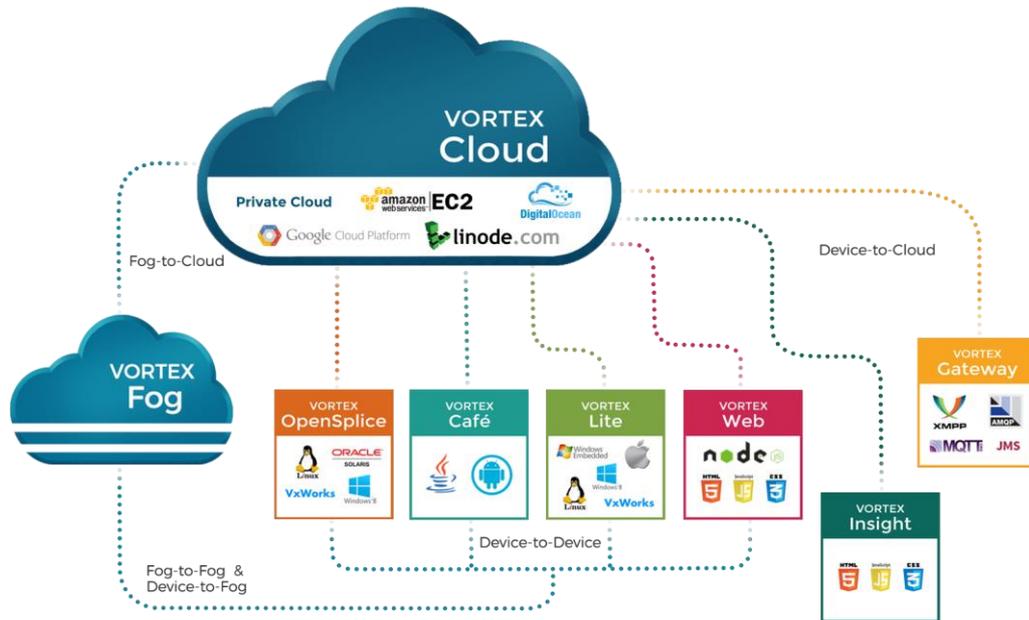


VORTEX the Intelligent Data Sharing Platform

Vortex is the Intelligent Data Sharing Platform for Business-Critical Internet of Things (IoT) applications. Vortex helps system integrators, OEMs, device platform vendors, and Cloud service providers (IaaS, PaaS, SaaS, DaaS) deliver 'Smart' solutions for many vertical markets, including: IT and Networks, Healthcare, Energy, Transportation, Smart Cities, Industrial Automation, Finance and Government (Security and Public Safety).



Introduction

Vortex provides efficient, secure and interoperable Internet scale real-time data sharing. It is a key enabler for systems that have to reliably and securely deliver high volumes of real-time data with stringent end-to-end qualities-of-service (QoS).

Vortex Key Benefits

- ▶ Device to Device, Device to Cloud, and Device to Device via the Cloud real-time data sharing
- ▶ Also supports real-time data sharing between UDP (multicast and unicast) enabled Fog subsystems and TCP applications, Device to Fog, Fog to Cloud, Fog to Fog
- ▶ Platform independent interoperable solution for Embedded, Mobile and Enterprise environments
- ▶ Operating system and programming language independent
- ▶ Built on Open standards to enable application portability, interoperability and component re-use
- ▶ LAN or WAN deployment over private or public networks, Clouds and Fog networks.
- ▶ Seamless integration with legacy and 3rd party application, providing connectors to over 100 different

protocols and endpoint technologies. Open architecture APIs enable integration of 3rd party development environments/IDEs, frameworks and analytics software

- ▶ End-to-end qualities of service providing superior performance, scalability, reliability, determinism, interoperability, security and network efficiency
- ▶ Dynamic discovery for applications publishing and subscribing to data
- ▶ Plug-and-play for applications enabling systems to evolve more easily
- ▶ Local Area Network (LAN) or Wide Area Network (WAN) deployment over Private or Public Networks and Clouds

Vortex enables system-wide data sharing for machines, devices and people. It allows users to leverage the growing proliferation of the next generation of intelligent devices to create new IoT solutions. Vortex helps users to harness the ever-increasing amounts of device generated data, process the data in real-time and act on events as quickly as they occur to drive smarter decisions, enable new services / revenue streams and reduce costs. Vortex simplifies the development, the deployment and the management of large scale IoT applications, so enabling

users to bring their new products and solutions to the market more quickly.

