



Scalable, Cloud-Based Device Reprogramming

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What is demonstrated

1. Publish new image
2. Determine population of eligible targets
3. Determine scheduling constraints
4. For each eligible target:
 - A. Obtain authorization for update
 - B. Failsafe swap to “Update” mode
(Failure reverts to “Run” mode with no change)
 - C. Transfer new image and update
 - D. Failsafe swap to “Run” mode
(Failure reverts to “Update” mode and retry)
5. Report progress

What was improved

Using the OpenDOF Project:

- Image publication / access controlled by owner
- Cloud infrastructure scales to meet demand of target population and urgency of schedule
- Bi-directional command/control allows target to participate in authorization / schedule of update
- Update mode can be significantly smaller with reduced dependencies of DOF protocols.
- Image transfer can scale better by using UDP
- Image transfer is secure and trusted
- Connectivity validation completes failsafe swap
- Leverage DOF Object Model for reporting

Source code or detail technical information availability



OpenDOF

<http://opendof.org>

Hardware Information

Applicable to: Application
 Operating System
 Custom Firmware