

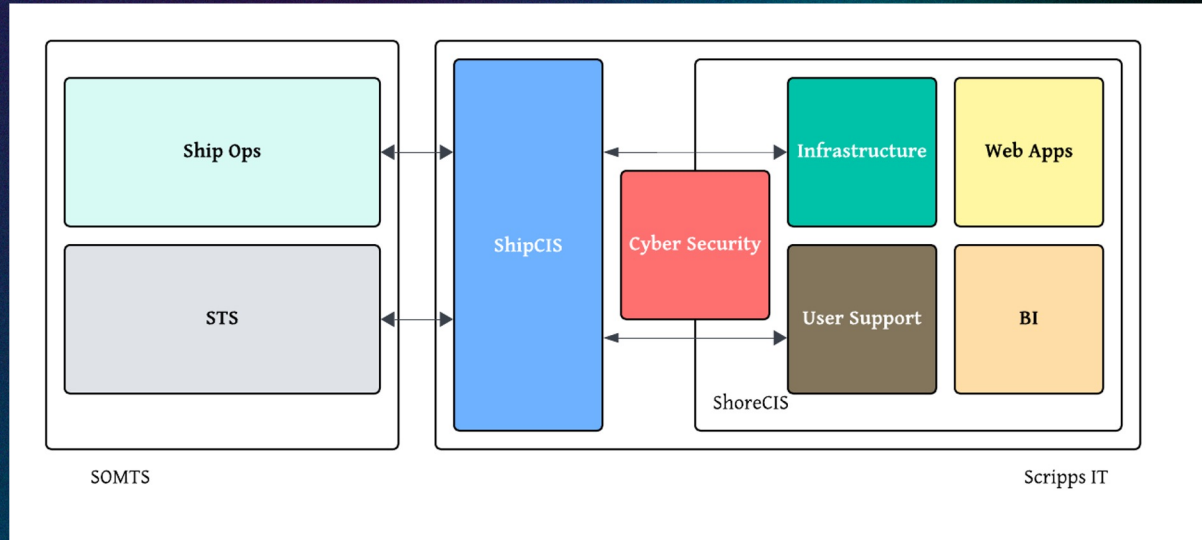
IT TAKES A **VILLAGE** TO DEFEND IN DEPTH



6 NOV 2025
RVTEC

Ezra Van Everbroeck
Scripps IT

ShipCIS in Context



Driving Factors (Technology)

Increasing technology (IT & OT) on the ships

- Raw number of devices
- Dependencies on the services

Driving Factors (Technology)

Increasing technology (IT & OT) on the ships

- Raw number of devices
- Dependencies on the services



Increased bandwidth for the ships

- Inbound attacks more likely
- Outbound activity more problematic

Driving Factors (Technology)

Increasing technology (IT & OT) on the ships

- Raw number of devices
- Dependencies on the services



Increased bandwidth for the ships

- Inbound attacks more likely
- Outbound activity more problematic



Increased attack surface

Driving Factors (Compliance)

Formal requirements are coming from multiple sources:

- USCG ABS
- Operator institution
- Sponsors
- Science party

Driving Factors (Compliance)

Formal requirements are coming from multiple sources:

- USCG ABS
- Operator institution
- Sponsors
- Science party

Cyber Risk Management Plans cover a lot of ground

- Device inventory
- Logging and monitoring
- Account management
- Protection agents
- System management tools
- Data protection and backups
- Patching schemes
- Firewalls
- Incident response and recovery

Driving Factors (Compliance)

Formal requirements are coming from multiple sources:

- USCG ABS
- Operator institution
- Sponsors
- Science party

Cyber Risk Management Plans cover a lot of ground

- Device inventory
- Logging and monitoring
- Account management
- Protection agents
- System management tools
- Data protection and backups
- Patching schemes
- Firewalls
- Incident response and recovery

For IT, OT and/or networking devices

Driving Factors (Compliance)

Formal requirements are coming from multiple sources:

- USCG ABS
- Operator institution
- Sponsors
- Science party

Cyber Risk Management Plans cover a lot of ground

- Device inventory
- Logging and monitoring
- Account management
- Protection agents
- System management tools
- Data protection and backups
- Patching schemes
- Firewalls
- Incident response and recovery

