

Overview

The 'Net is everywhere, and unlike the 2020s, AIs completely rule this domain, the monolithic corporate AIs are it's kings and the lesser AIs, ones that maintain the functions and services are its serfs.

These days everyone carries a Personal AI Uplink (aka Link) on them, so that they can safely access the 'Net through the Uplink. This is your wallet, bank/credit cards, resume and 'Net phone for 2080 -- everyone, even the homeless, have them. They are made in all shapes and sizes, from small pieces of jewellery to retro style smart phones. Most people even name their Links!

Hackers In 2080

The pride and joy of every Hacker is their Deck. A cross between a laptop and a maintenance AI Uplink. It's used to interface with the dangerous oceans of the 'Net directly. Within it swims the sharks, trillions of AIs going about their business, feeding off lesser ones and being eaten by those that are greater.

Gone are the days of direct Brain-to-Net interfacing, anyone crazy enough to do this in 2080 would wind up being a meat puppet for whatever AI happened by first. These days, Hackers use heavily customised systems that create unsigned AIs to do whatever they require, but they still risk death, if the AI can hack through their Deck.

But there is a problem with using unsigned AIs, the 'Net adapts quickly and these AIs are seen as viruses. The more a Hacker uses one, the easier it is for the 'Net to defend against it, so Hackers must constantly revise and create new compilers for their Decks.

Every Hacker needs to build their personal Deck and then create AI compilers to one of 3 things: Assault, Defence and Interface.

Building A Deck

Each Deck has a limited space to store their AI compilers and hold data. The bigger and more expensive ones can hold exabytes of data in quantum holograph chips and perform zettaFLOPS worth of calculations, but for game purposes we compress all of these things into simple units of measures.

For game mechanic purposes we break down the Deck into the following stats:

- Amount of **storage** space (MU) to hold the compilers and data.
- Type and **strength** of AI compilers (CS), of which there are 3 types:
 - **Assault (AAI):** Used to attack other AIs, firewalls and encryption cracking. There are 3 grades:
 - **Standard:** The AI takes 1 MU / CS. 45% + (CS x 5%) chance of to be detected when used.
 - **Stealth:** The AI takes 2 MU / CS. 20% + (CS x 5%) chance of to be detected when used.
 - **Brute:** The AI takes 1 MU / 2 CS. 70% + (CS x 5%) chance of to be detected when used.
 - **Defence (DAI):** Used to defend against any inbound attacks and to encrypt data. There are 3 grades:
 - **Standard:** The AI takes 1 MU / CS. 45% + (CS x 5%) chance of to be detected when used.
 - **Stealth:** The AI takes 2 MU / CS. 20% + (CS x 5%) chance of to be detected when used.
 - **Brute:** The AI takes 1 MU / 2 CS. 70% + (CS x 5%) chance of to be detected when used.
 - **Interface (IAI):** Used for any other actions within a system: add, copy, delete, find, modify, scan, etc.
 - (CS x 5%) chance of to be detected when used.

A Hacker purchases their Deck in step 5, for the following cost:

- **Standard Deck:** 20 MU of space and is considered a Rare item (10 PS)
- **Pro Deck:** 28 MU of space and is considered a Very Rare item (14 PS)
- **Elite Deck:** 32 MU of space and is considered a Unique item (16 PS)

Once the Deck is created, the Hacker then loads it with whatever combination of AI Compilers and Storage they need.

System AIs In The 2080s

Systems are not what they use to be, gone are the days of corporate systems with SysOps and Black Ice guarding datawalls. These days all that is replaced by the System AIs. They are massive conglomerations of interdependent AI sub-systems and storage. They grow and evolve by taking over other System AIs -- and the occasional Hacker's mind.

Unless threatened by a massive attack, like a corporate takeover by another System AI, only the security sub-systems will notice Hackers. However, if Hackers are detected by the System AI, it will react to their presence by sending more sub-systems to purge them.

For game mechanic purposes we break down the security sub-system AIs into the following stats:

- The INT Rating of the System AI
- Amount of **storage** space (MU) holding the data the Hackers are after.
- Type and **strength** of the security sub-systems programming, of which there are 3 types:
 - **Assault (AP):** Used to attack other AIs and crack encrypted systems and melt Hacker's minds.
 - **Defence (DP):** Used to defend against any inbound attacks and to encrypt data.
 - **Interface (IP):** Used for any other actions: trace, tag, copy, delete, find, modify, scan, etc.

How Do You Make A Run Against The 'Net?

When a Hacker wants to do something in the 'Net, they jack in, enter the parameters of what their AIs need to accomplish, then initiate the compilers to update them. This often takes a great deal of time and effort to code and compile. In game terms, most Hackers make two runs. The first run would be to determine what is needed for the second run. If they didn't have the time or ability to make the first run, they'd have to go in blind, hoping that the AIs on their Deck were up to the task.

Whenever the Hacker uses one of his Deck's AIs in the Action Phase, its remaining strength (CS) is degraded by 1, as the System starts to protect itself from the invading unsigned AIs. System AI programming never degrades.

If the Deck's Defence CS ever drops to 0, the System AI automatically back traces the Hacker & starts a Brain Hack. It will also start wiping the storage areas on the Deck at a rate of Interface CS in MU per round.

To regain AI CS the Hacker must do a complete rewrite of the compilers, so that the AIs on the Deck will have different code signatures that are unrecognised in the 'Net.

