Q2 Which Industry do you represent - check one:
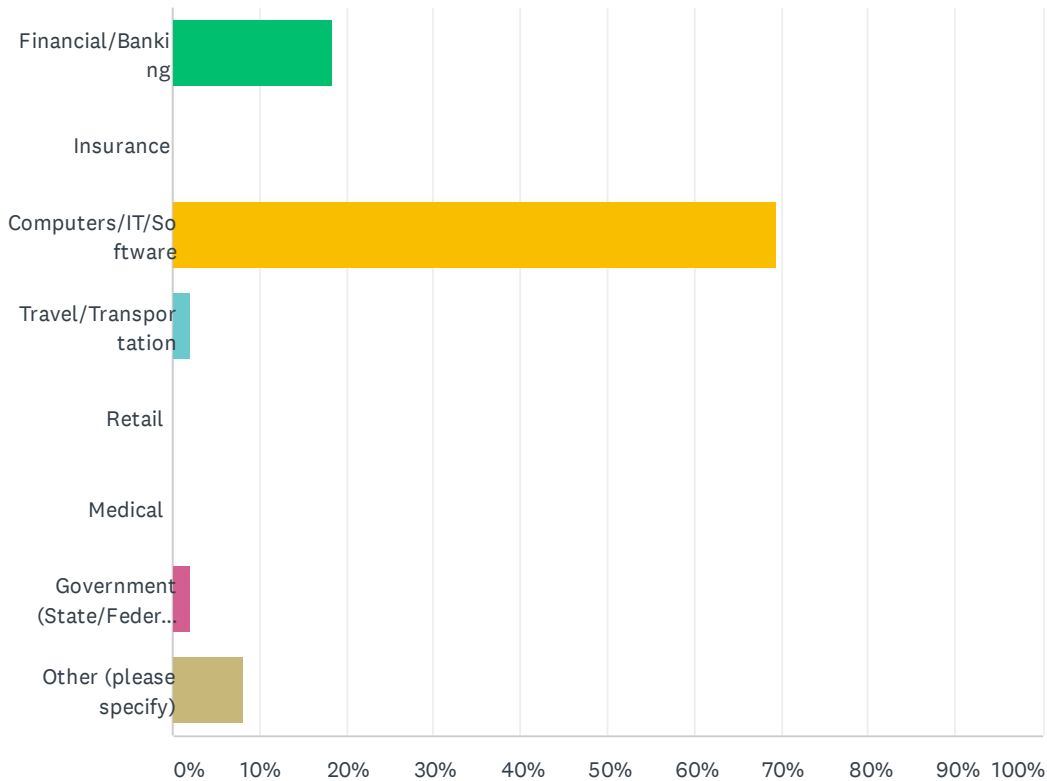
Answered: 49   Skipped: 1
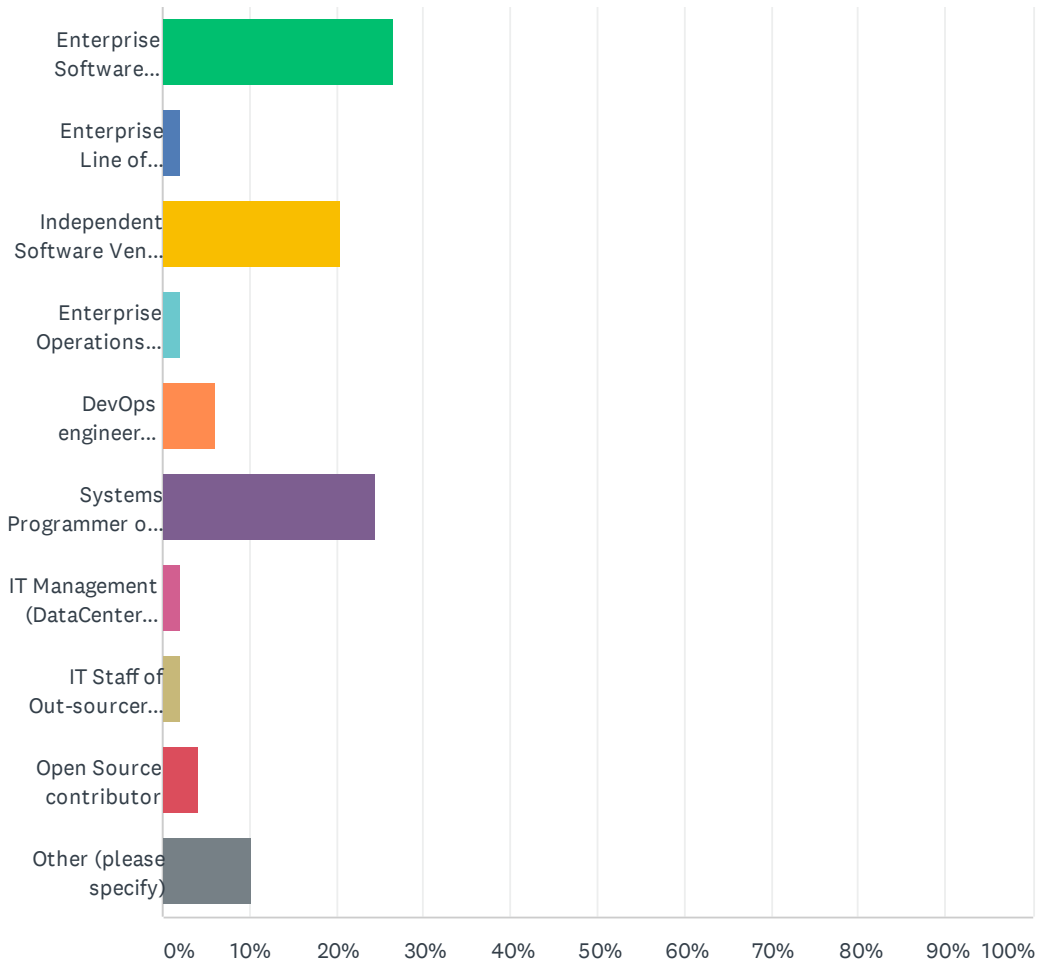

ANSWER CHOICES	RESPONSES	
Financial/Banking	18.37%	9
Insurance	0.00%	0
Computers/IT/Software	69.39%	34
Travel/Transportation	2.04%	1
Retail	0.00%	0
Medical	0.00%	0
Government (State/Federal/City)	2.04%	1
Other (please specify)	8.16%	4
TOTAL		49

Q3 What is your role? (select one)

Answered: 49   Skipped: 1
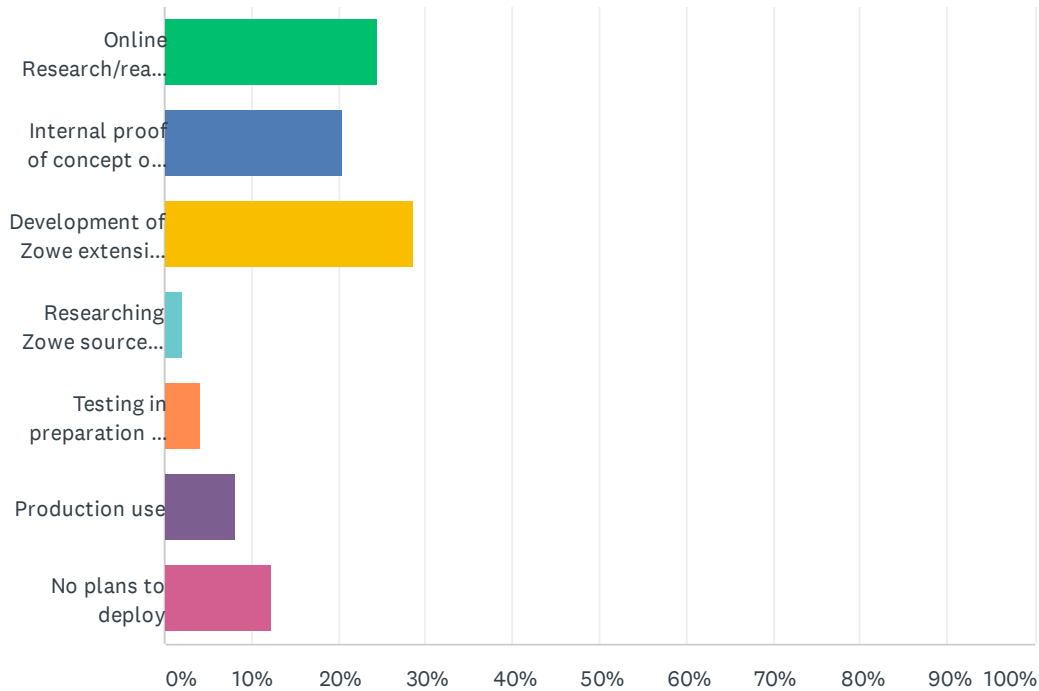
Feedback on Zowe Development Directions for 2H 2020

ANSWER CHOICES	RESPONSES	
Enterprise Software Developer	26.53%	13
Enterprise Line of Business Manger responsible for products and applications	2.04%	1
Independent Software Vendor including (Broadcom, IBM, Rocket, etc. Employee) building software products for sale	20.41%	10
Enterprise Operations staff running IT systems	2.04%	1
DevOps engineer dealing with build/test pipelines	6.12%	3
Systems Programmer of operating systems and hardware environments	24.49%	12
IT Management (DataCenter Manager, Technical team manager, Development management, etc.)	2.04%	1
IT Staff of Out-sourcer (managing other firms IT environments)	2.04%	1
Open Source contributor	4.08%	2
Other (please specify)	10.20%	5
TOTAL		49

Q4 What stage of deploying Zowe are you?

Answered: 49   Skipped: 1

ANSWER CHOICES	RESPONSES	
Online Research/reading	24.49%	12
Internal proof of concept or pilot	20.41%	10
Development of Zowe extensions (REST APIs, plug-ins or web apps)	28.57%	14
Researching Zowe source code for possible use or contribution	2.04%	1
Testing in preparation for production use	4.08%	2
Production use	8.16%	4
No plans to deploy	12.24%	6
TOTAL		49

Q5 What Zowe Components are you using today, plan to use or don't think you will ever use?

