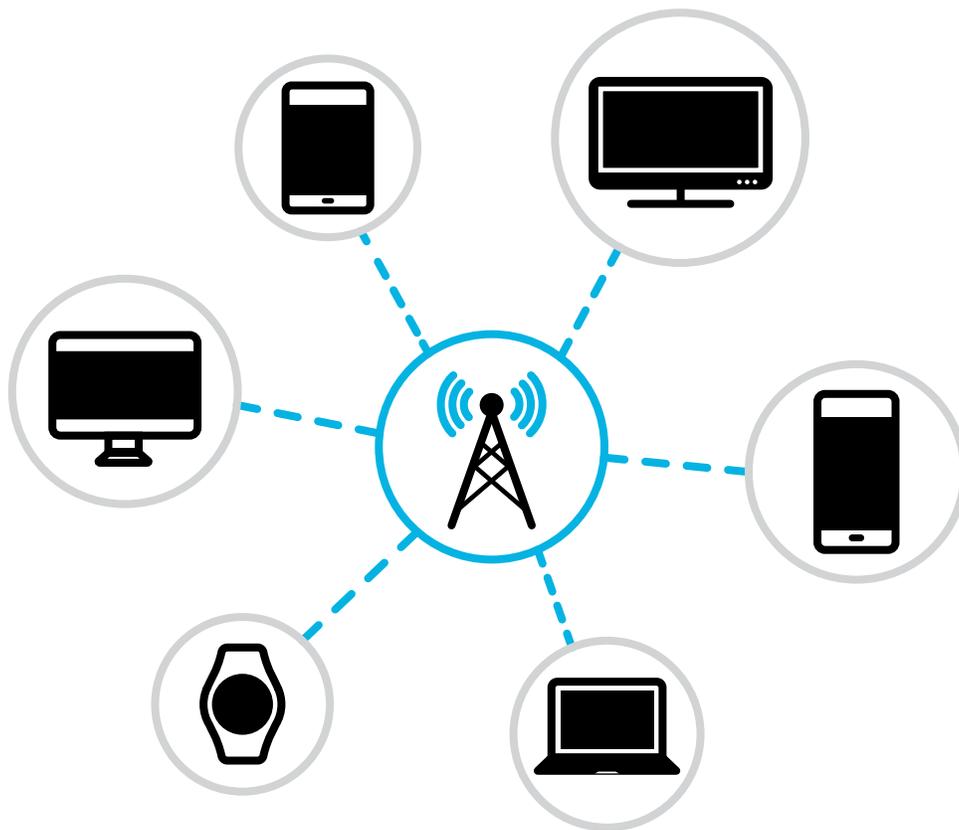


SAMSUNG AXIS

**Enhancing Possibilities
for Education**

The Technology

The Samsung Axis solution provides a unique technology that enables education network operators to securely segment user traffic, even on a shared Wi-Fi network. The technology enables the dynamic assignment of Virtual Local Area Network (VLAN) IDs to students, faculty and administrators based on their profiles. This unique capability enables the education network operator to design Wi-Fi networks with a single SSID to maximize usability and to minimize end-user confusion. Devices that attach to the unified SSID are then placed into dynamically assigned VLANs based on any strategy that the administrator desires.

