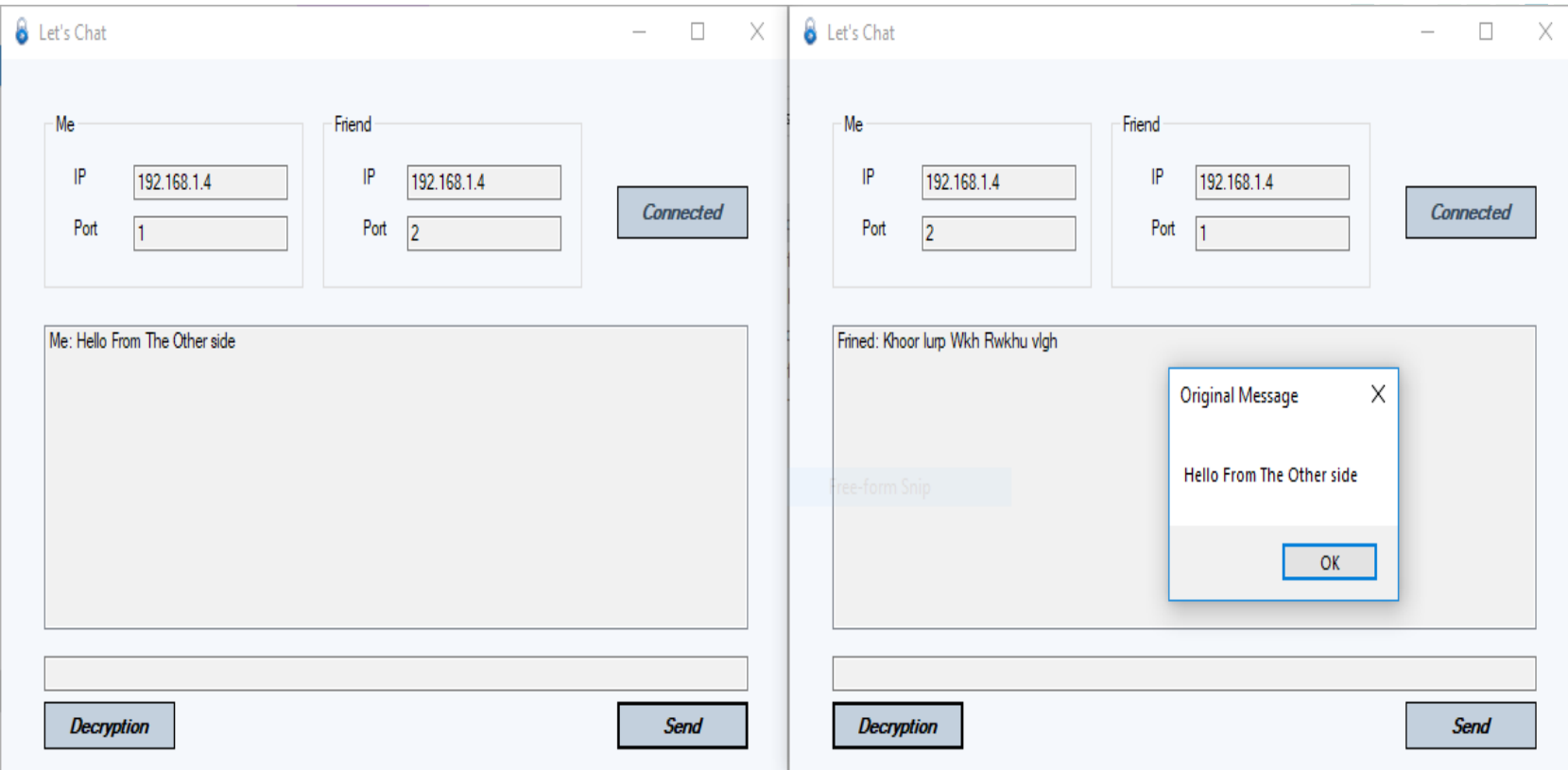


Crypto Chat

Send secret messages





snapshot from the app

Why This Application !!

