The Metaverse Series Part Two: Somnium

Introduction

The metaverse refers to a collectively shared virtual space that arises through the convergence of virtual and augmented reality, as well as the internet. It’s often heralded as a burgeoning, next-generation iteration of the internet, consisting of universally existent/accessible, three-dimensional, shared virtual spaces residing within a larger virtual universe.

This report series aims to delve into the metaverse through describing its capabilities, applications, and developments; explaining different, prominent implementations of the metaverse in the context of Decentraland, Somnium, The Sandbox, Cryptovoxels, and Upland; offering explanations for different virtual real-estate offerings in each of these metaverses and the process of buying/renting land in each; as well as a offering a description of companies that facilitate virtual real-estate offerings within the metaverse.

The previous report installation (i.e., Part One) of the series focused specifically on the metaverse implementation known as Decentraland: a decentralized, Ethereum blockchain network-based, virtual reality (VR) platform that enables users to purchase parcels of three dimensional virtual space in the metaverse. Via Decentraland, users can explore, create, play various games, collect items, and engage in many more activities.

This report, or Part Two in the series, will focus on another metaverse implementation known as Somnium: an open, social, and persistent VR world with its own economy and currency, marketplace, social experiences, games, land ownership, and more.

Somnium

Overview

Somnium is an open, social, and persistent VR world with its own economy and currency, marketplace, social experiences, games, land ownership, and more. It’s intended to be entirely interconnected and immersive, granting access from any device from 2D mode on desktop (e.g., users can chat, trade,
and build on the Somnium PC client) to VR mode on desktop/mobile (e.g., live VR mode inside the Somnium world). As of late 2020/early 2021, Somnium has also developed compatibility with the Oculus Go and Quest. Some of the principle characteristics of the Somnium platform include the following:

- An open, social, persistent Blockchain VR Metaverse
- Ownership security
- Origin authenticity
- Tradable/translatable via decentralized marketplaces
- Built with proven/secure standards
- Variety of creative tools: software development kit (SDK), Builder, etc.
- Cross-platform VR client

The Somnium team’s ultimate vision involves the construction of an entirely new world for next-generation communication, e-commerce, entertainment, and livability, where users can buy land, build/import objects, develop and use avatars, monetize their experiences and holdings, and fully immerse themselves in a virtual world. They also aim to take advantage of burgeoning VR technology, which includes improved and affordable headsets, haptic suits, finger/eye tracking, and motion platforms enabling immersive VR experiences from the convenience and comfort of users’ homes. To this end, the team truly believes in the notion of a Metaverse catalyzed by interoperable virtual reality environments/worlds not only on a technological and commercial level, but additionally on a philosophical level as it pertains to the future of humanity.

**Mechanics**

Some of the primary mechanics of the Somnium platform include the following:

- Cross-Platform usability: The Somnium platform is available on all major VR headsets.

- Customizable PC Client: Somnium users have the ability to create and manage their own layout setup for quick, easy, in-game interactions.

- Long-Term Livability: This feature involves an automated recording mode for users’ in-game avatars on their properties that enables an AI-based analysis to bring their avatars to life.

- Blockchain Integration: Somnium operates on top of the Ethereum blockchain network, which enables transparency and authenticity in regards to transactions that occur on-platform. This enables verification of ownership of a wide variety of digital assets across the platform, including: virtual land, avatars, wearable items/accessories, and other digital goods.

- Persistent Social VR World: The Somnium world is unlimitedly scalable and consists of a single version-instance that is iteratively designed and built by Somnium users.
Ownership of Virtual Land: As alluded to previously, Somnium enables the purchase and customization of virtual land, in turn enabling users to build anything that they envision/desire.

Programmability/Scriptability: Somnium enables users to program/develop their bespoke experiences within the Somnium universe, as well as monetize these developments via the asset store or on their property.

Space Monetization: A fully programmatic VR advertisement plug-in enables users/developers to capture and analyze gaze tracking, engagement, and conversion rates.

Partners

Somnium is partnered with a variety of companies and entities to help foster increased adoption and growth of its ecosystem. Some of these companies/entities include:

- Pimax: Pimax is the producer behind the world’s first 8K consumer headset with a barrage of high-level specifications. Somnium has partnered with Pimax for the purpose of opening the company’s first store in a VR-based domain.

- Sony: Somnium has partnered with Sony via their state-of-the-art 3D model creation technology, enabling users to create fully-fledged avatars of themselves in a matter of minutes in conjunction with 3D models from the Somnium Store. In addition, Sony houses a VR-based store within the Somnium universe that is one of the first in the world.

