Commsday Presentation
IPv6 Challenges

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Agenda

- Beginning Steps for IPv6 Transition
  - The need to obtain a detailed insight of your current network deployment
  - The need to first understand your IPv4 deployment.
  - What Issues do you face?
  - What can you Optimize?

IPv4 Management Issues

- Your address structures
- Integration w/ DNS and DHCP?
- Mapping and reporting?
- Already there are many troublesome issues if this is not already tightly controlled.

IPv6 additional issue

- Longer Addresses means problem has magnified exponentially.
- IPv6 also provides new features and options.
- Fear of the unknown
- Integration and interoperability

IPv6 is an opportunity

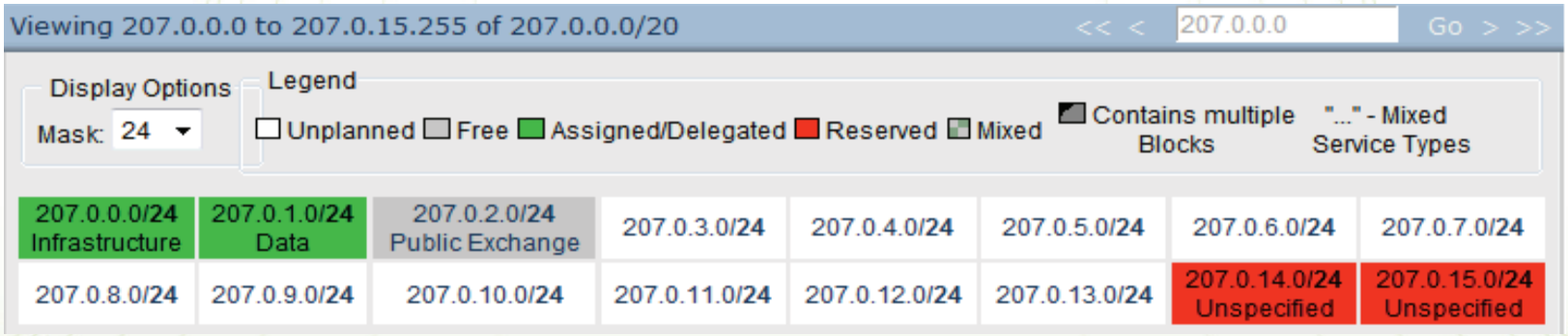
- To increase your operational efficiency
- To go get an IPAM tool
  - To put spreadsheet management of IP into the past!
- Establish your business flow and educate your team.
- Be less dependant on individual team members

A well-planned network means a well-planned business

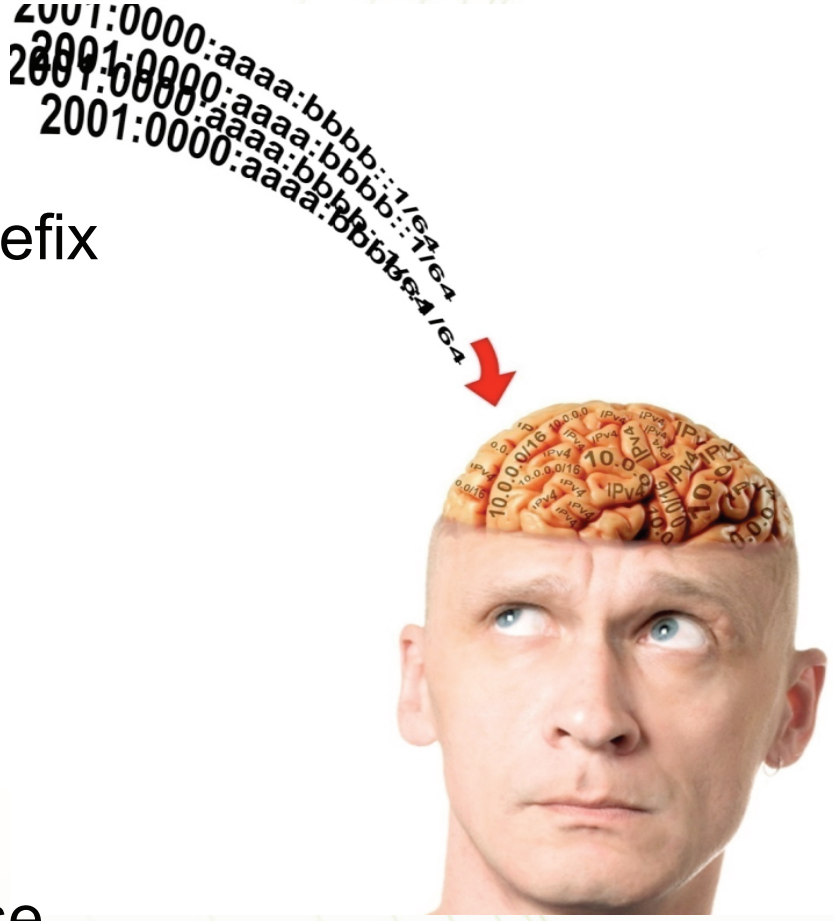
- Reduce transaction times for IP address assignment
- Proper tools enable your team to work together efficiently
- IPv6 Planning will be key to your success and tracking of your customers, and maximizing the benefits of IPv6 address.

