

Scheme	Usability								Deployability						Security											
	Memorywise-Effortless	Scalable-for-Users	Nothing-to-Carry	Quasi-Nothing-to-Carry	Physically-Effortless	Easy-to-Learn	Easy-to-Use	Infrequent-Errors	Easy-Recovery-from-Loss	Accessible	Negligible-Cost-Per-User	Server-Compatible	Browser-Compatible	Mature	Non-Proprietary	Resilient-to-Physical-Observation	Resilient-to-Targeted-Impersonation	Resilient-to-Throttled-Guessing	Resilient-to-Unthrottled-Guessing	Resilient-to-Internal-Observation	Resilient-to-Leaks-from-Other-Verifiers	Resilient-to-Phishing	Resilient-to-Theft	No-Trusted-Third-Party	Requiring-Explicit-Consent	Unlinkable
Passwords		y	y		y	y	s	y		y	y	y	y	y	y		s						y	y	y	y
Google 2-Step Verification (2SV)				y	y	s	s	s		s			y	y			s	y			y	y	y	y	y	y
PhoneAuth – strict		s		y	y	y	s	y		y	s	s	s	s	y	y	y	y	y	s	y	y	y	y	y	s
PhoneAuth – opportunistic		s	s	y	y	y	s	y		y	y	s	y	y	y	s	s	s	s	s	s	s	y	y	y	s

Table 1: Comparison of PhoneAuth against passwords and Google 2-Step Verification using Bonneau et al.’s evaluation framework. ‘y’ means the benefit is provided, while ‘s’ means the benefit is somewhat provided. For some scores, we disagree with the Bonneau scoring.