

## BOS GLOBAL HOLDINGS LTD (BOS.L)

✦ Global Expansion Underway

### PRODUCTS AND BUSINESS MODEL

BOS GLOBAL is a software company which offers Cloud based solutions to make workplaces more productive. The platform is applicable to a range of knowledge-workers, including salesforce and financial services activities. The BOS360 technology applies advanced pattern recognition techniques to enhance productivity at an individual, team, and enterprise level.

The company is headquartered in Australia, with operations also in Hong Kong, and plans underway for an expanded presence in London which will then become the global HQ. The company development plan also includes a main-market listing on the LSE and NASDAQ.

### MARKET OPPORTUNITY – HIGHLY SCALABLE BUSINESS

The full BOS technology suite launches in May 2017, and there is no directly comparable peer. In this report we examine proxy markets, and we conclude that there is a minimum \$100bn global opportunity for this type of capability.

We also examine the route to market for BOS GLOBAL. The BOS360 solution will be offered using the PaaS (Platform as a Service) model, using strategic partners to extend the product's reach. We argue that this means there is virtually no speed limit for the potential growth of BOS GLOBAL.

We present an overview of the key milestones, recent and upcoming, as indicators of BOS GLOBAL's progress. The recent strategic investment in Call Design has been well received by the market, and could represent a 5x increase in the group's client pipeline, in our view.

### FINANCIALS – SOME IMPORTANT THINGS TO NOTE

The stock market listing of BOS GLOBAL was achieved via a reverse takeover in August 2016. Historic publicly available data for the ticker BOS.L relates to a business called Forte Energy, which does not relate to the BOS GLOBAL business or management. There is also a AUD3m non-cash accounting charge relating to the transaction, which does not relate to BOS' operations or to cash expense.

Looking forward, BOS GLOBAL is a start-up with some investor-friendly financial targets. Break-even target, in cash and P&L terms, is set for January 2018. And the company is committed to paying a dividend in 18 months. This reflects a low fixed cost, capital light business model.

### VALUATION

In this report we examine three scenarios for medium term growth. Under our ground-floor scenario we conclude there could be 134% share price upside by 2020. Our other scenarios present 10x or 50x share price upside, and would still make BOS only a relatively small player in the productivity software market place. This is a high growth potential investment opportunity.

## SOFTWARE & COMPUTER SERVICES

10/05/2017

SHARE PRICE	52 WEEK LOW
▲ <b>13.88p</b>	▲ <b>2.75p</b>
MARKET CAP	52 WEEK HIGH
▲ <b>£9.6m</b>	▲ <b>27.84p</b>
SHARES	FY END
▲ <b>68.9m</b>	▲ <b>30<sup>th</sup> June</b>

## MAJOR SHAREHOLDERS

- 1) Innovaion Corporation – 42.8%
- 2) Graeme Edgar Hopgood – 10.5%
- 3) Capresi Consolidated Limited – 3%

Shares in Issue	68.93m
Avg Volume	568.82k
Primary index	AIM
EPIC	BOS.L
Next Key Announcement	-
Sector	Software & Computer Services

## SHARE PRICE CHART



**Important:** All disclaimer information can be found on the last page of this document. Please note that this publication has been commissioned by the company to which this publication relates and therefore it cannot be considered independent.

### Company Information

Address: Suite 3 Level 3, 1292 Hay Street, West Perth, 6005, Australia

### Analyst Details

Ed Stacey  
ed.stacey@capitalnetwork.com  
+44 (0)20 7264 3920

## PRODUCTS AND BUSINESS MODEL

The BOS360 platform is a unique offering in the field of productivity software, defining a new market segment called Workforce Analytics.

