CCSI Control of Complex Systems Initiative

Pacific Northwest NATIONAL LABORATORY

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Control of Complex Systems:
An Integrated Perspective on Modern Power Grid Control

VOLTTRON™: Open Source Platform for Distributed Sensing and Control

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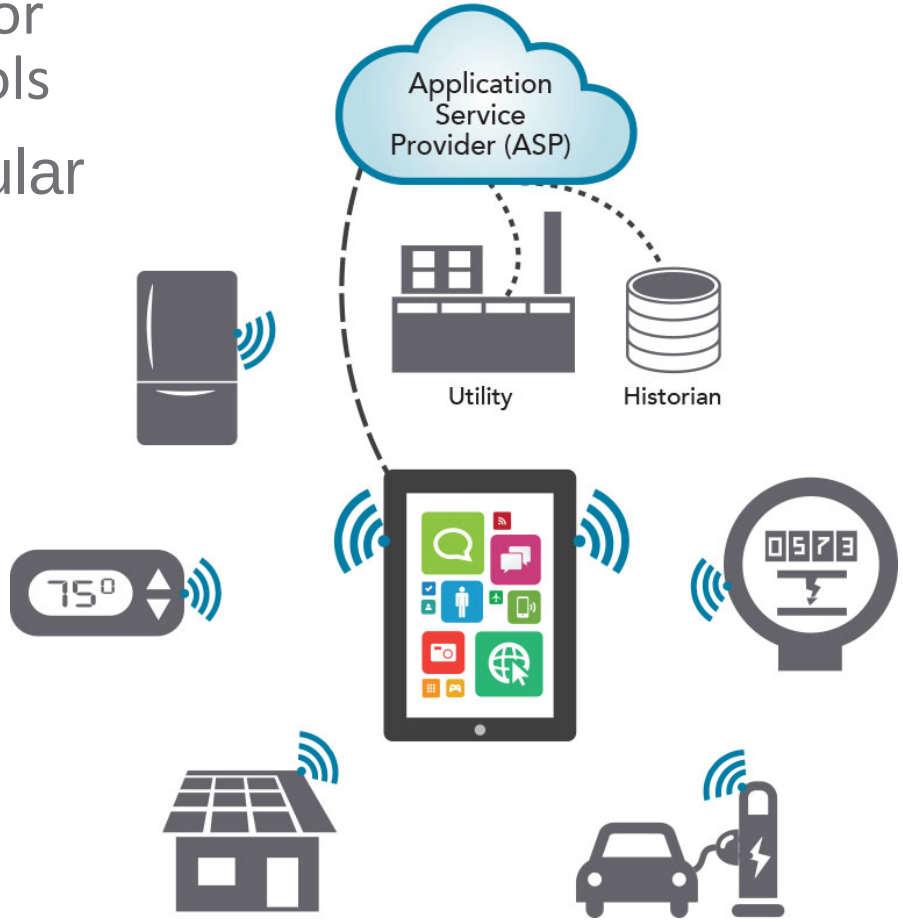
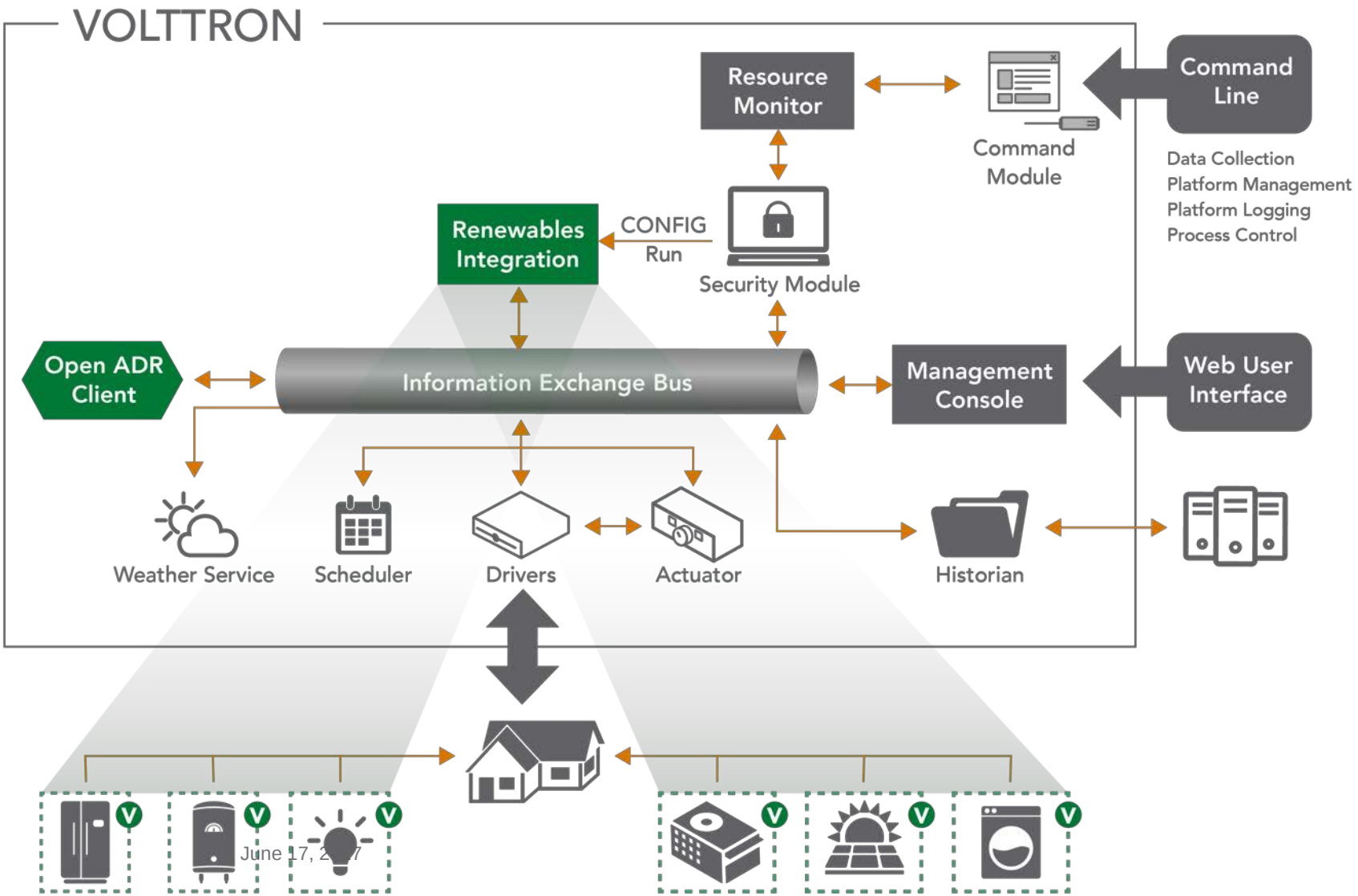
U.S. DEPARTMENT OF ENERGY

