

## Comtech Telecommunications Corp.

*Exiting FY18 with Record Backlog, Robust Order Book, and Growing Pipeline; FY19 Guide 5% Above Consensus*

**Chris Quilty**

chris@quiltyanalytics.com  
+1 (727)-828-7085

**Austin Moeller**

austin@quiltyanalytics.com  
+1 (727)-828-7601

- **Strong finish to FY18.** Despite reporting middling Q4 revenues (at the low end of guidance and ~4% below consensus), Comtech beat the consensus EBITDA forecast by ~13% (ten in a row), powered by a 68% improvement in Government EBITDA.
- **Order book & backlog balloon.** Q4 orders totaled \$214 mm (B2B of 1.28x), helping to push backlog to a new all-time high of ~\$631 mm (up 41% y/y). Comtech's near-term pipeline includes \$500 mm of unexercised orders on existing contracts.
- **Govt. Solutions on a roll.** Aided by six straight quarters of positive orders (B2B>1), Q4 Government revenues grew 36% y/y and EBITDA rocketed 68% higher. Management expects FY19 revenues to be "significantly higher" and is targeting (stretch) EBITDA margins of 10% in FY19 (vs. 7.7% in FY18).
- **BFT and Tropo return to growth?** Previously viewed as a sea anchor, Comtech's BFT and troposcatter programs have recently come to life with key orders from the DoD (for BFT-2 terminals) and international customers (tropo orders from Australia and Iraq). Comtech is now pursuing contracts valued at "hundreds of millions of dollars" for both programs.
- **Commercial down but outlook strong.** Q4 Commercial revenues were flat y/y and EBITDA declined 9%, reflecting weak international sales and a less favorable mix. Nonetheless, orders were up across nearly all categories (B2B of 1.15x) with particularly encouraging results in (high margin) earth stations, including the new HEIGHTS product line (double-digit growth) and government programs.
- **FY19 guidance tops consensus.** Management forecast FY19 revenues of \$600-625 mm (consensus \$603 mm) and Adj. EBITDA of \$80-86 mm (consensus \$78.8 mm). We are raising our FY19 estimates accordingly and forecasting FY20 revenue/EBITDA growth of 5% and 6%, respectively.

### Key Data

Symbol:	EXCH: CMTL
Fiscal Year:	Jul
Stock price:	\$36.27
Shares out (mm):	23.9
Market cap (\$, mm)	\$864
Enterprise value (\$, mm)	\$988

### Trading Data

52-week range:	\$17.11-\$36.94
Avg daily vol:	194k
Avg daily vol (\$, mm):	\$7.0
Float:	95.8%
Short % float	2.2%

### Balance Sheet

Total debt (\$, mm):	\$168
Net debt (\$, mm):	\$124
Book value/share:	\$13.01
Net debt/EBITDA (TTM):	1.6x

### Cash Payout

Dividend (annual):	\$0.40
Dividend yield:	1.2%
FCF (current FY):	\$41.7
FCF yield:	1.8%

Adj. EBITDA	Q1	Q2	Q3	Q4	FY	EV/EBITDA
2018A	9.6	14.5A	23.5A	30.7A	78.4A	12.6x
2019E	9.7E	16.9E	22.0E	34.1E	82.7E	12.0x
2020E	12.1E	18.2E	22.3E	35.1E	87.6E	11.3x

Revenue	Q1	Q2	Q3	Q4	FY	Y/Y Growth
2018A	121.6A	133.7A	147.9A	167.4	570.6	3.7%
2019E	126.2E	141.2E	155.0E	182.0E	604.4E	5.9%
2020E	132.4E	149.1E	160.5E	189.9E	631.9E	4.6%

## 4Q18 Financial Highlights

### Comtech 4Q18 Summary Operating Results

(\$ in mm)	4Q17	4Q18	Y/Y	Comment
<b>Income Statement</b>				
Revenues	\$147.8	\$167.4	13.3%	Missed consensus by 3.8%
SG&A	\$26.5	\$27.8	5.1%	FY19 expected to be similar to FY18 as a % of revs
R&D	\$13.9	\$13.9	0.1%	Met expectations, expected to be similar in FY19
GAAP EPS (Diluted)	\$0.31	\$0.31	0.0%	\$0.01 above guidance, expected to be lower in '19
Adj. EBITDA	\$29.1	\$30.7	5.7%	Beat consensus by 12.9%
<b>Balance Sheet</b>				
Total cash	\$41.8	\$43.5	3.9%	Dividend declared of \$0.10/share
Net debt	\$154	\$124	-19.2%	Leverage ratio of 2.19x vs. max of 3.0x AEBITDA
Capex	\$1.93	\$3.34	73.5%	~\$9mm in '18, expected to be similar in FY19
Shares out	23.6	24.3	3.0%	Moderate share creep
<b>Other Items</b>				
CFO	\$23.0	\$19.7	-14.1%	Targeting CFO of ~\$50 million

Source: Company Reports and Quilty Analytics

- Revenues miss, AEBITDA impresses:** Comtech produced Q4 revenues of \$167.4 m (up 13.3% y/y), with Commercial solutions representing 55.7% of net sales and Government solutions representing the other 44.3% (versus just 27% two quarters ago and 39.2% in Q3). Adjusted EBITDA improved 5.7% y/y to \$30.7 million, toppling consensus by ~13% and marking Comtech's tenth consecutive quarter of better-than-expected EBITDA. This performance mirrored management's guidance of a seasonally-higher Q4, though net sales landed near the lower bound of management's FY18 guidance range.
- Gross margins slip:** Gross margins declined 330 bp y/y to 37.6%, reflecting an increased mix of lower-margin Government Solutions revenues. Management forecasts FY19 margins similar to the 39.2% seen in FY18, citing the ramp-up of HEIGHTS product sales, which are low-margin compared to other products.
- SG&A on a glide-path:** SG&A expenses rose ~5% during 4Q18 to \$167.4 mm, down 130 bp y/y and ending the year at 20% of net sales. Management expects SG&A expenses to increase on a dollar basis y/y, while remaining flat at 20% of sales.
- R&D investments maintained:** Fourth quarter R&D spending was essentially flat compared to the prior-year quarter, representing about 8.3% of revenues. Management sees recent R&D investments as having contributed heavily to recent contract awards, and as such is forecasting similar R&D levels on a percent-of-sales basis in FY19.
- Stock-based comp slightly higher:** Q4 stock-based compensation expense ticked up by ~2%, reflecting end-of-year bonuses paid to company employees and management. Total FY18 compensation expense was \$8.6 million. Management is guiding to stock-based compensation expense of \$10-12 million in FY19, reflecting expectations of stronger y/y performance.
- Tax reform boosts FY19 expectations:** Moving forward from FY18's effective tax rate of 27%, management has once again lowered their FY19 tax guidance to an expected 23.25%. Comtech has not yet experienced the full-year benefit of tax reform.
- Cash flows report strong:** Comtech reported operating cash flows of nearly \$20 million in Q4, with full year CFO of \$50.3 mm. The company has produced \$100 million in operating cash flows in the past two years, and management expects to generate ~\$50 mm in operating cash flows during the FY19.

