

# **Osirium Technologies**

Diverse customer base highlights the opportunity

Osirium is making good progress in renewing contracts and signing new customers. We are initiating forecasts based on the assumption that the company will grow bookings at a rate of 63% in FY17, 50% in FY18 and 40% in FY19. We forecast that this will result in an EBITDA loss of £1.9m in FY17 reducing to £1.6m by FY19. We estimate that the current share price is factoring in longer-term bookings growth of 29% (average FY20-26) which, based on the company's 'land and expand' strategy and focus on selling to the mid-market via distributors, appears achievable in our view.

Year end	Revenue (£m)	EBITDA* (£m)	EPS* (p)	DPS (p)	P/E (x)	EV/Sales (x)
12/16**	0.48	(1.14)	(12.4)	0.0	N/A	29.0
12/17e	0.62	(1.90)	(21.1)	0.0	N/A	22.5
12/18e	0.98	(1.80)	(21.7)	0.0	N/A	14.1
12/19e	1.45	(1.56)	(21.0)	0.0	N/A	9.6

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. \*\*14-month period ended 31 December 2016.

### Making good progress with renewals

Osirium has recently received a variety of contract renewals across its customer base. This highlights the wide-ranging verticals that the company serves as well as the range of company sizes, from a global aerospace and defence company to a UK-based company taking a licence for the minimum number of devices. The company continues to sign up new customers, recently announcing that a global insurance group had signed a 12-month contract.

### **Initiating forecasts**

We forecast bookings growth of 63% in FY17, 50% in FY18 and 40% in FY19. This results in revenue growth of 29%, 59% and 47% respectively. The majority of hiring has been completed, hence we forecast a relatively stable cost base in FY18 and FY19. We forecast an EBITDA loss of £1.9m for FY17, reducing to £1.6m by FY19. We note that bookings intake may not follow a smooth path, as one large contract can skew the growth rates in a given period. In addition, the rate at which channel partners will sign up customers is uncertain. With net cash forecast to reach £1.1m by the end of FY17, we expect the company to require additional funding in H118.

## Valuation: Bookings growth is key sensitivity

We have performed a reverse DCF to analyse the assumptions factored into the current share price, using a WACC of 11% and a terminal growth rate of 3%. We estimate that the share price is discounting average bookings growth of 29% for FY20-26, break-even EBITDA in FY22, average EBITDA margins of 5% for FY20-26 and a terminal EBITDA margin of 40%. Increasing bookings growth to 40% over FY20-26 results in a value per share of 381.3p; conversely, reducing bookings growth to 20% results in a value per share of 39.4p.

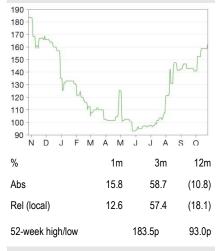
Initiating forecasts

Software & comp services

#### 27 October 2017

Price	167.7p
Market cap	£17m
Net cash (£m) at end H117	2.0
Shares in issue	10.4m
Free float	85%
Code	OSI
Primary exchange	AIM
Secondary exchange	N/A

### Share price performance



#### **Business description**

UK-based Osirium Technologies designs and supplies subscription-based cyber security software. It has four products: privileged access management (PAM), privileged task management (PTM), privileged session management (PSM) and privileged behaviour management (PBM).

### **Next events**

FY17 trading update January 2018

### **Analysts**

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Osirium Technologies is a research client of Edison Investment Research Limited



### Recent contract wins and renewals

Since it reported H117 results in September, the company has received several contract renewals:

- A leading telecommunications group, for 12 months, using all modules.
- A global aerospace & defence company, for 24 months, using all modules.
- Think Money, a UK-based banking services provider, for 12 months. Think Money has implemented a secure subsystem to protect 50 multi-platform servers, back-end databases, firewalls and other network and security devices.
- M-Netics, a mobile technology solutions provider, for 12 months. M-Netics uses Osirium to control off-domain access to servers on separate networks in multiple locations.

The company also announced that a global insurance group has signed up to use its PAM/PSM/PTM modules on a 12-month basis.

### **Initiating forecasts**

With increasing visibility due to recent contract wins and renewals, we are initiating forecasts on the company.

### Revenue model

Osirium sells its software on a subscription basis. Customers typically buy a licence for 12 months and pay in full upfront. A small number of customers sign up for three years, with some paying the whole amount in advance and others being billed annually. There are one or two customers paying on a monthly basis as device numbers increase. The majority of customers deploy the software onpremise. Licences are typically priced on the basis of the number of devices managed, with the minimum licence for 50 devices. Currently, the PAM and PTM modules come under one licence, with PSM requiring a separate additional licence. PBM is currently bundled in with PAM/PTM, but the company plans to make this available as a standalone module.

