MontaVista Introduces MVKube - Embedded Kubernetes Support and Microservice Infrastructure

MontaVista expands Kubernetes capabilities for embedded Linux systems, addressing device resource constraints and configuration complexity, ensuring stability.

SAN JOSE, CA, UNITED STATES, August 22, 2024 /EINPresswire.com/ -- MontaVista® Software, LLC, a pioneer in Embedded Linux® solutions, announces MVKube, a support program for Kubernetes to overcome the unique challenges in embedded environments. MVKube delivers essential CVE updates, bug fixes, and technical support, extending Kubernetes' lifecycle well beyond what is available for typical deployments.

MontaVista in uniquely suited to this task with 20 years of proven track record complex system maintenance, coupled with the expert Linux support built across countless of deployed devices.

MVKube can be deployed in two variants or a combination of these: either with MontaVista providing long-term support and maintenance on existing Kubernetes cluster deployments, or by utilizing MontaVista's own standard off-the-shelf configuration of K8S support that is deployable on any Linux operating system.

Both can be combined with services using the MVXPert service model that allow superior flexibility in configuring the solution for any platform architecture.

MVKube addresses the resource constraints, like limited storage and processing capacity, and configuration complexities typical in embedded systems, ensuring seamless integration with

specialized peripherals. The solution also provides enhanced stability and resilience by utilizing MontaVista's security updating and maintenance patching service.

MVKube offers several advantages over open-source Kubernetes:

1. Optimized for Embedded Systems: Unlike the standard Kubernetes, MVKube is tailored for the constraints and unique requirements of embedded environments, ensuring efficient resource utilization.

2. Comprehensive Support: MVKube includes long-term support with continuous CVE updates and bug fixes, ensuring system security and reliability on the baseline chosen by the customer.

3. Simplified Integration: MVKube, expecially with MVXPert, services ease the integration with specialized peripherals and hardware, a common challenge in embedded systems.

> " MVKube offers long-term K8S support - crucial for secure, stable deployments. MVKube fills a specific need for standards-based seamless application deployment in resource constrained systems"
> *Iisko Lappalainen, MontaVista VP of Product Management*

4. Enhanced Stability: MVKube provides a stable, resilient platform for mission-critical deployments, minimizing downtime and operational risks.

5. Automation and Management: MVKube includes tools and features that streamline the management and automation of embedded Kubernetes deployments.

In addition to the MVKube K8S baseline, MontaVista has started development on a microservices framework to allow secure DevOps and easy standards-based deployment of different payloads to the nodes using Kubernetes. This includes support for AI on-target use-cases like running edge learning and in-node inference. The MVKube microservices framework will be separately launched later in the year with more details. We invite interested customer to contact MontaVista for opportunities to evaluate and take part in the late-stage planning for the framework.

"MVKube offers long-term K8S support - crucial for secure, stable deployments," said Iisko Lappalainen, VP of Product Management at MontaVista. "With MontaVista's legacy in the embedded realm we have a unique position to expand our capabilities for the container orchestration components of our customers' platforms. MVKube fills a specific need for standards-based seamless application deployment in resource constrained systems. We also believe that MontaVista is best positioned to optimize the deployment of AI payloads on embedded systems. MVKube is a large step to finalizing a solution for our customers to facilitate this".

MVKube is available now. For more information, contact MontaVista at sales@mvista.com or visit https://www.mvista.com/en/solutions/detail/mvkube-overview/

About MontaVista Software

MontaVista Software, LLC, is a leader in embedded Linux commercialization. For over 20 years, MontaVista has been helping developers get the most out of open source by adding commercial quality, integration, long-term maintenance, hardware enablement and the expert technical support resources of the MontaVista development community. Because MontaVista customers enjoy faster time-to-market, more competitive device functionality, and lower total cost, more devices have been deployed with MontaVista than with any other Linux.

For more information about MontaVista, visit http://www.mvista.com

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MontaVista Marketing
MontaVista Software
+1 669-777-6841
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