

## Revenue Opportunities and Guideline Pricing Models for Commercial Growth in Video Virtualization

**Investor Presentation - December 2017** 

**ASX:LNU** 

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### **Highlights**



- Linius is the only company that turns video into data
- Linius invented it, built it and patented it
- Video will be 82% of internet traffic by 2021
- Amazon, Microsoft and IBM are battling it out for a competitive edge in video cloud services
- Linius is now available on Amazon Web Services, Microsoft Azure & IBM Bluemix
- Accessing the data within the video file is the missing link for these cloud providers
- Companies are building on Linius VVE & clients are buying-in







## Introducing: The Linius Video Virtualization Engine™ (VVE)



Top providers are racing to virtualize video services, optimizing AI & big data.



Linius virtualizes the actual video, making it accessible as data, providing the missing link for video cloud services.



#### **Linius Owns the Virtualization of Video**



- ✓ Fully granted core patents in: US, EU, Canada, S. Korea, PRC, Hong Kong, Singapore, and Australia
- **✓** Filing new patents in line with our commercialisation strategy:
  - 2 continuation patents granted in US
  - 2 patents pending
  - Additional patents in process



### **Empowering The World of Internet Video**



By 2021, the world's internet traffic will exceed 278 billion gigabytes per month.

More than 82% of internet traffic will be video by 2021.

Cisco, 2017



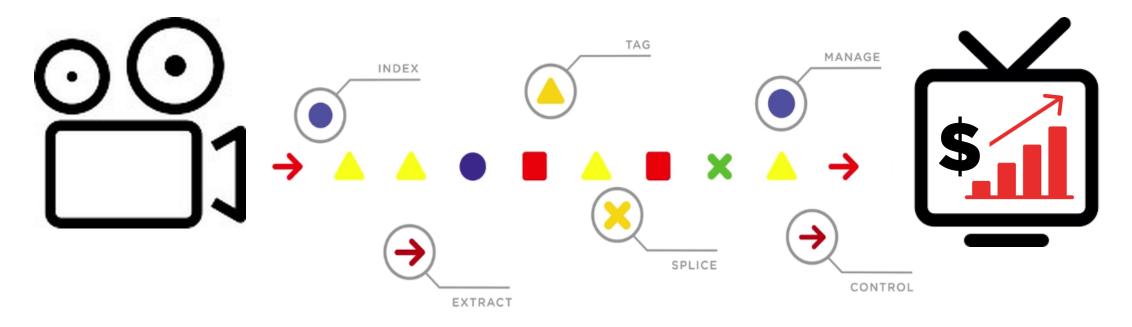
Virtualization of Big Data is nothing new in the software world, but it has never been achieved in the biggest data of all, video.

**Until now!** 

#### Vision: To Make the World's Video Available as Data



The **Linius Video Virtualization Engine™ (VVE)** transforms traditional video files, into data (or virtualized files), enabling unprecedented capabilities, flexibility & monetization.



Accessing the data within the video file is the missing link for video cloud service providers, creating unparalleled value across the internet video industry.

#### Mission: Scale the Business Across the Internet



**Linius Owns the Virtualization of Video:** Linius invented, built and patented the world's only **Video Virtualization Engine™ (VVE)** 

#### **Large & Expanding Market:**

- Amazon, Microsoft & IBM are investing billions in video services (technologies) and artificial intelligence in the cloud
- It is arguably the biggest battle on the internet, given that video will account for over 82% of internet traffic by 2021
- Accessing the data within the video file is the missing link for video cloud service providers, creating unparalleled value across the internet video industry

#### **Linius Rapidly Scaling:**

- Linius is now available on Microsoft Azure, IBM Bluemix and Amazon Web Services, providing the ability to scale across multiple platforms
- Linius, and others, are now building commercial products around Linius' VVE
- Clients are buying-in









## Linius Has Attracted

Global Leaders

in IP Video

#### A World-Class Video Commercial Team





CHRIS RICHARDSON
Executive Director and CEO

an accomplished Chris is internet video executive with more than 20 years of leading experience tech companies in the US, Europe and Asia. Since 2010 has held GM level roles in public and technology private video companies globally, after spending 10 years in Silicon leading product Valley management for VC funded startups.



