



Price (as of May 14, 2018) (AUD):	\$0.078
Beta:	0.20
Price/Book:	8.67x
Debt/Equity Ratio:	N/A
Listed Exchange:	ASX

52-week Share Price Chart



**Recent News**

**13-Mar-2018:** MediaAMP to test Linus Cognitive Search. This proof of concept project (POC) will show how users can search within videos and return only relevant parts.

**05-Mar-2018:** Oklahoma State University to test Linus Cognitive Search. This POC project will allow users to search, view and compose custom content on the fly.

**26-Feb-2018:** Linus successfully completed \$10 million capital raising.

**8-Feb-2018:** Linus signs collaboration agreement with Warner Bros. for a Transactional Video On Demand pilot test.

**23-Jan-2018:** Linus launches SaaS product, which allows developers to utilize Linus' patented Video Virtualization Engine™ (VVE).

**20-Dec-2017:** Linus announced plans to launch video blockchain and Linus will use Proof of Work from Microsoft, Amazon and IBM.

**14-Dec-2017:** Linus integrated VVE with Microsoft Cognitive Artificial Intelligence Services.

**06-Dec-17:** Appointed Mr. Tom Slowe as EVP for its Security and Defense division.

**04-Dec-17:** Integrated VVE with Microsoft Azure.

Fully diluted shares outstanding:	1,129.4 million
Market Cap:	71.19 million
52 Week High:	\$0.21
52 Week Low:	\$0.04

**NOTE: All \$ symbols represent Australian Dollars (AUD) unless otherwise specified.**

**Pioneering the Internet Video Virtualization Market**

Linus Technologies Ltd. (ASX: LNU) ("Linus" or "the Company") is a B2B software company based in Melbourne, Australia. The Company has invented, developed and patented the Video Virtualization Engine™ (VVE) technology. VVE is a software product, which transforms video into flexible data. VVE offers unprecedented business opportunities across the internet video industry. VVE is now accessible on leading cloud platform providers such as Amazon Web Services, Microsoft Azure, and IBM Cloud. Linus has obtained patents for its core VVE in the US, European Union, Canada, Australia, Singapore, South Korea, Mainland China and Hong Kong. VVE has the potential to generate revenues from many multi-billion-dollar market segments. The Company is currently focused on four markets at the moment, namely Anti-piracy, Search, Security & Defense, and Personalised Advertising. Additionally, Linus recently launched a SaaS self-serve product to allow select developers access to build new products and businesses on top of Linus' VVE through a variety of API's, thus, adding potential revenue streams. The Company is developing the world's first video blockchain technology, geared to revolutionize the internet video market, by integrating with market leaders such as Microsoft, Amazon and IBM.

**Investment Rationale**

**Video Virtualization Engine™ (VVE) - A Unique, Patented technology to extract data from video**

Linus' unique software converts legacy and cumbersome videos into accessible data (or virtualized files). Data virtualization is not a new concept in the software industry. However, the Company has been a pioneer in internet video virtualization technology. Linus' patented Video Virtualization Engine™ (VVE) separates publicly accessible video files from the cloud by making it accessible as data and reducing the number of video files to be converted to different formats for playback on various devices, thereby reducing the cost of storage and processing. VVE also offers significant opportunities for video cloud providers, media and entertainment companies., The Company is developing the world's first video blockchain and will use Proof of Work (which both Bitcoin and Ethereum currently use), by integrating with market leaders such as Microsoft, Amazon and IBM.

**Significant market potential for VVE technology**

The Company's Video Virtualization Engine™ (VVE) is a disruptive technology, which has significant revenue potential from diverse sectors in the internet video market. At present, Linus is focused on four market segments or divisions:

- 1) Search – facilitates users to search within video files and compile new videos based on personalized search criteria. The Company estimates a revenue potential of \$60 million for its clients on an aggregate scale per year assuming a 2% market share and assuming 10% of searches display an ad. The Search division currently targets sectors including Media and Entertainment, Higher Education, Corporate, and Sports.
- 2) Security and Defense – offers intelligent video search on a large-scale basis and provides immediate distribution of security footage without the need for additional storage space for video files. Linus anticipates a potential revenue opportunity of about \$60 million on an aggregate scale per year for its clientele in their first year assuming a 2% market penetration.
- 3) Anti-piracy – applying proven data protection methods to video to solve piracy. Film piracy has been a primary focus for Linus thus far. Film piracy in the US alone costs approximately US\$20.5 billion per year
- 4) Personalized Advertising – offers hyper personalized advertising based on an individual's preferences, timeslot and content. The advertisements target customers through Over The Top (OTT) media networks and Internet Protocol Television (IP-TV) based cable providers. Individual customers and media and entertainment companies are the primary focus for this segment. Linus estimates the market potential at \$500 million per year at 0.005% market share for its clients on an aggregate scale.

### **Strategic POC agreements and integration with leading players should help scale up Linius' business**

Linius has engaged in strong POC and integration agreements with leading cloud operators such as IBM Cloud, Amazon Web Services, and Microsoft Azure. According to Cisco's Visual Networking Index (dated June 6, 2017), video streaming is expected to account for more than 82% of internet traffic by 2021, up from 73% in 2016. IBM, Amazon, and Microsoft are leaders in video cloud services and are currently investing billions of dollars in the video industry. These video cloud service providers are battling it out to own video content, connect data between tools and artificial intelligence, search videos more efficiently and be able to customize and monetize videos quickly. VVE technology provides the missing link that tackles these challenges that these leading cloud service providers are encountering. Recently, the Company has signed agreements with Warner Bros. (a US-based entertainment company), Oklahoma State University, and MediaAMP (a US-based media asset management solutions provider) to test strategic POCs for Linius' technology. Successful completion of these POCs should help Linius increase its video virtualization penetration worldwide. Therefore, Linius is well-positioned to grow rapidly alongside top cloud providers.

### **Strong and qualified management team should help Linius achieve its strategic goals**

Linius' management expertise in both technical and financial aspects should strengthen the Company's business operations and future growth plans. Mr. Chris Richardson is the Executive Director and Chief Executive Officer of the Company, with twenty years of expertise in the internet software industry. He also has ten years of experience in technical product management for several Silicon Valley startups, which include U4EA Wireless and NextHop Technologies. Mr. Kevin Kyer is the Executive Vice President of the Search division of Linius. He has more than twenty years of experience in the digital space. He also has ten years of expertise at Yahoo! to build and develop Yahoo!'s search platform. Mr. Ken Ruck is the Executive Vice President of Linius' Personalized Ads division. He has been a founding member and has also worked with several start-up firms, with substantial experience in video, Artificial Intelligence, and digital media. Mr. Peter Cohen is the Executive Vice President of the Company's Anti-Piracy division. He has significant expertise in the media and entertainment industry, which include distribution, programming, and multi-platform content production. Mr. Tom Slowe is the Executive Vice President for Linius' Security and Defense division, with more than twenty years of expertise in disruptive Artificial Intelligence (AI) technologies.

### **Linius should capitalize on the growing internet video traffic**

Linius' operations are well supported by favorable drivers, supporting its application in markets such as personalized advertising, video surveillance and anti-piracy. According to Cisco, a global networking firm, global video internet traffic is expected to exceed 278 billion gigabytes per month by 2021. More than 82% of internet traffic will be video by 2021, up from 73% in 2016, and growing at a rapid 31% CAGR. This significant growth is attributable due to increase in usage of social media and online video platforms streaming live premium content and television programs. Streaming of such content has also triggered the growth of online video advertising. Online video has now become an integral part of corporate marketing strategy and many companies have started to embrace online video as the future of personalized advertising. According to eMarketer, the US digital video advertising spending is estimated to be at US\$13.23 billion in 2017 and is projected to grow at a 13.79% CAGR to reach US\$22.18 billion by 2021. In addition, abundant availability of video data also presents immense monetization opportunity for Linius' VVE, due to its applications in markets such as video surveillance (expected to reach US\$75.64 billion by 2022) and Anti-Piracy (Film piracy costs the US economy US\$20.5 billion per year).

## **Company Overview**

### **Business**

Linius' patented Video Virtualization Engine™ (VVE) technology transforms complex videos into accessible data. The Company's VVE technology has completed preliminary alpha and beta software tests and is expected to be commercialized by 2018. The Company has received core patents for its VVE technology in the US, Europe Union, South Korea, Canada, Mainland China, Australia, Hong Kong and Singapore. The Company also has two pending patents and additional patents currently in process. In addition, the Company has integrated Video Virtualization Engine™ into leading cloud platforms such as Amazon Web Services, Microsoft Azure, and IBM Cloud.

Linius acquired the Linius technology Intellectual Property (IP) from Phoenix Myrrh for approximately \$5.4 million in November 2015. The idea of video virtualization was established in 2014 and a US patent was obtained the same year.

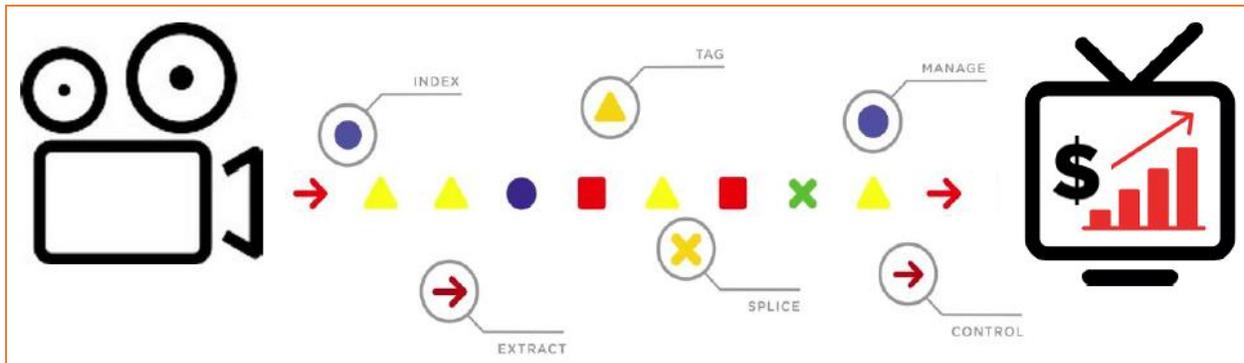
We now explain the details of Linius' VVE technology.