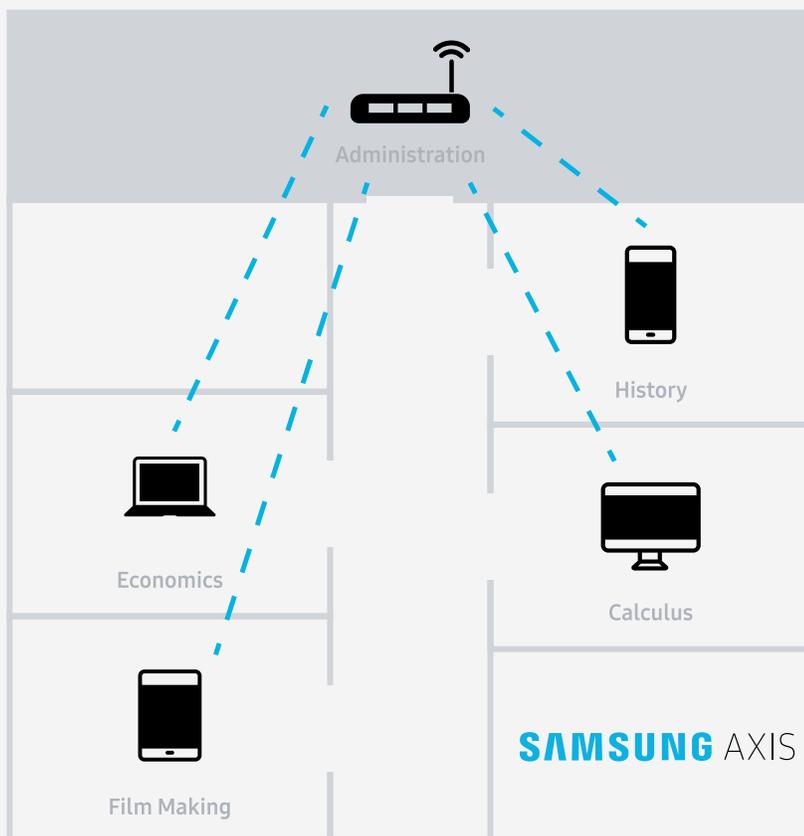


Enabling Credential-based VLAN assignment

Every student will be micro-segmented and will be assigned their own individual VLAN, while administrators and faculty will be placed onto a shared VLAN. This micro-segmentation deployment strategy prevents students from being able to interfere with and adversely affect each other in any way (e.g., passive packet sniffing, active client-side attacks, default gateway DoS, network device spoofing, rogue DHCP services, etc.). This strategy also enables faculty and administrators to use broadcast-based protocols to gain access to local devices within the network.

Leveraging LDAP to Empower the Value of Micro-segmentation

In an effective VLAN assignment strategy, the students can be further micro-segmented—using the knowledge of their schedule and the classrooms that they are assigned to at a given time—by integrating that information with the incumbent LDAP directory information and credentials. Apart from knowing student schedules and classes at any time, this strategy enables client communication between students who are attending the same class so that they may use software with local collaboration capabilities or seamlessly connect with common resources, such as printers, smart boards and digital displays, used within the classroom or a lab. While it may be possible to use a central server to facilitate simple collaboration, the shared broadcast domain enables an entirely different set of possibilities. The class schedule-aware assignment of micro-segmented VLANs enables students and faculty to seamlessly utilize well understood workflows with multi-gigabyte files (e.g., for a film-making class) to collaborate in ways that would otherwise be impossible.



The Samsung Axis solution supports nearly any micro-segmentation assignment strategy imaginable. The unique flexibility of credential and temporally dependent VLAN assignments enables network operators to deploy L2 separation in unique ways to support the specific needs of education networks.