- Microsoft: Somnium is among the first Central and Eastern European-based startups that became part of the specialized Microsoft for Startups program, which has enabled the quick scaling of Somnium’s server infrastructure and accessibility to a strong talent base derived from Microsoft.

- Admix: Somnium collaborates with Admix in order to bring advertising revenue for users on the platform. This partnership underpins Somnium users’ ability to quickly and easily monetize their property holdings, measure various engagement metrics, as well as analyze how users’ audiences interact in VR.

- Polygon: Polygon’s Ethereum layer-two solution offers speed and near-zero transaction costs for Somnium users with respect to on-platform transactions.

- OpenSea: OpenSea is perhaps the largest online marketplace for digital collectibles/assets where users can buy, sell, and discover a variety of exclusive digital assets. Somnium Space views this integration as a big first step into an interoperable Metaverse where digital assets are interchangeable and freely used between digital worlds and games with minimal interference from intermediary gaming companies.
OpenSea provides an accessibility, highly-liquid marketplace to empower these new economies, and offers tools that permit developers to build such marketplaces for their digital assets.

- **VR Education**: This is a modern center for education with a mission of helping companies transform their educational processes into virtual reality. VR Education uses the Somnium space VR platform to enhance experiences and drive more education with respect to VR adoption.

- **Blockchain Gaming Alliance**: Somnium has partnered with Blockchain Gaming Alliance to contribute to collaborative efforts towards constructing a truly decentralized and immersive metaverse.

- **High Fidelity & JanusVR**: Somnium is committed to a vision of a VR world and metaverse based on interoperability and connectivity between various open, social metaverse worlds/implementations. To further this end, Somnium has partnered with companies like Oasis (i.e., enabling teleportation between VR worlds), VRBA (i.e., Virtual Reality Blockchain Alliance), and more.

- **Gemini**: Somnium Space maintains an integration partnership with Gemini, one of the most trusted and secure digital currency exchanges/custodians globally enabling customers to transact and store digital assets.

**Featured & Community Events**

Similar to other virtual communities and metaverse implementations, Somnium hosts a variety of featured events for its community and various sub-communities. These include some of the following events:

- **Weekly cinema VR meetup**: This event is hosted every Friday from 8:00 AM - 9:00 AM Central European Time (CET) in the Shopping Mall Cinema of Somnium Plaza, where users can collectively watch mutually-agreed upon films and converse with fellow community members about the latest happenings in the Somnium space.

- **Weekly artist exhibition, interview, and afterparty**: This event is held every Tuesday at 11:00 PM CET. The upcoming exhibition (i.e., relative to the time of writing) on June 8th showcases emerging musicians and continues with an exhibition and interview with a featured visual artist, followed by a VR afterparty at Somnium’s HotHouse.

- **Weekly Somnium development meetup**: This event is hosted every Tuesday at 10:00 PM CET where community members and developers meet to discuss the novel happenings within Somnium as well as for providing feedback for novel developments within the community.

- **Somnium Explorers Club**: This event takes place weekly on Thursday 8 AM CET and involves a group of community members strolling through novel and up-and-coming locations within the Somnium
space in an attempt to learn more about the community, landscape, and virtual real estate offerings.

- **Saturday Disco Night:** Every Saturday starting at 10:00 PM CET, the Somnium community hosts a disco event for community members to party virtually and collaboratively.

**Community Social Channels**

Given Somnium’s open and social world status, community is at the core of the platform. The most heavily utilized method of communication for Somnium users involves the platform’s Discord server, which is subdivided into channels such as “market-pulse”, “general-discussion”, “development”, “vr hardware”, “land market”, “crypto art”, “avatars”, and many others based on users’ discussion interests.

To further interaction in this regard, Somnium maintains an active presence on Twitter, Facebook, Instagram, Youtube, Medium, LinkedIn, and other social media platforms/forums.

**Technology**

Somnium Space offers compatibility with all the major VR headsets, including the Oculus, HTC VIVE, HP, Valve, all Windows Mixed Reality headsets, and others.

The Somnium native builder is most well-equipped/featured with respect to the Desktop, where included native assets enable users to build a wide-variety of things as desired. The WebXR platform, SomniumWEB, enables Somnium users to access each parcel of land from any device with a web browser as well as in VR mode.

Moreover, Somnium’s in-house server architecture enables thousands of users to simultaneously interact in the same, persistent VR world without the need for network sharding via sub-servers or mirrored instances. This results in an enhanced, extra-immersive user experience relative to other platforms.