What is the VOLTTRON Platform?

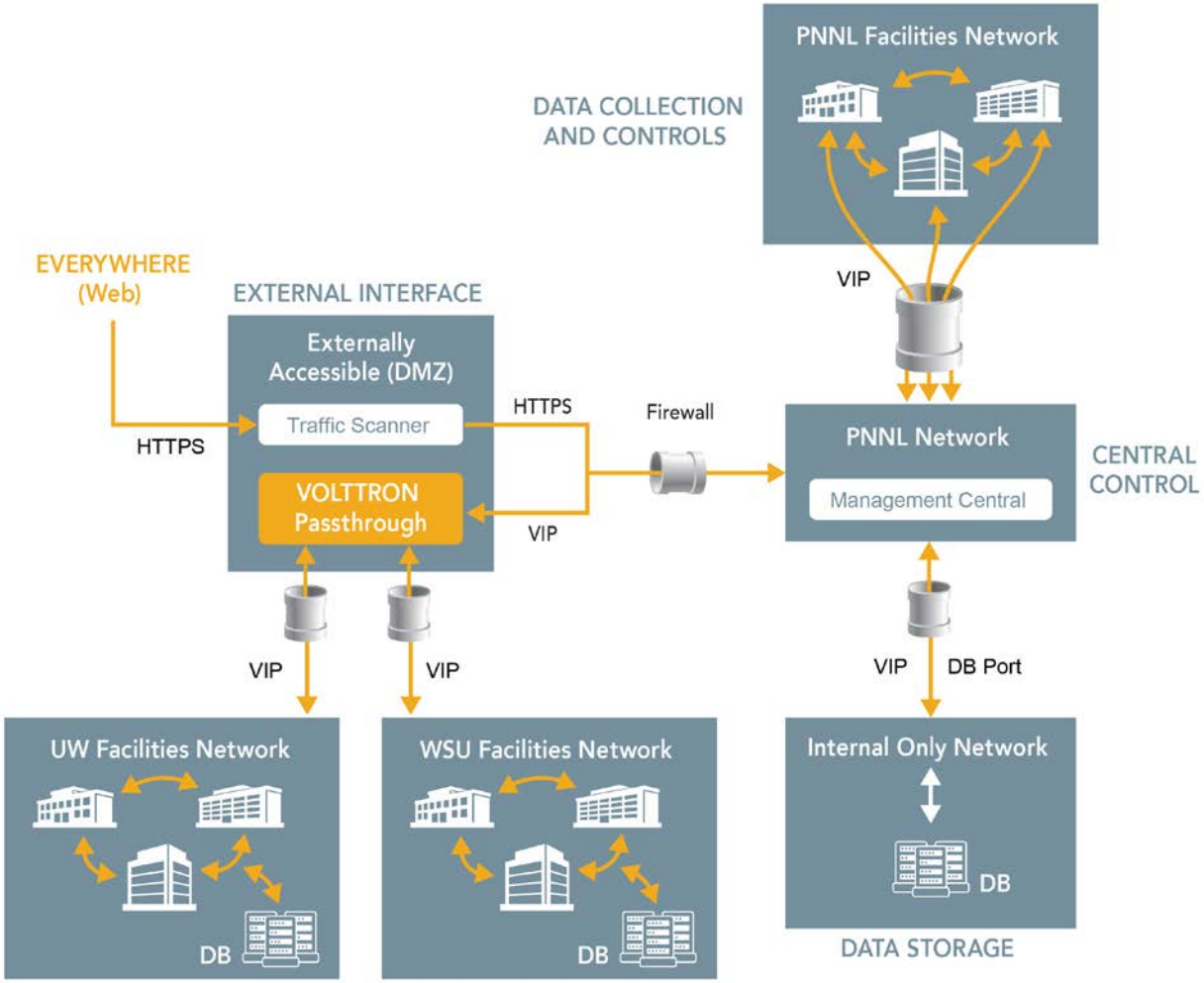
- VOLTTRON is an application **platform** (e.g., Android, iOS) for distributed sensing and controls
  - Open, flexible, and modular
  - Scalable
  - Built in features to streamline application development
  - Secure communication (e.g., security libraries/cryptography)
  - Platform services



