1. **The Web Content Policy feature is now available?**

**[Answer]**

The web classification feature is available as a part of the Aruba Instant

2. **Does slave IAP will explore Master IAP Automatically in layer 3 Network?**

**[Answer]**

The Slave IAP will auto discover the master as long as both IAP's belong to the same L3 vlan

3. **When IAP-205 and IAP-275 are into a same cluster, how to upgrade the whole cluster (but different FW) without split the cluster for the upgrade time?**

**[Answer]**

If we want the AP's to have different firmwares, either of the AP's needs to be made a stand-alone IAP or must be split from the existing cluster.

As described in the presentation - Please note, support for the newer hardware is introduced as of 6.4.3.1-4.2.0.0 IAP FW release.

4. **I have question about limit user in the ssid to 64. I plane to create single ssid and authenticate user via CPPM and put user to deferent vlans depend on user group membership,**

**this means that in single ssid I will have more than 64 users. Is this good solutions or I have to create separate ssid per users groups ?**

**[Answer]**

Please note that the limitation applies on a per AP basis - Meaning, 64 associations on a per AP basis.

Not a restriction for the number of devices that can associate to the entire ssid across the cluster.

5. **in IAP cluster is it possible to check logs for guest login log off via captive portal?**

**[Answer]**

Here are some of the useful (or relevant commands) for the desired output you are looking for - These are to be executed from the support shell

AP Association Table [To check whether the user is associated to the Captive portal SSID]

AP Log User [To check for authentication information]

AP Datapath Session Table [To check the type of traffic sent to/from Client's IP]

However, I have to add - it is far more easier to track the authentication via CPPM or any external authentication entity which has higher operational logging functions.

6.      **What are the limits for the IAP cluster number of IAPs and concurrent sessions ? When do you recommend to split the cluster ? Do you recommend to specify a master with more capacity like the 325 ?**

**[Answer]**

It is recommended to not exceed a cluster size of more than 128 (although for AP-9X the limitation applied is 16), does the concurrent session refer to the concurrent user session? datapath session? association?

Kindly clarify in the comment section and i will be able to elaborate further on this. It is ideal to split the cluster as it reaches 80% saturation limits.

A cluster can be made up of mixed IAP models, while this is quite common, it is always recommended to have the higher capacity access point as the master for several reasons.

The primary reason being - certain features such as AppRF being fully supported on the latest hardware but only partially supported on relatively older hardware.

Due to this, the more recent HW version will permit for all of the config options - as it is configured as the cluster master.

7.      **We have some customers that rely on very basic network configurations, meaning, they only have one layer 2 segment.**

**Basically this means that the IAPs and WIFI clients go into the same network. Ignoring the security concerns, do you see any problem in terms of performance and the general IAP behaviour?**

**[Answer]**

If we are to ignore the security concerns, the next possible deterrent would be the performance degradations.

When WiFi clients are put into a specific VLAN - It is ALWAYS a good idea to limit that vlan for use by those clients only.

The primary reason for this is typically the amount of WLAN broadcast traffic that the broadcast domain is subjected to.

Not all customers may be following certain best practices such as enabling "Broadcast filter" on WLAN configuration - And in certain cases, some WiFi applications

may not permit the customer to enable broadcast filtering. Due to this, the IAP's WIRED performance need not get compromised as long as we manage to separate the client traffic from AP traffic whenever possible/practical.

8.      **is the same condition works for HW Controller as for VC. Should i downgrade AOS Version to connect some legacy AP-92/93 to a new 7000 controller that already works with some newer AP like 205/225?**

**[Answer]**

No. The version limitations which are applicable to the Aruba Instant are not applicable for the way in which AP's behave when using an Aruba mobility controller.

The HW support for ArubaOS (HW Controller) and Aruba Instant (VC/IAP) are different.

9.      **Can we have in cluster IAPs205 and one RAP155 with backup uplink over 4G?**

**[Answer]**

Yes, this setup is possible.

10. **In case primary uplink to internet will fail, will RAP155 use 4G? / Can I limit usage of 4G uplink just for monitoring and not for user access to internet (to not overload 4G connection)? / In case primary connection to internet will fail and IAP will start to use 4G for internet connection, can users still use LAN uplink to intranet?**

**[Answer]**

The failover is possible but once the LAN link goes down, the AP gateway switches over to 4G link and cannot be restricted only for monitoring purposes.

11. **How to upgrade a cluster in a mixed environment without Airwave?**

**[Answer]**

The cluster master must be upgraded first to whichever appropriate version we want the cluster to be migrated to.

However, prior to the upgrade - it is necessary to ensure that all of the AP HW belonging to the cluster are verified to be supported in the version to which we are upgrading.

12. **Hey, is there any overhead when enabling AppRF, would we expect a performance hit and need to take this into account? Thanks**

**[Answer]**

One of AppRF's primary functionality is to perform deep packet inspection at an AP level. Additionally, Web content classification is also performed and ACL's may sometimes be applied - depending on the configuration.

Overhead when enabling AppRF is completely subjective as per a given scenario.

I can help describe the factors which are responsible for the overhead as each deployment comes with its own positive and negative aspects.

It depends on the AP hardware, Client traffic volume, type of application traffic

and the way in which the network administrator has configured the user ACL's to block or permit certain categorized application based traffic.