IN BIG CORPORATION

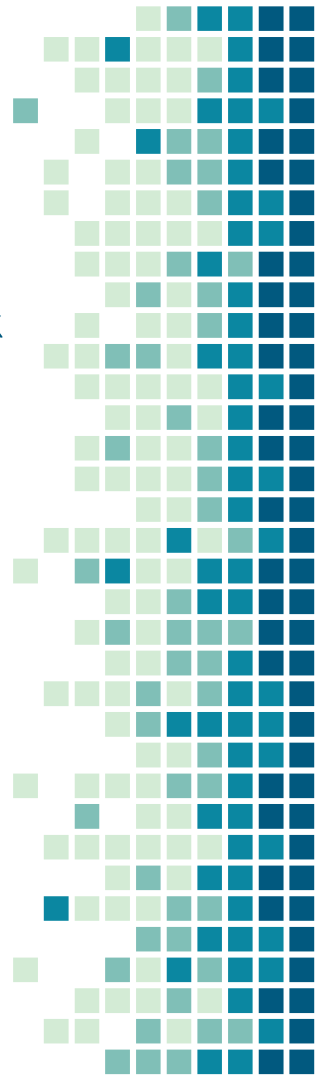
When employees chat with each other to save company's data

THE STATE OF WAR

Hide important messages from enemy

WITH FRIENDS

To make their own code in conversations & for fun 🤖



How it Works ?

WE USE:

Socket Programming
in .NET using C#

A socket is one endpoint of a two-way communication link between two programs running on the network



MECHANISM OF APP

Dns.GetHostEntry Method

Namespace: System.Net

Resolves a host name or IP address to an IPHostEntry instance.



Dns.GetHostEntry Method

```
private string GetLocalIP()
{
    IPEndPoint host;
    host = Dns.GetHostEntry(Dns.GetHostName());

    foreach (IPAddress ip in host.AddressList)
    {
        if (ip.AddressFamily == AddressFamily.InterNetwork)
        {
            return ip.ToString();
        }
    }

    return "127.0.0.1";
}
```

Return Value:

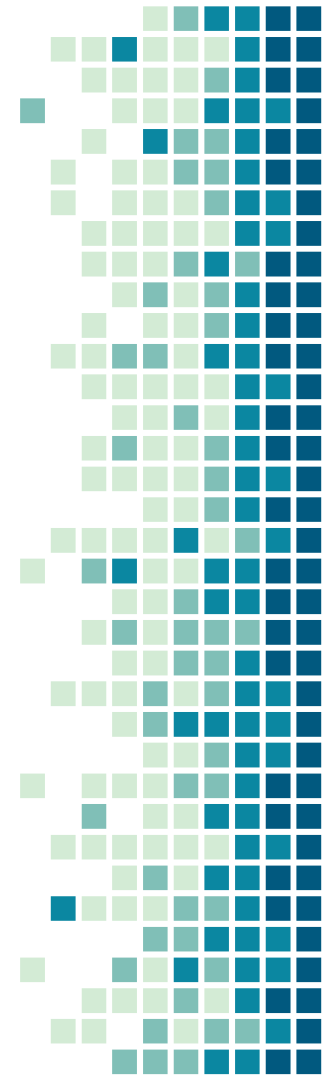
Type: System.Net.IPEndPoint

An IPEndPoint instance that contains address information about the host specified in hostNameOrAddress.

Socket.BeginReceiveFrom Method

Namespace: `System.Net.Sockets`

Begins to asynchronously receive data from a specified network device.



