SAND2017-7570C

The Center for Cyber Defenders

Expanding computer security knowledge

Laika BOSS

File-Centric Intrusion Detection

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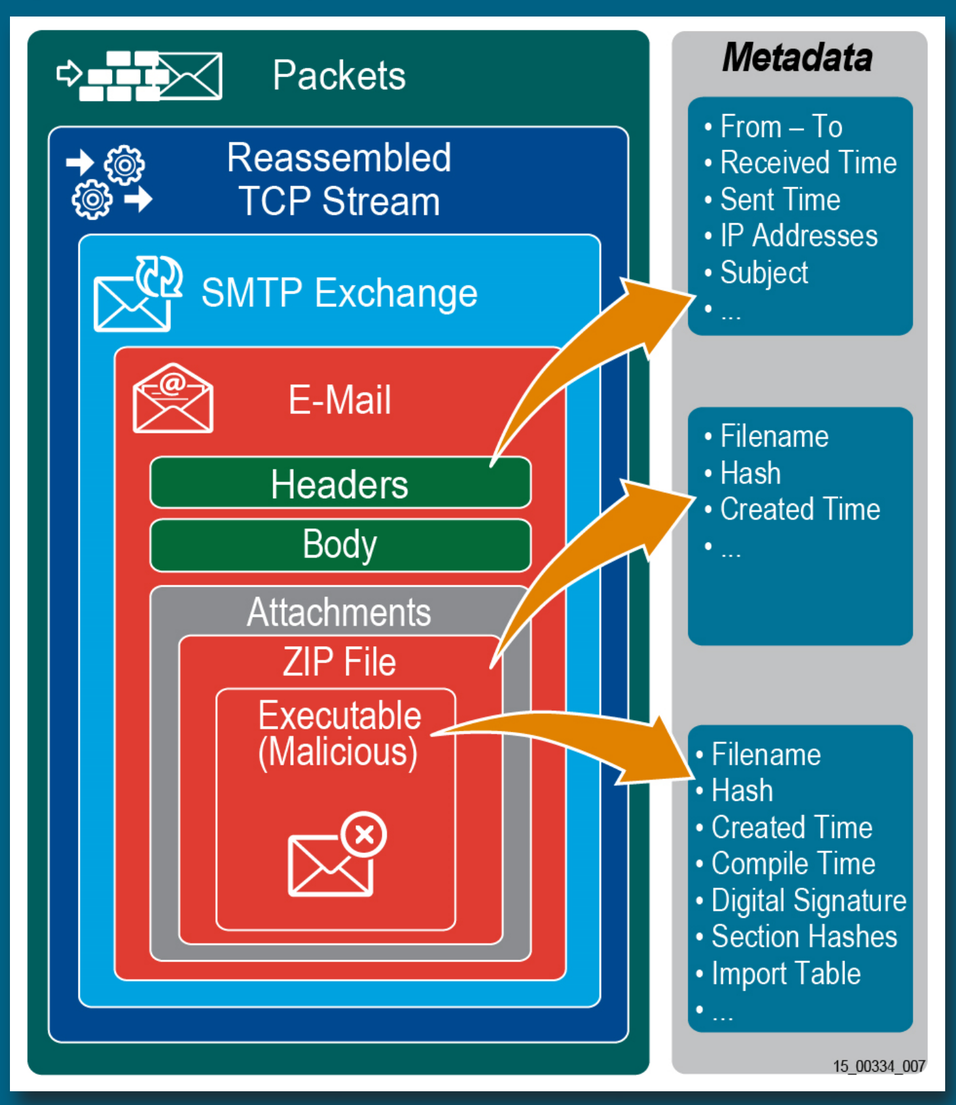
Problem Statement:

- Laika BOSS (Binary Object Scanning System) is an intrusion-detection and scanning system that operates on individual files and file-like objects, while extracting more files recursively.



