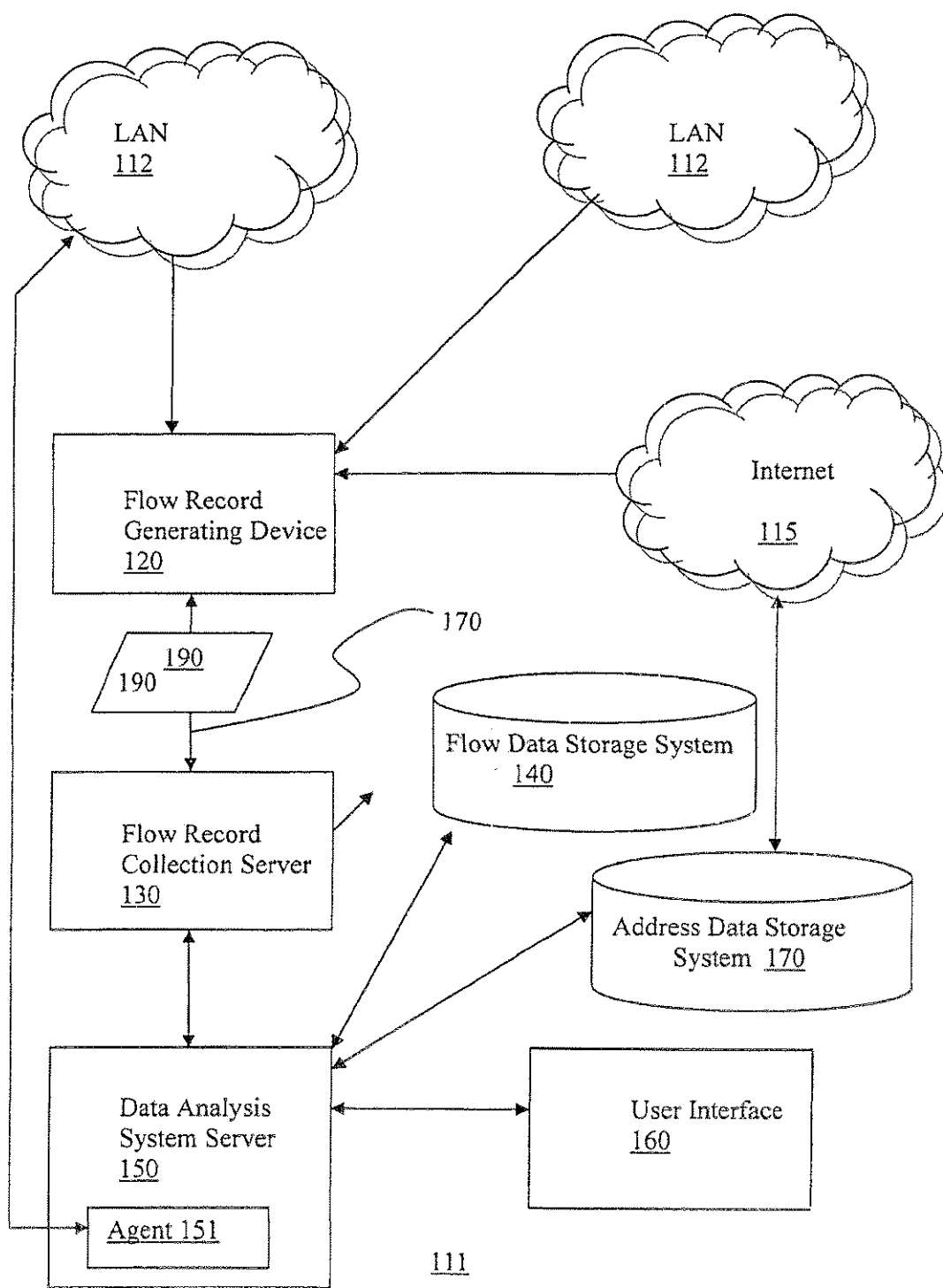


**Figure 1**

Exemplary Flow Record  
200



|                                                                                                                                                 |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Flow Version number                                                                                                                             | <u>210</u> |
| Sequence number                                                                                                                                 | <u>220</u> |
| Input and output interface SNMP indices                                                                                                         | <u>230</u> |
| Timestamps for the flow start and finish time                                                                                                   | <u>240</u> |
| Number of bytes and packets observed in the flow                                                                                                | <u>250</u> |
| Layer 3 headers, including Source & destination IP addresses, Source and destination port numbers, IP protocol, and Type of Service (ToS) value | <u>260</u> |
| For TCP flows, the union of all TCP flags observed over the life of the flow.                                                                   | <u>270</u> |