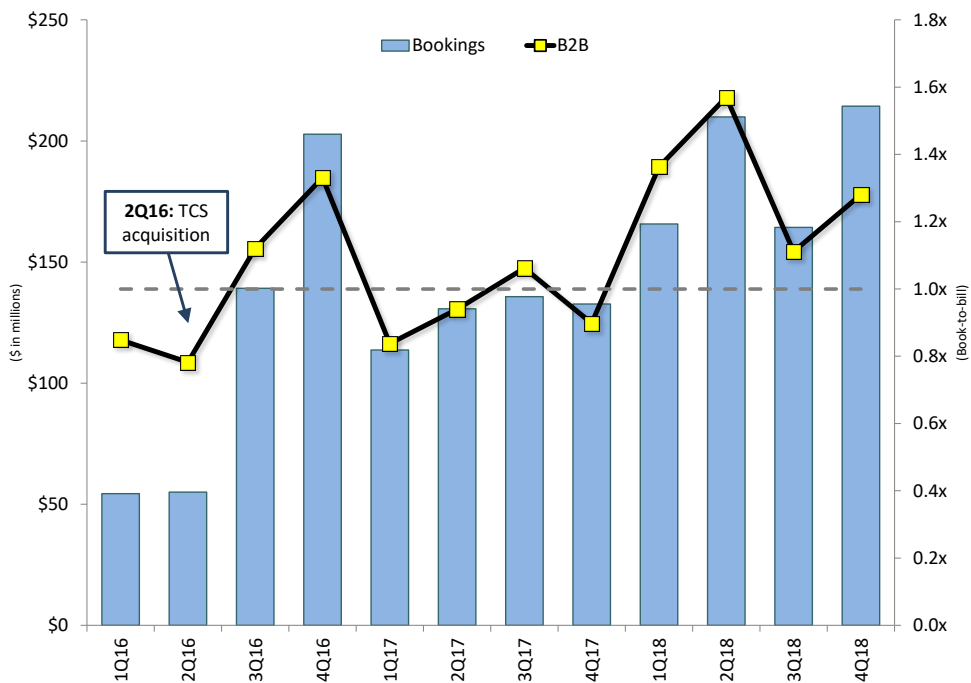
- Management gives FY19 guidance:** During the 4Q18 conference call, management issued its fresh FY19 guidance, setting topline growth expectations between 5%-9.5%. Management is also targeting AEBITDA to be similar as a percent of net sales to the 13.7% seen in FY18.

**Comtech FY18 Financial Guidance**

P&L	June '18	FY18 Actual	FY19
Total revenues	\$570-\$585	\$570.6	\$600-\$625
Adjusted EBITDA	\$73.5-\$76.5	\$78.4	\$80-\$86
GAAP EPS (Diluted)	\$1.17-\$1.23	\$1.24	\$0.89-\$1.10
Amort. of Intangibles	\$21	\$21.1	\$17.2
Depreciation Expense	Not given	\$13.7	\$13-\$14
Amort. of Stock-Based Compensation	“Higher by several million”	\$8.6	\$10-\$12
Interest Expense	5.4%	4.5%	6.0-6.4%
Effective Income Tax Rate	27.0%	27.0%	23.25%

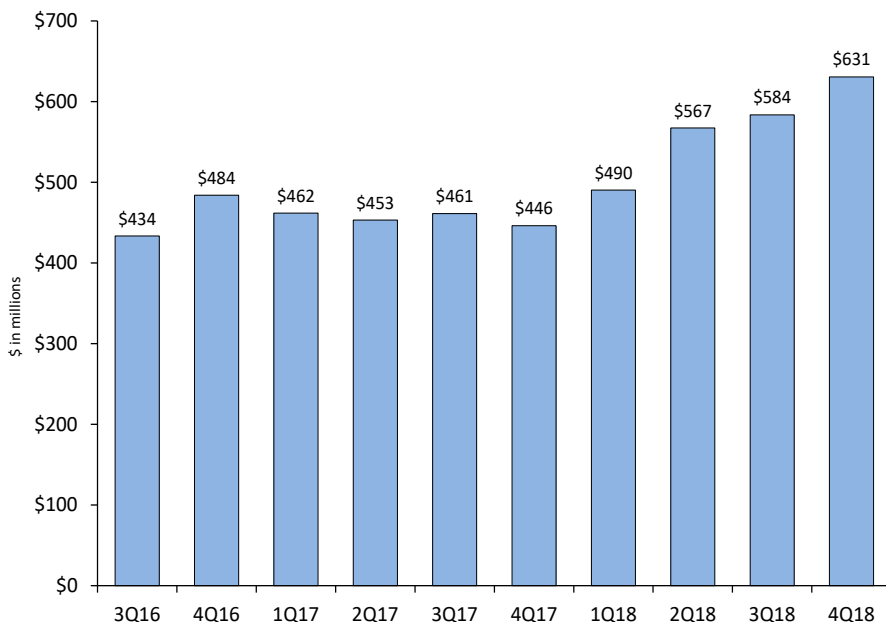
Source: Company reports and Quilty Analytics.

**Comtech Quarterly Bookings and B2B**



Source: Company Reports and Quilty Analytics.

**Comtech Quarterly Backlog**



Source: Company Reports and Quilty Analytics.

**Segment Results**

**COMMERCIAL SOLUTIONS SEGMENT**

**Commercial Solutions 4Q18 Operating Results**

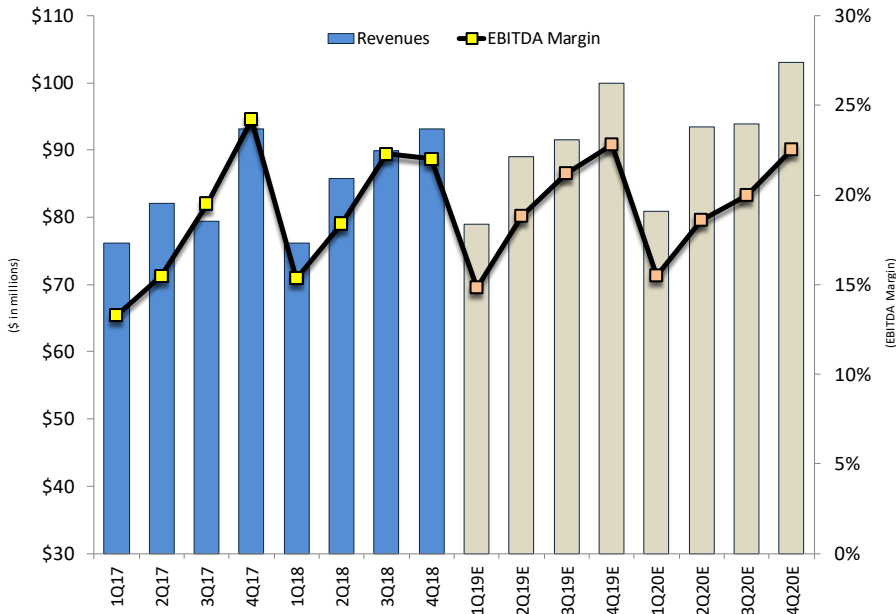
(\$ in millions)	4Q17	4Q18	Y/Y	QA. Est	+/-
Revenues	\$93.2	\$93.2	0.0%	\$102.2	-8.8%
EBITDA	22.6	20.5	-9.1%	22.7	-9.6%
EBITDA margin	24.2%	22.0%	(220) bp	22.2%	(20) bp

Source: Company Reports and Quilty Analytics

- Revenues flat.** Commercial Solutions revenues ended Q4 flat y/y at \$93.2 million, although orders increased nicely, resulting in a B2B of 1.15x. Sales of single-channel per carrier (SCPC) modems, solid state power amplifiers, and earth station products were comparatively higher both y/y and sequentially.
- EBITDA backslides.** Segment EBITDA declined by ~9% to \$20.5 mm compared to 4Q17, although full-year FY18 EBITDA increased ~12% y/y due to Comtech’s cost reduction efforts, higher overall revenues, and positive shifts in segment product mix.
- Earth stations push ahead:** 4Q18 marked the third consecutive quarter of sequential revenue growth for Comtech’s earth stations products, which include HEIGHTS, after years of struggling. Management expects order growth to extend into FY19, despite recent upheaval in international markets (tariffs and F/X). More specifically, the HEIGHTS product line is expected to see significant double-digit growth during ’19, as demand for MEO and LEO satellite systems accelerates.