**KEVIN KYER** EVP, Search

Kevin has worked in the digital space for almost 20 years, building advertising businesses across the globe. Most recently, he drove the growth of Listglobally, a global real estate advertising site in over 50 countries. Prior to that, he spent 10 years at Yahoo. His tenure there saw him participate in the building of Yahoo's search platform, lead the turnaround of it's European division, implement a strategic partnership with Microsoft. Prior to Yahoo Kevin held various marketing and business development roles for digital economy businesses.



**KEN RUCK**EVP, Personalized Ads

Ken has scaled both start-up and large media companies, with rich experience in video, digital media, and AI; most recently as Chief Innovation Officer for Kodak. Previous roles include Head of Wireless MTV, VP Global Digital Jim Henson, Global New Products for Turner, and GM of Content for Virgin Mobile. Ken also was on the founding team of successful start ups Oberon Media (\$800 mil valuation,) Flash Networks, cPulse and Hemisphere Interactive.



PETER COHEN EVP, Anti-Piracy

Peter has been a senior media and entertainment executive in multiplatform content production, programming and distribution. He has worked as VP Sales/Marketing at HBO, SVP Distribution CNN International, SVP MuchMusic USA, Sr. EVP Content/Digital Billboardlive, and SVP Programming at MTV/The Box Music Network. Most recently he was Head of Business Experience Development for Proximity, a leading mobile AR/VR company in Los Angeles.



**TOM SLOWE**EVP, Security and Defense

Tom has worked in disruptive AI based technologies for over the last 20 years. An expert in machine learning as applied to video & other big data, he leverages his technical & business development background to achieve deep product/market fit. Prior to Linius, he held a number of executive and founding positions where he was responsible for providing products and services to Fortune 500 companies in Retail, Advertising, Broadcast, Social, the US Intelligence Community (IC) and Department of Defense (DoD). Tom received his BSEE from Rutgers University and MS from MIT Media Laboratory.

#### A World-Class Video Commercial Team





TRISTAN PLACE
Country Manager ANZ

Tristan Place is a digital technology sales executive with 15+ years experience in established, startup, early-stage software. and services professional and applications companies focused on video. His broad IT knowledge across enterprise software, SaaS and bespoke applications for OTT IPTV, ViOD, TVE and related 2<sup>nd</sup> Screen services has earned him recognition as a business model and technology Subject Matter Expert. Tristan has worked with Telstra, Foxtel, Network Ten, Skyracing, News Corp and others in delivering transformational video technologies to their businesses.



AUDREY KU
Chief Solutions Architect

Audrey has vast experience in the Digital Media Entertainment space, worked for broadcasters, telco and start-up on video technology and its digital strategy for successful transformation into the digital world of Entertainment. During her Foxtel times, she leads the content factory transformation, architected 2012 London Olympic Games, 2010 Vancouver Winter Games, Foxtel on XBOX and Foxtel hybrid STB, Most recently with Telstra, architected globally renowned integrated OTT platforms including Telstra Bigpond Movies in Australia, StarHub Go in Singapore, Tonton in Malaysia, Blink TV in Phillipines and Mediaset in Spain.



IVAN BENKO
Chief Solutions Architect

Ivan has been involved in the digital media space for over a decade. He is equipped with rare hybrid skills, both technical as well as business, enabling him to deliver highly complex projects. He was one of the key people who helped to establish the most successful Australian based software house, Atlassian, back in 2009. Since then he has spent time in consulting at Thoughtworks and across the digital media agency scene, assisted various startups and gained invaluable knowledge at Akamai. Example of projects include Stan.com. Yahoo!7. Channel 7.9.10. Skyracing.



GERARD BONGIORNO
Chairman

Mr. Bongiorno is 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.



**OLIVIA HART**Head of Marketing

Olivia Hart is a global impact marketer and strategist, with over a decade of experience in accelerating growth and creating competitive market positioning for B2B & B2C start-up and scale-up tech companies. Her diverse portfolio of experience includes a range of verticals like lifestyle brands, social impact, adtech, data, and entertainment. She has refined the strategies required to permeate saturated markets, convert customers, and create the systems needed to facilitate rapidgrowth.