The company generates some service-based revenues, but this is not a target area for substantial growth – with the channel strategy, Osirium would expect the channel partner to undertake the implementation work.

Osirium has a 'land and expand' strategy. It typically aims to sell a licence to a customer for a minimum number of devices to resolve a specific problem; once the customer is comfortable with the technology, this can be expanded to include more devices, and additional modules such as PSM.

### Revenue and bookings forecasts

In the table below, we have made assumptions on the annual growth in invoiced sales (ie bookings), the rate at which invoiced sales are recognised as revenue and the pace at which deferred revenues unwind for FY17-19.



Exhibit 1: Top-down revenue forecas	t			
£	2016*	2017e	2018e	2019e
Bookings (invoiced sales)	540,836	881,563	1,322,344	1,851,282
Monthly bookings rate	38,631	73,464	110,195	154,273
Deferred income at year-end	275,650	540,492	879,690	1,283,866
Reported SaaS revenues	440,582	512,554	883,146	1,347,105
Professional services rev	36,995	104,167	100,000	100,000
Total revenue	477,577	616,721	983,146	1,447,105
Breakdown of reported SaaS revenues				
From deferred income	159,294	248,085	486,443	791,721
From current year invoiced sales	281,288	264,469	396,703	555,384
Total reported SaaS revenues	440,582	512,554	883,146	1,347,105
Growth in reported SaaS revenues	75%	16%	72%	53%
Growth in bookings	102%	63%	50%	40%
% bookings recognised	52%**	30%	30%	30%
% deferred income unwind in current year	75%**	90%	90%	90%

Source: Osirium, Edison Investment Research. Note: \*14-month period to 31 December 2016. \*\*Edison estimate.

In order to verify whether our top-down assumptions for bookings growth could be supported by customer and device growth, we have also built a bottom-up model. This takes into account our estimate for customer numbers, average devices secured per customer, ASP per device secured and customer retention rates (the company does not provide these data points on a regular basis). We assume 95% customer retention from FY18 (the company has achieved 100% year to date). We assume an increase in devices per customer of 25% in FY17, moderating to 10% for FY18 and FY19 (reflecting the land and expand strategy). We forecast a 10% per annum decline in ASP reflecting a growing proportion of sales from the indirect channel and volume discounts on larger contracts.

Exhibit 2: Bottom-up bookings model				
	2016*	2017e	2018e	2019e
No. direct customers at year-end	15	24	38	53
New customers	5	9	15	17
Existing customer	10	15	23	36
Ave. no customers	12.5	19.5	31	45
Ave. no. devices per customer	700	875	963	1059
ASP (£)	50	45	41	36
Invoiced SaaS sales (£)	510,417	767,813	1,204,521	1,750,315
Bookings as per top down model, excluding Professional Services (£)	503,841	777.396	1,222,344	1,751,282
Source: Osirium, Edison Investment Research. Note: *14-month	period to 31	December	2016.	

We do not believe that these are aggressive assumptions, and note that this is just one of many possible outcomes, depending on the pace and size of customer wins. For example, one direct customer may take the minimum requirement of 50 devices for 12 months, whereas another may be a managed security services provider providing the software to its own client base, resulting in thousands of devices being licensed. In addition, Osirium's channel partners have only been signed up in the last year, so it is not yet clear at what rate they will be able to sign up customers.

#### Cost base

Osirium's largest cost is for staff: at IPO the company had 18 direct employees and three contractors; this has now risen to 34 direct employees and six contractors (including regional business development directors). In the short term, the company does not expect to increase headcount materially. Included in other operating costs are premises costs (rent of headquarters in Theale), sales and marketing costs and other admin costs. We would expect any material increase in the cost base to be triggered by faster bookings growth. The company capitalises development costs – in FY16 close to half of staff costs were capitalised. These are amortised over a five-year



period, starting in the year of capitalisation. The table below shows our cost assumptions for FY17-FY19.