### **Linius Video Virtualization Engine™ (VVE)**

Typically, video files are large. Modification of the entire video file is required each time it is required to play in various video formats. This results in significant storage and processing requirements in order to support various video formats. This is a complex process, and also ends up with more number of copied video files, thereby consuming more processing time and storage. However, VVE breaks down this process and simplifies it. VVE separates the traditional video file and converts them into two components, namely VDNA (or Video-DNA, a large file) and vStub (a trivial index file, relatively small, approximately the size of a text email). By modifying the vStub, without touching the VDNA, a user can access the VDNA data to index, tag, parse, splice, manage and manipulate any video stream on the fly. VVE then allows processes to deal only with the small vStub file (kilobytes in size), thereby reducing significant storage size.

Exhibit 1 shows a snapshot of VVE workflow.

Exhibit 1: Linius' Video Virtualization Engine™ (VVE) Work Flow



Source: Company Investor Presentation

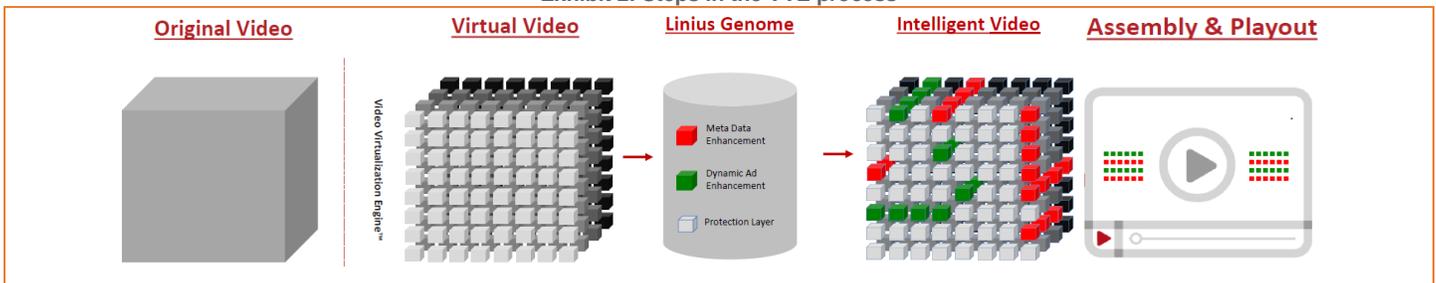
**How does Video Virtualization Engine™ (VVE) work?**

Video Virtualization Engine (VVE) follows three simple steps: 1) extracting data from the video 2) enriching the data and 3) reassembling the video.

- 1) **Extract data from the video to create a virtual video data** – The original traditional video is generally an inflexible and impenetrable file. VVE inspects, retrieves and extracts data (VDNA and vStub) from the original video and prepares it for further applications. This process is called virtualization.
- 2) **Develop the data to create an intelligent video** – The available flexible audio and video data are developed with Linius Genome, which includes meta-data, personalized advertisement and privacy layers. In other words, the video data can be programmatically modified and enhanced with Linius Genome, which offer meaning and value to the video. The Company terms this video as the *intelligent video*.
- 3) **Recompile the video** – Now, the patented Linius' VVE technology reassembles the *intelligent video*, and customizes it based on each individual viewer. The vStub (a small container) connects with Video-DNA (original audio and video content) at the source location and reassembles as a recompiled version of the original video. In other words, the patented VVE technology seamlessly transmits files by using one vStub container. The Video-DNA files that are extracted and transmitted from the original videos are binary data, which cannot be reassembled without the vStub. The resulting video is ready for playback in various devices, including TVs and smart phones.

Exhibit 2 shows the three-step VVE process.

Exhibit 2: Steps in the VVE process



Source: Company Investor Presentation

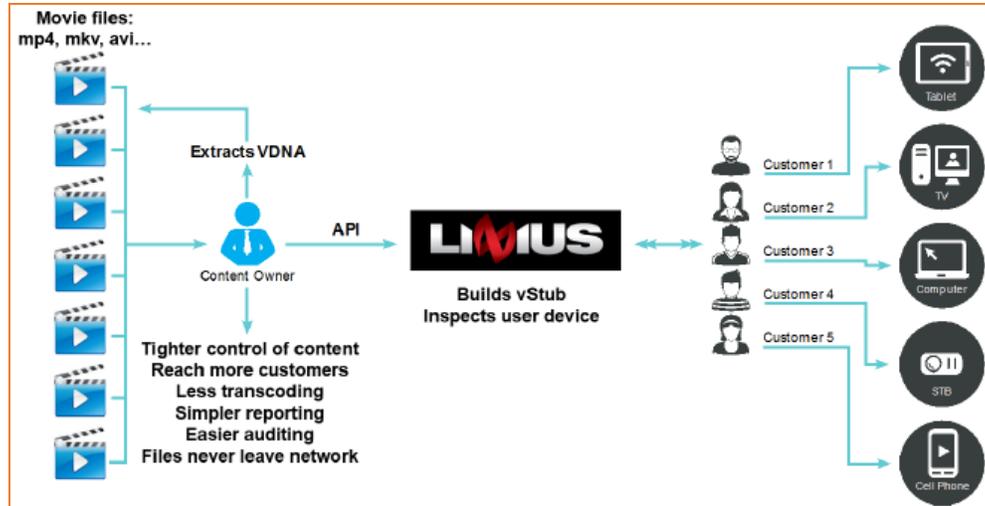
**Easier Video Customization**

As explained earlier, VVE removes the complexity of the video and extracts vStub (a tiny index file) from the original file at the source. By only modifying the extracted vStub, a user can edit and manage video without touching the big VDNA file. As a result, the user will have a relatively small (a few kilobytes) file instead of several huge multi-gigabyte files. Since the smaller vStub file is now easier to manipulate and edit, VVE can offer a customized video for each viewer, which is currently cost prohibitive.

**Reaching More Customers at reduced costs**

Video content owners expect to maintain and control the ownership of video contents while maximizing reach of customers in a safer way and subsequently, monetizing the contents effectively. VVE facilitates video content owners to achieve these goals for video content owners, as more formats and multiple end-user display devices can now be incorporated with minimal vStub file size changes. Exhibit 3 shows that how different formats of videos can be played using various display devices.

Exhibit 3: VVE enhances the DNA of internet video to playback using various displays



Source: Company Investor Presentation

## Revenue Models

As mentioned earlier, the Company is focused on four divisions or market segments, which include 1) Search, 2) Security and Defense, 3) Anti-Piracy and 4) Personalized Advertising. We now discuss each of the four divisions in detail.

### 1) Search

VVE is the world’s first personalized video search engine, which contains VVE technology within a video player and utilizes Artificial Intelligence. The product provides personalized search options within videos and compiles a new video in minimal time. A user can search the videos based on their search criteria on the fly, using VVE’s virtualized files. For example, if a user wants to see a particular football player’s tackle action, VVE searches and recompiles a video showing the exact tackle action on the fly. This search product is suitable for various industries such as Higher Education, Media and Entertainment, Corporate, and Sports. The Search platform offers a market potential of more than \$60 million per year to Linius clients on an aggregate scale. This is assuming 2% market share and the reward of 0.075 cents per search, 0.1 cents per ad served and 0.1 cents per view. Exhibit 4 shows the market potential of the Search platform.

Exhibit 4: Search platform offers a market potential of \$60 million per year

Pricing Model	Description
Payment per search	0.075 cents per search (paid by the content owner)
When ads are inserted in the video search return (pay per view)	0.1 cents per ad served (paid by the content owner)
When a payment gateway intercepts search return (paid per purchase)	0.1 cents per view (paid by the content owner)
Market Revenue Opportunity	Market potential
2% share of this market, and assume 10% of this displays an ad	<b>\$60 million per year</b>

Source: Company Investor Presentation

### 2) Security and Defense

The Security and Defense division offers technology that analyzes videos on a large-scale basis and immediately compiles the relevant security videos based on required inputs, thereby significantly reducing the time spent on video analysis. Also, it avoids the need for additional storage space for these videos. As explained before, this product includes VVE, a video player and utilizes Artificial Intelligence. Government agencies and video security firms are potential customers for this VVE technology. With an assumption of 2% of the 72 million hours of footage collected daily, Linus anticipates revenue potential of approximately \$60 million to its clients on an aggregate scale per year. Exhibit 5 shows the market potential of the Security and Defense division.

Exhibit 5: Security and Defense division has a market potential of approximately \$60 million in the first year

Pricing Model	Description
License fee	Variable per seat (potentially \$10,000 plus 20% per annum)
License is per seat or enterprise (e.g. government department)	Variable per library content
Linus is paid per search made	0.075 cents per search (Paid by government agency or video security firms)
Market Revenue Opportunity	Market potential
2% of the 72M hours of video (16.2 years per day)	<b>Year 1 - \$60M (licensing) + 20% S&amp;M ongoing per annum</b>
5,848 licenses (seats) of Linus required	
If Linus seat is \$10K one time, and then \$2,500 per year ongoing	

Source: Company Investor Presentation

### 3) Anti-Piracy

The Anti-Piracy product includes VVE, a video player and content protection set that is delivered with IBM. This product controls espionage and hacking by applying a protection layer over the video content. This product makes the original video inaccessible unless the content owner's permission is given. Movie studios and original video content producers are potential customers of this division. Currently, piracy films cost approximately US\$20.5 billion per year in the US film market and about 432 million people regularly watch pirated videos online. With an assumption of 5% of the studio content market, the Company estimates the Anti-Piracy market potential to be approximately \$30 million per year. Exhibit 6 shows the market potential of the Anti-Piracy division.