**Figure 2**  
(PRIOR ART)

| Flow Record<br>Number <u>310</u> | Source IP Address<br><u>320</u> | Destination IP<br>Address <u>330</u> | Time Stamp<br><u>340</u> | Byte Size<br><u>350</u> |
|----------------------------------|---------------------------------|--------------------------------------|--------------------------|-------------------------|
| 1                                | $s_1$                           | $d_1$                                | $t_1$                    | $b_1$                   |
| 2                                | $s_2$                           | $d_2$                                | $t_2$                    | $b_2$                   |
| 3                                | $s_3$                           | $d_3$                                | $t_3$                    | $b_3$                   |
| 4                                | $s_3$                           | $d_4$                                | $t_4$                    | $b_4$                   |

Exemplary Flow Table 300**Figure 3**

| Number of Flow<br>Record Numbers <u>410</u> | Source IP Address<br><u>420</u> | Total Byte Size<br><u>430</u> |
|---------------------------------------------|---------------------------------|-------------------------------|
| $n_1=1$                                     | $s_1$                           | $b_1$                         |
| $n_2=1$                                     | $s_2$                           | $b_2$                         |
| $n_3=2$                                     | $s_3$                           | $b_3+b_4$                     |

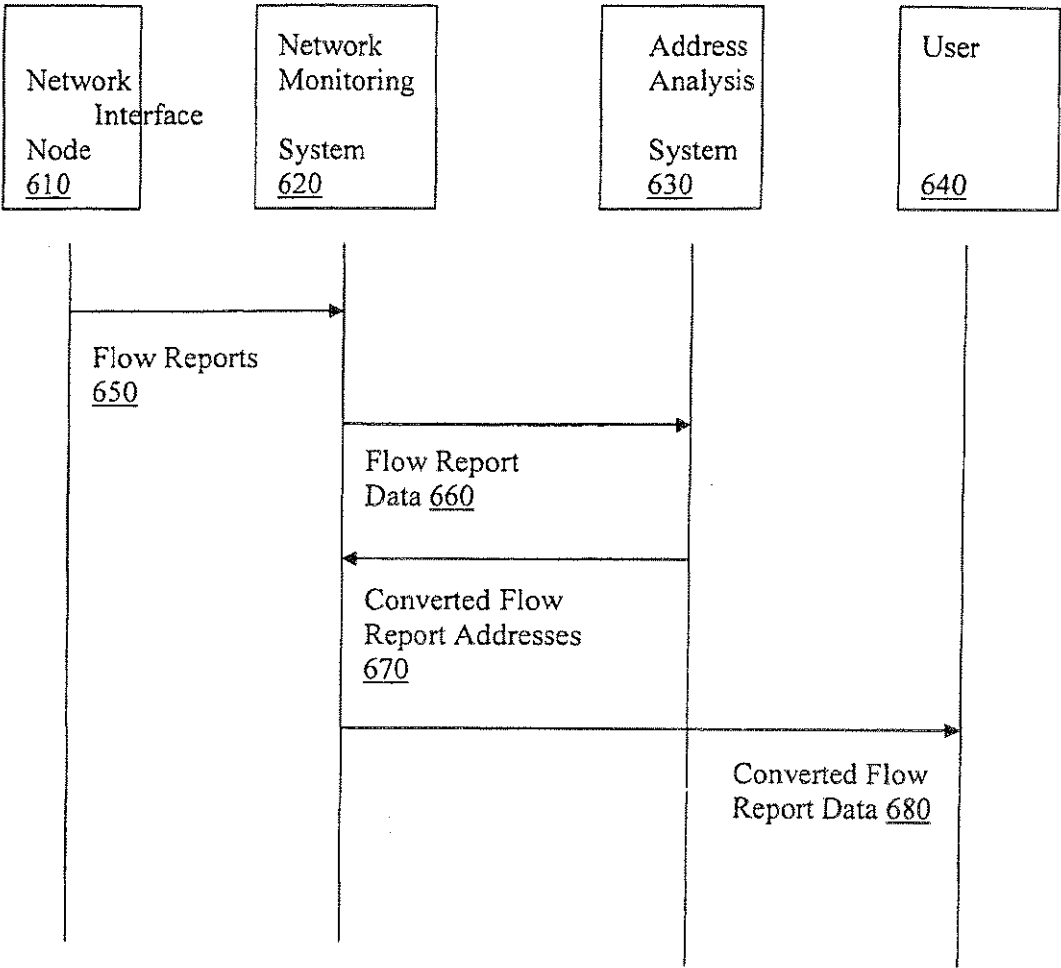
Exemplary Aggregated Flow Table 400**Figure 4**

| IP Address<br><u>510</u> | Text Address<br><u>520</u> |
|--------------------------|----------------------------|
| s <sub>1</sub>           | www.text <sub>1</sub> .com |
| s <sub>2</sub>           | www.text <sub>2</sub> .com |
| s <sub>3</sub>           | www.text <sub>3</sub> .com |
| d <sub>1</sub>           | www.text <sub>4</sub> .com |
| d <sub>2</sub>           | www.text <sub>5</sub> .com |
| d <sub>3</sub>           | www.text <sub>6</sub> .com |
| d <sub>4</sub>           | www.text <sub>7</sub> .com |

