



## F5 Networks, Inc. (NASDAQ: FFIV)

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# Agenda

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**1** Company Overview

**2** Industry Outlook

**3** Investment Thesis

**4** Valuation

**5** Catalysts and Risks

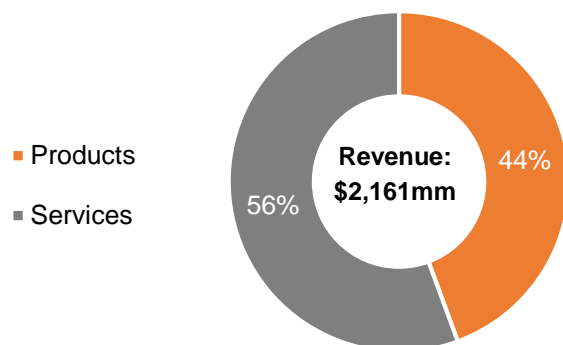
**6** Recommendation

# F5 Networks, Inc. (NASDAQ: FFIV)

## Business Description

- F5 Networks (NASDAQ: FFIV) is a global provider of application-focused services involved in accelerating, optimizing, securing, and improving system performance
- Offers ADC products/services and cybersecurity
- F5 Networks is located in Seattle, Washington, United States
- Recently acquired Nginx, the open source leader in application delivery for modern applications, for \$670 million on May 8<sup>th</sup>, 2019

## 2018 Revenue Segmented



Revenues generated from sale of products and sale of services including annual maintenance contracts and consulting services

## Management Team



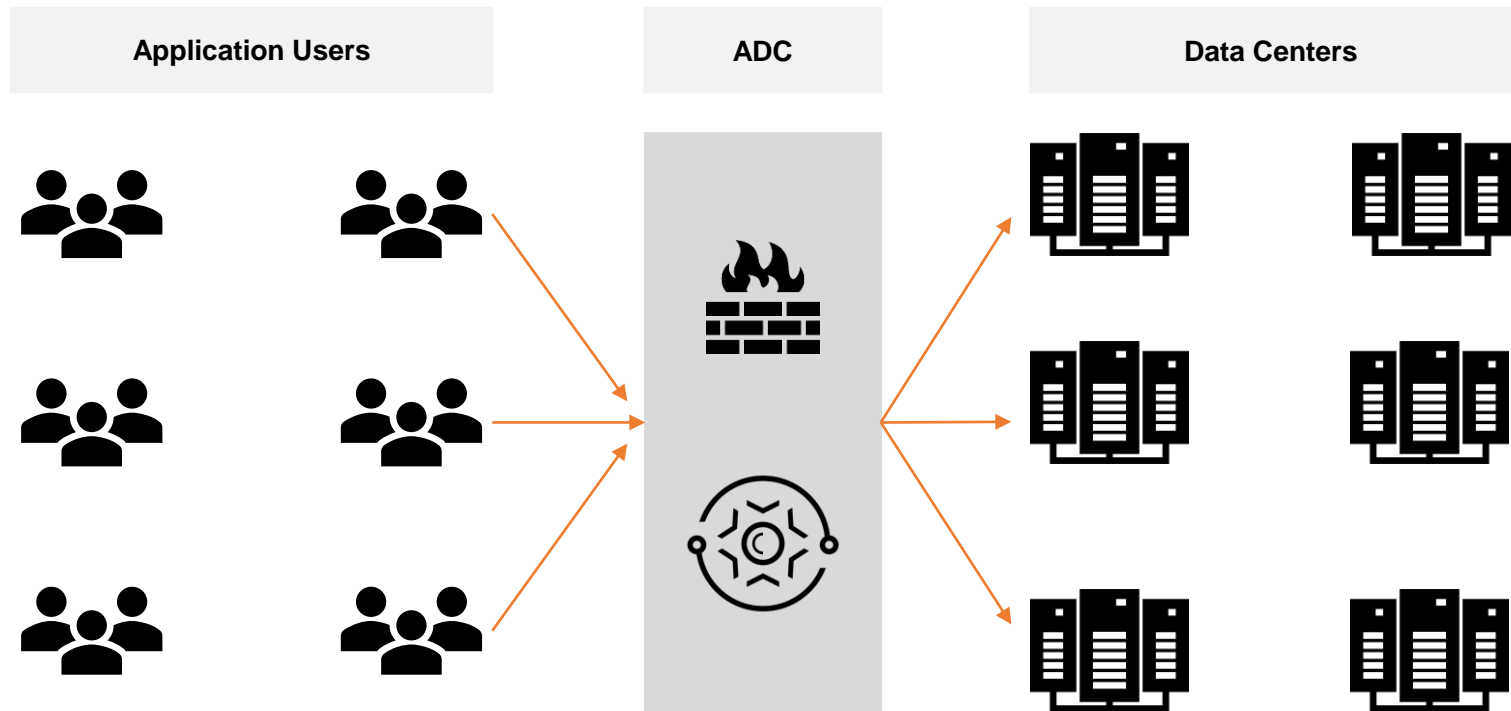
Name	François Loch-Donou	Frank Pelzer	Renuka Nadkarni	Geng Lin
Position	CEO	CFO	VP Business Operations	VP and CTO
Years Exp.	15+	15+	15+	20+
Background	Previously COO, Senior Vice President of Ciena	Previously President and Chief Operating Officer of the Cloud Business Group	Previously product manager at VMware and Infoblox	Previously at JPMC as Managing Director and Head of Engineering

## Comprehensive Product Portfolio

Service	Description
BIG-IP	Built-in security, traffic management, and performance application services
Local Traffic Manager	Enables control over network traffic, provides end-to-end user encryption
DNS Delivery	Hyperscale to manage rapid increases in DNS queries
Advanced Firewall Manager	Mitigates network threats such as DDoS attacks
Policy Enforcement Manager	Provides insights into network's performance and customers' behaviours

# How ADC Companies Work

## Automatic Delivery Controller (ADC) Overview



ADC optimizes application performance, security, and responsible for efficient resource management

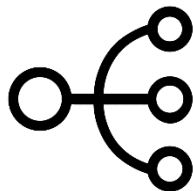
Main tasks of an ADC is ensuring application availability, web application firewall, DDoS protection, and load balancing

# F5 Networks Business Model Evolution

## 2013 Product and Services Offerings



Hardware (Chassis)



ADC and Traffic Management

In 2013, F5 Networks offered mainly hardware chassis-based systems and ADC traffic management operating systems

In 2019, F5 Networks aims to capture the growing demand for SaaS solutions through offering cloud services, expanding security options, and creating long-term value through customer support services