Analyze Use of IPv4

- Eliminate fragmentation by using an automated process to identify unused blocks of space
- Control the request IP flow in order to facilitate renumbering of static assignments.
- Use algorithms instead of manual processes.

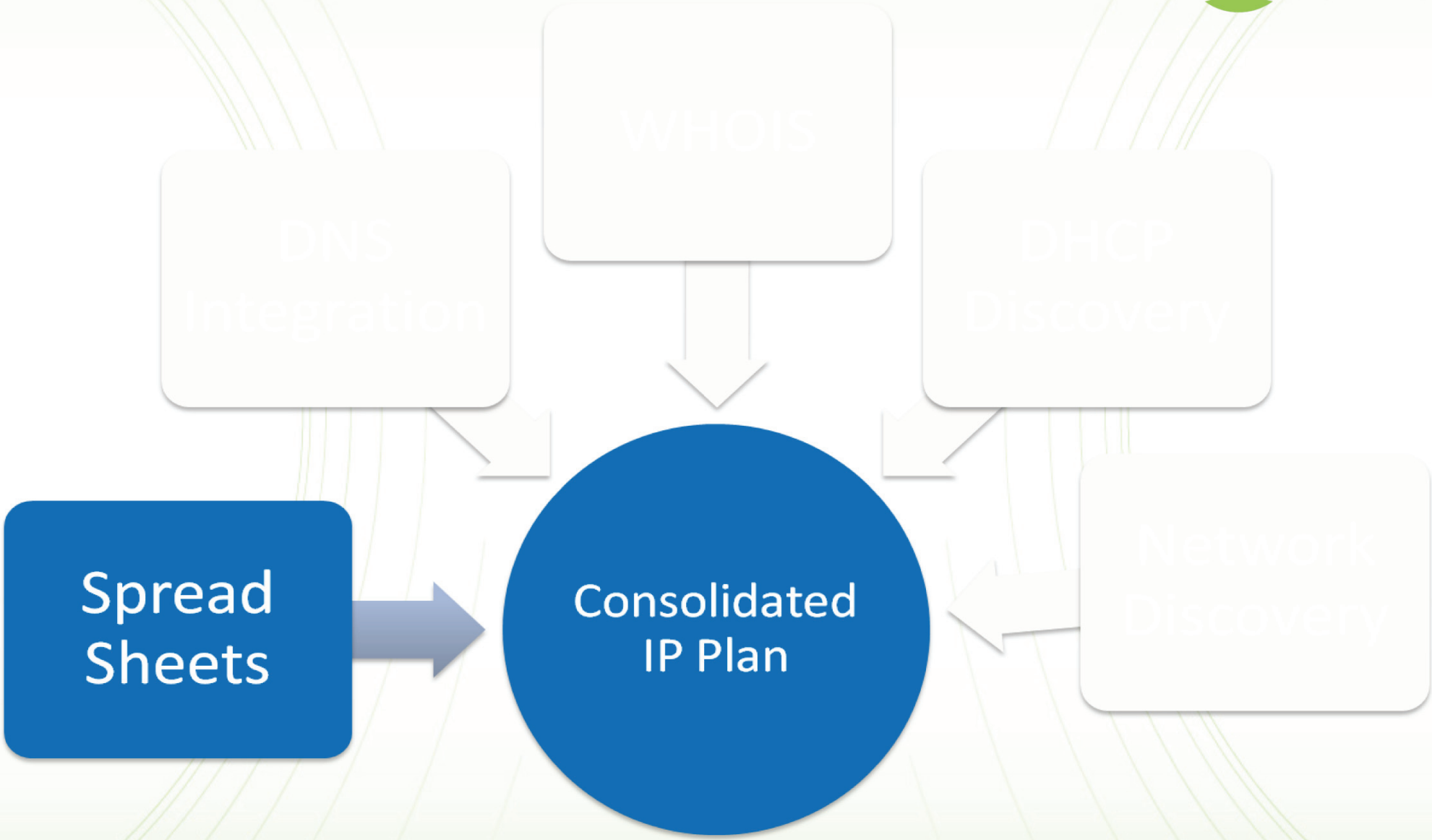


Consider the impact of your IPv6 changes on your network



