# veea®

# Edge Platform Guide

Accelerate your solution with Veea's smart, connected, and transformative Edge Platform

**The Fourth Industrial Revolution is here**. Driven by advances in connectivity, data and new technologies such as AI/ML, IoT and V/AR, industry, economics, and society are transforming.

**Cloud-centric architectures now face challenges** due to the sheer quantity of data being generated, processed and stored, as well as the **growth in demand for these services.**

**Edge Computing is the key** to addressing these challenges, reducing latency and bandwidth requirements while enhancing security, privacy, scalability and reliability.

**Veea's Edge Platform** is the ideal solution for building and delivering Industry 4.0 applications. With its comprehensive suite of features and capabilities, it is designed to meet the needs of modern businesses and help them succeed.

**Welcome to the Edge.**

Veea® 2023

# Edge Platform Guide

# The Veea Edge Platform

The Veea Edge Platform offers a unified solution that integrates connectivity, communications, and computing at the edge. One of the main motivations for making these verticals 'Smart' is the opportunity to combine all the data that can be captured and processed to enable businesses and organizations to continuously improve their operational processes.
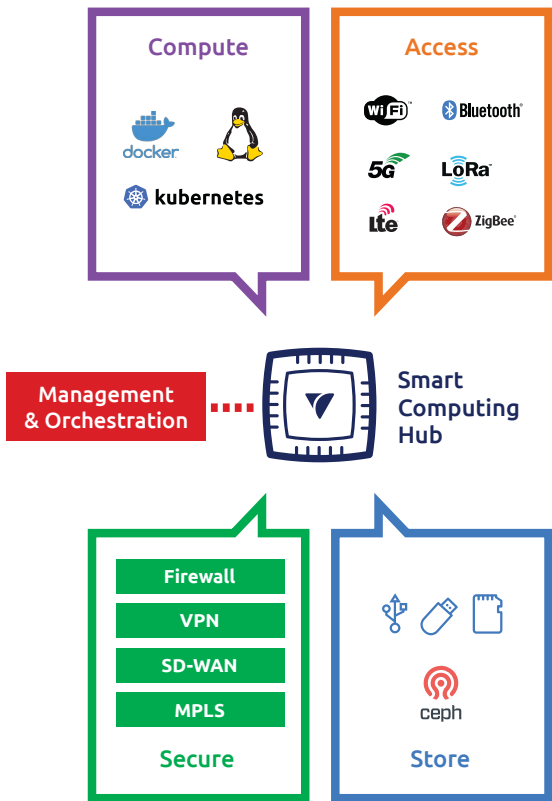


By combining the disparate strands of data captured, but still siloed from each other, users are able to get the bigger, digital picture they need. This integration reduces the cost and complexity of implementation, maintenance and upgrading. It also enables data to be gathered from various sources, processed to varying degrees, and displayed through a single dashboard view.

As a result, operational expenditure (OpEx) and capital expenditure (CapEx) costs are greatly reduced. This leads to a dramatic drop in total cost of ownership (TCO) and an increase in return on investment (ROI).

The computing capabilities of the Veea Edge Platform mirror those found in the cloud. This makes it possible to move many applications running on individual hardware solutions from multiple vendors, which sometimes requires complicated integration, to a simple download process on one hardware platform.

Veea's innovative Edge Computing solution unifies several essential technologies into one comprehensive platform. This platform simplifies installation, integration and operations, while providing a centralized view and easier management of your network.

The Veea Edge Platform operates on Veea's array of indoor and outdoor VeeaHubs, changing the economics and efficiency of edge computing. It offers a low-latency, self-healing, and self-organizing wireless and wired mesh network. The Veea Edge Platform permits locally distributed collection and processing of actionable data closer to the source of data providing for faster and more effective decisions and actions than Cloud-based processing.



Compact, Stylish Indoor Hub with Server-Class Processing.

Compact Indoor Hub with Server-Class Processing & High Performance 5G WAN.

Pro (VHE09)
Pro S (VHE10)

Indoor Hub with Connectivity & Expansion for Enterprise-Grade Applications.

Outdoor (VHH09)
Outdoor S (VHH10)

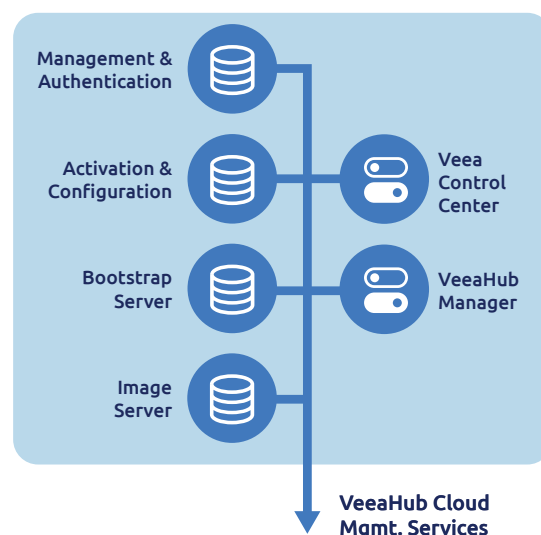Outdoor Hub for Industrial IoT Applications.

# VeeaCloud™

The Veea Edge Platform offers multiple options to bring an Edge Compute deployment to life. It is designed to be usable by IT teams as well as store managers in order to install, maintain, and manage the network, add connectivity, and deploy and run applications.

VeeaCloud provides the services needed to install, configure, and manage each stage of the Veea Edge Platform deployment. It also offers views and analytics of applications, as well as performance monitoring of the vMesh network.

This combination of central and local orchestration and management of applications ensures that applications will continue running even when public network connections become unreliable or broken.

VeeaCloud hosts the back-end services that enable the required base software to be installed on each VeeaHub after the initial authentication handshake has been activated via the VeeaHub Manager on a mobile device.

