VITALQIP SALES TRAINING

John Ricciardi

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Every success has its network

OBJECTIVES

Understand IP Address Management and its components

Understand how to successfully identify opportunities

AGENDA

- **What is IP Address Management**

- IPAM Market

- Target Verticals & Industries

- VitalQIP Solution

- Customer Engagement Examples

- VitalQIP Summary

WHAT IS IP ADDRESS MANAGEMENT

IP Address Management or IPAM is a collective term used for network management relating to three inter-related IP network functions; DNS, DHCP and IP Addresses.

Another collective term often referenced for the network practice is DDI meaning DNS, DHCP and IP address management.

VitalQIP is a complete DDI solution providing DNS, DHCP and IP Address Management capabilities

WHAT IS DNS

If you know a person's name but don't know their telephone number, you can simply look it up in a phone book.

The domain name system (DNS) provides this same service to the internet and corporate networks by converting names to IP addresses.

Billions of DNS queries are being answered daily by DNS Servers around the global

DNS EXAMPLE

DNS CLIENT

What is the address for www.alcatel-lucent.com?

www.alcatel-lucent.com has address 135.114.0.1

DNS SERVER

The DNS protocol (Domain Name System) is often referred to as being the address book of the Internet, DNS servers answer questions from DNS clients providing a mapping between human readable domain names such as www.alcatel-lucent.com to machine addressable IP addresses such as 172.228.128.237 or 2a02:26f0:5a:299::30e.

DNS is mission critical corner stone of the internet as well internally at organizations globally

Often overlooked this DNS service is one of the most massively distributed database ever conceived, spread across tens of thousands of individual DNS servers

Every day billions of queries are being answered by an enormous global hierarchy of Internet facing DNS servers, the DNS protocol is also the de-facto naming service used internally within enterprises.

WHAT IS DHCP (DYNAMIC HOST CONFIGURATION PROTOCOL)

Imagine a system administrator for a large company with 50,000 desktop computers to configure;

configuring manually each desktop computer's IP address, subnet mask, default gateway, DNS servers, and other network settings would be hugely time and resource consuming, ineffective and error prone.

DHCP automates the process and provides these address to clients dynamically when required

DHCP EXAMPLE

DHCP CLIENT

I need an IP address →

← Here use 135.114.0.1

DHCP SERVER
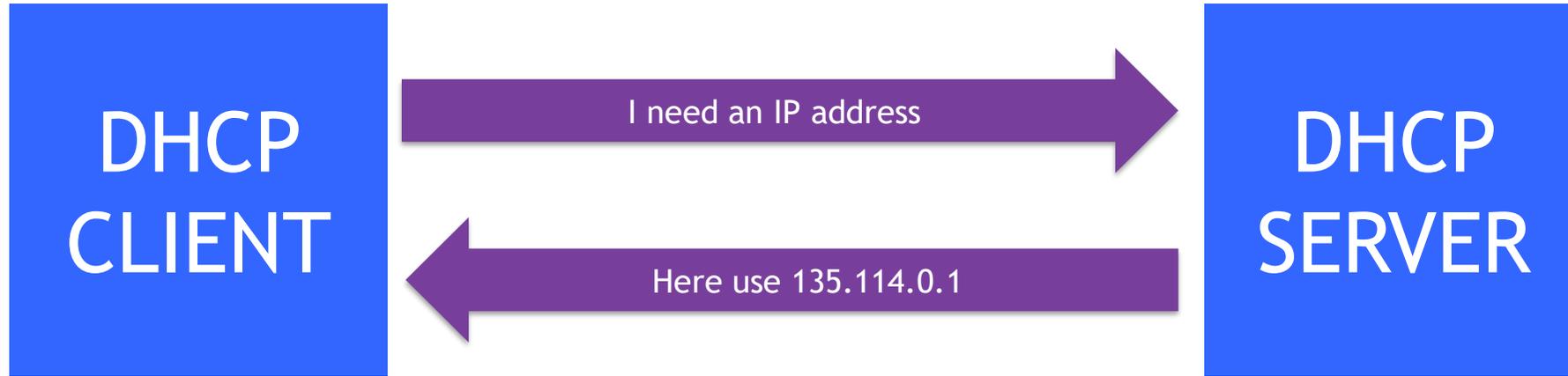
The DHCP protocol (Dynamic Host Configuration Protocol) is used by devices to request Internet Protocol (IP) parameters including an IPv4 or IPv6 addresses.

When a device connects to a network, the DHCP client software embedded in the operating system sends a request for an IP address and other necessary information.

A DHCP server manages a pool of IP addresses and information about client configuration parameters such as default gateway, domain name, the name servers, and timeservers

WHAT IS ADDRESS MANAGMENT

Address Management is the Assignment and Tracking of IP Addresses – Once a IPAM network is defined companies and IT organizations are responsible for keeping track at how the IP Address are utilized. This is required to have a mechanism by which you know what IP Address is being used, How they are being used? Who is it assigned to? And Which IP Addresses are free to assign when needed?

Address Allocation

IPv6 Network

IPv4 Network   Subnet

Class A   Floor B   VLAN C
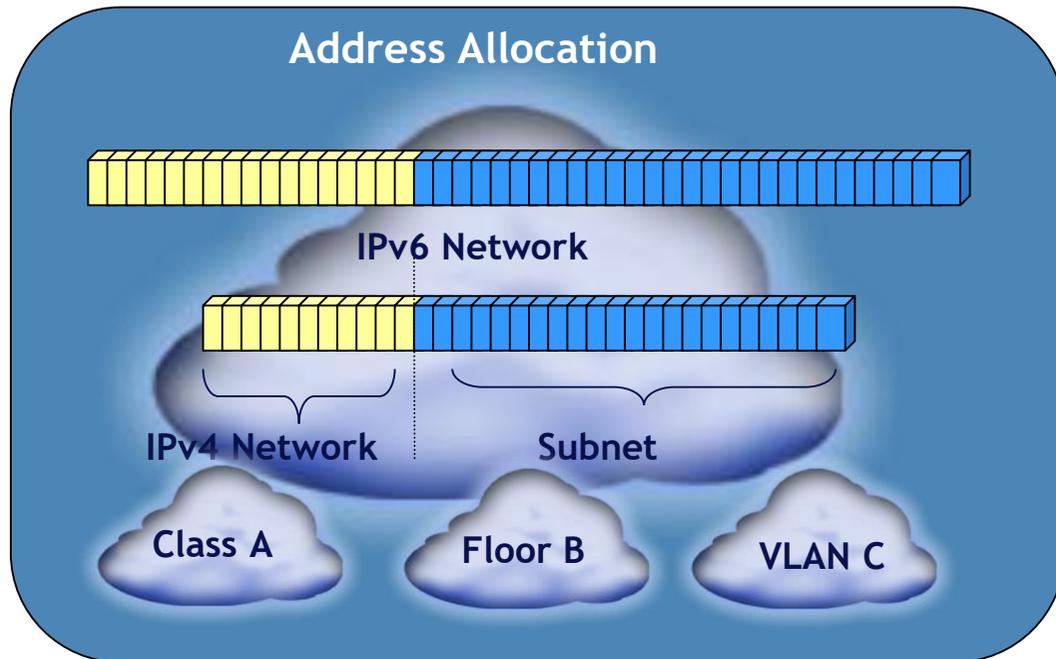
IP Address Assignment and Tracking

IP Address	Object Name	Description
10.10.10.1	TX076_RTR1	Router in TX
2001:db8:85a3::8a2e:370:7334	TX076_SRV1	Server in TX
2001:db8:85a3::8a2e:370:7334	TX076_PRN1	Printer
...	...	...
10.10.10.10 - 100	Workstations	DHCP Scope

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IP ADDRESS CONSUMPTION

Converged communications, BYOD, IPv4 exhaustion, IPv6 migration and internet of things are all drivers for increasing IP address consumption.