Answered: 40   Skipped: 10

Feedback on Zowe Development Directions for 2H 2020

Legend: ■ Are using today   ■ Plan to use in the future   ■ Do not plan to use
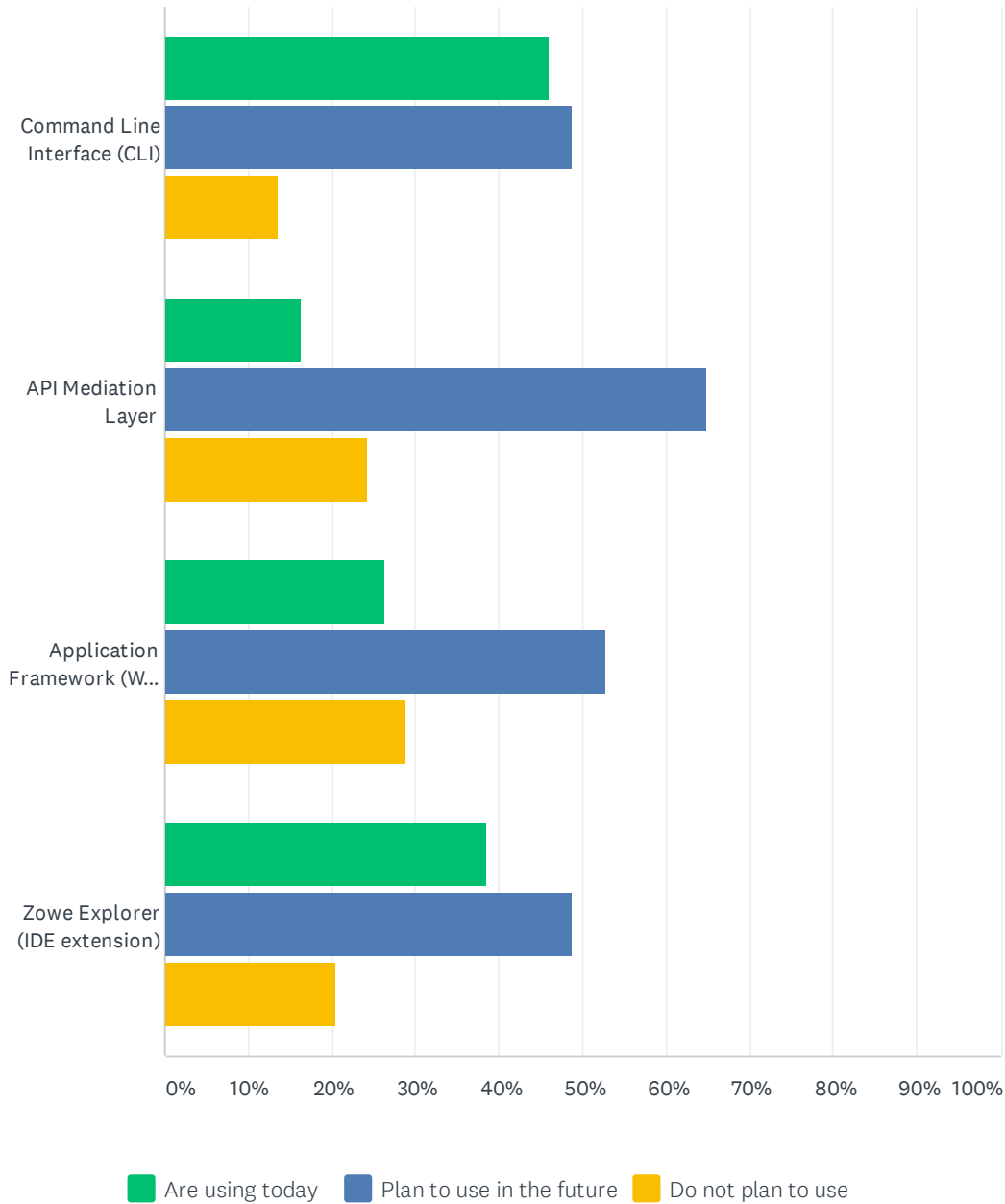
	ARE USING TODAY	PLAN TO USE IN THE FUTURE	DO NOT PLAN TO USE	TOTAL RESPONDENTS
Command Line Interface (CLI)	45.95% 17	48.65% 18	13.51% 5	37
API Mediation Layer	16.22% 6	64.86% 24	24.32% 9	37
Application Framework (Web UI)	26.32% 10	52.63% 20	28.95% 11	38
Zowe Explorer (IDE extension)	38.46% 15	48.72% 19	20.51% 8	39

Q6 What challenges have you had with installing and configuring Zowe?

Answered: 38   Skipped: 12

Feedback on Zowe Development Directions for 2H 2020
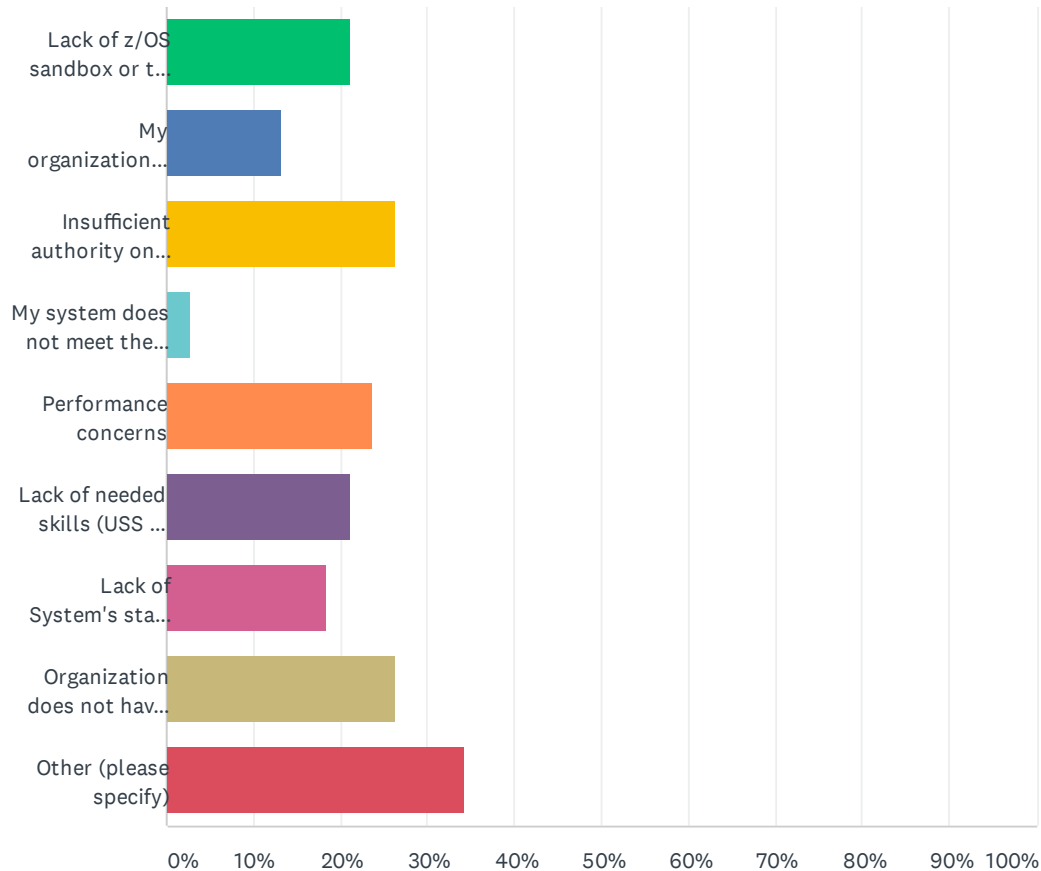
ANSWER CHOICES	RESPONSES	
Lack of z/OS sandbox or test environment	21.05%	8
My organization security concerns of open source	13.16%	5
Insufficient authority on system to install and configure Zowe (waiting on others)	26.32%	10
My system does not meet the pre-reqs for Zowe	2.63%	1
Performance concerns	23.68%	9
Lack of needed skills (USS on z/OS, Node on z/OS, SMP/E, etc.)	21.05%	8
Lack of System's staff able to work on install/configure of Zowe	18.42%	7
Organization does not have time	26.32%	10
Other (please specify)	34.21%	13
Total Respondents: 38		

Q7 Zowe API ML is considering adding support for client certificates, do you have an existing infrastructure that requires client certificates (x.509) for authentication?
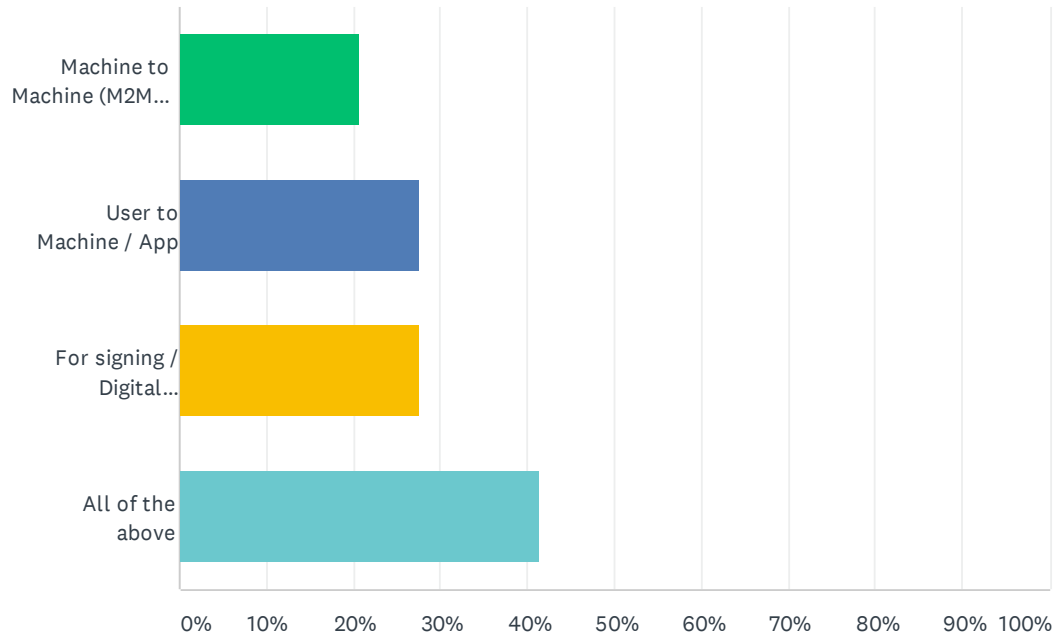
Answered: 32   Skipped: 18
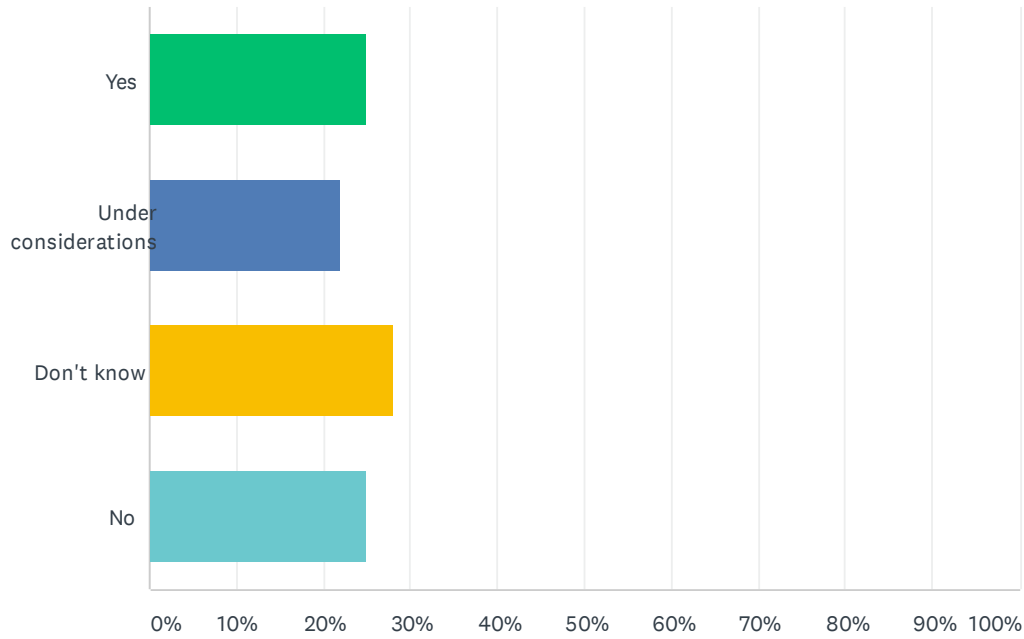
ANSWER CHOICES	RESPONSES	
Yes	25.00%	8
Under considerations	21.88%	7
Don't know	28.13%	9
No	25.00%	8
TOTAL		32

Q8 What are the most common ways for you to use the client certificate (x.509) as an authentication method?