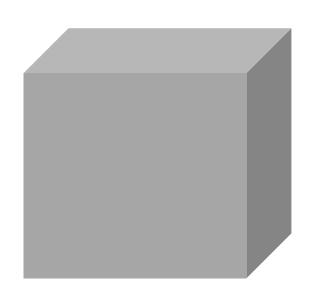


# Linius Has the World's Only Video Virtualization Technology

## Step 1: Extract Data from Video (creating a virtual video)

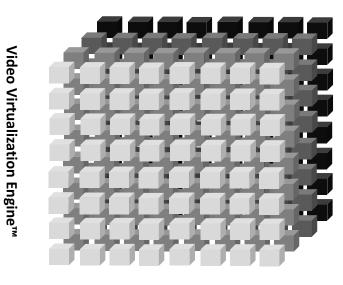


#### **Original Video**



Inflexible, Impenetrable
Video File

#### **Virtual Video**



Flexible Data of Audio & Video

- 1. Linius removes the video containers, and enables access to video and audio data blocks
- This process is called "virtualization" - Data blocks that make up the video are exposed
- 3. Now that the data is exposed intelligent business rules and applications are applied

## **Step 2: Enhance the Data** (giving it meaning and value)

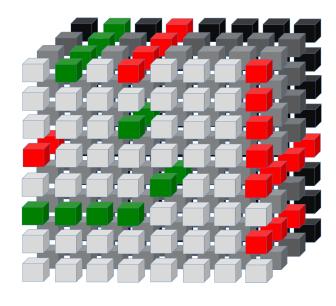


**Linius Genome Intelligent Video Virtual Video** Meta Data Enhancement Dynamic Ad Enhancement **Protection Layer** Flexible Data of Audio & Video New Video: Giving the Data Treat Data with Enhancements Meaning and Value

#### **Step 3: Reassemble the Video** (custom to each individual viewer)



#### **Intelligent Video**



New Video: Giving the Data Meaning & Value

#### **Assembly & Playout**



Reassemble on the fly

Once the intelligent video is created, the playout is delivered to the needs of the user:

- **Search**: Finding specific segments of video
- Contextual Ads: Frame level content is used to match ads
- Secure Content: Playout only happens with the right authentication

## **Commercialization & Guideline Pricing Models**



Linius has the potential to transform many multi-billion dollar markets, and is initially focused on:

- Search: Search within videos and compile new videos on the fly
- Security and Defense: Intelligent search and immediate distribution of security footage
- Anti-Piracy: Applying proven data protection methods to video to solve content piracy
- Personalized Advertising: Hyper-personalized to individuals, timeslots and content

## **SEARCH** (Potential Revenue Opportunity: \$60M+ pa)



Product Description	<ul> <li>Linius VVE, Linius Player and Linius AI Intelligence system, deployed on Microsoft, supplied to online clients with little/no integration</li> <li>The world's first commercially available monetization method for video artificial intelligence and dynamic composition</li> </ul>
Proposition	<ul> <li>World's first personalized video search results</li> <li>Linius turns video into data, exposing the entirety of the video content library to the users, down to each frame</li> <li>Search algorithms stitch together and return elements of multiple videos that meet their search criteria, on the fly</li> </ul>
Target Market	Applicable to Media & Entertainment, Higher Education, Corporate, Sports

#### **Market Statistics**

- 55% of people watch video online each day
- Market is growing at 20-40% pa
- Snapchatters watch 10B videos a day
- 500M people watch video on Facebook everyday
- YouTube 5B video views per day
- YouTube 18% market share of video on internet
- Conservatively ~ 10B video searches per day

Guideline Pricing Model	
Linius paid per search made (paid by the content owner)	0.075 cents per search
When ads are inserted in the video search return (pay per view)	0.1 cents per ad served*
When a payment gateway intercepts search return (paid per purchase)	0.1 cents per view*

#### **Market Revenue Opportunity**

2% share of this market, and assume 10% of this displays an ad

POTENTIAL: \$60M pa

<sup>\*</sup>Paid by content owner

## **SECURITY & DEFENSE** (Potential Rev. Opportunity year 1: \$60M & \$15M)



Product Description	<ul> <li>Linius VVE, Linius Player and Linius AI Intelligence system supplied to online (OTT) clients with little/no integration</li> <li>The first commercially available monetization method for video artificial intelligence</li> </ul>
Proposition	<ul> <li>Video to be analyzed at scale, instantly compiled based on intelligence and injected into workflow</li> <li>Turns video analysis into actionable intelligence in minutes instead of days</li> </ul>
Target Market	Applicable to government agencies and video security firms
Delivery	Delivery with Microsoft, with open API to any AI system and onsite deliver

- Video surveillance is a \$40B market
- 72M hours (822 years) of video acquired per day
- Video surveillance is 20% of UK's criminal justice budget
- Only 0.2% of all US federal video footage is ever viewed - it would take 7 million analysts to accomplish