IP address usage globally is accelerating at an incredible pace

There are approximately 10 billion devices connected to the internet today, with a projection of 50 billion by 2020

IPAM, DNS AND DHCP DEMANDS IN ENTERPRISES
RATE OF CHANGE (PER MONTH) IN A TYPICAL XLE ENVIRONMENT

Rate of change per month
5% for DNS, 4% for DHCP and 2% for IP subnets/VLANs

Typical organizations have multiple datacenters and/or distributed sites to manage centrally

Datacenter outages cost an average of $300K per hour

Active IP address management is a critical network function

INDUSTRY TRENDS CREATING THE DEMAND FOR IP ADDRESSES

+30%
FIXED BROADBAND CONNECTIONS

532 Million
2011

691 Million
2015

+32%
MOBILE CONNECTIONS

5.5 Billion
2011

7.3 Billion
2015

+346%
WI-FI PUBLIC SPOTS

1.3 Million
2011

5.8 Million
2015

+990%
M2M DEVICES

1.1 Billion
2011

12 Billion
2015
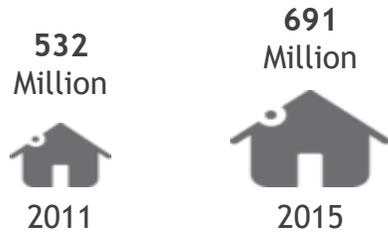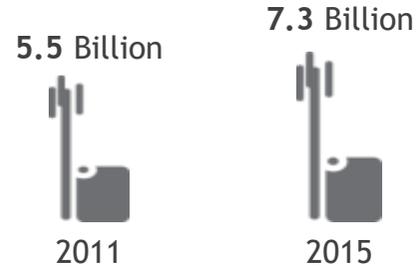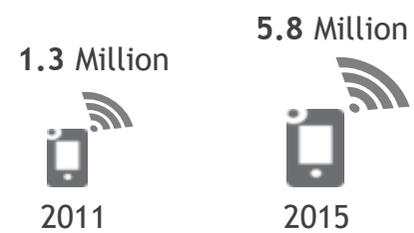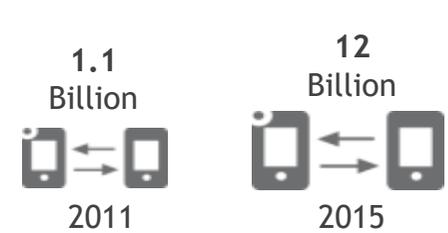
+129%
APPLICATIONS DOWNLOADS

18.2 Billion
2011

41.7 Billion
2015

+134%
SMARTPHONE SALES

428 Million
2011

1 Billion
2015
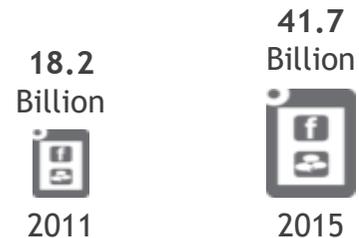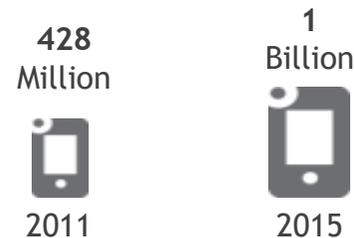
+100%
ENTERPRISE CLOUD SERVICES*

12 Billion
2011
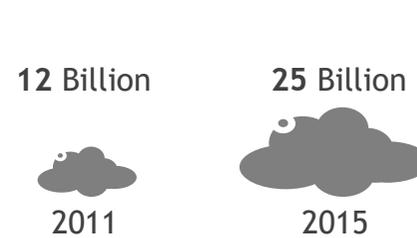
25 Billion
2015

+879%
MOBILE VIDEO CONSUMPTION

429 Million
2011
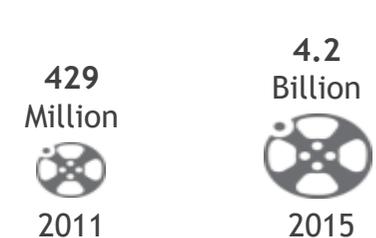
4.2 Billion
2015

* Source : Yankee

INTERNET OF THINGS

IOT is primed to cause an exponential number of new devices utilizing ipv6 addressing, Gartner's research indicates that IOT will grow to 26 billion units by 2020

Native ipv6 means Bluetooth smart devices will be a part of the internet as we know it and will be able to communicate with other ipv6 devices directly.

Any IOT initiative requires a IPAM solution because effective management of IP address usage at scale is a critical task

With IPv6 as the addressing solution for IOT, NAT is no longer a barrier to implementation. Temporary ipv6 addresses can be used with DNS becoming the glue

How will the additional influx of smart devices affect the customer network and be managed?

BYOD – BRING YOUR OWN DEVICE

BYOD is a global trend: strong evidence of employees everywhere using their own devices for work; 89 percent of it departments now enable BYOD in some form

Each additional BYOD device on the network be it a mobile phone, tablet or laptop requires additional IP addresses to be provisioned by an enterprise via it's DDI/IPAM solution

BYOD devices need provisioning via DHCP also updates to the enterprise DNS infrastructure are commonly required for each device

With BYOD, auditing of access by devices becomes critical for compliance and security

How is the customer auditing the employee owned devices attaching to the network?

IPV6

Internet registrars have exhausted IPv4 address space, IPv6 deployments are accelerating across the global

An IP address management solution is a must have for any IPv6 deployment, more address usage is projected for IPv6 production deployments than IPv4 but also the complexity of the address scheme and sheer scale require a dedicated tool.

The VitalQIP next gen IPv6 address management capability is extremely strong competitively in the market.

Legacy non-IPAM/DDI methods of IP address management such as spreadsheets will not scale the IPv6 production scales

Does the customer have an IPV6 migration project plan? How will the IPv6 address plan be managed?

CLOUD

Cloud management platforms (CMPs) provide only rudimentary control of DNS and DHCP with extremely limited IP address management.

