

# THE CASE FOR HACK

## AUGUST 2016

### BetaShares Global Cybersecurity ETF (ASX: HACK)



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The spectacular growth in online activity and information technology in recent years has, unfortunately, also seen equally strong growth in cybercrime.

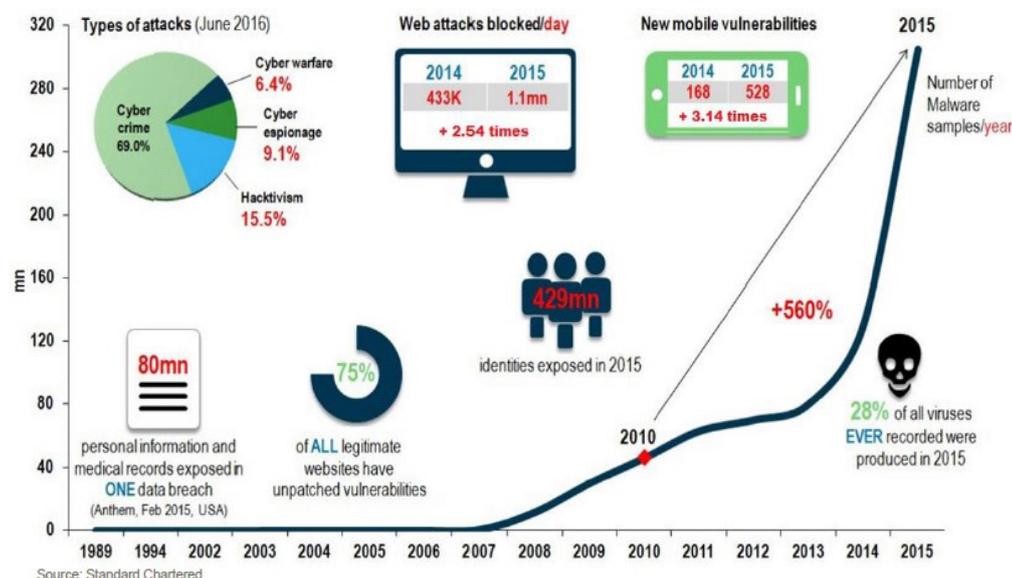
Governments, companies and households across the globe are fighting an ever intensifying battle with cyber criminals to prevent abuse of their online information and disruption to their IT related activities. The ongoing health of the global economy – and its ever growing interconnectivity via online networks – vitally depends on cybersecurity systems keeping one step ahead of those with malicious intent.

Accordingly, global demand for cybersecurity services has grown rapidly in recent years, and strong growth seems assured for the foreseeable future. Given this positive outlook, the BetaShares Global Cybersecurity ETF (ASX Code: HACK) provides investors an easy and transparent way to gain diversified exposure to some of the world's leading cybersecurity companies.

#### Why invest in Cybersecurity firms?

Due to the rising number of internet-connected devices across the globe, and the associated rapidly escalating cost of cybercrime, cybersecurity services is clearly a growth sector. According to Gartner Research, global spending on cybersecurity has increased at an annual rate of around 8% since 2011, reaching \$US82 billion in 2016. As seen in the chart below, the number and variety of cyber-attacks has accelerated markedly in recent years.

NUMBER OF CYBER-ATTACKS: 1989-2015



Most major public and private organisations have significantly boosted their cybersecurity budgets in recent years. In the United States, for example, the US Government recently announced plans to boost spending on cybersecurity measures by 35% in the coming financial year, to \$US19 billion. US investment bank, JP Morgan, also recently announced plans to double its annual cybersecurity budget to \$US500 million. According to a survey by US broking firm Piper Jaffray, cybersecurity has in recent years been the number one priority among Chief Information Officers of major corporations.

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As recently as 2013, it was estimated cybercrime cost the global economy \$US500 billion, or just under 1% of global GDP. By 2015, however, Microsoft CEO, Satya Nadella, estimated cybercrime was costing the global economy around \$US3 trillion p.a., or closer to 4% of global GDP.