- Decide what features you will use. (Prefix delegation or not?)
- How do you want to plan /32 and downwards
  - Assigning out /56 and /64 to customers
  - Automatic generation of IPv6 addresses
  - Management of forward and reverse DNS records

Detailed Insight Into Your Network



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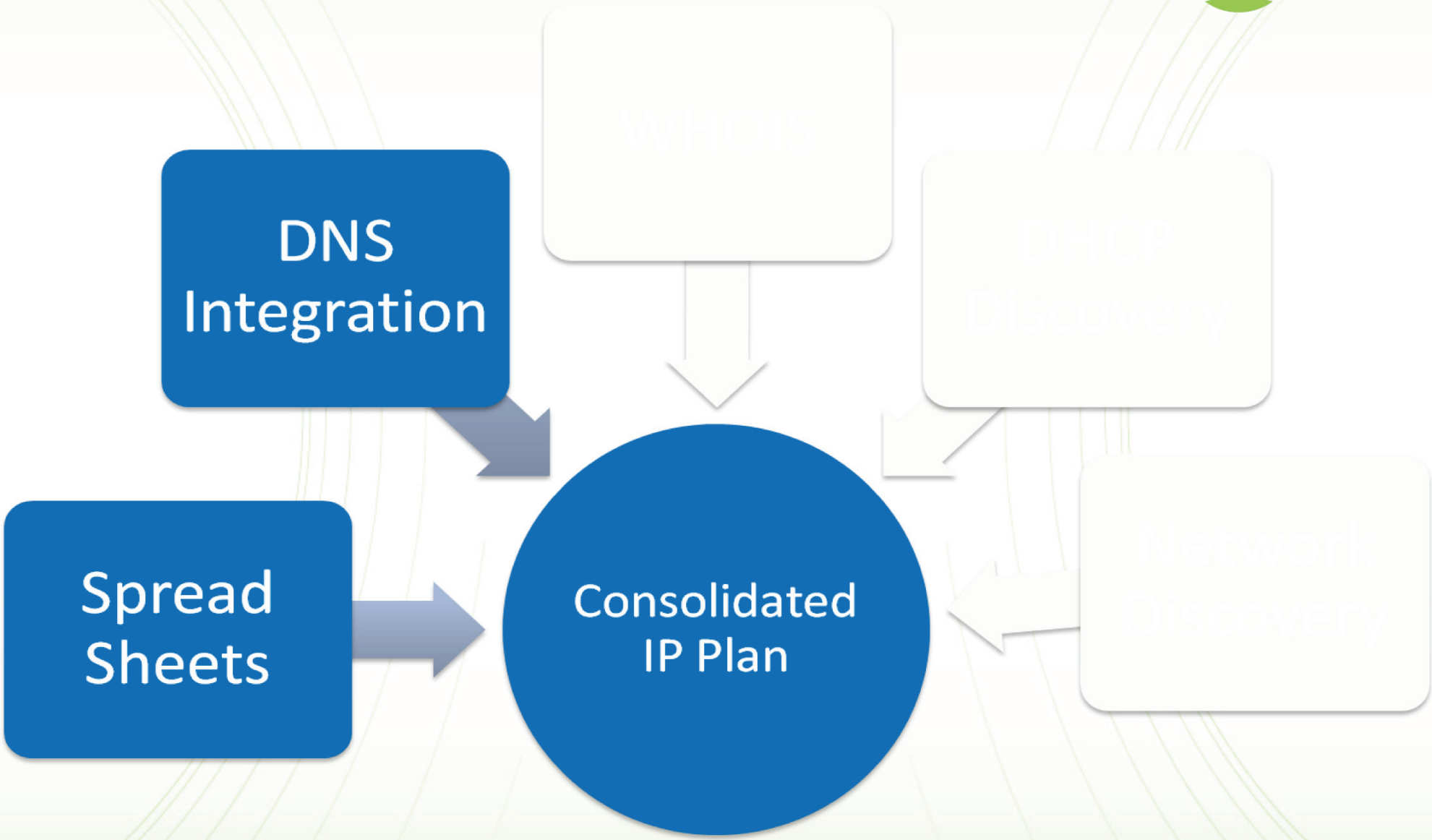

