EPICS Collaboration Meeting





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PVAccess, Docker, and the UDP Broadcast problem

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At the ISIS Accelerators the majority of our production EPICS systems are deployed in containers on three Docker Swarm servers. Our development is done on Windows using Docker (though WSL is also used) and our operators interact with the control system using Phoebus on Windows. This poses challenges when dealing with PVAccess's UDP broadcast based search across many network boundaries. To tackle this we use a mixture of PVA Gateways and the EPICS_PVA_NAME_SERVERS environment variable. However, these solutions have proved inflexible within the Docker Swarm. We detail the problems, our solutions, and present a new UDP broadcast relay called SnowSignal which may be used to bridge searches between network segments.

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