Platform Overview



PNNL Campus VOLTTRON™ Deployment



VOLTTRON™ Timeline Highlights

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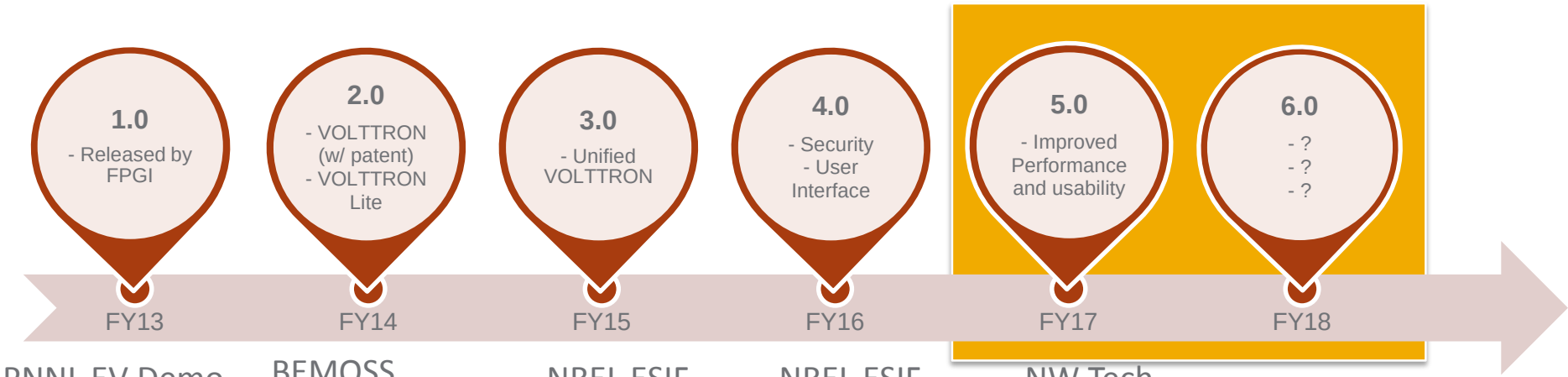
VOLTTRON™ Releases



FY13	FY14	FY15	FY16	FY17
PNNL EV Demo	BEMOSS RTU Network First User Forum	NREL ESIF 2nd User Forum	NREL ESIF 3nd User Forum Transactive Campus BIRD-IP GMLC Usage Buildings Challenge	NW Tech Meeting 4th User Forum VOLTTRON™ Foundation

Contact Information

Pacific Northwest NATIONAL LABORATORY
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- Email: Jereme.Haack@pnnl.gov or volttron@pnnl.gov

- GitHub
  - Codebase: https://github.com/VOLTTRON/volttron.git
  - Issues and requests: https://github.com/VOLTTRON/volttron/issues
- Documentation: http://volttron.readthedocs.io/en/develop/
  - Documentation is per branch
- StackOverflow: http://stackoverflow.com/questions/tagged/volttron
- Slack: https://volttron-community.slack.com/messages

- Bi-weekly office hours, email to be added
  - Recordings: https://volttron.org/office-hours