



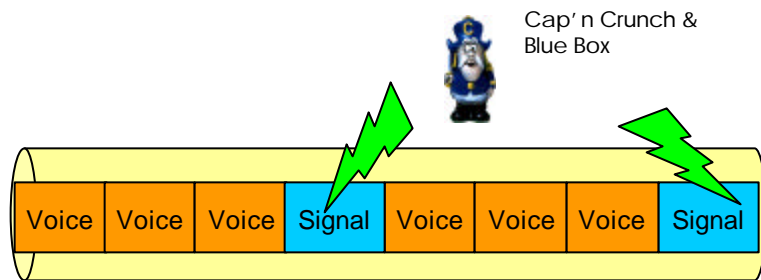
Out of Band Methodology

Monday, June 28th 2004

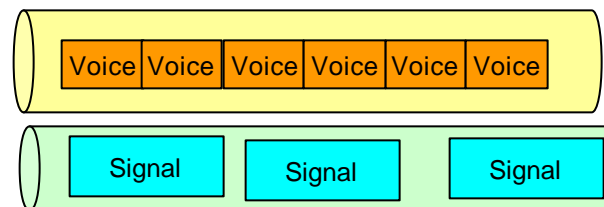
Out of Band Methodology



- In the 70s, telephony signals and telephony were sent along the same path, which this was known as in-band signaling. The phone company did a fatal cost cutting measure, they designed the system so that signaling and voice used the same channel. Problem was that it literally opened up the phone companies internal dial circuits to anyone with a "blue box". As it happened, back then, the phone system used in-band signaling and 2600 Hz was the tone used to access Bell's trunking system which had AT&T suffered huge revenue losses.
- Today, the phone companies no longer do this. Signaling takes place on a separate path from the one you talk on. This methodology is called Out of Band Signaling, sends signals on a separate channel, and is more efficient, since the other channels carry more data instead of just signaling information. This methodology allowed the phone company to remove the phone phreaking problems.



In-Band Signaling

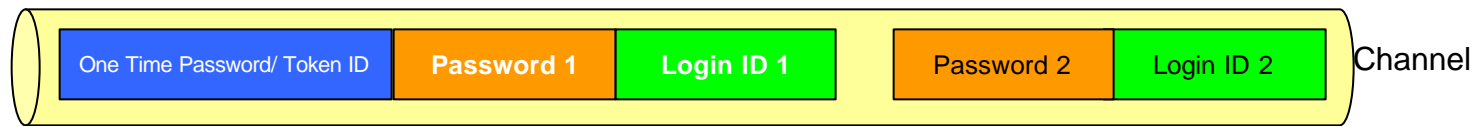


Out of Band Signaling

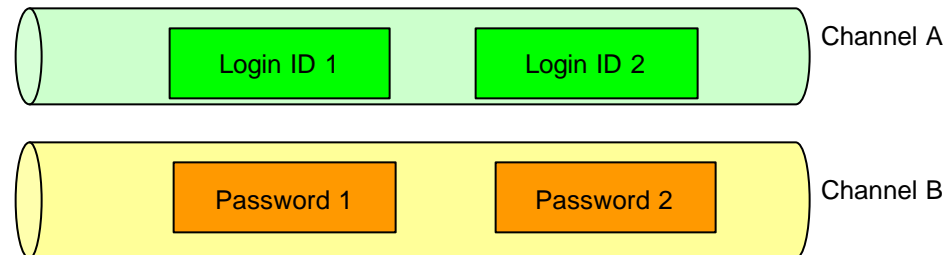
Out of Band Methodology

How ProtectID is inspired by Out of Band Methodology

- While the Out of Band methodology has been used in telecom industry, it can give a huge implication to the means of preventing security frauds by separating a login and password being delivered on different channels.
- StrikeForce Technologies' newest product is inspired by this historical lesson, so called Centralized Out of Band Authentications Services (ProtectID).



