

PTC Inc. (PTC)	Long Term: 6-12 Months	Zacks Recommendation:	Outperform
\$83.43 (As of 01/29/20)		(Since: 01/28/20) Prior Recommendation: Neutra	I
Price Target (6-12 Months): \$96.00	Short Term: 1-3 Months	Zacks Rank: (1-5) Zacks Style Scores: Value: F Growth: B	1-Strong Buy VGM:C Momentum: C

Summary

PTC's fiscal first-quarter earnings benefited from improvement in AR and IoT bookings. Synergies from Onshape acquisition aided growth. Particularly, robust adoption of the latest Vuforia Expert Capture solution holds promise. New deal wins on the back of strategic alliances with Rockwell Automation and Microsoft bode well. Solid demand for precision in design, complex prototyping and digitalization of construction remains a key catalyst. This is expected to aid the demand for 3D-CAD offerings in the automotive, aerospace, manufacturing, healthcare and defense verticals, which is a positive for PTC. However, rising spend on enhancing product portfolio by means of acquisitions and other initiatives is anticipated to limit margin expansion at least in the near term.

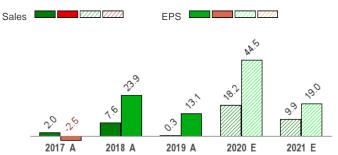
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$102.47 - \$62.05
20 Day Average Volume (sh)	838,931
Market Cap	\$9.6 B
YTD Price Change	11.4%
Beta	1.14
Dividend / Div Yld	\$0.00 / 0.0%
Industry	Computer - Software
Zacks Industry Rank	Top 21% (53 out of 255)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	26.7%
Last Sales Surprise	3.0%
EPS F1 Est- 4 week change	17.8%
Expected Report Date	04/22/2020
Earnings ESP	0.0%

Earnings ESP	0.0%
P/E TTM	42.8
P/E F1	35.2
PEG F1	NA
P/S TTM	7.3

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	405 E	399 E	411 E	453 E	1,631 E
2020	356 A	353 E	366 E	406 E	1,484 E
2019	335 A	316 A	323 A	335 A	1,256 A

EPS Estimates

Q1	Q2	Q3	Q4	Annual*
\$0.71 E	\$0.66 E	\$0.69 E	\$0.91 E	\$2.82 E
\$0.57 A	\$0.50 E	\$0.52 E	\$0.79 E	\$2.37 E
\$0.56 A	\$0.38 A	\$0.36 A	\$0.64 A	\$1.64 A
	\$0.71 E \$0.57 A	\$0.71 E \$0.66 E \$0.57 A \$0.50 E	\$0.71 E \$0.66 E \$0.69 E \$0.57 A \$0.50 E \$0.52 E	\$0.71 E \$0.66 E \$0.69 E \$0.91 E \$0.57 A \$0.50 E \$0.52 E \$0.79 E

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 01/29/2020. The reports text is as of 01/30/2020.

Overview

Boston, MA-based PTC Inc. provides software solutions and services globally, that aid manufacturing companies to design, operate, and manage products. Founded in 1985, the company was formerly known as Parametric Technology Corporation and changed its name to PTC Inc. in January 2013.

The company offers comprehensive portfolio of software solutions comprising computer-aided design (CAD) modeling, product lifecycle management (PLM), data orchestration (IIoT), and experience creation (AR) products.

Creo is the company's flagship 3D CAD product. Creo offers design engineers with design flexibility, assembly design, surfacing, and virtual prototyping design capabilities.

PTC's primary PLM product, Windchill software offers a unified repository for comprehensive product information. Windchill also includes AR capabilities, to aid customers develop a digital product definition and publish the illustration of the product in AR.

Meanwhile, ThingWorx product helps customers to develop and deploy IoT applications; manage connected devices; and analyze complex industrial IoT data, in a cost- and time-efficient manner.

