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L&T collaborates with NVIDIA to unveil Gen AI and advanced software-defined architecture for medical devices

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Collaboration set to enhance medical imaging through Gen AI & Software-Defined Architectures

L&T Technology Services, a listed subsidiary of Larsen & Toubro, has announced a collaboration with NVIDIA to develop software-defined architectures for medical devices focused on endoscopy, which will enhance the image quality and scalability of products.

This innovative solution comes as an answer to the industry-wide challenges of availability, cost, and dependencies linked to custom and proprietary hardware components. The architecture is a scalable platform that supports multiple applications, providing a real-time decision-making tool for the medical fraternity.

Developed from the ground up, the architecture boasts an image processing pipeline for noise reduction, edge and contrast enhancement, texture and color enhancement, and speckle correction.

What sets it apart is its inclusion of artificial intelligence (AI)/ machine learning (ML) models developed for the detection, identification, and classification of polyps - abnormal growths often found during colonoscopies.

The solution further impresses with its user-friendly interface and seamless integration of the image processing pipeline for visualization. It promises low-latency data transfer, superior image processing without performance bottlenecks, and scalability.

The collaboration leverages the NVIDIA Holoscan and NVIDIA IGX Orin platforms, featuring ultra-low latency in data transfer, superior image processing, and scalability to support multiple AI-enabled applications. This helps ensure enhanced visualization for image processing and AI-based decision-making support, such as for polyp detection and classification.