Users are provided with three complementary front-end graphical dashboards, each offering different levels of information and capabilities based on the task and knowledge of the user. These views offer businesses complete visibility into every aspect of their solution, ranging from single small/medium sized business to large global enterprises.



**Management & Authentication**

**Activation & Configuration** — **Veea Control Center**

**Bootstrap Server** — **VeeaHub Manager**

**Image Server**

**VeeaHub Cloud Mgmt. Services**

## Key Features

**Authentication and Management:** Connect to, enroll, and manage VeeaHub devices with the utmost security. Status changes and alerts will be sent directly and immediately to ensure prompt action.

**Application Service Download:** Remotely install, manage, and maintain applications and services with ease and convenience.

**Application Service Upgrade:** Keep VeeaHubs and services up-to-date and secure through over-the-air updates.

**Docker Images From Registry:** Push containerized applications into VeeaHubs from a secure registry with confidence.

**Analytics:** Monitor the usage and performance of your VeeaHubs, services, and networks with detailed and comprehensive graphs and charts. Gain insight into your devices, services, and networks to maximize performance.

# Veea Control Center

Veea Control Center offers a comprehensive portal for managing devices and applications in your system. With the Control Center, you can easily review the details of your VeeaHubs and mesh network. Furthermore, you can take advantage of deep analytics with the corresponding graphs, which can help you gain meaningful insights into your system performance and potential cost savings when using predictive maintenance techniques.
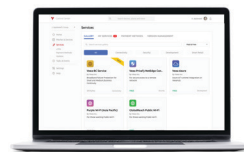
### Access Anywhere
Access the Control Center from any device with a web browser to quickly view and manage your VeeaHubs.
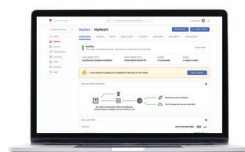
### Check network overview
Check the health and usage status of your devices, meshes and applications.

### Expand & Develop
Discover a range of services. Create and manage your own apps and services with the VeeaHub Developer Toolkit.

### Device Management
- Status of meshes, devices, apps
- Events and notifications
- Bulk FOTA

### Application Management
- Ability for developers to upload applications
- Control distribution teams for applications
- Subscribe to applications

### Enterprise Administration
- SSO with SAML and OpenID Connect
- Role-based access control
- Managing groups of meshes

### vMesh Analytics and Insights
- System & Node (CPU, memory, network, storage)
- Temperature and alerts
- Wi-Fi (Connected Clients, Signal Strength)

### Network Management
- Database of approved users
- 'Over-the-Air (OTA)' software upgrades
- 4G/5G for Business Continuity and Secure Access

### Site Management
- Information, Topology & Status

# VeeaHub Manager

The VeeaHub Manager is a mobile application, optimized for Apple iOS and Android devices. It allows for simple, rapid and convenient registration of any VeeaHub device and device mesh.

Additionally, the VeeaHub Manager provides on-the-go diagnostics.

Using the VeeaHub Manager, you can register your VeeaHub to access the necessary licenses and add it to the Control Center. This allows you to monitor and adjust vMesh configurations, as well as provide local control of VeeaHubs.
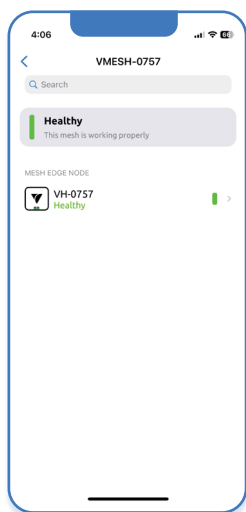


Quickly view the status of your meshes and VeeaHubs
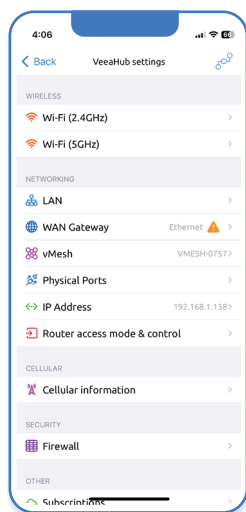


View and configure meshes and hubs on the go
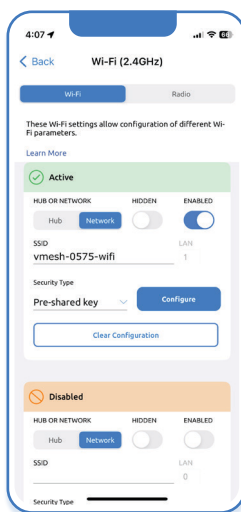


Manage Wi-Fi Access Points and security details
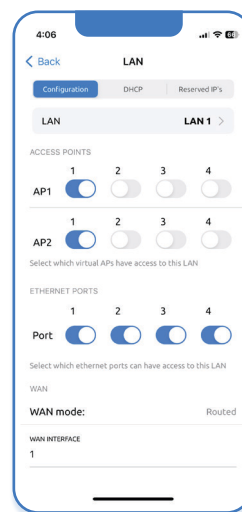


Configure WAN and LAN settings as well as vMesh settings
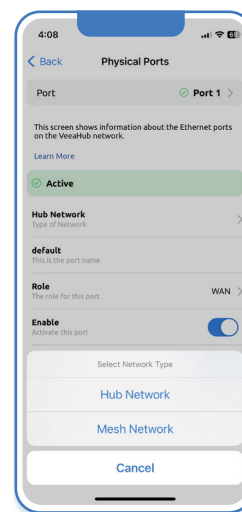


Configure and enable/disable physical ports

# Enabling Services

Veea provides subscription-based services that leverage the unique capabilities of the Veea Platform to unlock and enable market-differentiated solutions which would otherwise be difficult to implement, deliver, and operate with competitor products. Please contact Veea Sales (sales@veea.com) to learn more.

