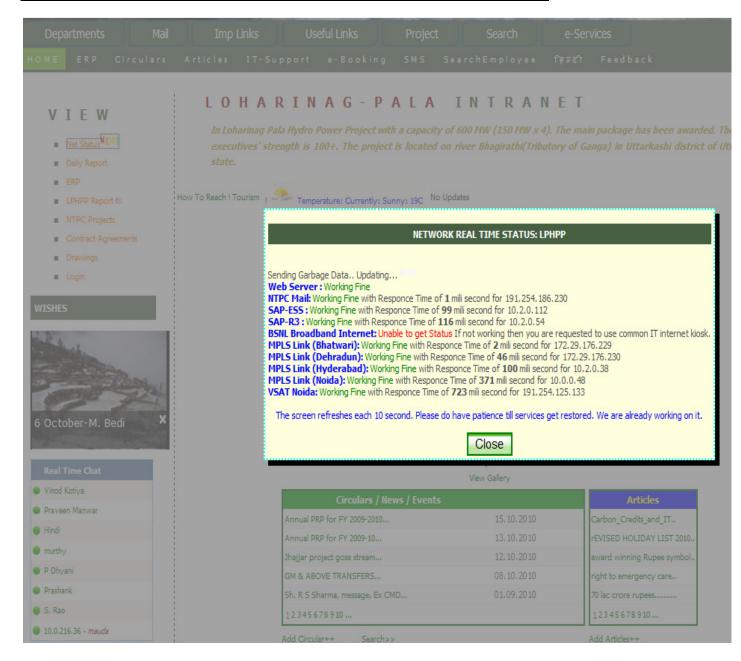# Network Real Time Status Web App Using Ajax and ASP.net 2010

The concept is:

Every user can see the network status. On clicking the link a modalpopup shows the real time network status. The web application starts to ping the various IP's which can be the server , router, modem , switches, network printers etc. The Net status application can be customized to automatically generate the daily network availability reports . It may also post the daily network report on intranet. We are working on it.

The Netstatus hyperlink triggers the modalpopup which has a label nameg upNet in it. Then upNet event triggers the various ip calls with function showping(ipaddress) which returns the roundtrip delay.

The .NET Framework offers a number of types that makes accessing resources on the network easy to use.

To perform a simple ping, we will need to use the System.Net, System.Net.Network.Information, System.Text namespaces.
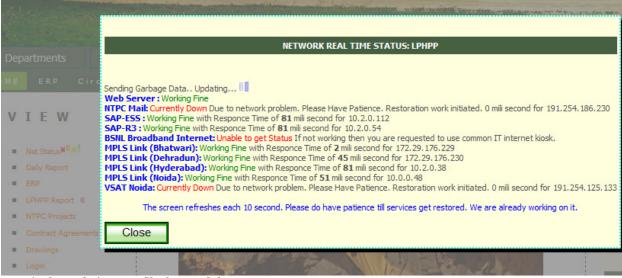
Its a basic example customized application is at the end.

In your vb code do something like this

```vb
Imports System.Net
Imports System.Net.NetworkInformation
Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)Handles Me.Load
txtPing.Text = showPing("191.254.186.1")
End Sub
Private Function showPing(ByVal ipaddress As String) As String
Try
Dim ping As Ping = New Ping
Dim pingreply As PingReply = ping.Send(ipaddress)
Return "roundtrip time: " + pingreply.RoundtripTime.ToString
Catch e As Exception
Return e.Message
End Try
End Function
End Class
```

In your aspx page do this
```
asp:TextBox ID="txtPing" runat="server" Width="621px"asp:TextBox
```

You can also customize function using this
pingreply.Options.Ttl.Tostring
pingreply.Buffer.Length.ToString()
Here is my another customized version to get real time network status on asp.net page. Use update panel with timer control to get automatic refresh update:
I have used a modal popup on Our home page to show the real time ping output on clients machines.

Here is the code in aspx file for ModalPopup

```
<asp:HyperLink ID="net" runat="server">Net Status<img src="images/new.gif" width="22px"
height ="12px" /></asp:HyperLink>



<asp:UpdatePanel ID="upNet" runat="server" CssClass="modalpopup"  style="display:none">
    <ContentTemplate>
    <div class="insidemodalpopup">
            <center>     <h3> Network Real Time Status: LPHPP </h3> <br /> </center>
                 <asp:Label ID="lblNet" runat="server" Text="Loading Network
Status"></asp:Label>
               <br />
         <center>     <asp:Button ID="btnok2" runat="server" Text="Close"
cssclass="button" BorderWidth="2px" BorderColor="Green"/></center>
    </div>
    </ContentTemplate>
     </asp:UpdatePanel>




Imports System.Net
Imports System.Net.NetworkInformation
Protected Sub Page_Load(ByVal sender As Object, ByVal e As System.EventArgs)Handles Me.Lo
ad

//Your code here…
End Sub

Protected Sub upNet_Load(ByVal sender As Object, ByVal e As System.EventArgs) Handles
upNet.Load
        lblNet.Text = "Sending Garbage Data.. Updating... <img src=images/loaderbar.gif
/> <br />" & _
           "<b><font color=blue> Web Server : </font></b> <font color=green> Working
Fine </font>" & _
          "<br /><b><font color=blue> NTPC Mail: </font></b>" +
showPing("191.254.186.230") & _
          "<br /><b><font color=blue> SAP-ESS : </font></b>" + showPing("10.2.0.112") &
_
```

```vbnet
            "<br /><b><font color=blue> SAP-R3 : </font></b>" + showPing("10.2.0.54") & _
            "<br /><b><font color=blue> BSNL Broadband Internet: </font></b><font
color=red>Unable to get Status </font> If not working then you are requested to use
common IT internet kiosk." & _
            "<br /><b><font color=blue> MPLS Link (Bhatwari): </font></b>" +
showPing("172.29.176.229") & _
            "<br /><b><font color=blue> MPLS Link (Dehradun): </font></b>" +
showPing("172.29.176.230") & _
            "<br /><b><font color=blue> MPLS Link (Hyderabad): </font></b>" +
showPing("10.2.0.38") & _
            "<br /><b><font color=blue> MPLS Link (Noida): </font></b>" +
showPing("10.0.0.48") & _
            "<br /><b><font color=blue> VSAT Noida: </font></b>" +
showPing("191.254.125.133") & _
            "<br /><br /><center><font color=blue> The screen refreshes each 10 second.
Please do have patience till services get restored. We are already working on it.
</font></center>"
    End Sub

Private Function showPing(ByVal ipaddress As String) As String
Try
Dim ping As Ping = New Ping
Dim garbage As Byte()
Dim enc As System.Text.ASCIIEncoding = New System.Text.ASCIIEncoding
garbage = enc.GetBytes("vinodkotiyaworkinginntpclimited
hasdesignedthismoduletogetthepingresponceofvariousserverandroutersandapplicationstogetthe
realtimedataandtosatisfytheuserswhofrequentlyusedtocallmewheneversomethinggetsdown
")
' garbage is used to get responce time of more than 1 ms
Dim pingreply As PingReply = ping.Send(ipaddress, 2048, garbage)
If Int(pingreply.RoundtripTime.ToString) > 0 Then
Return " Working Fine with Responce Time of " + pingreply.RoundtripTime.ToString + " mili
second for " + ipaddress
Else
Return "Currently Down Due to network problem. Please Have Patience. Restoration work
initiated. " + pingreply.RoundtripTime.ToString + " mili second for " + ipaddress
End If
Catch e As Exception
Return e.Message
End Try
End Function
End Class
```

- Written by
- Vinod K