

Preparing for the  
Future of Everything  
November 2021 Report

Presented By  
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# Keys to Surviving and Thriving in Post - COVID-19 and Beyond

- "Self-sufficiency"
- "Assets and Liquidity"
- "Automation"
- "Virtualization"
- "Decentralization"
- "Analytics"
- "Exponential Thinking"

Macro  
Economic and  
Market  
Trends at  
A Glance

- **\$1.2T Infrastructure Bill Passed**
- **Projected '4Q'21 Growth Reaccelerating**
- **Inflation is Increasingly Real**
- **Fed Accommodation Receding**
- **Supply Chain Disruption**
- **Lower Consumer Sentiment**
- **Ubiquitous Computing and Communications**
- **EV Market already More Valuable than ICE**
- **\$2T Human Infrastructure Bill?**

# The Economy at A Glance

| Economic Metrics                       |                                      |
|--|--------------------------------------|
| GDPNow ('4Q'21 Estimate)               | 8.2% 11/17/21 (Atlanta FRED)         |
| Unemployment Rate                      | 4.6% (BLS – Oct'21)                  |
| Employment Compensation                | 4.2% Y-O-Y (BLS – Sept'21)           |
| Productivity                           | -5.0% (BLS – '3Q'21)                 |
| CPI                                    | 6.2% Annual Rate (BLS) (Oct'21)      |
| 10-yr US Treasury Interest Rate        | 1.681% (WSJ -11/23/21)               |
| Federal Debt/GDP                       | 125.5% (FRED – '2Q'21)               |
| Retail Sales (Y-O-Y)                   | 11.5% (US Commerce Dept. – 11/16/21) |
| Consumer Sentiment                     | 72.8 (UofM– September'21)            |
| Crude Oil Futures                      | \$78.74 (WSJ – 11/23/21)             |
| Case-Shiller National Home Price Index | 19.84% Y-O-Y (WSJ- Aug'21)           |
| Real Residential Fixed Investment      | -7.7% '3Q'21 Y-O-Y (Atlanta FRED)    |
| Gold Futures                           | \$18.08 (WSJ – 11/22/21)             |
| Copper Futures                         | \$4.39 (WSJ – 11/22/21)              |
| US Dollar Index                        | 96.50 (WSJ -11/22/21)                |
| ISM Purchasing Managers Index          | 60.8% (ISM – October'21)             |

# Real Inflation at A Glance

| Category            | October 2021 Monthly % Change |
|---------------------|-------------------------------|
| Food at Home        | 1.0%                          |
| Fuel Oil            | 12.3%                         |
| Electricity         | 1.8%                          |
| Utility (Gas Piped) | 6.6%                          |
| New Vehicles        | 1.4%                          |
| Medical Care        | 0.6%                          |
| Shelter             | 0.5%                          |

# Oil Supply at A Glance

[Crude oil stocks \(million barrels\)more stock data >](#)

|   | Year ago | Most recent |
|---|----------|-------------|
|   | 11/13/20 | 11/12/21    |
| U.S.                                      | 489.5    | 433.0       |
| East Coast ( <a href="#">PADD 1</a> )     | 10.3     | 9.6         |
| Midwest ( <a href="#">PADD 2</a> )        | 148.2    | 109.5       |
| Cushing, Oklahoma                         | 61.6     | 26.6        |
| Gulf Coast ( <a href="#">PADD 3</a> )     | 260.8    | 242.6       |
| Rocky Mountain ( <a href="#">PADD 4</a> ) | 24.5     | 23.7        |
| West Coast ( <a href="#">PADD 5</a> )     | 45.7     | 47.6        |

[Days of supply \(number of days\)more supply data >](#)

|      | Year ago | Most recent |
|------|----------|-------------|
|      | 11/13/20 | 11/12/21    |
| U.S. | 36.1     | 28.5        |