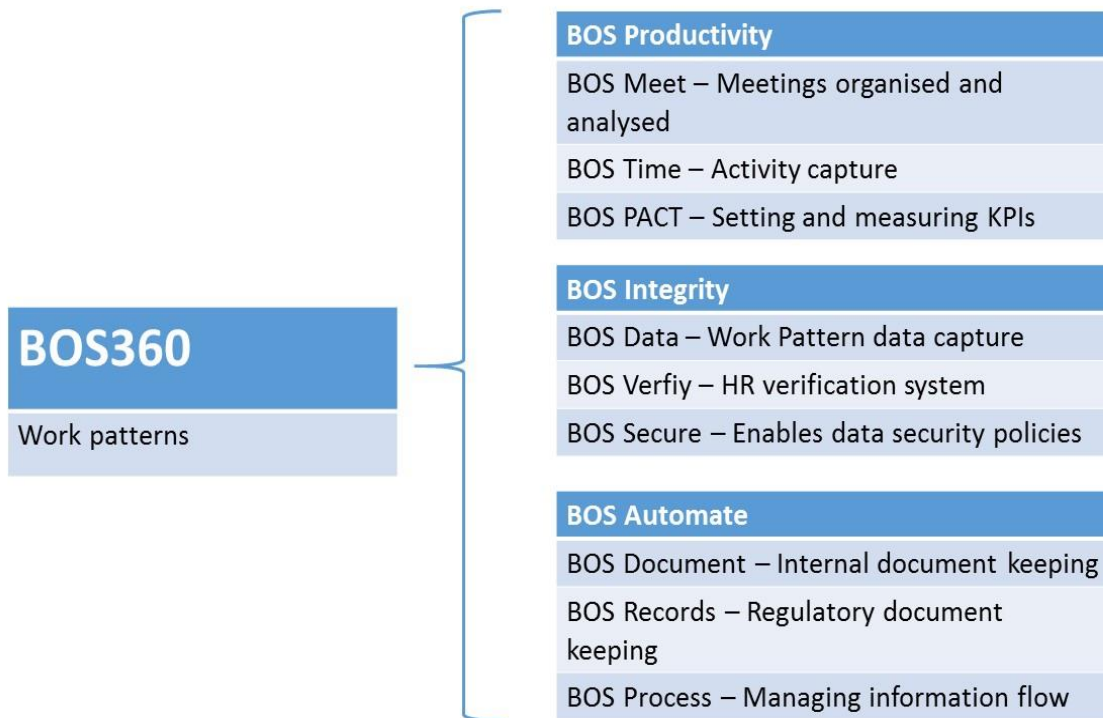
What does this mean?

There are various existing software platforms which perform similar functionality to some of the individual BOS apps – products that log worker time allocation, keep record of phone activity, organise meetings, or record sales success rates. Some of the providers of this software also offer “productivity solutions” which try to analyse data.

BOS360 is from inception a system for generating a 360° view of how workforce behaviours drive value creation for the business, using advanced pattern recognition and delivering clear and actionable outputs.

The following diagram shows the modules currently available or nearing market launch.

The platform comprises of three main business competencies; 1. Workplace Automation - How digital information (records and documents) is managed in the workplace. 2. Workplace Productivity - How people are spending their time at work 3. Workplace Integrity - How workplace information is secured and validated.



Source: Company data

### The value to customers

BOS offers a striking value proposition to its customers – By accurately identifying which employees and which interactions are driving value for the business, an organisation with an employee cost base of \$100m could realise efficiencies of \$5m p/a from a software investment of \$720k p/a, with high transparency of how the efficiencies have been achieved. And with a fee structure based on a per-user employee basis, this value proposition works for any size of enterprise

## ROUTE TO MARKET – THE BUSINESS IS HIGHLY SCALABLE

The PaaS (Platform as a Service) model plays an important role in allowing BOS to roll out its offering to customers rapidly.