VLAN Tag Assignments

Batch Zoom Export Search Create New

Assigned	Last seen	MAC	VLAN	Tag	IPV4/Tag	Account	Group	Room	Quest	Realm	Called-Station MAC	#Tags/CS	Stuck			
09/28/2018 09:33 AM	10/01/2018 08:14 PM	64:eb:8c:91:aa:c7	guests	1002	1	-	-	-	-	default	44:1e:98:38:ea:38	1		Edit	Delete	Show
09/15/2018 08:32 AM	10/01/2018 08:06 PM	9c:30:5b:c3:e1:30	guests	1003	1	-	-	-	-	default	44:1e:98:06:f3:88	1		Edit	Delete	Show
09/07/2018 01:47 PM	10/01/2018 08:14 PM	ace2:d3:a6:72:14	guests	1005	1	-	-	-	-	default	44:1e:98:39:51:e8	3		Edit	Delete	Show
10/01/2018 04:08 PM	10/01/2018 08:14 PM	f:8f:90:89:65:0f	guests	1007	1	-	-	-	-	default	44:1e:98:39:55:e8	1		Edit	Delete	Show
10/01/2018 06:58 PM	10/01/2018 07:50 PM	f0:42:03:43:c7:19	accounts	1200	1	saureshG	Student	-	-	accounts	44:1e:98:39:4b:48	2		Edit	Delete	Show
09/17/2018 10:48 AM	10/01/2018 08:14 PM	38:20:56:18:10:79	accounts	1201	1	robert1	Student	-	-	accounts	44:1e:98:39:18:66	1		Edit	Delete	Show
09/30/2018 12:31 PM	10/01/2018 08:14 PM	38:89:2c:b1:f0:fa	accounts	1202	2	mllee11	Student	-	-	accounts	44:1e:98:39:21:ec	1		Edit	Delete	Show
10/01/2018 01:16 PM	10/01/2018 08:14 PM	98:01:a7:a1:86:98	accounts	1202	2	mllee11	Student	-	-	accounts	44:1e:98:39:1a:4e	2		Edit	Delete	Show
10/01/2018 10:04 AM	10/01/2018 08:14 PM	58:0b:15:3b:ae:94	accounts	1203	1	jma	Student	-	-	accounts	44:1e:98:39:4b:48	2		Edit	Delete	Show
10/01/2018 02:43 PM	10/01/2018 08:00 PM	98:01:a7:de:10:5d	accounts	1204	1	neidman	Student	-	-	accounts	44:1e:98:38:ea:3c	2		Edit	Delete	Show
09/21/2018 08:46 PM	10/01/2018 08:14 PM	ec:d0:9f:16:ef:4a	accounts	1205	2	novav	Student	-	-	accounts	44:1e:98:39:02:9c	1		Edit	Delete	Show
10/01/2018 08:02 PM	10/01/2018 08:14 PM	30:4b:07:4e:0e:ca	accounts	1205	2	novav	Student	-	-	accounts	44:1e:98:38:8f:5c	1		Edit	Delete	Show
09/23/2018 11:03 PM	10/01/2018 08:14 PM	04:03:86:77:a9:98	accounts	1206	4	qzhu	Student	-	-	accounts	44:1e:98:39:56:8c	1		Edit	Delete	Show
09/26/2018 10:20 PM	10/01/2018 08:14 PM	b4:f6:1c:61:97:31	accounts	1206	4	qzhu	Student	-	-	accounts	44:1e:98:39:56:8c	1		Edit	Delete	Show
09/28/2018 09:09 AM	10/01/2018 08:14 PM	dca9:04:99:7a:ad	accounts	1206	4	qzhu	Student	-	-	accounts	44:1e:98:39:56:8c	1		Edit	Delete	Show
09/29/2018 06:53 PM	10/01/2018 08:14 PM	f0:2a:9c:b1:69:99	accounts	1206	4	qzhu	Student	-	-	accounts	44:1e:98:39:56:8c	1		Edit	Delete	Show
10/01/2018 12:07 PM	10/01/2018 07:16 PM	ac:bc:32:9f:4e:1f	accounts	1207	1	scarvin	Student	-	-	accounts	44:1e:98:39:56:4c	1		Edit	Delete	Show
09/26/2018 01:57 PM	10/01/2018 08:14 PM	04:69:78:53:2e:80	accounts	1208	1	fishman	Student	-	-	accounts	44:1e:98:38:f8:5c	1		Edit	Delete	Show