Additionally, to support the creation of detailed, customizable, unique user avatars in the Somnium Space, Somnium has provided users with a Unity-based SDK that enables a high-level of flexibility in the creation of their avatars. Users can choose to import avatars for free/paid from a variety of third-parties or choose to import their own from other modeling software. Once imported, the avatar can be further built and modified through a variety of traits for selection within the Somnium platform itself: for instance, inclusive of skin meshes, bone components, particle trails following movement, and more. Once the model is imported and the build complete, a validation process is run to warn users of any potential rendering errors that may arise with their current avatar configuration. If this is passed successfully, an Upload UI loads where users can customize their avatars further via descriptions, encapsulation (i.e., choosing avatar for public use or only for private), the avatar’s preview camera position, and more. Once the validation and final customization steps are complete, the user agrees to Somnium’s Terms and
Conditions and uploads their avatar to the Somnium Space servers, after which their avatar will be ready/available for use within the space given a successful upload. Users can then open up their setup (e.g., PC Client) and select their avatars to launch in the 2D or VR worlds and use it in live action via the Somnium Launcher. Once in the world, users can open up the “Avatar” tab where they can toggle through different avatars and display their properties, edit their available avatars to somewhat of a further extent (e.g., edit bones, animations, overpaint, model deformation, etc.). Once finished, users can select “Use this Avatar”, where they’ll then have the optionality to finally preview their avatar in a closed environment or, when ready, enter the Somnium Space with their avatar to begin interacting with the Somnium world.

**Economy**

Unlike traditional economies, VR-based economies are unfettered by restrictions such as physics and geography. As such, VR-based technologies complement reality in that they alleviate geography as an impediment for a variety of economic activities, such as networking events, company meetings, classes, conferences/conventions, concerts, and more. In addition to enhancing reality in this form, another dynamic will likely emerge driven by the development of a novel set of services, business models, companies, personal/creative expressions, and more; akin to a disparate, new world. Like the development of the internet where mega-players like Facebook and Amazon weren’t created at the inception of the internet, hundreds of novel solutions will likely emerge in the coming period as it pertains to the VR world, inclusive of applications involving blockchain and digital assets.

To this end, the Somnium Space tailors its VR platform around socialization, leisure, working, trade/exchange of goods, and content creation at a level beyond what technology has already accomplished over the last three decades, such as via the transition from the personal computer to mobile devices. Somnium has laid the groundwork for this via its decentralized offerings, enabling users to maintain full ownership over their digital assets/possessions in the form of NFTs. In this way, users will have complete autonomy over what, how, and where they trade, as well as how they utilize their belongings. This groundwork of Somnium’s economy is strongly and solidly underpinned by the Ethereum blockchain, which has enabled Somnium and a barrage of other companies to trade digital goods and services for profound user experiences all the while maintaining safety, privacy, encryption, traceability, and verifiability of ownership of digital items/asset transacted on platform via the network. In this way, Somnium is brought closer towards its goal of providing an optimal VR platform which gives the power of ownership to all of its users.

Additionally, the Somnium economy is fundamentally built upon the following cornerstone principles:

- Tokenization of virtual land
- Tokenization of digital assets/experiences
- Decentralized marketplaces
Via these cornerstones, users are able to engage in a variety of economic transactions and activities, including but not limited to:

- Tokenizing and selling their productions directly via the Somnium Space’s open marketplaces
- Being expressive through the creation, building, and monetization of land
- Owning and monetizing broader digital assets within the Somnium Economy
- Enjoying a beautiful, dynamic, persistent VR world which is navigable by thousands of users simultaneously

Somnium’s native token is Somnium CUBES (CUBE), an ERC20 built on top of the Ethereum blockchain. CUBEs facilitates the process of exchange, purchase, and broader transactions within the Somnium Space. CUBEs can be used for a broad array of product/service offerings within the Somnium Space, including: interacting in amusement parks and arcades within the environment, using race cars and teleporters, buying tickets to artists’ exhibitions, land purchases, digital asset/item sales in the marketplace, renting real estate, e-commerce, and more. Smart contracts are developed to interact with CUBEs to enable drag-and-drop, replicable payment gateways in the builder, near-free transactions in-world, and near-instant transaction speeds to create VR-based commerce. Moreover, users have the capability to monetize their land and holdings without the use of developers, unlike peer platforms, and CUBEs provides an infrastructure which allows users to meet other avatars in Somnium and extend offers to buy their avatar NFTs on-the-spot, with the avatar ending up in the purchaser’s wallet for in-world use and the CUBEs ending up in the seller’s wallet for for their use.

To hedge against high gas fees on the Ethereum network during busy periods or from frequent transactions, Somnium uses a hybrid solution with the Ethereum Layer 2 solution Polygon. This enables free ETH transactions within the scope of the network, wherein users are able to send ETH and CUBEs to the same ETH address in Polygon with a single click, in turn being able to use the same ETH and CUBEs on a different platform. This enhances the seamlessness of transactions and network usability, while also allowing thousands of users/avatars within the Somnium Space to make thousands of free transactions with/between each other.