## 2019 Product and Services Offerings



Cybersecurity



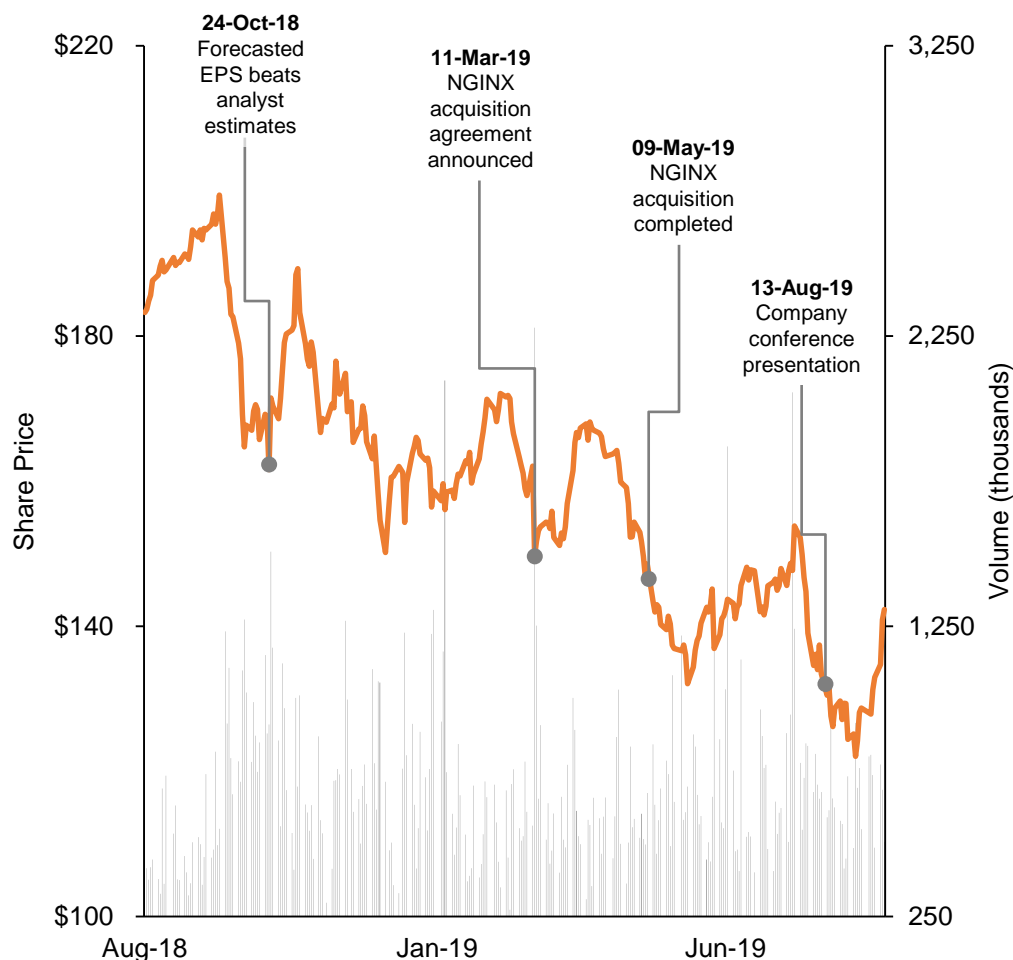
Cloud Offerings



Customer Support Services

# PV Chart and Capitalization Table

## Price-Volume Analysis



## Market Data

(in USD\$ thousands)

### Capitalization

Share Price (12-Sep-2019)	(C\$)	\$141.29
Basic Shares Outstanding	(mm)	60.1
Diluted Securities	(mm)	0.3
<b>Market Capitalization</b>	<b>(C\$ mm)</b>	<b>8,532</b>
(-) Cash & Equivalents	(C\$ mm)	(987)
(+) Short-Term Debt	(C\$ mm)	
(+) Long-Term Debt	(C\$ mm)	
(+) Minority Interest	(C\$ mm)	-
<b>Enterprise Value</b>	<b>(C\$ mm)</b>	<b>7,546</b>

### Trading Multiples

EV / 2018A EBITDA	-	11.4x
EV / 2019E EBITDA	-	8.8x
EV / 2020E EBITDA	-	8.6x
P / 2018A EPS	-	19.3x
P / 2019E EPS	-	13.7x
P / 2020E EPS	-	13.5x

### Market Data

52-Week High	(C\$)	\$199.71
% of 52-Week High	(%)	70.7%
52-Week Low	(C\$)	\$121.36
Beta	-	0.92

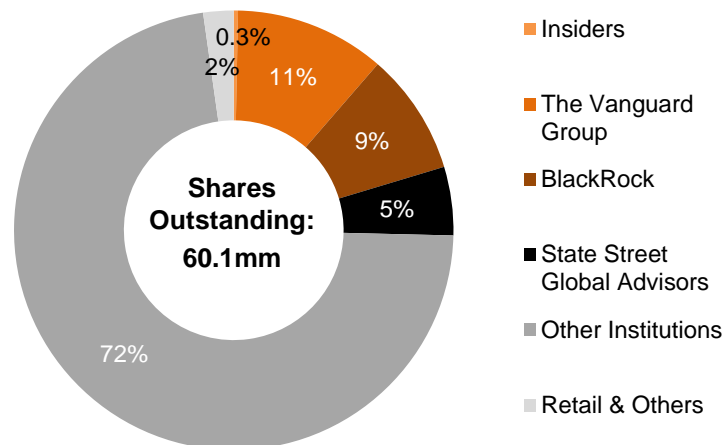
# Shareholder Overview

## Shareholder Summary

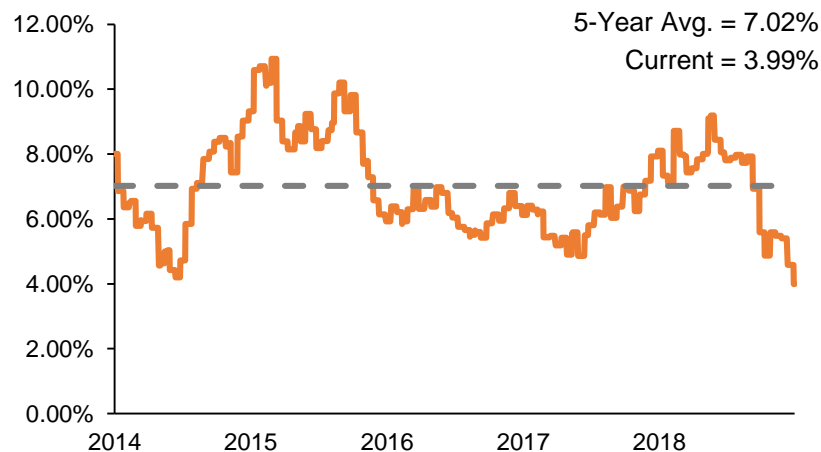
(in millions)

