## Peering Survey 2008

| 1. What type of network do you run? |         |                     |                   |
|-------------------------------------|---------|---------------------|-------------------|
|                                     |         | Response<br>Percent | Response<br>Count |
| Transit                             |         | 27.5%               | 53                |
| Content                             |         | 29.5%               | 57                |
| Eyeball                             |         | 16.1%               | 31                |
| Research                            |         | 6.2%                | 12                |
| Heavy Inbound                       |         | 6.7%                | 13                |
| Heavy Outbound                      |         | 3.6%                | 7                 |
| Other                               |         | 10.4%               | 20                |
|                                     | AS      | SN (optional)       | 74                |
|                                     | answere | ed question         | 193               |
|                                     | skipp   | ed question         | 1                 |

| 2. Do you use IPv4 unicast BGP peering? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| All Locations                           |         | 86.0%               | 166               |
| Some Locations                          |         | 7.3%                | 14                |
| Plans This Year                         |         | 3.6%                | 7                 |
| Decided Against It                      |         | 1.0%                | 2                 |
| Not Supported On My Gear                |         | 1.0%                | 2                 |
| No Plans                                |         | 3.1%                | 6                 |
|   |         | Comment             | 1                 |
|   | answere | ed question         | 193               |
|   | skipp   | ed question         | 1                 |

| 3. Do you use IPv4 multicast BGP peering? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| All Locations                             |         | 11.4%               | 22                |
| Some Locations                            |         | 14.0%               | 27                |
| Plans This Year                           |         | 4.7%                | 9                 |
| Decided Against It                        |         | 10.4%               | 20                |
| Not Supported On My Gear                  |         | 3.1%                | 6                 |
| No Plans                                  |         | 59.6%               | 115               |
|   |         | Comment             | 5                 |
|   | answere | ed question         | 193               |
|   | skipp   | ed question         | 1                 |

| 4. Do you use IPv6 unicast BGP peering? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| All Locations                           |         | 22.8%               | 44                |
| Some Locations                          |         | 23.8%               | 46                |
| Plans This Year                         |         | 22.8%               | 44                |
| Decided Against It                      |         | 4.1%                | 8                 |
| Not Supported On My Gear                |         | 3.1%                | 6                 |
| No Plans                                |         | 25.4%               | 49                |
|   |         | Comment             | 8                 |
|   | answere | ed question         | 193               |
|   | skipp   | ed question         | 1                 |

| 5. Do you use IPv6 multicast BGP peering? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| All Locations                             |         | 2.6%                | 5                 |
| Some Locations                            |         | 8.8%                | 17                |
| Plans This Year                           |         | 9.8%                | 19                |
| Decided Against It                        |         | 7.3%                | 14                |
| Not Supported On My Gear                  |         | 5.7%                | 11                |
| No Plans                                  |         | 68.4%               | 132               |
|   |         | Comment             | 5                 |
|   | answere | ed question         | 193               |
|   | skipp   | ed question         | 1                 |

| 6. Do you use MSDP peering? |  |         |                     |                   |
|-----------------------------|--|---------|---------------------|-------------------|
|                             |  |         | Response<br>Percent | Response<br>Count |
| All Locations               |  |         | 7.8%                | 15                |
| Some Locations              |  |         | 10.9%               | 21                |
| Plans This Year             |  |         | 1.6%                | 3                 |
| Decided Against It          |  |         | 7.8%                | 15                |
| Not Supported On My Gear    |  |         | 5.7%                | 11                |
| No Plans                    |  |         | 69.4%               | 134               |
|                             |  |         | Comment             | 4                 |
|                             |  | answere | d question          | 193               |
|                             |  | skippe  | ed question         | 1                 |

| 7. Do you use BFD?       |         |                     |                   |
|--------------------------|---------|---------------------|-------------------|
|                          |         | Response<br>Percent | Response<br>Count |
| Public Peering (LAN)     |         | 4.7%                | 9                 |
| Private Peering (PNI)    |         | 4.1%                | 8                 |
| Customer Peering         |         | 4.1%                | 8                 |
| Internal Network         |         | 25.4%               | 49                |
| Plans This Year          |         | 13.0%               | 25                |
| Decided Against It       |         | 6.7%                | 13                |
| Not Supported On My Gear |         | 4.7%                | 9                 |
| No Plans                 |         | 52.3%               | 101               |
|                          |         | Comment             | 8                 |
|                          | answere | ed question         | 193               |
|                          | skipp   | ed question         | 1                 |