**13.    when having multiple cluster of IAP, do we have to install a layer 3 switch between them or layer routing is built in IAP clusters?**

**[Answer]**

Aruba recommends that the deployment always uses a layer-3 switch for multiple cluster communications.

**14.    Is VLAN Pooling preferred over Single VLAN Design?**

**[Answer]**

In the concept of VLAN pooling, multiple vlan's are added to a single SSID,

which enables the users associating to that SSID to be spread across several vlans, instead of crowding a single VLAN.

Additionally, This is also performed in scenarios where the total number of users expected to associate to a certain SSID far exceeds the logical IP's that are possible within the given subnet.

In short - No. It's not preferred over single vlan designs.

**15.    If the cluster is a set of IAPs 92 and a new IAP 92 is coming up in the cluster with a newer firmware version**

**[Answer]**

If a cluster is a set of IAP 92's, the most recent FW version they can have is FW 4.1, Please note that as if 6.4.3.1-4.2.0.0 release IAP 92 is no longer supported.

Any AP that is added to the cluster will have to have the same firmware as the cluster master. Meaning, if a new IAP-92 is being added to an existing functioning IAP cluster,

it will be able to operate without any issues regarding firmware, as the cluster is operational already.

**16.    How many user do I have in single SSID ?**

**[Answer]**

It is recommended to limit the per AP association to 64 for optimal performance.

17.    **In IAP cluster is it possible to check local guest user logs for guest login log off via captive portal**

**[Answer]**

There is no specific built in log on the IAP which displays guest user login log off data.

However, some of the relevant commands are -

AP Association Table [To check whether the user is associated to the Captive portal SSID]

AP Log User [To check for authentication information]

AP Datapath Session Table [To check the type of traffic sent to/from Client's IP]

18.    **Sorry to coming back to my question, but just to be sure that I understand it well: So if users have access to intranet and internet over LAN port and if provider link will fail (not AP LAN port itself),/ RAP will switch to 4G and basically users will lost intranet connection (even if LAN port is ok) and they will have just internet, right?**

**[Answer]**

RAP can switch uplink only in case of link failure.

19.    **You told about uplink redundancy in the IAP cluster. how its Identified up down states of the up link? which types of packets use for that?**

**[Answer]**

The traffic type and uplink is described in detail in the following post - kindly refer to the same, and please let me know in the comments section in case of further clarity needed,

http://www.airheads.eu/t5/Controller-Based-WLANs/If-a-RAP-provisioned-for-4G-uplink-does-not-come-up-how-do-we/ta-p/191961

**20.      Regarding AppRF, we've seen that "entry line" models like IAP 205 consume lots of RAM when we have AppRF enabled. Do you have any rough number of max clients per IAP 205 when we want to use AppRF?**

**[Answer]**

Referring back to the answer for Question #12 -

The RAM usage is expected to be elevated when enabling AppRF but it depends upon several network and user traffic related factors,

Also depends upon the actions which the AP has to take depending upon the AppRF classification results (Block, Permit, BW Throttle, etc.)

For any network, where the user traffic is less than 512kbps per user and all of the users are typically accessing email clients and http/s traffic,

as an example - the max clients per AP could be between 40 - 60 with AppRF enabled and ideally we should not be noticing any performance degradation.

**21.      You've mentioned about torrents P2P restriction on IAP. Is it possible just to limits a number of torrents sessions from each client?**

**[Answer]**

We can limit the per user bandwidth but we cannot limit the number of sessions a specific client application such as torrents can open.

**22.      Also, does fast roaming for voice works between two IAP clusters?**

**[Answer]**

Fast roaming feature is primarily designed to work across AP's within a single cluster.

**23.      Is there any subscription available for Web CC (URL Filtering by category)**

**[Answer]**

This feature is enabled by brightcloud.com's Web Classification and Web Reputation services.

There is some great information here - http://www.brightcloud.com/platform/webroot-intelligence-network.php - about how it works.

## 24. downgrade then the cluster the new ap? Great Information, very useful, I will implement right away

**[Answer]**

Sounds great! Glad we could help :)

## 25. how many clusters can keep in a single ip subnet?

**[Answer]**

You can keep as many clusters as the IP subnet will permit, each cluster being limited to a size of 128.

## 26. how is the SSID counter affected when zones are implemented? i mean the maximum supported

**[Answer]**

There is no impact on the SSID counter when zones are implemented, Rather an impact on the total association

that a specific IAP is permitted to have (this can be limited to a value of 64 in the configuration).

## 27. does IAP 205 support AppRF?

**[Answer]**

Yes, IAP205 supports AppRF.

**28.      How many charts can I see in IAP205**


**[Answer]**

You will be able to see 4 charts in IAP205


**29.      do we need any additional licenses for web categories?**


**[Answer]**

Yes, there is a license for the feature on IAP.

Please Contact your channel partner or HPE-Aruba sales person for details.


Thank you for valuable information


Thank you for the presentation, very informative


Thank you, see you


Thank you so much for the Bonus !!!


thank you

Please organize other topics, thanks

you could share the End of life website, which has an overview of what is the latest IAP version for a given AP. http://www.arubanetworks.com/support-services/end-of-life/