**Exhibit 6: Market Potential for Anti-Piracy Division**

Pricing Model	Description
License fee	Variable
Linius paid per view (paid by content owner)	0.075 cents per view
Market Revenue Opportunity	Market Potential
5% of the high value studio content market	<b>\$30 million per year</b>

Source: Company Investor Presentation

### 4) Personalized Advertisement

Linius' Personalized Advertisement technology is served with VVE, API to ad server, Linius Player and SDK (Software Development Kit) to online clients (OTT) (delivered through Microsoft, Amazon and IBM). Media and Entertainment companies are major potential customers of this division. At present, the US cable television and Internet Protocol (IP) advertising markets account for approximately \$75.3 billion and \$15 billion respectively and the cost of Ad Blockers in total is expected to reach \$35 billion by 2020. Linius' technology controls Ad Blockers, which, in turn, saves the costs incurred due to them. If Linius' technology successfully controls 0.005% of market share, the Company should generate significant revenues through its fee per play business model. On an aggregate scale, Linius' clients should see a possible market revenue opportunity of \$500 million per year. Exhibit 7 shows the market potential of the Personalized Advertising division.

**Exhibit 7: Market Potential for Personalized Advertising Division**

Pricing Model	Description
Paid per advertisement inserted	0.01 cent per advertisement served (Paid by the broadcaster)
Market Revenue Opportunity	Market Potential
At 0.005% market share	<b>\$500 million per year</b>

Source: Company Investor Presentation

## New Growth Opportunities

### Video Blockchain

On December 20, 2017, Linius announced its plan to launch the world's first video blockchain technology, which could revolutionize the internet video market. At present, blockchain technology is the backbone of cryptocurrency transactions due to its safe and secure way of transferring data files in the internet.

Linius' video blockchain technology allows users to transfer video files in a secure way and actual video will be played after receiving approval from the original content owners. Today, video blockchain is impossible as the general internet video formats are in MP4, which does not support blockchain technology today and video files are also large in size. Linius' virtualized data file can be managed and monetized by its blockchain technology. Further, Linius has also planned to use "Proof of Work" (a validity process, which is done through mining, e.g. Bitcoin and Ethereum today both use Proof of Work).

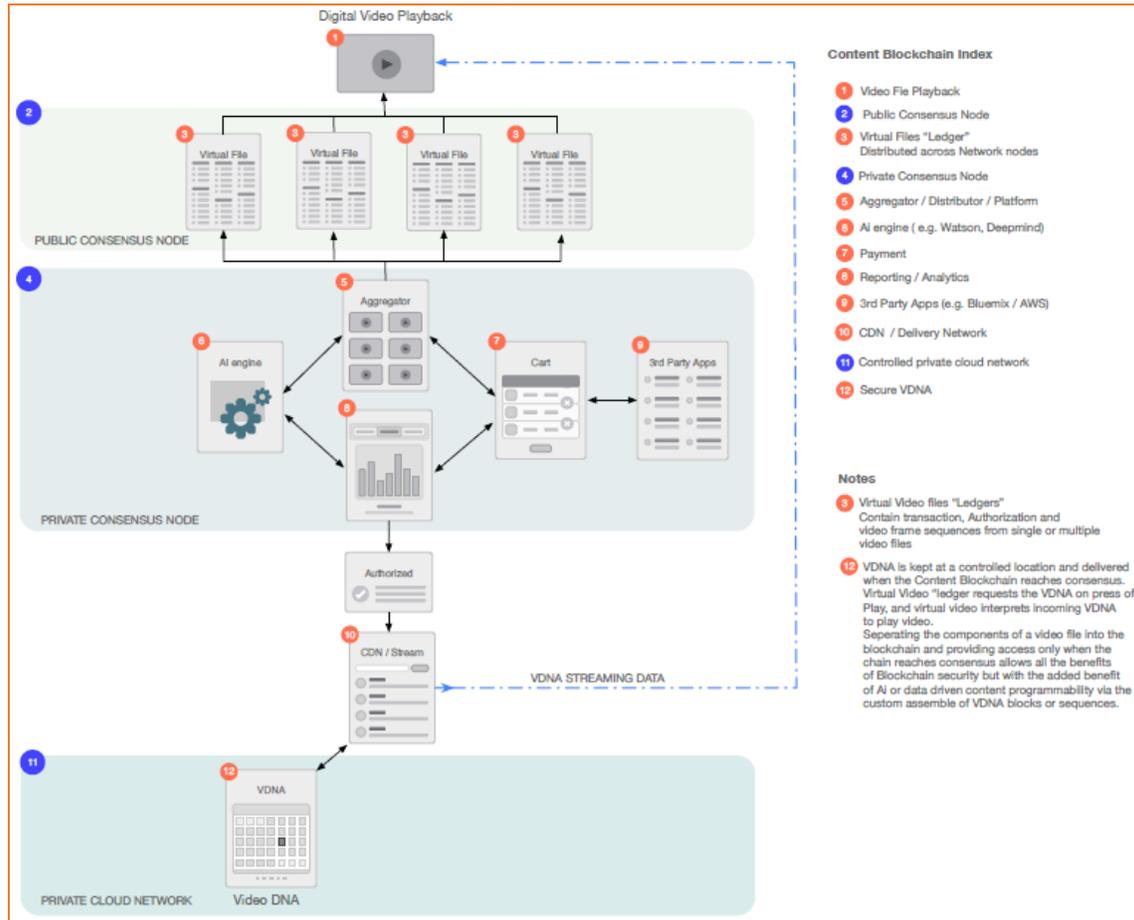
We now briefly discuss the steps involved in Linius' proposed video blockchain technology.

The nine steps process involved in using video blockchain technology are as follows:

1. The video content owner registers ownership of virtualized files in the Linius blockchain. The video content owner can form contracts for payments
2. Ownership is registered in the ledger
3. The transfer ownership is also registered when any ownership is transferred
4. Ownership is stored as a hash (an encrypted file)
5. Miners validate the transaction through Proof of Work
6. The virtual file can be identified by using a hash in the user-data section
7. A Linius player (same as Bitcoin wallet) transfers the hash of the virtual file to the Linius Authorization Engine
8. A Linius blockchain validates the ownership of the virtual file by using the owner's public key
9. Once consensus is received from all involved parties, videos will be played

Linius provides monetization benefits to video content owners and organizations, which can monitor video transfers and generate revenue through third party payments. Exhibit 8 shows the Linius' proposed video blockchain architecture.

Exhibit 8: Linius' proposed video blockchain architecture



Source: Company Investor Presentation

### VVE as SaaS 'Self-Service' Technology launched to rapidly scale business

On January 23, 2018, Linius launched its VVE technology as a SaaS ("Software as a Service") to select developers to rapidly scale its business. These select users will be able to log on and pay to virtualize their videos on their own without the need of Linius resources. This allows developers to build new products and businesses on top of VVE through a variety of API's. Linius' intention of allowing access to its patented VVE technology is to open up new verticals beyond the four divisions it is currently targeting. This move can add significant potential revenue streams in new verticals for Linius moving forward.

### Collaboration agreement with Warner Bros. to test VVE in the content platform

On February 08, 2018, Linius and Warner Bros., a US-based entertainment company, entered into a collaboration agreement to conduct a technical pilot study of VVE initially in Australia. This agreement intends to conduct the pilot study in a Transactional Video On Demand ("TVOD") streaming and content platform, which offers content protection from distribution to end users. Linus' technology enables consumers to rent films for a limited period through the TVOD model and to be viewed as virtual videos. Warner Bros. and Linius have decided to test the streaming of certain selected Warner Bros. films through this content platform.

### Agreement with Oklahoma State University to streamline video searches

On March 05, 2018, Linius entered into an agreement with Oklahoma State University (OSU) to test Linius Cognitive Search in a Proof Of Concept (POC) project, along with IBM Watson. This POC explains how users can search within videos and end up with related parts of videos compiled together. OSU has more than 25,000 students and a large video library that includes sports, academia, alumni relations and student life for over 10,000 hours.

### Signed an agreement with MediaAMP to customize and enhance video searches

On March 13, 2018, Linius entered into an agreement with MediaAMP Inc., (a US-based media asset management solutions provider) to test Linius Cognitive Search, along with IBM Watson. This agreement is also a POC similar to the agreement with Oklahoma State University. MediaAMP has a customer base of more than 45 schools, including major universities such as University of Washington, Arizona State University, Central Washington University and the University of California. Upon successful completion of the POC, MediaAMP has plans to integrate Linius' VVE technology into its MediaAMP platform.

These promising recent strategic agreements with OSU, MediaAMP and Warner Bros. may help the Company to scale up its business in the education and media markets.

**Significant market opportunities from the global video value chain**

VVE is a disruptive technology, which offers solutions to various workflow links in the value chain of the video broadcasting industry. It helps in the convergence of broadcast television, the cloud, carrier networks, proprietary devices and content publishing in the mobile, internet, and cable markets. At present, video content owners, infrastructure providers and broadcasters face difficulties to handle video content. Managing video content is a complex process, which requires significant time, labor and capital. Each video multiplies in numbers down the chain and increases in size significantly as these videos require many different formats, each needing more space to store. According to Accustream Research (2014), the global video value chain exceeded US\$16.5 billion in 2014 and is expected to grow with the increased audience for the years to come.