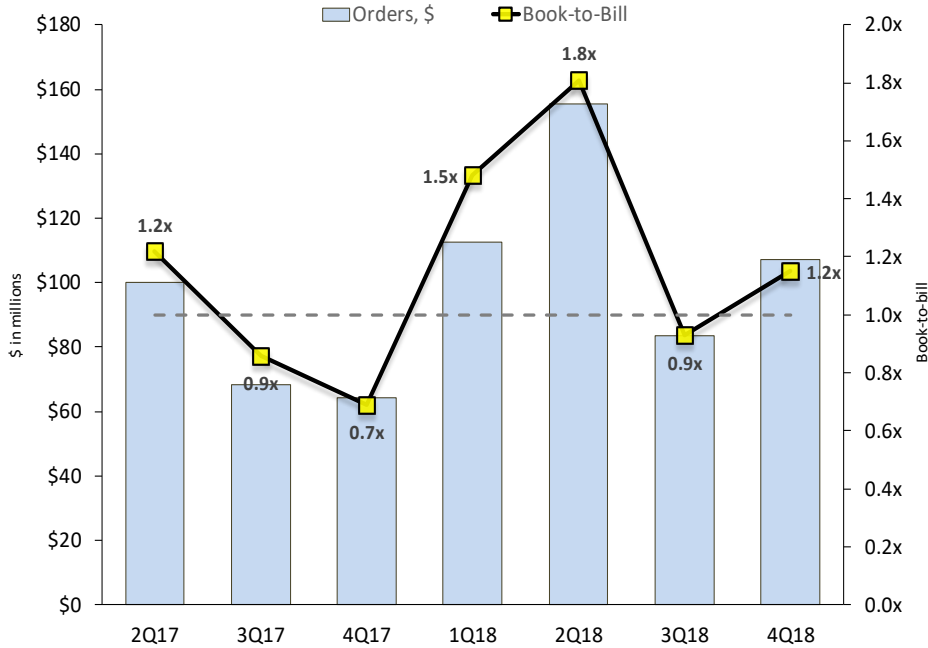
- **New military orders:** Comtech received anticipated orders from the US military in Q4, including a \$2.8 million delivery for ATIP terminal support as part of a pre-existing 10-year, \$19.1 mm contract. Comtech also received a Q4 delivery order worth \$3 million for SLM-5650B satellite modems under their existing \$59 mm contract with the US Navy. Follow-up orders are likely in FY19.
- **VirtuMedix moved to backburner.** During the fourth quarter, management decided to terminate new sales of their VirtuMedix doctor-patient communication [software](#), essentially placing the product line on life support while maintaining customer support services. Management indicated its pivot towards location and safety and security software as the prime catalyst for the decision.
- **V-Band award:** Comtech was awarded a ~\$20 million contract during Q4 for their cutting-edge V-Band power amplifier. The order, placed by a systems integrator, represents the first large-scale deployment of this advanced equipment.
- **Safety & Security amendment:** The Safety & Security product line closed a contract amendment during 4Q18 valued at \$3.3 million, with options totaling \$5.8 million to provide Comtech's ESInet next-gen 911 service to a state emergency system. Comtech's E-911/NG-911 services handle more than 4 million 911 calls and texts per month.
  - **Hurricane boost?** During the 4Q18 conference call, management indicated that they expected to generate "some incremental revenue" resulting from Hurricane Florence's impact to the Carolinas, also adding their NG-911 system "passed with flying colors" and "had absolutely no problems during the storm." We expect any Hurricane associated revenues to materialize in the first half of FY19.
- **Text messaging lives on:** Comtech received \$14.2 million of \$19.5 million in recent contract renewals in the fourth quarter associated with virtual SMS/text messaging solutions for wireless carriers. Management expects performance of their mobile location and messaging applications to remain steady in FY19.

**Commercial Solutions Quarterly Revenues/EBITDA Margin**



Source: Company Reports and Quilty Analytics

**Commercial Solutions Quarterly Book-to-Bill**



Source: Company Reports and Quilty Analytics

## GOVERNMENT SOLUTIONS SEGMENT

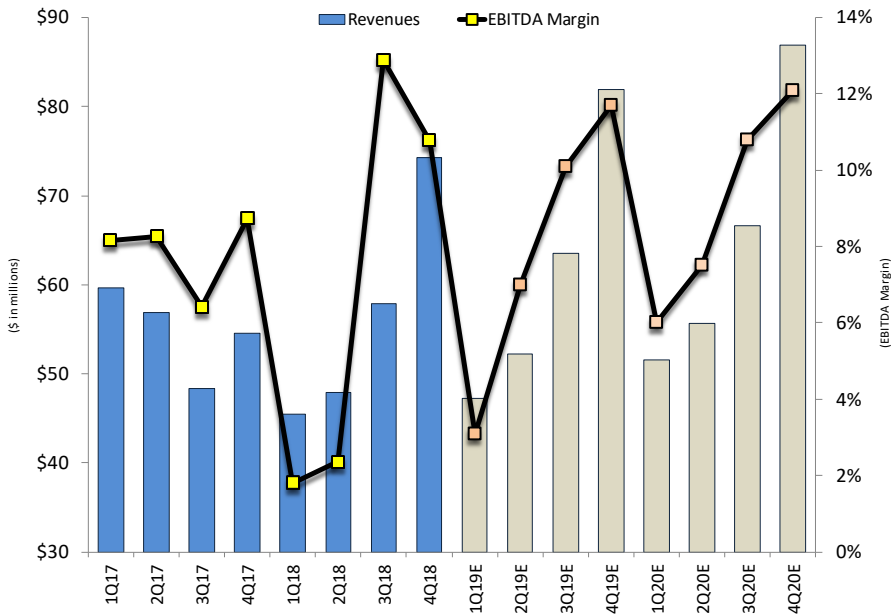
### Government Solutions 4Q18 Operating Results

(\$ in millions)	4Q17	4Q18	Y/Y	QA. Est	+/-
Revenues	\$54.6	\$74.2	36.0%	\$68.3	8.6%
EBITDA	4.8	8.0	67.7%	8.5	-6.4%
EBITDA margin	8.7%	10.8%	200 bp	12.5%	(170) bp