Guideline Pricing Model	
License fee	Variable per seat (potentially \$10K plus 20% pa)
License is per seat or enterprise (e.g. government department)	Variable per library content
Linius paid per search made	0.075 cents per search*

#### **Market Revenue Opportunities**

- 2% of the 72M hours of video (16.2 years per day)
- 5,848 licenses (seats) of Linius required
- If Linius seat is \$10K one time, and then \$2,500 per year ongoing

**POTENTIAL:** Year 1- \$60M (licensing) + 20% S&M ongoing pa

<sup>\*</sup>Paid by government agency or video security firms

## **ANTI-PIRACY** (Potential Rev Opportunity: \$30M pa)



<b>Product Description</b>	Linius VVE, Linius Player and Linius Content Protection system, delivered by IBM
Proposition	<ul> <li>Protect against industrial espionage and hacking during production/post-production processes</li> <li>Controlling copying and redistributing of the file subject to each specific client's business rules/needs</li> <li>Keeps the actual video data inaccessible until the content owner is satisfied to release it</li> </ul>
Target Market	Applicable to content producers and owners, such as Movie Studios

#### **Market Statistics**

- Film piracy costs the US economy \$20.5B per year
- 100B visits to pirate sites per year
- 432M internet users regularly pirate content
- In 2016, peer-to-peer distributors were responsible for 5.4B downloads of pirated wide-release films
- A stolen film that appears online before appearing in theaters, loses 19% of its box office revenue on average, compared with films that are pirated after they're released

Guideline Pricing Model	
License fee	Variable
Linius paid per view*	0.075 cents per view

#### **Market Revenue Opportunities**

5% of the high value studio content market

POTENTIAL: \$30 M pa

\*Paid by content owner

## PERSONALIZED ADS (Potential Rev Opportunity: \$500M pa)



<b>Product Description</b>	Linius VVE, Linius Player, API to ad servers, supplied to online (OTT) clients with integration into workflows
Proposition	<ul> <li>Internet style, data driven, individually targeted advertisements in all forms of TV</li> <li>No limitation on timeslots – run a personalized ad in a contextually relevant slot</li> <li>No limitation on format – integrate advertising into the content</li> <li>No Ad Blockers in OTT – there is no channel change</li> <li>Own the data – disrupts current monitoring industry</li> </ul>
Target Market	Applicable to Media & Entertainment

#### **Market Statistics**

- The US TV advertising market revenues of \$90B pa, Cable \$75.3B, IP \$15B
- Total # of ads viewed ~9 12 trillion pa, in the US
- 225M consumers are active users of Ad Blockers
- Ad Blocking forecast to cost \$35B by 2020
- With Linius, Ad Blockers do not work, saving this revenue

Guideline Pricing Model	
Paid per ad inserted	0.01 cent per ad served*

#### **Market Revenue Opportunities**

At 0.005% market share, Linius generate revenues

POTENTIAL: \$500M pa

\* Paid by the broadcaster

## **Strategic Partnerships**



- 1. Linius can sell established IBM Bluemix products integrated with VVE to speed delivery time for customers
- 2. IBM can sell Linius VVE, enabling new revenue opportunities across all four target verticals (Search, Security and Defense, Anti-Piracy & Personalized Ads)



#### **The IBM Partnership Provides:**

- ✓ A market model that matches our clients' needs: cloud, private, hybrid-cloud
- ✓ Proven Bluemix applications
- ✓ Validation of Linius and also execution resources
- ✓ Over 300,000 employees to help go to market in the large enterprise
- ✓ An existing client base that includes the "who's who" of Linius' prospects
- ✓ IBM is a world leader in blockchain technology Linius' technology makes what IBM has even better
- ✓ IBM Watson is a world-leading cognitive AI Linius monetizes this intelligence to create hyper-personalized video experiences in search, personalized advertising and security and defense applications



## Goals for Commercialization: by Q2 CY2018



- ✓ Deliver the integration of VVE into IBM's BlueMix Cloud (May. 2017)
- ✓ Deliver the integration of VVE with at least one world leading Over The Top (OTT\*) platform (Oct. 2017)
- ✓ Engage with a global movie studio to develop Proof of Value (POV) in anti-piracy (Oct. 2017)
- ✓ Deliver the integration of VVE into Microsoft Azure (Dec. 2017)
- ☐ Deliver the integration of VVE with Major OTT ad servers
- Engage with a global movie studio to develop a mass content distribution POV
- ☐ Deliver an end to end piracy solution with a movie studio
- ☐ Deliver the integration of VVE with at least one cognitive AI provider
- ☐ Deliver blockchain strategy and solution design
- □ Deliver POC (proof of concept) of Search in a global cloud environment
- Convert initial deal flow with IBM