**Note:** Days of Supply calculated as: U.S. crude oil stocks / Four-week average U.S. crude oil refinery input

Source: EIA

# The Market at A Glance

| Market Metrics                            |  |
|---|--|
| DJIA                                      | 35,813 +17.01% YTD (WSJ – 11/23/21)    |
| S&P 500                                   | 4,690 +24.88% YTD (WSJ – 11/23//21)    |
| Nasdaq                                    | 15,775 +22.40% YTD (WSJ – 11/23/21)    |
| S&P 500 Forward P/E                       | 21.4 (S&P FactSet – 11/19/21)          |
| S&P 400 Forward P/E                       | 16.9 (Yardeni Research – 11/19/21)     |
| Current Est. '3Q'21 S&P 500 EPS           | 39.6% Y-O-Y (S&P FactSet – 11/19/21)   |
| Current Est. '3Q'21 S&P 500 Rev. Growth   | 17.8% Y-O-Y (S&P FactSet – 11/19/21)   |
| Current Est. '3Q'21 S&P Profit Margin     | 12.9% Blended (S&P FactSet – 11/19/21) |
| Current Est. Financials '3Q'21 EPS        | 35.2% Y-O-Y (S&P FactSet – 11/19/21)   |
| Current Est. Healthcare '3Q'21 EPS Growth | 29.2% Y-O-Y (S&P FactSet – 11/19/21)   |
| Current Est. Energy '3Q'21 Revenue Growth | 74.3% Y-O-Y (S&P FactSet – 11/19/21)   |



# U.S. Equities at A Glance

## U.S. Sectors (11/22/21)

| ETF or ETN                                 | Today | 1 Mths | 1 Yr  | YTD   |
|--|-------|--------|-------|-------|
| Basic Materials <a href="#">XLB</a>        | 0.2%  | 4.5%   | 26.5% | 22.0% |
| Communication Services <a href="#">XLC</a> | -1.2% | -2.5%  | 24.5% | 18.1% |
| Consumer Discretionary <a href="#">XLY</a> | -0.3% | 10.8%  | 36.8% | 31.5% |
| Consumer Staples <a href="#">XLP</a>       | 0.8%  | 2.3%   | 7.7%  | 6.8%  |
| Energy <a href="#">XLE</a>                 | 1.8%  | -5.8%  | 51.9% | 44.2% |
| Financial Services <a href="#">XLF</a>     | 1.4%  | -2.2%  | 42.3% | 32.4% |
| Healthcare <a href="#">XLV</a>             | -0.5% | 3.3%   | 21.9% | 17.2% |
| Industrial <a href="#">XLI</a>             | 0.3%  | 2.1%   | 20.9% | 19.4% |
| Real Estate <a href="#">XLRE</a>           | -0.5% | 3.7%   | 29.6% | 31.9% |
| Technology <a href="#">XLK</a>             | -1.1% | 7.9%   | 41.2% | 31.8% |
| Utilities <a href="#">XLU</a>              | 0.6%  | 2.2%   | 5.9%  | 7.3%  |

Source: Seeking Alpha

## Infrastructure Bill at A Glance

- \$1.2T Infrastructure Spending:
- \$110B for roads and bridges
  - \$66B for passenger and freight rail
  - \$65B to expand internet access
  - \$55B to modernize the electric grid
  - \$55B for water infrastructure
  - \$39B for public transit project
  - \$25B for airport upgrades
  - \$7.5B EV charging stations

# Ubiquitous Computing and Ambient Intelligence at A Glance

- **Convergence of digital and communications is driving digital business using multi-cloud and multi-edge communication infrastructure.**
- At [Ignite 2021](#) Satya Nadella, Microsoft CEO said, *“we’re moving from a mobile and cloud era to an era of ubiquitous computing and ambient intelligence.”*
- Cloud growth will remain robust next year on already large numbers. Public cloud services forecast on end-user spending will reach \$482 billion in 2022, up from \$396 billion in 2021 for growth of 21.7%.
- By 2026, Gartner predicts **public cloud spending will exceed 45% of all enterprise IT spending, up from less than 17% in 2021.**
- **Hyper-connected businesses - a “business process transformation” where supply and demand is informed by data and AI to help improve outcomes**, such as the supply chain issues the market has experienced this year.
- Strong end-to-end security to help every organization strengthen its defense through the zero trust architecture built on end-to-end solutions that span all clouds and all platforms.
- **The Worldwide Semiconductor Market is expected to show an outstanding growth of 25.1 percent in 2021.** For 2022, the global semiconductor market is projected to grow by 10.1 percent to US\$ 606 billion, driven by a double-digit growth of the Memory category.