The NIST (US government department) defines three broad service models in Cloud Computing:

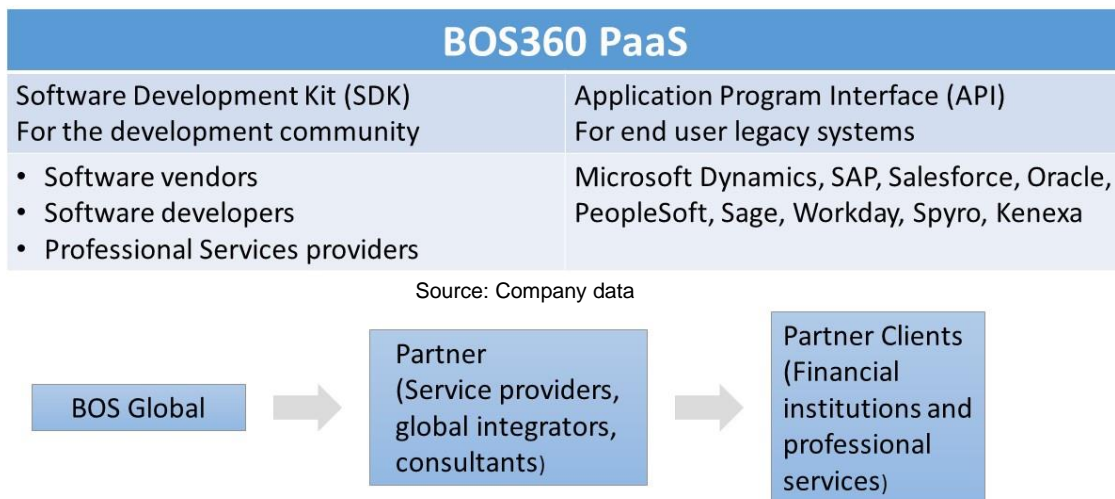
**IaaS (Infrastructure as a Service)** – Provides processing, storage, networks. The customer choose which software to run.

**SaaS (Software as a Service)** – Provides a specific app. The customer does not manage or alter the app.

**PaaS (Platform as a Service)** – Provides a suite of tools via Cloud for the user to customise their own software or build whole new apps to run on the platform.

The PaaS service model is the fastest growing segment of Cloud computing according to independent research. By choosing this route BOS allows the 360 platform to be offered (1) as a plug-and-play solution for those who want, or (2) as a platform for integrating legacy systems for users who want the 360 pattern recognition using their existing data-capture systems, or (3) to give some user groups the ability to repackage BOS360 capabilities entirely using the Software Developer Kit.

The following schematic summarise the routes to market.



The SDK allows resellers to use BOS360 to build a bespoke solution for their specialised client group, potentially rebranded under the resellers own name. The API allows end customers to integrate BOS360 analytics with their legacy systems without replacing their whole front-office IT system.

We believe that these routes to market allow BOS GLOBAL to potentially access a very broad base of end users in a short space of time.