World tokens are NFTs that are capable of being drag-and-dropped onto land. Land tokens are filled via builds employing the Somnium drag-and-drop builder software. World tokens pertain to interactive gaming experiences such as casinos, shooting games, racing games, and arcades. These tokens are fully-implementable in the form of NFTs and placed on land parcel NFTs taking the form of the aforementioned forms of entertainment. Then, Somnium users can walk into and interact with the World that sits on that land to engage in the various games through the payment of CUBEs. Given the interchangeability between CUBE tokens on the Ethereum and Polygon networks, users can play games in these various Worlds with a limited amount of gas fees per play.
As alluded to previously, the peer-to-peer (P2P) nature of the Somnium Space is a key feature of the platform, wherein two avatars can meet each other in any context - with familiarity or for the first time - and barter NFTs by trading them within the world or purchase each other’s NFTs via CUBE token transactions face-to-face.

With respect to NFTs, particular implementations in the Somnium Space include some of the following:

- **Tickets:** NFTs can confer access to various events/experiences where only specified NFT holders can access the experience on the specified land parcel. To all other parties not holding the NFT ticket, they will not receive any sensory information (i.e., audio, visual, etc.) while interacting in a given environment/land parcel while holders can enjoy an in-depth experience associated with the parcel (e.g., a cryptoart auction, a fun concert, etc.).

- **Cars/vehicles:** These take the form of NFTs that are activated for use in-world, owned, and operated solely by their owners. Avatars walk at a pace of 4 mph, while cars travel at 25 mph, and teleportation happens instantly within the Somnium Space. Correspondingly, the cost of each service varies as a function of travel speed, time used, and convenience associated with each travel option, and is denominated in CUBE tokens. The creation of other types of vehicles in the form of NFTs is supported by an SDK that enables an enhanced experience as well as other avenues of monetization for creators on the platform.

- **Wearables:** Similar to avatars, wearables will be created by users for CUBE tokens, which are in turn capable of being shaped and molded to fit the user’s best ability and taste as well as to be sold in Somnium to other avatars.

- **Teleportation HUBs:** These refer to NFTs which are owned by users who can place them on their land parcels encapsulated as Public or Private. Public teleporters charge CUBE on a per-use basis or for a monthly fee. These fees are then combined and allocated each month to the 50 owners with the most activity and the type of teleporter.

- **Treasure Hunts:** These refer to mystery games or mazes that lead avatars to QR codes of CUBEs or ETH. Once one’s avatar uncovers the QR code, they gain the ability of accepting the token reward. One’s avatar can also attend the event to personally hand the reward to the winner of a particular game.

**Karma in the Somnium Space**

The notion of Karma within the Somnium Space represents one’s social status and how others perceive them in the context of the space. One’s Karma level is calculated through a variety of factors, some of which include:

- Building activity on parcels
- Organization and participation in events
● Total play time
● World discovery rate
● Land ownership
● Active engagement in economic activities/transactions
● Ratings from other Somnium Space users

In some instances, Somnium Space users have the ability to earn CUBEs on the basis of their Karma levels. In effect, users that are engaged positively within the space, providing value and services of various forms, have the ability to earn Karma Rewards that are convertible to CUBEs for instantaneous, tangible value.

Somnium Space Monetization and Business Models

The Somnium Space offers a variety of product/service offerings that allow platform users to generate revenue and create value, which include some of the following endeavors being worked on to date:

● Developers selling tokenized digital assets and avatars

● NFT collectors exhibiting their collections on their land as well trading amongst each other

● Streamers (e.g., Twitch, etc.) having their own virtual studio from which they can record within the Somnium Space

● Traditional companies and businesses creating a store presence within the Somnium Space

● Game developers inserting short/large demos or gaming experiences into the Somnium Space

● Content creators have the ability to showcase a variety of virtual experiences (e.g., vlogs, commentary, etc.) and monetize them within the Somnium Space/platform

● Universities and other higher-learning institutions building courses and experiences such as an immersive planetarium

● Artists can showcase a variety of creations such as 2D/3D paintings and sculptures

● Entrepreneurs can build and sell digital/tangible goods

● Developers can build anything - for fees or otherwise - and upload it via the Somnium Unity SDK for other users to engage, interact, and transact with
Investing, Buying & Renting Land: Somnium

Overview

As the metaverse, inclusive of Somnium, has boomed in popularity over the course of the year, there has been an influx of demand for virtual land/real estate with respect to buying and renting for investment purposes.