Linus sees the global video value chain players as its customers rather than as competitors. Integrating the Linus' VVE technology in major portions of the video workflow process should significantly reduce labor and capital costs of storage and distribution, thereby offering significant costs savings to companies involved in the video value chain.

Exhibit 9 shows the eight steps in the global video value chain and the companies involved in the video value chain. The global video value chain starts with Record followed by Post-production, Transcode, Storage, Workflow, Digital Rights Management (DRM – Security and Defense), Content Delivery Network (CDN), and Playout. VVE is set to disrupt the global video value chain, in particular, CDN and Transcoding as explained below:

- **Content Delivery Network (CDN)** – VVE directly reduces total file storage costs for CDNs by reducing number of videos to be copied. For example, if a CDN provider needs three copies, VVE reduces them to one video copy, which cuts approximately 66% of storage costs. According to MarketsandMarkets (a market research company), the global CDN market is forecast to grow to US\$30.89 billion by 2022 from US\$6.05 billion in 2016, at an impressive CAGR of 32.8%. Every CDN provider is therefore a potential Linus customer.
- **Transcoding** – Transcoding converts digital video master copies to various formats and aspect ratios to support all playback devices. As per PricewaterhouseCoopers' Media and Entertainment companies report (December 2013), one video studio has more than 300 different formats to play. VVE is set to remove the transcoding process, offering significant cost savings for video distributors.

Exhibit 9: Eight steps involved in the global video value chain and their major players



Source: Company Investor Presentation

## Strategic Partnerships and Agreements

On May 22, 2017, the Company collaborated with IBM to promote and sell VVE. IBM and Linius could jointly develop VVE onto the IBM Cloud platform. As a result, Linius can integrate and sell VVE products with IBM Cloud products, enabling streamlined and speedy delivery to customers. IBM can also sell VVE, enabling new business opportunities in the aforementioned four divisions.

The IBM-Linius Partnership offers:

- A market model to Linius, which matches the Company’s clients’ needs of cloud, private and hybrid-cloud
- IBM is one of the world leaders in blockchain technology. Linius’ technology can complement IBM in video blockchain technology
- VVE can utilize IBM Watson (a world-leading cognitive Artificial Intelligence) to develop personalized video search, customized advertisements and security and defense applications
- Linius products can reach IBM’s wide network of corporate clients beyond Linius’ target markets

Further, in December 2017, Linius integrated VVE with Microsoft Azure and Microsoft Cognitive Artificial Intelligence (AI) services to rapidly scale its business globally. As mentioned earlier, VVE is the missing link to the monetization of cloud providers. Therefore, Linius is in line with its goals to integrate with global leaders in Artificial intelligence.

In addition, as mentioned earlier, the Company entered into agreements with Warner Bros., Oklahoma State University, and MediaAMP to complete strategic POCs for Linius technology. Upon successful conclusion of the POCs with these organizations, the Company can also grow rapidly in the education and media markets.

## Goals for Commercialization:

On September 2017, the Company initiated eleven Near-Term Goals (NTGs) to significantly grow its virtual video penetration and generate revenue. Exhibit 10 presents NTGs framed by the Company in September 2017. As of April 2018, the Company successfully achieved seven NTGs. The Company continues to fast-track the remaining NTGs. Out of the four pending NTGs, NTG 8 and 9 are near completion and awaiting conclusions of earlier mentioned POCs. In addition, the Company continues to grow its initial deal with IBM (NTG 10) and expects to complete it in the near future.

**Exhibit 10: Goals/Milestones for near-term commercialization**

No	NTGs	Date	Status
1	Integrated VVE into IBM’s Cloud platform	Oct 2018	<input checked="" type="checkbox"/>
2	Integrated VVE with Comcast’s platform. Comcast is a world leading broadcaster (or Over The Top (OTT) platform provider)	Oct 2018	<input checked="" type="checkbox"/>
3	Engaged with Roadshow Films, a global movie studio to develop Proof of Value (POV) in anti-piracy	Oct 2018	<input checked="" type="checkbox"/>
4	Integrated VVE into Microsoft Azure. Now, VVE is available on AWS, IBM and Microsoft Azure	Dec 2017	<input checked="" type="checkbox"/>
5	Offered blockchain strategy and solution design	Dec 2017	<input checked="" type="checkbox"/>
6	Integrated VVE with global cognitive AI provider (Microsoft’s suite of Cognitive AI Services)	Dec 2017	<input checked="" type="checkbox"/>
7	Developed a mass content distribution POV through a collaboration agreement with Warner Bros. Entertainment Inc., a global movie studio.	Feb 2018	<input checked="" type="checkbox"/>
8	Offer a complete piracy solution with a global movie studio	Q2 CY2018	<input type="checkbox"/>
9	Provide POC (Proof of Concept) of Search in a global cloud environment	Q2 CY2018	<input type="checkbox"/>
10	Monetize initial deal flow with IBM	Q2 CY2018	<input type="checkbox"/>
11	Deliver the integration of VVE with Major OTT ad servers	18-April	<input type="checkbox"/>

Source: Company Investor Presentation

Further, the Company has replaced NTG 11, “*Integration of VVE with Major OTT advertising servers*”, with “*the launch of a SaaS platform for the VVE*”. SaaS platform’s business scalability, along with the fact that SaaS providers have been investing heavily in the cloud in the last five years, can provide the Company significant growth opportunities.

On April 10, 2018, the Company updated NTGs with additional tactical targets (Exhibit 11), which include a target of six new revenue-generating deals, sign a second global established partner and others. The Company expects to complete these goals in the next three to six months.

**Exhibit 11: Updated Tactical Target NTGs**

No	Tactical Target NTGs	Date	Status
1	Launch VVE as a SaaS platform	April 2018 (TBA)	<input type="checkbox"/>
2	Offer a complete piracy solution with a global movie studio	Q2 CY2018	<input type="checkbox"/>
3	Provide POC (Proof of Concept) of Search in a global cloud environment	Q2 CY2018	<input type="checkbox"/>
4	Convert initial deal flow with IBM	Q2 CY2018	<input type="checkbox"/>
5	Enter into an agreement with an education-sector reseller	*In next 3-6 mths	<input type="checkbox"/>
6	Sign two revenue-generating deals in the education sector	*In next 3-6 mths	<input type="checkbox"/>
7	Sign two revenue-generating deals in the news or sports sectors	*In next 3-6 mths	<input type="checkbox"/>
8	Sign a second (other than IBM) global established partner	*In next 3-6 mths	<input type="checkbox"/>
9	Sign two additional revenue-generating deals other than the education, news or sports sectors (mentioned above)	*In next 3-6 mths	<input type="checkbox"/>
10	Integrate IBM search capability	*In next 3-6 mths	<input type="checkbox"/>

Source: Company Investor Presentation  
 \*As of April 2018  
 TBA: To Be Announced

## Company Timeline and Key Events

Exhibit 12 below shows the reverse chronological timeline of the evolution of Linius, summarizing some key annual events for the Company since 2015.

**Exhibit 12: Timeline summarizing significant annual events since 2015**

Dates	Events
13-Mar-18	Linius signed an agreement with MediaAMP to test Linius Cognitive Search. This POC will show how users can search within videos and return only relevant parts.
05-Mar-18	Signed an agreement with Oklahoma State University to test Linius Cognitive Search. This POC project will allow users to search, view and compose custom content on the fly.
26-Feb-18	Completed \$10 million capital raising
8-Feb-18	Signed collaboration agreement with Warner Bros. for a Transactional Video On Demand (TVOD) pilot test.
23-Jan-18	Launched SaaS technology which allows users to utilize Linius' patented Video Virtualization Network
20-Dec-17	Launched video blockchain and Linius will use Proof of Work from Microsoft, Amazon and IBM
14-Dec-17	Integrated its VVE with Microsoft Cognitive Artificial Intelligence Services
06-Dec-17	Appointed Mr. Tom Slowe as EVP for the Security and Defense division
04-Dec-17	Integrated VVE with Microsoft Azure
23-Oct-17	Integrated VVE with Comcast Technology Solutions' Over The Top (OTT) platform
19-Oct-17	Raised \$4.5 million through the issuance of 90 million shares at \$0.05 per share
03-Oct-17	IBM and the Company deployed Linius VVE's anti-piracy solution for Roadshow Films. This is the world's first virtual video deployment
17-Aug-17	Appointed Mr. Peter Cohen as EVP for the Company's Anti-Piracy division
17-Jul-17	Village Roadshow Ltd and the Kirby family invested approximately \$1 million and \$0.5 million in the Company respectively
28-Jun-17	Appointed Mr. Ken Ruck as EVP for its Personalized Advertising division
30-May-17	Appointed Mr. Kevin Kyer as EVP for its Search division
22-May-17	IBM and the Company collaborated to promote and sell VVE
24-Mar-17	Appointed EAS Advisors LLC (US-based corporate advisory firm) as corporate advisor
27-Feb-17	Linius indexed and virtualized millions of videos from Instagram and TED talks
22-Feb-17	Appointed Mr. Gerard Bongiorno as a Non-Executive Director to the Company's Board of Directors
07-Feb-17	Linius received additional patents (Nos 9,516,392 and 9,544,657) for its method and system for content delivery
02-Feb-17	Appointed Mr. Taylor Rafferty as the Company's global relations specialist to progress the Company's commercialization plans internationally
31-Jan-17	Launched its near-term commercialization plans including Personalized Advertising, Piracy, Video Search and Security and Defense