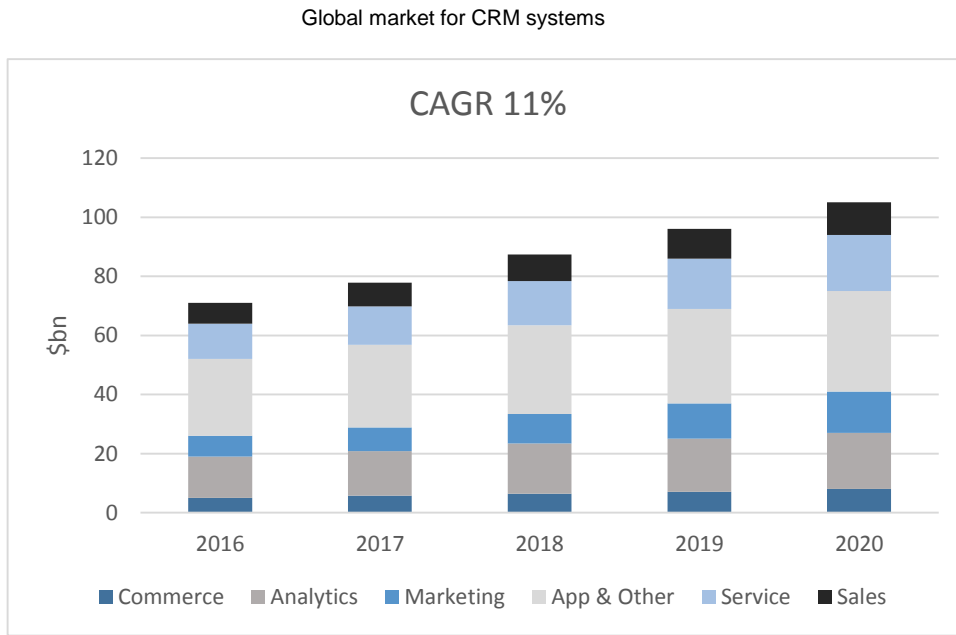
## MARKET SPACE AND PEERS

There is a very large and growing global market for systems for managing workers in the knowledge economy. There is no direct “peer group” for BOS GLOBAL, because the 360 platform offers an entirely new type of capability. But there are software providers that have an overlap with some of the modules in the BOS suite. We consider two particular fields which are tangential to what BOS does.

**CRM (Client Relationship Management) systems.** These are systems for managing a company’s interactions with its clients. Typically this is a digital database of clients, with functionality for logging calls, emails, website visits, orders, and other relevant data. These systems offer varying degrees of functionality for analysing information and sharing it across teams. Players in this space include Salesforce, SAP, Ultimate (Oracle), Microsoft, Verint, and NICE.

**HCM (Human Capital Management) systems.** These are systems for Human Resource departments, ranging from basic functions like payroll to more complicated things like monitoring KPIs (key performance indicator) which are more relevant to BOS. Players in this space include Workday, SAP, Oracle, Ceridian, Meta4, and Talentia.

The following chart shows market size and growth estimates from one of the CRM players, Salesforce.

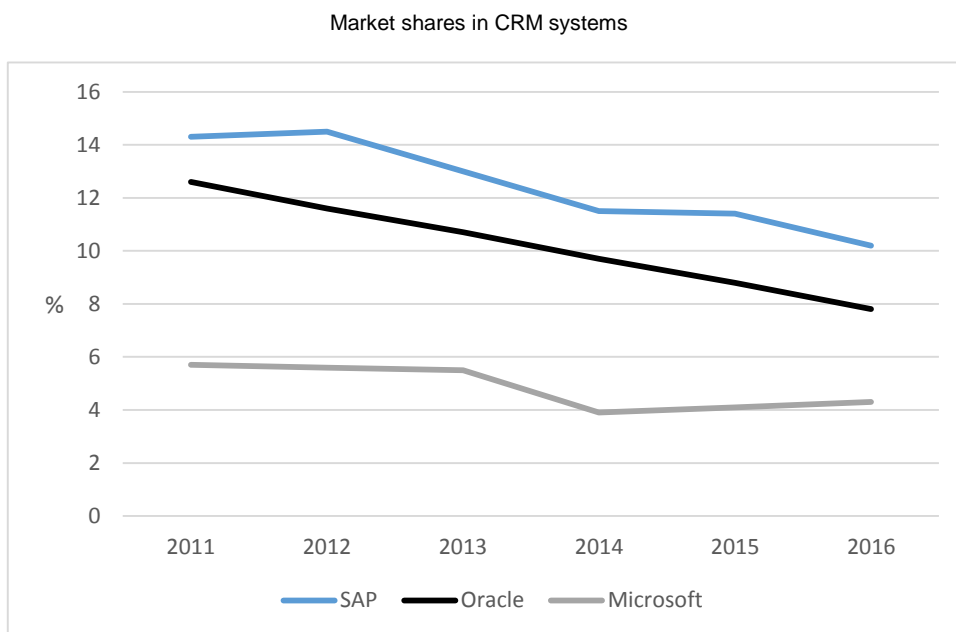


We believe that this under-represents the relevant market for BOS GLOBAL, as it only covers a portion of the functionality of BOS360. But even if we stick with circa \$100bn market size by 2020, BOS GLOBAL need only capture a fraction of a percent of the market to justify a market valuation which would be a multiple of where the shares are valued today (see scenario analysis on p7).

**...Market scope continued – the role of specialist players (No Country for Old Men).**

When we look at a “peer group” which includes the likes of SAP and Oracle, it is easy to suppose that this is a market space tightly controlled by the big players. But that is far from being the case.

The following chart shows the market shares of SAP, Oracle, and Microsoft in the CRM space (again, not an exact proxy for what BOS does, but still instructive).