As alluded to previously, each land parcel within the Somnium Space takes the form of an ERC 721-based NFT, which means that each parcel is unique, unreplicable, non-forgeable, and has verifiable ownership. These NFTs can be transacted for or traded within the platform or via marketplaces like OpenSea, with transactions stored on the platform's underlying Ethereum blockchain as a form of proof of ownership. Owners of these NFT-based land parcels have direct autonomy over contents that are built on top of their land parcels via the aforementioned World NFTs integrated atop the land parcels (i.e., inclusive of casinos, nightclubs, concert halls, and many more venues for engagement).

As with other metaverse implementations, each Somnium Space land token has unique coordinates that represent a specific location on the Somnium Space map. Moreover, the value of various parcels within the Somnium Space varie as a function of factors such as the:

- The popularity of areas
- The views/aesthetics of different areas
- The size of the parcel
- Proximity to the waterfront
- Proximity to landmark areas such as the Central Waypoint
- Others

Moreover, land parcels which are adjacent/very close together can be connected to form estates, which permit landowners to build at a much higher elevation relative to the allowable maximum height on individual parcels. To supplement this, Somnum Space has previously sold a finite number of tokens enabling land owners to build at higher elevations independent of the need to own estates.

Some general statistics about land in the Somnium Space includes some of the following:

- Small Land Size: 200 square meters; 10 meter height and depth limit for builds
- Medium Land Size: 600 square meters; 25 meter height and depth limit for builds
- Extra Large Land Size: 1500 square meters; 50 meter height and depth limit for build

As of June 2021, the average land parcel in the Somnium Space across the different size ranges sold for roughly 6.57 ETH, or equivalently $14,560 USD at
the time of writing. As in the real world and other metaverse implementations, the virtual land/real-estate within Somnium is scarce, thereby serving as a fundamental growth driver for the value of the land within the Somnium Space. Throughout the COVID-19 pandemic, as more users enter the Somnium Space seeking a barrage of new, virtual experiences, it’s likely that the scarce digital real estate within the Somnium Space will continue to increase in value.

Beyond the shift brought about by COVID-19, metaverse implementations like Somnium are becoming increasingly interesting investment opportunities for both institutional and retail investors alike. As interactive/engaging content increases on the Somnium Space, the platform garners greater value and compellability, thereby in turn attracting more users, and in turn a more robust community, a broader array of product/service offerings, and a more vibrant economy laying the foundation for even more interactive/engaging content offerings. The net result in this form is a virtual cycle that may continuously propel Somnium and its value proposition.

As of writing, Somnium Space’s native currency token, CUBE, trades at roughly $2.08 USD, up 0.28% over 24 hours. CUBE has $34,304 in 24H trading volume with a fully diluted market cap of $207,021,385M with a max supply of 100,000,000 coins. The top exchanges for Somnium Space CUBEs ordered by volume include: Uniswap (V2), Gemini, 1inch Exchange, and 0x Protocol.

Similar to the case with other metaverse implementations, an additional consideration for the Somnium Space’s value proposition arises from the NFT market: consider that last year, the NFT market tripled in size with very strong momentum carrying forward into 2021. As more wearables, collectibles, and art become represented by NFTs and with broader general investment in the space, the demand for a mechanism for storage and display of these digital assets will continuously increase. Somnium Space and similar metaverse
implementations are prime storage/display mechanisms for these digital assets, thereby adding an additional dimension to Somnium Space’s value proposition.

Investing, Buying, & Renting with Metaverse Property

Despite virtual land/real estate becoming an increasingly valuable emerging asset class via the metaverse, many investors may be overwhelmed by the novelty or complexity of buying/renting/investing in Somnium Space’s digital real estate.

To this end, one the GDA Groups’ partners, Metaverse Property, has endeavored to make the process of transacting with virtual real estate more seamless through a variety of service offerings.

Metaverse property is the first VR-based real estate company in the entire industry, providing exposure to the emerging virtual land industry throughout a variety of metaverse implementations, including: Decentraland, The Sandbox, Somnium, Cryptovoxels, and Uplands. Metaverse property facilitates virtual property purchases and sales in addition to a suite of other services spearheaded by pioneers in the NFT and blockchain industry. Some of these services include:

- **Property Management:** Inclusive of renting property to clients, maintenance of technical and visual aesthetic, collecting rents from clients, point of contact for all client-related issues and inquiries.

- **Property Development:** architecting, designing, and developing the build, as well as establishing on-map development.

- **Consulting:** Helping property owners/renters make important decisions in VR-based real estate using their knowledge of virtual land across metaverses as well as the blockchain industry more generally.