£000s	FY16*	FY17e	FY18e	FY19e
Staff costs - gross	1,561.0	2,625.2	2,764.2	2,837.5
Capitalised development costs	(755.5)	(1,080.0)	(1,080.0)	(1,080.0)
Staff costs - net	805.5	1545.2	1684.2	1757.5
Other operating costs	8.808	1294.0	1423.4	1565.8
Depreciation	14.6	27.0	30.0	30.0
Amortisation	574.3	659.7	817.7	984.0
Share-based payments	96.9	320.0	320.0	320.0
Total costs	2,300.1	3,845.9	4,275.3	4,657.3

### Making use of R&D tax credits

As the company is loss-making, it is making use of the ability to claim tax credits for its R&D expenditure. In 2017, the company expects to receive a £290k cash credit in respect of 2016 costs. We have forecast that this increases to nearer £400k in FY17 reflecting headcount increases, and to stay at this level in FY18 and FY19 due to stable R&D headcount.

The table below summarises our profitability forecasts.

Exhibit 4: Profitability forecasts										
£000s	FY16*	FY17e	FY18e	FY19e						
Revenues	477.6	616.7	983.1	1,447.1						
EBITDA	(1,136.7)	(1,902.5)	(1,804.5)	(1,556.2)						
Adjusted EBITDA**	(1,892.2)	(2,982.5)	(2,884.5)	(2,636.2)						
Normalised operating loss	(1,725.6)	(2,589.2)	(2,652.1)	(2,570.2)						
Reported operating loss	(1,822.5)	(2,909.2)	(2,972.1)	(2,890.2)						
Normalised net income	(1,286.9)	(2,198.3)	(2,254.3)	(2,184.6)						
Reported net income	(1,359.6)	(2,499.3)	(2,556.0)	(2,485.5)						

Source: Osirium, Edison Investment Research. Note: \*14-month period to 31 December 2016. \*\*Before development costs are capitalised.

### Cash flow

The company operates with negative working capital as it receives cash upfront for its licences. The table below shows the key cash flow lines. We expect the cash balance to have reduced to £1.1m by the end of FY17 and to move to a net debt position by the end of FY18. The company will require additional funding before it reaches break-even, which could result in dilution for existing shareholders.

<b>FY16*</b> (1,725.6) 588.9	<b>FY17e</b> (2,589.2)	<b>FY18e</b> (2,652.1)	FY19e
,	(2,589.2)	(2 652 1)	
588 9		(2,002.1)	(2,570.2)
500.5	686.7	847.7	1,014.0
226.8	477.3	330.1	362.0
120.4	290.0	406.9	416.1
(789.4)	(1,135.2)	(1,067.5)	(778.1)
(52.5)	(100.0)	(100.0)	(100.0)
(915.5)	(1,200.0)	(1,200.0)	(1,200.0)
9.7	3	0	0
(958.3)	(1,297.0)	(1,300.0)	(1,300.0)
5,047.1	0.0	0.0	0.0
5,047.1	0.0	0.0	0.0
3,299.3	(2,432.2)	(2,367.5)	(2,078.1)
273.5	(3,572.8)	(1,140.6)	1,226.9
(3,572.8)	(1,140.6)	1,226.9	3,305.0
	120.4 (789.4) (52.5) (915.5) 9.7 (958.3) 5,047.1 5,047.1 3,299.3 273.5 (3,572.8)	120.4         290.0           (789.4)         (1,135.2)           (52.5)         (100.0)           (915.5)         (1,200.0)           9.7         3           (958.3)         (1,297.0)           5,047.1         0.0           5,047.1         0.0           3,299.3         (2,432.2)           273.5         (3,572.8)           (3,572.8)         (1,140.6)	120.4         290.0         406.9           (789.4)         (1,135.2)         (1,067.5)           (52.5)         (100.0)         (100.0)           (915.5)         (1,200.0)         (1,200.0)           9.7         3         0           (958.3)         (1,297.0)         (1,300.0)           5,047.1         0.0         0.0           5,047.1         0.0         0.0           3,299.3         (2,432.2)         (2,367.5)           273.5         (3,572.8)         (1,140.6)



### **Valuation**

As we do not expect Osirium to reach profitability within our three-year forecast period, we use a reverse discounted cash flow analysis to calculate the assumptions underlying the current share price. We then flex these assumptions to show the sensitivity of the valuation to key factors such as bookings growth, revenue growth and EBITDA margins.