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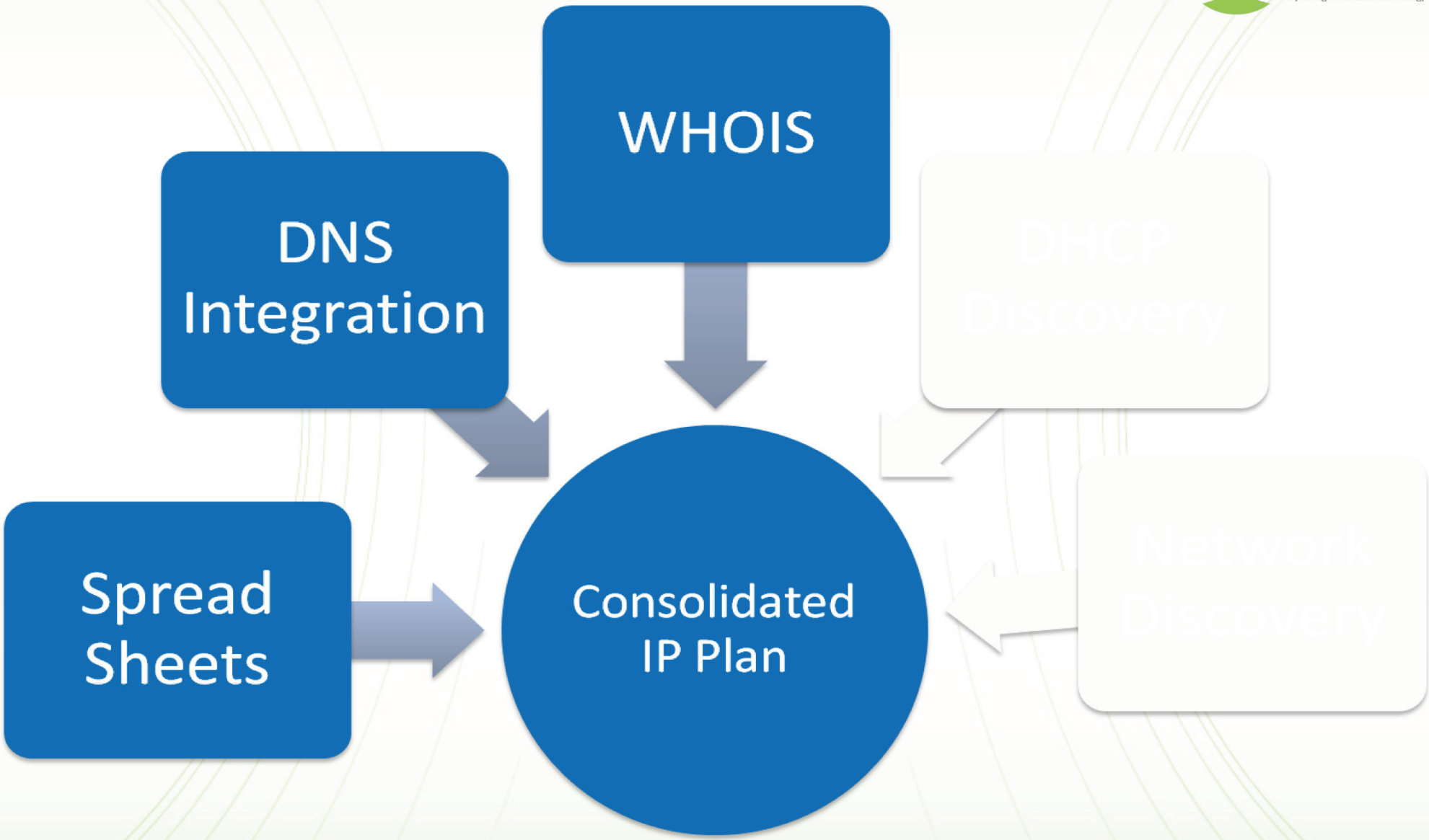

