

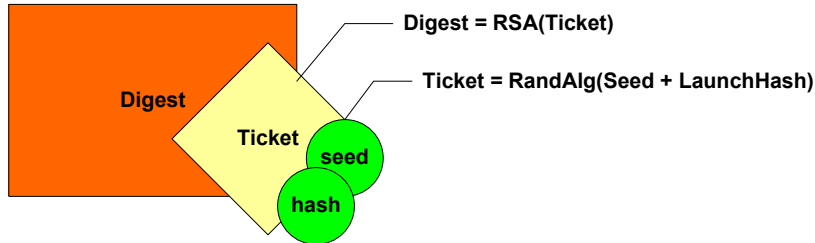
BlackBox

```

seed      = 18475024;           // randomly generated during BB creation
_publicKey = new byte[256];     // RSA-2048 key, randomly-generated too

```

BlackBox
-_seed : int
-_publicKey : byte
+DoBlackMagic(in authInfo : string) : byte
-RandomAlg1337(in input : int) : byte



```

public DoBlackMagic(string authInfo)
{
    string Ticket = RandomAlg1337(_seed);
    return RsaEncrypt(Ticket, _publicKey);
}

```

```

private RandomAlg1337(int seed)
{
    PerformDebugChecks();
    byte[] LauncherHash = GetLauncherHash(); // Assembly Wizardry

    // Every blackbox combines differently...
    byte[] Result = new byte[32];
    for (int i = 0; i < Result.Length; i++)
    {
        Result[i] = LauncherHash[i] ^ seed; // Alg1337 uses XOR
    }

    return Result;
}

```

Launch

Launch
+BuildAuthInfo() : string
+DownloadBlackBox() : byte
+MountBlackBox()
+DigestAuthInfo(in AuthInfo : string) : byte
+AuthenticateAuthInfo(in byte : byte) : bool

Upon login, Launch will perform the following:

1. Build AuthInfo
2. Obtain BlackBox
3. Load BlackBox
4. Run BlackBox.DoBlackMagic(), get digest
5. Authenticate with server (send digest)

AuthInfo

```

<?xml>
<!-- EXAMPLE AUTHINFO. Xml schema may vary -->
<AuthInfo>
  <player callsign="Onion" passwordHash="ABC123" />
  <system>
    <authinfo key="/Device0" value1="WD3200AAJB" value2="WCAR10023945" />
    <authinfo key="Local Area Connection" value1="Intel blahblah" value2="00:11:22:33" />
    ...
  </system>
  <Allegiance>
    <gameinfo path="Allegiance.exe" hash="ABCDEFGH" />
    <gameinfo path="artwork\cc_06.igc" />
    ...
  </Allegiance>
</AuthInfo>

```