



# *Internet Control Message Protocol*



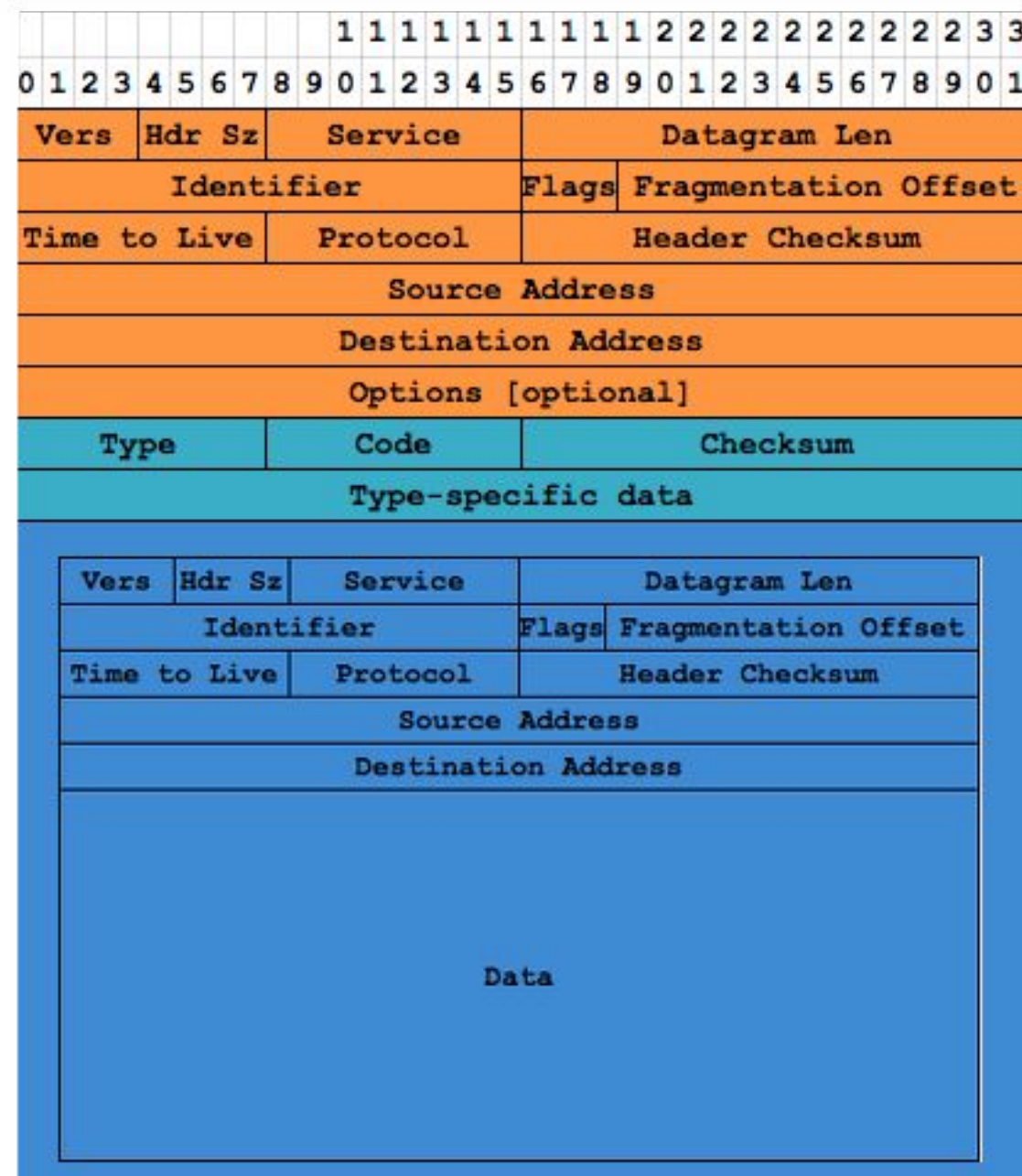
# PURPOSE

- Error messages
- Queries
- Configuration





# MESSAGE FORMAT





# MESSAGE TYPES

Echo Reply      Router Solicitation  
Timestamp Reply      Destination Unreachable  
Source Quench      Information Request      Redirect  
Router Advertisement  
Echo Request      Address Mask Request  
Alternate Host Address      Parameter Problem  
Time Exceeded      Address Mask Reply  
Timestamp      Traceroute      Information Reply