Source: Company Reports and Quilty Analytics

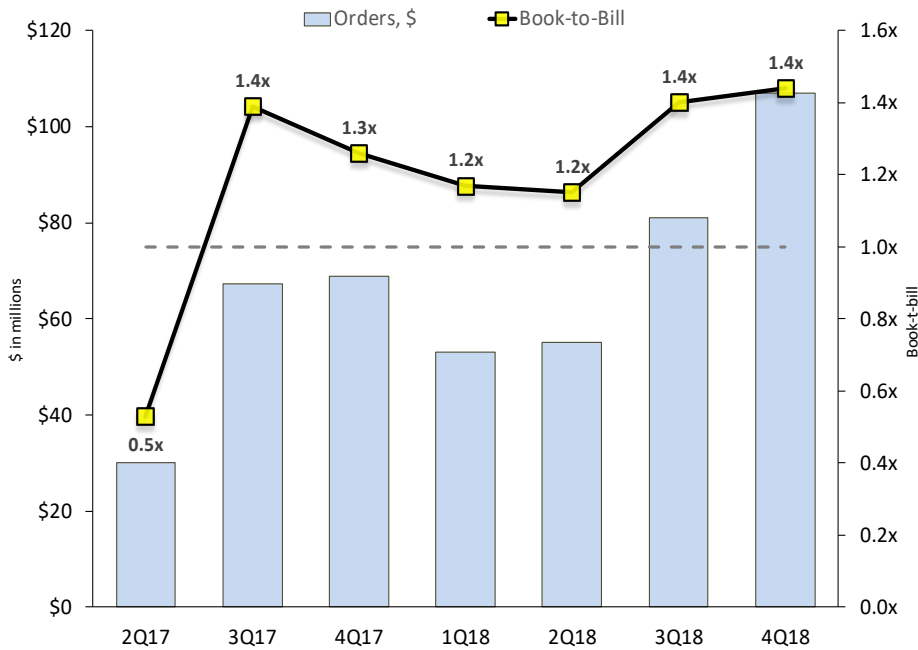
- Revenues maintain ascent:** Fourth quarter Government revenues inclined by 36% to \$74.2 mm, following 20% growth in Q3. Both DoD and international defense sales contributed to Q4 growth. This was just the second quarter of segment topline growth following an eight quarter-long trough as demand for troposcatter equipment has rebounded.
- Double-digit EBITDA margins:** Government Solutions EBITDA leapt 68% higher to \$8 mm, thanks to a double-digit revenue increase and favorable product mix. Over the whole of FY18, Govt. segment EBITDA declined by just under 1% y/y, primarily due to lower over-the-horizon microwave product sales and a tough comparison to the \$6.7 mm boost from BFT-1 licensing fees incurred in FY17.
- Bookings hit a high note:** Govt. bookings in Q4 reached a two year-high of ~\$107 mm, with virtually all product lines contributing to growth. Quarterly B2B was 1.44x, marking six consecutive quarters above 1.0x for the Govt. Segment. Segment backlog also achieved a record high not seen since Comtech's acquisition of TCS in February of 2016.
- Aussies make an MTTs purchase:** Comtech recorded an initial order in 4Q18 to provide troposcatter terminals to a US prime defense contractor, which intends to equip the Australian military as the end-user. The Government Segment also received a first-time, sole-source \$9.1 million order for troposcatter equipment from the Iraqi Navy.
- A SNAP to attention:** The fourth quarter also generated \$16.6 mm in orders to sustain the US Army's SNAP terminal program, which provides ground troops with mobile SATCOM capability. Comtech expects to complete these deliveries over a multi-year period.
- BFT-2 solidifying presence:** After originally delivering more than 100,000 BFT-1 satellite transceivers to the US Military, Comtech has finally completed their initial shipments of BFT-2 transceivers during 4Q18. This comes after initially losing the BFT-2 contract award to **ViaSat** in 2010, stalling their product line's forward momentum almost entirely. Management expects their nascent BFT-2 opportunity to be similar in scale to the original program, with additional hardware shipments eyed during the course of FY19.
  - Comtech is currently in R&D mode on the US Army's next-generation "BFT-3" terminal, although the final outcome of this program remains well in the distance.

**Government Solutions Quarterly Revenues/EBITDA Margin**



Source: Company Reports and Quilty Analytics.

**Government Solutions Quarterly Book-to-Bill**

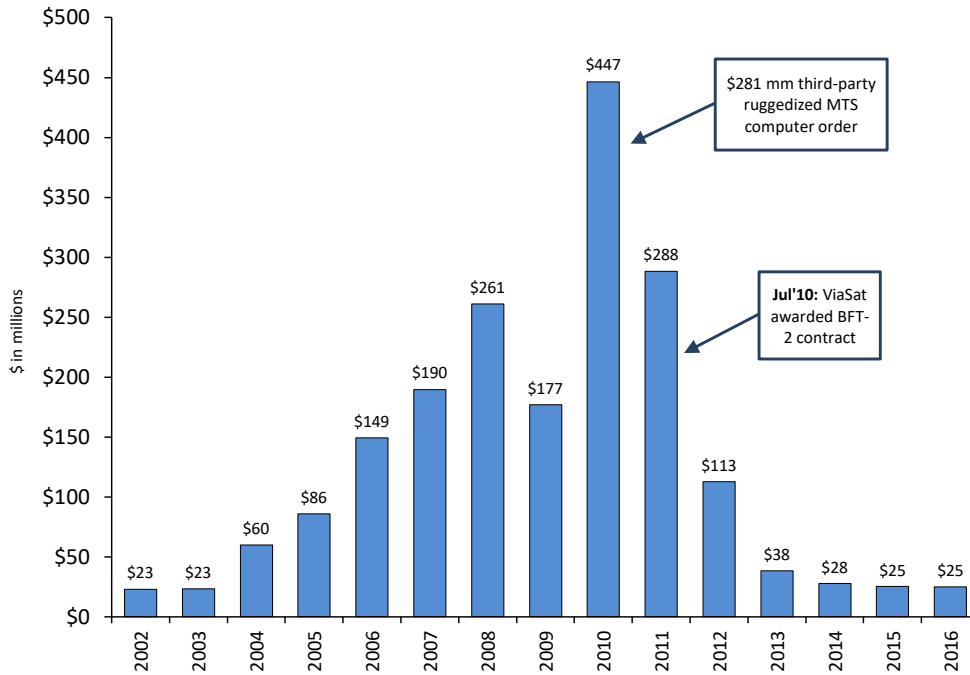


Source: Company Reports and Quilty Analytics



**Historical “Mobile Data” Segment Revenues**

(Note – Includes MTS, BFT, and some ancillary revenues)



Source: Company Reports and Quilty Analytics

**Outlook and Estimates**

In the wake of management’s freshly-minted 2019 guidance, we are raising our FY19 revenue forecast by 6%, to the bottom end of management’s range of \$600-\$625 million. Given the current trend over the past few quarters, we expect Government EBITDA margins to rise as sales in that segment contribute to a higher portion of overall sales mix. We also expect FY19 EBITDA to fall towards the upper-end of management’s stated range of \$80-\$86 mm, a 5.4% increase over FY18.

**Quilty Analytics FY19 Modeling Adjustments**

Revenues	Old	New	% Change	Comments
Commercial	\$345	\$365	5.7%	Reflects rising HEIGHTS, NG-911 sales
Government	\$226	\$241	7.0%	Mgmt forecasting “significant increase”
Total	\$571	\$606	6.2%	Government sales growing % of mix
EBITDA	Old	New	% Change	
Commercial	\$68	\$76	12.1%	Higher earth station sales. HEIGHTS margins up
Government	\$17	\$22	26.5%	Strong domestic & international sales
Other	(\$7)	(\$14)	97.2%	-
Total	\$78	\$84	7.6%	
EBITDA Margin	Old	New	% Change	
Commercial	19.7%	20.9%	120 bp	Higher overall revenues
Government	7.7%	9.1%	140 bp	Stretch goal of 10%
Total	13.7%	13.9%	20 bp	Margins still roughly flat with FY18

Source: Quilty Analytics

Looking ahead to FY20, we are initiating a forecast that reflects topline growth of 4.6%, EBITDA growth of 6.0% and operating cash flow of \$69 million. We expect the Government segment to once again be the primary growth driver, aided by a favorable DoD budget backdrop and the potential for significant upside in troposcatter and BFT-2 shipments. The commercial segment should also benefit from DoD orders (ATIP and SLM5650B satellite modems) and continued double-digit growth of the HEIGHTS product line.