Vuforia Studio product aids industrial enterprises to publish AR experiences superimpose vital digital information from CAD, IoT, and other related sources onto the view of the material things on which users

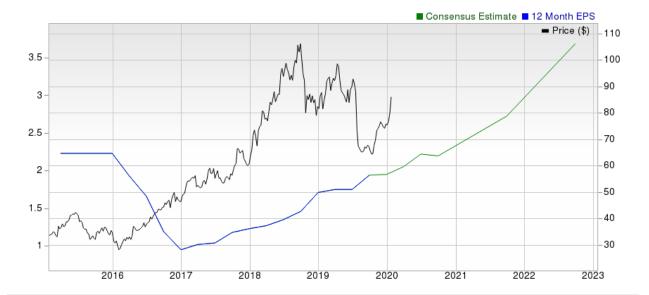
PTC has two operating and reportable segments: Software Products (44.6% of fiscal 2019 revenues), which includes subscription, license and associated support revenues; and Professional Services (55.4%), which includes implementation, consulting and training services.

In fiscal 2019, revenues improved 5.6% in reported basis to \$1.311 billion as per ASC 605. Under ASC 606, the company reported revenues of \$1.256 billion.

Per ASC 606, the company generated 43% of revenues from Americas, while the balance 57% came from foreign operations in fiscal 2019.







Zacks Equity Research: PTC Page 2 of 9

Reasons To Buy:

- ▲ PTC is well poised to gain from strength in product portfolio. The company's solutions aid industrial enterprises to enhance operational efficiency, accelerate product and service innovation, and boost workforce productivity. Growing clout of the company's major technology platforms including, 3D modeling (CAD) offering; Creo, lifecycle management (PLM) solution; Windchill, data orchestration (IIoT) offering; ThingWorx, and experience creation (AR) product; Vuforia Studio, is expected to drive the top-line.
- ▲ Global 3D CAD software market is set to hit \$14.5 billion by 2026, at a CAGR of 5.9% between 2019 and 2026, per Acumen Research and Consulting data. Increased adoption of computer-based design in the automotive sector, and growing clout of additive production by manufacturers, are tailwinds. Solid demand for precision in design, complex prototyping and

Robust adoption driven by high demand for SaaS-based CAD, PLM and IIoT solutions, new business bookings on the back of strategic alliances with Rockwell Automationand Microsoft, are key catalysts.

digitalization of construction is expected to drive demand for 3D-CAD offerings in the automotive, aerospace, manufacturing, healthcare and defense verticals.

- Moreover, increasing spending by enterprises on emerging categories like IoT and AR/VR presents significant prospects for PTC. Market research firm IDC estimates global IoT spending to hit \$1.1 trillion in 2023. Moreover, the firm estimates AR/VR spending to accelerate at a CAGR of 77% over 2019-2023 timeframe. This presents significant growth opportunity for semiconductor chip makers and electronics sensor developers. We believe that the company's expanding product portfolio will help it to win frequent orders and new customers from these emerging markets. Notably, IDC's "MarketScape: Worldwide Industrial IoT Platforms in Manufacturing 2019 Vendor Assessment" report places PTC in the "Leaders" quadrant, which reflects the company's growing clout in the IIoT vertical on robust adoption of its ThingWorx offering.
- ▲ The company's collaborations with advanced technology suppliers, hardware vendors, specialized application developers, and CAD and PLM providers is a key catalyst. For instance, PTC's partnership with ANSYS enables integration of Creo with ANSYS' Discovery Live real-time simulation capabilities. The company also teamed up with Rockwell Automation, which is expected to enhance PTC's Vuforia and ThingWorx platforms. It has also partnered with Microsoft to deploy the ThingWorx Industrial Innovation Platform on Azure cloud platform. We believe that the strong partner network will help the company win customers more frequently, which in turn will drive the top line.
- ▲ Strategic acquisition strategy has played a pivotal part in developing the company's business in the last few years. Recently, the company acquired Onshape for \$470 million in cash to enhance Creo and Windchill products with advanced SaaS capabilities. The company's buyout of TWNKLS will strengthen its industrial AR offerings. These along with Frustum (advanced patented desktop and cloud-based generative design software provider), Waypoint Labs and Reality Editor (adding more IoT and AR product development capabilities) acquisitions have enabled the company to offer new and innovative products. We anticipate PTC to pursue tuck-in acquisitions, which will further expand product portfolio in the long term.
- ▲ We also note that it has a diversified customer base, which is evident from the fact that no single customer accounted for more than 5% of revenues in the last three years. Markedly, at the end of fiscal 2019, total deferred revenues (including unbilled deferred revenues and backlog) came in at \$1.135 billion. We also believe that PTC's increasing investments on emerging trends like IoT, AR/VR and autonomous vehicle sub-systems presents significant prospects for the company in the long haul.