### Reverse DCF factoring in strong revenue growth

With a WACC of 11% and a terminal growth rate of 3%, we arrive at the current share price using the following assumptions for the period after our 2017-2019 explicit forecasts:

- Bookings growth: 35% in 2020, 30% per annum from 2021 to 2024, 25% in 2025 and 20% in 2026 with 30% recognition in the year invoiced and 90% of deferred income unwinding each year.
- Revenue growth: trending down from 39% in 2020 to 18% in 2027, with a CAGR of 28.9% for 2020-27.
- EBITDA margin: hitting positive EBITDA in 2022, rising to 40% margin by 2027. This assumes the company continues to capitalise development costs at a similar rate over the period of the analysis. We note that this equates to a terminal EBIT margin of 26.5%. It also assumes that the company does not grow its cost base significantly until it has reached break-even.
- Working capital: negative working capital requirements due to the upfront payment subscription model.
- Capex: we forecast this to reduce from 65% of sales in 2020 to 14% by 2027.

The valuation also assumes that Osirium is able to obtain funding until it is cash generative.

			Termir	nal growth rate		
	167.7p	1.00%	2.00%	3.00%	4.00%	5.009
	13.0%	84.0	93.7	105.5	119.8	137.
	12.5%	93.3	104.5	118.0	134.7	155.
	12.0%	103.9	116.7	132.4	151.9	177.
	11.5%	115.7	130.5	148.8	171.9	202.
8	11.0%	129.1	146.3	167.7	195.3	232.
WACC	10.5%	144.4	164.3	189.7	222.8	267.
	10.0%	161.7	185.2	215.3	255.6	311.
	9.5%	181.6	209.3	245.6	295.1	366.
	9.0%	204.6	237.6	281.7	343.4	435.
_	8.5%	231.2	270.9	325.1	403.4	526

We have re-run the DCF to reflect a bull case (bookings growth of 40% pa 2020-26) and a bear case (bookings growth of 20% pa 2020-26).

Exhibit 7: Scenario analysis							
	Bear	Base	Bull				
Bookings growth 20-26 (ave)	20%	29%	40%				
Revenue growth 20-26 (ave)	22%	31%	40%				
EBITDA margins 20-26 (ave)	-12%	5%	10%				
Terminal EBITDA margin	35%	40%	45%				
Valuation (p per share)	39.4	167.7	381.3				
Source: Edison Investment Research							

### Lack of profitability makes peer comparison difficult

The peer group table shows the operating and valuation metrics for a range of UK software companies and international cybersecurity companies. There are no pure-play PAM software



companies listed in the UK – we include the only listed pure-play PAM software companies globally, CyberArk (Nasdaq) and Wallix (Euronext Growth). We also include UK and international cybersecurity software companies with market caps below £5bn as well as UK SaaS software companies. The PAM software companies are showing strong revenue growth. As a well-established company, CyberArk is already achieving EBIT margins in the high teens and is forecast to achieve margins of 22.7% by 2019. Wallix is not forecast to reach EBITDA profitability until 2019.

We have looked at the progression of revenues and EBITDA for FreeAgent, a recently listed UK SaaS company. The company grew revenues at a CAGR of 36% from FY14-17 and is forecast to generate revenue growth of 29% in FY18 and 28% in FY19. It is forecast to achieve EBITDA profitability in FY18, although when capitalised development costs are taken into account, adjusted EBITDA appears to be further away from profitability. FreeAgent currently trades on an EV/Sales multiple of 2.6x FY18e and 2.0x FY19e and an EV/EBITDA multiple of 139.4x FY18e and 12.7x FY19e. This demonstrates the kind of growth rates achievable for software companies selling via a subscription model, and highlights that the assumptions underlying our DCF are not unreasonable.

£m	FY14	FY15	FY16	FY17	FY18e	FY19e
Revenues	3.16	4.18	5.68	8.01	10.30	13.20
Revenue growth		32%	36%	41%	29%	28%
EBITDA	(0.47)	-0.18	-0.24	-0.7	0.19	2.09
EBITDA margin	-14.9%	-4.3%	-4.2%	-8.7%	1.8%	15.8%
Capitalised development costs	0.7	0.7	1.0	0.4		
Adjusted EBITDA	-1.1	-0.9	-1.2	-1.1		
Adjusted EBITDA margin	-36.1%	-21.3%	-21.3%	-13.5%		

Based on the assumptions in our base case DCF analysis, Osirium is trading on an EV/Sales multiple of 4.0x FY22e revenues and 3.1x FY23e revenues. FY22 is the year in which we expect the company to reach EBITDA profitability – this equates to an EV/EBITDA multiple of 398x FY22e and 19.1x FY23e, a similar profile to FreeAgent's valuation for the period in which it is expected to reach EBITDA profitability.