Virtualization flattens the network architecture as the data shifts onto layer2 connections between virtual hosts, the very complex dynamic virtual networks still require the same core network services though; DDI

Enterprises are enhancing CMPs with automated IP provisioning via DHCP and dynamic propagation of DNS changes via DDI/IPAM private or hybrid cloud solutions require rapid IP address provisioning via DHCP and updates to DNS which are more suited to DDI solutions enabling these core network services to become extremely dynamic in operation

Are the CMPs rudimentary IPAM tools enough for private/hybrid cloud provisioning?

DNS SECURITY

Distributed Denial of Service attacks via DNS are now a common network attack vector. Bringing down DNS service and consuming network bandwidth cause critical outages for enterprise

Over provisioning of DNS service by a factor of 10 times capacity load is a common mitigation strategy

High Availability DNS, DNS AnyCast, RPZ (DNS Firewalling) and response rate limiting are "dumb" methods. DNS exfiltration of corporate data is on the increase so more active DNS protection is required

Proactive DNS Protection of DNS resolvers via partnership with CloudMark, reactive solution from Accumuli Security DDAM/DNS Guard

Is the DNS infrastructure secure from attack? Would the customer even know if DNS exfiltration was occurring?

TODAY'S EXPLOSION OF NEW DEVICES AND PROTOCOLS ON THE NETWORK

Protocols
IPv6
ENUM
SIP
Docsis

Applications
Unified communications
Collaboration
Video

Devices
Smart phones
Tablets
notebooks
IP cameras

Technology
BYOD
NAC

IP Networks
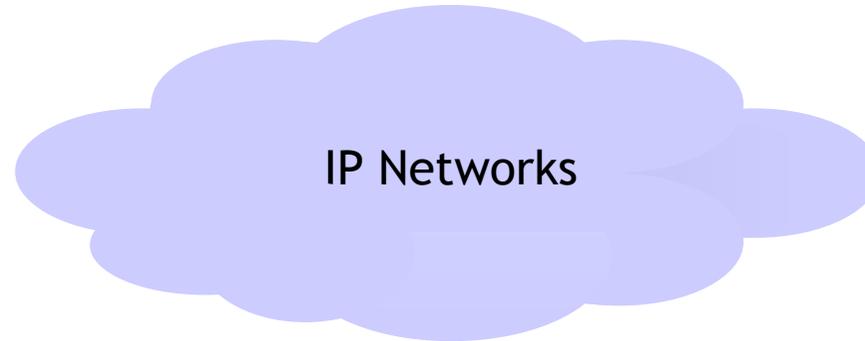
Future
Virtual
Cloud
SDN

Datacenters
Virtualization
Storage
SAAS
Cloud computing

Connectivity
Cellular
Wimax
IPTV
XDSL

Manufacturing
Robots
RFID readers
Bar code readers
Intelligent docking stationss

MARKET TRENDS

3.9Bn
People connected
to the Internet
in 2017

720%
Increase in
video traffic
2012–2017

320M
More tablets sold in 2014
than laptops and desktop
computers combined

>50Bn
Enterprise networking
market revenue in 2017
(US $)

>70Bn
Things connected
to the Internet
in 2020

440%
Increase in cloud and
data center traffic
2012–2017

3x
Increase in average
broadband speed
2012–2017

2x
Increase in cloud
computing market
2013–2017

IPAM/DDI DRIVERS AND DISRUPTORS
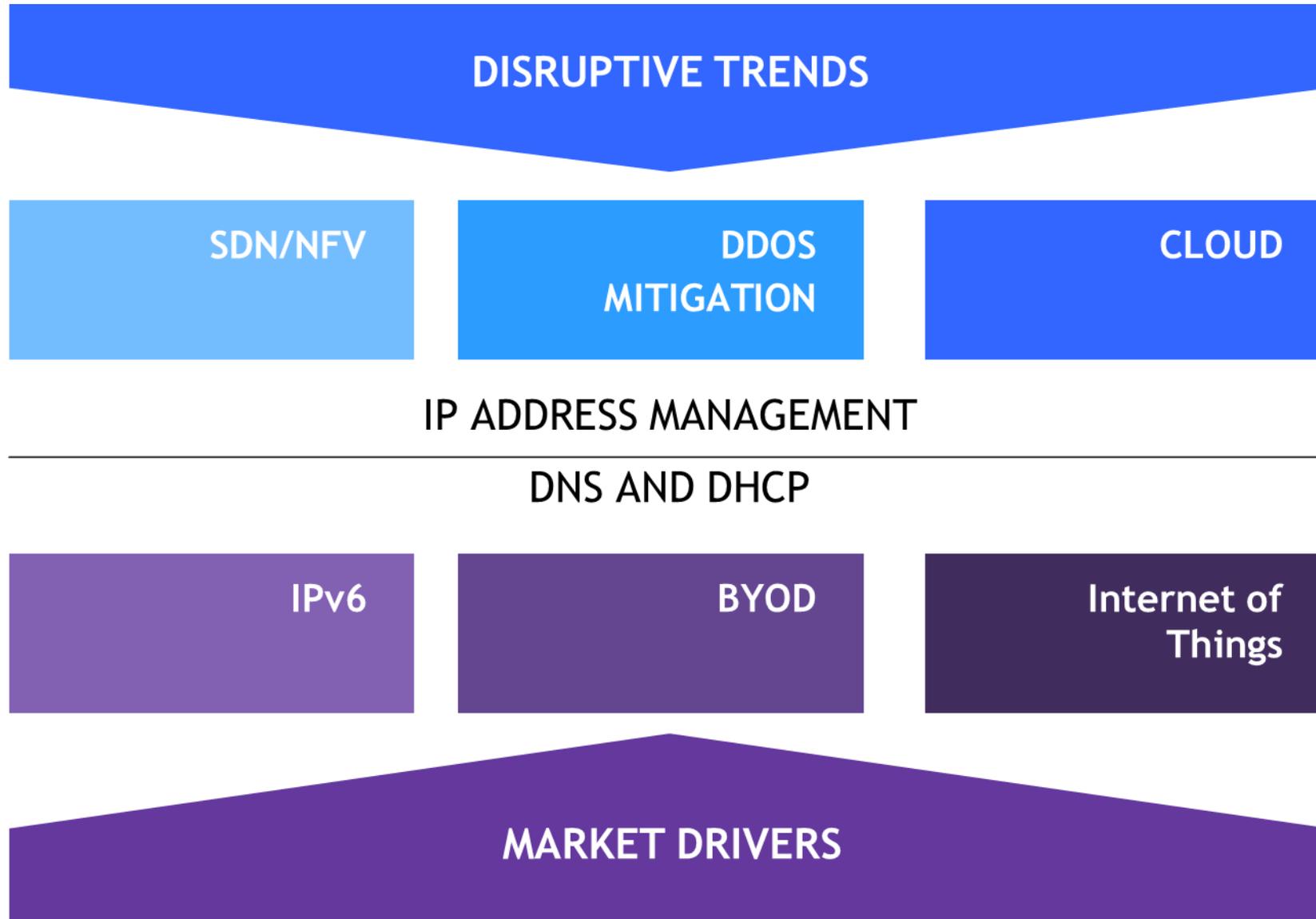
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INDUSTRY ANALYSIS