19-Dec-16	Linius and Village Roadshow Ltd, an Australian mass media company, successfully demonstrated that VVE removed the need for transcoding, resulting in reducing additional files and storage spaces
16-Sep-16	Linius along with its showcase partner Digisoft successfully demonstrated personalized ad insertion into a cable TV stream at the 2016 International Broadcasting Convention (IBC) in Amsterdam and completed its beta release
02-Sep-16	The Kirby family, a prominent investor in the film industry, invested \$500,000 for 10 million shares at \$0.05 per share in Linius
18-Jul-16	Digisoft extended its agreement with Linius as a showcase partner
24-May-16	VVE completed its alpha release (first phase of software release cycle) and continued to develop the Linius' VVE technology on beta release and finally software commercial release
12-May-16	Demonstrated VVE to investors, media and members of the public through live webcast
09-May-16	Stock re-listed on Australian Stock Exchange (ASX)
29-Mar-16	Through a reverse takeover, shareholders of Firestrike Resources Limited (FIE) approved the acquisition of Linius (Aus) Pty Ltd
22-Dec-15	Digisoft.tv, a multi-screen platform provider to broadcast and media companies, signed an agreement with Linius to become a first showcase partner
10-Sep-15	Linius (Aust.) Pty Ltd was incorporated

Source: Company Filings

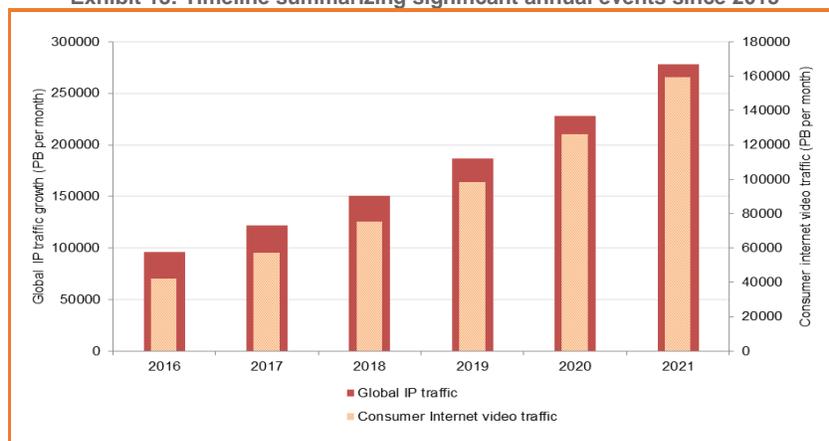
## Industry Overview

We now provide a brief overview on internet video traffic trends, followed by the video virtualization market opportunities.

### Global IP video traffic is projected to grow at a CAGR of 26% between 2016 and 2021

Global IP traffic is expected to grow significantly with the increase in the number of internet users, coupled with internet speed advancements. According to Cisco, an independent IT and networking firm, global IP traffic is projected to grow at a 24% CAGR from 1.2 ZB (Zettabyte) per year in 2016 to reach 3.3 ZB per year in 2021. In particular, video traffic is driving this global internet traffic growth. Cisco estimates global IP video traffic to account for 82% of all consumer internet traffic by 2021, up from 73% in 2016. This growth is fueled by a 31% CAGR growth in internet video traffic during the same period. Exhibit 13 shows global IP video traffic and consumer internet video traffic actual and forecast numbers between 2016 and 2021.

Exhibit 13: Timeline summarizing significant annual events since 2015



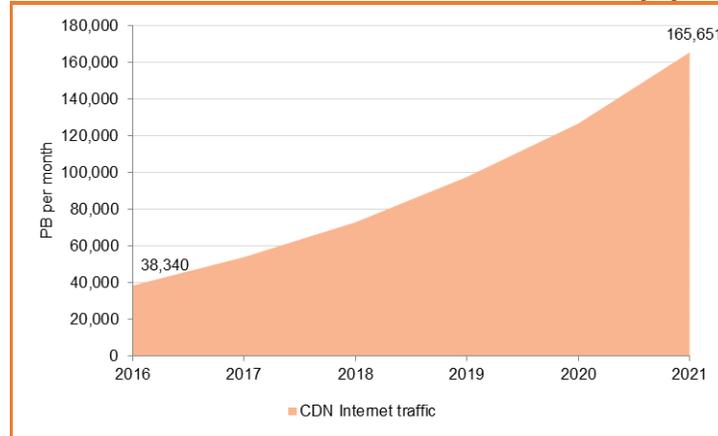
Source: Company Filings

Further, according to Cisco, a million minutes of video is expected to cross global IP networks each month in 2021, and, it would take more than 5 million years for an individual to view all the videos that would cross the networks each month by 2021. Such rapid growth in video traffic could be attributable to the growing popularity in OTT (Over the Top) video streaming services and increase in the number of connected devices.

### Content Delivery Networks (CDN) to remain a preferable method for delivering online video content

CDN is seen as a preferable method for delivering OTT video content to TV and other devices. According to Cisco, global CDN traffic is forecast to grow from 38,340PB per month in 2016 to 165,651PB per month in 2021, at a CAGR of 44%. Further, 77% of all internet traffic will cross CDNs by 2021, which is an increase from 67% in 2016. Exhibit 14 shows global CDN traffic estimates from 2016 to 2021.

**Exhibit 14: CDN to account for 77% of all internet traffic delivery by 2021**



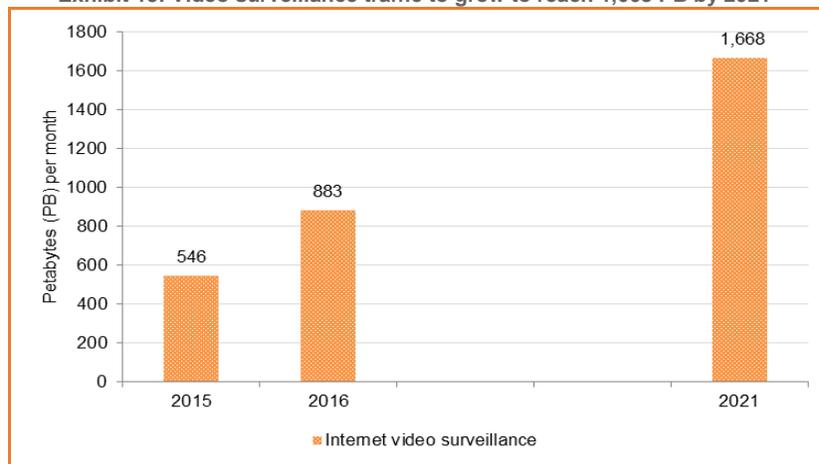
Source: Cisco

The substantial future amount of internet video files increases the need for transforming these into usable data (virtualization), suitable for various business applications. We now present in detail the market opportunities of video virtualization across various market segments.

**Video Surveillance - A flourishing market**

Video surveillance has grown exponentially over the years, due to rising concerns over terrorism and crime rates. Most of the industrialized countries have adopted video surveillance technology, with the UK, specifically London, leading the adoption. The global video surveillance market is estimated at US\$30.37 billion in 2016 and is projected to grow at a CAGR of 15.4% to reach US\$75.64 billion in 2022. Further, according to Cisco, internet video surveillance traffic has grown from 516 Petabytes (PB) per month in 2015 to 883 PB per month in 2016 and is projected to reach 1,668 PB in 2021 as seen in Exhibit 15. Such rapid growth in the video surveillance market has generated an immense amount of video data, which is difficult to monitor effectively. According to Accenture’s ‘Video Analytics Report’, 98% of the CCTV footages remain unseen and, only 0.2% of all the US federal video footages are viewed. However, with the evolution of video virtualization technologies such as VVE, these video files could be effectively analyzed for better surveillance.

**Exhibit 15: Video surveillance traffic to grow to reach 1,668 PB by 2021**

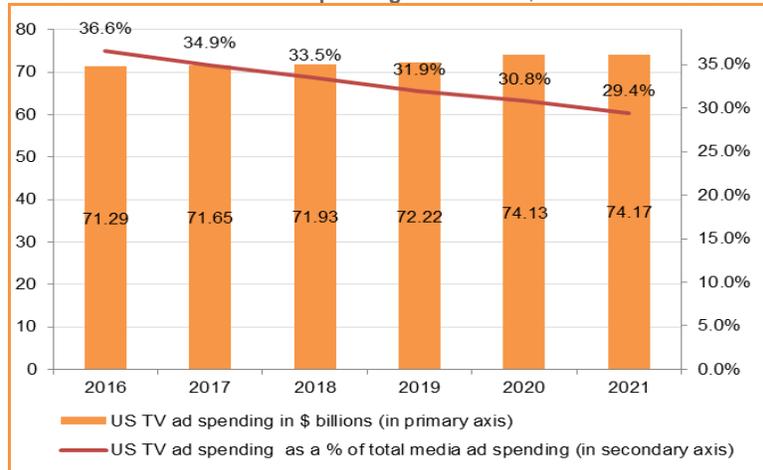


Source: Cisco

**Growth in personalized video advertisement market underlines the need for video virtualization**

Personalized advertising is growingly seen as a powerful tool to deliver consumer targeted messages. Personalized advertising is highly emphasized since it generates higher ROI (Return on Investment) on advertisement (ad) campaigns. As per Network advertising.org (a self-regulatory association of third-party advertising companies), targeted advertisement campaigns obtain an average of 2.7x higher revenue per ad than non-targeted ones. In addition, growing video traffic has prompted advertisers to use video as a personalized content marketing tool. Companies are increasing spending on personalized video markets. TV and digital video advertising comprise significant portion of the total media ad spending. As per E-marketer, US TV ad spending is estimated at US\$71.29 billion in 2016, and is estimated to grow to US\$74.17 billion in 2021. Exhibit 16 shows the US TV ad spending between 2016 and 2021. Although the percentage of TV ad spending in the total media ad mix is slowing, it is estimated to account for approximately 29% of the total media ad spending in 2021. Therefore, since Linius is the first company to deliver personalized ads to Cable TV, such growth in the personalized video advertising market should offer a significant market opportunity to Linius.

