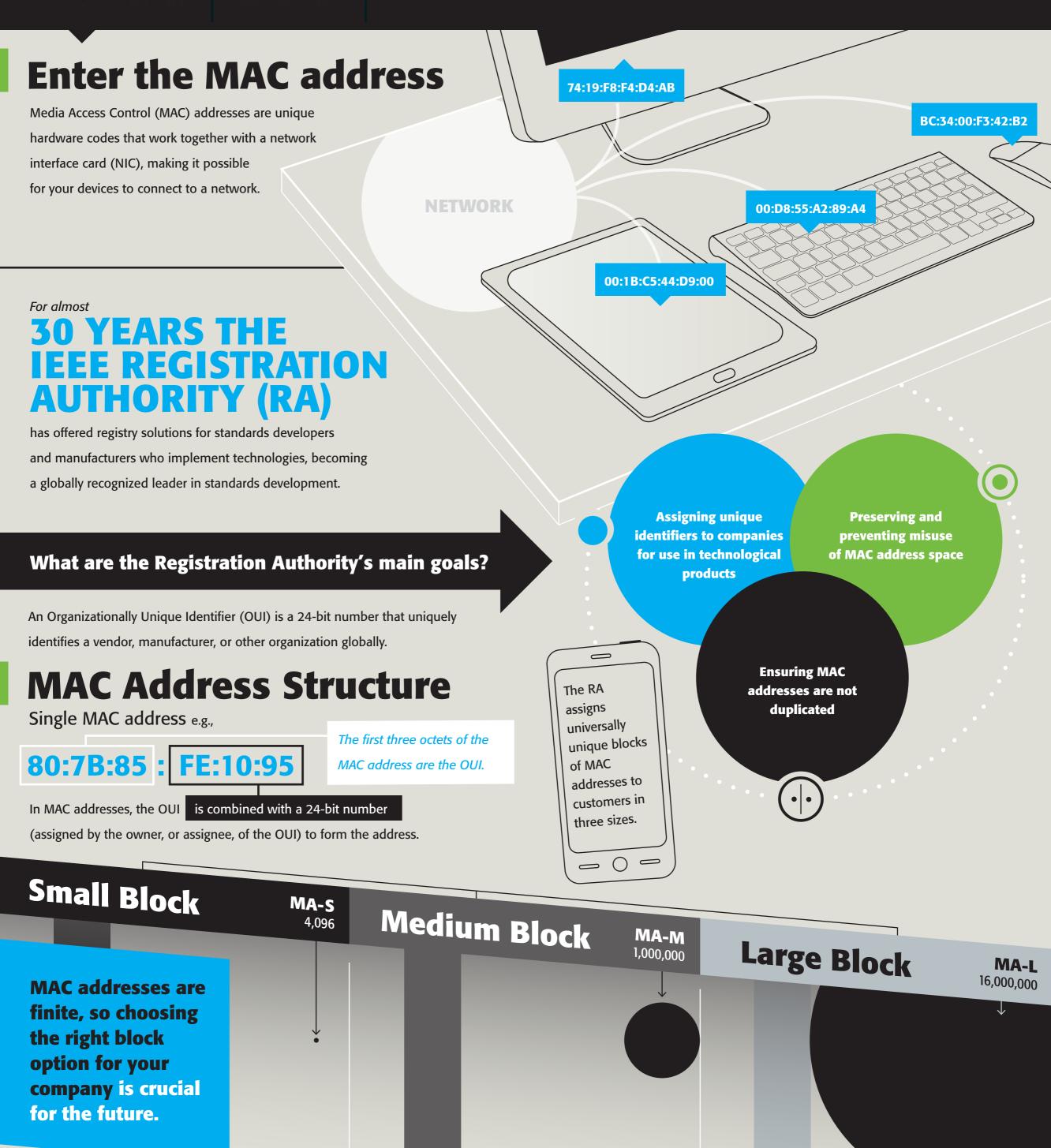| 00	24	56	90	cb	a5
B0	E7	54	03	30	75
3c	97	95	15	12	91
d8	18	32	80	1c	92
ac	de	48	23	45	67
a0	1f	ad	d0	c2	5b
60	f5	75	00	84	11
bc	b3	2g	60	91	ef

FINDING THE RIGHT MAC ADDRESS FOR YOUR BUSINESS

Wired in or wireless, to connect to the Internet of Things (IoT), all things must have a home address.

Enter the MAC address

Media Access Control (MAC) addresses are unique hardware codes that work together with a network interface card (NIC), making it possible for your devices to connect to a network.

74:19:F8:F4:D4:AB

BC:34:00:F3:42:B2

00:D8:55:A2:89:A4

00:1B:C5:44:D9:00

NETWORK

For almost

30 YEARS THE IEEE REGISTRATION AUTHORITY (RA)

has offered registry solutions for standards developers and manufacturers who implement technologies, becoming a globally recognized leader in standards development.

What are the Registration Authority's main goals?

- Assigning unique identifiers to companies for use in technological products
- Preserving and preventing misuse of MAC address space
- Ensuring MAC addresses are not duplicated

An Organizationally Unique Identifier (OUI) is a 24-bit number that uniquely identifies a vendor, manufacturer, or other organization globally.

MAC Address Structure

Single MAC address e.g.,

80:7B:85 : FE:10:95

The first three octets of the MAC address are the OUI.

In MAC addresses, the OUI is combined with a 24-bit number (assigned by the owner, or assignee, of the OUI) to form the address.

The RA assigns universally unique blocks of MAC addresses to customers in three sizes.

Small Block — MA-S 4,096

Medium Block — MA-M 1,000,000

Large Block — MA-L 16,000,000

MAC addresses are finite, so choosing the right block option for your company is crucial for the future.

What Address Block is Right for My Company?

The RA encourages organizations to **apply for the smallest block that will meet their needs.**

Start-Ups
- Varies greatly, small to larger, more established firms

Established Products
- Bluetooth speaker manufacturers, automotive systems, etc.

Large Tech Firms
- Smartphone/tablet manufacturers
- Enterprise networking firms, laptops, etc.

If you are a manufacturer implementing standards, **the IEEE Registration Authority has the solutions your company or organization needs**

- Unique, valid identifiers
- Removes interoperability issues
- Vendor neutral
- 20+ years experience managing registries
- Thousands of customers globally

- Transparency
- Specialized database
- Quality assurance
- De-duplication

To learn more about
Obtaining Your Own Universally Unique MAC Address

Visit standards.ieee.org/regauth

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