#include <winsock2.h>

int WSAAPI WSAEnumProtocols ( LPINT lpdwProtocols,

LPWSAPROTOCOL\_INFO lpProtocolBuffer,

LPDWORD lpdwBufferLength);

lpdwProtocols：一个以NULL结尾的协议标识号[数组](http://baike.baidu.com/view/209670.htm" \t "_blank)。本参数可选；如果lpdwProtocols为 NULL，则返回所有可用协议的信息，否则的话只返回[数组](http://baike.baidu.com/view/209670.htm" \t "_blank)中所开列的协议信息。

lpProtocolBuffer：一个用PROTOCOL\_INFO结构填充的缓冲区。参见下文中对PROTOCOL\_INFO结构的具体描述。

lpdwBufferLength：输入时，存有传递给WSAEnumProtocols()函数的lpProtocolBuffer缓冲区长度。输出时，表示为获取所有信息需传递给WSAEnumProtocols()函数的缓冲区长度。

返回值：

若无错误发生，WSAEnumProtocols()返回协议的数目。否则的话，将返回INVALID\_SOCKET错误，应用程序可通过WSAGetLastError()来获取相应的[错误代码](http://baike.baidu.com/view/1600019.htm" \t "_blank)。

typedef struct \_WSAPROTOCOL\_INFO {

DWORD            dwServiceFlags1;

DWORD            dwServiceFlags2;

DWORD            dwServiceFlags3;

DWORD            dwServiceFlags4;

DWORD            dwProviderFlags;

GUID             ProviderId;

DWORD            dwCatalogEntryId;

WSAPROTOCOLCHAIN ProtocolChain;

int              iVersion;

int              iAddressFamily;

int              iMaxSockAddr;

int              iMinSockAddr;

int              iSocketType;

int              iProtocol;

int              iProtocolMaxOffset;

int              iNetworkByteOrder;

int              iSecurityScheme;

DWORD            dwMessageSize;

DWORD            dwProviderReserved;

TCHAR            szProtocol[WSAPROTOCOL\_LEN+1];

} WSAPROTOCOL\_INFO, \*LPWSAPROTOCOL\_INFO;