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## Technical Compendium

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### Reference

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## SAP Numbers

### Service Access Point Identifiers

The Service Access Point ("SAP", pronounced like the sap that comes from a tree to make maple syrup) is used to identify which protocol handler should process an incoming frame. A Service Access Point is a data structure and identifier for a buffer area in system memory that is actually a broad concept. The Open Systems Interconnect (OSI) model uses a SAP to define the communication between layers (like Network, Transport, Session, and the other layers of the Seven-Layered Model). Unless you are studying the OSI model or the OSI protocols, you aren't going to encounter that definition of SAP. The most common reference to a Source Service Access Point (SSAP) or a Destination Service Access Point (DSAP) refers to the boundary between the Data Link Layer and the Network Layer.

It is common to think of SAP only in terms of its use at Layer 2, in Logical Link Control as defined in the IEEE 802.2 standards. This listing presents the common SAP identifiers used by 802.3 Ethernet, 802.5 Token-Ring, and other 802-compliant protocol stacks to differentiate between functions in the communications system.

In this application of a Service Access Point, the concept is very similar to that of an Ethertype value.

The Technical Compendium has additional discussions of:

- [Logical Link Control](#)
- [802.3 Ethernet](#)
- [802.5 Token-Ring](#)
- [Ethertype Values](#)

### SAP Listing

#### Address Assignment

00 Null LSAP  
 02 Individual LLC Sublayer Management Function  
 03 Group LLC Sublayer Management Function  
 04 IBM SNA Path Control (individual)  
 05 IBM SNA Path Control (group)  
 06 ARPANET Internet Protocol (IP)  
 08 SNA  
 0C SNA  
 0E PROWAY (IEC955) Network Management & Initialization  
 18 Texas Instruments  
 42 IEEE 802.1 Bridge Spanning Tree Protocol  
 4E EIA RS-511 Manufacturing Message Service  
 7E ISO 8208 (X.25 over IEEE 802.2 Type 2 LLC)  
 80 Xerox Network Systems (XNS)  
 86 Nestar  
 8E PROWAY (IEC 955) Active Station List Maintenance  
 98 ARPANET Address Resolution Protocol (ARP)  
 BC Banyan VINES  
 AA SubNetwork Access Protocol (SNAP)  
 E0 Novell NetWare  
 F0 IBM NetBIOS  
 F4 IBM LAN Management (individual)  
 F5 IBM LAN Management (group)  
 F8 IBM Remote Program Load (RPL)  
 FA Ungermann-Bass  
 FE ISO Network Layer Protocol  
 FF Global LSAP