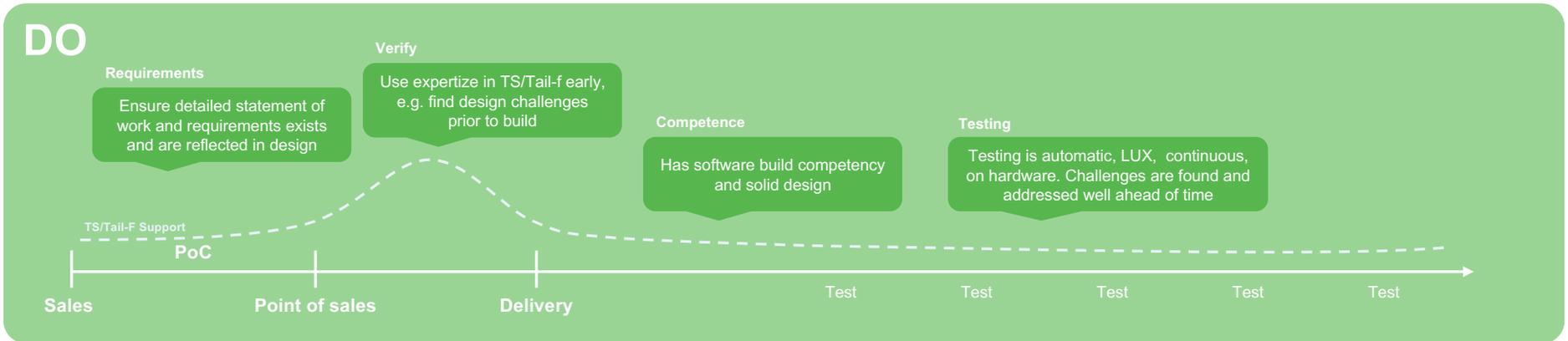




# Guiding principles for NSO Delivery Projects

# Avoid the red whale!



# 10 guiding principles for NSO delivery projects

*Click on a topic in presentation mode to get more information*

Ensure the right team competence

1

Manage customers expected detail outcome and collect detailed input data

2

Use Tail-f to verify design

3

Set up the right test structure for your code

4

Involve tail-f NED team for NED code changes

5

Involve Tail-f NED team in discussion regarding NED requirements early

6

Reach out for support at signs of trouble

7

Delivery in sprints and continuous testing is key

8

Apply automatic testing

9

Continuous performance, load and scale testing

10

1

## Ensure that your team has the right competency and have strong software development skills

**Why:** Lack of competency creates problems down the line and causes delays of delivery. Ensure you have the proper team setup from the beginning, both PM and rest of the team

**Recovery:** If you notice that you have inappropriate resources late, reach out e.g. to other partners who might be able to step in and assist

**More information:** [Roles and Skills matrix](#)

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## Know and manage the customer's expected detailed outcome and contributions.

**Why:** Customer's original considerations may lack sufficient detail and create misunderstandings. By ensuring the customer fully understands what they need to contribute, both relating to detailed input and environment, you can help trigger important discussions and resolve potential challenges early.

**Recovery:** Even if late, get detailed outcome requirements and clearly specify what the customer needs to do.

**More Information:** Customer Onboarding Document (coming soon)

## Utilize Tail-f Solution Architects as verifiers of design

**Why:** Wrong design decisions are very difficult and costly to solve later in the project

**Recovery:** Sadly, if design challenges are found late it may require a full escalation to key SMEs and you risk not reaching your go-live date. Make sure you check your design early.

**More Information:** Contact Your Project Partner

4

Set up the right CI/CD infrastructure that allows for code revision control (e.g. GIT), automatic testing and continuous integration (e.g. Jenkins and Lux)

**Why:** Without the appropriate infrastructure you will lack the capability to apply automatic testing, continuous integration as well as do full scale testing. This increases the risk that you will discover issues late in the delivery process

**Recovery:** If you notice this late, try to correct your setup as soon as you can.

**More information:** [Application Development Lifecycle Guidance](#)

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NED code changes are to go through Tail-f who will do a quick turn around in 1-2 weeks

**Why:** NED changes are included in the NED license cost. Changing the code oneself will likely cost time due to parallel development where things may fail. You will also lose future support.

**Recovery:** If you have already changed NED code, reach out to the NED team, but be aware that some of your time may already have been lost.

**More Information:** [NED Support Process Documentation](#)

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## Involve NED team regarding requirements that come up during test case creation

**Why:** If you involve the NED team too late you risk delays

**Recovery:** If you missed involving the NED team early, please involve them as soon as possible. Also, please ensure that you have all the required information from the customer to make the process as efficient as possible

**More Information:** [NED Support Process Documentation](https://communities.cisco.com/docs/DOC-71777)

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At signs of trouble, engage with the support team – they are here to help\*

**Why:** Identifying design and performance related issues late in the project will often mean that key challenges are not solved in time, resulting in escalations and potential delivery failure.

**Recovery:** Reach out, even if serious issues are found late in the game. But be aware that this may limit the available options. Use the trouble shooting guide to make sure all information is supplied up front.

**More information:** [Support Process Summary](#)

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\*Cisco TAC is available to customers that have purchased NSO with a support contract. AS is encouraged to use the customer's contract for support

8

Develop end to end services from sprint one to directly test and interact with all parts of the architecture (ensure you work with the real customer configuration)

**Why:** You want to deliver and fail fast to get the solution ready. Otherwise you may deliver, fail late, and simply fail. By moving in quick cycles you can discover what you need to test and test better, thus ensuring delivery success.

**Recovery:** If you fail late, redo and do it right (this may pose a larger challenge, however)

**More information:** [Application Development Lifecycle guidance documentation & CI/CD Test Guidance](#)

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## Apply automatic testing and continuous integration to quickly test even the smallest changes

**Why:** Lacking automatic testing and continuous testing from day one can make the cost of making changes very high.

**Recovery:** Even if you realize that you need this later into the project, explore if you can set up the right infrastructure as it can save cost related to changes down the line

**More information:** [Application Guidance Documentation](#) & Automated Test Guidance (coming soon)

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## Ensure continuous performance, load and scale testing (deployment with scale and real customer config)\*

**Why:** Not doing proper performance, load and scale testing at appropriate scale and with real customer configuration can make you miss critical/showstopper defects prior to the go-live stage.

**Recovery:** Please ensure that you perform the appropriate testing. Once you are live, the defect is a real error.

**More information:** [Performance and Scale Documentation](#)

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\*Should be automatic as part of the CI/CD chain (as mentioned previously)