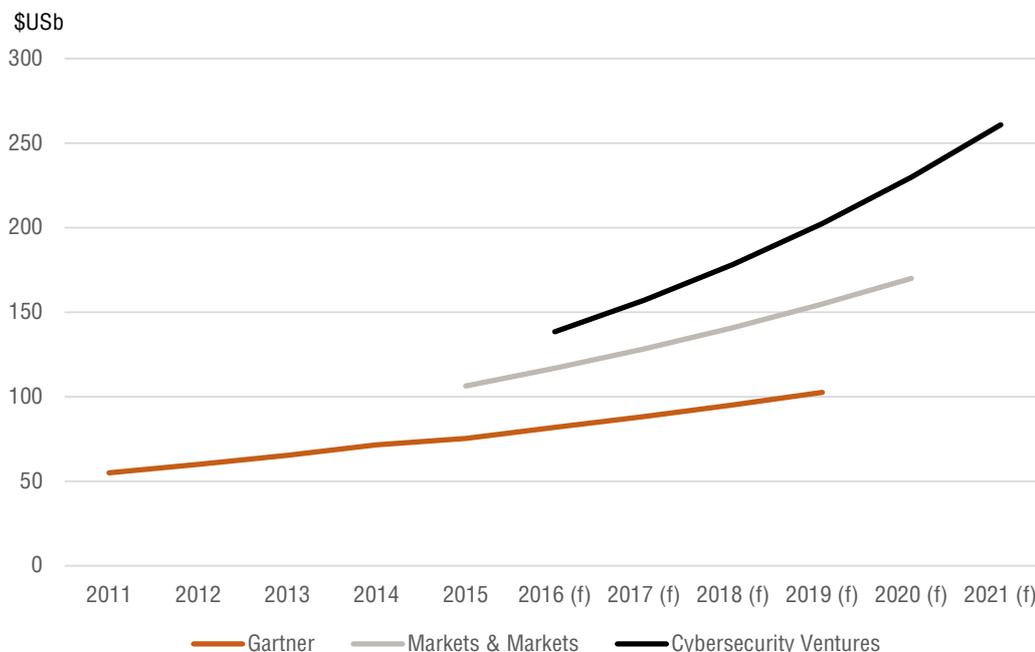
These costs are only likely to escalate further.

In the next four years to 2020, for example, Microsoft estimates the number of people connected to the internet globally will double, from 2 billion to 4 billion. And by that time, internet data volumes will be 50 times greater than today, with more than 50 billion devices – from every-day household appliances to complex business machinery – connected to the internet.

Accordingly, Gartner Research predicts spending on cybersecurity will continue to grow at around its recent strong percentage pace in coming years, reaching just over \$US100 billion by 2019.

Several other leading research groups predict even stronger growth. Cybersecurity Ventures, for example, estimates cybersecurity spending will be closer to \$US140 billion this year – or 5% of the \$US2.7 trillion spent on IT globally – and rise by around 10-15% p.a. to 2021, reaching more than \$250 billion. Using somewhat different assumptions, Markets & Markets still estimates robust double digit growth in coming years, with annual spending reaching around \$US170 billion by 2020.

ACTUAL AND PROJECTED GLOBAL SPENDING ON CYBERSECURITY: 2011-2019 (US\$B)



Source: Gartner, Cybersecurity Ventures, Market & markets

irrespective of the particular projections used, one feature is apparent: the cybersecurity sector is likely to enjoy continued strong “secular” growth in demand for some years to come.

## The BetaShares Global Cybersecurity ETF (ASX Code: HACK)

Australian investors currently have few local options for gaining exposure to the positive outlook for the cybersecurity sector. Indeed, at the time of writing there are no pure-play cybersecurity firms listed on the Australian equity market, and the overall technology sector accounts for less than 2% of Australian equity market capitalisation.

With these challenges in mind, the BetaShares Global Cybersecurity ETF (ASX Code: HACK) has been developed to provide investors within a single investment, diversified exposure to leading global cybersecurity firms. The Fund is also structured to reduce the tax and administrative burdens that can be associated with certain international investments. HACK invests in around 30 of the world’s largest global cybersecurity firms outside of Australia, which at end-June 2016 had an average market capitalisation of \$A15 billion.

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## TOP 10 HOLDINGS OF BETASHARES GLOBAL CYBERSECURITY ETF'S UNDERLYING INDEX - 31ST AUGUST 2016

Top 10 Exposures	Country	Weighting
Symantec Corp	United States	7.9%
Cisco Systems Inc	United States	6.2%
Palo Alto Networks Inc	United States	6.2%
Juniper Networks Inc	United States	5.7%
NXP Semiconductors NV	Netherlands	5.4%
Proofpoint Inc	United States	3.8%
VMware Inc	United States	3.5%
Imperva Inc	United States	3.5%
CyberArk Software Ltd	Israel	3.4%
F5 Networks Inc	United States	3.2%

Source: Bloomberg.

Among the major companies held by the Fund, for example, Symantec Corporation is one of the world's leading providers of virus protection and intrusion detection systems. Cisco Systems, moreover, is the world's leading supplier of computer networking equipment, with extensive experience in developing associated security systems. Many of the other companies held by the Fund are leaders in their respective fields.