	# of Shares Held	% of Shares Outstanding
<b>Insiders</b>		
Locoh-Donou, Francois	0.03	0.1%
Ames, Gary	0.03	0.0%
McAdam, Jogn	0.01	0.0%
Rogers, Scot Frazier	0.01	0.0%
Other Insiders	0.10	0.2%
<b>Total Insiders</b>	<b>0.19</b>	<b>0.3%</b>
<b>Institutions</b>		
The Vanguard Group	6.65	11.1%
BlackRock	5.40	9.0%
State Street Global Advisors	3.03	5.0%
Renaissance Technologies	2.40	4.0%
AQR Capital Management	2.22	3.7%
Wellington Management Group	1.13	1.9%
ALLianceBernstein	1.09	1.8%
Merian Global Investors	1.07	1.8%
Geode Capital Management	1.05	1.7%
FMR LLC	0.97	1.6%
BNY Mellon Asset Management	0.96	1.6%
Swedbank Robur Fonder	9.36	15.6%
Citadel Advisors	0.94	1.6%
<b>Total Institutions</b>	<b>58.60</b>	<b>97.5%</b>
Retail & Other Investors	1.34	2.2%
Public Float	59.94	99.7%
<b>Total Basic Shares Outstanding</b>	<b>60.13</b>	<b>100.0%</b>

## Ownership Structure



## Short Interest



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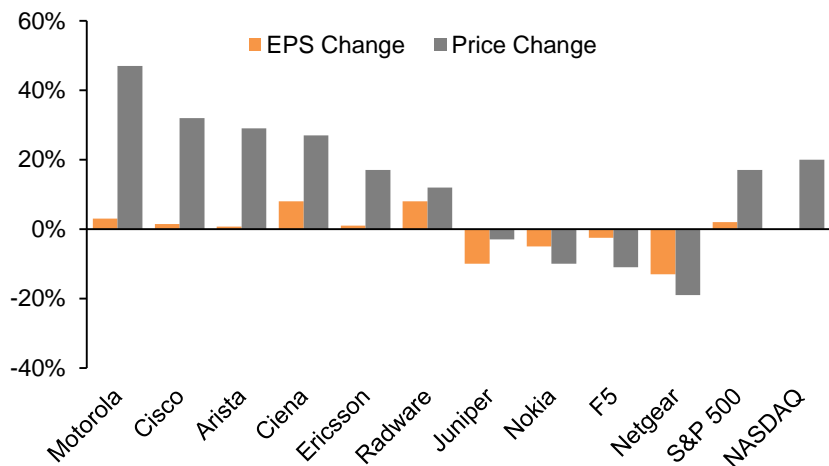
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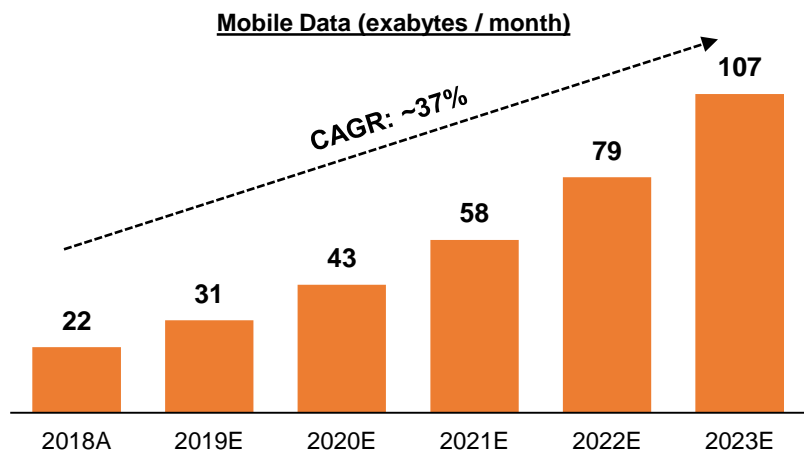


# Shifting Tastes and Tech

## Network Share Price Drivers



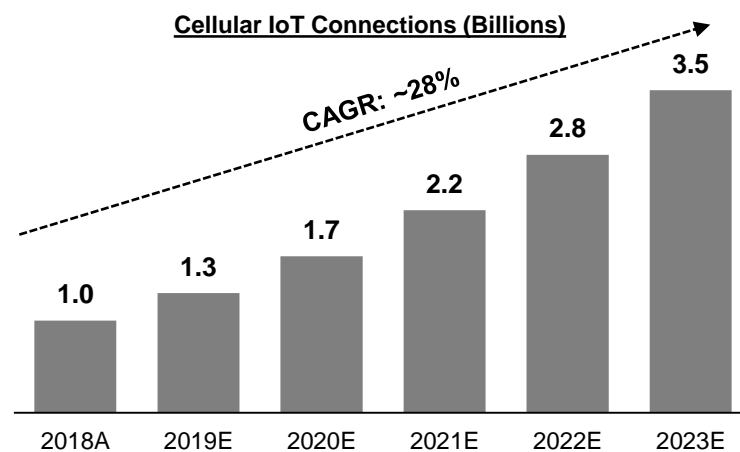
## Growth in Mobile Data



## Going Once, Going Twice...

Date	Acquirer	Target	Value (US\$ mm)	Possible Rationale
May-19	Extreme Networks	Aerohive	\$272	Scale Expansion
Mar-19	Juniper	Mist	\$405	Added AI Capabilities
Aug-18	Arista	Mojo Networks	\$117	Added AI Capabilities
Oct-16	Extreme Networks	Zebra	\$55	Enter Wi-Fi Business
May-16	Brocade	Ruckus Wireless	\$578	Scale Expansion
May-15	HP-Enterprise	Aruba Networks	\$2,834	Strategic Networking Deal
Dec-12	Cisco	Meraki	\$1,200	Small Business Cloud Wi-Fi
Dec-10	Juniper	Trapeze	\$152	Product Category Expansion

## Head in the Clouds



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# Argument I: Multiple Expansion through Growth Strategy

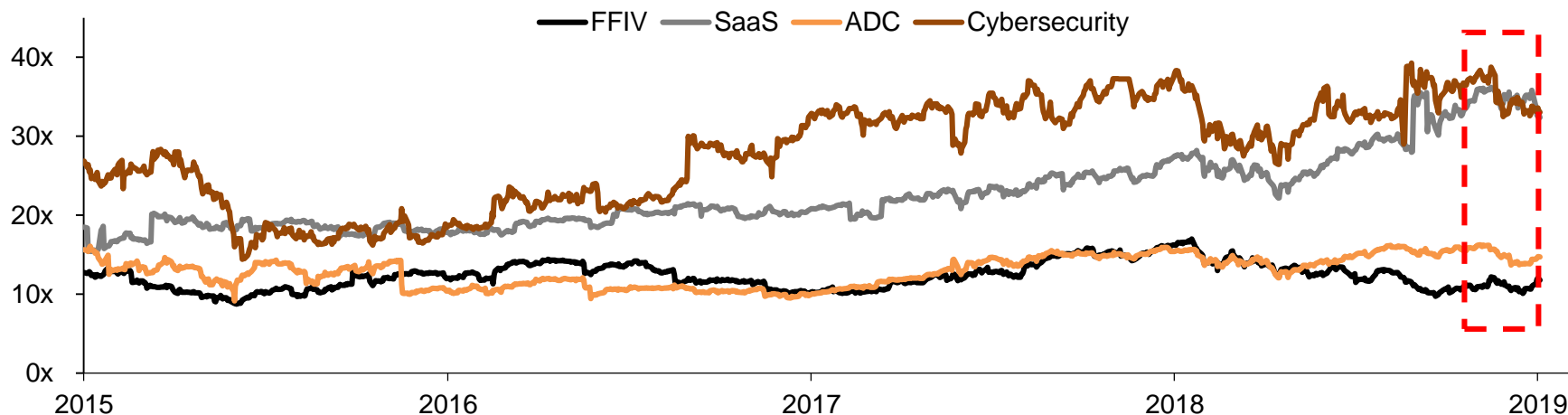
## Growth Strategy into SaaS and Cybersecurity