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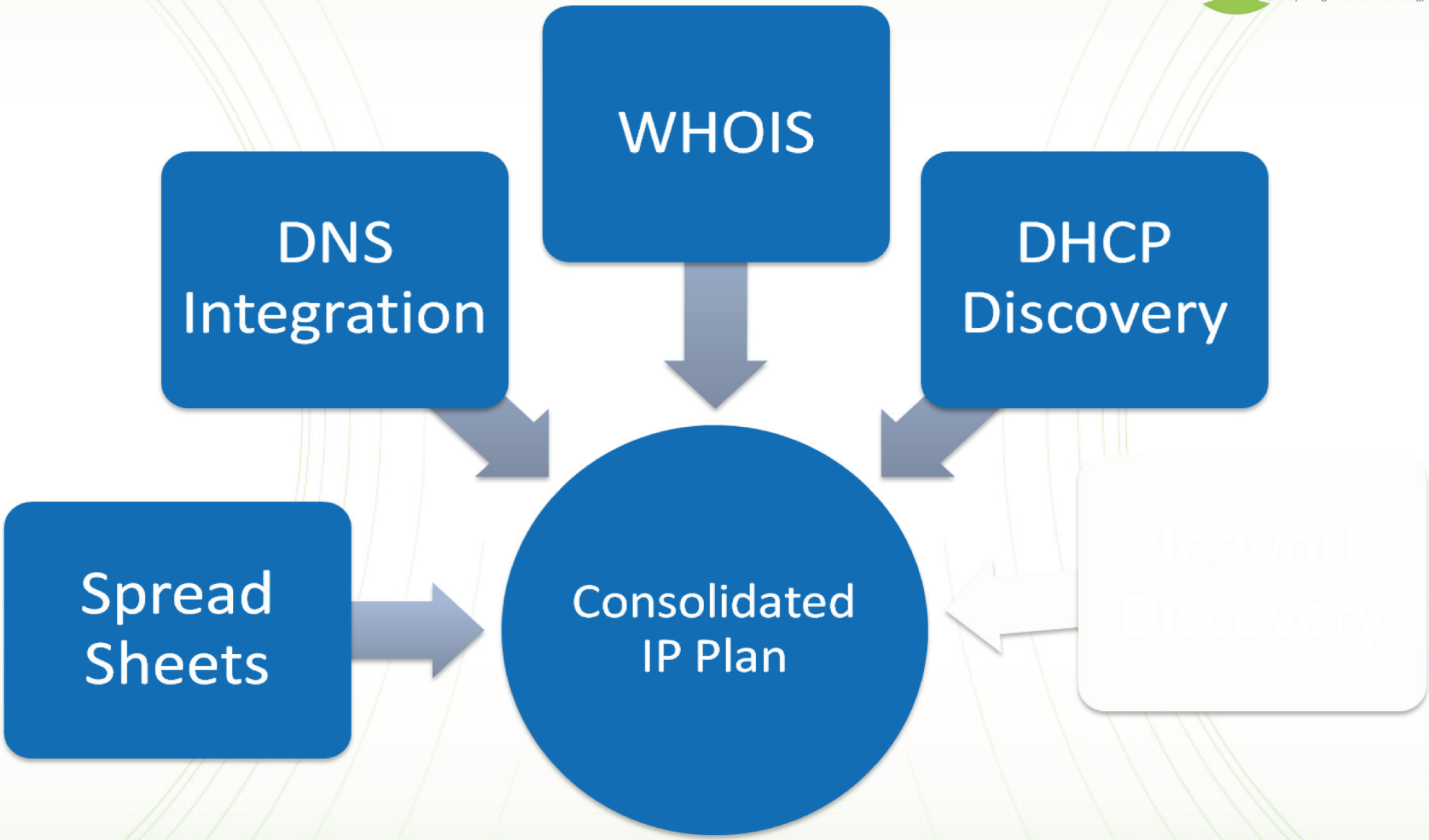