Financial Services	• Datacenter expansion • Network Infrastructure Conversion • Increasing on-line banking
Healthcare	• Increasing electronic medical records accessed by staff and patients • Movement to smart/connected medical devices • Visitors access internet via BYOD
Retail	• Increased e-business support • Support of transaction and commerce systems • End-user experience is the key
Education	• BYOD from Students & Staffs • Security and Reporting of network activity • Increasing on-line homework & reporting
Carriers	• Management of customer networks • Speed and performance of the solution • IT outsource, migration to IPv6, support of Cloud environment

MAP OF CHALLENGES TO IPAM SOLUTION

Quality, Secure Management

Prevent Network outages

- data-integrity and validation of IP address data
- Install latest security patches
- Hardened Appliances instead of traditional servers
- Use CLI's for bulk loading

Automate IP management

- Rules based address allocation
- Centralize repository
- Integration of services

Maintain

Consistent

- all administrators forced to follow the rules
- Simplify administration with a Web based GUI

Secure

- Locked down operating system
- Access Control
- DNSSEC
- NAC

Evolve

New Technology

- Support cloud computing and Virtual environments
- New devices and protocols
- Bring your own device to work

Appliances

- Appliance model
- Simplified deployment
- HA DNS pairs
- Anycast
- Lights out administration

WHO ARE POTENTIAL STAKEHOLDERS?

CEO, Business Owner

- Company competitiveness and differentiation
- Minimize Operational Costs
- Increase efficiency with automation and security
- Lack of DHCP Accounting / Auditing

CFO, Purchasing Director

- Lowest TCO – competitors can be more costly
- Investment protection
- Lower operational cost
- Ensure upcoming feature requirements

IT Manager

- Data-integrity and validation of IP address data
- Centralized IP Address Inventory and Management
- Secure DNS and DHCP services
- Streamline operations and free up IT personnel to work on new Apps

CEO, BUSINESS OWNER

Challenge	Question to ask	Unique business value
How to keep the company competitive and show differentiation	Are you empowering employees with automated IP management tools that will support the explosion of new devices and protocols?	High performance network management application that will secure, automate and manage the current and future needs of your IP network
Minimize Operational Costs	Do you use a commercial IP management tool?	Import all your IP address information and configurations into a relational database that can be securely managed
Increase efficiency with automation and security	Would your network engineers be more productive if IPAM was automated?	Automate and securely manage your IP network. Will allow network engineers more time to perform other tasks
Lack of DHCP Accounting / Auditing	What are your auditing and accounting needs for IP address management? Sarbanes Oxley?	Ability to audit who did what, when they did it and what they changed. Track who had what IP Address and where they are located on the network.

CFO, PURCHASING DIRECTOR

Challenge	Question to ask	Unique business value
Lowest TCO – competitors can be more costly	Have you compared your IPAM solution with VitalQIP to ensure you maintain the lowest TCO?	VitalQIP allows a customer many options to save money. Customers can reuse their own HW, run appliances or Virtualize. All of these options can be mixed within VitalQIP. VitalQIP maintenance does not increase year over year
Investment protection	Do you want to protect your investment?	VitalQIP's flexibility allows a customer to maximize their investment
Lower operational cost	Could you lower your cost by running DNS and DHCP on High performing servers?	The Industry says that it costs $20,000 per year to maintain a traditional server. Appliances an cut that cost dramatically.
Ensure upcoming feature requirements	What are your companies future IPAM requirements?	VitalQIP supports all of the upcoming standard requirements such as IPV6, DSSEC and DNS64

IT MANAGER

| Challenge	Question to ask	Unique business value
Data-integrity and validation of IP address data	Can you ensure your network, DNS and DHCP data is secure and correct?	VitalQIP ensures that DNS DHCP configuration and network data is secure and correct. Ether using the GUI or the CLI interface all data is checked for correct syntax and transferred over secure protocols.
Centralized IP Address Inventory and Management	Is your IP data centralized secure and easily updated?	VitalQIP allows you to take your data from spreadsheets and manual edits into a relational database that allows security and the ability to create reports on anything that is within the IP network.
Secure DNS and DHCP services	Are you using a secure transmission for DNS and DHCP transactions?	VitalQIP secures transactions over SSL and supports protocols such as TSIG, GSS-TSIG and DNSSEC
Streamline operations and free up IT personnel to work on new Apps	Would you benefit from an increase your network engineers productivity?	VitalQIP helps automate and streamline the IP management of your network. This allows your network engineers more time to attend to other priorities in the network

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VITALQIP – FULL IP ADDRESS LIFECYCLE MANAGEMENT FROM DHCP TO DNS

IP ADDRESS PLAN

IP INVENTORY

VitalQIP

DNS Services
ALU DNS

DHCP Services
ALU DHCP
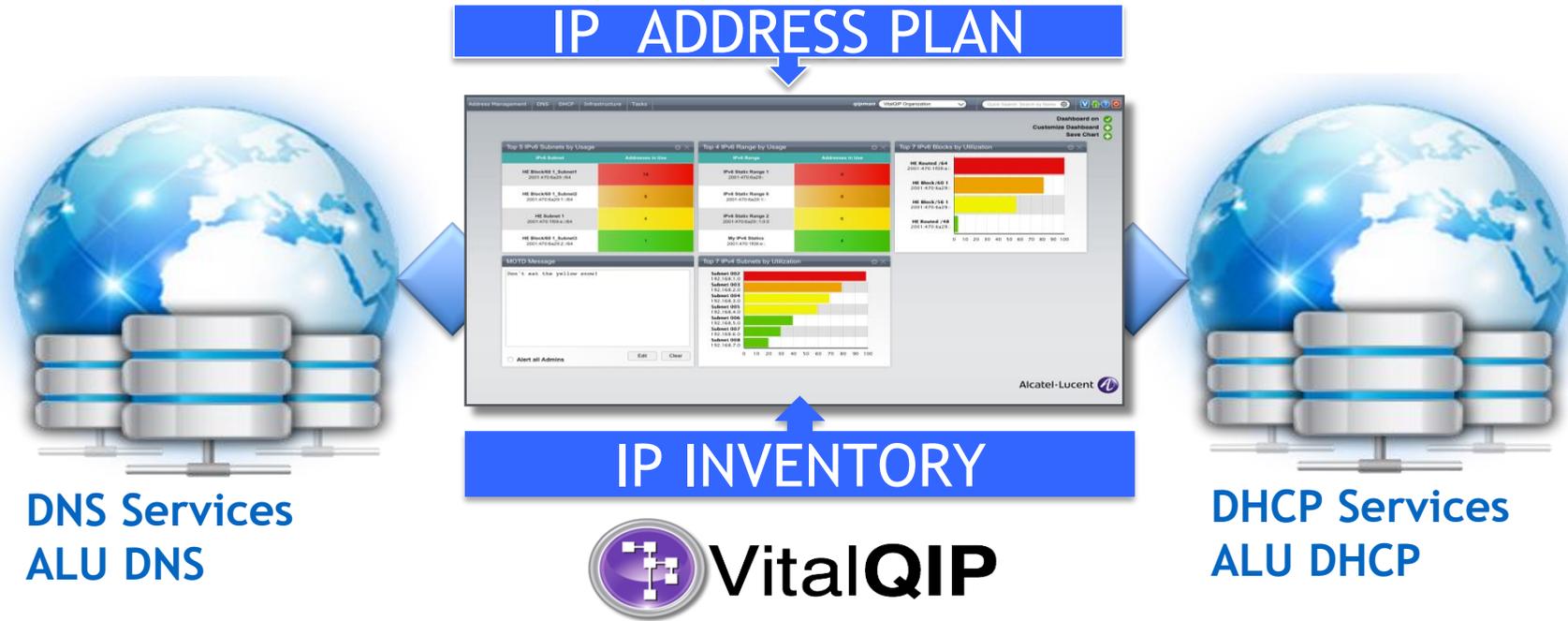
VitalQIP provides a centralised IP address repository serving as a pane of glass for the complete end to end DHCP and DNS management of any organisation. It manages both IP address allocations and assignments as well as DNS name services. It glues the DNS and DHCP protocols dynamically together allowing simple IP address configuration and IP address management.