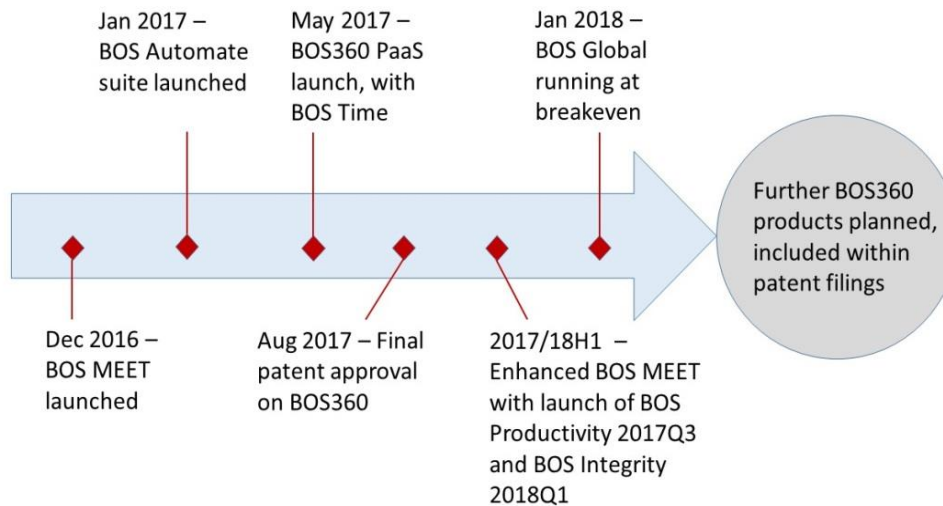


We believe that specialist players have been taking market share from the software generalists because the customer demands a product which is very specific to their own need. This requires a very detailed knowledge of how the customer base operates (see next section), and a platform with intrinsic flexibility.

## PROGRESS – MILESTONES TO LOOK OUT FOR

With a highly ambitious start-up business, investors naturally look for achievement milestones which can tell us whether the business is heading in the right direction. In the case of BOS GLOBAL, we believe that investors will not have long to wait for some concrete evidence.

The diagram below highlights some of the upcoming milestones.



Source: Company data and Capital Network estimates

We particularly take note of the targeted breakeven by January 2018. We believe that in order to achieve this, BOS360 will need to reach the level of 10k individual users some time during Q4-2017. If this can be delivered then this should give investors a high degree of confidence going forward.

We next consider some reasons to be confident that the business plan can be delivered.

- 1. Experienced team.** Founder and Group Executive Director Michael Travia has a depth of background experience in sales and operational roles at enterprises including Unisys, Alcatel, IBM, and National Australia Bank. Murray Bergin, Executive Director for BOS360 Work Patterns has broad executive experience with organisations including Telstra, Unisys, and IBM. COO Mark Uren has more than 25 years experience in consulting, professional services, and technology.
- 2. The Call Design acquisition.** In April BOS GLOBAL acquired a 40% interest in Call Design (CD), an Australian provider of optimisation tools for the call centre space. Having access to CD's established blue-chip customer base represents a substantial potential deal synergy for BOS. We believe that the strategic partnership gives BOS a possible 5x increase in its pipeline of licence sales. Furthermore, we expect BOS to utilise CD's Manila based customer support facility, offering a significant cost synergy as well as the revenue synergies. The terms of the deal are significant. The acquisition price of £2.8m consists of £280k cash together with 5m share in BOS valued at 50p per share. That's more than 3x the current market price, and we believe that represents a significant vote of confidence from an experienced peer.
- 3. Establishment of the Project Management Office in HK.** Also in April, BOS GLOBAL established the formation of a new global Project Management Office (PMO) to handle transactions with a value above \$20m over 3 years, including acquisitions, reseller agreements, and innovation partnerships. This will be headed by Bill Brooks, who brings 20 years experience handling big projects at corporations including Barclays Bank, United Telecommunications, and Cathay Pacific. We believe that +\$20m deals are a realistic prospect within the next year.
- 4. Potential further strategic investments.** The investment in Call Design has been well received by the market. The BOS GLOBAL share price is currently trading 14% above its level before the deal announcement. We believe that company is looking at further opportunities along these lines (the global PMO should facilitate this). The concept of these external partners is that they may have not just an incremental effect on BOS' revenue potential, but a multiplicative one.
- 5. Patent approval.** Our timeline includes August 2017 as a date for patent finalisation for BOS360. It is our understanding that the patent has already been accepted is now due for approval subject to any objections (we are not aware of any such objections). This could give rise to a material asset recognition (intangibles) not included in any of our current balance-sheet