Company	Market cap	Reve	nue growth	1	EBI	TDA margir	1	E	BIT margin	
	(m)	FY1	FY2	FY3	FY1	FY2	FY3	FY1	FY2	FY:
Osirium	£17	29.1%	59.4%	47.2%	(309%)	(184%)	(108%)	(420%)	(270%)	(178%
UK cybersecurity										
Sophos Group	£2,761	18.8%	17.0%	14.9%	9.9%	13.3%	14.4%	3.0%	5.4%	8.8%
GB Group	£629	32.8%	12.8%	12.0%	22.0%	22.4%	21.7%	19.2%	19.9%	20.5%
Intercede Group	£24	56.9%	30.0%		(20.5%)	0.7%		(22.8%)	(1.1%)	
Corero Network Security	£21	35.7%			(31.9%)			(58.8%)		
UK SaaS software					, ,			,		
Craneware	£431	15.1%	14.9%	13.2%	31.4%	31.7%	31.2%	27.8%	28.1%	28.5%
dotDigital Group	£251	24.0%	18.5%		30.4%	31.2%		24.1%	24.8%	
Ideagen	£162	28.7%	10.0%		31.5%	32.6%		28.0%	28.4%	
FreeAgent Holdings	£31	28.6%	28.2%		1.8%	15.8%		(8.3%)	6.4%	
PAM software								(0.0,0)		
CyberArk Software	\$1,512	17.6%	19.4%	16.6%	21.6%	22.8%	23.9%	18.4%	19.9%	22.7%
Wallix Group	€ 76	44.6%	44.1%	33.9%	(26.9%)	(9.5%)	2.1%	10.470	10.070	
Global cybersecurity <£5bn market cap	670	44.070	44.170	33.370	(20.370)	(3.570)	2.170			
Proofpoint 23501 market cap	\$4,135	35.6%	27.3%	27.0%	12.9%	13.6%	14.6%	8.0%	9.5%	11.7%
FireEye						11.6%				
<u> </u>	\$3,031	3.9% 10.7%	8.6% 7.3%	7.5% 5.7%	9.0%	15.3%	19.3%	(3.5%)	0.9%	6.5%
Commvault Systems	\$2,635						25.70/	00.70/	04.00/	05.00
Qualys	\$1,932	15.1%	15.9%	17.5%	33.0%	33.9%	35.7%	23.7%	24.3%	25.2%
Mimecast	\$1,718	33.7%	21.5%	18.9%	9.1%	11.7%	16.2%	2.0%	6.9%	11.7%
Imperva	\$1,483	21.8%	18.0%	15.4%	10.9%	13.7%	16.5%	3.8%	12.0%	15.1%
Barracuda Networks	\$1,234	6.9%	7.6%	6.2%	18.0%	20.4%	22.3%	15.7%	17.9%	19.3%
SecureWorks Corp	\$878	8.2%	9.0%	10.0%	(3.9%)	0.3%	5.0%	(7.6%)	(2.9%)	1.4%
F-Secure OYJ	€ 697	8.7%	10.3%	9.7%	10.0%	15.2%	20.0%	7.1%	12.3%	17.0%
VASCO Data Security Intl	\$500	(2.8%)	6.7%	7.9%	7.7%	10.0%	12.7%			
Average		22.2%	17.2%	14.4%	9.5%	16.1%	18.3%	4.2%	12.8%	15.5%
Median		20.3%	15.9%	13.2%	10.4%	15.2%	17.9%	5.5%	12.0%	15.1%
Company	Market cap	EV	/Sales (x)		EV	EBITDA (x)			P/E (x)	
	(m)	FY1	FY2	FY3	FY1	FY2	FY3	FY1	FY2	FY3
Osirium	£17	22.5	14.1	9.6	neg.	neg.	neg.	neg.	neg.	neg
UK cybersecurity										
Sophos Group	£2,761	6.3	5.4	4.7	63.2	40.4	32.4	116.7	79.0	56.7
GB Group	£629	5.4	4.8	4.3	24.5	21.2	19.6	34.1	29.7	26.3
Intercede Group	£24	1.4	1.0		neg.	159.9		neg.	neg.	
Corero Network Security	£21	1.9			neg.			neg.		
UK SaaS software										
						21.3	19.1	39.0	34.2	30.0
	£431	7.7	6.7	6.0	24.7					
Craneware	£431 £251	7.7 5.8	6.7 4.9	6.0	24.7 19.2		13.1	30 4	25.0	
Craneware dotDigital Group	£251	5.8	4.9	6.0	19.2	15.8	13.1	30.4 19.4	25.0 17.7	
Craneware dotDigital Group Ideagen	£251 £162	5.8 4.5	4.9 4.1	6.0	19.2 14.4	15.8 12.6	19.1	19.4	17.7	
Craneware dotDigital Group Ideagen FreeAgent Holdings	£251	5.8	4.9	6.0	19.2	15.8	13.1			
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software	£251 £162 £31	5.8 4.5 2.6	4.9 4.1 2.0		19.2 14.4 139.4	15.8 12.6 12.7		19.4 neg.	17.7 37.8	27 (