- Before 2018, FFIV was a pure-play ADC company but they are now rapidly expanding their product lines to shift into SaaS and Cybersecurity
- Their revenue mix is also rapidly changing from perpetual licenses to ELAs and subscriptions
- Stronger business model with sticky revenues, and a decreasing traditional ADC revenue mix means that FFIV should be trading in-line with SaaS and Cybersecurity peers
- “It is no longer accurate to view F5 through the narrow lens of a traditional ADC player” – 10Q

## Before and After: Strategy Shift

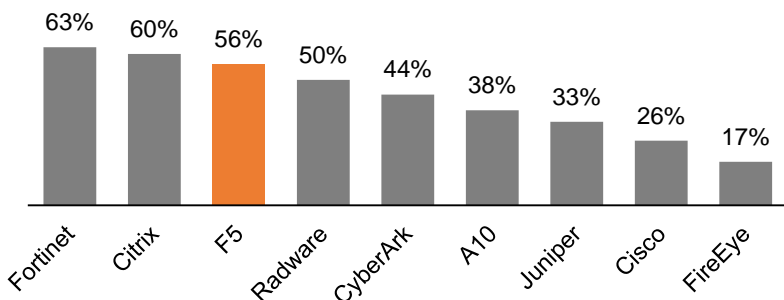
	Before	After
<b>Software Revenue</b>	Perpetual Licenses	Subscription and ELAs
<b>ADC Market</b>	Data rooms on company premise	Data rooms on cloud infrastructure
<b>Cybersecurity Offerings</b>	ADC-attached security	Standalone security offerings and cloud-security offerings
<b>Margins</b>	Hardware mix results in lower margins	Margin expansion due to scalability of software solutions

## F5 EV/EBITDA Multiple Is Significantly Undervalued Relative to SaaS and Cybersecurity Players



# Argument II: High Quality Revenue Streams

## High % of Recurring Service Based Revenues



Relative to F5's comparable universe, a large portion of revenues are services based. Additionally, average length obligation for F5 customer contacts is 5.5 years

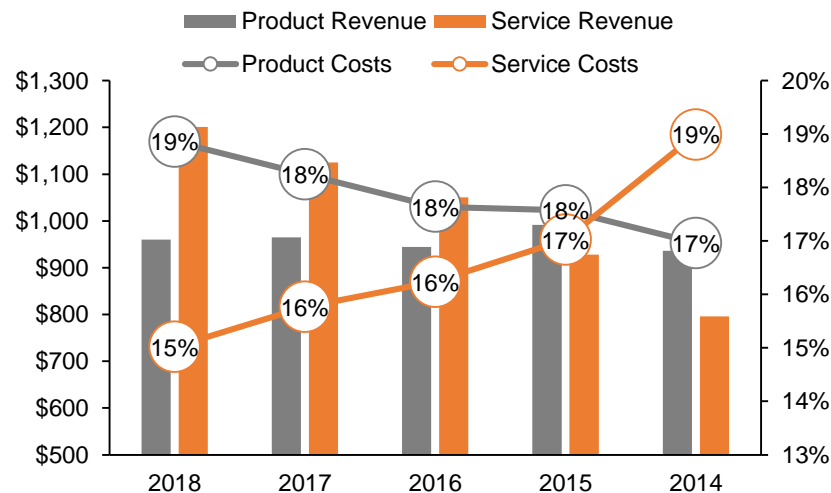
## Sticky Top Line with High Switching Cost

- F5 products and services represent a low cost to customers. Thus, customers have low incentive to switch producers during recessionary or slow periods
- Additionally, F5 software becomes an integral part of a companies operations which drives up switching costs increasing revenue stickiness

49 of Fortune 50 companies are F5 customers which speaks to both the product necessity in today's business world and the bureaucratic hoops a customer would need to jump through to switch

## High Scalability Allowing for Margin Expansion

- F5 Networks is consistently shifting year over year to a service based revenue stream as opposed to a product based revenue stream
- This allows for scalable revenue without dragging costs up with it
- As seen in the figure below, the product costs as a percentage of total products sold that year is increasing, while the service costs as a percentage of total services sold that year is decreases
- F5 shifting more of their revenues towards services based goods will allow for margin expansion



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# Comparable Companies Analysis