# IoT Runtime

The Internet of Things (IoT) technology provides remarkable possibilities for service development, automation, and cost optimization. However, creating IoT solutions can be a significant challenge for developers: with an ever-growing number of available devices, each with its own unique protocols and interfaces, the task of application deployment and scaling becomes complex. Furthermore, what works indoors may not function outdoors. These complications mean that developing and deploying IoT solutions is a difficult task for developers.

The Veea Edge Platform™ and Veea's IoT Toolkit offer solutions to these issues, allowing developers to quickly and easily create and deploy IoT system solutions. Through the use of these tools, the complexity of the development process is drastically reduced.

Integrated IoT device interfaces – Wi-Fi, Bluetooth, Zigbee, and LoRaWAN – are provided in a single network element, making it easy to discover, connect, manage, and control a large number of IoT devices.

You can also take advantage of our built-in protocol stacks to quickly build applications for the Veea Edge Platform.

And even better, support for more devices are continuously added, so you can always stay up-to-date with the latest and greatest.

## Highlights

- Built-in device communication stacks that handle the low-level discovery, messaging and control for a wide array of devices.
- Quickly deploy your solution from the Veea Edge Platform's central, cloud-based management portal.
- Easily scale to demand with Veea's wireless vMesh and vBus technologies.

## Key Features

- **Accelerate your development:** Built-in device communication stacks handle the low-level discovery, messaging and control for a wide array of devices.
- **Quickly deploy your solution:** The Veea Edge Platform allows you to deploy your application from a central, cloud-based management portal.
- **Easily scale to demand:** Veea's vMesh™ and vBus™ technologies allow you to easily add devices or processing resources to your deployed applications and systems, simply by adding VeeaHubs to your network. These additions can be made wirelessly.
- **Put your application where it is needed:** The Veea Edge Platform offers Smart Computing Hubs for SOHO, Enterprise, Manufacturing, and outdoor environments. Integrated radios for PAN, LAN, and WAN connectivity allow for an unlimited number of uses in a broad range of environments.
- **Leverage Veea's continuous evolution:** Veea is committed to adding additional cloud platforms and IoT devices to our software stack, so that you can easily adopt a variety of IoT Platforms.

## Highlights

- Multi-Gigabit 5G Fixed Wireless Broadband Access (FWBA) or 4G LTE

- Single- or multi-link Instant-on active/active multi-SIM (any combo of USIM, eSIM, & vSIM) and wired WAN

- CBRS small-cell via 3rd-party integration

- Seamless failover for business continuity and mission-critical applications

- Simplified Secure Access Service Edge (SASE)/ SD-WAN functionality

  – QoS management, and traffic steering

  – Integrated firewall,

  – VPN/IPSec support, and

  – advanced security

- Cloud-based secure remote management

- Reporting: outage tracking & notification, usage, dashboard/summary

# SD-WAN for Speed & Business Continuity

Veea SD-WAN provides enterprises with an effective solution for controlling network traffic from a single, centralized location. This architecture allows applications to direct traffic, giving priority to mission-critical applications. This ensures that enterprises benefit from improved efficiency, bandwidth allocation, and cost savings.

The four primary benefits of SD-WAN adoption are increased security, better management and agility, optimized bandwidth, and faster cloud application performance. It is an ideal choice for businesses with multiple sites or employees working remotely. SD-WAN also enables network automation, simplification of operations, provisioning, monitoring, and troubleshooting, allowing businesses to take advantage of the latest network technologies.

SD-WAN can also be used for business continuity by providing a secure and reliable network connection that can be used in the event of an interruption or disruption of the primary network, allowing organizations to keep operations running smoothly during any unforeseen network issues.

| Improved security | Improved speed | Fast cloud performance | Backup connectivity | Usage Monitoring |
|---|---|---|---|---|

Veea SD-WAN features 5G Fixed Wireless Broadband Access (FWBA) or 4G LTE and a single-link or multi-link Instant-on active/active multi-SIM (any combo of USIM, eSIM, & vSIM) and wired WAN.

Veea SD-WAN is an ideal choice for businesses seeking an effective solution for network automation, simplification of operations, provisioning, monitoring, and troubleshooting.

Its "eye in the sky" feature allows businesses to direct traffic with precision and accuracy, ensuring that mission-critical applications are able to perform optimally and without interruption: Veea SD-WAN's comprehensive monitoring and troubleshooting capabilities allow businesses to quickly identify and resolve any issues that may arise, making it a reliable solution for businesses of all types and sizes.
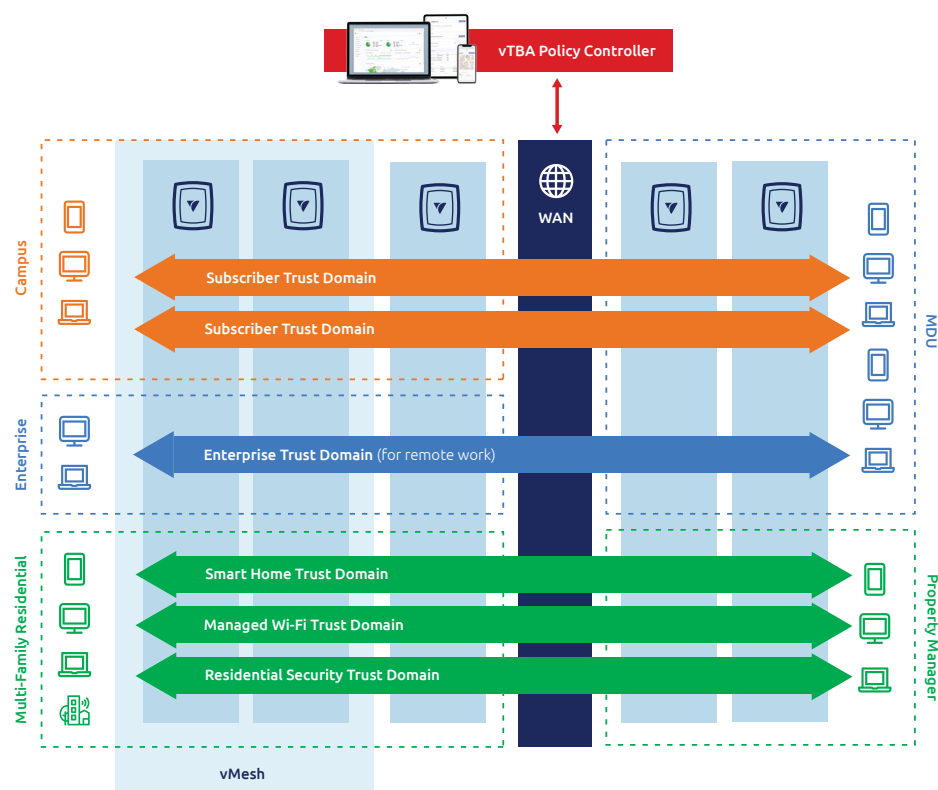
With Veea SD-WAN, businesses can rest assured that their networks and applications will remain highly functional, regardless of the size or complexity of the network.