- **Marketing:** Metaverse Property has strong access to the burgeoning advertising network that exists across the various metaverses. Moreover, the team has considerable experience in marketing various blockchain and NFT-related projects. As such, they have a demonstrated ability to increase exposure and can do so for virtual land or businesses.

Additionally, Metaverse Property has assembled the first virtual real estate investment trust (i.e., Metaverse REIT), providing investors exposure to the best real estate assets in the metaverse without onerous barriers to entry such as developing the technological savvy in the blockchain and metaverse market spaces. Consumers are able to get exposure via Metaverse Property’s REIT token: an NFT backed by the company’s portfolio of virtual land and real estate.

In regards to Somnium Space, some its World Map can be catalogued into some of the following regions:
Islands: This is among the more rare and coveted land areas within the Somnium Space due to its beautiful views of the adjacent water and relatively limited space. As a result, parcels on islands within the Somnium Space tend to sell at a considerable premium relative to other parcels in the space on OpenSea.

City Center: True to its name, Somnium Space's City Center is the world's largest urban environment with some of its most popular interactions/activities for users. Owing to this concentrated density of activity, land in the City Center is also worth considerably more than land in other regions within the Somnium world.

Waterfront: Somnium Space has an expansive, sprawling lake region with waterfront properties which provide views and proximity to waterfront activities/builds (e.g., Kayaking) that are highly-desired by Somnium users. Correspondingly, these areas also incur a premium relative to general land parcels in the Somnium Space.

Mountains: Away from the City Center and WaterFront, the mountains offer users the ability to climb/scale them for recreation as well as garner unparalleled views from spectacular heights within the Somnium Space. It also offers a unique/distinct opportunity for users to advertise their products/services in contrast to the more clustered density of ads in more urban areas. Owing to their more remote location, land parcels tend to cost less relative to more central/urban regions.

Row 2: This refers to the row of parcels directly behind the City Center and waterfront parcels that are already owned and exhausted by long-time/existing Somnium users. Row 2 is consequently less expensive than the Center City and waterfront land parcels, though is likely to increase in value as urbanization expands and more development occurs.

Outskirts: Outskirts refer to the farthest land parcels from Somnium Space's center and the lakes that aren't special geographic areas like mountains. These are subdivided into parcels that are adjacent to the road (i.e., road parcels) and generic land parcels in more remote, less accessible grassy areas (i.e., non-road parcels). Owing to their relatively remote and generic locations, these parcels generally trade at a discount at the lowest prices relative to all other parcels in the Somnium Space.

In particular, some of the offerings that Metaverse Property owns or offers within the Somnium Space itself includes some of the following:

- **Extra Large #3361 (XL) parcel in Somnium Space:** A parcel with a size of 1500 square meters and with 50 meters in height and depth build limit located at coordinates \((x, y, z) = (1641.59, -5.66, -1086.69)\).

- **Extra Large #3340 (XL) parcel in Somnium Space:** Extra Large (XL) parcel in Somnium Space with a size of 1500 square meters and with 50
meters in height and depth build limit located at \((x, y, z) = (-728.51, -5.52, 384.3)\).

Metaverse property is committed to a vision of the future that emulates Ready Player One, where both businesses and real estate will exist in tandem on a new frontier involving both tangible and digital reality. The company endeavors to further this vision and commitment through a core dedication to building better places to call home by doing what's right. Additionally, Metaverse Property is headed by Co-Founders Michael Gord and Jason Cassidy, each with extensive experience in the financial, consulting, software, and blockchain spaces.

For additional information about Metaverse Property's land/property offerings in the Somnium Space, please click here. For any inquiries about Metaverse Property's offerings and/or services in the Somnium Space, please reach out to michael@gda.capital or click here. Follow Metaverse Property on social media: LinkedIn, Facebook, Twitter.

**Conclusion**

As discussed in the previous report, the Metaverse refers to a collectively shared virtual space that arises through the convergence of virtual and augmented reality, as well as the internet. It is widely-considered as the next-generation iteration of the internet, consisting of universally existent/accessible, three dimensional, shared virtual space situated within a larger virtual universe.
This report described the various characteristics, capabilities, applications, and developments within the particular metaverse instance known as Somnium/the Somnium Space: an open, social, and persistent VR world with its own economy and currency, marketplace, social experiences, games, land ownership, and more that’s intended to be entirely interconnected and immersive, granting access from any device from 2D mode on desktop (e.g., users can chat, trade, and build on the Somnium PC client) to VR mode on desktop/mobile (e.g., live VR mode inside the Somnium world). Ownership security and authenticity, metaverse interoperability, ease of transactability via decentralized marketplaces, and providing users with a pallet of tools (e.g., SDK, builder etc.) for unleashing their creativity are some of the important characteristics of the Somnium platform. In effect, the Somnium team aims to build a fully immersive virtual world via VR technology that not only mirrors, but builds on reality to enhance the future of humanity.