## Comparable Universe

(In USD millions)	Equity Value	Enterprise Value	EV/EBITDA			EV/Revenue			Revenue Growth		EBITDA Margin	
			2018A	2019E	2020E	2018A	2019E	2020E	2019E	2020E	2019E	2020E
<b>Cybersecurity</b>												
Zix Corporation	\$426	\$710	51.2x	20.3x	14.6x	10.2x	4.8x	3.6x	111.4%	34.7%	23.9%	24.7%
FireEye, Inc.	\$2,962	\$3,054	NM	NM	22.7x	3.7x	3.5x	3.3x	5.3%	7.2%	5.9%	14.5%
Qualys, Inc.	\$3,161	\$2,902	39.3x	25.0x	20.3x	10.9x	9.3x	8.1x	16.6%	15.4%	37.3%	39.9%
CyberArk Software Ltd.	\$3,703	\$3,205	63.5x	31.2x	23.9x	9.9x	8.0x	6.7x	24.6%	19.6%	25.5%	27.9%
Fortinet, Inc.	\$13,401	\$11,608	45.2x	23.7x	18.6x	6.7x	5.7x	5.0x	18.0%	14.3%	24.1%	26.9%
<b>Median</b>			<b>48.2x</b>	<b>24.3x</b>	<b>20.3x</b>	<b>9.9x</b>	<b>5.7x</b>	<b>5.0x</b>	<b>18.0%</b>	<b>15.4%</b>	<b>24.1%</b>	<b>26.9%</b>
<b>ADC Companies</b>												
A10 Networks, Inc.	\$590	\$476	NM	NM	NM	2.0x	2.3x	2.3x	(9.3%)	(0.7%)	(2.3%)	0.0%
Cisco Systems, Inc.	\$211,967	\$203,221	13.6x	12.3x	10.5x	4.1x	3.9x	3.8x	4.6%	2.2%	31.7%	36.3%
Radware Ltd.	\$1,158	\$924	NM	28.0x	20.0x	4.0x	3.7x	3.4x	9.0%	9.3%	13.2%	17.0%
Juniper Networks, Inc.	\$8,452	\$7,644	8.7x	8.2x	7.5x	1.6x	1.7x	1.7x	(4.8%)	1.5%	20.6%	22.2%
Citrix Systems, Inc.	\$12,636	\$13,062	15.7x	13.3x	12.1x	4.4x	4.4x	4.2x	1.8%	3.7%	32.8%	34.8%
Akamai Technologies, Inc.	\$15,012	\$15,258	21.8x	14.3x	12.1x	5.7x	5.4x	5.1x	6.2%	6.6%	37.7%	42.1%
<b>Median</b>			<b>15.7x</b>	<b>13.8x</b>	<b>12.1x</b>	<b>4.2x</b>	<b>4.0x</b>	<b>3.8x</b>	<b>4.0%</b>	<b>5.1%</b>	<b>26.7%</b>	<b>28.5%</b>
<b>Weighted Average</b>			<b>25.5x</b>	<b>17.0x</b>	<b>14.5x</b>	<b>5.9x</b>	<b>4.5x</b>	<b>4.2x</b>	<b>11.0%</b>	<b>10.3%</b>	<b>25.4%</b>	<b>27.7%</b>
F5 Networks, Inc.	\$8,532	\$7,546	11.4x	8.8x	8.6x	3.5x	3.4x	3.2x	3.4%	4.1%	38.3%	37.5%

## Analysis

- F5 Networks is trading below comparable ADC companies' median and more notably trading far below comparable cybersecurity companies' median
- MD&A outlines plans to expand security-related offerings and have announced advancements in related products
- F5's developments towards becoming more similar to a cybersecurity company could result in multiple expansion

- Picked companies based on management guidance for competitors (ADC Companies)
- Included cybersecurity companies to illustrate the potential upside for F5 Networks as they transition from a traditional ADC company to expand their cybersecurity reach

# Discounted Cash Flow

## DCF Valuation Assumptions

- Valuation based on the following assumptions:
  - Revenue is projected using F5's historical sales mix between services and products, with an emphasis on F5's growing software sales (acquisition of NGINX)
    - Increasing software sales resulting in expanding gross margins and EBITDA margins
  - Assumptions for D&A, Capex and Change in Net Working Capital are made based on revenue using historical trends

WACC: **8.6%**Perp. Growth Rate: **2.0%**FDSO: **60.4 million**Statutory Tax Rate: **25.0%**

## DCF Unlevered Cash Flow Summary

(USD millions)	Forecast Period													
	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	Terminal
<b>Revenue</b>	<b>1,994</b>	<b>2,090</b>	<b>2,168</b>	<b>2,255</b>	<b>2,343</b>	<b>2,442</b>	<b>2,550</b>	<b>2,662</b>	<b>2,774</b>	<b>2,881</b>	<b>2,977</b>	<b>3,057</b>	<b>3,117</b>	<b>3,179</b>
% Growth	-	4.8%	3.7%	4.0%	3.9%	4.2%	4.4%	4.4%	4.2%	3.8%	3.3%	2.7%	2.0%	2.0%
<b>Gross Profit</b>	<b>1,658</b>	<b>1,737</b>	<b>1,800</b>	1,917	1,994	2,081	2,176	2,274	2,373	2,468	2,553	2,625	2,681	<b>2,734</b>
% Margin	83.1%	83.1%	83.3%	85.0%	85.1%	85.2%	85.3%	85.4%	85.6%	85.7%	85.8%	85.9%	86.0%	86.0%
<b>Adjusted EBITDA</b>	<b>603</b>	<b>629</b>	<b>661</b>	<b>722</b>	<b>763</b>	<b>809</b>	<b>858</b>	<b>911</b>	<b>965</b>	<b>1,018</b>	<b>1,068</b>	<b>1,114</b>	<b>1,153</b>	<b>1,176</b>
% Margin	30.2%	30.1%	30.5%	32.0%	32.6%	33.1%	33.7%	34.2%	34.8%	35.3%	35.9%	36.4%	37.0%	37.0%
(-) Depreciation & Amortization	(46)	(52)	(52)	(29)	(35)	(41)	(48)	(56)	(65)	(75)	(85)	(96)	(107)	(109)
% of CapEx	72.8%	135.1%	97.4%	51.2%	56.4%	61.6%	66.8%	72.0%	77.2%	82.4%	87.6%	92.8%	98.0%	98.0%
<b>Adjusted EBIT</b>	<b>556</b>	<b>577</b>	<b>609</b>	<b>693</b>	<b>728</b>	<b>768</b>	<b>810</b>	<b>855</b>	<b>899</b>	<b>943</b>	<b>983</b>	<b>1,018</b>	<b>1,046</b>	<b>1,067</b>
% Margin	27.9%	27.6%	28.1%	30.7%	31.1%	31.4%	31.8%	32.1%	32.4%	32.7%	33.0%	33.3%	33.6%	33.6%
% Growth		3.7%	5.6%	13.7%	5.1%	5.4%	5.5%	5.5%	5.2%	4.8%	4.3%	3.6%	2.8%	2.0%
(-) Cash Taxes	(164)	(163)	(105)	(173)	(182)	(192)	(203)	(214)	(225)	(236)	(246)	(254)	(262)	(267)
Tax rate (%)	29.5%	28.2%	17.2%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
<b>NOPAT</b>	<b>392</b>	<b>414</b>	<b>504</b>	<b>520</b>	<b>546</b>	<b>576</b>	<b>608</b>	<b>641</b>	<b>674</b>	<b>707</b>	<b>737</b>	<b>763</b>	<b>785</b>	<b>800</b>
(+) Depreciation & Amortization	46	52	52	29	35	41	48	56	65	75	85	96	107	109
(-) CapEx	(64)	(39)	(54)	(56)	(61)	(67)	(72)	(78)	(85)	(91)	(98)	(104)	(109)	(111)
% of Revenue	3.2%	1.9%	2.5%	2.5%	2.6%	2.7%	2.8%	2.9%	3.1%	3.2%	3.3%	3.4%	3.5%	3.5%
(-) Change in Net Working Capital	-	88	68	35	31	31	29	25	20	15	9	4	0	0
% of Change in Revenue		(92.2%)	(86.9%)	(40.0%)	(35.6%)	(31.2%)	(26.8%)	(22.4%)	(18.1%)	(13.7%)	(9.3%)	(4.9%)	(0.5%)	(0.5%)
<b>Unlevered Free Cash Flows</b>	<b>375</b>	<b>516</b>	<b>571</b>	<b>527</b>	<b>551</b>	<b>581</b>	<b>612</b>	<b>644</b>	<b>675</b>	<b>705</b>	<b>734</b>	<b>760</b>	<b>783</b>	<b>799</b>