It is Alcatel-Lucent's complete DDI solution; providing DHCP, DNS and IP address management

VITALQIP 22 YEARS OF IPAM INNOVATION

Vital QIP

1993
Quadritek creates the first IP address management solution, QIP

1998
DHCPv4 Failover Lucent Technologies acquires Quadritek

2000
VitalQIP rapidly becomes the IPAM solution for choice for XLE enterprises and carriers

2006
Alcatel and Lucent merge, VitalQIP adds first to market IPv6 support

2010
VitalQIP 7.3 Redesigned into web service based solution

2013
Next generation IPv6 solution launched, VitalQIP 8.0 with multi-threaded carrier grade DHCPv6

2015
VitalQIP 8.1 provides complete end to end audit compliance for IPAM

VITALQIP IP ADDRESS INVENTORY MANAGEMENT

Provides a central repository for all IP address, host name, and MAC address information

- Networks, Subnets and Subnet organizations management

- IPv4 and IPv6 support

- Add, Modify, Delete, Move objects

- Maintains asset and other information about all the IP devices in a network
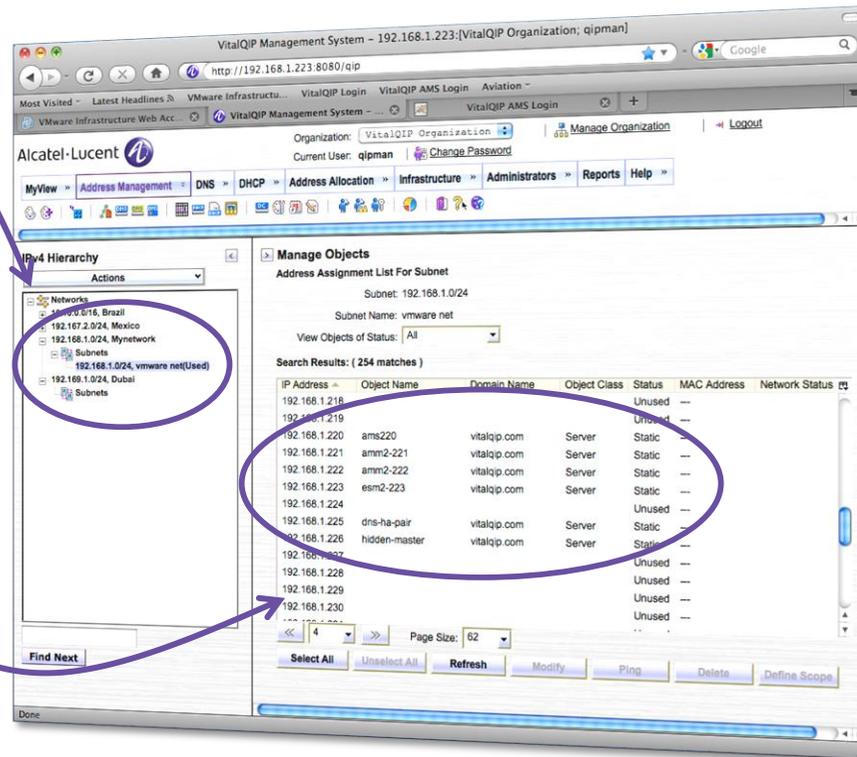
VITALQIP TECHNICAL OVERVIEW

DNS Services
ALU DNS

- DNS security
- Conflict Monitoring
- Unparallel Performance
- End to End DNS Solution

IPAM

- Carrier Grade scalability
- Number of appliances **is not** a limiting factor
- Open Schemas & API
- Unrestricted Access
- Flexible Deployment Model

DHCP Services
ALU DHCP

- DHCP Multithread ALU
- Unique Fail Over design with direct impact on high availability
- High performance brings lower CAPEX, OPEX + foot print

VITALQIP - FLEXIBLE SOLUTION DEPLOYMENT OPTIONS

Hardware Appliances

QIP500 appliance | QIP710 appliance | QIP1210 appliance | QIP6010 appliance

Range of hardware appliances managed by centralised Appliance Management software

Software Appliances

<u>UNRESTRICTED</u> Software Appliance ISO image
Appliance installation on any Red Hat Enterprise Linux x64 system

Virtual Appliances

vmware®   riverbed®   KVM

Software Only

redhat LINUX   solaris   Windows

VITALQIP BRINGS YOU THE MOST FLEXIBLE OFFER IN THE MARKETPLACE

VITALQIP – SOLUTION BENEFITS

Open SOAP/XML/RESTful web service and Flexible metadata support

Extensible and open design with metadata support and extensive SOAP/XML web service support
Flexible deployment options where customers can leverage existing hardware investments

Next Generation IPv6 management

Ease the complex transition to IPv6 addressing through next generation automated address space allocation

Consolidated IPv4 and IPv6 address space inventory

Network wide accurate inventory of deployed IPv4 and IPv6 address usage, control expense through automated IP address allocation and management

VITALQIP – SOLUTION BENEFITS

Multi-vendor DNS/DHCP support, Multi-platform software compatibility and optional appliance hardware offering

For investment protection and cost-effective growth, customers can leverage existing hardware installing VitalQIP on Windows/Solaris or Linux platforms or optionally utilize VitalQIP Appliances technology

High Performance carrier grade DHCP and DNS services

Service consolidation possibilities, reducing operational expense though reduced datacentre cost and footprint. Rapid IPv4 and IPv6 DHCP address assignment and reliable dynamic DNS name propagation

Extensive auditing capabilities and reconciliation

Solution provides end to end auditing of IP infrastructure changes and DHCP lease activity for compliance reporting