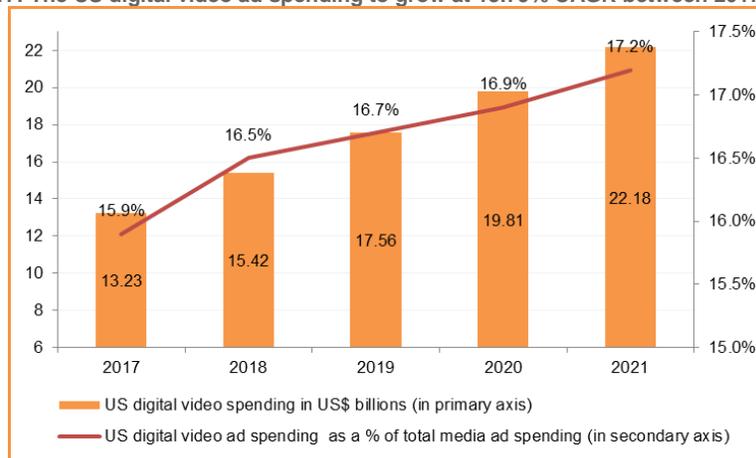
**Exhibit 16: The US TV ad spending to reach US\$74.17 billion in 2021**



Source: eMarketer

Further, the US digital video (including mobile video, desktop video and others) ad spending is estimated to be at US\$13.23 billion in 2017 and is projected to grow at a 13.79% CAGR to reach US\$22.18 billion in 2021. Increase in consumer preference of digital video platforms such as OTT over traditional pay TV options, is expected to drive the digital video ad growth. Exhibit 17 shows the US digital video ad spending between 2017 and 2021.

**Exhibit 17: The US digital video ad spending to grow at 13.79% CAGR between 2017 and 2021**



Source: eMarketer

With advancements in technology, real time dynamic video ad insertion offering precision for advertisers should further drive investment in the US advertising market. The Linius platform enables personalized pay TV ads, similar to those seen in personalized social media ad campaigns.

**Anti-Piracy presents significant market opportunity**

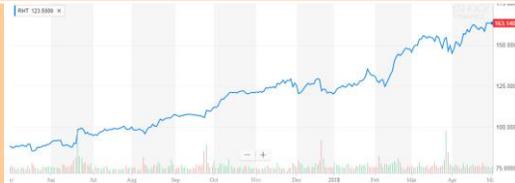
Copyright piracy and trademark counterfeiting poses a large threat to the profitability of the film industry, causing significant economic losses. As per the MUSO's (a global technological company) global film and TV piracy report 2016, global visits to piracy sites are estimated at 191 billion (53.33 piracy visits per internet user) in 2016, which is expected to increase further with the growth in connected devices. Further, the global value of digital piracy in movies, music and software was estimated at US\$213 billion in 2015, and is projected to grow between US\$1.9 and US\$2.8 trillion dollars by 2022, according to a report on 'The economic impacts of counterfeiting and piracy' by Frontier Economics. The report also estimates employment losses due to such piracies to surpass five million by 2022 highlight the need to mitigate piracy. Linius, with its patented technology, is well positioned to tackle film piracy, and provides significant revenue opportunities.

## Linius Technologies – Comparables

- VMware (NYSE: VMW)** – VMware (a subsidiary of Dell Technologies) is a US-based software company that provides platform and cloud computing virtualization software and services. VMware provides server, network and desktop virtualization software products. VMware’s virtualization products include vSphere (server virtualization), NSX (network virtualization) and Horizon (desktop virtualization). VMware generated annual revenue of US\$7.92 billion for the fiscal year 2018, an increase of 12% compared to the prior year.
- Red Hat Software (NYSE: RHT) (“Red Hat”)** – Red Hat is a US-based software company that provides open-source software products. Red Hat provides server and workstation virtualization through its JBoss Enterprise Application Platform that helps in managing technical workstations and servers. Red Hat provides these services through its ‘Red Hat Virtualization’ software. At present, ‘Red Hat Virtualization’ software supports the SAP HANA® platform, which is a leading in-memory platform. For the twelve months ended December 2017, Red Hat generated total revenue of US\$2.9 billion, an increase of 21% year-over-year.
- Microsoft Corporation (NASDAQ: MSFT) (“Microsoft”)** – Microsoft is a US-based technology company that manufactures consumer electronics, personal computer, develops software and others. Microsoft provides server virtualization and competes primarily with VMware. Microsoft’s Hyper-V (hypervisor) virtualization software runs the largest datacenter in the world, Microsoft Azure.
- Oracle Corporation (NYSE: ORCL) (“Oracle”)** – Oracle is a US-based technology company that provides cloud services, software solutions and services and others. Oracle provides server and desktop virtualization. Oracle’s server virtualization products are ‘Oracle VM Server for x86’ and ‘Oracle VM Server for SPARC’, and desktop virtualization products are ‘Oracle Secure Global Desktop’ and ‘Oracle VM VirtualBox’. Oracle became a significant player in the virtualization market after its acquisition of Sun Microsystems.
- Google LLC (“Google”)** – Google is a US-based technology company and a subsidiary of Alphabet Inc. Google provides a cluster management tool (Ganeti) to manage and provide support for the virtual servers of the installed virtualization products. Google also provides quick search technology for particular keywords/subjects within video that exist on its cloud, but is unable to instantly thread these clips within clips into a single, virtualized video like Linius’ VVE is capable of doing.
- Cisco Systems (NASDAQ: CSCO) (“Cisco”)** – Cisco is a US based multinational technology conglomerate, headquartered in San Jose, California. Cisco offers its Virtualized Video Processing (V2P) Controller, which is built on an OpenStack-based cloud infrastructure. Cisco’s V2P arranges end-to-end workflows of video virtualization such as encoding, multiplexing, ad splicing, transcoding, recording, storage, packaging and playback for the multiscreen.

We provide the financial/valuation metrics of VMware and Red Hat Software (seen in Exhibit 18) as these companies are significant players in virtualization software, similar to Linius. However, these companies focus primarily on server, desktop and application virtualization. Linius’ VVE focuses on video virtualization, which is first of its kind in the virtualization market. This should provide Linius with a first-mover advantage and help in developing its business.

Exhibit 18: Financial/Valuation metrics of comparables (as of May 02, 2018)

Companies	Market Cap (US\$)	Price (US\$)	EV (US\$)	P/B	1-year price chart
VMware (NYSE: VMW)	\$53.99B	\$133.22	\$44.36B	6.92x	
Red Hat Software (NYSE: RHT)	\$28.99B	\$163.14	\$27.14B	19.64x	
Linius Technologies (ASX: LNU)	AUD 80.32M	AUD 0.088	AUD 75.44M	9.78x	

Source: Yahoo! Finance and Morningstar

## Company SWOT Analysis

### Strengths

#### VVE is the missing link for cloud providers

Linius is the first company to own a patented technology to virtualize video files. Further, leading cloud services providers are battling for video virtualization technology to optimize Artificial Intelligence and big data, investing billions of dollars to gain competitive edge. Linius can offer this missing link solution to these cloud providers. Further, Linius' VVE technology is now accessible through Amazon Web Services, IBM Cloud, and Microsoft Azure.

#### Significant market potential in many multi-billion segments

The Company's unique technology is set to disrupt many multi-billion segments in the video broadcasting industry. The Company has planned to deliver personalized advertising solutions to broadcasters, offer video security to curb piracy and hacking, improve search engine monetization and provide intelligent search with new immediate security footage.

#### Qualified and experienced management team

Mr. Chris Richardson is the Executive Director and Chief Executive Officer of Linius, with more than 20 years of experience in the industry of internet and 7 years in internet video. He has also served as a lead product manager for 10 years in several Silicon Valley-based startups. Mr. Kevin Kyer is the Executive Vice President of the Company's Search Division, with more than 20 years of expertise in the digital space. Mr. Ken Ruck is the Executive Vice President of Linius' Personalized Ads division. He has held several senior positions in large media companies dealing with video, Artificial Intelligence, and Digital media. Mr. Tom Slowe is the Executive Vice President of the Company's Security and Defense division with over 20 years of expertise in Artificial Intelligence technology. Such a qualified and experienced management team has the potential to deliver the Company's goals and strategies.

#### Linius owns notable patents for the Virtualization of Video

Linius has received fully granted core patents for its VVE technology in the US, European Union, Australia, Canada, Singapore, Mainland China, South Korea and Hong Kong. In addition, the Company has also been granted two additional continuation patents in the US and has two pending patents for VVE technology.

### Weaknesses

#### Lack of cash flow from operations

Linius has not generated any revenue from its core operations since the Company's inception. For the quarter ended December 31, 2017, the Company's cash from operations was a negative \$1.97 million. Further, Linius raises funds through capital markets from time to time to meet its operational requirements and capital expenditures. To note, subsequent to the quarter ended Linius raised approximately \$10 million through the issuance of common shares. Dependence on capital raising could dilute the shareholders' ownership.

#### Limited history of operations

Linius has limited expertise to commercialize its products, as they are in early stages of development. Further, the Company's ability to utilize its technology to commercialize its products would highly depend upon the expertise of its experienced personnel. Additionally, the Company's collaboration with commercial partners for testing its products would take substantial financial resource and time.

