## EagerTAP — Pre-evaluation for data minimization on TAPs

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Trigger-Action-Platforms (TAP) allow connecting various information providers like smart homes or cloud data providers to information sinks like communication channels. JavaScript filter code allows for configurations that trigger only in certain conditions and for pre-processing the data received before passing it on.

As a result, an honest-but-curious TAP has rich access to data about their users and they are lucrative targets for attackers. TAPs are over-privileged having access to more endpoints than necessary and those endpoints send more attributes than necessary for the task at hand. A typical filter code only uses a part of the provided attributes and available endpoints.

Our approach introduces a pre-computation step at the information provider that limits the data sent to the TAP. This is done by analysing the filter codes, extracting parts of the computation that solely depend on a provider's data and pre-compute those.

This improves on previous research in a setting with multiple information providers and when only parts of the attributes are used.

Request: It would be great if I could hold my presentation on the first day as Daniel Hedin will only be able to participate on this date.