# vTBA: Core-Managed Wi-Fi

Veea Trusted Broadband Access (vTBA) service is a commercial realization of the CableLabs' Custom Connectivity Specification. It replaces the usual approach of managing Wi-Fi services, which involve configuring networks and access policies on a per-location, per-access-point basis, with an approach that is managed from the network core and is consumer-centric.

Network resources are virtualized across subscribers and devices, independently of the access point locations or consumer premise equipment (CPE). This untethers the subscriber from specific access points, allowing them to enjoy a cellular-like roaming experience.

These network resources are "sliced", meaning that traffic throughput, latency and priority can be tailored to the needs of applications and subscribers. This is achieved by using cloud-based policy definition and edge-based policy enforcement, which minimizes the effort required to onboard subscribers and manage the network.

## Highlights

- Supports wireline, 4G/5G, and Wi-Fi backhauls, providing a path towards Wi-Fi/5G Fixed Mobile Convergence.

- Enables virtualization of Wi-Fi network resources across access points, subscribers, and client devices

- Unlocks new revenue streams for network providers

- Combines core-based policy management with edge-based policy enforcement and user plane functions

- Compatible with legacy Wi-Fi 4/5 devices and doesn't require a large-scale transition to Wi-Fi 7.

vTBA's state-of-the-art technology enables virtualization of Wi-Fi network resources across access points, subscribers and client devices. Unlocking new revenue streams for network providers and extending their networks, it combines core-based policy management with edge-based policy enforcement and user plane functions.

While Wi-Fi network slicing and advanced network management features are essential in today's market, vTBA is uniquely able to support the development and deployment of complex solution architectures which tie Wi-Fi edge networks into broader solutions:

- Supports a broad range of 802.1X authentication mechanisms, allowing integration with a variety of authentication back ends.

- Leverages distributed edge processing and swarm intelligence to control policy application across the entire network, thus reducing service costs while minimizing access times and enhancing security.

- Directly integrated with IoT smart hub functionality, allowing IoT devices and applications to be natively managed via isolated network resources.

- Compatible with legacy Wi-Fi 4/5 devices and is not dependent upon a large-scale transition to Wi-Fi 7.

- Supports wireline, 4G/5G, and Wi-Fi backhauls, providing a path towards Wi-Fi/5G Fixed Mobile Convergence.

vTBA provides a remarkable opportunity for solution providers to expand their revenue streams. Through vTBA, ISPs can eliminate the need to install, maintain and support CPEs in each household while also offering secure network access to remote workers in those households.

Property Managers can offer managed Wi-Fi, residential security and Smart Home amenities cost-effectively in multi-family dwellings, short-term rental properties and hotel rooms. They can also provide enterprises with managed services for building management, energy management and environmental compliance management, allowing them to fast-track their Environmental, Social and Governance (ESG) initiatives without significant investment.

At the same time, vTBA grants service providers a way to further maximize their net operating income through simplified subscriber activation and network management, reduced CPE capital and operational expenses, and improved subscriber Quality of Experience.

What's more, vTBA offers an unparalleled level of convenience and scalability for service providers of all types, allowing them to increase their reach and realize greater potential for growth.

# AdEdge

The world of consumerism is rapidly changing. People now spend considerable time on their smartphones daily, with half of all online shoppers using mobile applications. With shoppers increasingly using their mobile phones inside stores to look up product reviews, compare prices, and find alternate stores.

AdEdge is a state-of-the-art, place-based multi-channel advertising platform that is set to revolutionize customer experience and engagement. AdEdge simplifies the process of creating and managing campaigns, targeting the right audiences, and optimizing results in real-time. It provides insights on consumer preferences and detailed analytics, enabling you to refine your strategies on the go.
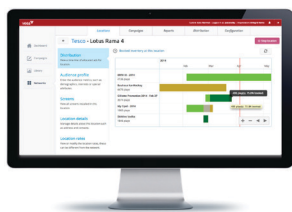


Our platform is designed to offer maximum flexibility, allowing you to adjust your campaigns according to changing consumer behavior, market trends, and customer feedback.