Source: Bloomberg, SEC Filings

# Discounted Cash Flow (cont'd)

## Valuation Summary

<b>Cumulative PV of Free Cash Flow</b>	<b>4,237</b>
<i>% of Enterprise Value</i>	41.4%
<b>Terminal Value</b>	
Terminal Year EBITDA	1,176
Terminal Year UFCF	799
Perpetuity Growth Rate	2.0%
<b>Terminal Value</b>	<b>12,023</b>
Terminal Value for EBITDA Multiple	12,532
Implied EV / EBITDA Multiple	10.7x
Implied EV / UFCF Multiple	15.7x
<b>PV of Terminal Value</b>	
<i>% of Enterprise Value</i>	58.6%
<b>Enterprise Value</b>	<b>10,226</b>
(-) Short Term Debt	-
(-) Long Term Debt	-
(-) Minority Interest	-
(+) Cash	987
(+) Investments in Associates	-
<b>Equity Value</b>	<b>11,212</b>
Basic Shares	60.1
(+) Diluted Securities	0.3
<b>Fully Diluted Shares Outstanding</b>	<b>60.4</b>
<b>Implied Share Price</b>	<b>\$185.63</b>
Current Share Price	\$141.29
<b>Premium to Current Share Price</b>	<b>31.4%</b>

## WACC Analysis

10-Year US Treasury	1.7%
Market Risk Premium	5.8%
Beta	1.20
<b>Cost of Equity</b>	<b>8.6%</b>
Cost of Debt	-
Tax Rate	25.0%
<b>After-Tax Cost of Debt</b>	<b>-</b>
Target Debt/Capitalization	-
<b>WACC</b>	<b>8.6%</b>

## Valuation Takeaways

- The DCF valuation yields an implied share price range of \$185.63, a 31.4% implied return over the current share price of \$141.29
- The valuation yields an implied return of 13.1% in the bear case, 31.4% in the base case, and a 52.6% return in the bull case
- The terminal value is derived using the Gordon Growth method and a terminal growth rate of 2.0%
- Sensitivity analysis is performed using a discount rate range of 7.6% - 9.6% and a terminal growth rate range of 1.0% - 3.0%



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# Catalysts and Risks

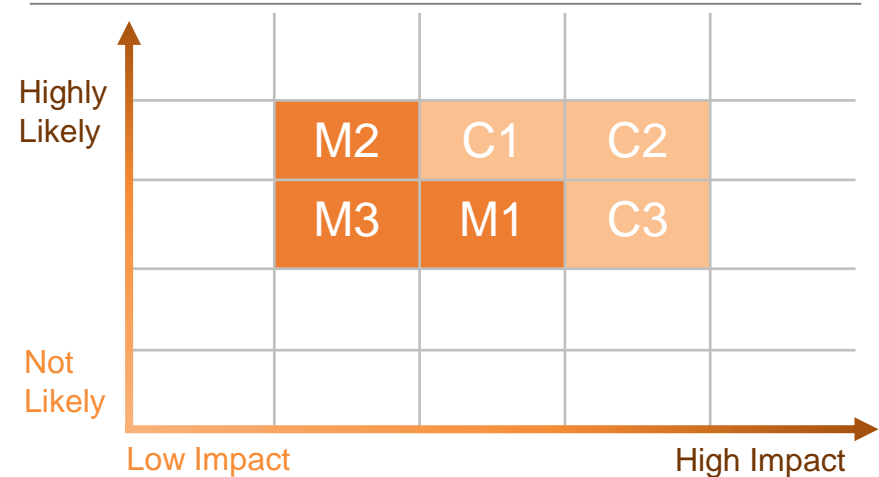
## Near-Term Catalysts

- **Introduction of NGINX Products** – Talks between NGINX and F5 of integrating technology to develop new products
- **Strategic Technology Partnerships** – In May, F5 introduced ACI ServiceCenter app in collaboration with Cisco ACI App Center, 10K outlines plans to continue developments with company partnerships
- **Future Acquisitions of Technologies** – Reinvestment in new technologies to broaden scope of offerings and potentially expand market reach

## Long-Term Catalysts

- **Increasing Need for Cybersecurity** – Given the growing number of DDoS attacks and privacy breaches, companies are looking for app protection
- **Cloud Based Business Models** – Many traditional in-house data center companies working with F5 are transitioning to using cloud services, F5 will be able to offer cloud software to these companies
- **Growing Complexity of IT Infrastructures** – Ongoing evolution of IT introduces growing need to optimize secure delivery of data over IP networks

## Risks



### Company Risks

- Unrealized synergies through acquisitions (C1)
- Cloud-based software and services competition (C2)
- Security vulnerabilities in systems and products (C3)

### Macro Risks

- Industry consolidation resulting in heavy competition (M1)
- Technological advancements demanding innovation (M2)
- Competitive pricing pressures while costs remain high (M3)

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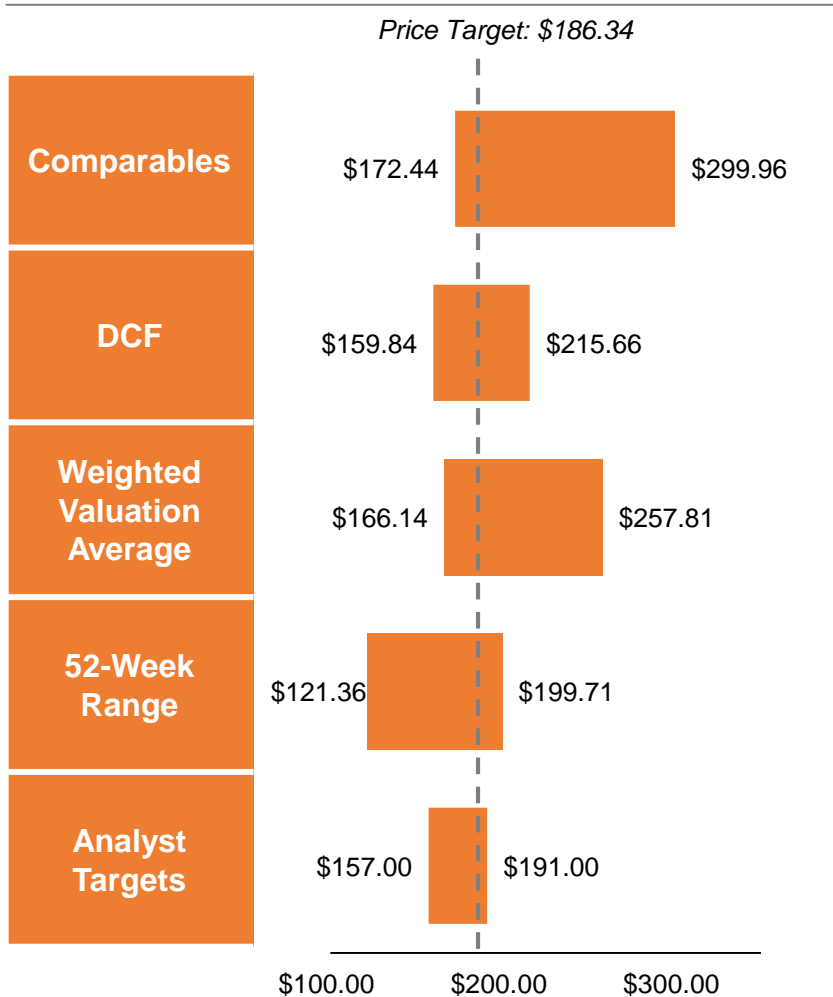
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**6** Recommendation