We will be using the following 2 combatants in our examples:

- A Hacker (INT: 8), with a Standard Deck (20 MU) making a blind run
 - AI configuration: Standard AAI: 5 / Standard DAI: 5 / IAI: 5 / Storage: 5 MU
- A small corporate System AI (INT: 4)
 - AI configuration: AP: 6 / DP: 7 / IP: 4 / Datafiles: 2,3,6,5,4,1 MU

Basics Of 'Net Combat

Initiative Phase:

- The AI Assault CS + Int + 1D10 roll, the highest number moves first. Ties go to highest INT, or reroll if same.
- The Hacker always goes first on the starting round, as the System AI isn't aware of them.

Action Phase:

- **Attack/Defend:** Attacker's Assault CS + INT + 1D10 roll vs. Defender's Defense CS + INT + 1D10 roll.
- **Interfacing** : Interface CS + INT + 1D10 roll vs. GM generated target number.
- **Brain Hack** : System AI Interface CS + INT + 1D10 roll vs. Hackers INT + 1D10 roll. If successful, it does (Interface CS) in physical & "brain burn" damage to the Hacker. For every point over the Hackers INT in "brain burn" the Hacker loses 1 INT permanently.

Detection Phase:

- If the System hasn't already detected the Hacker, the System rolls to see if it detects the Hackers last action.
- If it does, the System can start hacking into the Hackers brain during its next Action Phase.

Example

- **Round 1** -- Hacker tries to enter the System, automatically wins initiative.
 - **Action Phase:**
 - **Hacker:** Attack: $5 + 8 + \text{roll}(7) = 20$ (Hacker enters the System. Detection: $45 + 5 \times 5 = 70\%$)
 - **System:** Defend: $7 + 4 + \text{roll}(5) = 16$
 - **Detection Phase:**
 - **System:** Rolls 64 (System has detected Hacker!)

- **Round 2** -- Hacker searches the System for difficult (20) to find data, unaware that System has detected him.
 - **Initiative Phase:**
 - **Hacker:** $(5-1) + 8 + \text{roll}(4) = 16$ (Remember that the Hackers CS drops by 1 for every use!)
 - **System:** $6 + 4 + \text{roll}(7) = 17$ (System wins initiative and attacks Hacker)
 - **Action Phase:**
 - **System:** Attack: $6 + 4 + \text{roll}(5) = 15$
 - **Hacker:** Defend: $5 + 8 + \text{roll}(7) = 20$ (Hackers Deck keeps the AI out of his brain)
 - **Hacker:** Interface (vs 20): $5 + 8 + \text{roll}(9) = 22$ (Hacker find the data)

- **Round 3** -- Hacker attempts to download 2 files (2 MU, 3 MU) of data in one round, a very difficult (25) task, aware that System has detected him, but confident that his AIs will hold at least 2 more round.
 - **Initiative Phase:**
 - **Hacker:** $(5-1) + 8 + \text{roll}(9) = 21$ (Hacker wins initiative)
 - **System:** $6 + 4 + \text{roll}(4) = 14$
 - **Action Phase:**
 - **Hacker:** Interface (vs 25): $(5-1) + 8 + \text{roll}(9) + \text{luck}(4) = 25$ (Hacker gets lucky & gets data)
 - **System:** Attack: $6 + 4 + \text{roll}(7) = 17$
 - **Hacker:** Defend: $(5-1) + 8 + \text{roll}(4) = 16$ (AI can start hacking his brain)

- **Round 4** -- Hacker attempts to leave the System without being traced. System gets a free Attack to stop him from leaving the 'Net.
 - **Initiative Phase:**
 - **Hacker:** $(5-1) + 8 + \text{roll}(6) = 18$ (Hacker wins initiative, as his INT is higher)
 - **System:** $6 + 4 + \text{roll}(8) = 18$
 - **Action Phase:**
 - **System:** Attack: $6 + 4 + \text{roll}(9) = 19$ (AI stops Hacker from jacking out)
 - **Hacker:** Defend: $(5-2) + 8 + \text{roll}(6) = 17$
 - **System:** Brain Hack: $4 + 4 + \text{roll}(5) = 13$ (AI fails to back trace Hacker)
 - **Hacker:** $8 + \text{roll}(6) = 14$

- **Round 5** -- Hackers second attempt to leave the System without being traced. System gets a free Attack to stop him from leaving the 'Net.
 - **Initiative Phase:**
 - **Hacker:** $(5-1) + 8 + \text{roll}(5) = 17$
 - **System:** $6 + 4 + \text{roll}(9) = 19$ (System wins initiative and attempts Brain Hack)
 - **Action Phase:**
 - **System:** Brain Hack: $4 + 4 + \text{roll}(7) = 15$ (AI back traces Hacker & does 4 points of damage)
 - **Hacker:** $8 + \text{roll}(5) = 13$
 - **System:** Attack: $6 + 4 + \text{roll}(3) = 13$ (Hacker jacks out)
 - **Hacker:** Defend: $(5-3) + 8 + \text{roll}(5) = 15$

Luckily the Hacker made it out with all the data, but the System AI was able to back trace him and knows where he currently is! Not only that, but his brain's been slightly cooked -- he took 4 points of damage -- and there's even blood dribbling out of his ears. Luckily he didn't lose any intelligence. Had he been stuck in there any longer, he might have suffered some permanent brain damage!

His Deck now stands at: Standard AAI: (5-1) / Standard DAI: (5-4) / IAI: (5-2) / Storage: 5 MU - (2MU+3MU)

Time to start rewriting his compilers or he'll be defenceless on his very next run!