### Quilty Analytics 2020 Modeling Assumptions

Revenues	FY19	FY20	% Change	Comments
Commercial	\$359	\$371	3.3%	Slight slowdown as backlog is cleared
Government	\$245	\$261	6.4%	BFT-2, troposcatter orders keep growth positive
Total	\$604	\$632	4.6%	
EBITDA	FY19	FY20	% Change	
Commercial	\$71	\$72	1.8%	Lumpiness of sales results in slight pullback
Government	\$21	\$25	18.3%	Low-margin products see higher sales mix
Other	(\$9)	(\$9)	1.1%	-
Total	\$83	\$88	6.0%	
EBITDA Margin	FY19	FY20	% Change	
Commercial	19.6%	19.4%	(20) bp	Assumes no improvement in HEIGHTS margins
Government	8.6%	9.6%	100 bp	Approaching target of 10%
Total	13.7%	13.9%	20 bp	

Source: Quilty Analytics

## Stock Performance and Valuation

Shares of CMTL sold off by more 8% during the month of September, leading up to the company's Q4 earnings report. The stock then rallied 11% just prior to the call, followed by a rollercoaster roundtrip (down 10%, up 11%) post-call.

What gives? Normally, we'd be inclined to blame short sellers, but given the stock's low short interest (~2% of float), the stock's erratic trading pattern is a bit of a head-scratcher to us. The stock's initial post-quarter sell-off was likely a reaction to soft revenues, but when considering the company's better-than-expected EBITDA, bookings, backlog and guidance, the stock's recovery above the \$35-level seems about right to us.

That said, the stock's current price of \$36.27 reflects a valuation multiple of 12x our FY19 EBITDA estimate, or a 69% premium to the stock's 5-year historical average of 7.1x. While potentially alarming at first glance, this valuation premium fairly reflects several transformative events in the past three years, including:

1. The TCS acquisition, which added a service component (i.e., recurring revenues) to Comtech's model while also decreasing customer/program concentration.
2. Return-to-growth in key programs, including earth stations, troposcatter, and BFT
3. Improved cash flow outlook, driven by topline growth and margin expansion
4. A more favorable DoD spending environment

Of course, valuation multiples primarily reflect forward-looking expectations, and Comtech's bullish indicators currently outweigh the bearish caution signals:

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**Bullish**

- **Wireless windfall:** Comtech's E-911, navigation and text messaging services continue to show strong performance, with strong potential for large-contract upside.
- **BFT on the march:** After seven years in the wilderness, Comtech has reclaimed pole position on the BFT program, which could equate into a multi-hundred-million-dollar opportunity over the next several years.
- **Tropo whales on the horizon?** Comtech is a heavy favorite to win the DoD's AN Track 170 terminal replacement contract which is valued at hundreds of millions over several years. In addition, international sales are picking up with new orders from Australia and Iraq.
- **HEIGHTS reaching new heights.** Overall earth station sales have turned positive over the last several quarters, led by the new HEIGHTS platform. Margins should improve as volumes ramp and new LEO constellations could provide a further boost.
- **DoD writing big checks again:** With DoD budgets flush once again, Comtech's B2B has exceeded 1.0x for six straight quarters, with multiple large orders still in the offing.

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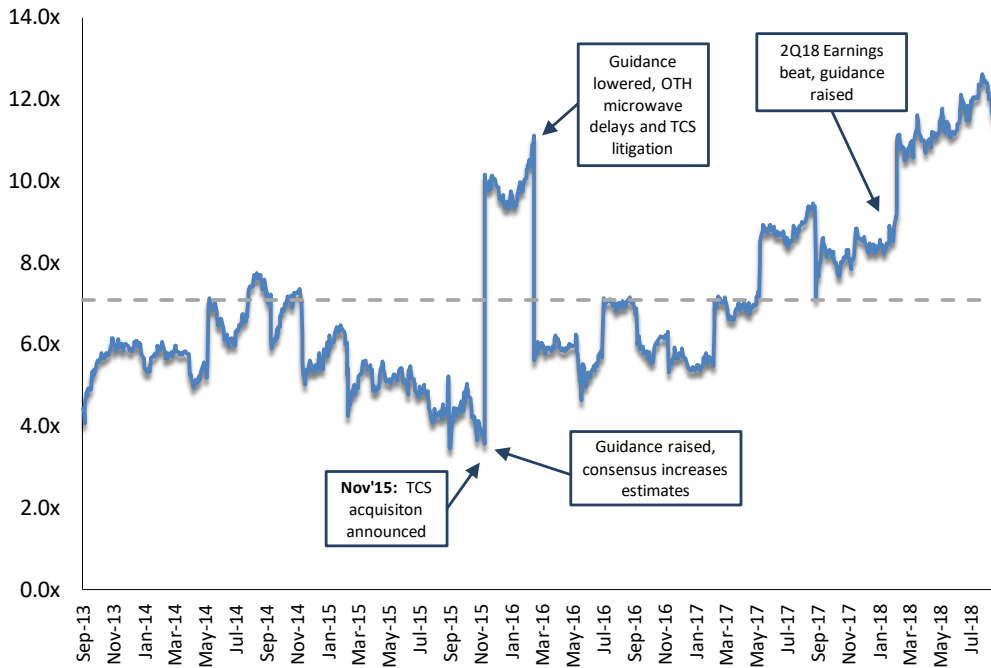
**Bearish**

- **Government contract volatility:** Comtech's FY18 decision to abandon low-margin commodity services in favor of higher value contracts could expose the company to greater profit volatility if it fails to win (or maintain) its existing contract vehicles.
- **Tropo margin drag?** Historically, large troposcatter programs have delivered below average margins during the first 12-18 months of implementation, with the bulk of profits recognized at the back end of the contract.
- **Tariff tantrum:** While satellite products are not, to our knowledge, directly implicated by the Trump administration's tariff tirade, Comtech could nonetheless see slumping demand if international markets (~25% of total Comtech revenues) are harmed by the impact of tariffs.
- **Crying wolf on guidance?** Comtech was unable to meet management's midpoint revenue guidance for FY18, despite strong previous for a Q4 blockbuster. Investors will be increasingly puzzled if FY19 doesn't stay on target given a record-high backlog.

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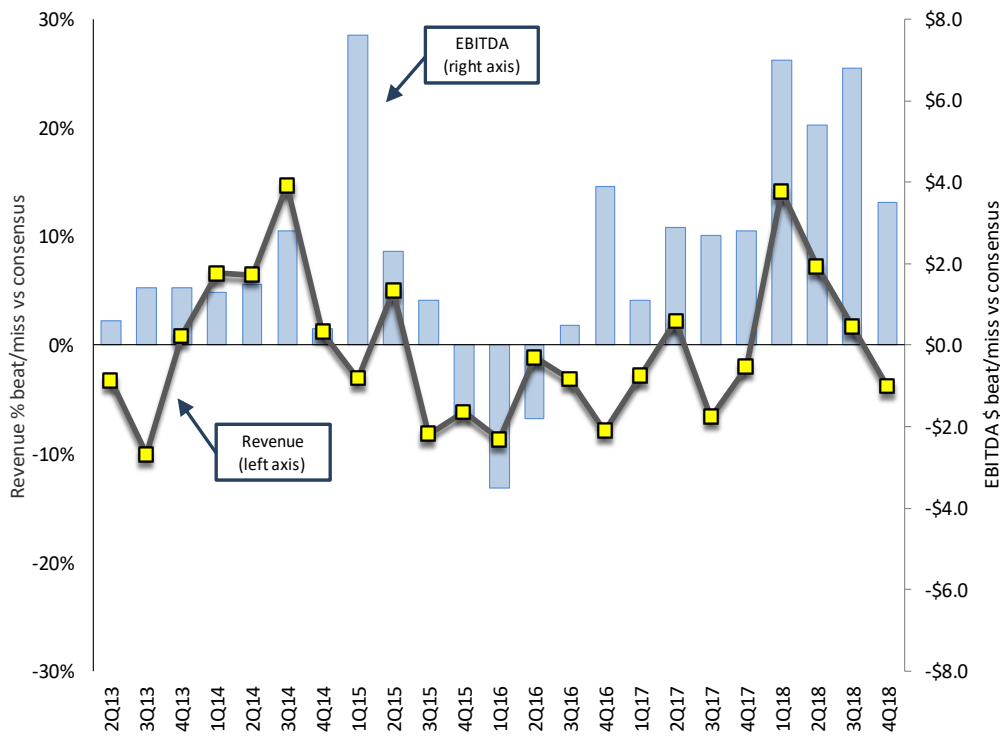
Source: Quilty Analytics