<sup>\*</sup> OTT – a broadcaster that broadcasts over the public internet

#### **Share Metrics (ASX:LNU)**

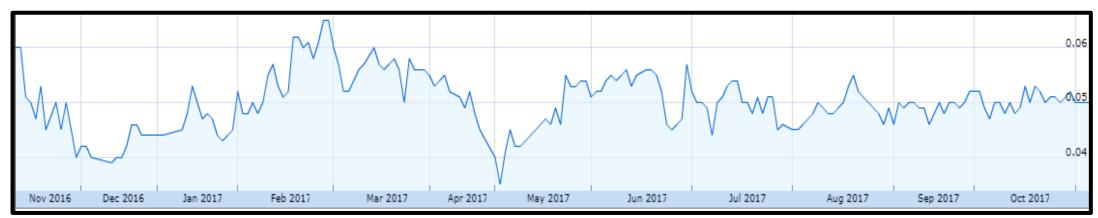


Linius Technologies Limited	
Share Price (as of 6th Dec 2017)	A\$0.054
Market Cap	A\$42.8m
Listed Shares	409m
<ul> <li>Unlisted Options</li> <li>61.5m A\$0.05 Exp Mar 2019</li> <li>11.5m A\$0.045 Exp Nov 2019</li> <li>42.5m A\$0.075 Exp May 2019</li> </ul>	115.5m
Total Shares on Issue	794.2m
% Ownership of Management	5.2%

#### **Capital Markets Highlights**

- Listed on ASX May 2016
- Raised A\$3.5m (5 cents/share) in March 2016
- Raised A\$0.5m (5 cents/share) in Sept 2016 through placement to key industry player
- Raised A\$1.5m (5 cents/share) with strategic investment from Village Roadshow in July 2017
- Raised A\$4.5m (5 cents/share) Oct 2017 in placement to sophisticated investors

#### 52-Week Price Chart (A\$0.04-0.07)





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- Press and Media <u>pr@linius.com</u>

## **Revenue Model Summary**



Product	Description	Proposition	Market Size	Pricing
Search*	<ul> <li>Product - VVE, Player and Artificial Intelligence</li> <li>Requires little to no integration</li> <li>Delivered with Microsoft</li> </ul>	<ul> <li>World's first personalized video search results</li> <li>World's 1st commercial use case for cognitive video intelligence</li> </ul>	<ul> <li>Excess of 10B video searches a day</li> <li>~5x this across target markets</li> </ul>	<ul> <li>0.075 cents per search</li> <li>+ 0.01 cents per ad</li> <li>served</li> <li>Paid by content owner</li> </ul>
Security & Defense*	<ul> <li>Product - VVE, Player and Artificial Intelligence</li> <li>Requires little to no integration</li> <li>Delivered with Microsoft/onsite</li> </ul>	<ul> <li>Analyze and immediately create relevant security videos</li> <li>World's first use case of Al to create video</li> </ul>	<ul> <li>72M video hours acquired per day, only 0.2% is viewed</li> <li>*Linius makes all instantly available</li> </ul>	<ul> <li>License fee + 0.075 cents per search</li> <li>Paid by government agency</li> </ul>
Anti-Piracy*	<ul> <li>Product – VVE, Player and content protection suite</li> <li>Requires integration with Video Content Management System</li> <li>Delivered with IBM</li> </ul>	Anti-piracy from production to retail	<ul> <li>Costs US economy \$20.5B pa</li> <li>432M regularly watch pirated content online</li> </ul>	<ul> <li>License + 0.02 cents per api call</li> <li>Paid by studio</li> </ul>
Personalized Advertising**	<ul> <li>VVE, ad server, player sdk</li> <li>Requires integration with workflow</li> <li>Delivered on Microsoft</li> </ul>	<ul> <li>Hyper-personalized advertising</li> <li>Increased advertising yields</li> <li>No ad blockers</li> </ul>	<ul> <li>In the US, \$90B pa market</li> <li>Ad blocking to cost advertisers \$35B pa</li> </ul>	<ul><li>0.01 cent per ad served</li><li>Paid by broadcaster</li></ul>

<sup>\*</sup>Product is Market Ready

<sup>\*\*</sup>Market ready – Q1, 2018