VITALQIP – PRODUCT DESIGN BENEFITS

Cost Efficient Flexible Deployment

VitalQIP has an open design meaning integration with back office or existing DNS/DHCP deployments is simple, VitalQIP customers do not need to carry out expensive hardware purchases for deployment

Open Schema Open APIs

VitalQIP was designed with integration in its core, full access to the database schema, open industry standard interfaces and extensibility by design

High Performance High Reliability

VitalQIP is multi-threaded carrier-grade technology specifically engineered to a design for performance and reliability, VitalQIP can maintain its extreme performance levels when VitalQIP customers need it the most

VITALQIP – PRODUCT DESIGN BENEFITS

Scalable
High Performance
Reliable

VitalQIP has for 20 years proven its Scalability, Performance and Reliability in the smallest to largest deployments in the world

Open
Flexible
Architecture

VitalQIP is engineered as a open architecture; unlike many other solutions VitalQIP is available as software or optionally in an appliance format. VitalQIP customers can meet their own corporate policy requirements by using their own hardware and operating system

Cost Effective

VitalQIP customers are free to deploy unlimited DHCP or DNS services on their own servers without an additional appliance costs

VITALQIP – SOLUTION REVIEW

Serviceable
4 hour on site hardware maintenance
365/24 from dedicated L1/L2/L3 support
Strong global channel partner

Powerful
High performance Multi-threaded DHCP servers
Market Proven - Scalability and Reliability
End to End Audit Capability for Compliance

Open/Flexible
Soap/XML Webservice and APIs
Root Level Appliance access & published DB Schema
Extensive Command Line Interfaces
Unrestrictive Virtualization

Innovation
Next generation IPv6 address management
Multi-threaded DHCPv4 and DHCPv6 servers
Industry first DHCPv6 failover

Stability/Reliability
Proven performance and scalability across customers globally
20+ Years of Expertise in IP address management

8 YEARS UPLIFT HW MAINTENANCE

4 HOUR ONSITE HW MAINTENANCE

10x FASTER DHCP PERFORMANCE

Carrier GRADE THROUGHPUT

OPEN SOAP/XML DB SCHEMA

Elastic VIRTUALIZATION

Full IPv6 SUPPORT

DHCPv6 FAIL OVER

Stability INDUSTRY PROVEN

Reliability INDUSTRY PROVEN

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WITHOUT IPAM

How do you manage your IP Networks, Subnets & Addresses today?

Excel spreadsheets, and/or Home Grown Systems...

Static spreadsheets for dynamic infrastructure? For IPv6?

That doesn't scale! IP address conflicts must be a burden?

WITHOUT IP ADDRESS MANAGEMENT

DNS AND DHCP INDEPENTENDLY MANAGED

MANAGING IP ADDRESS USAGE IS A SEPARATE PROCESS IN SPREADSHEETS

DNS - Windows

DNS Bind
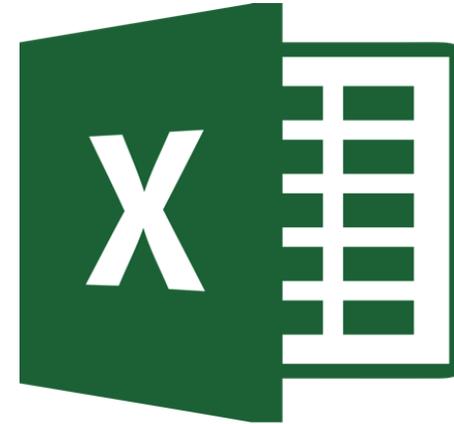
DNS in Router

DHCP SERVERS DO NOT COMMUNICATE WITH EACH OTHER

DHCP- Windows

DHCP – ISC DHCP

DHCP in Router

IPV4 EXHAUSTION

What is your company IPv6 strategy?

We know it will become important one day…. In a year or so!

We have a plan, it's not implemented…

It is on the corporate agenda… but… we lack resources

We don't really have a problem, we have plenty of IPv4 space left

VITALQIP – IPV4 ADDRESS EXHAUSTION

13%

IETF Reserved Space

4%

Global IPv4 Address space remaining Unallocated

83%

Global IPv4 Address space Allocated
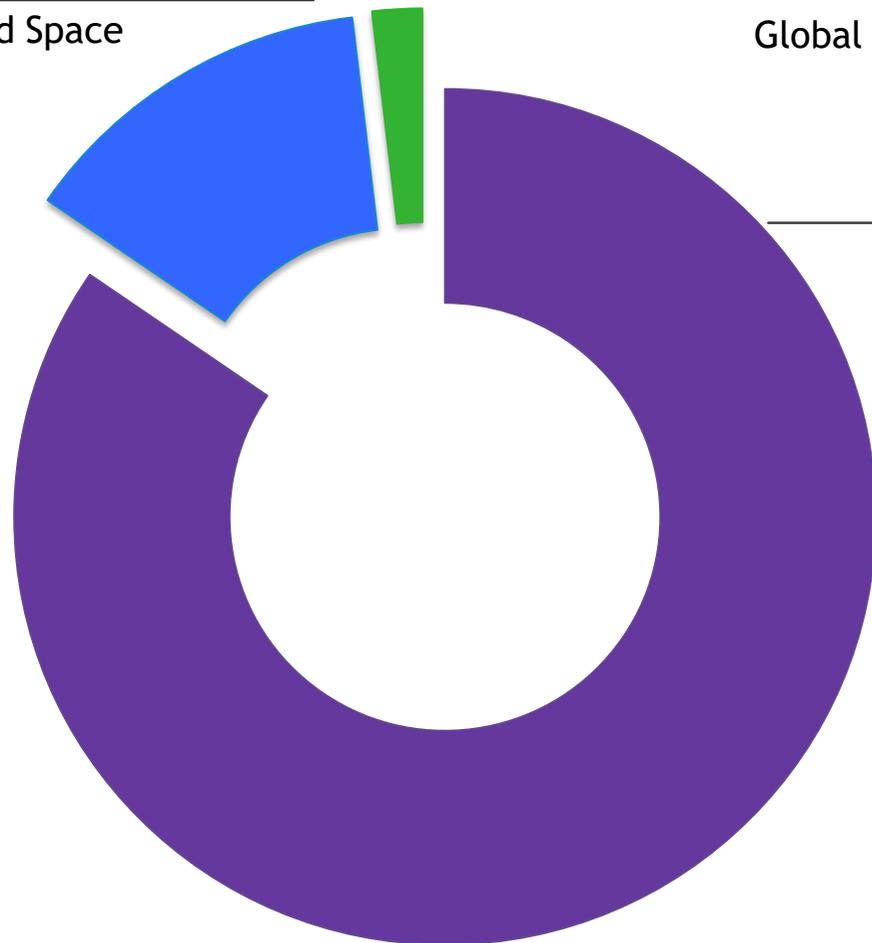
Only 4% of the worlds IPv4 address space is unallocated

IP Address Management/DDI is a must have for IPv6 deployments

A Single IPv6 Subnet contains

18446744073709551615

IP Addresses

DNS CLOUD

How is the company private cloud and SDN implementation going?