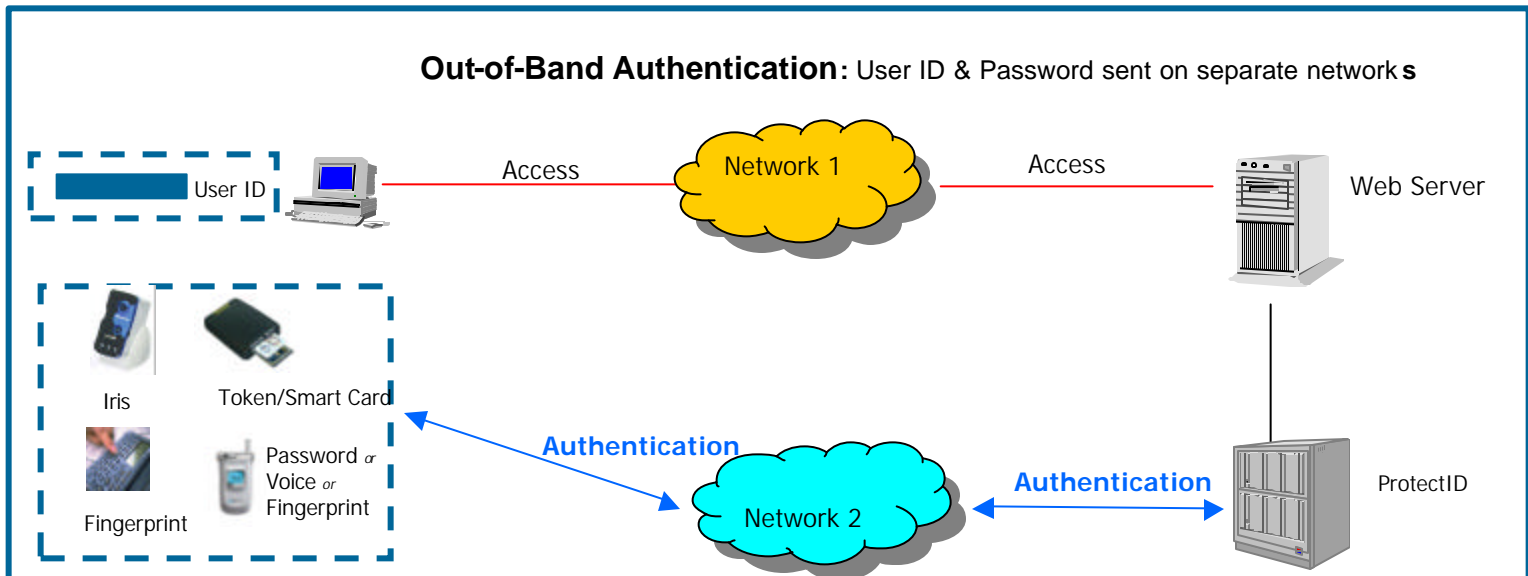
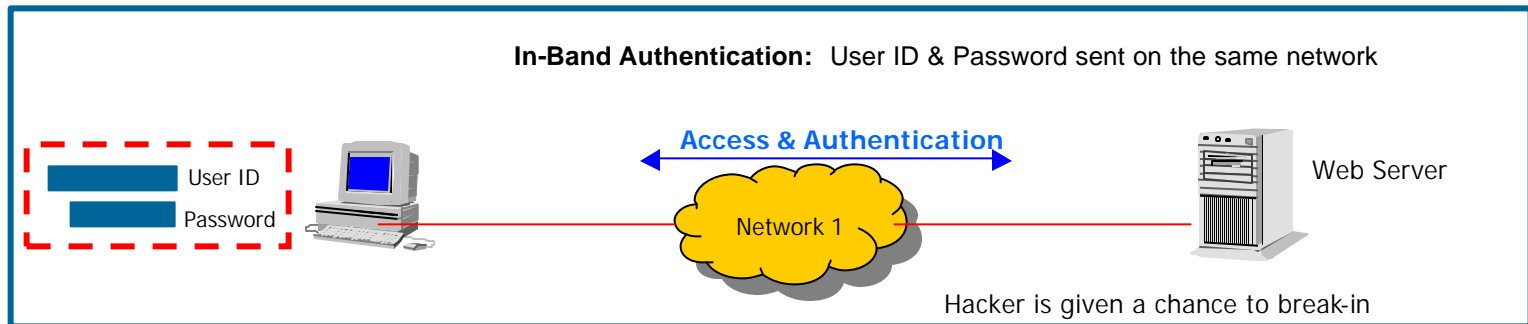
In-Band Authentication



StrikeForce's 'Out-of-Band Authentication'

'Out-of-Band' Authentication

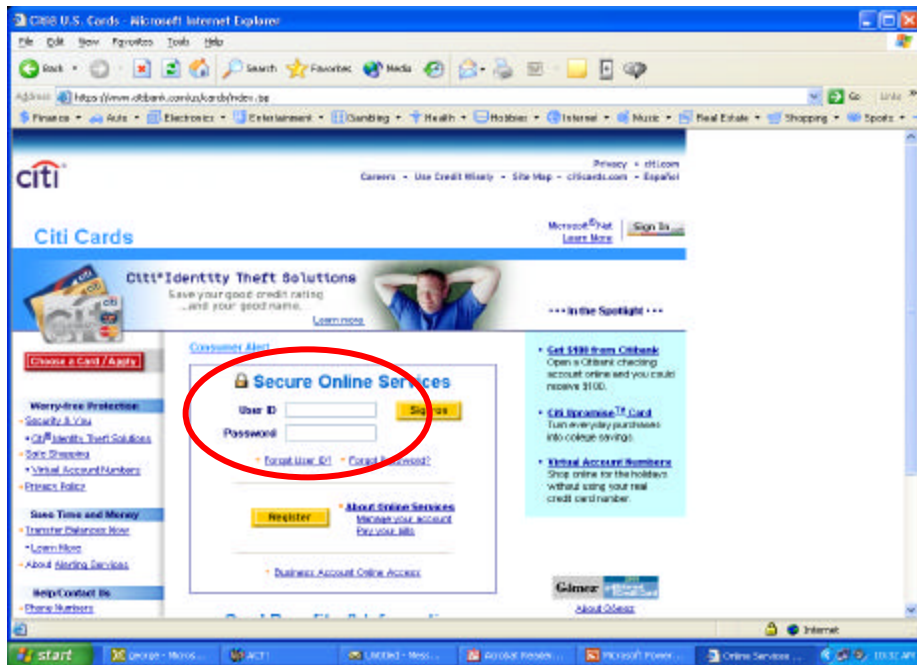
'Out-of-Band' methodology creates a separate channel for authenticating a user's credentials, which makes it virtually impossible for network hacking



Out of Band Methodology

The diagrams below contrast the typical login screen of In-Band login and Out-of-Band login screens. The In-band login screen prompts to an end-user to populate all authentication information at one screen which the information is captured and transported on one single session; whereas Out-of-Band methodology breaks apart the session to separately transport the information over SSL.

In-Band Authentication Login Screen



Out of Band Authentication Login Screen

