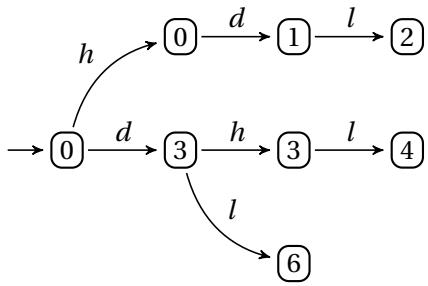
Lecture Session 13: February 9, 2021

IP-Security Example I



policy: $H \rightarrowtail D \rightarrowtail L$

- $\alpha_1 = dhl$
- $\alpha_2 = dl$
- s initial state
- $\texttt{obs}_L(s \cdot \alpha_1) = 4$, $\texttt{obs}_L(s \cdot \alpha_2) = 6$
- to show that the system is insecure: prove that $\texttt{ipurge}_L(\alpha_1) = \texttt{ipurge}_L(\alpha_2)$.

sources:

- $\texttt{sources}_L(\epsilon) = L$
- $\texttt{sources}_L(l) = \{L\}$
- $\texttt{sources}_L(dl) = \{D, L\}$
- $\texttt{sources}_L(hl) = \{L\}$
- $\texttt{sources}_L(hdl) = \{H, D, L\}$
- $\texttt{sources}_L(dhl) = \{D, L\}$

ipurge values:

- $\texttt{ipurge}_L(dhl) = dl$ (this is α_1)
- $\texttt{ipurge}_L(dl) = dl$ (this is α_2)