| 8. Do you use CDP or LLDP (802.1AB) | ?       |                     |                   |
|-------------------------------------|---------|---------------------|-------------------|
|                                     |         | Response<br>Percent | Response<br>Count |
| Public Peering (LAN)                |         | 3.1%                | 6                 |
| Private Peering (PNI)               |         | 4.7%                | 9                 |
| Customer Peering                    |         | 3.6%                | 7                 |
| Internal Network                    |         | 34.7%               | 67                |
| Plans This Year                     |         | 1.6%                | 3                 |
| Decided Against It                  |         | 23.8%               | 46                |
| Not Supported On My Gear            |         | 6.2%                | 12                |
| No Plans                            |         | 34.2%               | 66                |
|                                     |         | Comment             | 3                 |
|                                     | answere | ed question         | 193               |
|                                     | skippe  | ed question         | 1                 |

| 9. Do you use BGP communities?  |         |                     |                   |
|---------------------------------|---------|---------------------|-------------------|
|                                 |         | Response<br>Percent | Response<br>Count |
| Send Them To Public Peers       |         | 41.4%               | 70                |
| Send Them To Private Peers      |         | 44.4%               | 75                |
| Send Them To Customer Peers     |         | 49.7%               | 84                |
| Accept Them From Public Peers   |         | 48.5%               | 82                |
| Accept Them From Private Peers  |         | 50.9%               | 86                |
| Accept Them From Customer Peers |         | 54.4%               | 92                |
| Standard Communities (RFC 1997) |         | 40.2%               | 68                |
| Extended Communities (RFC 4360) |         | 29.0%               | 49                |
| No                              |         | 10.7%               | 18                |
|                                 |         | Comment             | 4                 |
|                                 | answere | ed question         | 169               |
|                                 | skippe  | ed question         | 25                |

| 10. Do you use BGP MEDs?        |         |                     |                   |
|---------------------------------|---------|---------------------|-------------------|
|                                 |         | Response<br>Percent | Response<br>Count |
| Send Them To Public Peers       |         | 25.4%               | 43                |
| Send Them To Private Peers      |         | 32.5%               | 55                |
| Send Them To Customer Peers     |         | 26.0%               | 44                |
| Accept Them From Public Peers   |         | 31.4%               | 53                |
| Accept Them From Private Peers  |         | 32.5%               | 55                |
| Accept Them From Customer Peers |         | 33.7%               | 57                |
| No                              |         | 39.1%               | 66                |
|                                 |         | Comment             | 5                 |
|                                 | answere | ed question         | 169               |
|                                 | skippe  | ed question         | 25                |

| 11. Do you change BGP path attribute | s (AS path, origin, etc)? |                     |                   |
|--------------------------------------|---------------------------|---------------------|-------------------|
|                                      |                           | Response<br>Percent | Response<br>Count |
| To Public Peers                      |                           | 21.9%               | 37                |
| To Private Peers                     |                           | 20.1%               | 34                |
| To Customer Peers                    |                           | 17.2%               | 29                |
| From Public Peers                    |                           | 18.3%               | 31                |
| From Private Peers                   |                           | 18.3%               | 31                |
| From Customer Peers                  |                           | 20.7%               | 35                |
| No                                   |                           | 59.8%               | 101               |
|                                      |                           | Comment             | 10                |
|                                      | answer                    | ed question         | 169               |
|                                      | skipp                     | ed question         | 25                |

| 12. Do you change the BGP next hop to a network you do not peer with? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| Yes   |         | 6.5%                | 11                |
| No  |         | 93.5%               | 158               |
|   |         | Comment             | 3                 |
|   | answere | ed question         | 169               |
|   | skippe  | ed question         | 25                |

| 13. Do you use MD5 signatures (RFC 2358) for BGP? |         |                     |                   |  |
|---|---------|---------------------|-------------------|--|
|   |         | Response<br>Percent | Response<br>Count |  |
| I Insist  |         | 10.7%               | 18                |  |
| I Recommend It                                    |         | 37.3%               | 63                |  |
| I Will If The Other Peer Wants                    |         | 55.6%               | 94                |  |
| I Refuse  |         | 4.7%                | 8                 |  |
|   |         | Comment             | 12                |  |
|   | answere | ed question         | 169               |  |
|   | skipp   | ed question         | 25                |  |