Answered: 29   Skipped: 21

ANSWER CHOICES	RESPONSES	
Machine to Machine (M2M) / App to App	20.69%	6
User to Machine / App	27.59%	8
For signing / Digital Signature	27.59%	8
All of the above	41.38%	12
Total Respondents: 29		

# Q9 Which type of Certificate Authority (CA) do you use to generate client certificates (x.509)?

Answered: 29   Skipped: 21
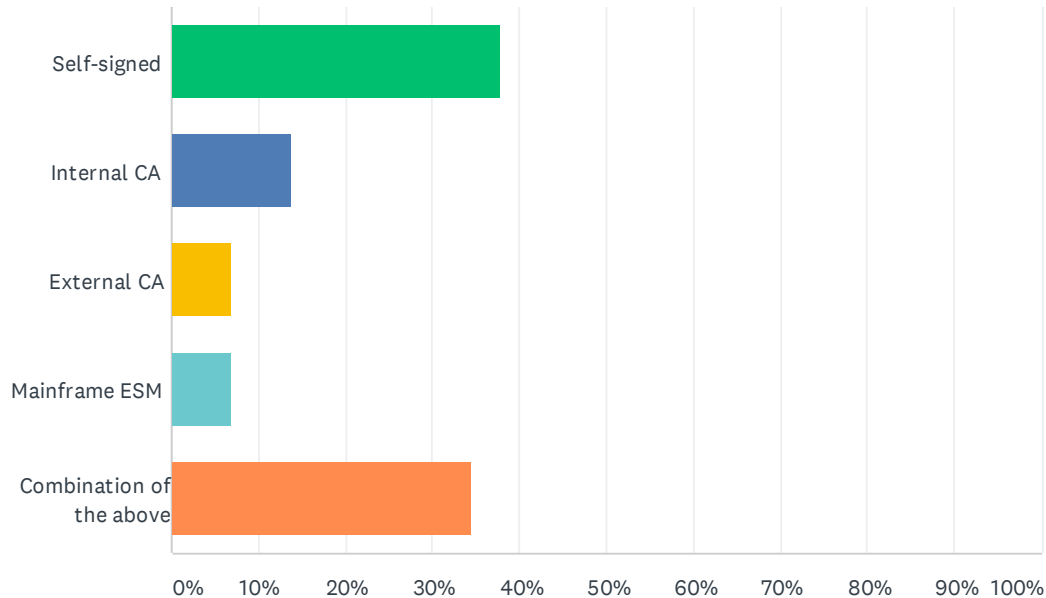
ANSWER CHOICES	RESPONSES	
Self-signed	37.93%	11
Internal CA	13.79%	4
External CA	6.90%	2
Mainframe ESM	6.90%	2
Combination of the above	34.48%	10
TOTAL		29

Q10 Do you want Zowe API Mediation Layer to help manage the client certificate lifecycle? (Ability to control the update when the certificate expires)

Answered: 31   Skipped: 19
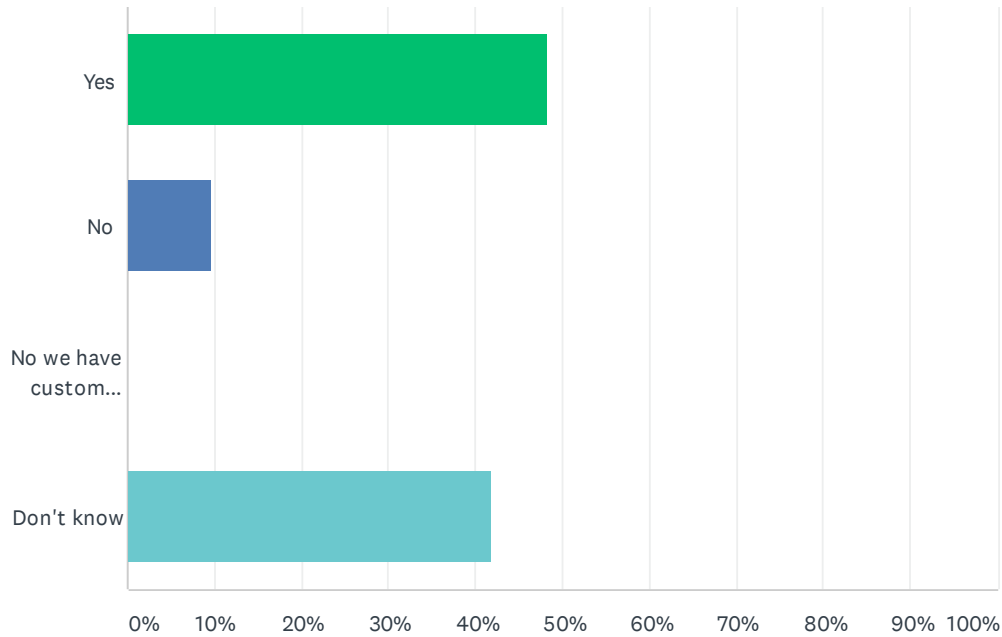
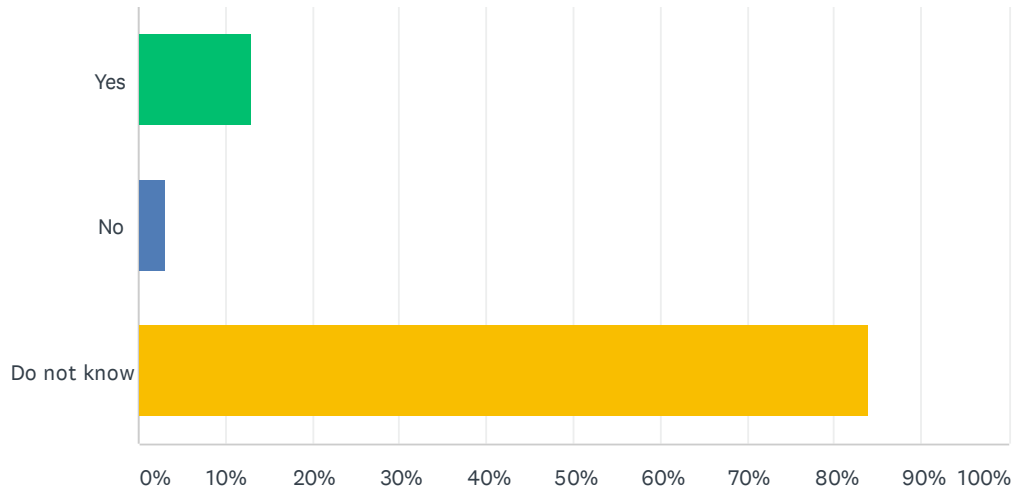| ANSWER CHOICES	RESPONSES	
Yes	48.39%	15
No	9.68%	3
No we have custom implementation	0.00%	0
Don't know	41.94%	13
TOTAL		31

Q11 What types of "workstation tools" / "client applications" at your site you see benefiting from being able to authenticate to the Zowe API ecosystem via API Mediation Layer using client certificates (x.509) ?

Answered: 20   Skipped: 30

Q12 Do you plan to use Zowe Command Line Interface (CLI) with client certificates (x.509)
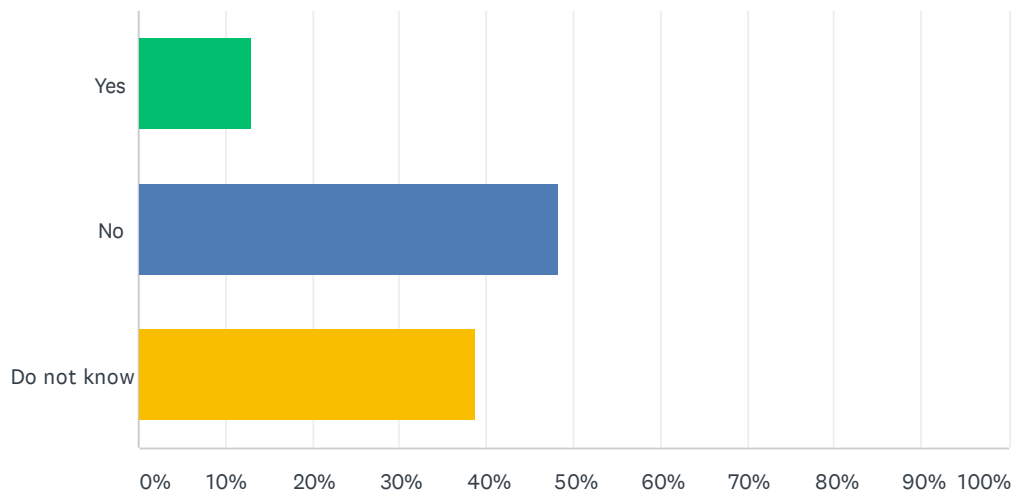
Answered: 31   Skipped: 19

ANSWER CHOICES	RESPONSES	
Yes	12.90%	4
No	3.23%	1
Do not know	83.87%	26
TOTAL		31

# Q13 Do you use z/OSMF with client certificates (x.509) ?

Answered: 31   Skipped: 19

ANSWER CHOICES	RESPONSES	
Yes	12.90%	4
No	48.39%	15
Do not know	38.71%	12
TOTAL		31

Q14 IF Zowe API Mediation Layer would support client certificates (x.509) as an authentication method, would you prefer a single client certificate to be used to access all the Zowe z/OS Services APIs?
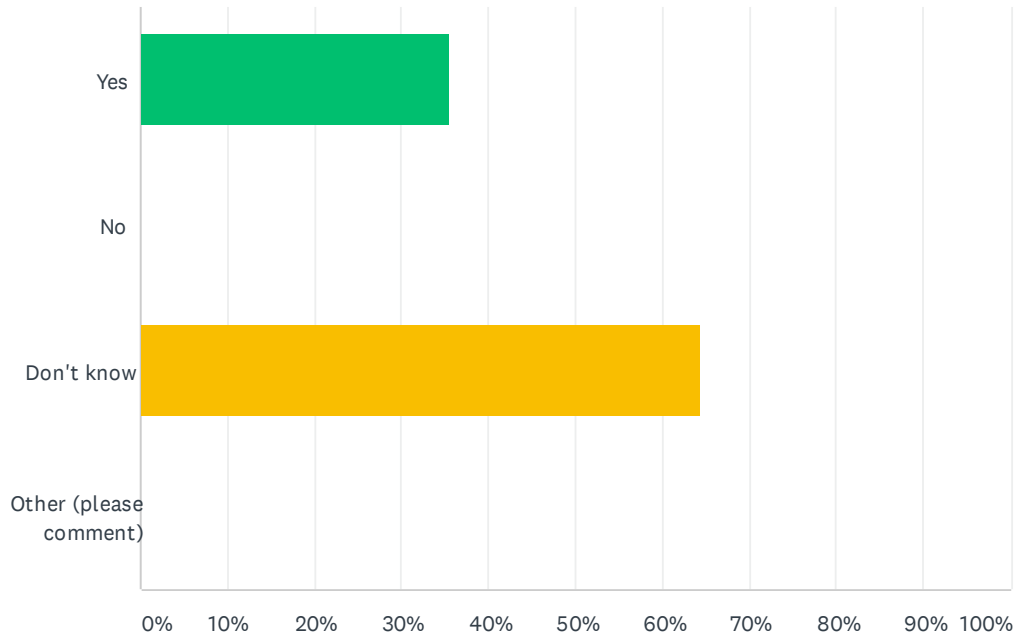
Answered: 31   Skipped: 19
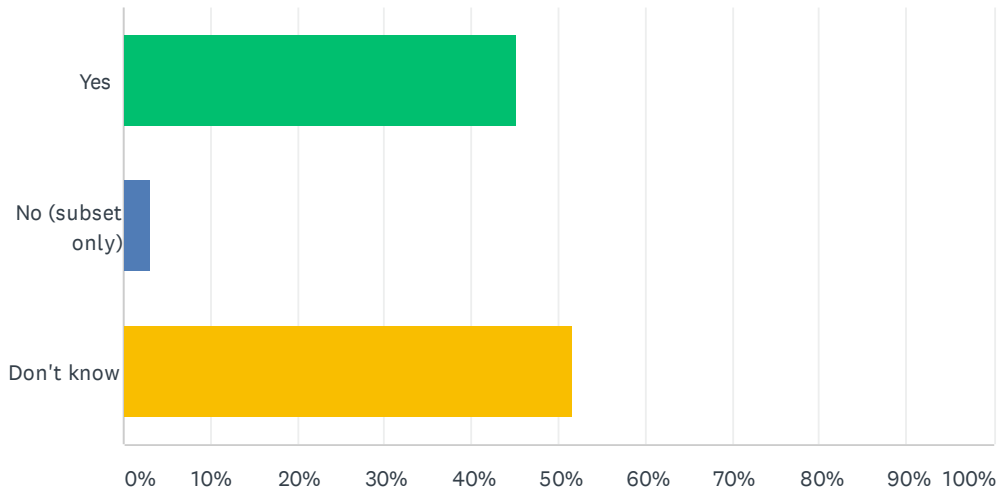
ANSWER CHOICES	RESPONSES	
Yes	45.16%	14
No (subset only)	3.23%	1
Don't know	51.61%	16
TOTAL		31