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software	£251 £162 £31 \$1,512	5.8 4.5 2.6	4.9 4.1 2.0 4.0	3.5	19.2 14.4 139.4 22.3	15.8 12.6 12.7	14.5	19.4 neg. 41.7	17.7 37.8 33.6	27.0
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group	£251 £162 £31	5.8 4.5 2.6	4.9 4.1 2.0		19.2 14.4 139.4	15.8 12.6 12.7		19.4 neg.	17.7 37.8	27.0
Craneware dotDigital Group Ideagen FreeAgent Holdings  PAM software CyberArk Software Wallix Group  Global cybersecurity <£5bn market cap	£251 £162 £31 \$1,512 € 76	5.8 4.5 2.6 4.8 6.7	4.9 4.1 2.0 4.0 4.7	3.5	19.2 14.4 139.4 22.3 neg.	15.8 12.6 12.7 17.7 neg.	14.5 162.4	19.4 neg. 41.7 neg.	17.7 37.8 33.6 neg.	
Craneware dotDigital Group Ideagen FreeAgent Holdings  PAM software CyberArk Software Wallix Group  Global cybersecurity <£5bn market cap Proofpoint	£251 £162 £31 \$1,512 €76	5.8 4.5 2.6 4.8 6.7	4.9 4.1 2.0 4.0 4.7	3.5 3.5 4.9	19.2 14.4 139.4 22.3 neg.	15.8 12.6 12.7 17.7 neg.	14.5 162.4 33.7	19.4 neg. 41.7 neg.	17.7 37.8 33.6 neg.	60.
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031	5.8 4.5 2.6 4.8 6.7 8.0 3.9	4.9 4.1 2.0 4.0 4.7 6.3 3.6	3.5 3.5 4.9 3.4	19.2 14.4 139.4 22.3 neg. 61.7 43.5	15.8 12.6 12.7 17.7 neg. 46.1 31.2	14.5 162.4	19.4 neg. 41.7 neg. 123.7 neg.	17.7 37.8 33.6 neg. 90.6 neg.	60. <sup>2</sup>
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8	3.5 3.5 4.9 3.4 2.6	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3	14.5 162.4 33.7 17.5	19.4 neg. 41.7 neg. 123.7 neg. 46.5	17.7 37.8 33.6 neg. 90.6 neg. 40.0	60.7 86.7 38.7
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3	3.5 3.5 4.9 3.4 2.6 5.3	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5	14.5 162.4 33.7 17.5	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0	60.1 86.1 38.1 41.1
Craneware dotDigital Group Ideagen FreeAgent Holdings  PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3	3.5 3.5 4.9 3.4 2.6 5.3 4.5	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6	14.5 162.4 33.7 17.5 14.9 27.7	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7	60.38.3 38.3 41.3
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3 33.2	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3	14.5 162.4 33.7 17.5 14.9 27.7 16.0	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3 52.1	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7 45.8	60.1 86.1 38.1 41.1 98.2 36.8
Craneware dotDigital Group Ideagen FreeAgent Holdings  PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva Barracuda Networks	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483 \$1,234	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6 2.7	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1 2.5	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6 2.4	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3 12.4	14.5 162.4 33.7 17.5 14.9 27.7 16.0 10.7	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7	60.7 86.7 38.7 41.7 98.2 36.8 25.7