For IT, OT and/or networking devices

“Maturity” demands policies, procedures and lots of documentation



Other Considerations



This is a lot of work with limited benefit for science

Other Considerations

This is a lot of work with limited benefit for science

All operators need to solve these problems



Other Considerations

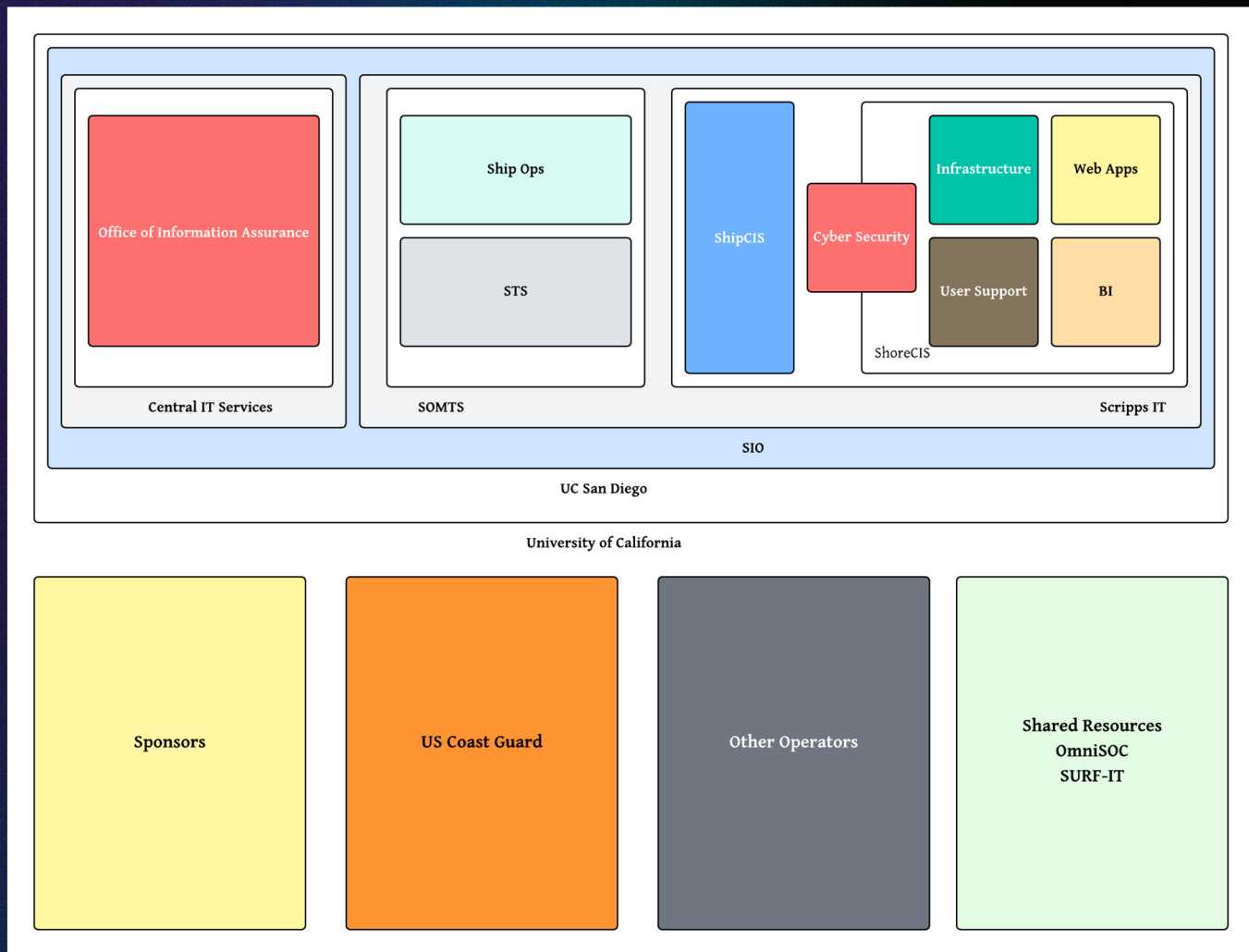


This is a lot of work with limited benefit for science

All operators need to solve these problems

Cybersecurity is not unique to ships

ShipCIS in More Context



Enough
with the
PSA

Why I Really Care (And You Should Too)

We are here to support the science

Why I Really Care (And You Should Too)

We are here to support the science

Cyber security problems interfere with science

Why I Really Care (And You Should Too)

We are here to support the science

Cyber security problems interfere with science

Which impacts our researchers

Why I Really Care (And You Should Too)

I am here to support the science

Cyber security problems interfere with science

Which impacts my researchers

And affects my unit's funding

Why I Really Care (And You Should Too)

I am here to support the science

Cyber security problems interfere with science

Which impacts my researchers

Which I need to report per regulations

And affects my unit's funding

Why I Really Care (And You Should Too)

I am here to support the science

Cyber security problems interfere with science

Which impacts my researchers

Which I need to report per regulations

And affects my unit's funding

Or risk my unit's funding

Why I Really Care (And You Should Too)

I am here to support the science

Cyber security problems interfere with science

Which impacts my researchers

Which I need to report per regulations

And affects my unit's funding

Or risk my unit's funding

... but my researchers are on your ships (and vice versa)

Please protect my researchers on your ships

I promise to protect yours

Please protect my researchers on your ships

I promise to protect yours

THANK YOU

Ezra Van Everbroeck
ezra@ucsd.edu