**Comtech EV/EBITDA (Next 12-Months)**



Source: Sentio and Quilty Analytics

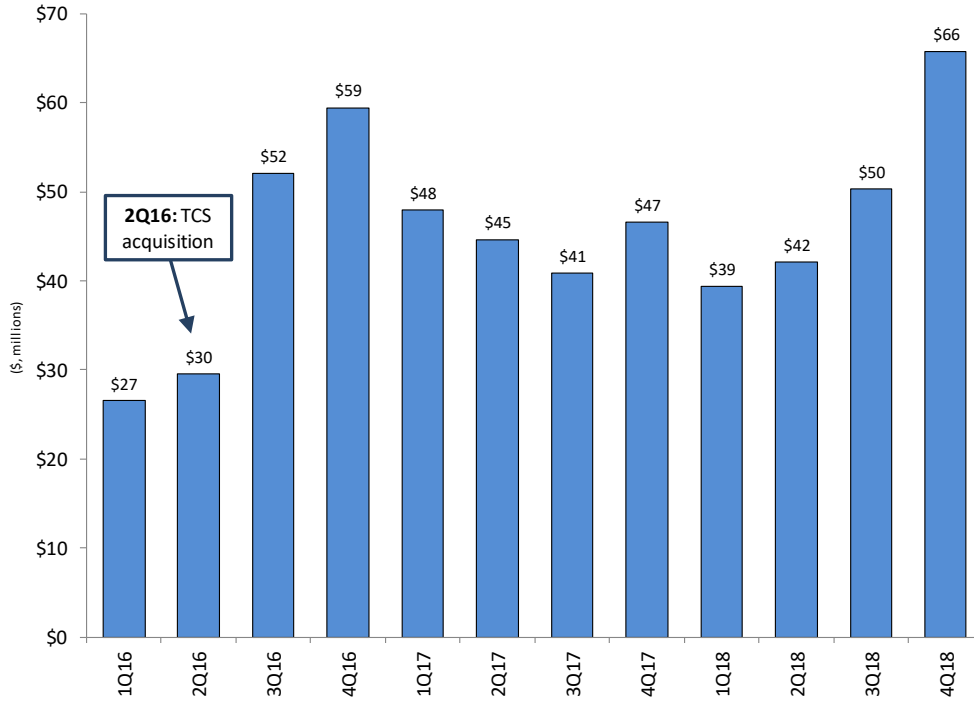
**Comtech Quarterly Revenue/EBITDA vs. Consensus**



Source: Sentio and Quilty Analytics

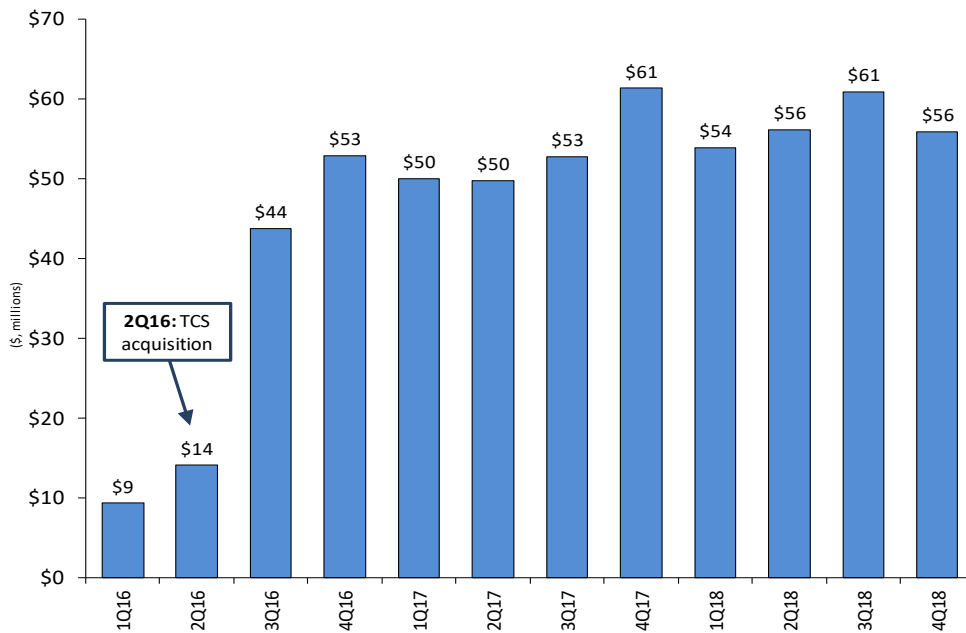
## Charts & Tables

### Total US Government Revenues



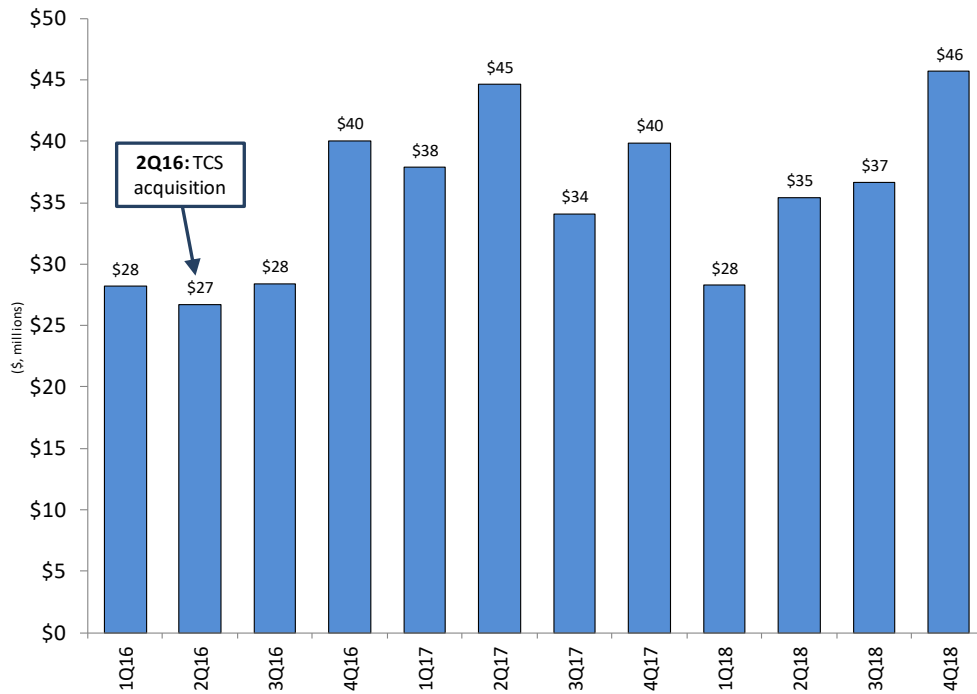
Source: Company Reports and Quilty Analytics