Q15 Do you see the benefit in enabling Zowe API Mediation Layer to accept client certificates (x.509) as another authentication mechanism in general?
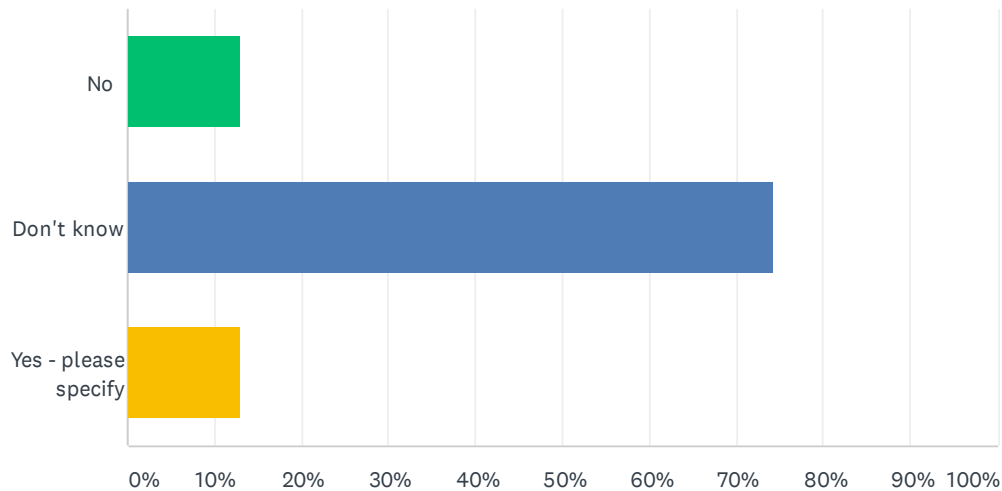
Answered: 31   Skipped: 19

ANSWER CHOICES	RESPONSES	
Yes	35.48%	11
No	0.00%	0
Don't know	64.52%	20
Other (please comment)	0.00%	0
TOTAL		31

Q16 Is there any other authentication mechanism that you are missing in Zowe API Mediation Layer other than client certificates (x.509)?
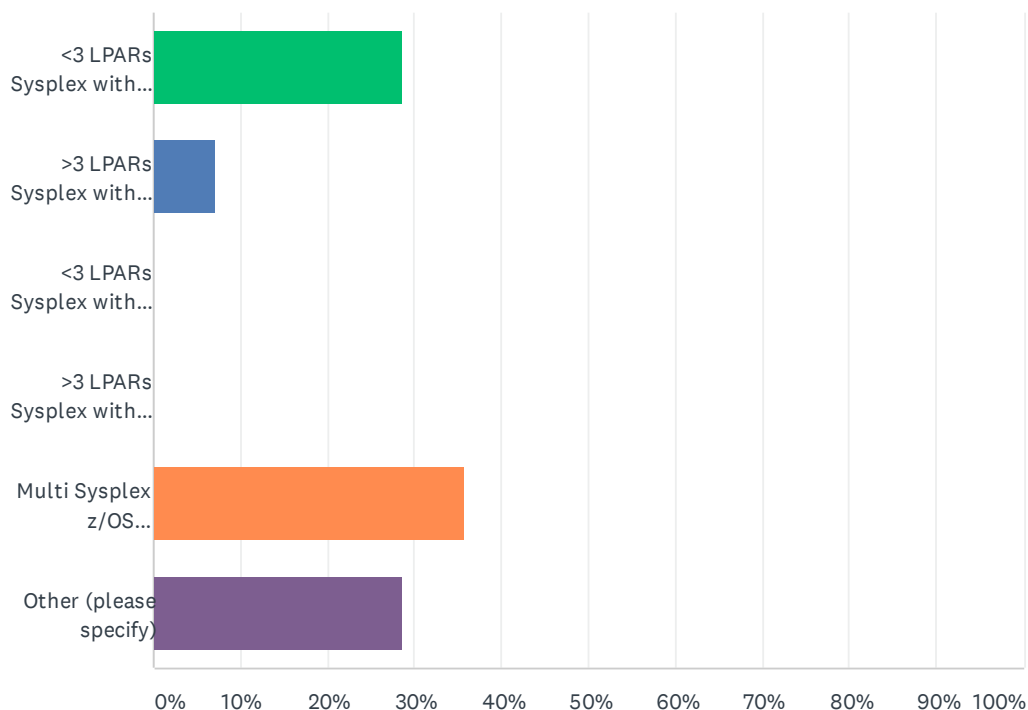
Answered: 31   Skipped: 19

ANSWER CHOICES	RESPONSES	
No	12.90%	4
Don't know	74.19%	23
Yes - please specify	12.90%	4
TOTAL		31

Q17 For Zowe High Availability testing purposes, what is the most common z/OS production environment set up in which you would deploy Zowe API ML?

Answered: 28   Skipped: 22

ANSWER CHOICES	RESPONSES	
<3 LPARs Sysplex with shared Enterprise Security Manager (ESM) security domain	28.57%	8
>3 LPARs Sysplex with shared security domain (ESM) across	7.14%	2
<3 LPARs Sysplex with different security domain (ESM) per LPAR	0.00%	0
>3 LPARs Sysplex with different security domain (ESM) per LPAR	0.00%	0
Multi Sysplex z/OS environment with variety of security domains (ESM)	35.71%	10
Other (please specify)	28.57%	8
TOTAL		28

Q18 As a Zowe Explorer user, please select the security best practices that you (or your organization) would be interested in.

Answered: 26   Skipped: 24
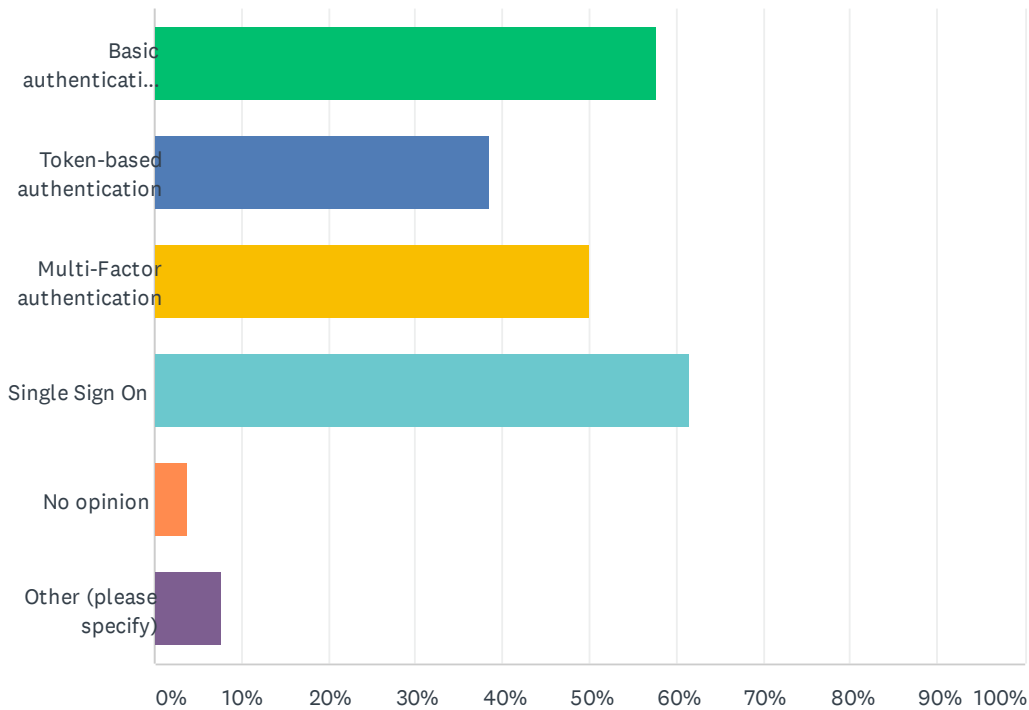
ANSWER CHOICES	RESPONSES	
Basic authentication (username and password)	57.69%	15
Token-based authentication	38.46%	10
Multi-Factor authentication	50.00%	13
Single Sign On	61.54%	16
No opinion	3.85%	1
Other (please specify)	7.69%	2
Total Respondents: 26		

Q19 The Zowe Explorer today does not have a clearly documented way to extend its capabilities and does not have a conformance program (published criteria, badge, etc.) Do you see the need for Zowe Explorer being extensible and a documented conformance program?
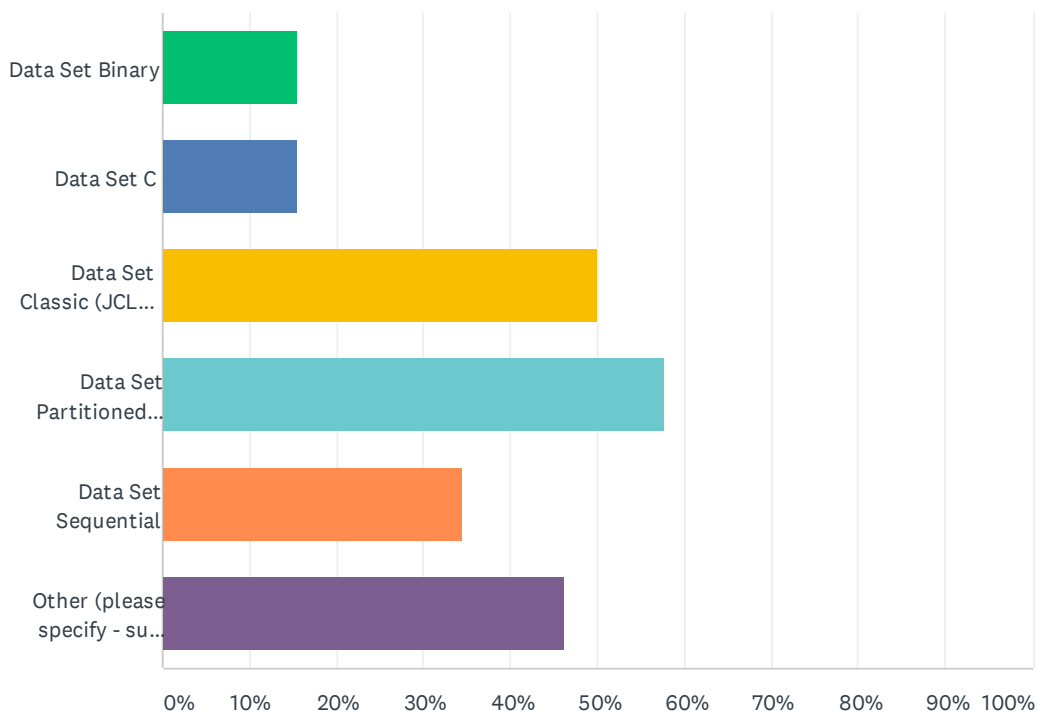
Answered: 26   Skipped: 24
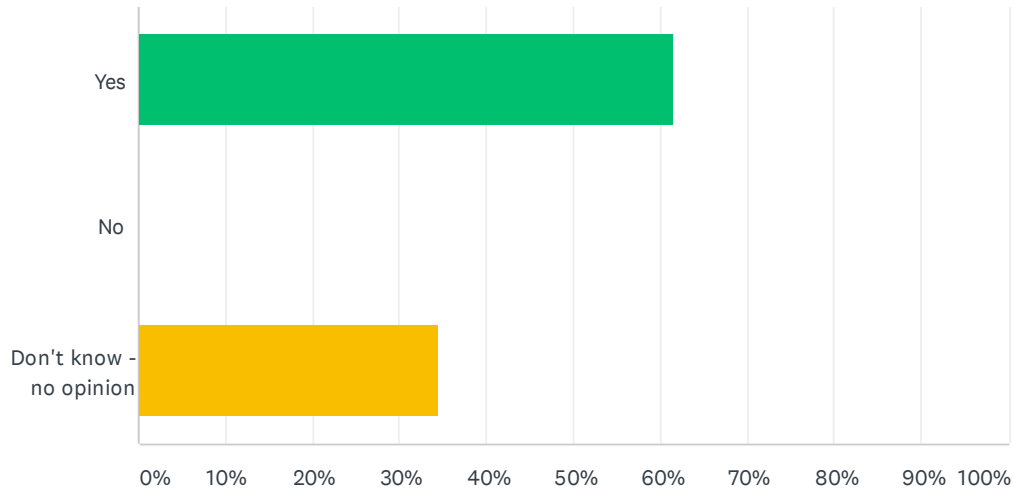
ANSWER CHOICES	RESPONSES	
Yes	61.54%	16
No	0.00%	0
Don't know - no opinion	34.62%	9
TOTAL		26

Q20 When creating data sets through Zowe Explorer, what types do you use more often? Use `Other` to describe details for a custom template you'd like to add.