## Highlights

- Location-based and prospect-based ad serving
- Local, low latency ad content caching and playout
- Instant, context-based coupon serving
- Local, instant ad conversion attribution
- API for Point-of-sale (POS) integration

## Integrated Content Management System

- All native formats (images, video, flash, HTML5, etc.)
- Automatic server-side transcoding
- Dynamic content w/ live feeds
- Content onboarding workflow
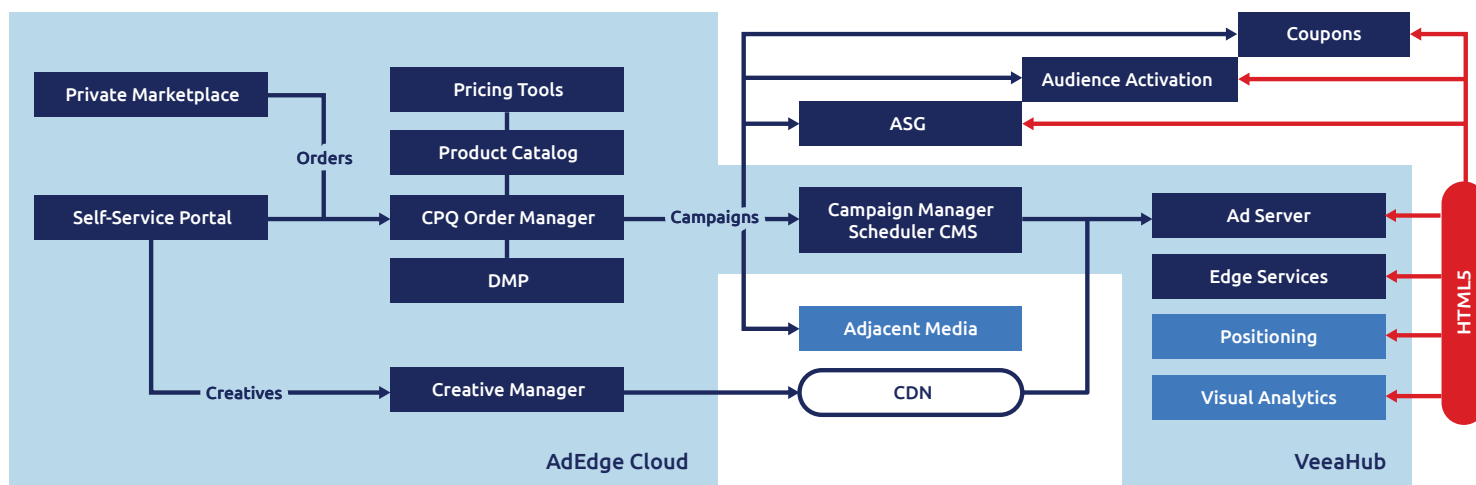- Local caching: optimal bandwidth usage & responsiveness

## Data-Driven Optimization

- Real-time mapping of campaigns to inventory while minimizing inventory usage and maximizing revenue
- With each new campaign, re-plans delivery schedules
- Dynamically re-plans based on changing data
- Multiple data sources and attributes can be associated with each display, allowing campaign- specific targeting goals and overall revenue maximization to be satisfied simultaneously.

# Illustrative Business Solutions

The following example solutions illustrate how solution developers have used the Veea Edge Computing Platform and associated services to bring compelling solutions to market.

Contact Veea (sales@veea.com) if you'd like to know more about how to move your next solution to the Edge.
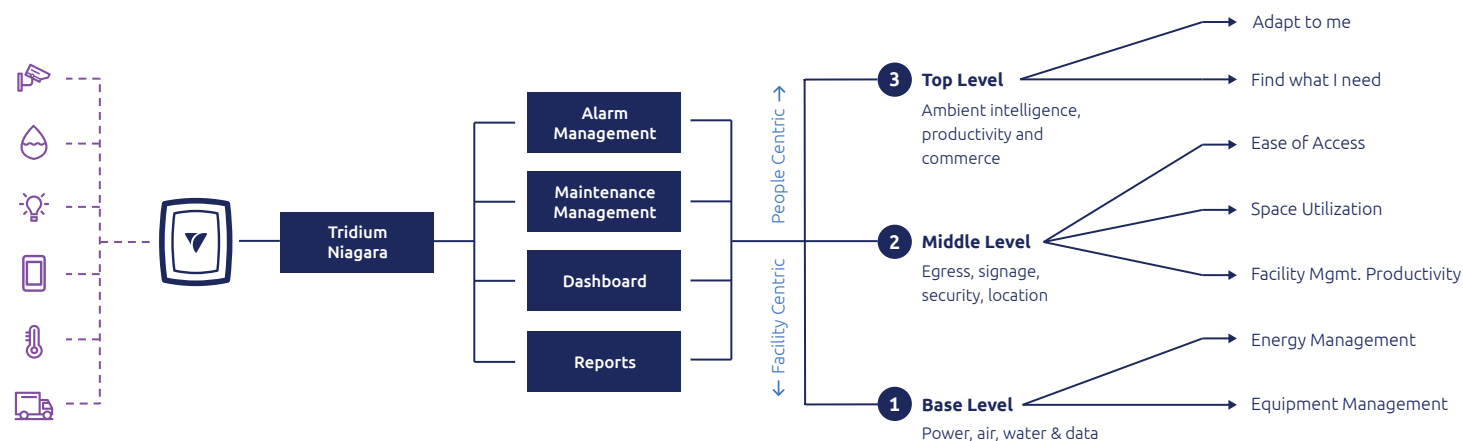
# ESGaaS: Commercial Property Tech

Gathering building data to drive informed operational decisions is a particular challenge in enterprise and commercial real estate; solving that challenge will allow building owners and operators to:

- Monitor and optimize air quality,

- Maximize energy efficiency and save energy costs,

- Reduce unscheduled downtime through predictive maintenance,

- Improve building security and safety,

- Enhance tenant experiences, and

- Implement a variety of sustainability initiatives.

The Niagara open building management framework, developed by Honeywell Tridium, is the most commonly used building management software in the world today. Niagara integrates a broad array of sensors and devices, aggregating data from the ground up, passing the aggregated data to cloud-based analytics and control services, and allowing those services to manage those sensors and devices without a thicket of point-to-point connections. Niagara-based building management systems provide the ability to monitor, control, and automate any device or system irrespective of manufacturer or IoT protocol.

