



This example shows how BGP constructs paths to different Autonomous Systems (AS)
A system with 5 AS's is shown above.

Step 1:

Each AS sends to each directly connected AS the paths it has

e.g. AS3 sends AS3-AS4 and AS3-AS5 to AS2

AS5 sends AS5-AS4 to AS3

Step 2:

Each AS now constructs new paths and alternate paths based on information received
e.g. AS3 constructs alternate path AS3-AS5-AS4 to AS4 based on path information received from AS5

AS2 constructs new path AS2-AS3-AS5 to AS5 and alternate path AS2-AS3-AS4 to AS4 based on path information received from AS3

Nodes send the additional path information collected to their directly connected neighbors

Step 3:

AS2 now constructs another alternate path AS2-AS3-AS5-AS4 to AS4 based on path information received from AS3

and so on.

Any loop paths formed such as AS2-AS3-AS4-AS2-AS3 which contain the same node twice are discarded