Answered: 26   Skipped: 24

ANSWER CHOICES	RESPONSES	
Data Set Binary	15.38%	4
Data Set C	15.38%	4
Data Set Classic (JCL, Cobol, ASM kind of files)	50.00%	13
Data Set Partitioned (PDS)	57.69%	15
Data Set Sequential	34.62%	9
Other (please specify - such as Partitioned Data Set Extended (PDS/E) - describe allocation details if possible:)	46.15%	12
Total Respondents: 26		

Q21 As a WebUI (Application Framework or Virtual Desktop) user, which is more important for 2H 2020 deliverable:

Answered: 26   Skipped: 24
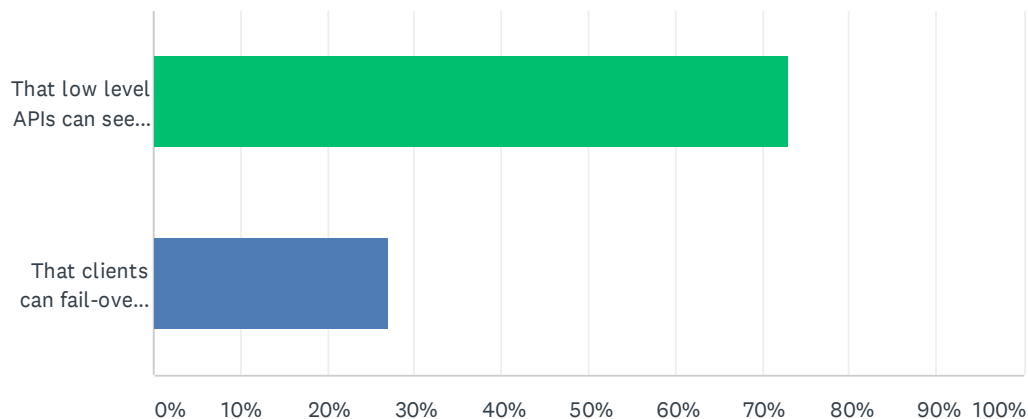
ANSWER CHOICES	RESPONSES	
That low level APIs can see data from multiple LPARs in a sysplex as opposed to just the "current" LPAR?	73.08%	19
That clients can fail-over between redundant copies of the server for fault tolerance	26.92%	7
TOTAL		26

Q22 As a WebUI (Application Framework or Virtual Desktop) user, would you object to a dependency on Db2 for achieving high availability of stored data? (Appropriate Db2 license would be responsibility of the user of Zowe.)

Answered: 25   Skipped: 25
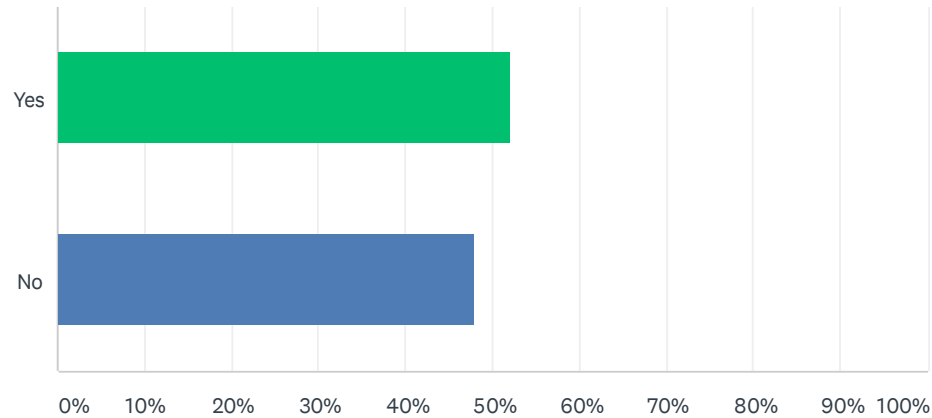
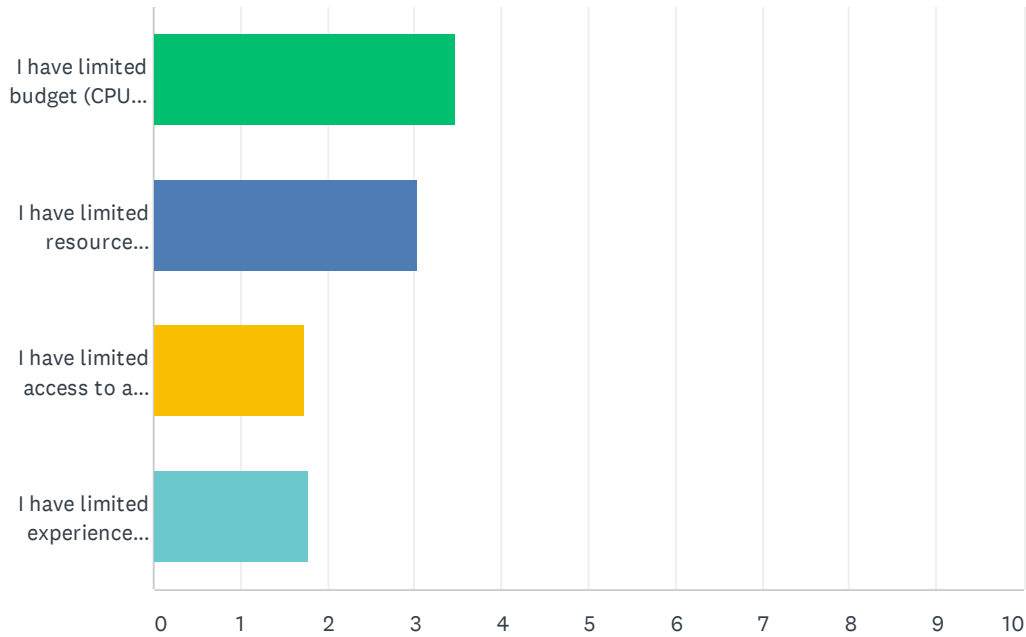| ANSWER CHOICES	RESPONSES	
Yes	52.00%	13
No	48.00%	12
TOTAL		25

Q23 What other cross-LPAR, persistent data store technology on z/OS would you consider acceptable?

Answered: 17   Skipped: 33

Q24 As a WebUI (Application Framework or Virtual Desktop) user, rank the following reasons for running server components on off z/OS by priority (1 is most important):

Answered: 24   Skipped: 26

	1	2	3	4	TOTAL	SCORE
I have limited budget (CPU usage cost)	69.57% 16	17.39% 4	4.35% 1	8.70% 2	23	3.48
I have limited resource capacity	20.83% 5	62.50% 15	16.67% 4	0.00% 0	24	3.04
I have limited access to a mainframe	4.35% 1	8.70% 2	43.48% 10	43.48% 10	23	1.74
I have limited experience using z/OS and or USS	8.70% 2	8.70% 2	34.78% 8	47.83% 11	23	1.78

Q25 As a WebUI (Application Framework or Virtual Desktop) user, rank the following non-z/OS platforms for running server components (1 is most important):

Answered: 23   Skipped: 27
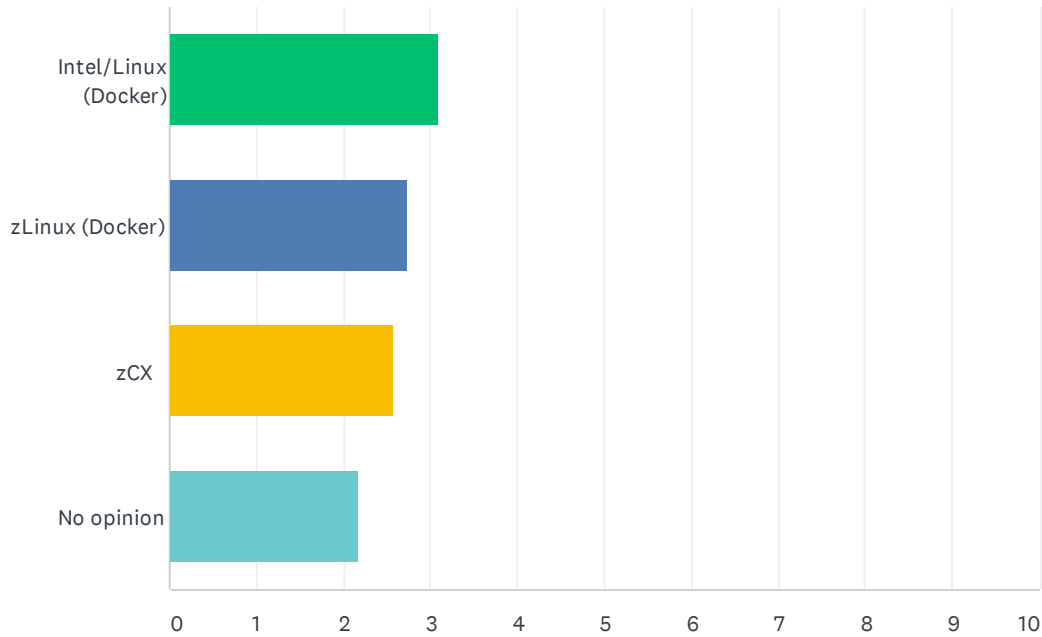
	1	2	3	4	TOTAL	SCORE
Intel/Linux (Docker)	50.00% 10	20.00% 4	20.00% 4	10.00% 2	20	3.10
zLinux (Docker)	15.00% 3	55.00% 11	20.00% 4	10.00% 2	20	2.75
zCX	21.05% 4	21.05% 4	52.63% 10	5.26% 1	19	2.58
No opinion	33.33% 6	5.56% 1	5.56% 1	55.56% 10	18	2.17