Moreover, some of the central mechanics of the Somnium platform include cross-platform usability, a customizable PC client, sustained livability, blockchain integration, persistence of the world, ownership of virtual land, programmability/scriptability, and monetization of space. Some of Somnium’s key partners include the likes of Pimax, Sony, Microsoft, Admix, OpenSea, VR Education, Blockchain Gaming ALliance, High Fidelity, JanusVR, and Gemini.

The Somnium Space also hosts a broad array of events for its larger community and variety of sub-communities, which includes a weekly cinema VR meetup, weekly artist exhibitions, a weekly development meetup, an explorers club, weekend disco night, and more. In a related aspect, given the important nature of community for the Sonium platform, social channels including Discord, Twitter, Facebook, Instagram, Youtube, and more are employed regularly by Somnium users/team as an additional line of communication and facet of engagement.

With respect to technology, Somnium Space offers compatibility with all the major VR headsets, including the Oculus, HTC VIVE, Valve, Windows MR, and more. The native builder enables users to build a wide-variety of structures as desired, with the WebXR platform, SomniumWEB, enabling users to access each parcel of land from any web-browser-enabled device as well as in VR mode. Moreover, Somnium has a robust, in-house server architecture that enables thousands of users to simultaneously interact in the same, persistent VR world without the need for network sharding via sub-servers or mirrored instances, resulting in an extra-immersive UX relative to other metaverse platforms. Lastly, Somnium supports the creation of bespoke, unique user avatars via imports and a Unity-based SDK enabling a high-level of design flexibility.

Concerning Somnium’s economy, its VR-based nature leads to the alleviation of traditional restrictions based on geography and physics for economic activity, enabling virtual networking events, company meetings, classes, and more. Beyond enhancing reality, Somnium also leads to a novel set of services, product offerings, business models, and creative expressions in the form of disparate, emerging, new worlds. In this regard, enhancing socialization, leisure, working, trade/exchange of goods, and content creation in a distributed, decentralized form are at the core of Somnium’s platform
offerings. Virtual land tokenization, digital assets/experiences (e.g., NFTs), and decentralized marketplaces are cornerstones that facilitate these product/service offerings. Somnium’s native currency, CUBEs, is as ERC20 token built atop Ethereum that facilitates all transactions in the Somnium Space; transactions are compatibility with both the Ethereum and Polygon networks to hedge against high gas fees and ensure seamless, cost-efficient transactions for thousands of users. NFTs are used to represent various entertainment/engagement venues (e.g., World tokens), land itself (e.g., land tokens), and various other items within the Somnium Space (e.g., tickets, cars/vehicles, wearables, etc.).

Karma is a key facet of the Somnium Space, representing one’s social status and perception among others, and is calculated through a variety of factors (e.g., building activity, organization/participation in events, total play time, etc.). Users may be able to earn CUBEs based on their Karma levels within the platform.

Additionally, Somnium offers a variety of product/service offerings enabling users to generate revenue and create value, including: developing and selling tokenized digital assets and avatars, streamers having their own virtual studios from which they can record, companies reading a store presence within the Somnium Space, and more.

Somnium and the metaverse more broadly has exploded in popularity in the wake of COVID-19 restrictions, reflected by a growing user base and brand awareness as well as rising digital asset values.

Land within the Somnium Space takes the form of an ERC 721-based NFT, which are unique, verifiable, unforgeable, and can be transacted on various marketplaces (e.g., OpenSea). Each land token has unique coordinates which represent a specific location on the Somnium Space map, and garners value based on popularity, various size (i.e., small, medium, and extra large), waterfront/central proximity, and more. Adjacent parcels can be connected to form estates with higher maximum build heights.

Additionally, recall that as the metaverse and Somnium have spiked in popularity over the course of the year, bringing increased demand, their associated digital assets (i.e., native token MANA, real estate/property/land parcel prices, etc.) have observed large increases in value as well. For instance, given scarcity and high demand, the average parcel price is $14,560 USD for Somnium Space land at the time of writing. This in-turn has led to increased interest in metaverse/Somnium Space investment. This alongside the increasing popularity of the NFT market and associated digital assets within Somnium Space (e.g., wearables, collectibles, etc.) will likely continue to drive up its value proposition going into the future. As of writing, Somnium Space's native token, CUBE, trades at roughly $2.08 USD.

