Definition

Given a DPI $\langle \mathbf{F}, \mathbf{R}, \mathbf{I}, \mathsf{prov}, \mathsf{req} \rangle$, we denote by $H : \mathbf{F} \to_{\mathbf{Pos}} \langle \mathcal{U}\mathbf{R}, \supseteq \rangle$ the monotone map that associates to each functionality f the set of minimal resources sufficient to realize f:

$$\begin{aligned} H : \mathbf{F} &\to_{\mathbf{Pos}} && \mathcal{U}\mathbf{R}, \\ f &\mapsto && \{\mathsf{req}(i) \mid (i \in \mathbf{I}) \wedge (f \preceq \mathsf{prov}(i))\}. \end{aligned}$$

If a certain functionality f is infeasible, then $H(f) = \emptyset$.