Q26 As a WebUI (Application Framework or Virtual Desktop) user, when it comes to install and configuration, rank these platforms by your comfort level (1 is most comfortable)?
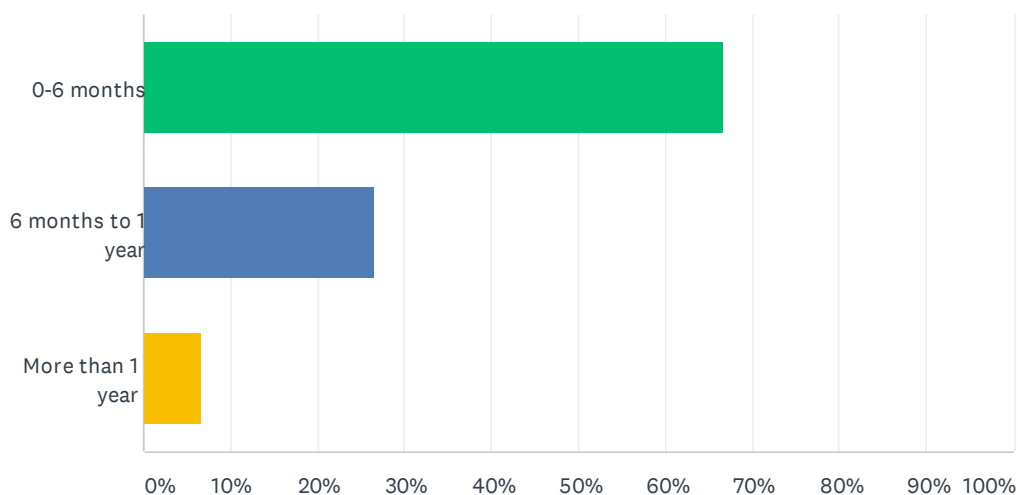
Answered: 24   Skipped: 26
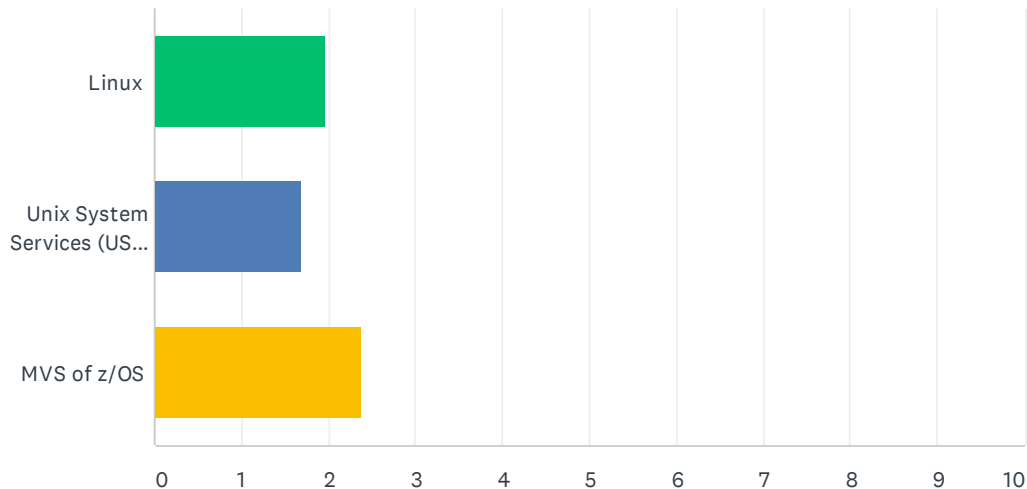
	1	2	3	TOTAL	SCORE
Linux	30.43% 7	34.78% 8	34.78% 8	23	1.96
Unix System Services (USS) of z/OS	4.35% 1	60.87% 14	34.78% 8	23	1.70
MVS of z/OS	66.67% 16	4.17% 1	29.17% 7	24	2.38

Q27 How much experience do you have with the Zowe CLI?
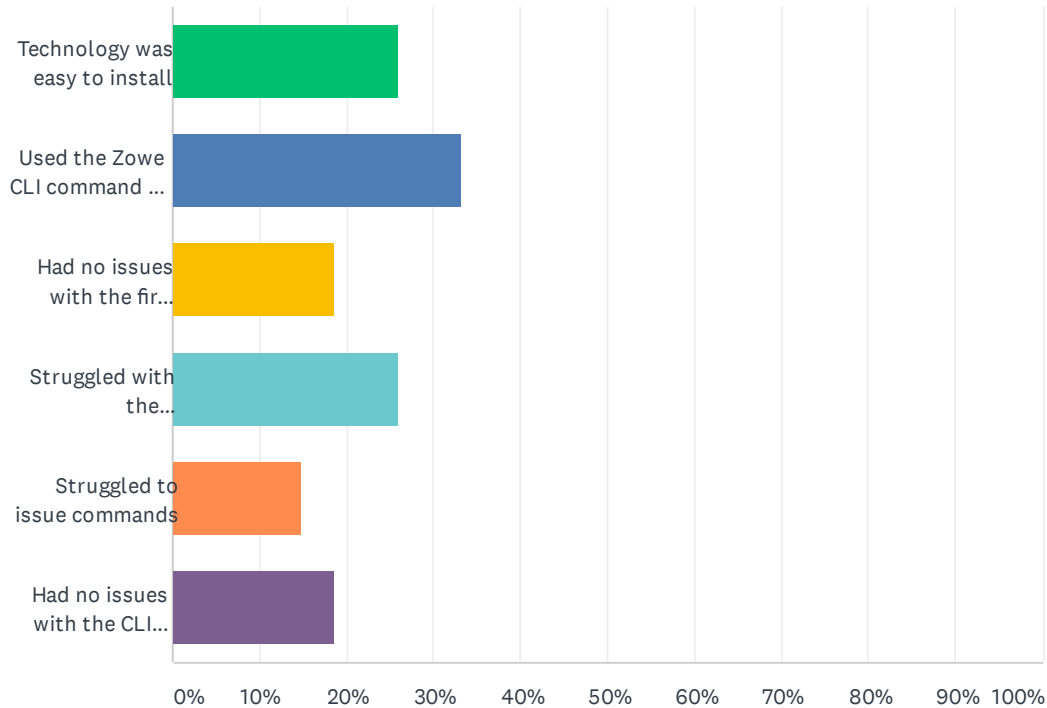
Answered: 30   Skipped: 20

ANSWER CHOICES	RESPONSES	
0-6 months	66.67%	20
6 months to 1 year	26.67%	8
More than 1 year	6.67%	2
TOTAL		30

Q28 Please describe your on-boarding experience using the Zowe CLI interactively [check all that apply]

Answered: 27   Skipped: 23

## Feedback on Zowe Development Directions for 2H 2020

ANSWER CHOICES	RESPONSES	
Technology was easy to install	25.93%	7
Used the Zowe CLI command web help	33.33%	9
Had no issues with the first command	18.52%	5
Struggled with the installation	25.93%	7
Struggled to issue commands	14.81%	4
Had no issues with the CLI but had to wait for z/OS components	18.52%	5
Total Respondents: 27		

Q29 Which OS are you running Zowe CLI commands on? [check all that apply]

Answered: 27   Skipped: 23
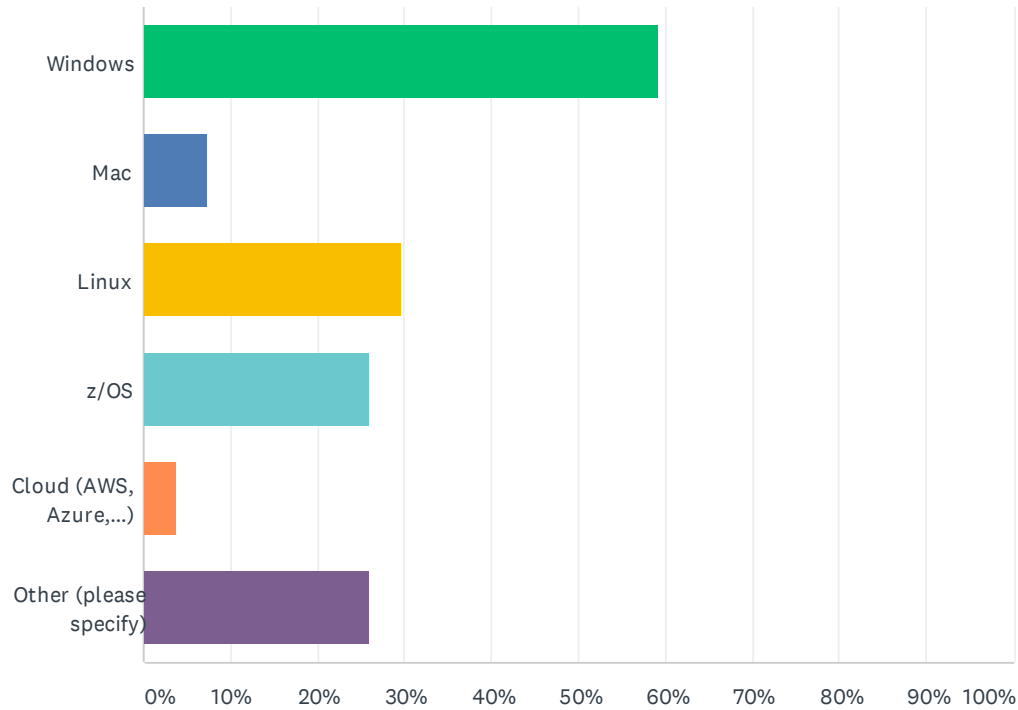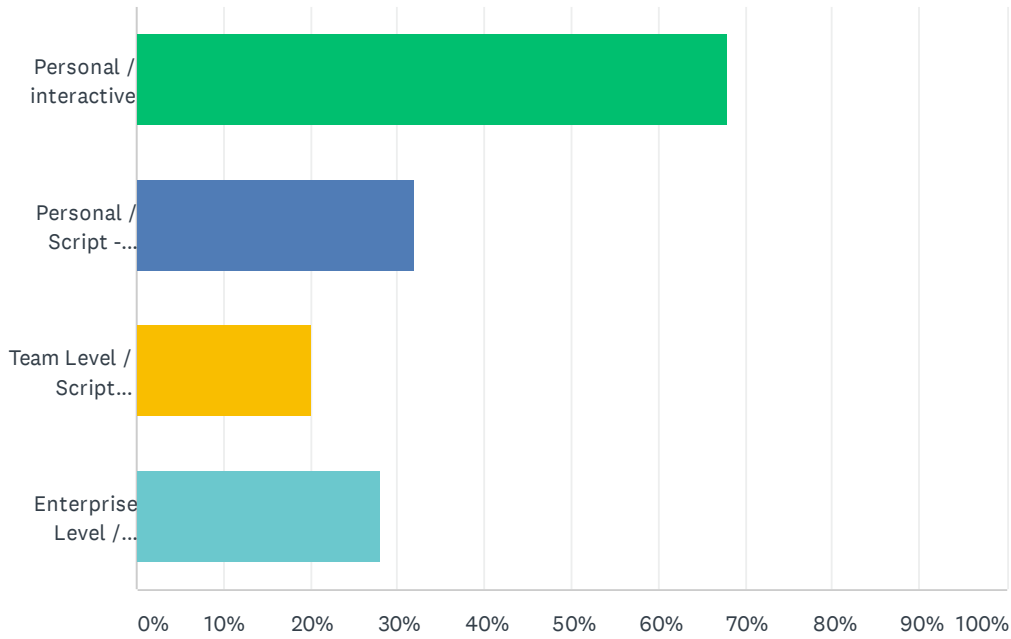
ANSWER CHOICES	RESPONSES	
Windows	59.26%	16
Mac	7.41%	2
Linux	29.63%	8
z/OS	25.93%	7
Cloud (AWS, Azure,...)	3.70%	1
Other (please specify)	25.93%	7
Total Respondents: 27		