10/01/2018 06:37 PM	10/01/2018 08:14 PM	e0:ac:d9:5c:10:d4	accounts	1209	1	laurasongH	Student	-	-	accounts	44:1e:98:39:53:48	1		Edit	Delete	Show
09/22/2018 01:31 PM	10/01/2018 08:14 PM	14:dac9:f5:5a:5c	accounts	1210	1	ellita	Student	-	-	accounts	44:1e:98:39:4c:34	1		Edit	Delete	Show
10/01/2018 11:09 AM	10/01/2018 08:03 PM	64:76:ba:ae:57:3c	accounts	1211	1	hcheung1	Student	-	-	accounts	60:d0:2c:2a:34:28	1		Edit	Delete	Show
09/28/2018 10:19 PM	10/01/2018 08:14 PM	40:4e:36:0e:6e:68	accounts	1212	2	varkey	Student	-	-	accounts	44:1e:98:39:51:ec	1		Edit	Delete	Show
10/01/2018 09:00 AM	10/01/2018 08:14 PM	bc:83:85:d1:0e:81	accounts	1212	2	varkey	Student	-	-	accounts	44:1e:98:39:51:ec	1		Edit	Delete	Show
10/01/2018 04:48 PM	10/01/2018 07:22 PM	ec:9b:f3:86:3e:c0	accounts	1213	1	oijwopa	Student	-	-	accounts	44:1e:98:38:f1:7c	1		Edit	Delete	Show
09/25/2018 06:01 PM	10/01/2018 08:14 PM	30:4b:07:e1:52:13	accounts	1214	2	grillet	Student	-	-	accounts	60:d0:2c:2a:34:28	1		Edit	Delete	Show
10/01/2018 10:52 AM	10/01/2018 08:14 PM	e8:4e:06:41:1e:63	accounts	1214	2	grillet	Student	-	-	accounts	44:1e:98:39:1a:4e	2		Edit	Delete	Show
10/01/2018 11:08 AM	10/01/2018 08:14 PM	d0:4f:7e:64:e4:2c	accounts	1215	1	broehant	Student	-	-	accounts	44:1e:98:39:4b:4c	1		Edit	Delete	Show
10/01/2018 11:30 AM	10/01/2018 08:14 PM	68:5d:43:ae:f1:6f	accounts	1216	1	farfoe	Student	-	-	accounts	44:1e:98:39:13:28	1		Edit	Delete	Show
09/29/2018 10:57 AM	10/01/2018 08:14 PM	b4:18:85:94:72:2e	accounts	1217	3	yik2	Student	-	-	accounts	44:1e:98:38:e6:8c	1		Edit	Delete	Show
10/01/2018 11:13 AM	10/01/2018 08:14 PM	d8:1e:72:c4:6e:9c	accounts	1217	3	yik3	Student	-	-	accounts	44:1e:98:39:01:ac	1		Edit	Delete	Show
10/01/2018 11:35 AM	10/01/2018 08:14 PM	08:04:0c:e6:e4:a2	accounts	1217	3	yik3	Student	-	-	accounts	44:1e:98:38:e6:8c	1		Edit	Delete	Show
10/01/2018 02:58 PM	10/01/2018 08:14 PM	f0:18:98:0f:01:99	accounts	1218	2	nkang2	Student	-	-	accounts	44:1e:98:38:f8:ec	1		Edit	Delete	Show
10/01/2018 08:08 PM	10/01/2018 08:14 PM	64:a5:c3:58:e5:42	accounts	1218	2	nkang2	Student	-	-	accounts	44:1e:98:38:f8:ec	1		Edit	Delete	Show
09/30/2018 09:29 PM	10/01/2018 08:14 PM	08:6d:43:c3:07:b8	accounts	1220	1	ccheng5	Student	-	-	accounts	44:1e:98:06:f2:3c	1		Edit	Delete	Show
09/23/2018 08:40 PM	10/01/2018 08:14 PM	78:e3:93:c3:14:72	accounts	1221	4	pettas	Student	-	-	accounts	44:1e:98:39:56:78	1		Edit	Delete	Show
09/22/2018 02:11 AM	10/01/2018 08:14 PM	60:01:94:64:16:46	accounts	1221	4	pettas	Student	-	-	accounts	44:1e:98:39:56:78	1		Edit	Delete	Show
10/01/2018 09:53 AM	10/01/2018 08:14 PM	bc:e1:43:38:8e:5c	accounts	1221	4	pettas	Student	-	-	accounts	44:1e:98:06:f3:8c	1		Edit	Delete	Show