Address Storage Table 500**Figure 5A**

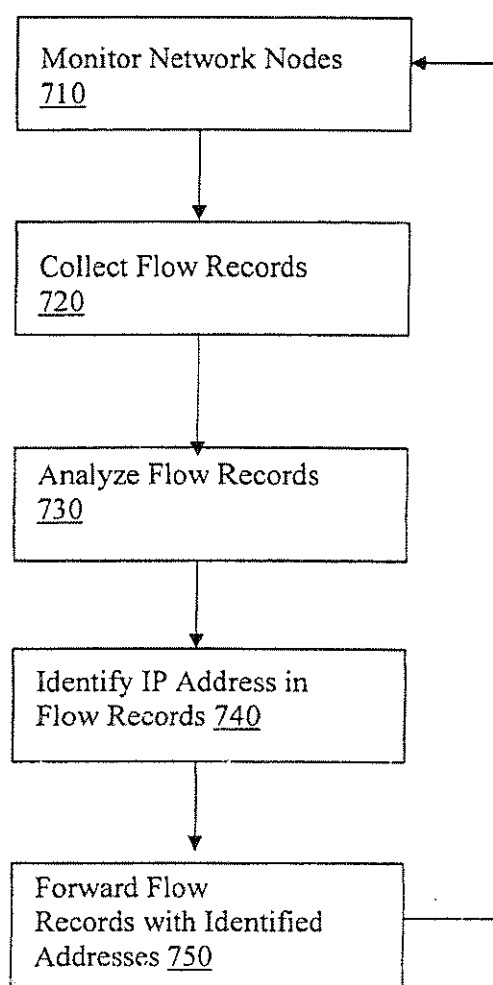
| Flow Record<br>Number <u>540</u> | Source IP Address<br><u>550</u> | Destination IP<br>Address <u>560</u> | Time Stamp<br><u>570</u> | Byte Size<br><u>580</u> |
|----------------------------------|---------------------------------|--------------------------------------|--------------------------|-------------------------|
| 1                                | www.text <sub>1</sub> .com      | www.text <sub>4</sub> .com           | t <sub>1</sub>           | b <sub>1</sub>          |
| 2                                | www.text <sub>2</sub> .com      | www.text <sub>5</sub> .com           | t <sub>2</sub>           | b <sub>2</sub>          |
| 3                                | www.text <sub>3</sub> .com      | www.text <sub>6</sub> .com           | t <sub>3</sub>           | b <sub>3</sub>          |
| 4                                | www.text <sub>3</sub> .com      | www.text <sub>7</sub> .com           | t <sub>4</sub>           | b <sub>4</sub>          |

Adjusted Flow Table 530**Figure 5B**



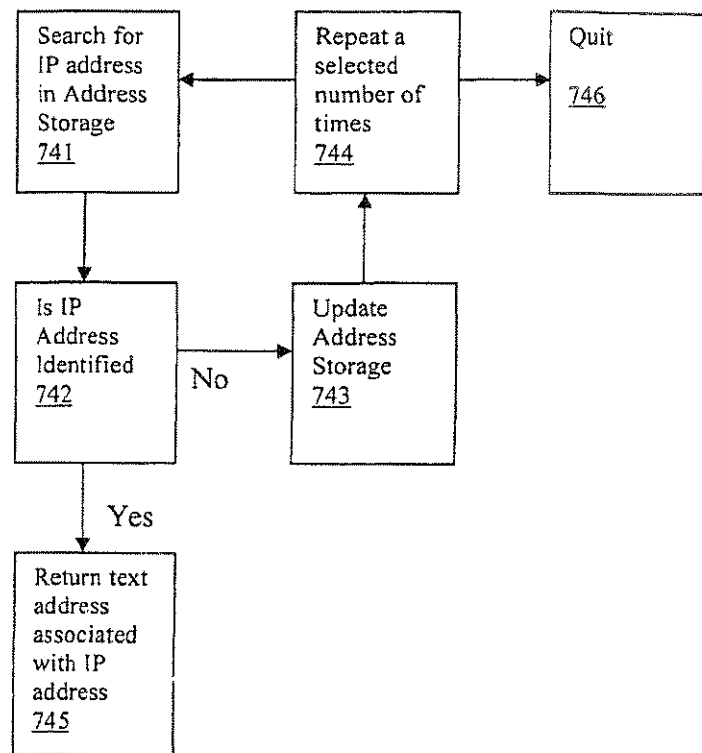
600

Figure 6



700

Figure 7A

740Figure 7B