# *Destination Unreachable*

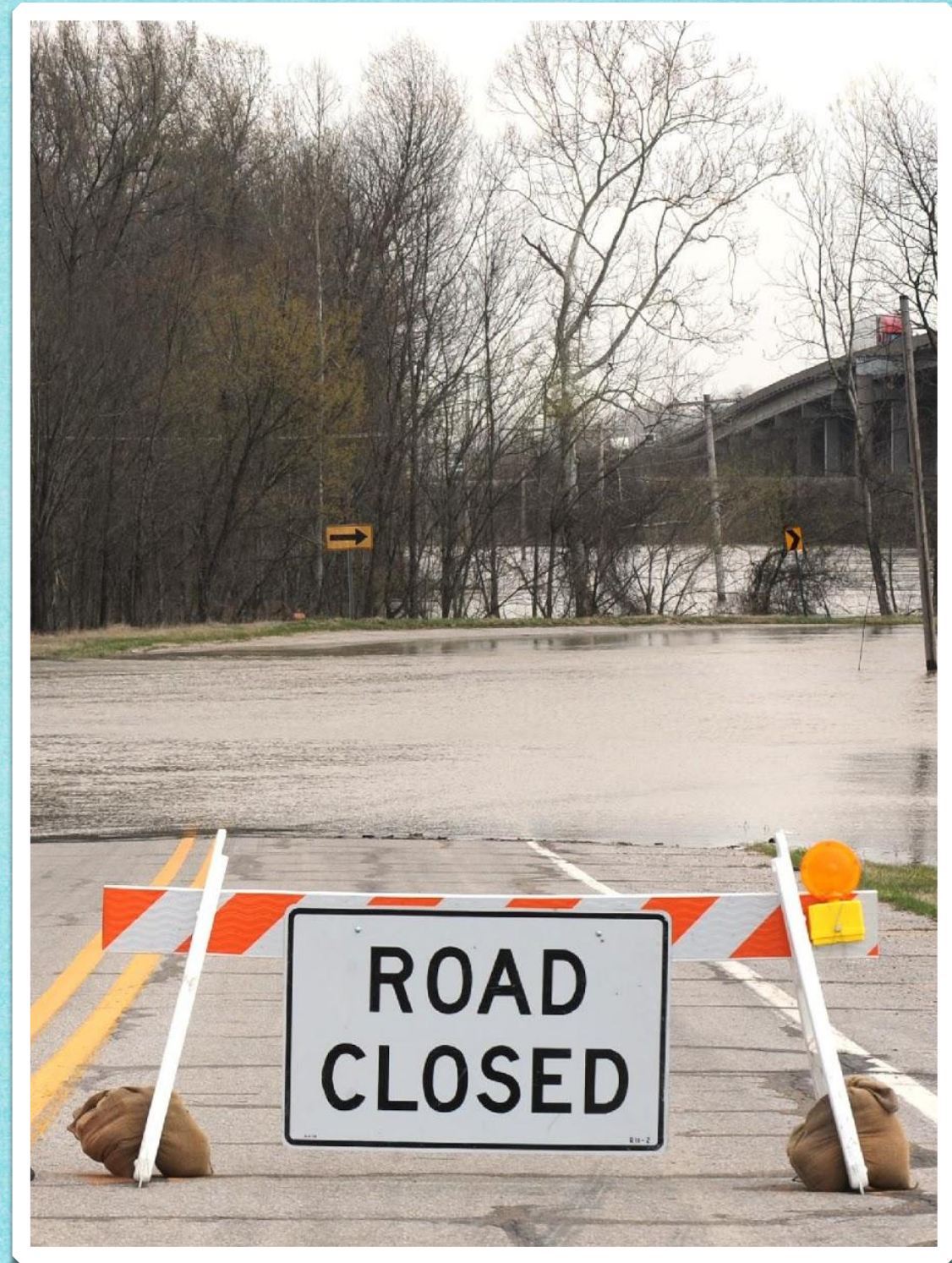
*WSAECONNREFUSED*

*WSAECONNRESET*

*WSAEHOSTUNREACH*

*WSAENETUNREACH*

*Fragmentation*





										1
0	1	2	3	4	5	6	7	8	9	0
Vers				Hdr Sz				Se		
Identifier										
Time to Live								Pr		
Type										

*Time  
Exceeded*  
*TTL and traceroute*



# *Redirect*

*Internal Use Only*







*Parameter  
Problem*  
*WSAENOPROTOOPT*



*Echo*  
*Ech*  
*Inter*





<p>lar cutting, grinding</p>	<p><b>BUY</b> <b>DETAILS INCLUDED</b> <b>A \$15 VALUE</b></p> <p><b>\$44 WAS \$59.97</b></p> <p><b>DREMEL® 300 SERIES ROTARY TOOL KIT</b></p> <ul style="list-style-type: none"> <li>• Ideal for precision cutting, grinding/sharpening, cleaning/polishing, carving/engraving, sanding and routing</li> <li>• Includes 25 accessories, cutting guide and case (393356)</li> </ul> <p><b>DREMEL</b></p>	<p><b>\$3</b></p> <p><b>HUSKY FULL F</b></p> <ul style="list-style-type: none"> <li>• Includes SAE and</li> </ul> <p><b>H</b></p>
<p><b>\$80</b> <b>VALUE</b></p> <p><b>\$9.97</b></p> <p><b>HANK</b></p> <p><b>ER BIT SET</b></p> <p>carbide</p> <p>carbide (791586)</p>	 <p><b>\$59.97</b></p> <p><b>EXCLUSIVE RYOBI®</b></p> <p><b>1-1/2 HP ROUTER KIT</b></p> <ul style="list-style-type: none"> <li>• 8.5 AMP ball-bearing motor for high performance</li> <li>• Integrated LED lights for improved work surface visibility (530076)</li> </ul> <p><b>RYOBI</b></p>	<p><b>\$9</b></p> <p><b>HUSKY BLACK</b></p> <ul style="list-style-type: none"> <li>• Includes a 1/4" stand sizes</li> </ul> <p><b>H</b></p>

# *Router Advertisement & Solicitation*



# BOTTOM LINE

- The Internet Control Message Protocol allows routers and hosts to talk to each other “out of band”
- Some error conditions result in ICMP messages; some ICMP messages result in application-level error messages
- Very often blocked due to security issues