We're using open-stack – the basic tools are free but cumbersome

We're a VMware customer, we don't need IPAM tools – do we?

IPAM is no longer important as the in-built functions do enough

DNS QUESTION

SDN

Reliable DNS and DHCP services will become more critical however and IPAM/DDI platforms adapt becoming middle-ware integrated with SDN via APIs/web services

Are the CPMs rudimentary IPAM tools enough for SDN?

CLOUD

Enterprises are enhancing CPMs with automated IP provisioning via DHCP and dynamic propagation of DNS changes via DDI/IPAM private or hybrid cloud solutions require rapid IP address provisioning via DHCP and updates to DNS which are more suited to DDI solutions enabling these core network services to become extremely dynamic in operation

Are the CPMs rudimentary IPAM tools enough for private/hybrid cloud provisioning?

DNS SECURITY

Do you know whether the DNS infrastructure is secure from DNS DDOS attack or DNS exfiltration?

Hey… it's only DNS… what's the big deal if it goes down…

Attackers can use DNS to get data outside the corporate network?

Security isn't a concern for our DNS, it's internal only isn't it?

What do you mean our website is offline if DNS is down?

DNS SECURITY

Distributed Denial of Service attacks via DNS are now a common network attack vector. Bringing down DNS service and consuming network bandwidth cause critical outages for enterprise

Over provisioning of DNS service by a factor of 10 times capacity load is a common mitigation strategy

High Availability DNS, DNS AnyCast, RPZ (DNS Firewalling) and response rate limiting are "dumb" methods. DNS exfiltration of corporate data is on the increase so more active DNS protection is required

Proactive DNS Protection of DNS resolvers via partnership with CloudMark, reactive solution from Accumuli Security DDAM/DNS Guard

Is the DNS infrastructure secure from attack? Would the customer even know if DNS exfiltration was occurring?

VITALQIP DEPLOYMENT OPTIONS

How many DNS and DHCP servers do you have on your internal network and your internet-facing network?

Far too many servers!

Poor Resiliency...

Poor Performance...

Security concerns esp. Denial of Service (DOS)...

VITALQIP DEPLOYMENT OPTIONS

Hardware Appliances

VitalQIP on provided hardware appliances, model QIP510, QIP710, QIP1210 and QIP6010

* Refer to VitalQIP Appliance datasheets and VitalQIP Appliance Manager Brochure

Software Only

VitalQIP is available as a traditional software application which can be installed on Windows, Solaris and Linux operating systems

S-QIP Appliances

VitalQIP with the benefits of appliance technology in an ISO format so customers can install on their own IAx64/RHEL compatible hardware of choice

V-QIP Appliances

VitalQIP appliance technology virtualized with unrestricted resource limits *Image in ISO format or Vmware/Riverbed/KVM virtual machines*

CloudBand

CloudBand customers can install VitalQIP as a cloudband ready application onto their CloudBand installation

VITALQIP DHCP

VitalQIP

Multi-threaded DHCPv4 & DHCPv6 Servers

- VitalQIP DHCP is multi-threaded carrier grade DHCP server implementation, scaling to handle millions of IPv4 and IPv6 addresses with extremely high lease per second throughput
- *Lower CAPEX* by utilizing high performance DHCP servers for consolidation
- *Lower OPEX* from reducing datacentre footprint and power consumption

1000+ LPS

8000+ LPS

14000+ LPS

15000+ LPS

QIP500 **QIP710** **QIP1210** **QIP6000**
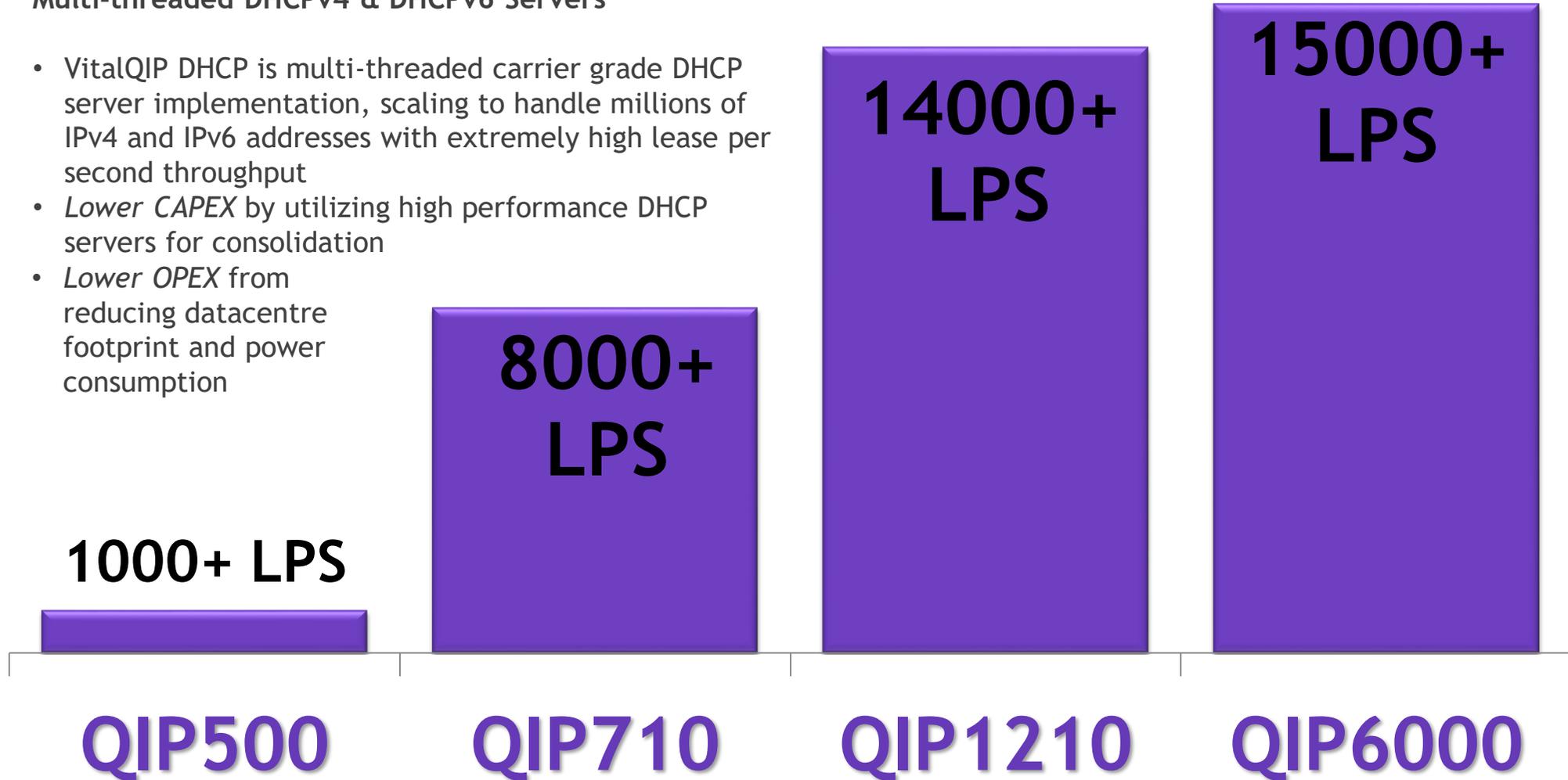
VITALQIP DNS