### Total US Commercial Revenues



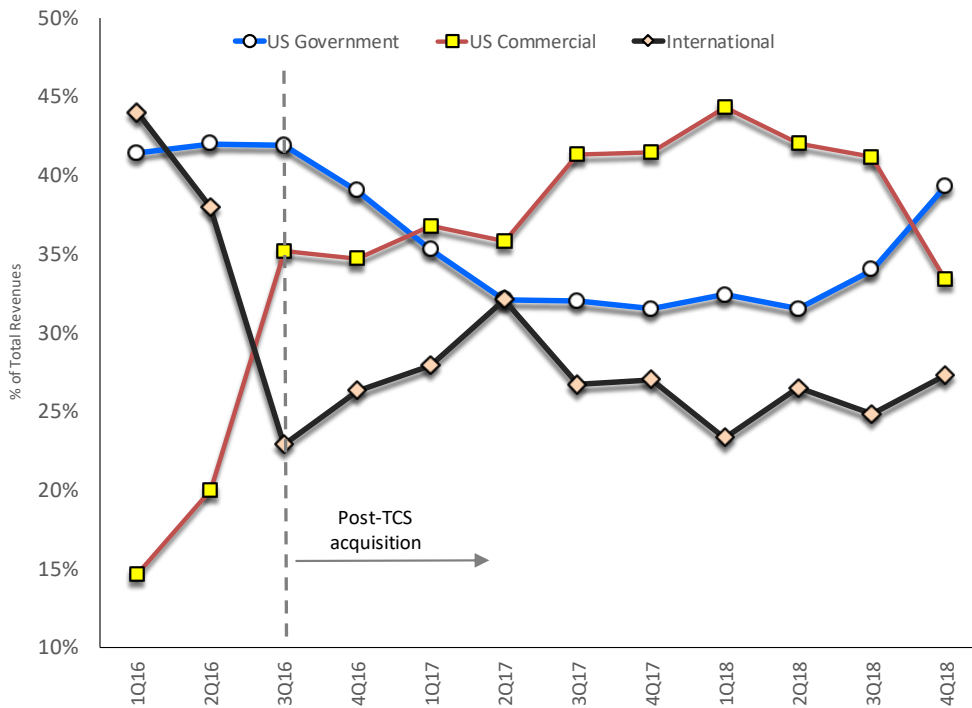
Source: Company Reports and Quilty Analytics

**Total International Commercial Revenues**



Source: Company Reports and Quilty Analytics

**Quarterly Geographic Sales Mix (% of Total)**



Source: Company Reports and Quilty Analytics

**10-K (ANNUAL REPORT) NOTABLE CHANGES**

Descriptive language	Previous	New
Employees	1,813	1,852
Maximum leverage ratio	3.75x	3.00x
Enterprise & Trusted Location Technologies	Trusted Location™, Look4™, Indoor Location, text messaging platforms, and VirtuMedix®.	<b>Removed:</b> VirtuMedix.
Sales and Marketing		<b>Removed:</b> Indirect sales relationships include AT&T, CenturyLink and Nokia Corporation
Sales by geography and customer type	Sales to US Government customers include the US Department of Defense ("DoD"), intelligence and civil agencies, as well as directly or through prime contractors.	<b>Removed:</b> ...[civil agencies] such as Homeland Security and the General Services Administration
Commercial Solutions competitors	<b>Added:</b> Here Technologies, Honeywell Aerospace, Infinite Convergent Solutions, Tom Tom NV	<b>Removed:</b> Airbus DS Communications, Com Dev, Converse Technology, Mavenir Systems
Government Solutions competitors	<b>Added:</b> DXC Technology, L3 Technologies, Northrop, Orbital ATK, Raytheon, Teledyne Technologies	<b>Removed:</b> Computer Sciences, E2V Technologies

Source: Company Reports and Quilty Analytics

**New 10-K Disclosures**

- **Specifix:** Our Specifix™ application is an advanced data rights platform that allows operators to manage and monetize their location data, while securing user privacy and complying with consumer privacy laws.
- **Acquisitions:** In order to position ourselves to take advantage of additional growth opportunities and meet our strategic objectives, we have followed and will continue to follow a disciplined approach in identifying, executing and capitalizing on acquisitions.

**Additions to Risk Factors**

- **Export compliance audit risks.:** In May 2018, we were informed by the Office of Export Enforcement ("OEE") of the Department of Commerce ("DoC") that it was forwarding to the DoC's Office of Chief Counsel, the results of its audit of international shipments by Comtech Xicom Technology, Inc. for further review and possible determination of an administrative penalty. We fully cooperated with the OEE in their audit and, based on our self-assessment of the approximately 7,800 individual transactions audited, have determined that six (6) transactions may not have been fully in compliance with the EAR.
- **Component supply risk:** During fiscal 2018, and as a result of overall increased industry-wide demand, lead times for many components have increased. In addition, threats of or actual tariffs could limit our ability to obtain certain parts on a cost-effective basis, or at all.
- **Regulation of the mobile industry:** Added a disclosure statement on the European General Data Protection Regulation ("GDPR").
- **Competitive risks:** Recently, we have seen increased requests for proposals from large wireless carriers for sole-source solutions and have responded to several such requests including those from AT&T and Verizon. In order to induce retention of existing customer contracts and obtain business on a sole-source basis, we may ultimately agree to adjust pricing on a retroactive basis. If our sole-source proposals are rejected in favor of a competitor's proposal, it could result in the termination of existing contracts, which could have a material adverse effect on our business, results of operations and financial condition.

**Comtech Telecommunications**  
Quarterly Income Model (FY = Jul)

(\$ in millions)						Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	
	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Commercial Solutions	\$76.11	\$85.82	\$89.94	\$93.20	\$345.08	\$78.93	\$89.00	\$91.55	\$100.01	\$359.49	\$80.90	\$93.45	\$93.84	\$103.01	\$371.20
Government Solutions	45.46	47.91	57.92	74.23	225.51	47.27	52.22	63.48	81.95	244.92	51.53	55.67	66.65	86.87	260.72
Net Sales	121.57	133.73	147.85	167.44	570.59	126.20	141.22	155.03	181.96	604.41	132.43	149.11	160.50	189.88	631.92
Cost of Sales	73.85	82.93	85.42	104.45	346.65	80.82	86.02	92.01	109.97	368.81	82.69	91.30	97.32	116.20	387.52
Gross Profit	47.72	50.80	62.44	62.99	223.94	45.39	55.20	63.02	71.99	235.60	49.74	57.81	63.18	73.68	244.40
SG&A	28.48	27.22	30.41	27.82	113.92	27.13	29.37	31.78	32.75	121.04	28.61	30.57	32.10	33.61	124.88
R&D	13.75	13.44	12.78	13.91	53.87	13.25	13.84	14.57	15.47	57.13	14.17	14.31	14.61	16.14	59.23
Amortiz of Intangibles	5.27	5.27	5.27	5.27	21.08	4.30	4.30	4.30	4.30	17.20	4.30	4.30	4.30	4.30	17.20
Non-core items	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Operating Income	0.22	4.88	13.98	15.99	35.08	0.70	7.69	12.37	19.47	40.23	2.66	8.63	12.17	19.63	43.09
Interest Expense	2.59	2.52	2.50	2.59	10.20	2.56	2.51	2.53	2.60	10.21	2.56	2.53	2.54	2.61	10.23
Interest (Income)	0.04	(0.05)	0.20	0.07	0.25	(0.03)	(0.04)	(0.04)	(0.05)	(0.16)	(0.05)	(0.06)	(0.07)	(0.08)	(0.26)
Pretax Income	(2.40)	2.41	11.28	13.34	24.63	(1.83)	5.21	9.88	16.92	30.19	0.15	6.16	9.71	17.10	33.11
Income Taxes	(0.75)	(13.35)	3.07	5.88	(5.14)	(0.42)	1.21	2.30	3.93	7.02	0.04	1.43	2.26	3.98	7.70
Net Income	(1.66)	15.76	8.21	7.46	29.77	(1.40)	4.00	7.58	12.99	23.17	0.12	4.73	7.45	13.12	25.41
Basic EPS	(\$0.07)	\$0.66	\$0.34	\$0.31	\$1.24	(\$0.06)	\$0.17	\$0.32	\$0.54	\$0.97	\$0.00	\$0.19	\$0.31	\$0.54	\$1.04
Diluted EPS	(\$0.07)	\$0.66	\$0.34	\$0.31	\$1.24	(\$0.06)	\$0.16	\$0.31	\$0.53	\$0.94	\$0.00	\$0.19	\$0.30	\$0.52	\$1.01
Wtd Ave Shares	23.80	23.82	23.83	23.86	23.83	23.88	23.93	24.04	24.13	23.99	24.22	24.27	24.38	24.47	24.34
Fully Diluted Shares	23.80	23.95	24.05	24.27	24.02	23.88	24.39	24.54	24.70	24.38	24.81	24.89	25.04	25.20	24.99
One-time items	\$0.00	\$0.59	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Non-GAAP EPS	(\$0.07)	\$0.07	\$0.34	\$0.31	\$0.65	(\$0.06)	\$0.16	\$0.31	\$0.53	\$0.94	\$0.00	\$0.19	\$0.30	\$0.52	\$1.01