After extensive evaluation of a number of alternatives, Honeywell Tridium chose to develop a version of Niagara and integrate it with the Veea Platform, allowing the transformation of a complex implementation based upon single-function hardware controllers and dedicated processors into a much more cost-effective, deployable, and manageable implementation that leverages the VeeaHub's security framework, extensive IoT capabilities, 4G/5G/Wi-Fi networking, and containerized service orchestration.

## Partners

- Honeywell Tridium

- Wynd

- Backpack

## Products Used

- VeeaHub (VHE09 & VHE10)

- vTBA

- VeeaHub IoT Toolkit



A number of Veea partners have leveraged the combination of the Niagara building management open framework integrated with the Veea Platform and their data analytics capabilities to bring robust, comprehensive, and market-leading solutions to market. These solutions provide direct, secure, and scalable control of building environments and associated operational costs without tenant involvement.
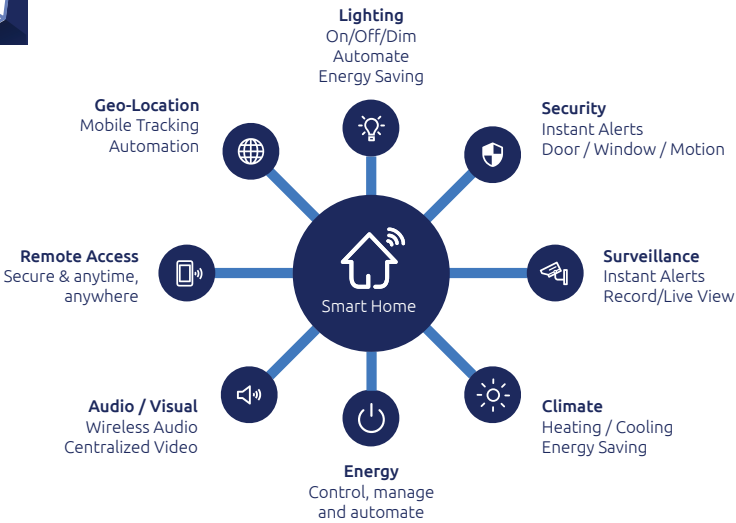
# PMaaS: Residential Tech

Ubiquitous connectivity, smart security, and smart home features are the hottest trends in residential real estate and hospitality, yet less than 5% of all multi-dwelling units (MDUs) offer such amenities to their tenants. With 44 million rental units occupied in the U.S. alone, these amenities represent impactful competitive differentiators, new revenue streams, and turnover inhibitors for rental and MDU property owner/operators.

## Partners

- Resideo
- Allegion

## Products Used

- VeeaHub (VHE09 & VHE10)
- vTBA
- VeeaHub IoT Toolkit

**Lighting**
On/Off/Dim
Automate
Energy Saving

**Geo-Location**
Mobile Tracking
Automation

**Security**
Instant Alerts
Door / Window / Motion

**Remote Access**
Secure & anytime,
anywhere

**Smart Home**

**Surveillance**
Instant Alerts
Record/Live View

**Audio / Visual**
Wireless Audio
Centralized Video

**Energy**
Control, manage
and automate

**Climate**
Heating / Cooling
Energy Saving

The Veea Platform unlocks this potential, enabling robust, integrated residential property management solutions that allow property managers to create dynamic building communities through compelling tenant experiences and services. Core Managed Wi-Fi (vTBA) securely isolates tenant, visitor, and property management network traffic while providing unparalleled ease of deployment and management across a shared wireless network infrastructure.

The VeeaHub's ability to integrate with thousands of IoT sensors and controllers from a wide range of manufacturers allow property management platforms to effectively monitor, control, and manage building and perimeter security, access, environmental quality, energy consumption, and water usage. Together, these capabilities can be leveraged by a property management solution provider to bring to market compelling and differentiated offerings much more cost-effectively and rapidly.

Resident Amenities

Smart Apartment/Home

Resident Unit Access / Security

Core Managed Wi-Fi

Self Tour

Visitor Access / Intercom

Elevator Control

Perimeter & Common Access

Environmental Management

Property Management Services

Partner App

Veea Platform

Property

Working with several solution provider partners, Veea has piloted just such a solution into a number of hotel and MDU properties. This solution integrated cloud-based and on-site services with a wide range of smart devices (locks, cameras, keypads, thermostats, plug/outlet adaptors, lighting, motion detectors, door sensors, glass break sensors, air quality sensors, water sensors, and water shutoff valves) to provide a smart building experience driven by a single app.
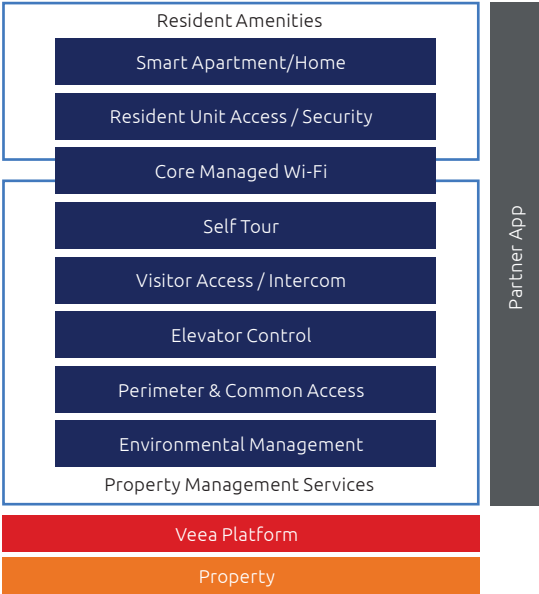
# Smart Retail: Trollee

Retailers with physical locations depend on engaging customer experiences and personalized service to build and maintain relationships with customers and make their business profitable. Many brands allocate their advertising budgets to influence consumer behavior at the moment of purchase - up to 10% of their total budget.

