

Network Working Group  
Internet-Draft  
Intended status: Experimental  
Expires: 29 October 2026

GavCave  
April 2026

Emoji-Based Notation for IPv6 Addresses  
draft-gavcave-ipv6-emoji-notation-00

## Abstract

This document defines an alternative textual representation of IPv6 addresses using Unicode Emoji characters (hereinafter "Smileys") in place of hexadecimal digits. The proposed format, known as EmojiNotation6 (EN6), aims to make IPv6 addresses more expressive, more human-friendly, and significantly more fun at parties.

Additionally, this document specifies a MANDATORY content-classification prefix using the AUBERGINE character (U+1F346) for addresses serving adult content, hereafter referred to as the "Eggplant Requirement".

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## 1. Introduction

The IPv6 addressing architecture, as defined in [RFC4291] and [RFC8200], relies on hexadecimal notation separated by colons. The canonical form is defined in [RFC5952]. While technically efficient, this format has proven to be:

- \* Emotionally cold,
- \* Impossible to remember,
- \* Completely devoid of personality,
- \* A frequent cause of existential dread among junior network engineers.

This document proposes a mapping of the 16 hexadecimal digits (0-F) to 16 carefully selected emoji characters, producing addresses that are visually distinctive, emotionally engaging, and Instagram-ready.

## 2. Conventions and Definitions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

The author was mildly sleep-deprived during the writing of this specification.

## 3. Emoji Hexadecimal Mapping Table

Each hexadecimal digit SHALL be replaced by its corresponding emoji from the [UNICODE] standard as follows:

Hex	Unicode	Description	Rationale
0	U+1F600	Grinning Face	Because zero should at least be happy about it
1	U+1F525	Fire	The loneliest number, but lit
2	U+1F30D	Earth Globe	The Internet is global after all
3	U+1F3B5	Musical Note	Three is the magic number
4	U+1F431	Cat Face	The Internet was built for cats
5	U+2B50	Star	Five-star rating
6	U+1F3B2	Game Die	A standard die has six faces
7	U+1F308	Rainbow	Seven colors in a rainbow
8	U+1F680	Rocket	To infinity and beyond octet boundaries

9	U+1F355	Pizza	Best enjoyed in slices of nine	
A	U+1F48E	Gem Stone	A is for precious	
B	U+1F984	Unicorn	As mythical as a fully documented network	
C	U+1F3B8	Guitar	C major chord	
D	U+1F409	Dragon	Here be dragons	
E	U+26A1	High Voltage	E for Energy	
F	U+1F52E	Crystal Ball	The future of networking	

Table 1: Emoji Hexadecimal Mapping

The colon separator (:) SHALL be replaced by the HANDSHAKE emoji (U+1FAF1, hereinafter referred to as the "Bro Separator").

The double-colon compression (::) SHALL be represented by the SLEEPING FACE emoji (U+1F634), indicating "nothing interesting here".

#### 4. Address Representation Examples

##### 4.1. Standard Address

Traditional notation:

2001:0db8:85a3:0000:0000:8a2e:0370:7334

EN6 notation (expanded, per mapping in Table 1):

Hex: 2 0 0 1 : 0 d b 8  
EN6: Globe Grin Grin Fire Bro Grin Dragon Unicorn Rocket

Hex: 8 5 a 3 ::  
EN6: Rocket Star Gem Note Sleep

Hex: 8 a 2 e : 0 3 7 0  
EN6: Rocket Gem Globe Volt Bro Grin Note Rainbow Grin

Hex: 7 3 3 4  
EN6: Rainbow Note Note Cat

#### 4.2. Loopback Address

Traditional notation:

::1

EN6 notation:

Sleep Fire (U+1F634 U+1F525)

#### 4.3. Link-Local Address

Traditional notation:

fe80::1

EN6 notation:

Crystal Volt Rocket Grin Sleep Fire  
(U+1F52E U+26A1 U+1F680 U+1F600 U+1F634 U+1F525)

### 5. The Eggplant Requirement (MANDATORY)

#### 5.1. Rationale

Current IPv6 addressing provides no mechanism to identify the nature of content served by a host at the network layer. This document addresses this critical gap for one specific content category.