VitalQIP

Multi-threaded Alcatel-Lucent DNS name server

- ALU DNS is an ISC BIND compatible implementation of DNS, available as software or a hardware appliance
- Enhanced by Alcatel-Lucent for External Dynamic Updates with a dedicated DNS-ENUM northbound interface for usage in Alcatel-Lucent IMS/LTE solutions
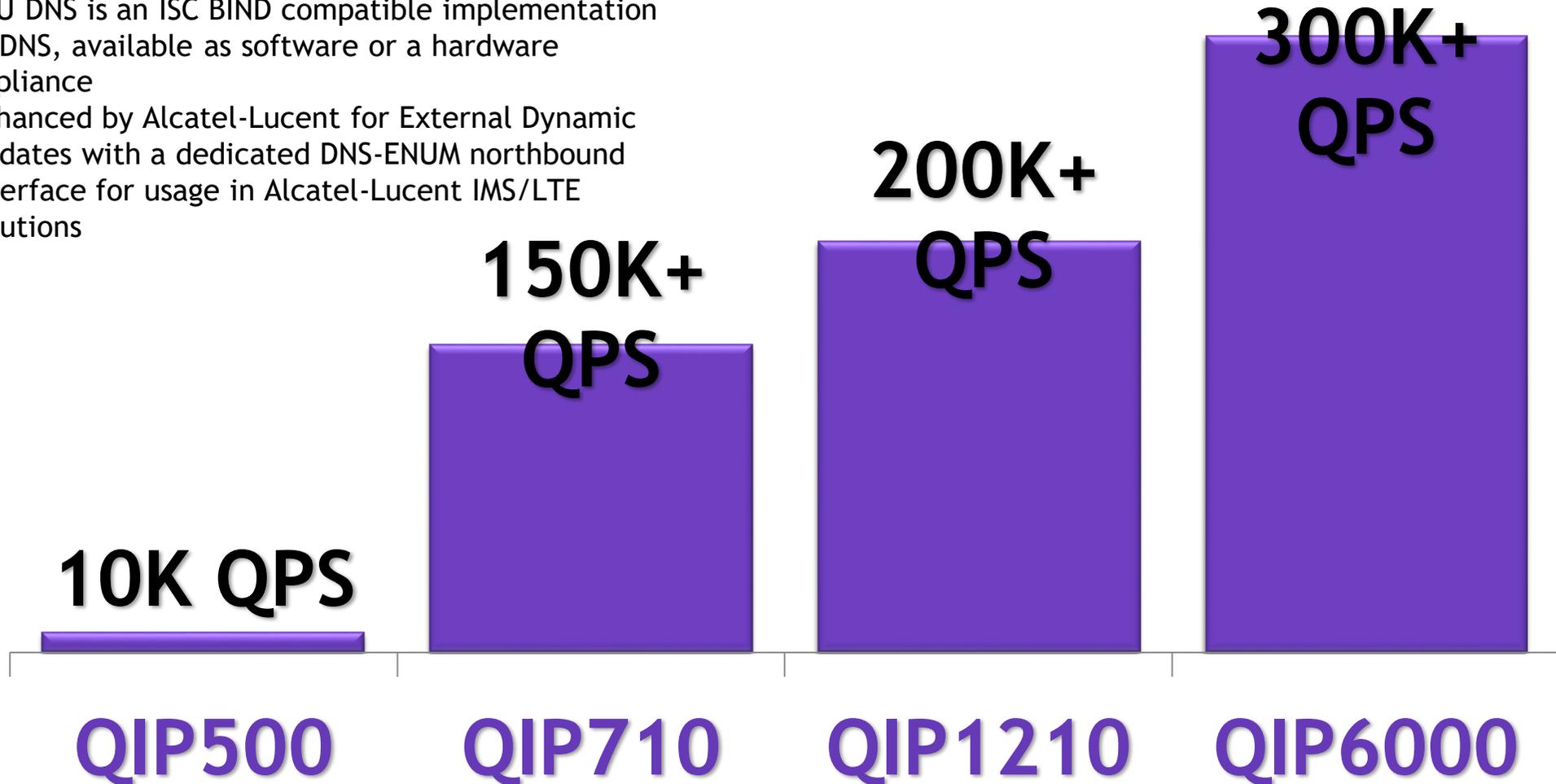
10K QPS

150K+ QPS

200K+ QPS

300K+ QPS

**QIP500**   **QIP710**   **QIP1210**   **QIP6000**

AGENDA

- What is IP Address Management

- IPAM Market

- Target Verticals & Industries

- VitalQIP Solution

- Customer Engagement Examples

- **VitalQIP Summary**

VITALQIP SOLUTION SUMMARY

DNS
- ALU VitalQIP DNS server
- Any Bind based DNS server
- Microsoft DNS Server
- DNSSEC, DNS Views, ENUM
- DNS64

Open API
- Soap/XML open API
- API tool kit
- Robust set of CLI's

IPAM
- Internet Registries
  - ARIN/APNIC/AFNIC/RIPE/AfriNIC
- Network, Subnet and Object Management
- IPv4/IPv6 support

DHCP
- ALU VitalQIP DHCP Server
- Microsoft DHCP Server
- One to one DHCP failover with Heartbeat and lease file replication

Cloud
- Multi-Tenant Platform
- Massively-scalable, Shared Services on Single Architectures.
- Unrestricted Virtualized Services (CPU/DISK/MEMORY)

SDN
- Elasticity
- DNS and DHCP support for SDN SW
- Dynamically assign a new virtual machine an IP address, assign a DNS name then propagate to DNS servers for accessibility from the network.

Wheel diagram segments: DNS, DHCP, Cloud, SDN, IPAM, Open API — center: VITALQIP

VITALQIP – WHO NEEDS AN IPAM SOLUTION

All roads lead to

VitalQIP

Every company in every Vertical, world wide needs DNS and DHCP.

Any Company with 1,000+ Employees requires a strong IPAM Solution

- Customers Still using Spreadsheets or Manual Processes
- Customers using Shareware DNS, DHCP, or limited IPAM
- Building out new branch offices
- Considering support of Employee owned devices (BYOD)
- Building, moving, or consolidating Data Centers
- Going through an acquisition or merger
- Implementing IPv6

MODULE SUMMARY

Now that you have completed this module, you should be able to:

- ✓ Understand IP Address Management and its components
- ✓ Understand how to successfully identify opportunities

Thank You!

You can now close this window