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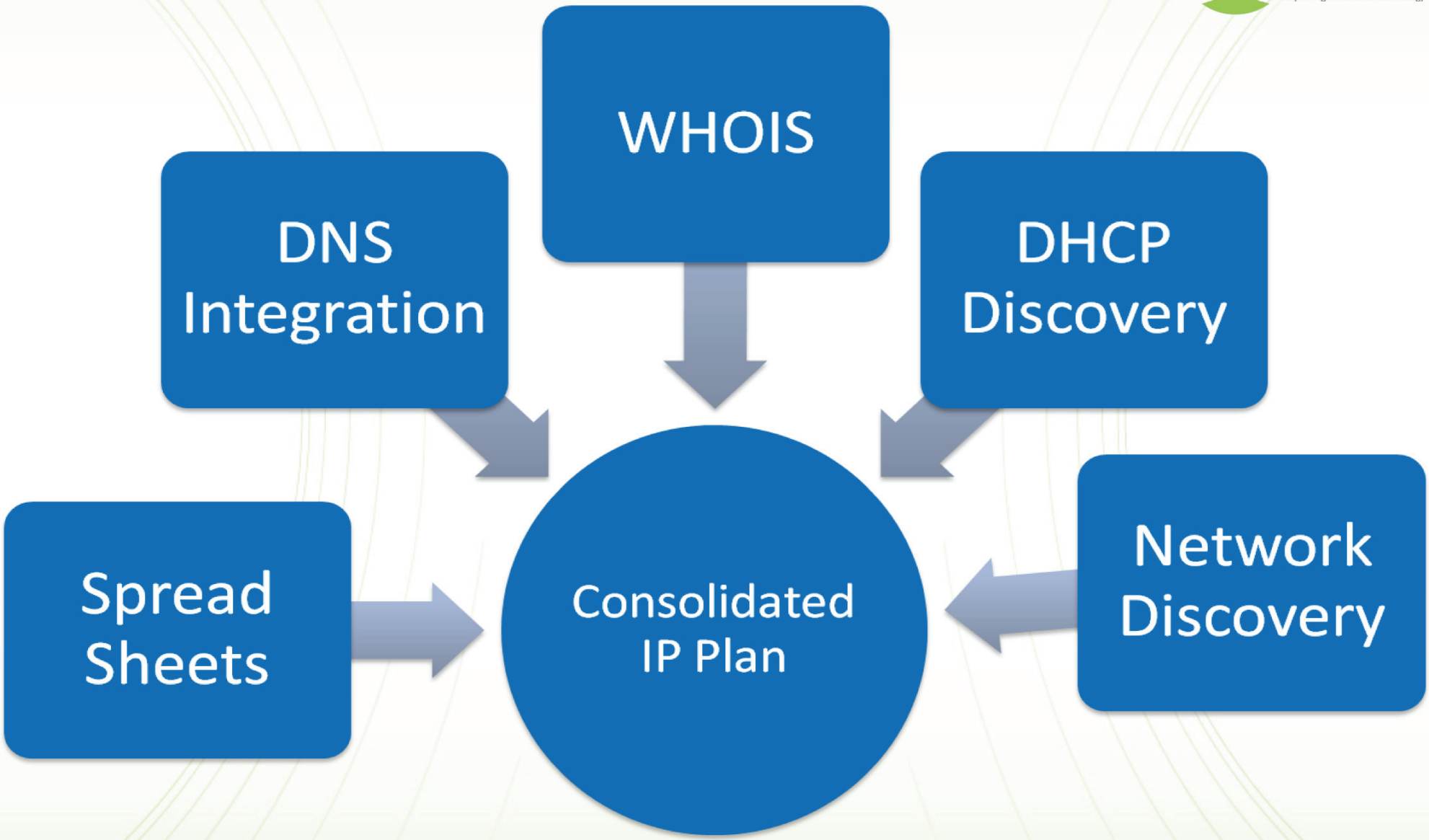
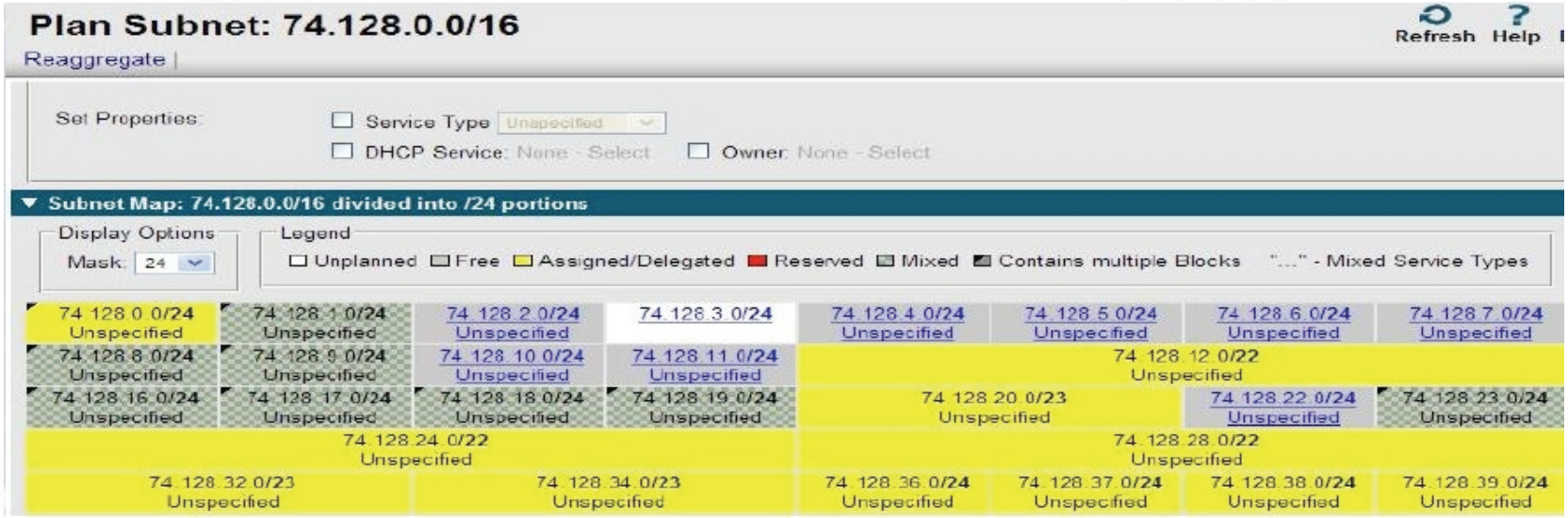