## Cloud Ubiquity at A Glance

- Today, the cloud underpins most new technological disruptions, including [composable business](#), and has proven itself during times of uncertainty with its resiliency, scalability, flexibility and speed.
- Hybrid, multicloud, and edge environments are growing and setting the stage for new distributed cloud models.
- In addition, new wireless communications advances, such as 5G R16 and R17, will push cloud adoption to a new level of broader, deeper and ubiquitous usage. Use cases such as enhanced mobile banking experiences, EV, IOT, AR/VR, Metaverse and healthcare transformation will also emerge.
- Gartner expects the broad adoption of fully managed and artificial intelligence (AI)-/machine-learning (ML)-enabled cloud services from hyperscale CIPS providers. This will rapidly eliminate the operational burden of traditional I&O roles in the public cloud.

# Cloud Ubiquity at A Glance

**Table 1. Worldwide Public Cloud Services End-User Spending Forecast (Millions of U.S. Dollars)**

|  | <b>2020</b>    | <b>2021</b>    | <b>2022</b>    |
|--|----------------|----------------|----------------|
| Cloud Business Process Services (BPaaS)          | 46,066         | 51,027         | 55,538         |
| Cloud Application Infrastructure Services (PaaS) | 58,917         | 80,002         | 100,636        |
| Cloud Application Services (SaaS)                | 120,686        | 145,509        | 171,915        |
| Cloud Management and Security Services           | 22,664         | 25,987         | 29,736         |
| Cloud System Infrastructure Services (IaaS)      | 64,286         | 91,543         | 121,620        |
| Desktop as a Service (DaaS)                      | 1,235          | 2,079          | 2,710          |
| <b>Total Market</b>                              | <b>313,853</b> | <b>396,147</b> | <b>482,155</b> |

*BPaaS = business process as a service; IaaS = infrastructure as a service; PaaS = platform as a service; SaaS = software as a service Note: Totals may not add up due to rounding.*

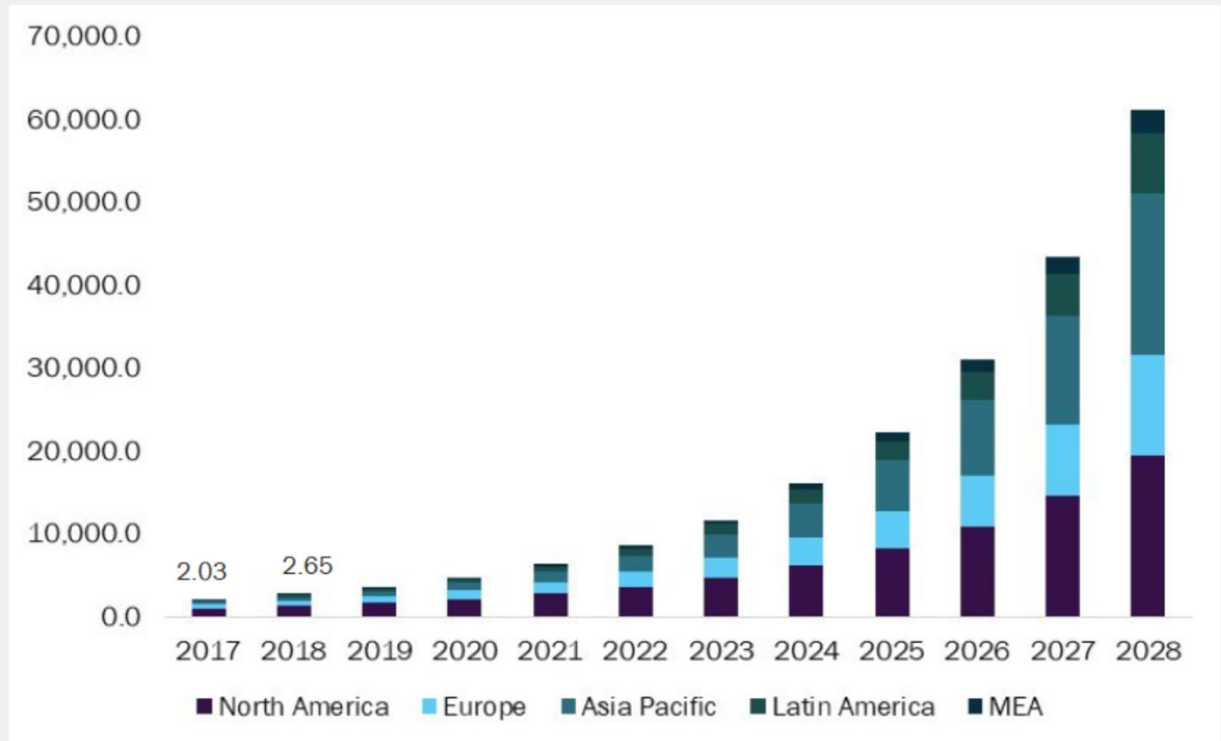
Source: Gartner (August 2021)