Through facilitating the novel and complex process of investing, purchasing, and renting within Somnium Space and similar metaverse implementations, Metaverse Property has endeavored to make the process of transacting with virtual real estate more seamless through a variety of service offerings. These include: property management, property development, consulting, marketing,
and investment exposure via the Metaverse REIT. Metaverse Property provides exposure to a slew of offerings across the Somnium Space, including in regions like: Islands, City Center, Waterfront, Mountains, Row 2, and Outskirts. As such, Metaverse Property is committed to a vision of the future that emulates Ready Player One, where both businesses and real estate will exist in tandem on a new frontier involving both tangible and digital reality. The company endeavors to further this vision and commitment through a core dedication to building better places to call home by doing what’s right. Metaverse Property is headed by Co-Founders Michael Gord and Jason Cassidy, each with extensive experience in the financial, consulting, software, and blockchain spaces.

For any inquiries about Metaverse Property’s offerings and/or services in the Somnium Space, please contact us. You can also follow Metaverse Property on social media: LinkedIn, Facebook, Twitter.
<table>
<thead>
<tr>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://medium.com/lansaar/what-is-the-metaverse-2e7c75f63adf">https://medium.com/lansaar/what-is-the-metaverse-2e7c75f63adf</a></td>
</tr>
<tr>
<td><a href="https://www.cbinsights.com/research/metaverse-virtual-world-retail/">https://www.cbinsights.com/research/metaverse-virtual-world-retail/</a></td>
</tr>
<tr>
<td><a href="https://www.matthewball.vc/all/themetaverse">https://www.matthewball.vc/all/themetaverse</a></td>
</tr>
<tr>
<td><a href="https://en.wikipedia.org/wiki/Metaverse">https://en.wikipedia.org/wiki/Metaverse</a></td>
</tr>
<tr>
<td><a href="https://www.wired.co.uk/article/metaverse">https://www.wired.co.uk/article/metaverse</a></td>
</tr>
<tr>
<td><a href="https://talkinginfluence.com/2021/04/01/the-metaverse-is-coming-are-you-ready/">https://talkinginfluence.com/2021/04/01/the-metaverse-is-coming-are-you-ready/</a></td>
</tr>
<tr>
<td><a href="https://nftplazas.com/somnium-space/somnium-space-land/">https://nftplazas.com/somnium-space/somnium-space-land/</a></td>
</tr>
<tr>
<td><a href="https://nftplazas.com/somnium-space/somnium-space-land/">https://nftplazas.com/somnium-space/somnium-space-land/</a></td>
</tr>
<tr>
<td><a href="https://talkinginfluence.com/2021/04/01/the-metaverse-is-coming-are-you-ready/">https://talkinginfluence.com/2021/04/01/the-metaverse-is-coming-are-you-ready/</a></td>
</tr>
<tr>
<td><a href="https://nftplazas.com/somnium-space/somnium-space-land/">https://nftplazas.com/somnium-space/somnium-space-land/</a></td>
</tr>
</tbody>
</table>
Disclosure

This research is for informational use only. This is not investment advice. Other than disclosures relating to GDA Capital this research is based on current public information that we consider reliable, but we do not represent it as accurate or complete, and it should not be relied on as such. The information, opinions, estimates, and forecasts contained herein are as of the date hereof and are subject to change without prior notification. We seek to update our research as appropriate.

Any forecasts contained herein are for illustrative purposes only and are not to be relied upon as advice or interpreted as a recommendation. The price of crypto assets may rise or fall because of changes in the broad market or changes in a company’s financial condition, sometimes rapidly or unpredictably. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. Fluctuations in exchange rates could have adverse effects on the value or price of, or income derived from, certain investments. We and our affiliates, officers, directors, and employees, excluding equity and credit analysts, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research.

The information on which the analysis is based has been obtained from sources believed to be reliable such as, for example, the company’s financial statements filed with a regulator, company website, company white paper, pitchbook and any other sources. While GDA Capital has obtained data, statistics and information from sources it believes to be reliable, it does not perform an audit or seek independent verification of any of the data, statistics, and information it receives.

Unless otherwise provided in a separate agreement, GDA Capital does not represent that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located. GDA Capital and their officers, directors and employees shall not be responsible or liable for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions within the report.

Crypto and/or digital currencies involve substantial risk, are speculative in nature and may not perform as expected. Many digital currency platforms are not subject to regulatory supervision, unlike regulated exchanges. Some platforms may commingle customer assets in shared accounts and provide inadequate custody, which may affect whether or how investors can withdraw their currency and/or subject them to money laundering. Digital currencies may be vulnerable to hacks and cyber fraud as well as significant volatility and price swings.