Q30 What are you primarily leveraging the Zowe CLI for? [check all that apply]
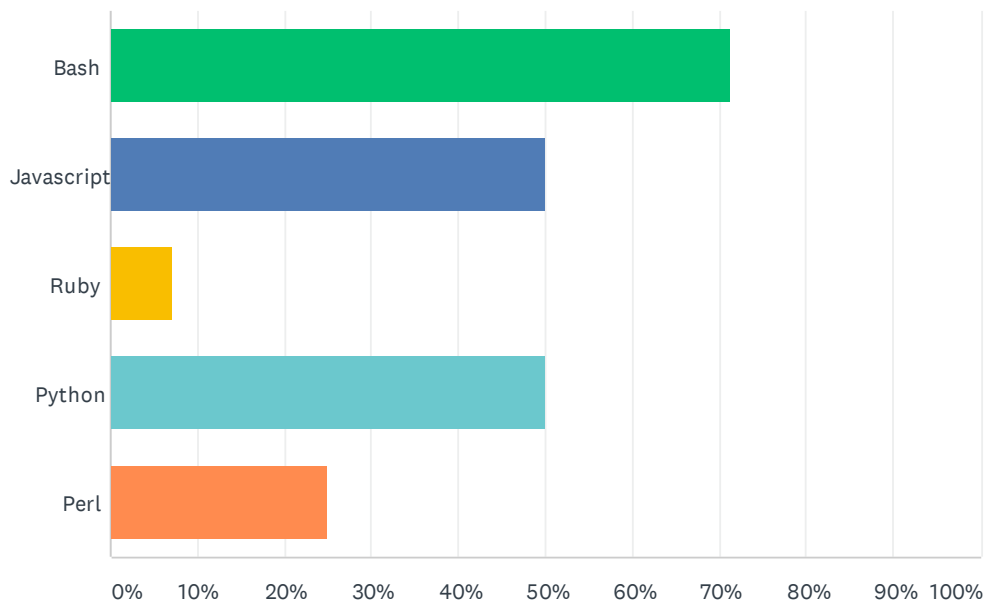
Answered: 25   Skipped: 25

Feedback on Zowe Development Directions for 2H 2020

ANSWER CHOICES	RESPONSES	
Personal / interactive	68.00%	17
Personal / Script - automation	32.00%	8
Team Level / Script -automation	20.00%	5
Enterprise Level / Script-automation	28.00%	7
Total Respondents: 25		

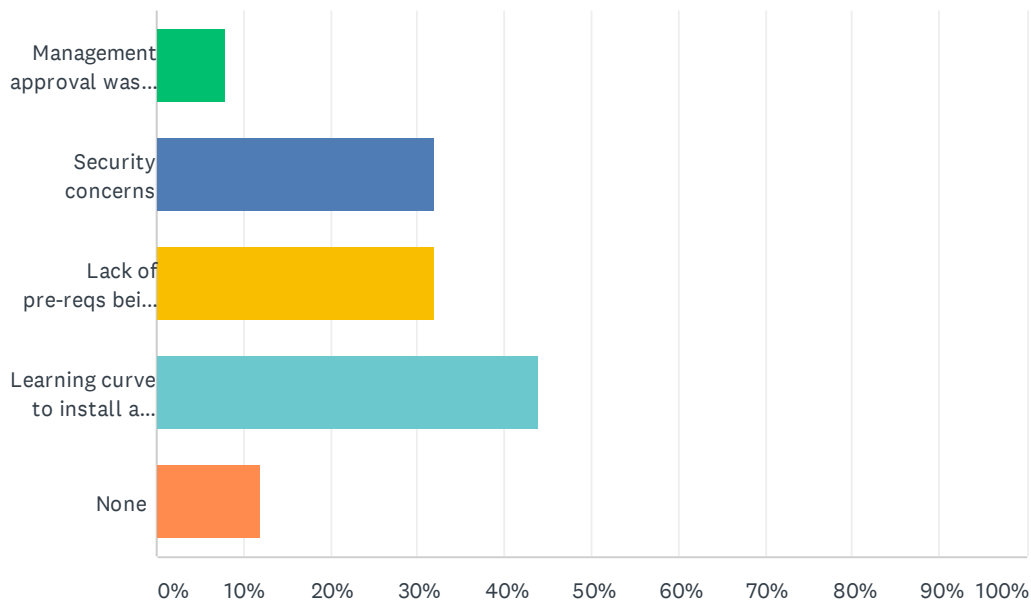## Q31 What scripting languages have you used?

Answered: 28   Skipped: 22

ANSWER CHOICES	RESPONSES	
Bash	71.43%	20
Javascript	50.00%	14
Ruby	7.14%	2
Python	50.00%	14
Perl	25.00%	7
Total Respondents: 28		

Q32 What roadblocks or issues have you encountered in rolling out Zowe CLI across your organization.
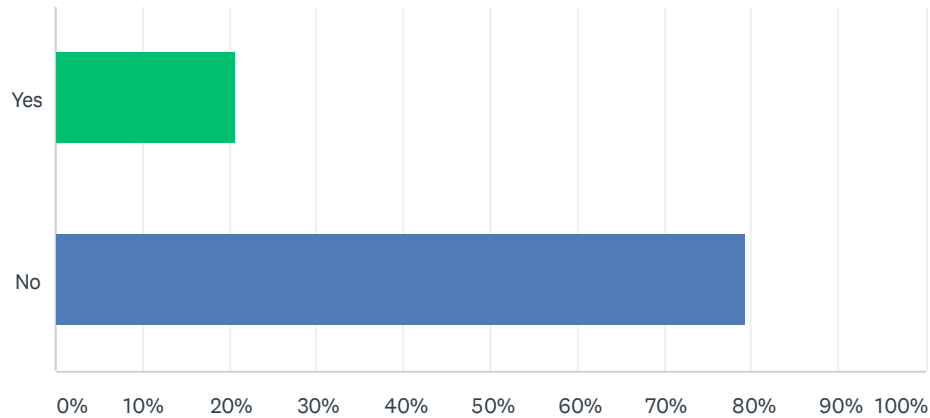
Answered: 25   Skipped: 25

ANSWER CHOICES	RESPONSES	
Management approval was a hurdle	8.00%	2
Security concerns	32.00%	8
Lack of pre-reqs being in place (i.e, z/OSMF configured for example)	32.00%	8
Learning curve to install and configure the CLI plus plug-ins	44.00%	11
None	12.00%	3
Total Respondents: 25		

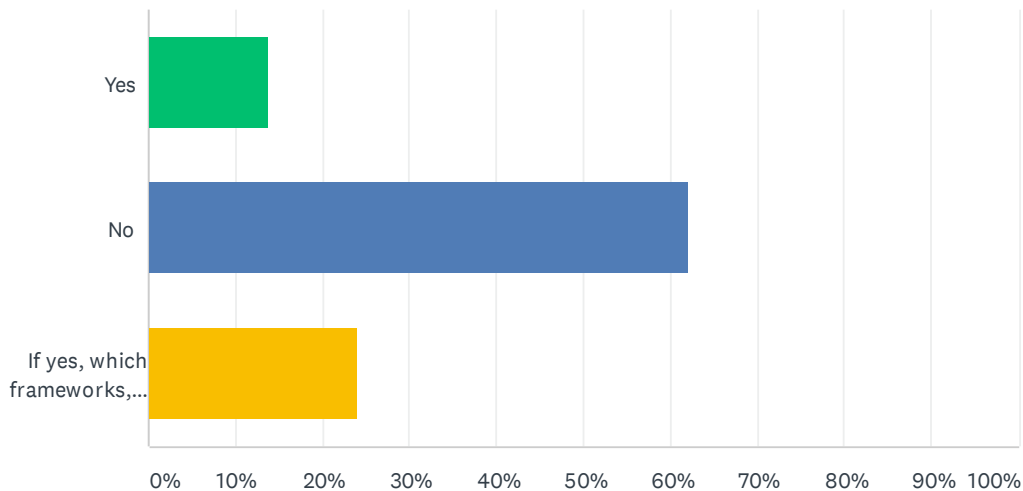## Q33 Have you leveraged any Zowe CLI plug-ins?

Answered: 29   Skipped: 21

ANSWER CHOICES	RESPONSES	
Yes	20.69%	6
No	79.31%	23
TOTAL		29

Q34 Are you considering or have you tried leveraging any test frameworks, automated pipelines or task runners in conjunction with Zowe CLI?

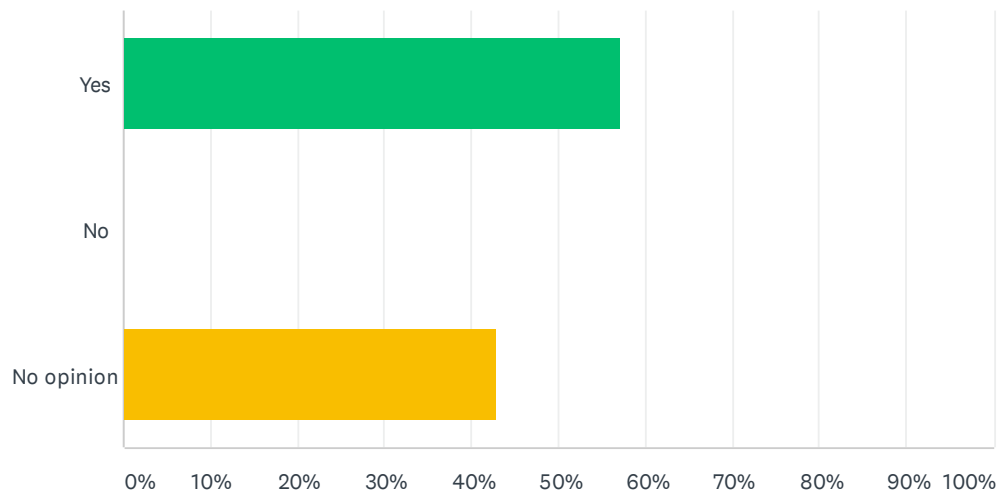Answered: 29   Skipped: 21

ANSWER CHOICES	RESPONSES	
Yes	13.79%	4
No	62.07%	18
If yes, which frameworks, pipeline tools, or task runners?	24.14%	7
TOTAL		29

Q35 Would you prefer to specify all default command options in a single profile?
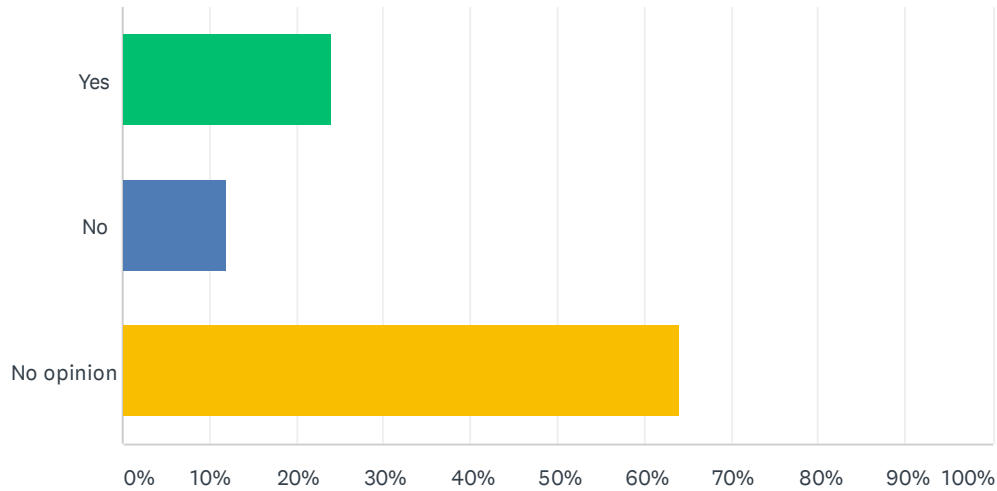
Answered: 28   Skipped: 22

ANSWER CHOICES	RESPONSES	
Yes	57.14%	16
No	0.00%	0
No opinion	42.86%	12
TOTAL		28