## The Intelligent Edge at A Glance

- The global edge computing market size was valued at USD 4.68 billion in 2020 and is expected to expand at a compound annual growth rate (CAGR) of 38.4% from 2021 to 2028.
- Edge computing introduces a great level of business complexity, as it requires an extensive range of stakeholders for IT infrastructure, connectivity, application development, traffic delivery, and service management. Edge also brings together hardware and software solutions and networking architecture that address the vast number of use cases pursued across several industry verticals. As the technology is still in the early stages of development and its implementation and operational models are yet to mature, an edge is likely to create vast growth opportunities for new entrants in the near future.
- One major communications chip supplier is forecasting their TAM to grow 7X from 2021 to 2030

# The Intelligent Edge at A Glance

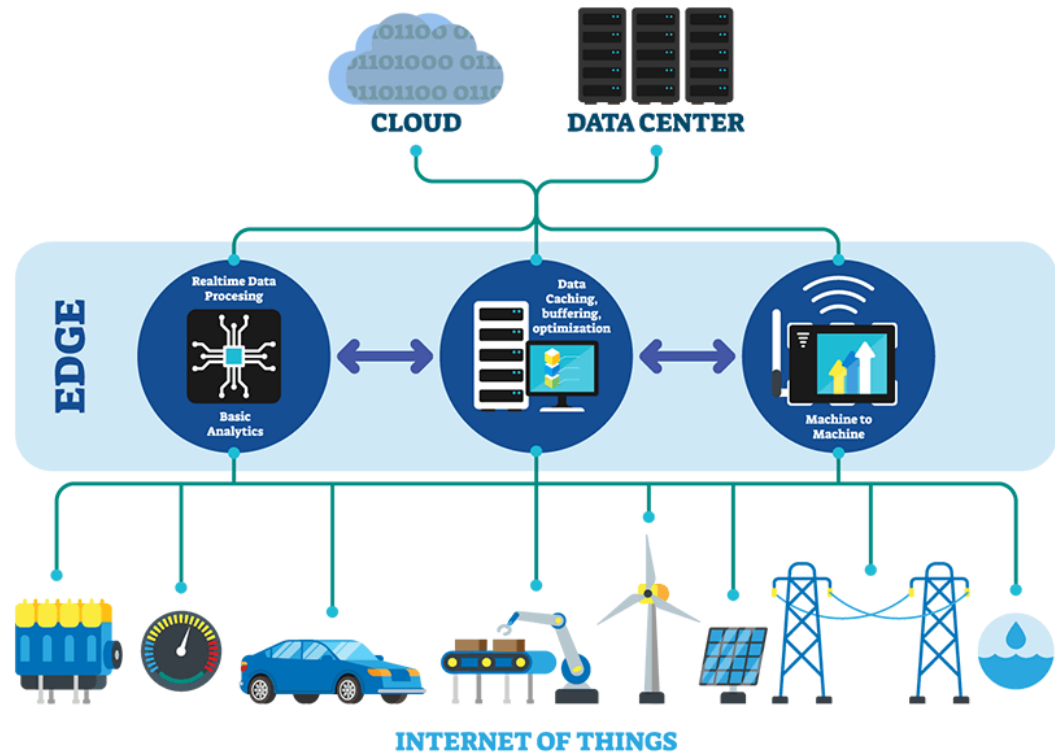
Fig.3 Edge Computing Market Size and Growth Prospects (USD Billion)