RECOMMENDATION

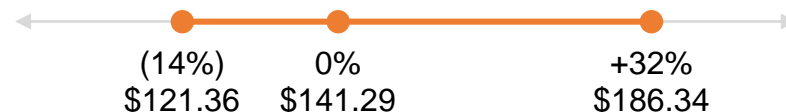
# Buy With Price Target of \$186.34 (+32%)

## Indicative Valuation Range

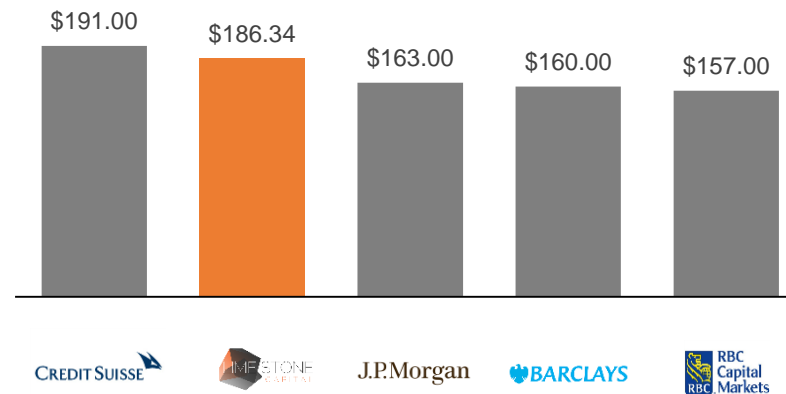


## Price Target

Valuation Summary		
Analysis	Price	Weight
Comparables	\$241.83	10%
Discounted CF	\$185.63	70%
Street Consensus	\$161.07	20%
<b>Average</b>	<b>\$186.34</b>	<b>100%</b>



## Select Broker Summary



# Appendix I: Sensitivity

## Sensitivity Analysis

		Equity Value Per Share				
		Terminal growth				
		1.0%	1.5%	2.0%	2.5%	3.0%
Discount rate	7.6%	\$195.32	\$204.53	\$215.38	\$228.34	\$244.09
	8.1%	\$182.73	\$190.39	\$199.29	\$209.78	\$222.30
	8.6%	\$171.80	\$178.23	\$185.63	\$194.24	\$204.37
	9.1%	\$162.22	\$167.67	\$173.89	\$181.05	\$189.37
	9.6%	\$153.76	\$158.42	\$163.70	\$169.71	\$176.63

		Implied Return				
		Terminal growth				
		1.0%	1.5%	2.0%	2.5%	3.0%
Discount rate	7.6%	38.2%	44.8%	52.4%	61.6%	72.8%
	8.1%	29.3%	34.7%	41.1%	48.5%	57.3%
	8.6%	21.6%	26.1%	31.4%	37.5%	44.6%
	9.1%	14.8%	18.7%	23.1%	28.1%	34.0%
	9.6%	8.8%	12.1%	15.9%	20.1%	25.0%

		Equity Value Per Share				
		Revenue Growth Sensitivity				
		(1.0%)	(0.5%)	0.0%	0.5%	1.0%
Margin Sensitivity	(2.0%)	\$161.91	\$168.50	\$175.38	\$182.55	\$190.04
	(1.0%)	\$166.62	\$173.41	\$180.50	\$187.90	\$195.62
	0.0%	\$171.34	\$178.33	\$185.63	\$193.25	\$201.20
	1.0%	\$176.05	\$183.25	\$190.76	\$198.60	\$206.78
	2.0%	\$180.76	\$188.17	\$195.89	\$203.95	\$212.36

		Implied Return				
		Revenue Growth Sensitivity				
		(1.0%)	(0.5%)	0.0%	0.5%	1.0%
Margin Sensitivity	(2.0%)	14.6%	19.3%	24.1%	29.2%	34.5%
	(1.0%)	17.9%	22.7%	27.8%	33.0%	38.5%
	0.0%	21.3%	26.2%	31.4%	36.8%	42.4%
	1.0%	24.6%	29.7%	35.0%	40.6%	46.4%
	2.0%	27.9%	33.2%	38.6%	44.3%	50.3%

