|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Usability Considerations** | Memorized secrets | Look-up Secrets | Out of Band | Single Factor OTP Device | Multi-Factor OTP Device | Single Factor Cryptographic Software | Single Factor Cryptographic Device | Multi-Factor Cryptographic Software | Multi-Factor Cryptographic Device |
| **Typical usage** | | | | | | | | | |
| Authenticator availability – authenticators readily in user’s possession |  |  |  |  |  |  |  |  |  |
| Plain language for user facing text (e.g., instructions, prompts, notifications, error messages) |  |  |  |  |  |  |  |  |  |
| Legibility of user facing text or text entered by users |  |  |  |  |  |  |  |  |  |
| Unmasked text entry |  |  |  |  |  |  |  |  |  |
| Support text entry – length of 64 characters, copy and paste |  |  |  |  |  |  |  |  |  |
| Delayed masking during text entry |  |  |  |  |  |  |  |  |  |
| Adequate time allowed for text entry |  |  |  |  |  |  |  |  |  |
| Entry errors – need clear and meaningful feedback |  |  |  |  |  |  |  |  |  |
| Minimum of 10 attempts allowed |  |  |  |  |  |  |  |  |  |
| Remaining allowed attempts – need clear and meaningful feedback |  |  |  |  |  |  |  |  |  |
| Form-factor constraints |  |  |  |  |  |  |  |  |  |
| Location and availability of a direct computer interface such as a USB port |  |  |  |  |  |  |  |  |  |
| Physical input required (such as pressing a button) |  |  |  |  |  |  |  |  |  |
| Cryptographic keys need for descriptive and meaningful names |  |  |  |  |  |  |  |  |  |
| Complexity and size of the prompts |  |  |  |  |  |  |  |  |  |
| Authentication to secondary device to access the authentication secret |  |  |  |  |  |  |  |  |  |
| Continuous hardware connection not required |  |  |  |  |  |  |  |  |  |
| **Intermittent Events** | | | | | | | | | |
| Reauthentication due to user inactivity |  |  |  |  |  |  |  |  |  |
| Fixed periodic reauthentication |  |  |  |  |  |  |  |  |  |
| Provisions for technical assistance |  |  |  |  |  |  |  |  |  |
| Provisions to create and change memorized secrets |  |  |  |  |  |  |  |  |  |