## VALUATION SCENARIOS

We next consider three scenarios for the company's P&L prospects in the next few years, with corresponding valuation implications, to illustrate the range of potential outcomes for investors.

### Notes relating to all three scenarios:

1. In H2 of FY June 2017, we are recognising AU\$500k of R&D tax credit, which we are forecasting as a cash receipt in the FY June 2018 financial year. We include this as 2017 income (revenue) as we believe this is the treatment demanded by accounting standards.
2. In FY 2017 we have AU\$3.75m of non-underlying costs. Most of this is a non-cash accounting charge relating to the reverse takeover process used to achieve the market listing of BOS. This also includes a positive AU\$500k which is our estimate for the capital gain on an enterprise called Copper Range which came via the reverse takeover process.
3. For 2018 we include a positive one-off of AU\$470m, which is the benefit of a tax loss carry-forward (making net tax zero). However, for our underlying earnings calculation we are excluding this tax benefit, i.e. taking a prudent approach.

**Scenario 1**

The following table shows our first scenario. This corresponds to BOS360 achieving some proportion of its potential year 1 (FY2018) customer penetration, but then essentially plateauing as a niche player.

<b>Y/E June 30</b> <b>All figure AU\$ ,000s unless</b> <b>otherwise stated</b>	<b>H1 2017</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Income	111	730*	5000	6000	7000
Employee and Contractor expense	-603	-1400	-1650	-1950	-2200
SG&A and other	-176	-200	-1000	-1000	-1000
Deal costs and other non-underlying expense	-3630	-3230	470		
Underlying EBIT	-668	-870	2350	3050	3800
Interest					
PBT	-668	-870	2350	3050	3800
Tax	0	0	-470	-610	-760
Associates, net			800	900	900
Net income, underlying	-668	-870	2680	3340	3940
Net income, IAS	-4298	-4100	3150	3340	3940
Y/E shares in issue (m)	67.2	75.0	85.0	85.0	85.0
Weighted share count (m)	53.7	64.0	80.0	85.0	85.0
Underlying EPS (AU\$)	-0.012	-0.014	0.034	0.039	0.046
Statutory EPS (AU\$)	-0.080	-0.065	0.038	0.039	0.046
Underlying EPS in GBp	-0.73	-0.80	1.98	2.32	2.73
Share price at 12x PE			23.7	27.8	32.8

\*See notes

Capital Network estimates

**Notes to scenario 1:**

1. Our 2018 income forecast assumes 7,500 users at AU\$45 per user per month, plus AU\$1m in related service income.
2. For 2019, 2020, we are forecasting increases in revenue per user as launch discounts roll off and additional user apps are added. But we assume no further increase to the user base.
3. Our forecast employee cost ratio is 33% in 2018, falling to 31% by 2020, which is consistent with the company's low cost-base business model.
4. Our forecast EBIT margin is 47% for 2018, rising to 54% by 2020 on better absorption of central cost and marketing costs.

Overall, for scenario 1, we are arriving at a valuation of 23.7p by 2018, by applying a 12x P/E multiple. This implies 69% upside to the current share price.

The valuation rises to 32.8p by 2020, implying 134% upside to the current share price.

**Scenario 2**

The next table shows our second scenario. This corresponds to an operational outcome where BOS360 achieves a good proportion of its potential year 1 (FY 2018) market penetration, and then continues to grow thereafter.

