



OPERATIONS DEBRIEF

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This document covers the overall campaign analytics made up of the selected set of operations. The below sections contain general metadata about the selected operations as well as graphical views of the operations, the techniques and tactics used, and the facts discovered by the operations. The following sections include a more in depth review of each specific operation ran.

STATISTICS

An operation's planner makes up the decision making process. It contains logic for how a running operation should make decisions about which abilities to use and in what order. An objective is a collection of fact targets, called goals, which can be tied to adversaries. During the course of an operation, every time the planner is evaluated, the current objective status is evaluated in light of the current knowledge of the operation, with the operation completing should all goals be met.

Name	State	Planner	Objective	Time
T1053.006_lin	running	atomic	default	Not finished

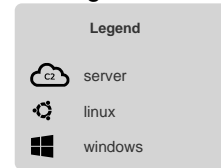
AGENTS

The table below displays information about the agents used. An agent's paw is the unique identifier, or paw print, of an agent. Also included are the username of the user who executed the agent, the privilege level of the agent process, and the name of the agent executable.

Paw	Host	Platform	Username	Privilege	Executable
ytrrll	analyst-virtual-machine	linux	root	Elevated	splunkd
vhrgfb	vdi-win10-d-25	windows	VDI-WIN10-D-25\admin	Elevated	agentb.exe
xdnpggh	vdi-win10-d-15	windows	VDI-WIN10-D-15\admin	Elevated	agentb.exe

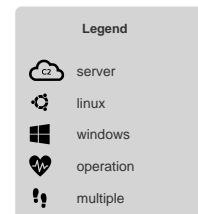
ATTACK PATH GRAPH

This graph displays the attack path of hosts compromised by Caldera. Source and target hosts are connected by the method of execution used to start the agent on the target host.



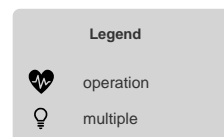
STEPS GRAPH

This is a graphical display of the agents connected to the command and control (C2), the operations run, and the steps of each operation as they relate to the agents.



TACTIC GRAPH

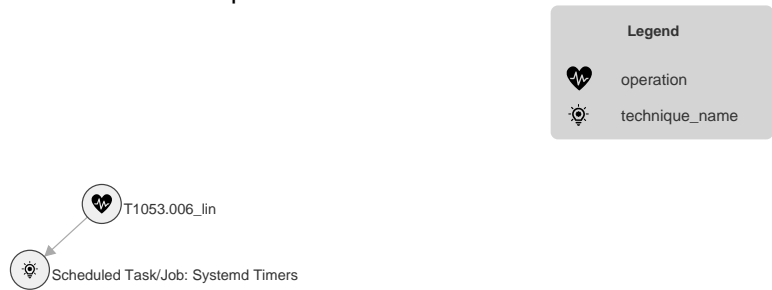
This graph displays the order of tactics executed by the operation. A tactic explains the general purpose or the "why" of a step.



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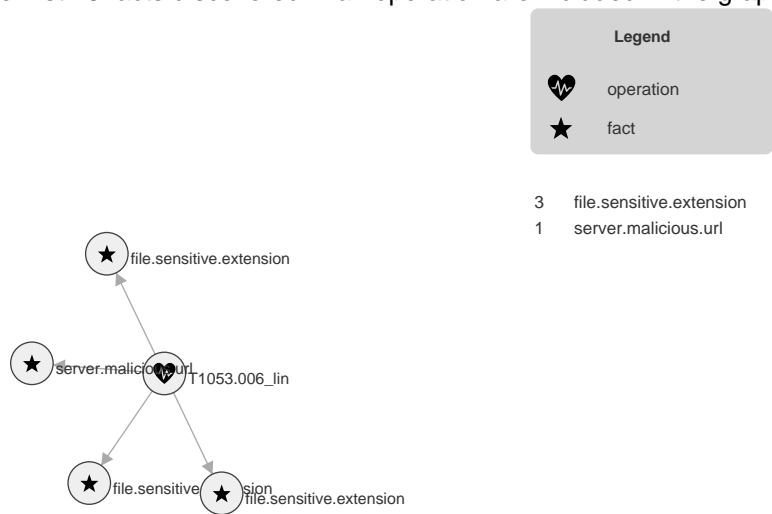
TECHNIQUE GRAPH

This graph displays the order of techniques executed by the operation. A technique explains the technical method or the "how" of a step.



FACT GRAPH

This graph displays the facts discovered by the operations run. Facts are attached to the operation where they were discovered. Facts are also attached to the facts that led to their discovery. For readability, only the first 15 facts discovered in an operation are included in the graph.



TACTICS AND TECHNIQUES

Tactics	Techniques	Abilities
Multiple	T1053.006: Scheduled Task/Job: Systemd Timers	T1053.006_lin Create Systemd Service and Timer Create a user level transient systemd service and timer Create a system level transient systemd service and timer

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STEPS IN OPERATION T1053.006_LIN

The table below shows detailed information about the steps taken in an operation and whether the command run discovered any facts.