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva Barracuda Networks SecureWorks Corp	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483 \$1,234 \$878	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6 2.7	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1 2.5 1.5	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6 2.4	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3 33.2 15.1 neg.	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3 12.4 463.6	14.5 162.4 33.7 17.5 14.9 27.7 16.0 10.7 28.0	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3 52.1 30.9 neg.	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7 45.8 26.5 neg.	60. 86. 38. 41. 98.3 36. 25.
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva Barracuda Networks	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483 \$1,234	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6 2.7	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1 2.5	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6 2.4	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3 33.2 15.1	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3 12.4	14.5 162.4 33.7 17.5 14.9 27.7 16.0 10.7	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3 52.1 30.9	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7 45.8 26.5	60. 86. 38. 41. 98.3 36. 25.
Craneware dotDigital Group Ideagen FreeAgent Holdings  PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva Barracuda Networks SecureWorks Corp	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483 \$1,234 \$878	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6 2.7	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1 2.5 1.5	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6 2.4	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3 33.2 15.1 neg.	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3 12.4 463.6	14.5 162.4 33.7 17.5 14.9 27.7 16.0 10.7 28.0	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3 52.1 30.9 neg.	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7 45.8 26.5 neg.	60.4 86.3 86.3 41.3 98.2 25.2 225.6
Craneware dotDigital Group Ideagen FreeAgent Holdings PAM software CyberArk Software Wallix Group Global cybersecurity <£5bn market cap Proofpoint FireEye Commvault Systems Qualys Mimecast Imperva Barracuda Networks SecureWorks Corp F-Secure OYJ	£251 £162 £31 \$1,512 €76 \$4,135 \$3,031 \$2,635 \$1,932 \$1,718 \$1,483 \$1,234 \$878 €697	5.8 4.5 2.6 4.8 6.7 8.0 3.9 3.0 7.3 6.5 3.6 2.7 1.7 3.6	4.9 4.1 2.0 4.0 4.7 6.3 3.6 2.8 6.3 5.3 3.1 2.5 1.5 3.3	3.5 3.5 4.9 3.4 2.6 5.3 4.5 2.6 2.4 1.4 3.0	19.2 14.4 139.4 22.3 neg. 61.7 43.5 21.1 22.0 71.3 33.2 15.1 neg. 36.0	15.8 12.6 12.7 17.7 neg. 46.1 31.2 18.3 18.5 45.6 22.3 12.4 463.6 21.4	14.5 162.4 33.7 17.5 14.9 27.7 16.0 10.7 28.0 14.9	19.4 neg. 41.7 neg. 123.7 neg. 46.5 57.2 539.3 52.1 30.9 neg. 60.1	17.7 37.8 33.6 neg. 90.6 neg. 40.0 50.0 171.7 45.8 26.5 neg. 37.5	60.1 86.1 38.1 41.1