# Appendix II: Revenue Model

## Revenue Model for F5 Networks

	2015A	2016A	2017A	2018A	Forecast Period									
	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
<b>Services Revenue</b>														
<b>Base Support</b>														
Base Case	791	897	954	1010	1061	1111	1160	1208	1255	1301	1344	1385	1423	1459
Bear Case	791	897	954	1010	1045	1079	1111	1140	1168	1192	1214	1233	1249	1261
Bull Case	791	897	954	1010	1076	1141	1206	1269	1330	1388	1443	1494	1541	1583
<b>Enhanced Support</b>														
Base Case	64	78	89	102	106	110	114	118	122	126	130	133	137	140
Bear Case	64	78	89	100	103	105	107	109	111	112	114	115	115	116
Bull Case	64	78	89	100	106	111	116	122	127	132	137	141	145	149
<b>Professional Services</b>														
Base Case	73	75	82	89	92	94	97	100	102	105	107	109	112	114
Bear Case	73	75	82	78	79	80	81	83	84	85	86	87	87	88
Bull Case	73	75	82	78	82	85	88	92	95	98	101	104	106	109
<b>Total Services Revenue</b>														
Base Case	928	1,050	1,125	1,201	1,258	1,315	1,371	1,426	1,479	1,531	1,581	1,628	1,672	1,713
Bear Case	928	1,050	1,125	1,188	1,227	1,264	1,299	1,332	1,362	1,389	1,413	1,434	1,452	1,466
Bull Case	928	1,050	1,125	1,188	1,263	1,337	1,410	1,482	1,552	1,618	1,681	1,739	1,793	1,841
<b>Services Growth</b>														
<b>Base Support</b>														
Base Case		13.4%	6.4%	5.9%	5.0%	4.7%	4.4%	4.2%	3.9%	3.6%	3.3%	3.1%	2.8%	2.5%
Bear Case		13.4%	6.4%	5.9%	3.5%	3.2%	2.9%	2.7%	2.4%	2.1%	1.8%	1.6%	1.3%	1.0%
Bull Case		13.4%	6.4%	5.9%	6.5%	6.1%	5.7%	5.2%	4.8%	4.4%	4.0%	3.5%	3.1%	2.7%
<b>Enhanced Support</b>														
Base Case		21.9%	14.1%	14.6%	4.0%	3.8%	3.7%	3.5%	3.3%	3.2%	3.0%	2.8%	2.7%	2.5%
Bear Case		21.9%	14.1%	12.4%	2.5%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	0.9%	0.7%	0.5%
Bull Case		21.9%	14.1%	12.4%	5.5%	5.2%	4.9%	4.6%	4.3%	3.9%	3.6%	3.3%	3.0%	2.7%
<b>Professional Services</b>														
Base Case		2.7%	9.3%	8.5%	3.0%	2.9%	2.8%	2.7%	2.6%	2.4%	2.3%	2.2%	2.1%	2.0%
Bear Case		2.7%	9.3%	(4.9%)	1.5%	1.4%	1.4%	1.3%	1.3%	1.2%	1.2%	1.1%	1.1%	1.0%
Bull Case		2.7%	9.3%	(4.9%)	4.5%	4.3%	4.0%	3.8%	3.5%	3.3%	3.0%	2.8%	2.5%	2.3%
<b>Services Revenue Growth</b>														
Base Case		13.1%	7.1%	6.8%	4.8%	4.5%	4.3%	4.0%	3.7%	3.5%	3.2%	3.0%	2.7%	2.5%
Bear Case		13.1%	7.1%	5.6%	3.3%	3.0%	2.8%	2.5%	2.3%	2.0%	1.7%	1.5%	1.2%	1.0%
Bull Case		13.1%	7.1%	5.6%	6.3%	5.9%	5.5%	5.1%	4.7%	4.3%	3.9%	3.5%	3.1%	2.7%

# Appendix II: Revenue Model (Cont'd)

## Revenue Segments

	Forecast Period													
	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
<b><u>Products Revenue</u></b>														
<b><u>Systems Revenue</u></b>														
Base Case				810	777	749	726	706	691	678	670	664	662	663
Bear Case				810	765	727	695	668	647	629	616	607	601	598
Bull Case				810	789	772	757	746	737	730	727	725	727	731
<b><u>Hardware Revenue</u></b>														
Base Case				490	467	448	430	415	401	390	380	372	365	359
Bear Case				490	460	435	415	398	384	374	366	361	359	359
Bull Case				490	475	461	449	438	429	420	413	407	402	398
<b><u>Bundled Software Revenue</u></b>														
Base Case				320	310	302	296	292	289	289	290	293	297	304
Bear Case				320	305	292	281	271	263	256	250	245	242	239
Bull Case				320	315	311	308	307	308	310	313	318	325	333
<b><u>Software Revenue</u></b>														
Base Case				169	220	279	346	418	492	564	630	684	722	740
Bear Case				169	217	273	334	399	465	528	583	627	655	665
Bull Case				169	228	300	384	477	576	675	768	845	901	928
<b><u>Total Products Revenue</u></b>														
Base Case	992	944	965	967	997	1,028	1,071	1,124	1,182	1,243	1,300	1,349	1,385	1,404
Bear Case	992	944	965	967	982	1,000	1,029	1,068	1,112	1,157	1,199	1,233	1,256	1,263
Bull Case	992	944	965	967	1,018	1,072	1,141	1,223	1,313	1,406	1,494	1,571	1,628	1,659

# Appendix II: Revenue Model (Cont'd)

## Revenue Segments

	2015A	2016A	2017A	2018A	Forecast Period									
					2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
<b>Products</b>														
<b><u>Systems Revenue</u></b>														
Base Case					(4.0%)	(3.6%)	(3.1%)	(2.7%)	(2.2%)	(1.8%)	(1.3%)	(0.8%)	(0.3%)	0.2%
Bear Case					(5.5%)	(5.0%)	(4.4%)	(3.8%)	(3.3%)	(2.7%)	(2.1%)	(1.5%)	(1.0%)	(0.4%)
Bull Case					(2.5%)	(2.2%)	(1.9%)	(1.5%)	(1.2%)	(0.9%)	(0.5%)	(0.2%)	0.2%	0.6%
<b><u>Hardware Growth Rate</u></b>														
Base Case					(4.6%)	(4.3%)	(3.9%)	(3.6%)	(3.2%)	(2.9%)	(2.5%)	(2.2%)	(1.8%)	(1.5%)
Bear Case					(6.1%)	(5.4%)	(4.7%)	(4.1%)	(3.4%)	(2.7%)	(2.0%)	(1.4%)	(0.7%)	0.0%
Bull Case					(3.1%)	(2.9%)	(2.6%)	(2.4%)	(2.2%)	(1.9%)	(1.7%)	(1.5%)	(1.2%)	(1.0%)
<b><u>Bundled Software Growth Rate</u></b>														
Base Case					(3.2%)	(2.6%)	(2.0%)	(1.4%)	(0.8%)	(0.2%)	0.4%	1.0%	1.6%	2.2%
Bear Case					(4.7%)	(4.3%)	(3.9%)	(3.5%)	(3.1%)	(2.6%)	(2.2%)	(1.8%)	(1.4%)	(1.0%)
Bull Case					(1.7%)	(1.2%)	(0.8%)	(0.3%)	0.2%	0.6%	1.1%	1.6%	2.0%	2.5%
<b><u>Software Revenue</u></b>														
Base Case					30.0%	26.9%	23.9%	20.8%	17.8%	14.7%	11.7%	8.6%	5.6%	2.5%
Bear Case					28.5%	25.5%	22.5%	19.5%	16.5%	13.5%	10.5%	7.5%	4.5%	1.5%
Bull Case					35.0%	31.4%	27.9%	24.3%	20.8%	17.2%	13.7%	10.1%	6.6%	3.0%
<b>Software as a % of Product Revenue</b>				17.5%	22.0%	27.1%	32.3%	37.2%	41.6%	45.4%	48.5%	50.7%	52.2%	52.8%
<b><u>Total Products Revenue Growth</u></b>														
Base Case		(4.7%)	2.1%	0.2%	3.1%	3.1%	4.2%	4.9%	5.2%	5.1%	4.6%	3.8%	2.7%	1.4%
Bear Case		(4.7%)	2.1%	0.2%	1.6%	1.8%	2.9%	3.7%	4.1%	4.1%	3.6%	2.9%	1.8%	0.6%
Bull Case		(4.7%)	2.1%	0.2%	5.2%	5.3%	6.4%	7.2%	7.4%	7.1%	6.3%	5.1%	3.6%	1.9%