Time	Status	Agent	Name	Command	Facts
2025-08-19 T17:21:26Z	timeout	nrxzyn	Create Systemd Service and Timer	echo "[Unit]" > /etc/systemd/system/art-timer.service; echo "Description=Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.service; echo "[Service]" >> /etc/systemd/system/art-timer.service; echo "Type=simple" >> /etc/systemd/system/art-timer.service; echo "ExecStart=/bin/touch /tmp/art-systemd-timer-marker" >> /etc/systemd/system/art-timer.service; echo "[Install]" >> /etc/systemd/system/art-timer.service; echo "WantedBy=multi-user.target" >> /etc/systemd/system/art-timer.service; echo "[Unit]" > /etc/systemd/system/art-timer.timer; echo "Description=Executes Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.timer; echo "Requires=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "[Timer]" >> /etc/systemd/system/art-timer.timer; echo "Unit=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "OnCalendar=*-*-* *:00" >> /etc/systemd/system/art-timer.timer; echo "[Install]" >> /etc/systemd/system/art-timer.timer; echo "WantedBy=timers.target" >> /etc/systemd/system/art-timer.timer; systemctl start art-timer.timer; systemctl enable art-timer.timer; systemctl daemon-reload	No
2025-08-19 T17:22:01Z	success	nrxzyn	Create a user level transient systemd service and timer	systemd-run --user --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No
2025-08-19 T17:23:13Z	failure	nrxzyn	Create a system level transient systemd service and timer	systemd-run --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No

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Time	Status	Agent	Name	Command	Facts
2025-08-19 T17:31:31Z	failure	nrxyzyn	Create a system level transient systemd service and timer	systemd-run --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No
2025-08-19 T17:31:46Z	success	nrxyzyn	Create a system level transient systemd service and timer	systemd-run --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No
2025-08-19 T18:43:20Z	success	nrxyzyn	Create Systemd Service and Timer	echo "[Unit]" > /etc/systemd/system/art-timer.service; echo "Description=Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.service; echo "[Service]" >> /etc/systemd/system/art-timer.service; echo "Type=simple" >> /etc/systemd/system/art-timer.service; echo "ExecStart=/bin/touch /tmp/art-systemd-timer-marker" >> /etc/systemd/system/art-timer.service; echo "[Install]" >> /etc/systemd/system/art-timer.service; echo "WantedBy=multi-user.target" >> /etc/systemd/system/art-timer.service; echo "[Unit]" > /etc/systemd/system/art-timer.timer; echo "Description=Executes Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.timer; echo "Requires=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "[Timer]" >> /etc/systemd/system/art-timer.timer; echo "Unit=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "OnCalendar=*-*-* *:00" >> /etc/systemd/system/art-timer.timer; echo "[Install]" >> /etc/systemd/system/art-timer.timer; echo "WantedBy=timers.target" >> /etc/systemd/system/art-timer.timer; systemctl start art-timer.timer; systemctl enable art-timer.timer; systemctl daemon-reload	No

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Time	Status	Agent	Name	Command	Facts
2025-08-20 T07:15:39Z	success	ytrll	Create Systemd Service and Timer	echo "[Unit]" > /etc/systemd/system/art-timer.service; echo "Description=Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.service; echo "[Service]" >> /etc/systemd/system/art-timer.service; echo "Type=simple" >> /etc/systemd/system/art-timer.service; echo "ExecStart=/bin/touch /tmp/art-systemd-timer-marker" >> /etc/systemd/system/art-timer.service; echo "[Install]" >> /etc/systemd/system/art-timer.service; echo "WantedBy=multi-user.target" >> /etc/systemd/system/art-timer.service; echo "[Unit]" > /etc/systemd/system/art-timer.timer; echo "Description=Executes Atomic Red Team Systemd Timer Service" >> /etc/systemd/system/art-timer.timer; echo "Requires=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "[Timer]" >> /etc/systemd/system/art-timer.timer; echo "Unit=art-timer.service" >> /etc/systemd/system/art-timer.timer; echo "OnCalendar=*-*-* *:00" >> /etc/systemd/system/art-timer.timer; echo "[Install]" >> /etc/systemd/system/art-timer.timer; echo "WantedBy=timers.target" >> /etc/systemd/system/art-timer.timer; systemctl start art-timer.timer; systemctl enable art-timer.timer; systemctl daemon-reload	No
2025-08-20 T07:17:40Z	failure	ytrll	Create a user level transient systemd service and timer	systemd-run --user --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No
2025-08-20 T07:19:12Z	success	ytrll	Create a system level transient systemd service and timer	systemd-run --unit=Atomic-Red-Team --on-calendar '*:0/1' /bin/sh -c 'echo "\$(date) \$(whoami)" >>/tmp/log'	No

FACTS FOUND IN OPERATION T1053.006_LIN

The table below displays the facts found in the operation, the command run and the agent that found the fact. Every fact, by default, gets a score of 1. If a host.user.password fact is important or has a high chance of success if used, you may assign it a score of 5. When an ability uses a fact to fill in a variable, it will use those with the highest scores first. A fact with a score of 0, is blacklisted - meaning it cannot be used in an operation.

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Trait	Value	Score	Source	Command Run
file.sensitive.extension	wav	1	ed3..96b	No Command (IMPORTED)
file.sensitive.extension	yml	1	ed3..96b	No Command (IMPORTED)
file.sensitive.extension	png	1	ed3..96b	No Command (IMPORTED)
server.malicious.url	keyloggedsite.com	1	ed3..96b	No Command (IMPORTED)