

## Questionnaire – Demographic Questions

1. What is your current role in the company?

CTO

2. What kind of tasks do you usually do in your work?

we do regular reviews of our deployments and say, configuration and deployment as code.

we do with this kind of manual reviews.

3. Given enough time, can you understand the architecture of an application system that is described using an IaC script of an IaC technology you are familiar with?

Yeah

4. For how many years have you worked on tasks associated with IaC tools?

10 years

5. How large is the company you currently work for?

<50

## Questionnaire – Compliance Rule Modeling and Checking

6. How do you check the compliance of the software applications of your company?

we do it manually.

7. Do you use well-defined models for the compliance rules applicable to the software applications of your company?

a) If so, how do you define them?

8. Do you think having a well-defined and machine-readable format for compliance rules reduces the complexity associated with checking them?

So, with the whole process of course, of course, you would be, at least there would be a huge potential that it reduces compliance reduces

9. Do you think having a well-defined and machine-readable format for compliance rules reduces the uncertainty associated with interpreting them?

Reduces, yes.

10. How often do you have to deal with new compliance rules?

All the time, this changes, but not monthly or yearly.

Maybe yearly, yes, but then one flips out and another points steps in also.

11. How much do you agree with the following statement: *using IACMF reduces the effort associated with defining and checking compliance rules?*

Yeah, totally agree.

12. How much do you agree with the following statement: *using IACMF reduces the complexity associated with defining and checking compliance rules?*

It always depends on the size of course of the system.

If I have a word application, it wouldn't.

Of course, it wouldn't reduce the effort, because, well, I've seen one glimpse of what's going on there.

If I have a huge system consisting of multiple components, of course, this would be...

13. How much do you agree with the following statement: *using well-defined models for compliance rules reduces the uncertainty associated with interpreting them?*

now we assume you already have it.

Yeah.

I totally agree.

## Questionnaire – Architectural Reconstruction

14. How do you reconstruct the architecture of running application instances you need to understand?

First of all, I would, I would search for a kind of a deployment model to understand, well, which components aren't deployed.

Where and how and how do they communicate, how are they configured, ideally, because also deployment to be also contained.

Configuration stuff, of course.

And then, of course, also, I would also have a look at a resource code level.

Depending on how the system is built, because what might be, you could have kind of a monolith, which might be deployed in several instances.

And maybe then you would have a kind of a, say, gateway in front of them as a facade and different instances deal with different capabilities of the whole thing.

Things like that.

I would also have a look at the source code to investigate how things are implemented, how things are separated to then, of course, reconstruct the overall architecture.

15. Do you use any (semi-)automated tools for this purpose?

Helm, Kubernetes

16. How much do you agree with the following statement: *using IACMF reduces the effort associated with reconstructing the architecture of running application instances?*

This would be, then in this case, it would reduce the effort dramatically, of course.

## Questionnaire – Compliance Violation Fixing

17. What do you do if you find out that a running application instance violates a compliance rule?

Then you have to distinguish between, let's say, architectural stuff because then you, of course, you had to refactor somehow your application, followed in your guidelines.

And then, of course, this would be development, the design and development and new releases, et cetera.

And if you could, of course, fix it while adapting the configuration.

This is, yeah, then I did all depending on the automation of everything.

18. Do you use any (semi-)automated tools for this purpose?

20. How much do you agree with the following statement: *using IACMF reduces the effort associated with fixing compliance violations?*

Well, again, if you have dozens of systems, yes, it reduces effort immensely.

If you have just one little system, if you have to put in more effort into defining this compliance rules, then develop a system you want.

That's the point.

So, in general, if you consider medium and to large systems, totally agree.

21. How much do you agree with the following statement: *having well defined models for compliance jobs reduces the uncertainty associated with handling detected compliance violations?*

I think, yes, in the long term, this is somewhat similar to test room development.

Sometimes you feel very, very safe if you conduct a test room development.

But if you oversee that you have extremely poor tests, I don't mean test coverage.

You could have 100% test coverage, but you test the wrong things.

Then what's the point?

And it feels very safe, but it isn't, because you missed out many, many edge cases.

So, and this is kind of similar here.

I think in the long run, you will establish definitely certainty.

## Questionnaire – General Questions

22. How do you evaluate the novelty of the framework?

For me, it's new because I didn't have a dignity to this kind of compliance check.

23. How do you evaluate the extensibility of the framework?

It is an absolute requirement.

24. Would you use the framework in your work?

I mean, why not?

Again, this is the same what I mentioned before.

The tooling is good and mature enough, yes.

If the framework is a good idea, but you have really poor tooling, no.

a) If so, in which areas?

25. What is your general impression?

I like it. I like the idea in general.

And really, I think if you have to maintain huge systems or also huge fleets of systems, I think this is essential.

So I guess for huge companies, this is essential.