Y/E June 30 All figures in AU\$ ,000 unless stated otherwise	H1 2017	2017	2018	2019	2020
Revenue					
Other income	111	730	8000	25000	60000
Employee and Contractor expense	-603	-1400	-3100	-8000	-19000
SG&A and other	-176	-200	-1250	-2600	-6000
Deal costs and other non-underlying expense	-3630	-3230	730		
Underlying EBIT	-668	-870	3650	14400	35000
Interest					
PBT	-668	-870	3650	14400	35000
Tax	0	0	-730	-2880	-7000
Associates, net			800	900	900
Net income, underlying	-668	-870	3720	12420	28900
Net income, IAS	-4298	-4100	4450	12420	28900
Y/E shares in issue (m)	67.2	75.0	85.0	110.0	150.0
Weighted share count (m)	53.7	64.0	80.0	98.0	130.0
Underlying EPS (AU\$)	-0.012	-0.014	0.047	0.127	0.222
Statutory EPS (AU\$)	-0.080	-0.065	0.055	0.127	0.222
Underlying EPS in GBp	-0.73	-0.80	2.74	7.48	13.12
Share price at 12x PE			32.9	89.7	157.4

Capital Network estimates

**Notes to scenario 2:**

- Our 2018 income forecast assumes 11,500 users at AU\$45 per user per month, plus AU\$1.8m in related service income.
- For 2019, 2020, we are forecasting increases in revenue per user as launch discounts roll off and additional user apps are added, and also continued strong growth in the user base.
- Our forecast employee cost ratio is 39% in 2018, higher than in scenario 1 as we allow for cost base being added to accommodate 2019 growth. The ratio falls to 31.6% by 2020, similar to scenario 1.
- Our forecast EBIT margin is 46% for 2018, rising to 58% by 2020 on better absorption of central cost and marketing costs.

Overall, for scenario 2, we are arriving at a valuation of 32.9p by 2018, by applying a 12x P/E multiple. This implies 135% upside to the current share price.

The valuation rises to 157.4p by 2020, implying an 11x to the current share price.



**Scenario 3**

The next table shows our third scenario. This correspond to strong market uptake of BOS360 in year 1 (FY 2018) and strong growth continuing thereafter.

<b>Y/E June 30</b>	<b>H1 2017</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>All figures in AU\$ ,000 unless stated otherwise</b>					
Revenue					
Other income	111	730	20000	80000	350000
Employee and Contractor expense	-603	-1400	-8000	-28000	-125000
SG&A and other	-176	-200	-2500	-7000	-20000
Deal costs and other non-underlying expense	-3630	-3230	1900		
Underlying EBIT	-668	-870	9500	45000	205000
Interest					
PBT	-668	-870	9500	45000	205000
Tax	0	0	-1900	-9000	-41000
Associates, net			800	900	900
Net income, underlying	-668	-870	8400	36900	164900
Net income, IAS	-4298	-4100	10300	36900	164900
Y/E shares in issue (m)	67.2	75.0	85.0	130.0	200.0
Weighted share count (m)	53.7	64.0	80.0	108.0	165.0
Underlying EPS (AU\$)	-0.012	-0.014	0.105	0.342	0.999
Statutory EPS (AU\$)	-0.080	-0.065	0.129	0.342	0.999
Underlying EPS in GBp	-0.73	-0.80	6.20	20.16	58.96
Share price at 12x PE			74.3	241.9	707.6

Capital Network estimates

**Notes to scenario 3:**

1. Our 2018 income forecast assumes 30,000 users at AU\$45 per user per month, plus AU\$3.8m in related service income.
2. For 2019, 2020, we are forecasting increases in revenue per user as launch discounts roll off and additional user apps are added, and also continued strong growth in the user base.
3. Our forecast employee cost ratio is 40% in 2018, higher than in scenario 1 or 2 as we allow for cost base being added to accommodate 2019 growth. The ratio falls to 36% by 2020.
4. Our forecast EBIT margin is 48% for 2018, rising to 58% by 2020 on better absorption of central cost and marketing costs.

Overall, for scenario 3, we are arriving at a valuation of 74.3p by 2018, by applying a 12x P/E multiple. This implies a 5x increase to the current share price.