Risks

- PTC generated a significant portion (57%) of revenues from the International market in fiscal 2019. Adverse foreign currency exchange
 rates, particularly the Euro, impacted European revenues unfavorably in 2019 by \$26 million. Unfavorable changes in foreign currency
 exchange rates impacted Asia Pacific revenues by \$6 million in 2019. This is anticipated to weigh on revenue growth in the near term
 owing to the strengthening of the U.S. dollar compared with the Euro and other foreign currencies, which is a significant concern.
- Moreover, Europe continues to remain a major headwind for PTC. Uncertainty related to Brexit, growing data privacy regulations and
 overall macro-weakness in the region is anticipated to hurt top line in the near term. Notably, the company generated 37% of fiscal 2019
 revenues (per ASC 606) from Europe.
- Further, PTC has been incurring operating losses since inception and has an accumulated deficit of \$191.4 million at the end of fiscal 2019. Continuing investments on research & development and sales & marketing, are likely to weigh on profitability. Despite the improving top line, mounting losses doesn't augur well for investor confidence in our view.
- PTC faces stiff competition in the computer-aided design (CAD) market from Cadence Design Systems (as it recently ventured into the market with 3D Solver offering), Autodesk, ANSYS and Synopsys, to mention a few. Considering IIoT vertical, similar solutions from large established companies like Amazon, IBM, Oracle, SAP, Siemens AG, and GE are likely to affect adoption of PTC's ThingWorx IoT platform. New entrants are likely to pose a threat to the company's market share. This might compel the company resort to competitive pricing to maintain and capture further market share.
- Frequent acquisitions have escalated integration risks for PTC. Moreover, we also note that the frequent acquisitions negatively impact the company's balance sheet in the form of high level of goodwill and intangible assets, which accounted for approximately \$1.87 billion or 57.1% of total assets as of Dec 28, 2019.
- Moreover, the company is trading at premium in terms of Price/Earnings (P/E). PTC currently has a trailing 12-month P/E ratio of 60.9X.
 This level compares unfavorably with what the industry witnessed in the last year. Consequently, the valuation looks slightly stretched from P/E perspective.

Last Earnings Report

PTC's Earnings and Revenues Breeze Past Estimates in Q1

PTC reported first-quarter fiscal 2020 non-GAAP earnings of 57 cents per share, up 1.8% on a year-over-year basis, beating the Zacks Consensus Estimate by 26.7%.

Revenues came in at \$356.1 million, up 6.4% year over year, surpassing the Zacks Consensus Estimate of \$346 million. Solid AR and IoT bookings and synergies from Onshape acquisition drove growth.

Quarter Ending	12/2019
Report Date	Jan 22, 2020
Sales Surprise	2.95%
EPS Surprise	26.67%
Quarterly EPS	0.57
Annual EPS (TTM)	1.95

Top-Line in Detail

Recurring revenues of \$305.4 million improved 21.4% year over year. Perpetual license of almost \$9 million declined 78.5% from the year-ago quarter's figure, owing to "end of perpetual license sales on Jan 1, 2019."

Revenues by License, Support and Services

License revenues (34.7% of total revenues) were \$123.4 million, up 17.2% over the year-ago quarter's figure.

Support and cloud services revenues (53.6%) of \$190.9 million, improved 1.6% year over year.

Professional services revenues (11.7%) of \$41.7 million, increasing 0.7% year over year.

Revenues by Product Group

Revenues from Core Product Group, which includes computer-aided design (CAD) & Product Lifecycle Management (PLM) offerings, came in at \$830 million, up 9% (up 10% at cc).

Revenues from Growth Product Group (which includes IoT, AR & Onshape) came in at \$48 million, up 36% year over year (37% on a cc basis).

Revenues from Focused Solutions Group (FSG) came in at \$45 million, down 6% year over year (5% on a cc basis).

ARR Performance

Annualized recurring revenues (ARR) were \$1.16 billion, up 11% year over year, driven by strength in Core and Growth product groups.

ARR from Core Product Group (CAD & PLM) came in at \$830 million, up 9% (up 10% at cc). Growth was driven by strength in PLM ad robust performance across China and Europe.

