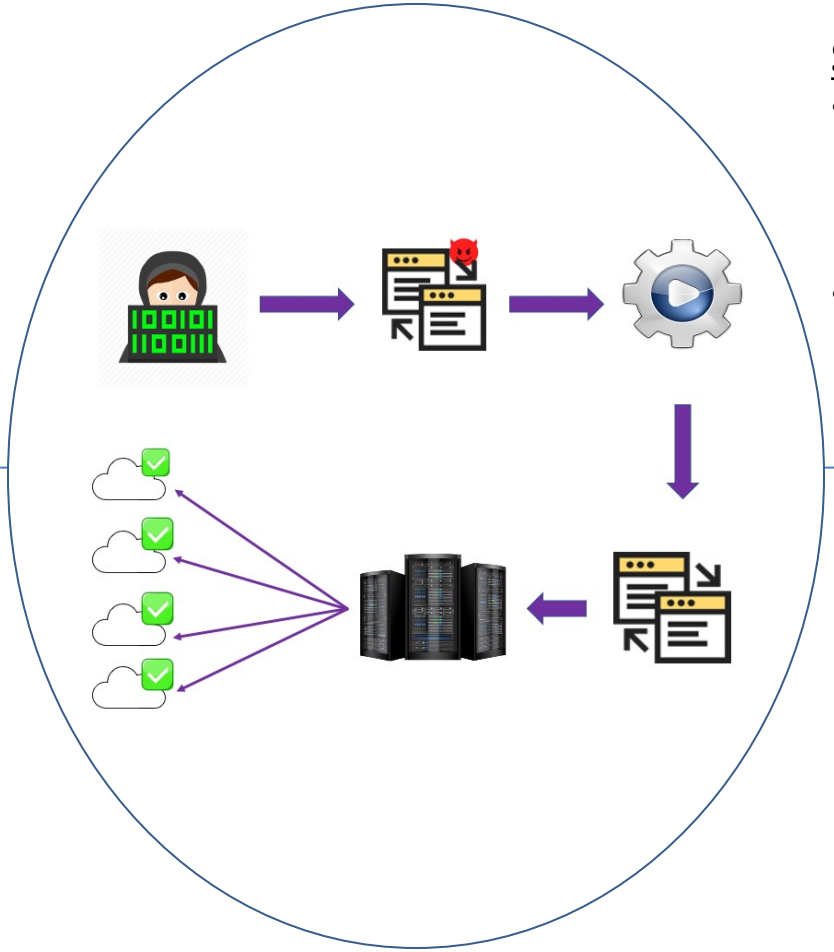
eSLIC: Enhanced Security Static Analysis of Configuration Scripts

Challenge:

- Secure configuration scripts are essential to secure provisioning of computing infrastructure
- Security static analysis enables practitioners to secure their configuration scripts



Solution:

- Mixed methods approach, robust parsing, information flow analysis
- Novel tools, namely, SLAC, TaintPup that can accurately identify security weaknesses

Scientific Impact:

- Identify security weaknesses in configuration scripts, and affected cloud-based infrastructure
- With tools, namely, SLAC and TaintPup practitioners will securely provision cloud-based infrastructure

Broader Impact and Broader Participation:

- Secure the nation's cloud-based cyber infrastructure
- Help industry practitioners and students mitigate security weaknesses in configuration scripts
- BPC: Two female PhD students funded with this project

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