Veea has partnered with iFREE and Inpixon to create the TROLLEE solution demonstrator which highlights the capabilities of the Veea Edge Computing Platform. This powerful demonstrator showcases the potential of edge computing, analytics, and artificial intelligence in transforming the retail experience of customers.

TROLLEE offers a hybrid of online and offline shopping. It enables personalized content for customers and a dynamic advertising medium that responds to the consumer's in-store behavior. This creates a more engaging retail experience, while providing the retailer with increased foot traffic, higher transaction values, and improved conversion rates. Moreover, retailers can benefit from an additional revenue stream.

**Features include:**

- Wi-Fi and 4G LTE connectivity via VeeaHubs
- Veea's AdEdge services for delivering ads that are relevant.
- An indoor positioning system
- An Android-based smart shopping cart
- Seamless operation of VeeaHubs
- Easy installation to any shopping cart

## Partners

- iFREE
- Inpixon

## Products Used

- VeeaHub (all models)
- AdEdge

TROLLEE is designed to provide shoppers and retailers with the benefits of online shopping's rich data experience along with the "hands-on" physical consumer experience. It is a transformative Smart Retail experience that enhances foot traffic, average transaction value, conversion rates, and customer retention. The AdEdge services allow the consumers to receive relevant and timely advertising, while generating a new revenue stream for the retailer.

This demonstrator offers a hybrid mobile/fixed signage advertising medium that responds dynamically to consumer in-store behavior, providing the consumer with relevant and timely advertising while generating a new revenue stream for the retailer. TROLLEE is a great example of how digital transformation can take place in the retail industry, and the potential this holds for both customers and retailers.

# Precision Agriculture

As climate change and global population growth place ever-increasing demands on agricultural productivity and profitability, large commercial farming operations are turning to technology.

Smart Farming starts with data collection, using soil, water, and weather sensors, cameras, and drones to capture and measure in real time current farm conditions. Cloud-based visual analytics and machine learning are being used to predict and better manage farm resources, and to control automated farm vehicles and equipment. Tying these technologies together into an effective solution requires a complex, secure, reliable multi-protocol communications infrastructure.

Veea's Edge Computing Platform and IOT Toolkit are being used by Opti-Harvest, an agricultural innovation company that develops and markets climate-smart products that help growers maximize production, optimize land, reduce labor costs, and increase water use efficiency. Veea's products and services are key infrastructure elements for Opti-Harvest deployments. These deployments leverage the VeeaHub VHH-09 model's wide range of connectivity and expansion options, as well as its LoRaWAN and 4G LTE capabilities, to convey IOT sensor data that farmers can use to understand and adjust Opti-Harvest products in real time.

As a member of the Rural Cloud Initiative, Veea is an integral partner in Grand Farm's FarmGrid Precision Agriculture Solution, a collaborative project on Grand Farm's Innovation Site south of Fargo, North Dakota. Veea is working with other Rural Cloud Initiative members to deliver an all-in-one solution for farmers to purchase precision agriculture equipment that integrates seamlessly on Trilogy Network's FarmGrid platform.

The collaboration allows for the addition of partners with technology such as sensors, autonomous systems, machines, ag-centric subscription-as-a-service applications and other farm technologies. The products integrated into the FarmGrid framework would ultimately enable the purchase of out-of-the-box solutions that integrate seamlessly on farms similar to residential digital systems on the market today.

## Partners

- Opti-Harvest
- Rural Cloud Initiative
- Trilogy Networks
- Microclimates

## Products Used

- VeeaHub (VHH09 & VHH10)
- VeeaHub IoT Toolkit
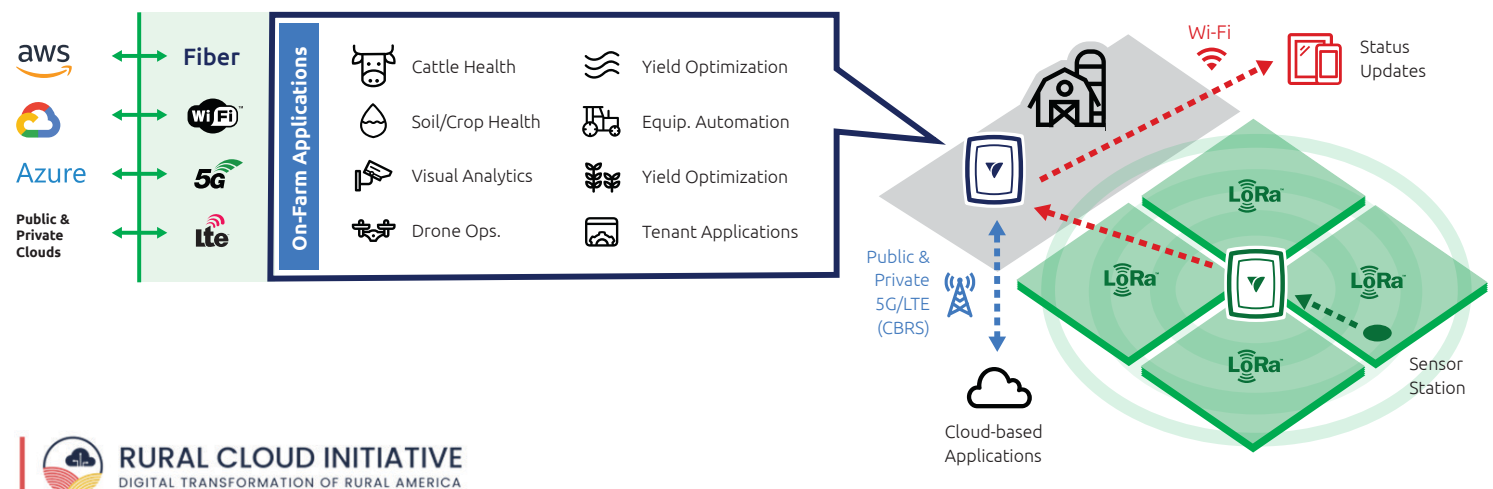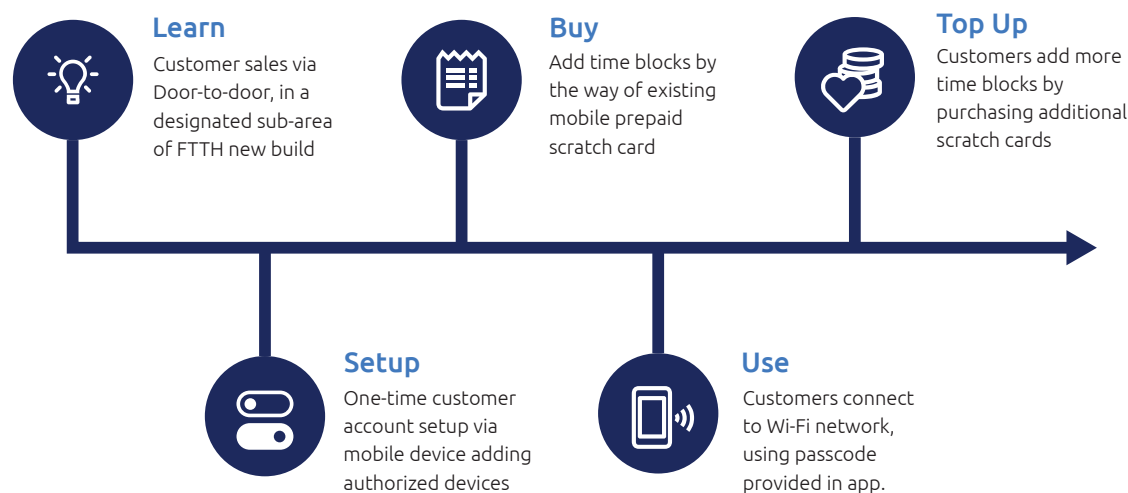
# Closing the Digital Divide