The valuation rises to 707.6p by 2020, implying an upside of 50x to the current share price.

We include scenario 3 to underline the point that BOS GLOBAL is a highly scalable business. If the product begins to gain market acceptance in 2017/18 then there is virtually no speed limit to how fast the revenue base can expand.

## CONCLUDING ON FINANCIALS

Finally, for completeness, we include cash flow and balance sheet forecasts corresponding to scenario 1.

<b>Cash Flow (AU\$ ,000)</b>	<b>2017e</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
Net profit	-4100	3150	3340	3940
Non-cash items and tax reconciliation	2730	970	140	150
Working capital movement	-53	190	40	45
<b>Operating cashflow</b>	<b>-1360</b>	<b>4020</b>	<b>3380</b>	<b>3990</b>
Capex/investment	10	-100	-100	-100
<b>FCF</b>	<b>-1350</b>	<b>3920</b>	<b>3280</b>	<b>3890</b>
Dividend	0	0	-402	-501
<b>Net cash impact</b>	<b>-1350</b>	<b>3920</b>	<b>2878</b>	<b>3389</b>

Capital Network estimates

Notes: The 2017 investments line includes AU\$490k of cash investment for the Call Design deal, offset by an estimated AU\$500k for the disposal of Copper Range. The 2018 "non-cash items and tax reconciliation" also includes an estimated AU\$500k R&D credit booked in 2017 but received in 2018.

<b>Balance Sheet (AU\$ ,000)</b>	<b>2017e</b>	<b>2018e</b>	<b>2019e</b>	<b>2020e</b>
<b>Current Asset</b>				
Cash and equivalents	260	4180	7058	10447
Receivables and other	305	315	325	330
<b>Total</b>	<b>565</b>	<b>4495</b>	<b>7383</b>	<b>10777</b>
<b>Non-current assets</b>				
Intangibles	4.8	20.8	40.8	60.8
Other	4900	4980	5060	5140
<b>Total Assets</b>	<b>5470</b>	<b>9496</b>	<b>12484</b>	<b>15978</b>
<b>Liabilities</b>				
Customer prepayments	50	250	300	350
Other	295	320	320	320
<b>Total</b>	<b>345</b>	<b>570</b>	<b>620</b>	<b>670</b>
<b>NAV</b>	<b>5125</b>	<b>8926</b>	<b>11864</b>	<b>15308</b>

Capital Network estimates

Notes: "Other non-current assets" includes AU\$4.9m estimated book value of the investment in Call Design.

**Important – Please read this information:** This report has been commissioned by BOS Global Holdings Ltd and prepared and issued by Capital Network for publication globally. All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however, we do not guarantee the accuracy or completeness of this report. Opinions contained in this report represent those of the research department of Capital Network at the time of publication. The securities described in the Investment Research may not be eligible for sale in all jurisdictions or to certain categories of investors. Capital Network does not offer or provide personalised advice. We publish information about companies in which we believe our readers may be interested and this information reflects our sincere opinions. The information that we provide or that is derived from our website is not intended to be, and should not be construed in any manner whatsoever as, personalised advice. Also, our website and the information provided by us should not be construed by any subscriber or prospective subscriber as Capital Network's solicitation to effect, or attempt to effect, any transaction in a security. This document is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. This document is provided for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research. Capital Network has a restrictive policy relating to personal dealing. Capital Network does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Capital Network may have a position in any or related securities mentioned in this report. Capital Network or its affiliates may perform services or solicit business from any of the companies mentioned in this report. The value of securities mentioned in this report can fall as well as rise and are subject to large and sudden swings. In addition it may be difficult or not possible to buy, sell or obtain accurate information about the value of securities mentioned in this report. Past performance is not necessarily a guide to future performance. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Capital Network within the meaning of the FAA (ie without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision. To the maximum extent permitted by law, Capital Network, its affiliates and contractors, and their respective directors, officers and employees will not be liable for any loss or damage arising as a result of reliance being placed on any of the information contained in this report and do not guarantee the returns on investments in the products discussed in this publication.