Margin Analysis	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Gross Margin	39.3%	38.0%	42.2%	37.6%	39.2%	36.0%	39.1%	40.7%	39.6%	39.0%	37.6%	38.8%	39.4%	38.8%	38.7%
SG&A	23.4%	20.4%	20.6%	16.6%	20.0%	21.5%	20.8%	20.5%	18.0%	20.0%	21.6%	20.5%	20.0%	17.7%	19.8%
R&D	11.3%	10.0%	8.6%	8.3%	9.4%	10.5%	9.8%	9.4%	8.5%	9.5%	10.7%	9.6%	9.1%	8.5%	9.4%
Oper. Expenses	4.3%	3.9%	3.6%	3.1%	3.7%	3.4%	3.0%	2.8%	2.4%	2.8%	3.2%	2.9%	2.7%	2.3%	2.7%
Oper. Profit	0.2%	3.7%	9.5%	9.6%	6.1%	0.6%	5.4%	8.0%	10.7%	6.7%	2.0%	5.8%	7.6%	10.3%	6.8%
Pretax Income	-2.0%	1.8%	7.6%	8.0%	4.3%	-1.4%	3.7%	6.4%	9.3%	5.0%	0.1%	4.1%	6.0%	9.0%	5.2%
Tax Rate	31.0%	-55.4%	27.2%	44.1%	-20.9%	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%
Net Profit Margin	-1.4%	11.8%	5.6%	4.5%	5.2%	-1.1%	2.8%	4.9%	7.1%	3.8%	0.1%	3.2%	4.6%	6.9%	4.0%
	7.9%	10.9%	15.9%	18.3%	13.7%	7.6%	12.0%	14.2%	18.7%	13.7%	9.2%	12.2%	13.9%	18.5%	13.9%

YOY Growth	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Net Sales	-10.5%	-3.8%	15.7%	13.3%	3.7%	3.8%	5.6%	4.9%	8.7%	5.9%	4.9%	5.6%	3.5%	4.4%	4.6%
SG&A	-12.9%	-12.2%	17.3%	5.1%	-1.9%	-4.7%	7.9%	4.5%	17.7%	6.2%	5.4%	4.1%	1.0%	2.6%	3.2%
R&D	-2.5%	0.9%	-1.4%	0.1%	-0.7%	-3.6%	3.0%	14.0%	11.2%	6.1%	6.9%	3.4%	0.2%	4.4%	3.7%
Oper. Expenses	-9.7%	-8.2%	11.1%	3.4%	-1.5%	-4.4%	6.3%	7.3%	15.6%	6.2%	5.9%	3.9%	0.8%	3.2%	3.3%
Oper. Profit	-130.5%	-62.0%	37.7%	8.3%	-5.3%	216.2%	57.5%	-11.5%	21.8%	14.7%	279.1%	12.2%	-1.6%	0.8%	7.1%
Pretax Income	-40.6%	-76.1%	54.5%	9.7%	-3.4%	-24.1%	116.1%	-12.4%	26.9%	22.6%	-108.3%	18.1%	-1.8%	1.1%	9.7%
Net Income	-33.3%	139.3%	85.9%	2.0%	88.1%	-15.6%	-74.6%	-7.6%	74.1%	-22.2%	-108.3%	18.1%	-1.8%	1.1%	9.7%
EPS	-36.4%	135.7%	78.9%	0.0%	85.1%	-14.3%	-75.8%	-8.8%	71.0%	-24.2%	-100.0%	18.8%	-3.2%	-1.9%	7.4%
Non-GAAP EPS	-36.4%	-75.0%	78.9%	0.0%	-3.0%	-14.3%	128.6%	-8.8%	71.0%	44.6%	-100.0%	18.8%	-3.2%	-1.9%	7.4%
AEBITDA	-4.6%	7.9%	30.0%	5.7%	10.8%	0.7%	16.1%	-6.4%	11.0%	5.4%	25.8%	7.5%	1.1%	2.9%	6.0%

CFO	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
CAPX	1.11	1.73	2.46	3.34	8.64	2.20	2.70	2.90	3.30	11.10	2.60	3.00	3.40	3.30	12.30
Free Cash	5.38	0.96	18.98	16.39	41.70	7.12	10.23	17.73	5.72	40.80	9.52	17.72	16.14	13.02	56.40

EBITDA	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
Net Income	(1.66)	15.76	8.21	7.46	29.77	(1.40)	4.00	7.58	12.99	23.17	0.12	4.73	7.45	13.12	25.41
(+) Interest expense	2.59	2.52	2.50	2.59	10.20	2.56	2.51	2.53	2.60	10.21	2.56	2.53	2.54	2.61	10.23
(+) Income taxes	(0.75)	(13.35)	3.07	5.88	(5.14)	(0.42)	1.21	2.30	3.93	7.02	0.04	1.43	2.26	3.98	7.70
(+) D&A	8.62	8.59	8.44	9.09	34.73	7.65	7.70	7.75	7.82	30.92	7.87	7.93	8.00	8.06	31.86
(+) Equity Comp.	0.75	1.08	1.10	5.64	8.57	1.30	1.50	1.90	6.80	11.50	1.60	1.60	2.10	7.40	12.70
(-) Interest Income	(0.04)	0.05	(0.20)	(0.07)	(0.25)	0.03	0.04	0.04	0.05	0.16	0.05	0.06	0.07	0.08	0.26
(=) EBITDA	9.58	14.55	23.52	30.72	78.37	9.65	16.89	22.02	34.09	82.65	12.13	18.16	22.27	35.09	87.64
EBITDA Margin	7.9%	10.9%	15.9%	18.3%	13.7%	7.6%	12.0%	14.2%	18.7%	13.7%	9.2%	12.2%	13.9%	18.5%	13.9%

Adj. EBITDA	1Q18	2Q18	3Q18	4Q18	FY18	1Q19	2Q19	3Q19	4Q19	FY19	1Q20	2Q20	3Q20	4Q20	FY20
EBITDA	9.58	14.55	23.52	30.72	78.37	9.65	16.89	22.02	34.09	82.65	12.13	18.16	22.27	35.09	87.64
(+) non-core items	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(=) Adj. EBITDA	9.58	14.55	23.52	30.72	78.37	9.65	16.89	22.02	34.09	82.65	12.13	18.16	22.27	35.09	87.64



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