ARR from Growth Product Group (IoT, AR & Onshape) came in at \$151 million, up 35% year over year, (36% on a cc basis). Year-over-year growth can be attributed to improvement in AR and IoT bookings and strength across Europe and APAC. Synergies from Onshape acquisition

ARR from Focused Solutions Group (FSG) came in at \$178 million, up 1% year over year on a cc basis.

Operating Details

Non-GAAP gross margin contracted 160 basis points (bps) on a year-over-year basis to 78.2%.

Non-GAAP operating expenses came in at \$185 million. GAAP operating expenses increased 4.8% year over year to \$238.3 million. This can be attributed to higher research & development expenses, and general & administrative expenses, which increased 7.4% and 17.7%, respectively. Moreover, Sales & marketing expenses surged 3.2% from the year-ago quarter.

Operating income on a non-GAAP basis increased 2.1% year over year to \$93.1 million.

Operating margin on a non-GAAP basis contracted 110 bps to 26.1%.

Balance Sheet & Cash Flow

As of Dec 28, 2019, cash, cash equivalents and marketable securities were \$294.5 million, compared with prior quarter's figure of \$327 million.

Total debt, net of deferred issuance costs, was \$1.124 billion, up from prior quarter's \$669.1 million.

Cash provided by operating activities came in at \$7.5 million, compared with prior-quarter figure of \$55.2 million.

Guidance

Management anticipates the first-quarter momentum to continue, and thereby raised fiscal 2020 revenue guidance.

Fiscal 2020 revenues are now projected between \$1.445 billion and \$1.525 billion, compared with the earlier guided range of \$1.41-\$1.51 billion.

Further, non-GAAP earnings are now expected between \$2.15 and \$2.65 per share, compared with the prior range of \$1.95-\$2.60 per share.

ARR is expected to be \$1.270-\$1.295 billion, up 14-16% year over year.

Adjusted free cash flow is projected to be \$260-\$280 million. Non-GAAP operating margin is expected to be 26-29%.	

Recent News

On Jan 29, 2020, PTC announced senior notes offering of \$750 million in aggregate principal amount slated to mature in 2025 and 2028.

On Jan 28, 2020, PTC declared it has been recognized as a leader by Forrester Research, in the latest report titled, "The Forrester Wave: Industrial IoT Software Platforms, Q4 2019."

On Jan 16, 2020, PTC announced the appointment of Kathleen Mitford as the company's chief strategy officer.

On Dec 10, 2019, PTC entered into a partnership with Magic Leap to aid industrial and enterprise customers to integrate the AR capabilities of its Vuforia Engine solution with Magic Leap 1 wearable headset.

Valuation

PTC shares are up 23.1% in the past six-month period, but down 2.1% over the trailing 12-month period. Stocks in the Zacks sub-industry and Zacks Computer & Technology sector are up 15.5% and 15.7%, respectively in the past six-month period. Over the past year, the Zacks sub-industry and sector are up 43.3% and 32.3%, respectively.

The S&P 500 index is up 11.3% in the past six-month period and 24% in the past year.

The stock is currently trading at 6.32X forward 12-month sales, which compares to 7.28X for the Zacks sub-industry, 3.69X for the Zacks sector and 3.49X for the S&P 500 index.

Over the past five years, the stock has traded as high as 9.96X and as low as 2.61X, with a 5-year median of 5.27X. Our Outperform recommendation indicates that the stock will perform better than the market. Our \$96 price target reflects 7.27X forward 12-month sales.

The table below shows summary valuation data for PTC

	Valuation N	lultiples	s - PTC		
		Stocks	Sub-Industr	y Sector	S&P 500
	Current	6.32	7.28	3.69	3.49
P/S F12M	5-Year High	9.96	7.28	3.69	3.49
	5-Year Low	2.61	3.88	2.3	2.54
	5-Year Median	5.27	5.29	3.01	3
	Current	8.02	10.07	5.56	4.48
P/B TTM	5-Year High	15	10.18	5.63	4.55
	5-Year Low	3.8	3.87	3.13	2.85
	5-Year Median	7.28	6.28	4.22	3.62
	Current	8.37	7.6	4.36	3.28
EV/Sales TTM	5-Year High	10.5	7.6	4.36	3.3
	5-Year Low	2.95	3.19	2.56	2.16
	5-Year Median	6.07	5.25	3.46	2.8

