(How) Can We Secure Internet Routing

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Abstract:

The Internet is made up of tens of thousands of smaller networks, owned by different, self-interested organizations (e.g., Microsoft, AT&T, Hebrew U). Alarmingly, routing between these networks is highly vulnerable to configuration errors and attacks, as evidenced by recent major Internet outages. To remedy this, security-enhanced Internet routing protocols have been proposed. Yet, despite over a decade of intensive effort, deployment of a secure Internet routing protocol is still not on the horizon. I will discuss some of the main challenges en route to securing Internet routing.

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