera on the desired scan code, and hold until the circle is filled (about 0.75 seconds). Release to confirm, or point the camera away from the scan code to cancel.
Interaction Mode	Hold the home button, steady the camera on the desired device to interact with, and hold until the circle is filled (about 0.75 seconds). Release to confirm, or point the camera away from the device to cancel.

Swipe Shortcut	Details
Open Local Context	Hold the scroll sideways. While holding the home button, swipe up.
Open License	Hold the scroll sideways. While holding the home button, swipe down.
Open Active Job App	Hold the scroll sideways. While holding the home button, swipe left.
Open Personal App	Hold the scroll sideways. While holding the home button, swipe right.
Open Map	Hold the scroll upright. While holding the home button, swipe up.
Open Contacts	Hold the scroll upright. While holding the home button, swipe right.
Open Schedule	Hold the scroll upright. While holding the home button, swipe left.
Open Notifications	Hold the scroll upright. While holding the home button, swipe down.

Scan Codes

Scrolls have a concept of "scan codes" that are simple black and white icons encoded with small bits of code and

instructions. When a scroll “scans” a scan code, it can perform automatic functions: pulling up a relevant application, accessing a specific document, quickly voting, adding items to a list, providing additional details about a particular product, and much more. Scan codes have many uses and can be created easily using the public API.

Sync with Device

One of the core features of scrolls is to synchronize (or “sync”) with other devices: computers, monitors, holographic displays, gaming devices, speakers, keyboards, peripherals, common electronics, networks, routers, and any other device with a syncing mechanism. All devices that can be synchronized with a scroll must have an open wireless signal, allowing the scroll to recognize and triangulate the device.

In camera mode, scrolls can highlight compatible devices. This shows a bounding box surrounding the device with augmented imagery. Only devices within an appropriate range are shown.

Interact with Device

Once a device is synchronized, the scroll can then “interact” with it using the interaction modes for that device. The fastest way to switch to interaction mode is the “Interaction Mode” shortcut, but connection options are also available in the Devices App.

While in interaction mode, the scroll will convert to an application that conforms to the need of the device. For televisions, it can switch to a “remote app” that can be used to switch channels, change volume, and perform other functions that a remote needs. For gaming devices, it can convert into a handheld gaming device. For a mission board, it can open the mission app and manage your assignments or approve jobs. For certain partially-automated vehicles, it can provide an application to handle simple driving controls. For a work device it can open specific applications relevant to work and automatically transfer work data based on your account.

There are many ways that scrolls interact with other devices, and Atlas is dedicated to using this system to simplify the lives of Remnant’s citizens.

Local Context & Channels

One of the most important systems in Atlas Technology is the “local context” system, which uses GPS to detect and interact with code attached to specific locations. Users subscribe to channels to automatically detect any nearby codes listed on that channel: map pins, events, location-specific data, device signals, etc.

For example, a user can usually access the local voting system (and its corresponding application) by just walking into an official voting zone with the “Civil” channel. Stores will usually provide local codes that show off their catalog on the “Commerce” channel. City events, such as for sports or holidays, will appear on the “Recreation” channel.

Local Codes

When a local code is detected, the user can easily click on it to activate the code. This usually happens within a context-aware application called the “Local Context” screen or from within the map application (where the exact positions can be seen). The Local Context screen will show how far local code is and what it does. Most local codes will either provide information or allow some form of simple interaction, such as to check into an event.

It’s rare for any code to automatically trigger any alerts or notifications (since this is a restricted permission), although official sources might do this to provide warnings.

Channels

There are nine official channels that citizens can subscribe to: Academic, Civil, Commerce, Gaming, Industry, Open, Recreation, Social, and Travel. There are also multiple official military channels that are only available to the relevant military personnel.

Civilian Channels	Details
Academic	Administrators can use this to pin helpful guides and local codes within their school's jurisdiction.
Civil	The most common and important channel. Allows users to detect and interact with government systems: contact & information, service codes, election resources & voting, civil & legal systems, etc.
Commerce	Allows stores to provide information to nearby customers: digital storefronts, advertisements, product catalogs, store subscriptions, etc.
Gaming	Provides pins to assist with augmented, computerized, or location-based gaming experiences. These require approval from the appropriate jurisdiction, but are otherwise not too restrictive to place.
Industry	Can pin local codes related to major industries: agriculture, lumber, mining, and other resource gathering or manufacturing processes. Heavily used in the mining industry.
Open	Citizens can assign local codes within their legal jurisdiction, such as their residence or any business they own. They can also grant permissions to others.
Recreation	Pins events and informational sites pertaining to parks, clubs, sporting locations, sporting events, gaming events, and other forms of recreational activities and entertainment.
Social	Citizens that have registered as event planners with the appropriate government offices can post social events within their allowed jurisdiction up to once per month.
Travel	Provides details about local travel options (including free travel where available), and essential information for when traveling outside of safe zones: safe havens, dangerous areas, etc.

Military Channels	Details
Military	Provides the standard military pins and local codes for general operations. All enlisted soldiers and civilian personnel serving within the military can access this channel.
Soldier	Only enlisted soldiers receive this channel. Provides access to pins and local codes that serve the interests of the military for defense of the kingdoms. Some local codes may only appear based on officer rank.
Secret Ops	Unavailable to soldiers that are not qualified for secret operations. These local codes are heavily restricted to those that have passed all of the appropriate certifications and possess the right clearance.
Huntsmen	A channel specific to those who have earned their Huntsmen license. Otherwise behaves similar to the Secret Ops channel.

Channel Subscriptions

Users can subscribe to channels they want location-based and context-aware code for. They can also prioritize channels into five groups: Critical Priority, High Priority, Average Priority, Low Priority, and Very Low Priority. Prioritization will show the most important priority result on top of the list, even if the user is further from their location's signal (as long as it is within range).

Map Interface

The map will reveal any nearby local codes as map pins, as long as the user is subscribed. The pins will be semi-transparent if they are marked as "Low Priority" and won't be shown if they're marked as "Very Low Priority." Higher priorities will have slightly larger pin sizes and more obvious coloring to make them stand out.