As of 01/29/2020

Industry Analysis Zacks Industry Rank: Top 21% (53 out of 255)

■ Industry Price 130 - Industry ■ Price -110 -50

Top Peers

Autodesk, Inc. (ADSK)	Neutral
ANSYS, Inc. (ANSS)	Neutral
Blackbaud, Inc. (BLKB)	Neutral
Cadence Design Systems, Inc. (CDNS)	Neutral
CommVault Systems, Inc. (CVLT)	Neutral
Nuance Communications, Inc. (NUAN)	Neutral
Verint Systems Inc. (VRNT)	Neutral
Pegasystems Inc. (PEGA)	Underperform

Industry Comparison Industry: Computer - Software			Industry Peers			
	PTC Outperform	X Industry	S&P 500	ANSS Neutral	CDNS Neutral	VRNT Neutra
VGM Score	С	-	-	E	С	C
Market Cap	9.64 B	2.08 B	23.91 B	23.38 B	20.52 B	3.91 E
# of Analysts	7	3.5	13	7	5	4
Dividend Yield	0.00%	0.00%	1.77%	0.00%	0.00%	0.00%
Value Score	F	-	-	F	D	С
Cash/Price	0.03	0.10	0.04	0.03	0.03	0.12
EV/EBITDA	75.47	21.80	14.07	41.62	38.91	20.0
PEG Ratio	NA	2.26	2.00	. NA	2.97	1.1
Price/Book (P/B)	7.72	5.53	3.27	7.99	13.86	2.9
Price/Cash Flow (P/CF)	51.68	28.24	13.48	45.74	44.31	15.0
P/E (F1)	35.20	33.25	18.76	41.21	31.23	16.0
Price/Sales (P/S)	7.25	4.96	2.61	16.18	8.90	3.0
Earnings Yield	2.84%	2.79%	5.32%	2.43%	3.20%	6.249
Debt/Equity	1.05	0.16	0.72	0.03	0.23	0.6
Cash Flow (\$/share)	1.61	1.01	6.88	6.07	1.65	3.8
Growth Score	В	-	-	D	В	C
Hist. EPS Growth (3-5 yrs)	-9.02%	9.69%	10.68%	12.93%	14.82%	2.37%
Proj. EPS Growth (F1/F0)	44.77%	12.12%	7.73%	6.79%	6.94%	13.71%
Curr. Cash Flow Growth	-3.70%	8.40%	12.29%	33.15%	12.67%	11.199
Hist. Cash Flow Growth (3-5 yrs)	-9.76%	8.09%	8.78%	6.57%	6.11%	7.84%
Current Ratio	1.17	1.49	1.23	2.55	1.70	1.5
Debt/Capital	51.32%	18.28%	43.16%	3.02%	18.94%	39.729
Net Margin	3.38%	7.06%	11.59%	30.35%	18.54%	3.95%
Return on Equity	13.10%	12.42%	17.38%	16.65%	30.74%	13.50%
Sales/Assets	0.47	0.64	0.54	0.42	0.90	0.4
Proj. Sales Growth (F1/F0)	13.40%	6.70%	4.05%	10.88%	6.66%	8.85%
Momentum Score	C	-	-	D	С	D
Daily Price Chg	-1.16%	0.00%	-0.21%	-0.23%	-1.40%	0.22%
1 Week Price Chg	7.37%	0.00%	-1.09%	2.61%	1.15%	-0.05%
4 Week Price Chg	11.40%	6.59%	-0.01%	7.89%	5.45%	5.62%
12 Week Price Chg	16.25%	12.12%	4.14%	26.97%	8.94%	23.30%
52 Week Price Chg	-2.11%	28.41%	17.24%	70.39%	54.04%	22.379
20 Day Average Volume	838,931	79,058	1,824,613	459,756	1,267,670	430,85
(F1) EPS Est 1 week change	0.38%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	17.76%	0.00%	0.00%	0.00%	0.00%	-0.32%
(F1) EPS Est 12 week change	3.66%	0.00%	-0.11%	-0.83%	0.00%	0.06%
(Q1) EPS Est Mthly Chg	14.84%	0.00%	0.00%	0.00%	0.00%	-4.149

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

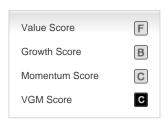
Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.



As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

Disclosures

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.