VDart Digital

Top 3 Reasons to Implement

Cloud Computing.

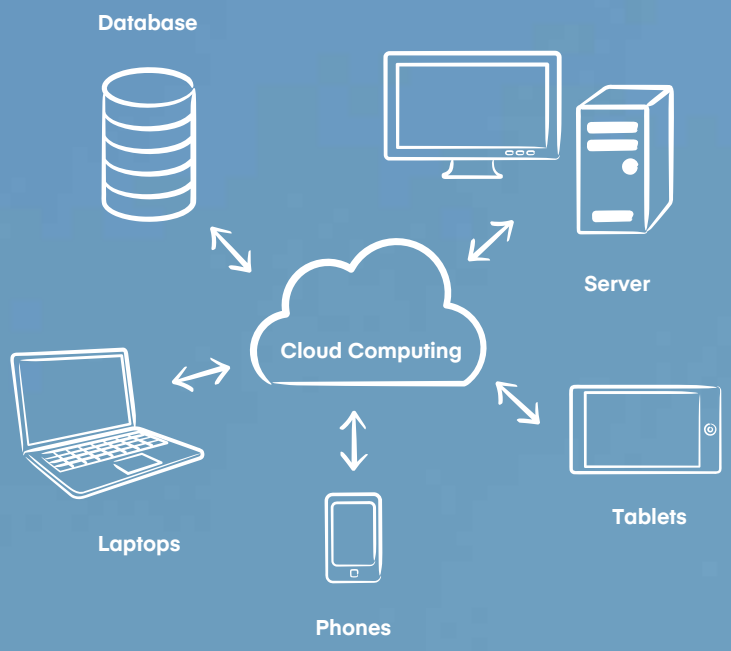
TABLE OF CONTENTS

VDart Digital

What is Cloud Computing?

Cloud computing is a general term that describes the delivery of servers, software, storage, databases, analytics, and many others through the internet. Traditionally these kinds of services would require physical hardware and onsite computing power to produce. However, with cloud computing, you can remove the burden of maintaining physical systems and use the internet to remotely connect to these services and products.

Figure 1: What is Cloud Computing?



VDart Digital

Reduced Upfront & Long-term Costs

Cloud computing reduces the capital expenditure on physical hardware. One great feature of cloud computing is the potential for contracting out pay-asyou-go subscription services for features such as cloud storage, software, servers, etc. Before cloud computing services, there was a fairly large capital requirement for purchasing hardware. Additionally, that hardware required regular updates and maintenance and, over time, would yield long-term associated costs. With subscription based services, you only pay for what you need when you need it.

Customers save between 30% - 50% overall by moving their applications to the cloud *

* https://www.forbes.com/sites/quora/2019/12/20/how-much-money-can-businessessave-by-moving-to-the-cloud/?sh=128c6b0ef43c

VDart Digital

CASE STUDY **CLIENT: ELECTRIC VEHICLE MANUFACTURER**

Challenge: OEMs are integrating machine learning modules in Electric Vehicles (EVs) in an attempt to minimize electrical demand during peak hours to reduce consumer electricity costs, reduce electrical grid demand, and ultimately reduce the C02 footprint of the driver. Additionally, these AI systems are attempting to open up gateways for new revenue streams by allowing consumers to sell back their unused electricity through the electricity market.

Solution

VDart Digital's wealth of knowledge in machine learning algorithms, cloud technologies, and system integration was called upon as we partnered with a Global OEM to streamline the customer's technical development. Machine learning algorithms now accurately predict optimal charging times based on individual EV owner metrics and local electricity demand. Additionally, smartphone apps allow the customer to input planned trip data that will then be integrated with charging data and AI modules. The outcome results in not only significant consumer cost savings, but a reduced carbon footprint and a potential to turn a parked car into a revenue stream by selling unused energy back to the grid.

Results

- Integrates with grid back-end and reduces consumer costs by only charging the vehicle based on driver habits and planned trip data that can be intuitively managed with a convenient mobile app
- Significant reduction in electric cost using AI to charge during off-peak-times and help balance the grid
- The demand-reduction can now be monetized through the electricity market
- Reduced environmental impact of customer's home-charging C02 footprint Greatly reduced OEM environmental impact due to increased life of vehicle battery and reduced demand for newer batteries

Protection During Natural Disasters

40%

40% of small businesses don't reopen after a natural disaster**

5%

5% of small businesses don't have a disaster plan in place **

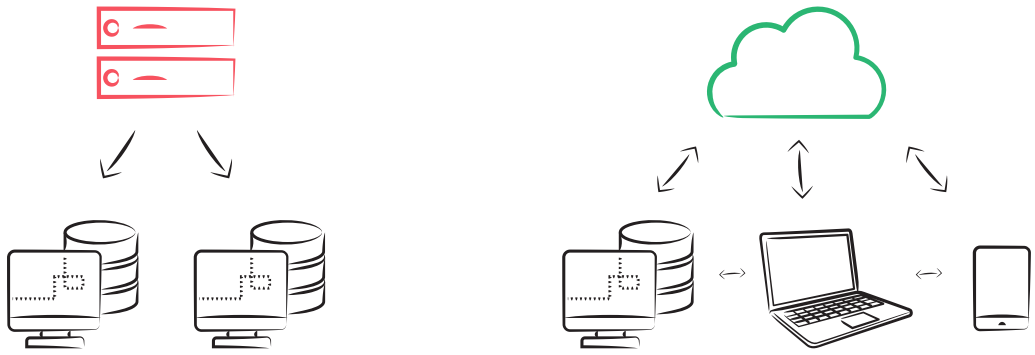
Although cloud services won't protect the storefront or the physical office of a business during a natural disaster, the company data can be preserved due to the decentralized and off-site nature of cloud computing. According to FEMA, a startlingly large number of small business are unprepared for natural disasters and are ruined when disaster strikes. Through the use of cloud services, the risk of losing physical hardware and company data is greatly mitigated because cloud servers are off-site and back-up any crucial data.

** Nationwide IInsurance Annual Small Business Survey

Flexibility, Accessibility, & Scalability

Because cloud subscription services are often pay-as-you-go, scalability is drastically improved. Scaling down and scaling up to meet your growing needs is part of the cloud business models and allows for increased agility compared to traditional methods of hardware and software management. Additionally, because the cloud is a remote service, there staff have the ability to work from home, from their smart phone, or in a client's office if required.

Figure 2. On Premise Vs Private Cloud



On Premise	Private Cloud
All data is stored on internal hard drive	All data is stored in the cloud/external servers
Each software program requires installation and IT staff kknowledge	The software/application is hosted by a thirdparty
Large capital requirement for upfront cost of hardware	Subscription-based model removes hardware capital expenditure and offers scalable solutions
Efficiency and speed are determined by hardware restrictions on computational power	Cloud server does all the heavy lifting and processing
Accessibility is limited to physical PC	Accessible anywhere using any device with internet access

STAY CONNECTED

VDart Digital
sales@vdartdigital.com
https://www.vdart.com/solutions/

Connect With Us
https://www.linkedin.com/company/vdartdigital

Follow Us
https://twitter.com/vdartdigital

VDart Digital