The need of IPAM

- IPAM solution will be key to your planning success.



The Solution Should

- Be Carrier Class, designed to meet the business processes of Carriers.
- Should support IPv6 and IPv4 simultaneously.
- As IPv4 blocks free up, you can even sell them to other lagging operators
- Generate IPv6

The Solution Should

- Provide reports to different users in different formats.
- Discover your network
- Have the ability to define custom parameters
- Have the ability to create reports the way you need them to be

The Solution should

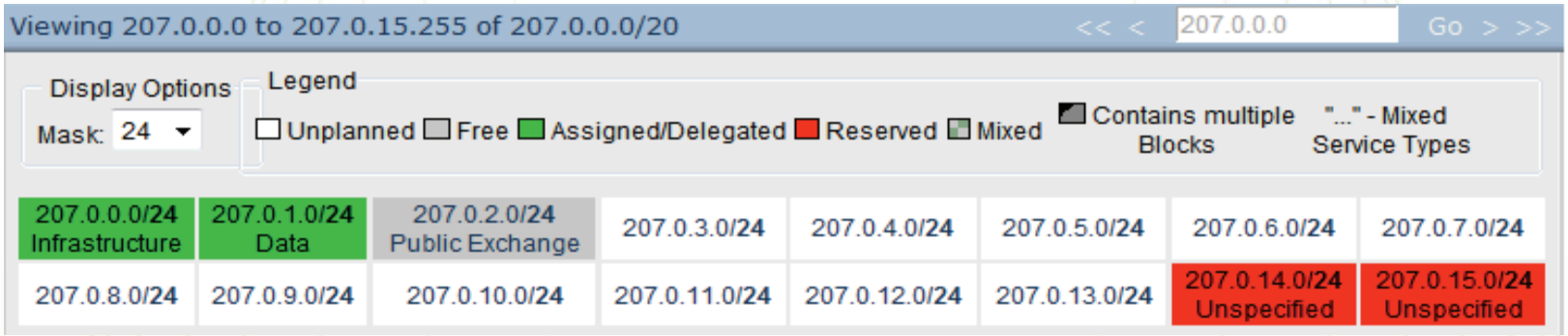
- Pull information from the DHCP
- Update unobtrusively/frequently to maintain current records
- Integrate with your DHCP
- Provide auditing for Law Enforcement Agencies.

The Solution Should

- Be able to produce reports catered to your business flow
- Be able to support multiple users and scale to millions of IP database objects
- Be able to integrate with your DNS

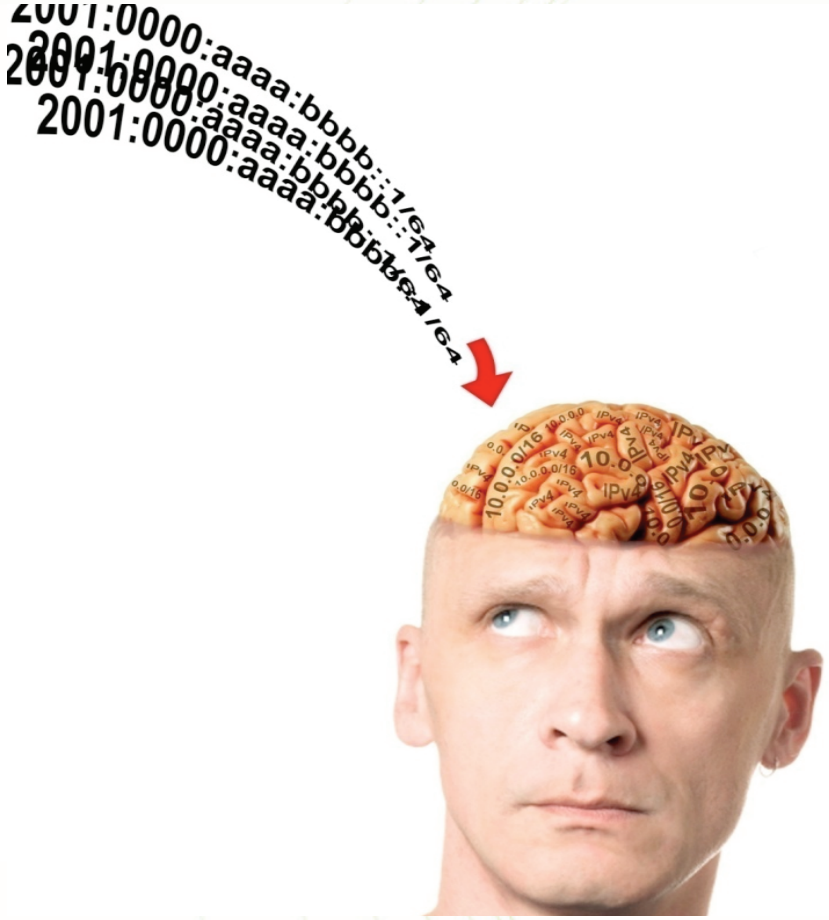
Ensuring Optimal Use of IPv4

- Your system should eliminate fragmentation by using an automated process to identify unused blocks of space
- Controlling the request IP flow to facilitate renumbering of static assignments



Simplifying Management of IPv6

- Planning /32 and downwards
  - Assigning out /56 and /64 to customers
  - Automatic generation of IPv6 addresses
  - Management of forward and reverse DNS records



Questions?