| 14. Route refresh (RFC 2918) is enabled by default on most routers these days. Do you actually use it? |         |                     |                   |
|--|---------|---------------------|-------------------|
|  |         | Response<br>Percent | Response<br>Count |
| Yes  |         | 58.6%               | 99                |
| No   |         | 11.8%               | 20                |
| Not Sure   |         | 20.7%               | 35                |
| Don't Know What This Is  |         | 9.5%                | 16                |
|  |         | Comment             | 3                 |
|  | answere | ed question         | 169               |
|  | skipp   | ed question         | 25                |

| 15. Do you use the GTSM (RFC 3682) for BGP? |  |                     |                   |  |
|---|--|---------------------|-------------------|--|
|   |  | Response<br>Percent | Response<br>Count |  |
| Yes   |  | 8.9%                | 15                |  |
| Don't Know What This Is                     |  | 29.0%               | 49                |  |
| Plans This Year                             |  | 8.9%                | 15                |  |
| Decided Against It                          |  | 5.3%                | 9                 |  |
| Not Supported On My Gear                    |  | 5.3%                | 9                 |  |
| No Plans                                    |  | 45.6%               | 77                |  |
|   |  | Comment             | 7                 |  |
|   |  | answered question   | 169               |  |
|   |  | skipped question    | 25                |  |

| 16. Do you use four byte ASNs (RFC 4893)? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| Yes                                       |         | 10.1%               | 17                |
| AS23456 Only                              |         | 10.1%               | 17                |
| Don't Know What This Is                   |         | 3.6%                | 6                 |
| Plans This Year                           |         | 18.3%               | 31                |
| Decided Against It                        |         | 0.6%                | 1                 |
| Not Supported On My Gear                  |         | 28.4%               | 48                |
| No Plans                                  |         | 36.7%               | 62                |
|   |         | Comment             | 10                |
|   | answere | ed question         | 169               |
|   | skippe  | ed question         | 25                |

| 17. Do you use BGP graceful restart ( | RFC 4724)? |                     |                   |
|---------------------------------------|------------|---------------------|-------------------|
|                                       |            | Response<br>Percent | Response<br>Count |
| Public Peering                        |            | 28.4%               | 48                |
| Private Peering                       |            | 30.8%               | 52                |
| Customer Peering                      |            | 25.4%               | 43                |
| Internal Peering                      |            | 37.3%               | 63                |
| Don't Know What This Is               |            | 8.3%                | 14                |
| Plans This Year                       |            | 10.1%               | 17                |
| Decided Against It                    |            | 4.7%                | 8                 |
| Not Supported On My Gear              |            | 8.3%                | 14                |
| No Plans                              |            | 27.2%               | 46                |
|                                       |            | Comment             | 1                 |
|                                       | answere    | ed question         | 169               |
|                                       | skipp      | ed question         | 25                |

| 18. Do you use BGP flow specifications (draft-marques-idr-flow-spec) for blackhole route exchange? |         |                     |                   |
|--|---------|---------------------|-------------------|
|  |         | Response<br>Percent | Response<br>Count |
| Public Peering   |         | 4.7%                | 8                 |
| Private Peering  |         | 5.3%                | 9                 |
| Customer Peering   |         | 8.3%                | 14                |
| Internal Peering   |         | 10.1%               | 17                |
| Don't Know What This Is  |         | 14.2%               | 24                |
| Plans This Year  |         | 8.9%                | 15                |
| Decided Against It   |         | 3.6%                | 6                 |
| Not Supported On My Gear   |         | 8.3%                | 14                |
| No Plans   |         | 54.4%               | 92                |
|  |         | Comment             | 2                 |
|  | answere | ed question         | 169               |
|  | skipp   | ed question         | 25                |