## SUB-INDUSTRY ALLOCATIONS OF THE BETASHARES GLOBAL CYBERSECURITY ETF'S UNDERLYING INDEX - 31 AUGUST 2016

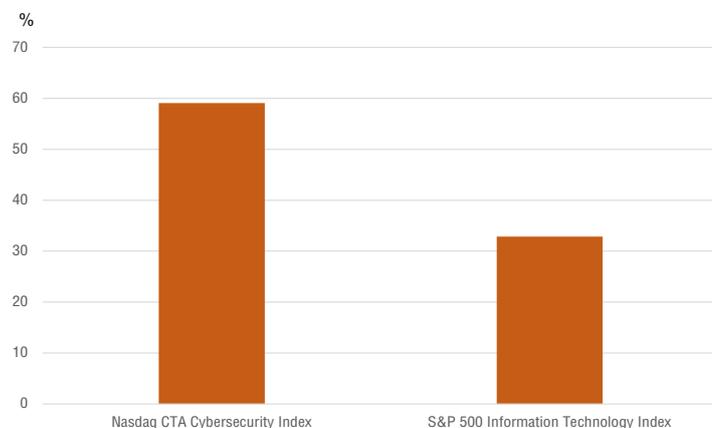
Industry allocations	Weighting
Systems Software	42.2%
Communications Equipment	21.9%
Application Software	9.1%
IT Consulting & Other Services	6.8%
Semiconductors	5.4%
Internet Software & Services	3.3%
Aerospace & Defense	3.3%
Specialised Consumer Services	3.0%
Research and Consulting Servic	3.0%
Electronic Equipment & Instruments	2.1%

Source: Bloomberg.

By investing in a fund that provides diversified exposure to a portfolio of leading cybersecurity companies across several countries outside of Australia, investors in HACK are able to gain exposure to the strong overall outlook for the global cybersecurity sector without taking undue stock specific risk.

Indeed, as should be evident from the already explosive growth in spending on cybersecurity across the globe, top-line revenue growth by companies within the Index that HACK aims to track has been particularly impressive over recent years – in the three years to end-June 2016, annualised revenue growth has been around 60% p.a., almost double that of companies in the S&P 500 information technology sector.

## NASDAQ CONSUMER TECHNOLOGY ASSOCIATION CYBERSECURITY INDEX, 3-YEAR ANNUALISEDX GROWTH IN REVENUE: JUNE 2013-JUNE 2016



Source: NASDAQ, Bloomberg.

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The Index which HACK aims to track has enjoyed solid annualised growth of 11.6% p.a. since inception in September 2010 to August 2016.

## NASDAQ CONSUMER TECHNOLOGY ASSOCIATION CYBERSECURITY INDEX, TOTAL RETURN PERFORMANCE IN AUD: 16-SEPTEMBER 2010 26-AUGUST 2016



Source: NASDAQ, Bloomberg. The Index which HACK aims to track is the Nasdaq Consumer Technology Association Cybersecurity Index. You cannot invest directly in an index. Performance excludes the impact of ETF fees and expenses. Past performance is not an indication of future performance of the Index or the ETF.

## Reduced administrative and international tax obligations

Like all BetaShares Funds, HACK is an Australian domiciled fund. Therefore, investors in HACK do not need to fill out W-8 BEN forms, or risk any potential U.S. estate tax issues. These risks do arise, for example, where investments are made in "cross listed" international investment funds.

## Conclusion

Due to the growing online interconnectivity of the global economy, governments, businesses and households the world over will need to remain vigilant against the ever growing scourge of cyber-attack. Spending on cybersecurity is likely to rise even more strongly in coming years than the already strong growth in IT spending more broadly. This demand for cybersecurity, moreover, is likely to be relatively impervious to economic cycles.

Until now, Australia's relatively small listed technology sector, and the dearth of cybersecurity firms in particular, has meant Australian investors have had few readily available opportunities to gain exposure to this secular growth investment opportunity. The BetaShares Global Cybersecurity ETF (HACK) aims to fill this gap, offering Australian investors an easy and transparent way to gain exposure to the world's leading cybersecurity firms without taking undue stock-specific risk, and while also avoiding the added tax and administrative burdens that can otherwise arise from certain international investments.

## Trading Information

BetaShares ETFs can be bought or sold during the trading day on the ASX, and trade like shares.

EXCHANGE	ASX
ASX CODE	HACK
CURRENCY	AUD
TRADING	10:00-16:00 (AEST)
BLOOMBERG CODE	HACK AU
IRESS CODE	HACK.AXW

## Index Information

INDEX	Nasdaq Consumer Technology Association Cybersecurity Index
BLOOMBERG INDEX CODE	NQCYBRT INDEX

## Fund Information

ISSUER	BetaShares Capital Ltd
ADMINISTRATOR	RBC Investor Services
CUSTODIAN	RBC Investor Services
REGISTRAR	Link Market Services
AUDITOR	KPMG
DISTRIBUTIONS	Semi-Annual
MANAGEMENT FEE	0.57% p.a
EXPENSES	estimated at 0.10% p.a
FUND INCEPTION	30 August 2016

## Available at [betashares.com.au](http://betashares.com.au)

- Net asset value
- Product disclosure statement
- Portfolio holdings
- Distribution details

***There are risks associated with an investment in the Fund, including market risk, cybersecurity companies risk, concentration risk and currency risk. For more information on risks and other features of the Fund please see the Product Disclosure Statement.***

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