#### 5.2. Specification

Any IPv6 address assigned to a server, CDN node, reverse proxy, or any network-facing device whose PRIMARY purpose is the distribution of adult or sexually explicit content MUST include the AUBERGINE prefix (U+1F346) prepended to the EN6 address.

The format SHALL be:

U+1F346 <EN6 address>

Example:

Aubergine Crystal Volt Rocket Grin Sleep Globe Gem Cat Globe  
(U+1F346 U+1F52E U+26A1 U+1F680 U+1F600 U+1F634  
U+1F30D U+1F48E U+1F431 U+1F30D)

#### 5.3. Compliance

- \* Registrars assigning IPv6 blocks to entities operating adult content platforms MUST enforce the Eggplant Requirement at the time of allocation.
- \* DNS resolvers SHOULD display a brief warning ("U+1F346 detected in address -- content may not be suitable for all audiences") when resolving an Eggplant-prefixed address.
- \* Parental control software MAY use the presence of U+1F346 as a filtering signal, which, for once, would actually be trivially easy to implement.
- \* Any attempt to use U+1F346 for non-adult content (e.g., an actual eggplant recipe website) MUST be submitted for review to the newly created IANA Eggplant Disambiguation Committee (IEDC).

#### 5.4. Penalties for Non-Compliance

Operators serving adult content without the U+1F346 prefix SHALL be subject to:

- \* Public shaming on the NANOG mailing list,
- \* A 30-day mandatory assignment of only IPv4 addresses in the 169.254.0.0/16 range,
- \* Revocation of coffee privileges at IETF meetings.

### 6. Compression Rules

#### 6.1. Zero Compression

Consecutive groups of U+1F600 U+1F600 U+1F600 U+1F600 (all-zero quartets) MAY be replaced by a single U+1F634 (SLEEPING FACE).

Only one U+1F634 is permitted per address. Use of multiple U+1F634 SHALL be interpreted as the operator being actually asleep and the address MUST be considered invalid.

#### 6.2. Leading Zero Suppression

Leading U+1F600 (Grinning Face) characters within a quartet MAY be omitted.

Grin Grin Fire Globe -> Fire Globe  
(U+1F600 U+1F600 U+1F525 U+1F30D -> U+1F525 U+1F30D)

## 7. Security Considerations

- \* The Eggplant Requirement provides a new, highly visible layer of content classification at the addressing level. However, it relies on operator honesty, which historically has not been the strongest attribute of the internet.
- \* An attacker could theoretically prepend U+1F346 to any address to trigger parental control filters, effectively denial-of-service-ing legitimate services. This is known as an "Eggplant Injection Attack" (EIA).
- \* Emoji rendering varies across platforms. An address that appears as a friendly U+1F431 (Cat Face) on iOS may render as a terrifying feline on Samsung devices. This is considered a feature, not a bug.
- \* Autocorrect systems on mobile devices may substitute emoji during manual address entry, potentially routing traffic to unintended destinations. Operators are advised not to configure BGP sessions via iMessage.

## 8. IANA Considerations

This document requests the following from IANA:

- \* Registration of the EN6 address format in the "IPv6 Address Text Representations" registry.
- \* Creation of the "Emoji-Hex Mapping Table" registry.
- \* Establishment of the IANA Eggplant Disambiguation Committee (IEDC), with at least one member who can keep a straight face.
- \* Reservation of the U+1F346 prefix for content classification purposes. Future prefixes under consideration include U+1F3B0 (gambling), U+1F9C0 (French government services), and U+1F480 (deprecated services).

## 9. References

### 9.1. Normative References

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- [RFC5952] Kawamura, S. and M. Kawashima, "A Recommendation for IPv6 Address Text Representation", RFC 5952, DOI 10.17487/RFC5952, August 2010, <<https://www.rfc-editor.org/info/rfc5952>>.
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## Acknowledgments

The author would like to thank the Unicode Consortium for making this possible, the IETF for its tradition of April 1st RFCs that inspired this work, and his cat (U+1F431, hex value 4) for walking across the keyboard at a critical moment during drafting.

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