Objectives and Approach:

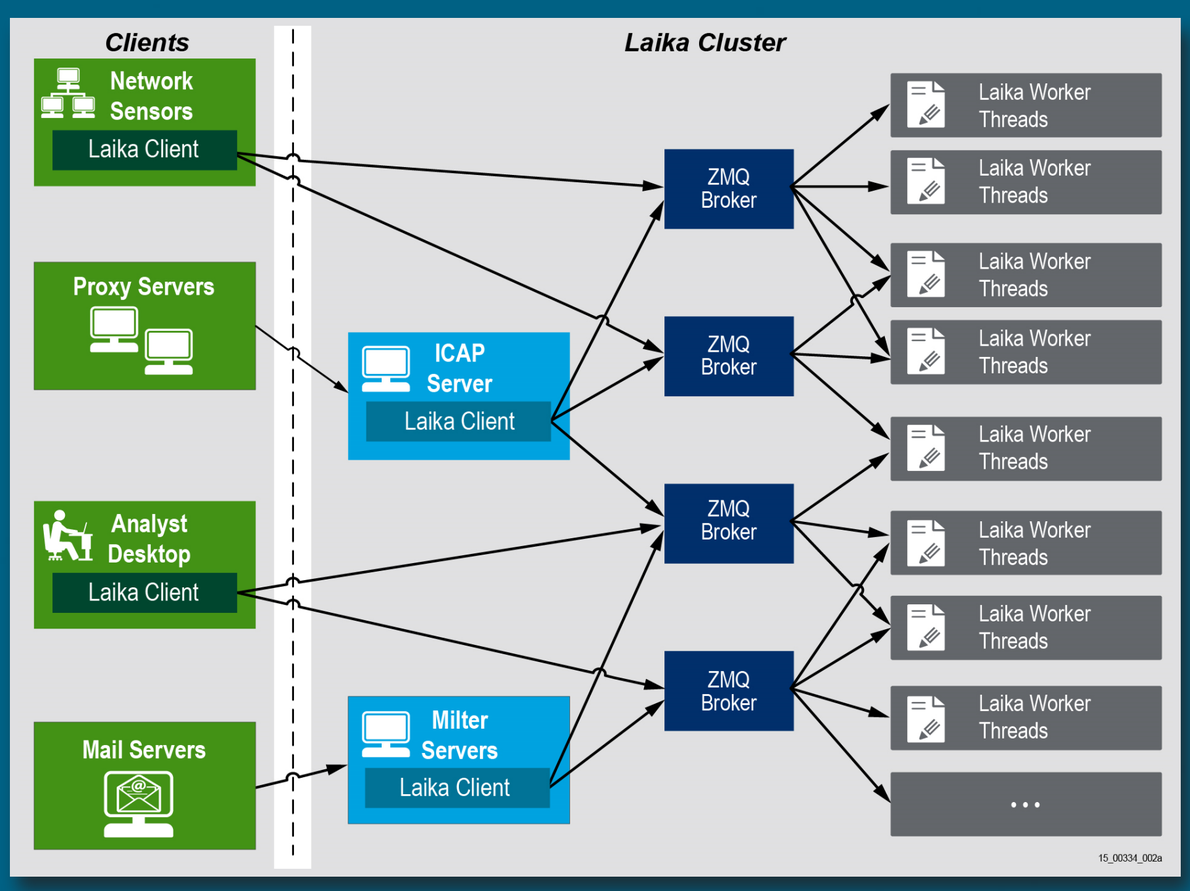
- Create modules for new file types and explore new methods of analysis for existing file types
- Optimize existing modules and subsystems
- Maintain and improve features ahead of deployment at Sandia

Results:

- Increased the speed of a key subsystem by about an order of magnitude
- Developed extraction and metadata modules for new types of files
- Added new configuration items for greater customizability

Impact and Benefits:

- The efficiency of a key subsystem was greatly increased (formerly took ~25% of CPU time)
- Created new modules that support Sandia's internal cybersecurity efforts
- Contributed features and bugfixes back to the open-source project



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