Q36 If you are you familiar with the Zowe CLI command option order of precedence, do you see a need to have another level of precedence where you could specify defaults for any command option in a single profile?
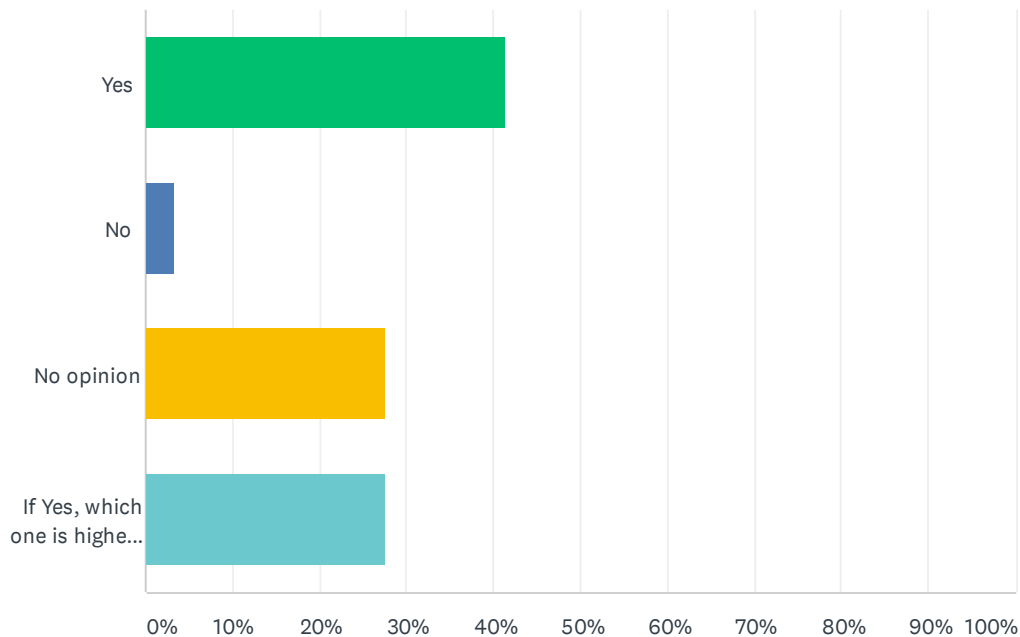
Answered: 25   Skipped: 25

ANSWER CHOICES	RESPONSES	
Yes	24.00%	6
No	12.00%	3
No opinion	64.00%	16
TOTAL		25

Q37 Would you be interested in leveraging Node or Python libraries in scripts for z/OS interaction?
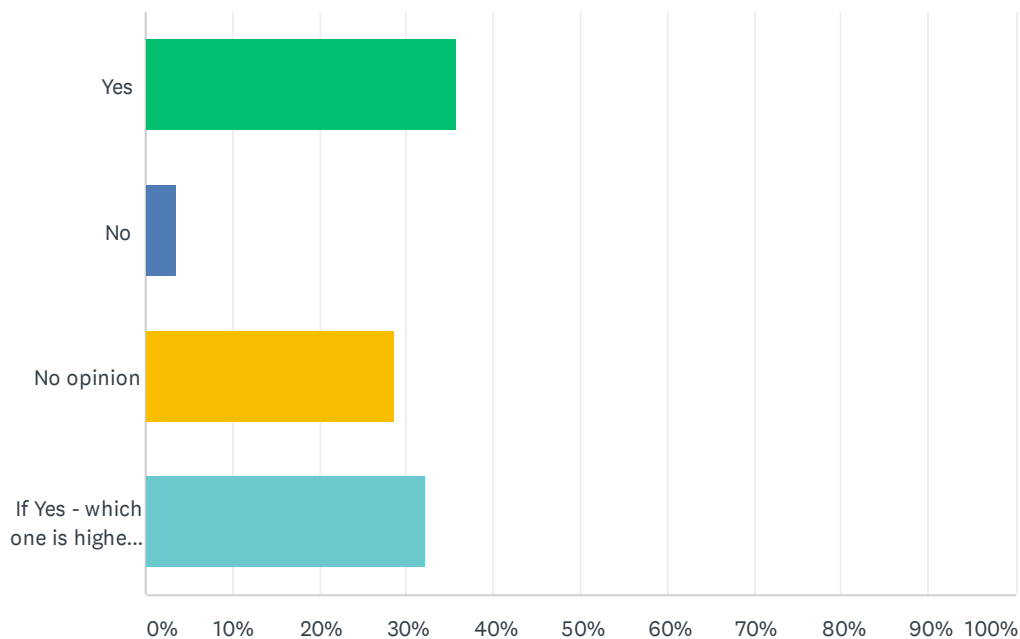
Answered: 29   Skipped: 21

ANSWER CHOICES	RESPONSES	
Yes	41.38%	12
No	3.45%	1
No opinion	27.59%	8
If Yes, which one is higher priority, Node or Python?	27.59%	8
TOTAL		29

Q38 Would you be interested in leveraging Node or Python libraries in applications for z/OS interaction?
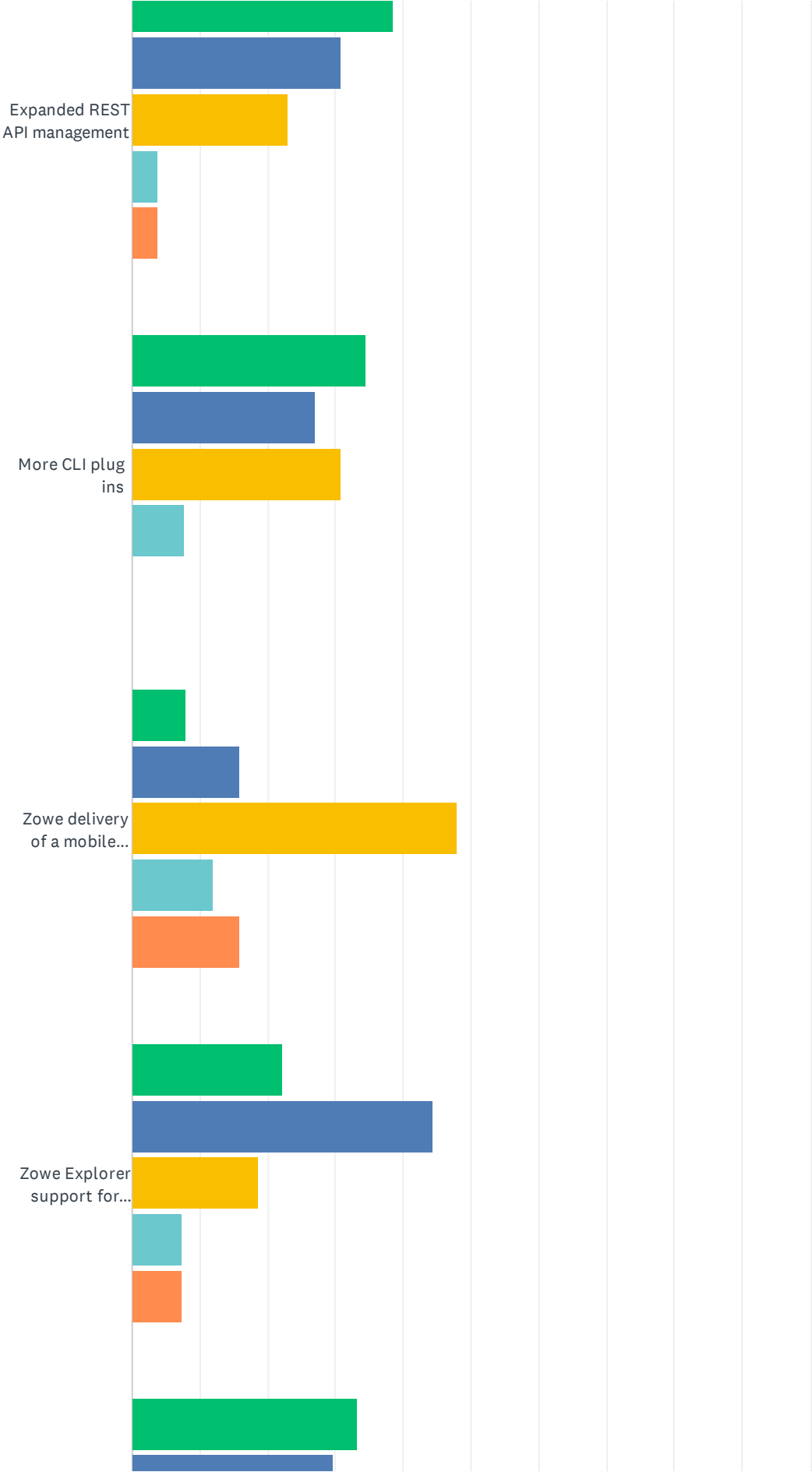
Answered: 28   Skipped: 22

ANSWER CHOICES	RESPONSES	
Yes	35.71%	10
No	3.57%	1
No opinion	28.57%	8
If Yes - which one is higher priority, Node or Python?	32.14%	9
TOTAL		28

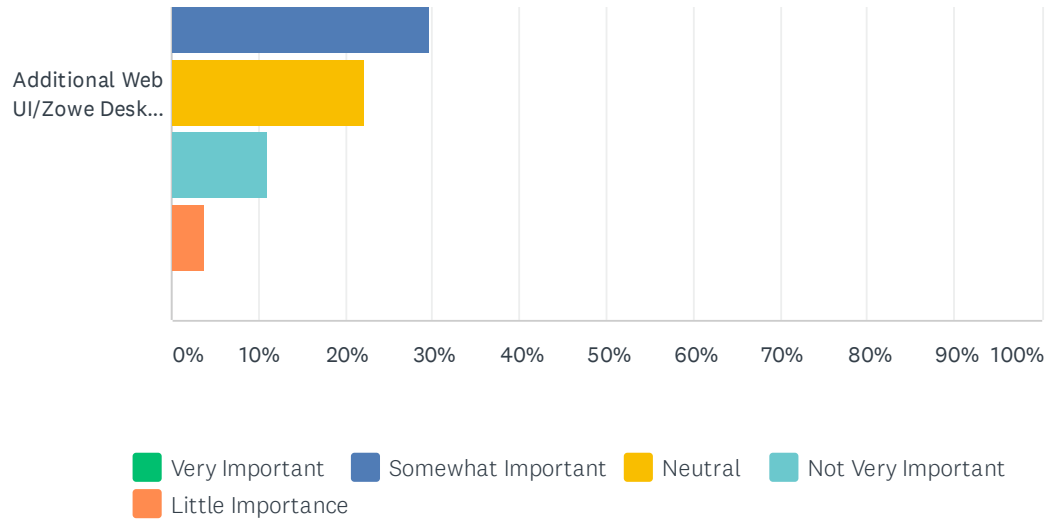## Q39 Please comment in the importance of these possible directions for Zowe

Answered: 27   Skipped: 23

Feedback on Zowe Development Directions for 2H 2020

Expanded REST
API management

More CLI plug
ins

Zowe delivery
of a mobile…

Zowe Explorer
support for…

Feedback on Zowe Development Directions for 2H 2020

Legend: Very Important · Somewhat Important · Neutral · Not Very Important · Little Importance

	VERY IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	NOT VERY IMPORTANT	LITTLE IMPORTANCE	TOTAL
Expanded REST API management	38.46% 10	30.77% 8	23.08% 6	3.85% 1	3.85% 1	26
More CLI plug ins	34.62% 9	26.92% 7	30.77% 8	7.69% 2	0.00% 0	26
Zowe delivery of a mobile application	8.00% 2	16.00% 4	48.00% 12	12.00% 3	16.00% 4	25
Zowe Explorer support for additional IDEs (other than VS Code)	22.22% 6	44.44% 12	18.52% 5	7.41% 2	7.41% 2	27
Additional Web UI/Zowe Desktop apps	33.33% 9	29.63% 8	22.22% 6	11.11% 3	3.70% 1	27