The Vortex Intelligent Data Sharing Platform consists of the Vortex Device, Cloud and Fog. The Vortex platform product bundles are designed to provide a range of capabilities that best suit the specific needs of a system:

Vortex Device enables device applications to securely share real-time data using different device platform and network configurations. This includes being able to support data sharing between devices (Device to Device) on the same LAN, data sharing between devices and a Cloud-based datacenter (Device to Cloud) and between devices and a Web browser client. Vortex Device includes interoperable data sharing technologies that can support a broad range of Enterprise, Embedded and Handheld systems. Vortex Device also includes a suite of advanced tooling that helps users design, develop, test, debug, tune, monitor and manage deployed Vortex systems and systems of systems.

Vortex Cloud extends the capabilities of Vortex Device with support for data sharing over a WAN. This includes being able to share data seamlessly between applications running on different LANs via the Internet. Vortex Cloud can be used with Private, Public and Hybrid Cloud infrastructures. Vortex Cloud also enables Boundary Security for subsystems connected over the Internet by providing certificate-based authentication between individual nodes and subsystems sharing data via Vortex Cloud, secure encrypted communications and access control rules defining the privileges each subsystem or TCP-enabled device has to read or write data.

Vortex Fog efficiently shares data between UDP (multicast and unicast) applications to TCP end points, and provides rate and bandwidth control. It provides three functions (1) seamless connectivity of existing DDS-based subsystems to Vortex Cloud, (2) seamless WAN inter-connectivity of DDS based subsystems, and (3) Boundary Security for systems by providing certificate-based authentication between DDS subsystems and also individual devices connecting into a LAN, secure encrypted communications and access control rules defining the privileges each subsystem or TCP-enabled device has to read or write data.

Develop

Vortex provides users with both flexibility and choice when developing IoT applications. Vortex is both programming language and operating system independent. Projects can choose their preferred programming language(s) with APIs available in C, C++, Java, JavaScript and C#. Developers have the choice to create native Vortex applications using their preferred compiler / IDE or leverage Vortex's Open APIs to create

applications using a specific application framework or platform technology. Vortex's Open architecture allows it to be easily integrated with 3rd party technologies such as an analytics engine or a management / monitoring tool. Vortex also provides specialized gateway technology (Vortex Gateway) with support for connectors to over 100 protocols allowing Vortex enabled devices and applications to be integrated with other 3rd party or legacy applications that may use any number of different communication technologies.

Share

Vortex supports real-time data sharing between devices and machines, enterprise systems and people. This includes devices such as a sensor, other types of specialized real-time embedded processing units, enterprise servers or any other type of computing resource that needs to share data across a network (wired, wireless or hybrid) even if the applications are hosted in a Cloud-based datacenter or another LAN accessible via the Internet. Vortex provides predictable and deterministic data sharing between applications by enabling users to have tailored control over the real-time behavior of the data. QoS can be specified to control timing, communication channel priority and resource utilization.

Manage

Vortex provides advanced tooling that helps users design, develop, test, configure, tune, debug, then monitor and manage deployed Vortex systems and systems of systems.

Summary

Vortex is a unique suite of technologies that can enable an IoT global data space with support for over 20 configurable QoS to ensure the performance, efficiency and robustness required of business-critical systems. It facilitates system requirements such as deterministic data delivery, interoperability between systems, data analytics on edge devices and in the Cloud, and mobility for users. For IoT systems that require efficient, secure and interoperable real-time Device to Device and Device to Cloud information sharing, combined with flexibility and choice then Vortex can provide users with a superb cost effective solution.

For further information regarding Vortex availability and pricing please e-mail: info@prismtech.com or visit: <http://www.prismtech.com/contact-us>.