Reliable Internet connectivity is an essential aspect of everyday life; providing that connectivity profitably to unserved and underserved communities is a challenge faced by most Internet Service Providers (ISPs), particularly in developing regions and countries. These communities can't support the postpaid subscription revenue which typical service business models rely on to recoup and cover the equipment, installation, and operating costs associated with per-subscriber in-home Consumer Premise Equipment (CPE).

An alternate approach that extends fiber and 4G/5G networks over shared Wi-Fi infrastructure across subscribers while providing isolated and secure broadband access and bridge the digital divide while unlocking the economic potential of rural communities, densely-packed neighborhoods, multi-family public housing, temporary/transient lodging, and heavily trafficked tourist zones.

## Results

1 neighborhood, 3 hubs, over a year, 20GB/day

## Products Used

- VeeaHub (all models)
- vTBA

In conjunction with CableLabs and a Tier 1 Latin American Mobile Network Operator (MNO), Veea has piloted a broadband access solution that relies on the Veea Edge Computing Platform and vTBA to provide prepaid Internet access to underserved communities without the need for in-home Consumer Premise Equipment (CPE) or fixed home addresses. For this Pilot, Veea-provided VHH-10 outdoor VeeaHubs running an early version of vTBA were pole-mounted throughout a densely populated neighborhood.

A simple web portal allowed consumers in the Pilot neighborhood to self-subscribe to the service using using existing pre-paid and scratch billing card distribution mechanisms, and enroll their devices in a matter of minutes. Each subscriber was authenticated with device-specific credentials and provided a virtual network which isolated their traffic and enforced rate limits, irrespective of Wi-Fi access point using a single, common SSID. API integration with operator business/operations support systems (B/OSS) were simulated.

## Broadband Subscriber Journey

**Learn**
Customer sales via Door-to-door, in a designated sub-area of FTTH new build

**Buy**
Add time blocks by the way of existing mobile prepaid scratch card

**Top Up**
Customers add more time blocks by purchasing additional scratch cards

**Setup**
One-time customer account setup via mobile device adding authorized devices

**Use**
Customers connect to Wi-Fi network, using passcode provided in app.

# More Information

Please visit **veea.com/resources** or contact us at **sales@veea.com** for additional information about our solutions.

## Product Briefs

- VeeaHub Product Brief
- vTBA Service Brief

- AdEdge Service Brief

## Concept Briefs

- ESGaaS Concept Brief
- PMaaS Concept Brief
- Community Brandband Concept Brief

- Precision Agriculture Concept Brief
- Smart Retail Concept Brief

## Product Datasheets

- VeeaHub STAX (VHC25)
- VeeaHub Pro (VHE09)
- VeeaHub Pro S (VHE10)

- VeeaHub Pro Outdoor (VHH09)
- VeeaHub Pro Outdoor S (VHH10)

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# About Veea

Veea is an edge platform provider headquartered in New York City. Our team has extensive knowledge and expertise on content delivery and edge computing, and has brought a broad range of Wi-Fi, 4G/5G mobile wireless, and IoT products to market over the past two decades. With over 80 patents in virtualization, containerization, edge computing and hyperconverged networks, Veea is a leader in this technology and is transforming the world to a smarter, more connected one from the device edge inward.

Headquarters
## NYC

Patents
## 80+

**Connect + Compute + Secure**

Veea makes edge computing simpler, focusing on four imperatives: reducing latency, enhancing security and privacy, reducing the cost of data and bandwidth, and providing more autonomy in the face of failures.

By integrating multi-protocol connectivity, containerized processing, and distributed storage within the Veea Edge Platform, we provide everything necessary to rapidly tap into the power and benefits of Edge Computing.

## Intelligently Connected™

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**Veea, Inc.** 164 E 83rd Street | New York, NY, 10028

**sales@veea.com • veea.com**

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