Socket.BeginReceiveFrom Method

```
private void button1_Click(object sender, EventArgs e)
{
    try
    {
        epLocal = new IPEndPoint(IPAddress.Parse(textLocalIp.Text), Convert.ToInt32(textLocalPort.Text));
        sck.Bind(epLocal);

        epRemote = new IPEndPoint(IPAddress.Parse(textFriendsIp.Text), Convert.ToInt32(textFriendsPort.Text));
        sck.Connect(epRemote);

        byte[] buffer = new byte[15000];
        sck.BeginReceiveFrom(buffer, 0, buffer.Length, SocketFlags.None, ref epRemote, new AsyncCallback(MessageCallBack), buffer);

        button1.Text = "Connected";
        button1.Enabled = false;
        button2.Enabled = true;
        textMessage.Focus();
    }
    catch (Exception exp)
    {
        MessageBox.Show(exp.ToString());
    }
}
```

Return Value

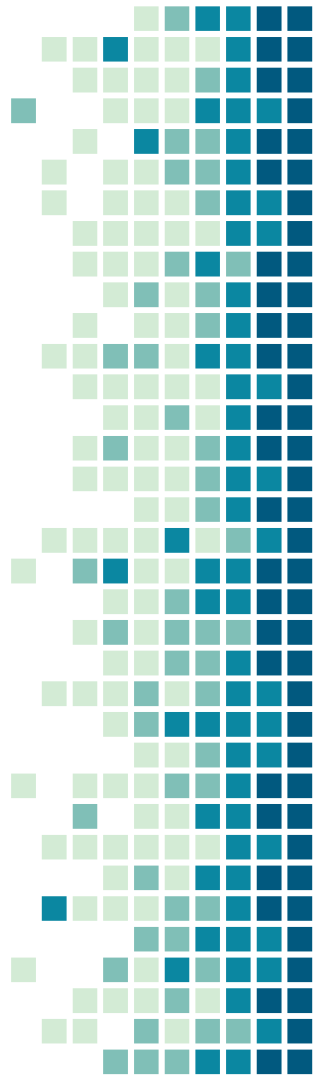
Type: System.IAsyncResult

An IAsyncResult that references the asynchronous read.

Socket.EndReceiveFrom Method

Namespace: `System.Net.Sockets`

Ends a pending asynchronous read from a specific endpoint.



Socket.EndReceiveFrom Method

```
private void MessageCallBack(IAsyncResult aResult)
{
    try
    {
        int size = sck.EndReceiveFrom(aResult, ref epRemote);
        if (size > 0)
        {
            byte[] receivedData = new byte[1464];
            receivedData = (byte[])aResult.AsyncState;

            ASCIIEncoding eEncoding = new ASCIIEncoding();
            string receivedMessage = eEncoding.GetString(receivedData);

            receivedMessage = Encryption(receivedMessage);

            ReceivedMessage = receivedMessage;

            listMessage.Items.Add("Frined: "+receivedMessage);
        }

        byte[] buffer = new byte[1500];
        sck.BeginReceiveFrom(buffer, 0, buffer.Length, SocketFlags.None, ref epRemote, new AsyncCallback(MessageCallBack), buffer);
    }
    catch(Exception exp)
    {
        MessageBox.Show(exp.ToString());
    }
}
```

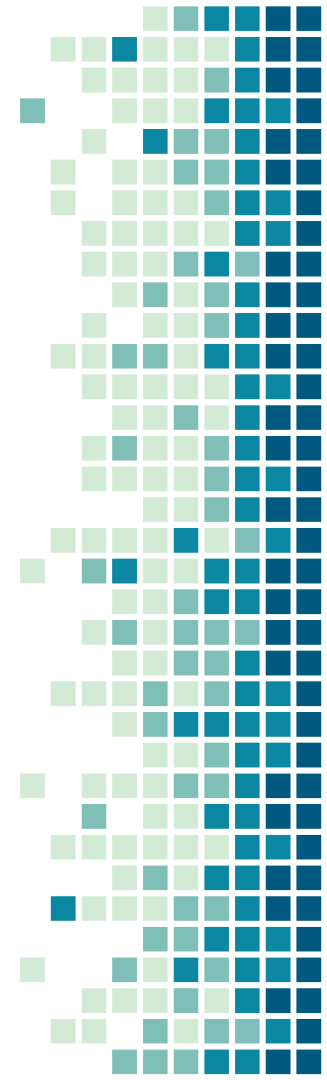
Return Value

Type: System.Int32

If successful, the number of bytes received. If unsuccessful, returns 0.

Windows Forms

For Easy interact with App



THANKS!

Any questions?