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	£'000s 2013	2014	2015	2016*	2017e	2018e	2019
31 October/31-December	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFR
NCOME STATEMENT	400.0	007.0	000.0	477.0	040.7	000.4	4 4 4 4 7
Revenue	120.0	207.0	290.2	477.6	616.7	983.1	1,447
EBITDA	(366.7)	(327.1)	(377.9)	(1,136.7)	(1,902.5)	(1,804.5)	(1,556.
Normalised operating profit  Amortisation of acquired intangibles	(679.4) 0.0	(714.3)	(790.7)	(1,725.6)	(2,589.2)	(2,652.1)	(2,570.
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	(
Chare-based payments	0.0	(184.3)	(56.4)	(96.9)	(320.0)	(320.0)	(320
Reported operating profit	(679.4)	(898.5)	(847.1)	(1,822.5)	(2,909.2)	(2,972.1)	(2,890
Net Interest	(35.2)	5.7	(9.9)	9.7	3.0	0.0	(2,000
Joint ventures & associates (post tax)	0.0	0.0	0.0	0.0	0.0	0.0	
Exceptionals	0.0	0.0	0.0	0.0	0.0	0.0	
Profit Before Tax (norm)	(714.6)	(708.5)	(800.7)	(1,715.9)	(2,586.2)	(2,652.1)	(2,570
Profit Before Tax (reported)	(714.6)	(892.8)	(857.1)	(1,812.8)	(2,906.2)	(2,972.1)	(2,890
Reported tax	137.7	134.1	121.0	453.3	406.9	416.1	40
Profit After Tax (norm)	(576.9)	(602.1)	(687.6)	(1,286.9)	(2,198.3)	(2,254.3)	(2,184
Profit After Tax (reported)	(576.9)	(758.7)	(736.0)	(1,359.6)	(2,499.3)	(2,556.0)	(2,485
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	
Discontinued operations	0.0	0.0	0.0	0.0	0.0	0.0	
Net income (normalised)	(576.9)	(602.1)	(687.6)	(1,286.9)	(2,198.3)	(2,254.3)	(2,184
Net income (reported)	(576.9)	(758.7)	(736.0)	(1,359.6)	(2,499.3)	(2,556.0)	(2,485
Basic average number of shares outstanding (m)	0	1	10	10	10	10	
EPS - normalised (p)	N/A	N/A	(6.61)	(12.38)	(21.15)	(21.69)	(21.
EPS - normalised fully diluted (p)	N/A	N/A	(6.61)	(12.38)	(21.15)	(21.69)	(21.
EPS - basic reported (p)	(296.36)	(144.92)	(7.08)	(13.08)	(24.05)	(24.59)	(23.
Dividend (p)	0.00	0.00	0.00	0.00	0.00	0.00	0
Revenue growth (%)	26.3	72.6	40.2	64.6	29.1	59.4	4
EBITDA Margin (%)	-305.7	-158.0	-130.2	-238.0	-308.5	-183.5	-10
Normalised Operating Margin	-566.3	-345.0	-272.5	-361.3	-419.8	-269.8	-17
BALANCE SHEET							
Fixed Assets	815.7	805.2	799.7	1,178.8	1,792.1	2,244.4	2,53
ntangible Assets	808.6	795.7	793.3	1,134.5	1,674.8	2,057.1	2,27
Tangible Assets	7.2	9.5	6.4	44.3	117.3	187.3	25
nvestments & other	0.0	0.0	0.0	0.0	0.0	0.0	
Current Assets	109.3	269.2	428.1	3,953.7	1,674.2	1,391.2	1,39
Stocks	0.0	0.0	0.0	0.0	0.0	0.0	
Debtors	77.2	218.6	154.6	380.9	533.6	618.1	70
Cash & cash equivalents	32.2	50.6	273.5	3,572.8	1,140.6	773.1	69
Other	0.0	0.0	0.0	0.0	0.0	0.0	
Current Liabilities	(235.2)	(294.2)	(365.0)	(648.5)	(1,161.7)	(3,567.0)	(6,024
Creditors	(235.2)	(294.2)	(365.0)	(648.5)	(1,161.7)	(1,567.0)	(2,024
Tax and social security	0.0	0.0	0.0	0.0	0.0	0.0	
Short term borrowings	0.0	0.0	0.0	0.0	0.0	(2,000.0)	(4,000
Other	0.0	0.0	0.0	0.0	0.0	0.0	
Long Term Liabilities	(952.5)	(487.6)	(163.3)	0.0	0.0	0.0	
Long term borrowings	(789.0)	(323.7)	0.0	0.0	0.0	0.0	
Other long term liabilities	(163.4)	(163.9) 292.6	(163.3) 699.5	0.0 4,483.9	0.0 2,304.6	0.0	(2,097
Net Assets	(262.6)	0.0	0.0	0.0	2,304.6	68.6 0.0	
Minority interests Shareholders' equity	(262.6)	292.6	699.5	4,483.9	2,304.6	68.6	(2,097
	(202.0)	292.0	099.5	4,403.9	2,304.0	00.0	(2,097
CASH FLOW	(000 7)	(007.4)	(077.0)	(4.400 =)	(4.000.5)	(4.004.5)	/4 ===
Op Cash Flow before WC and tax	(366.7)	(327.1)	(377.9)	(1,136.7)	(1,902.5)	(1,804.5)	(1,556
Vorking capital	66.3	3.8	120.7	226.8	477.3	330.1	36
Exceptional & other	0.0	0.0	0.0	0.0	0.0	0.0	11
Tax	109.8	(274.0)	134.6	(780.4)	290.0	406.9	41
Net operating cash flow	(190.6)	(274.9)	(122.6)	(789.4)	(1,135.2)	(1,067.5)	(778
Capex Acquisitions/disposals	(412.8)	(376.7)	(407.3)	(968.0)	(1,300.0)	(1,300.0)	(1,300
Acquisitions/disposais Net interest	(35.2)	5.7	(9.9)	9.7	3.0	0.0	
Equity financing	0.0	639.3	762.8	5,047.1	0.0	0.0	
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	
Other	0.0	0.0	0.0	0.0	0.0	0.0	
Net Cash Flow	(638.6)	(6.5)	222.9	3,299.3	(2,432.2)	(2,367.5)	(2,078
Opening net (cash)/debt	118.3	756.9	273.1	(273.5)	(3,572.8)	(1,140.6)	1,22
X	0.0	0.0	0.0	0.0	0.0	0.0	1,22
Other non-cash movements	0.0	490.3	323.8	0.0	0.0	0.0	
Closing net (cash)/debt	756.9	273.1	(273.5)	(3,572.8)	(1,140.6)	1,226.9	



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