### Opportunities

#### Increase in US video advertising expenditure should positively impact Linius

Online video advertisements are found to engage more customers through social media and streaming platforms. Hence, businesses have increased their personalized video advertising expenditures. As per eMarketer, US video advertising spending is estimated to grow to approximately US\$28 billion by 2020. Linius should benefit from this opportunity as its video virtualization technology enables personalized video advertisements.

#### Video blockchain technology to offer solution to video piracy market

Blockchain is known for its safe and secure way of transferring digital data in the internet and hence used in cryptocurrency transactions. At present, traditional video files do not work in blockchain due to bigger sizes and formats (generally MP4). However, Linius may provide solutions to this as VVE can virtualize video files, which can be recorded, transferred and managed by blockchain. Linius video blockchain can offer a significant market opportunity to video content owners and video studios as video files can be managed and monetized by them. To note, video piracy costs approximately US\$20.5 billion annually in the US alone.

### Threats

#### Competition

Linius operates in the video technology space, which is highly innovative, fast and competitive in nature. The technology used by the Company is at an early stage, and yet to be commercialized. Linius may face numerous challenges to undertake development of technology continuously in order to seek advancements and successfully overcome programming errors. Further, the Company would face a stiff challenge against large companies with better financial resources and the latest technology. Additionally, the Company also has to compete with small innovators, who would be its direct competitor in the specific video transformation segment.

## Financial Performance

We now present the financial performance of Linus. We begin with a cash burn analysis followed by details on the latest financial statements. The Company follows July-June as its fiscal financial period. All financial amounts are in Australian dollars, unless noted.

Exhibit 19 shows the cash burn analysis and financial sustainability of Linus. We consider only operating cash flows for cash burn calculation as other activities are not part of the Company's core business. At the end of 3Q18 (three months ended March 31, 2018), the Company's cash burn was at \$865,000 per month at the survival rate of 12.3 months. In addition, the Company has a good track record of raising funds, and the net financing cash flow in 3Q18 was \$9,720,000. In February 2018, Linus successfully raised \$10 million by issuing 83,333,334 ordinary shares at a price of \$0.12 per share. The Company intends to use these funds to commercialize its four target divisions, scale up video virtualization through SaaS deployments, continue to invest in Research and Development (R&D) for additional patents, and add new hires in sales support and product management roles.

**Exhibit 19: Cash burn analysis (in AUD '000s)**

Period/ Amount (in '000)	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18
Net operating cash flow	(454)	(602)	(655)	(803)	(992)	(1,468)	(1,966)	(2,596)
Net investing cash flow	(100)	-	-	-	-	(4)	(3)	-
Net financing cash flow	2,754	500	249	(13)	-	1,488	4,527	9,720
Cash position (quarter end)	3,275	3,173	2,767	1,951	959	975	3,533	10,657
Burn Rate per month	(151)	(201)	(218)	(268)	(331)	(489)	(655)	(865)
Survival period (in months)	21.6	15.8	12.7	7.3	2.9	2.0	5.4	12.3

Source: RBMG Research

Exhibit 20 displays Linius' cash flow statements for the three months ended March 31, 2018, and March 31, 2017. For the three months ended March 31, 2018, the Company's operating cash outflow was \$2,596,000, compared to an outflow of \$803,000 during the corresponding period in 2017. This increase was primarily attributable to higher operating costs (\$1,038,000), Research & Development (\$701,000, +175%) and staff and consultant costs (\$409,000, +103%) incurred during the three months ended March 31, 2018. Further, cash provided by financing activities increased significantly to \$9,720,000 primarily attributable to higher issuance of shares in the three months ended March 31, 2018. As noted earlier, the Company raised \$10 million in February 2018 through issuance of shares. As of March 31, 2018, the Company had \$10,657,000 cash on hand.

**Exhibit 20: Cash flow statements for the three months ended March 31, 2018 and March 31, 2017**

Particulars	For three months ended March 31, 2018	For three months ended March 31, 2017	Change (%)
<b>Cash flow from operating activities</b>			
Receipts from customers	\$0	\$0	NM
Payment for:			
a) Research and development	(701,000)	(255,000)	175%
b) Operating costs	(1,038,000)	-	NM
c) Advertising and marketing	(170,000)	(179,000)	-5%
d) Leased assets	-	-	NM
e) Staff and consultant costs	(409,000)	(201,000)	103%
f) Administration, travel and corporate costs	(252,000)	(137,000)	84%
Dividends received	-	-	NM
Interest received	5,000	9,000	-44%
Interest and other costs of finance paid	-	-	NM
Income tax paid	-	-	NM
Government grants and tax incentives	-	-	NM
Other- legal & patent costs	(31,000)	(40,000)	-23%
<b>Net cash used in operating activities</b>	<b>(2,596,000)</b>	<b>(803,000)</b>	<b>223%</b>
<b>Cash flow from investing activities</b>			
Payments to acquire:			
a) Property, plant and equipment	-	-	NM
b) Businesses	-	-	NM
c) Investments	-	-	NM
d) Intellectual property	-	-	NM
Cash flow from loans to other entities	-	-	NM
Dividends Received	-	-	NM
<b>Net cash from investing activities</b>	<b>\$0</b>	<b>\$0</b>	<b>NM</b>
<b>Cash flow from financing activities</b>			
Proceeds from issues of shares	10,330,000	12,000	NM
Proceeds from issues of convertible shares	-	-	NM
Proceeds from exercise of share options	-	-	NM
Transaction costs related to issues of shares, convertible notes or options	(610,000)	(25,000)	NM
Dividends paid	-	-	NM
Others	-	-	NM
<b>Net cash from financing activities</b>	<b>\$9,720,000</b>	<b>(\$13,000)</b>	<b>NM</b>
Change in cash and cash equivalents during period	7,124,000	(816,000)	NM
Cash and cash equivalents, at the beginning of the period	3,533,000	2,767,000	28%
<b>Cash and cash equivalents, at the end of the period</b>	<b>\$10,657,000</b>	<b>\$1,951,000</b>	<b>446%</b>

(Note: NM represents not meaningful)  
Source: Company filings

Exhibit 21 displays the Company's latest available income statements for the half year ended December 31, 2017, and December 31, 2016. During the six months ended December 31, 2017, Linius did not generate revenue from its core businesses. Further, for the half year ended December 31, 2017, the Company's net loss significantly widened to \$4,078,911 compared to \$1,608,523 for the same period in 2016. This increase in net loss was mainly due to total expenses, which increased to \$4,081,771 in the half year ended December 31, 2017, compared to \$1,653,132, for the same period in 2016. Higher software development and consultant fees of \$930,847 and \$1,105,690 in the half year ended December 31, 2017, compared to \$332,631 and \$183,924 respectively for the same period in 2016 are primarily attributable to the significant increase in total expenses.

**Exhibit 21: Income statements for the half year ended December 31, 2017 and December 31, 2016**

Particulars	For the half year ended December 31, 2017	For the half year ended December 31, 2016	Change (%)
<b>Revenue</b>			
Interest income	2,860	44,609	
<b>Total revenue</b>	<b>\$2,860</b>	<b>\$44,609</b>	<b>-94%</b>
<b>Expenses</b>			
Administrative	\$220,697	\$103,809	113%
Amortization	270,000	270,000	NM
Depreciation	2,838	-	NM
Employee expenses	171,240	-	NM
Consultant	1,105,690	183,924	NM
Director remuneration	213,635	156,163	37%
Share-based compensation	342,756	198,172	73%
Financial and compliance	104,627	62,106	NM
Marketing and promotional	278,982	116,373	140%
Software development	930,847	332,631	NM
Patent	48,126	62,792	-23%
Legal	68,329	51,936	32%
Travel and accommodation	324,004	115,226	181%
<b>Total Administrative Expenses</b>	<b>\$4,081,771</b>	<b>\$1,653,132</b>	<b>147%</b>
<b>Loss before income tax</b>	<b>(\$4,078,911)</b>	<b>(\$1,608,523)</b>	<b>154%</b>
Income tax (expense) credit	-	-	NM
<b>Loss after income tax expense for the year attributable to owners of the parent</b>	<b>(\$4,078,911)</b>	<b>(\$1,608,523)</b>	<b>154%</b>
Other comprehensive income for the year, net of tax	-	-	NM
<b>Total comprehensive loss for the year attributable to owners of the parent</b>	<b>(\$4,078,911)</b>	<b>(\$1,608,523)</b>	<b>154%</b>
Basic and diluted loss per ordinary share	(0.0055)	(0.0027)	104%
Basic and diluted weighted average shares	736,313,163	590,899,010	25%

(Note: NM represents not meaningful)

Source: Company filings

Exhibit 22 details Linius' balance sheets as of December 31, 2017, and June 30, 2017. As of December 31, 2017, the Company's cash and cash equivalents stood at \$3,534,401, compared to \$959,270 on June 30, 2017. The increase in cash and cash equivalents was mainly due to higher cash from financing activities during the October-December 2017 period. During the quarter ended December 2017, the Company raised \$4.5 million through the issuance of shares at five cents per share. As of December 31, 2017, current liabilities significantly increased by 30% to \$720,642 compared to \$552,425 as of June 30, 2017, primarily attributable to higher trade and other payables. As noted earlier, as of March 31, 2018, the Company had \$10,657,000 cash on hand.