Source: Primary Research, Secondary Literature, Grand View Research

# Edge Computing

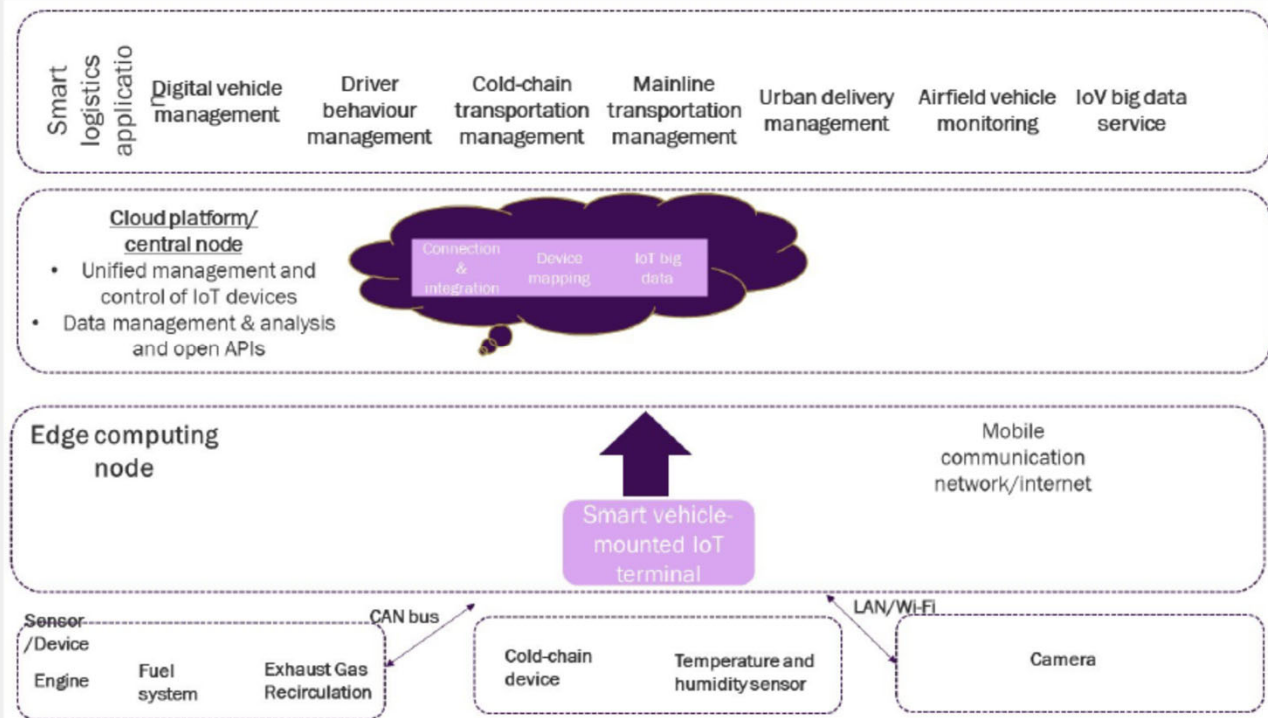
The Intelligent  
Edge at  
A Glance





# The Intelligent Edge – Logistics Transportation at A Glance

Fig.5 Edge computing for smart logistics and transportation application



Source: Primary Research, Secondary Literature, Grand View Research

## We help clients build sustainable wealth with more certainty

- By creating sustainable financial plans
- Through building more sustainable wealth accumulation and distribution
- To achieve financial security and peace of mind

## We utilize a thoughtful but practical approach

- Using a proven 360° financial planning-wealth management process
- Employing 60 years combined professional experience
- To achieve client financial goals with more certainty and with less risk



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|--|--|--|
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Our purpose of investing is to *“Grow savings at a rate which maintains the same purchasing power parity in the future and provides a stream of living income.”*



# “Planning Today for Tomorrow’s Changes”

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