# Arkloud



















Arkloud provides an extensive toolkit of technologies and patterns to streamline solution innovation. From low-level embedded software to cutting edge web-clients and everything in between.

Check this out!









Drew Stephenson

Strategic Technical Solutions Manager astephenson@appliedres.com 937.903.6366

#### **Capabilities and Features**

#### **Account Management**

- Sign in using Microsoft Authenticator, CACs, PIV Cards, and OTPs
- Full approval process to create and manage groups of users/teams
- Interacts with Identity Management Providers (like EntralD and Keycloak) to generate and manage users
- Support role-based permissions
- Customizable User Account Request process that supports all steps of a digital DD2875 via multiple approvals

### Source Code Management

- Git based source code management and version control using GitLab
- Support for groups and projects
- Self managed, role-based access for projects and groups
- HTTPS cloning restrictions by IP-Range to prevent cloning of sensitive source code outside of the cloud

### Agile Project Management

- Manage backlogs in GitLab
- Support task dependencies and multiple assignments
- Rollup tasks from all projects from a group into a single backlog
- Graphical Kanban and sprint boards

### Self-Service Virtual Desktops

- Access virtual desktops for Windows 11, Ubuntu and RedHat
- Shared drives for data and applications
- Dynamically configured by users
- SaltStack provisions software on each user VM. Many existing SaltStack options available
- Leverage Azure Virtual Desktop, enabling "BYOD" model to get into the environment
- Full lifecycle management, permissions, quotas, and budgeting

#### **DevSecOps Pipelines**

- Fully automated and manually triggered pipelines in GitLab
- Includes static scanning of source code supporting a wide range of programming languages
- Create and scan container images
- Trigger via webhooks

### Web-Based Development

- Develop and Test code completely in your web browser using coder enterprise
- Run a light-weight coding environment in Kubernetes
- Light weight WebIDE in Gitlab

## "Collaboration with a vision!"

### License / Restricted Access

- Vendor Specific Licensing Models and Management (Per user, concurrent user models, and per system models)
- Open Policy Agent (OPA) Zero Trust policy engine
- Limit new virtual machine resource allocations by choosing the operating system, size, and installed software

## Package / Library Management

- Request packages for popular languages such as: Javascript (NPM), Go, C/C++ (Conan), .Net (NuGet)
- Request packages for software installations such as Yum and Chocolatey
- Transfer and install the packages into the environment for developmental usage automatically
- Completely track and audit available packages

### **Tailored Capabilities**

- Integrated software tools:
- AFSIM Full AFSIM Desktop and DevSecOps Pipeline
- Flight Test Data Custom Flight Test data management suite
- Virtual system lab, prototypes, vulnerability data analytics tools

#### **Technical Description**

Arkloud is built on the Azure government-based cloud environment, with Azure Mission Landing Zone (MLZ) as our Secure Cloud Computing Architecture (SCCA). Arkloud communicates in real time through Microsoft Office 365 government. The solution is fully accredited with NIST SP 800-53 Rev 5 and ATO granted for IL5.

Users can access Arkloud capabilities on NIPR net and other US government networks.