**Exhibit 22: Balance sheets as of December 31, 2017 and June 30, 2017**

Particulars	As of December 31, 2017	As of June 30, 2017	Change (%)
<b>ASSETS</b>			
<b>Current</b>			
Cash and cash equivalents	\$3,534,401	\$959,270	268%
Other receivables	249,638	77,475	222%
<b>Total current assets</b>	<b>\$3,784,039</b>	<b>\$1,036,745</b>	<b>265%</b>
<b>Non-Current</b>			
Intellectual property	4,275,000	4,545,000	-6%
Property, plant and equipment	17,552	14,124	
<b>Total non-current assets</b>	<b>4,292,552</b>	<b>4,559,124</b>	<b>-6%</b>
<b>Total assets</b>	<b>\$8,076,591</b>	<b>\$5,595,869</b>	<b>44%</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
<b>Current liabilities</b>			
Trade and other payables	\$707,297	\$550,320	29%
Employee provisions	13,345	2,105	NM
<b>Total current liabilities</b>	<b>\$720,642</b>	<b>\$552,425</b>	<b>30%</b>
<b>Total liabilities</b>	<b>\$720,642</b>	<b>\$552,425</b>	<b>30%</b>
<b>Net assets</b>	<b>\$7,355,949</b>	<b>\$5,043,444</b>	<b>46%</b>
<b>Shareholders' equity</b>			
Issued capital	18,624,070	12,575,410	48%
Share based payments reserve	2,405,461	2,062,705	17%
Accumulated losses	(13,673,582)	(9,594,671)	43%
<b>Total Shareholders' equity</b>	<b>\$7,355,949</b>	<b>\$5,043,444</b>	<b>46%</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$8,076,591</b>	<b>\$5,595,869</b>	<b>44%</b>

(Note: NM represents not meaningful)  
Source: Company filings

## Key Risk Factors

### Intellectual property risk

Linius has a number of patent applications and granted patents. It is necessary for the Company to protect its intellectual property and future development from its competitors. However, the process of obtaining protection of the Company's products is highly uncertain and complex. Further, the Company could incur large expenses simply to maintain and protect its patents.

### Technological risk

The Company's technology is in its early stage of development. Although the technology has demonstrated its functionality at patent levels, it has not yet been tested in a commercial environment at scale. Further, limitations in deploying the technology at scale are still unknown and it would take considerable time and money to test the technology with commercial partners. Additionally, the technology is yet to be productized.

### Security and technical risk

The Company's technology may be affected by ongoing technical challenges that could affect its ability to provide services to its customers. Cyber-attacks and security breaches on the Company's products would result in an opinion where users may feel less secure to use the Company's services. This would result in erosion of customer base, leading to operational instability. Further, the presence of bugs and vulnerabilities in the Company's product offerings may damage its brand image leading to loss of users and platform partners.

### Risk with retention of employees and officers

The success of the Company is very much dependent on the successful performance of its senior management team and employees. Retaining skilled personnel remains a major priority for companies operating in such a competitive business environment. Linius' business development depends considerably on the expertise of a well-experienced senior management team and retaining them remains crucial for the Company's success in the years to come. Therefore, loss of key management personnel could negatively affect its on-going operations and its ability to meet growing customer demand.

### Risk due to rapid technology change

Linius operates in the technology segment, which is subject to rapid changes in accordance with changing customer needs. Linius has to adapt to such changes in technology and has to deliver new products and services in accordance with the changing customer preferences. This adaptation would prevent them from being outdated in the evolving technological landscape. However, there is no guarantee that the Company may be able to update its technology to meet current trends and sustain its operations on a regular basis.

## Shareholding Pattern

As of the Company's April Investor Presentation and recent filings, Linius has 1,129.4 million fully diluted shares, which include listed options of 50.6 million, unlisted options of 166 million and 385,202,269 fully paid shares that will be released from escrow on May 9, 2018 as shown in Exhibit 23. Further, management holds approximately 7.5% of Linius Technologies.

Exhibit 23: Capitalization Structure

Particulars	In million
Total Shares Outstanding (as of May 9 <sup>th</sup> )	912.7
Listed Options	50.6
Unlisted Options	166.1
<ul style="list-style-type: none"> <li>• 61.50 million @ \$0.05 Expires March 2019</li> <li>• 11.50 million @ \$0.045 Expires November 2019</li> <li>• 63.76 million @ \$0.075 Expires May 2019</li> <li>• 3.38 million @ \$0.07 Expires Dec 2019</li> <li>• 3.38 million @ \$0.075 Expires Dec 2019</li> <li>• 3.38 million @ \$0.08 Expires Dec 2019</li> <li>• 3.38 million @ \$0.085 Expires Dec 2019</li> <li>• 10.00 million @ \$0.22 Expires Sept 2019</li> <li>• 3.75 million @ \$0.045 Expires June 2021 ESOP</li> <li>• 2.00 million @ \$0.05 Expires June 2021 ESOP</li> </ul>	
<b>Total fully diluted shares on issue</b>	<b>1,129.4</b>
<b>% Ownership of Management (as of April 06, 2018)</b>	<b>7.5%</b>

Source: April Investor Presentation & Filings

## Profile of Directors and Management

### **Chris Richardson – Executive Director and CEO**

Mr. Chris Richardson is the Executive Director and CEO of Linius Ltd. Mr. Richardson is an experienced internet video executive with more than 20 years of industry experience. He has held senior level roles in several private and public video technology companies across US, Europe and Asia. He also has 10 years of Silicon Valley experience, where he has led product management for several VC funded startups, including U4EA Wireless and NextHop Technologies. Prior to Silicon Valley, he has served as a guest lecturer of Internet Routing at St Petersburg State Technical University in Russia.

### **Gerard Bongiorno – Chairman**

Mr. Bongiorno is the Principal and Co-CEO of Sapient Capital Partners, a merchant banking operation and has over 30 years of professional experience in capital raisings and corporate advisory. Prior to forming Sapient (formerly Otway Capital), Gerard was Head of Property Funds Management at Challenger Financial Services Group (CFG) and was Group Special Projects Manager at Village Roadshow. Earlier in his career, he worked at KPMG in insolvency and corporate Finance.

### **Kevin Kyer – EVP, Search**

Mr. Kevin Kyer is the Executive Vice President, (Search division) of the Company. He has over 20 years of digital space experience. Prior to Linius, he was the Chief Operating Officer (COO) of Listglobally, a global real estate advertising site, where he played an integral role in marketing its product to more than 50 countries. He also spent 10 years at Yahoo! before joining Listglobally. During his tenure at Yahoo!, he played a significant role in building Yahoo!'s search platform, turnaround Yahoo!'s European division and device a strategic partnership with Microsoft. He also held several marketing and business development roles for digital economy businesses.

### **Ken Ruck – EVP, Personalized Ads**

Mr. Ken Ruck is the Executive Vice President, (Personalized Ads division) of the Company. He has worked at several start-ups as well as large media companies. He has significant experience in Artificial Intelligence, Digital media and video markets. Prior to joining Linius, he worked as the Chief Innovation Officer for Kodak. His previous senior roles include Head of Wireless MTV, VP Global Digital Jim Henson, Global New Products for Turner and GM of Virgin Mobile (content). He was also one of the founding members of several successful startups including Oberon Media (valued at \$800 million), Flash Networks, Hemisphere Interactive and cPulse.

### **Peter Cohen – EVP, Anti-Piracy**

Mr. Peter Cohen is the Executive Vice President, (Anti-Piracy division) of the Company. He is an experienced senior media and entertainment executive, with expertise in multi-platform content production, programming and distribution. Prior to joining Linius, he was the Head of Business Development for Experience Proximity, a leading Mobile AR/VR company based in Los Angeles. He also worked as a Vice President (VP) Sales/Marketing at HBO, Senior Vice President (SVP) CNN International, SVP Programming at MTV/The Box Music Network, and SVP Much Music USA.

### **Tom Slowe – EVP, Security and Defense**

Mr. Tom Slowe is the Executive Vice President, (Security and Defense division) of the Company. He has more than 20 years of experience in the disruptive Artificial Intelligence (AI) technology. He has a strong technical background and is an expert in machine learning applied to big data and video. Prior to joining Linius, he has held several executive positions in companies, where he was in charge for providing products and services to Fortune 500 companies in Retail, Broadcasting, Advertising, Social, Department of Defense (DoD) and the US Intelligence Community (IC). He holds a Bachelor of Science in Electrical Engineering (BSEE) degree from Rutgers University and Master of Science (MS) degree from MIT Media Laboratory.

## Sources

- Company Website
- Company Press Releases & Presentations
- ASX Filings
- Cisco
- eMarketer

## Disclaimer

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"Forward looking statements" as defined under Section 27A of the Securities Act of 1933, Section 21B of the Securities Exchange Act of 1934 and the Private Securities Litigation Act of 1995 include words such as "opportunities," "trends," "potential," "estimates," "may," "will," "could," "should," "anticipates," "expects" or comparable terminology or by discussions of strategy. These forward-looking statements are subject to a number of known and unknown risks and uncertainties outside of the company's or our control that could cause actual operations or results to differ materially from those anticipated. Factors that could affect performance include, but are not limited to, those factors that are discussed in each profiled company's most recent reports or company filings or registration statements filed with the SEC or other actual government regulatory agency. Investors should consider these factors in evaluating the forward-looking statements contained herein and not place undue reliance upon such statements. Investors are encouraged to read investment information available at the websites of Linius Technologies Ltd. ("Linius") at [www.linius.com](http://www.linius.com) and the SEC at <http://www.sec.gov> and/or FINRA at <http://www.finra.org> and/or other actual government regulatory agency. RBMG is a US-based consulting firm and is hired by client companies globally to carry out consulting services that include: corporate strategy formation, business development, market intelligence and research. RBMG is not a FINRA member or registered broker/dealer. RBMG research reports and other proprietary documents or information belonging to RBMG are not to be copied, transmitted, displayed, distributed (for compensation or otherwise), or altered in any way without RBMG's prior written consent. 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Principal will directly or indirectly buy, sell, hold or exercise shares, options, rights, or warrants to purchase shares of Linius at its lawful discretion and this can happen at any time.