10/01/2018 10:27 AM	10/01/2018 08:14 PM	6c:40:08:98:8a:ec	accounts	1221	4	pettas	Student	-	-	accounts	44:1e:98:39:56:7c	1		Edit	Delete	Show
10/01/2018 10:55 AM	10/01/2018 07:59 PM	8c:85:60:76:a7:30	accounts	1222	1	dumpson	Student	-	-	accounts	44:1e:98:38:4a:3c	2		Edit	Delete	Show
10/01/2018 02:24 PM	10/01/2018 08:14 PM	e0:c7:67:87:88:65	accounts	1224	2	kimrley	Student	-	-	accounts	44:1e:98:39:42:48	1		Edit	Delete	Show
10/01/2018 02:50 PM	10/01/2018 08:14 PM	28:cf:e9:54:d8:55	accounts	1224	2	kimrley	Student	-	-	accounts	44:1e:98:39:51:e8	3		Edit	Delete	Show
09/30/2018 11:23 AM	10/01/2018 08:14 PM	3c:2e:f9:9e:80:14	accounts	1225	1	cidat	Student	-	-	accounts	44:1e:98:38:c5:0c	1		Edit	Delete	Show
10/01/2018 05:46 PM	10/01/2018 08:14 PM	1c:36:8b:31:1a:68	accounts	1226	2	jandrieu	Student	-	-	accounts	44:1e:98:39:0c:7c	1		Edit	Delete	Show
10/01/2018 07:33 PM	10/01/2018 08:14 PM	88:79:7e:af:dd:7c	accounts	1226	2	jandrieu	Student	-	-	accounts	44:1e:98:39:51:e8	3		Edit	Delete	Show
09/30/2018 02:20 PM	10/01/2018 08:14 PM	54:9f:13:8e:ca:86	accounts	1228	2	ben2	Student	-	-	accounts	44:1e:98:39:19:ac	1		Edit	Delete	Show
10/01/2018 04:56 PM	10/01/2018 08:14 PM	40:99:90:01:f9:9f	accounts	1228	2	ben2	Student	-	-	accounts	44:1e:98:39:19:ac	1		Edit	Delete	Show
09/12/2018 10:29 PM	10/01/2018 08:14 PM	f8:da:0c:2e:x3:f1	accounts	1230	3	mozo	Student	-	-	accounts	44:1e:98:39:55:b8	1		Edit	Delete	Show
10/01/2018 02:31 PM	10/01/2018 08:14 PM	74:9e:af:5b:bb:64	accounts	1230	3	mozo	Student	-	-	accounts	44:1e:98:39:45:6c	1		Edit	Delete	Show
10/01/2018 07:28 PM	10/01/2018 08:14 PM	6c:54:15:f0:d3:39	accounts	1230	3	mozo	Student	-	-	accounts	44:1e:98:39:45:6c	1		Edit	Delete	Show
10/01/2018 07:07 PM	10/01/2018 07:44 PM	04:06:aa:3a:b2:91	accounts	1231	1	hawakum	Student	-	-	accounts	44:1e:98:06:f2:28	1		Edit	Delete	Show
09/25/2018 11:59 PM	10/01/2018 08:14 PM	40:99:22:f4:4e:35	accounts	1236	2	kipriako	Student	-	-	accounts	44:1e:98:09:dc:0c	1		Edit	Delete	Show
09/30/2018 06:57 PM	10/01/2018 08:14 PM	cc:28:67:56:dc:e1	accounts	1236	2	kipriako	Student	-	-	accounts	44:1e:98:39:55:ec	1		Edit	Delete	Show
08/31/2018 03:23 AM	10/01/2018 08:14 PM	84:7c:9c:9c:12:3c	accounts	1247	2	hfriden2	Student	-	-	accounts	44:1e:98:39:18:08	1		Edit	Delete	Show
09/05/2018 01:14 PM	10/01/2018 08:14 PM	34:c2:78:cf:80:f2	accounts	1247	2	hfriden2	Student	-	-	accounts	44:1e:98:39:0a:5c	1		Edit	Delete	Show
08/26/2018 03:52 PM	10/01/2018 08:14 PM	44:70:42:1e:3c:87	accounts	1248	1	cklepper	Student	-	-	accounts	44:1e:98:39:08:1c	1		Edit	Delete	Show

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