| 19. Do you use BGP Outbound Route Filtering Capability (draft-ietf-idr-route-filter)? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| Public Peering  |         | 20.1%               | 34                |
| Private Peering   |         | 18.3%               | 31                |
| Customer Peering  |         | 14.8%               | 25                |
| Internal Peering  |         | 11.8%               | 20                |
| Don't Know What This Is   |         | 13.6%               | 23                |
| Plans This Year   |         | 4.7%                | 8                 |
| Decided Against It  |         | 3.0%                | 5                 |
| Not Supported On My Gear  |         | 7.1%                | 12                |
| No Plans  |         | 49.1%               | 83                |
|   |         | Comment             | 1                 |
|   | answere | ed question         | 169               |
|   | skipp   | ed question         | 25                |

| 20. What is the largest frame size you | ı use on peering links? |                     |                   |
|--|-------------------------|---------------------|-------------------|
|  |                         | Response<br>Percent | Response<br>Count |
| 1518 Bytes                             |                         | 61.4%               | 94                |
| 4470 Bytes                             |                         | 17.6%               | 27                |
| 9216 Bytes                             |                         | 25.5%               | 39                |
|  | Comment o               | r Other Sizes       | 15                |
|  | answer                  | ed question         | 153               |
|  | skipp                   | ed question         | 41                |

| 21. How do you prefer to load balance over multiple links? |         |                     |                   |
|--|---------|---------------------|-------------------|
|  |         | Response<br>Percent | Response<br>Count |
| Static LAG   |         | 21.6%               | 33                |
| Dynamic LAG (802.3ad)                                      |         | 30.1%               | 46                |
| IBGP Multipath   |         | 18.3%               | 28                |
| EBGP Multipath   |         | 48.4%               | 74                |
| EBGP Multihop  |         | 27.5%               | 42                |
|  |         | Comment             | 8                 |
|  | answere | ed question         | 153               |
|  | skipp   | ed question         | 41                |

| 22. Do you advertise deaggregates to peers? |         |                     |                   |
|---|---------|---------------------|-------------------|
|   |         | Response<br>Percent | Response<br>Count |
| Public Peers                                |         | 17.6%               | 27                |
| Private Peers                               |         | 18.3%               | 28                |
| Customer Peers                              |         | 20.9%               | 32                |
| With A "no-export" Community                |         | 11.1%               | 17                |
| No  |         | 68.0%               | 104               |
|   |         | Comment             | 11                |
|   | answere | ed question         | 153               |
|   | skipp   | ed question         | 41                |

| 23. Do you static route any networks or aggregates to peers? |  |         |                     |                   |
|--|--|---------|---------------------|-------------------|
|  |  |         | Response<br>Percent | Response<br>Count |
| Public Peers   |  |         | 6.5%                | 10                |
| Private Peers  |  |         | 5.9%                | 9                 |
| Customer Peers   |  |         | 11.8%               | 18                |
| No   |  |         | 82.4%               | 126               |
|  |  |         | Comment             | 8                 |
|  |  | answere | ed question         | 153               |
|  |  | skippe  | ed question         | 41                |

| 24. What is your biggest concern when deploying a new feature? Choose one answer for each Most Least column. |                |               |               |               |               |                   |                   |
|--|----------------|---------------|---------------|---------------|---------------|-------------------|-------------------|
|  | Most           |               |               |               | Least         | Rating<br>Average | Response<br>Count |
| Stability (Somebody set us up the bomb.)   | 65.4%<br>(100) | 11.1%<br>(17) | 3.3% (5)      | 6.5% (10)     | 13.7%<br>(21) | 1.92              | 153               |
| Scalability  | 9.8% (15)      | 39.9% (61)    | 22.9%<br>(35) | 23.5%<br>(36) | 3.9% (6)      | 2.72              | 153               |
| Interaction Other Features   | 5.9% (9)       | 19.0%<br>(29) | 34.0% (52)    | 24.2%<br>(37) | 17.0%<br>(26) | 3.27              | 153               |
| Interoperability   | 8.5% (13)      | 19.6%<br>(30) | 27.5%<br>(42) | 32.0% (49)    | 12.4%<br>(19) | 3.20              | 153               |
| Being Forced To Upgrade Software   | 10.5%<br>(16)  | 10.5%<br>(16) | 12.4%<br>(19) | 13.7%<br>(21) | 52.9% (81)    | 3.88              | 153               |
| Comment  |                |               |               |               | Comment       | 7                 |                   |
| answered question  |                |               |               | 153           |               |                   |                   |
| skipped question   |                |               |               | 41            |               |                   |                   |