

DoD Maintenance Symposium and Exhibition
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Future Maintenance Concepts for Land Systems

Telemaintenance



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22.11.2007

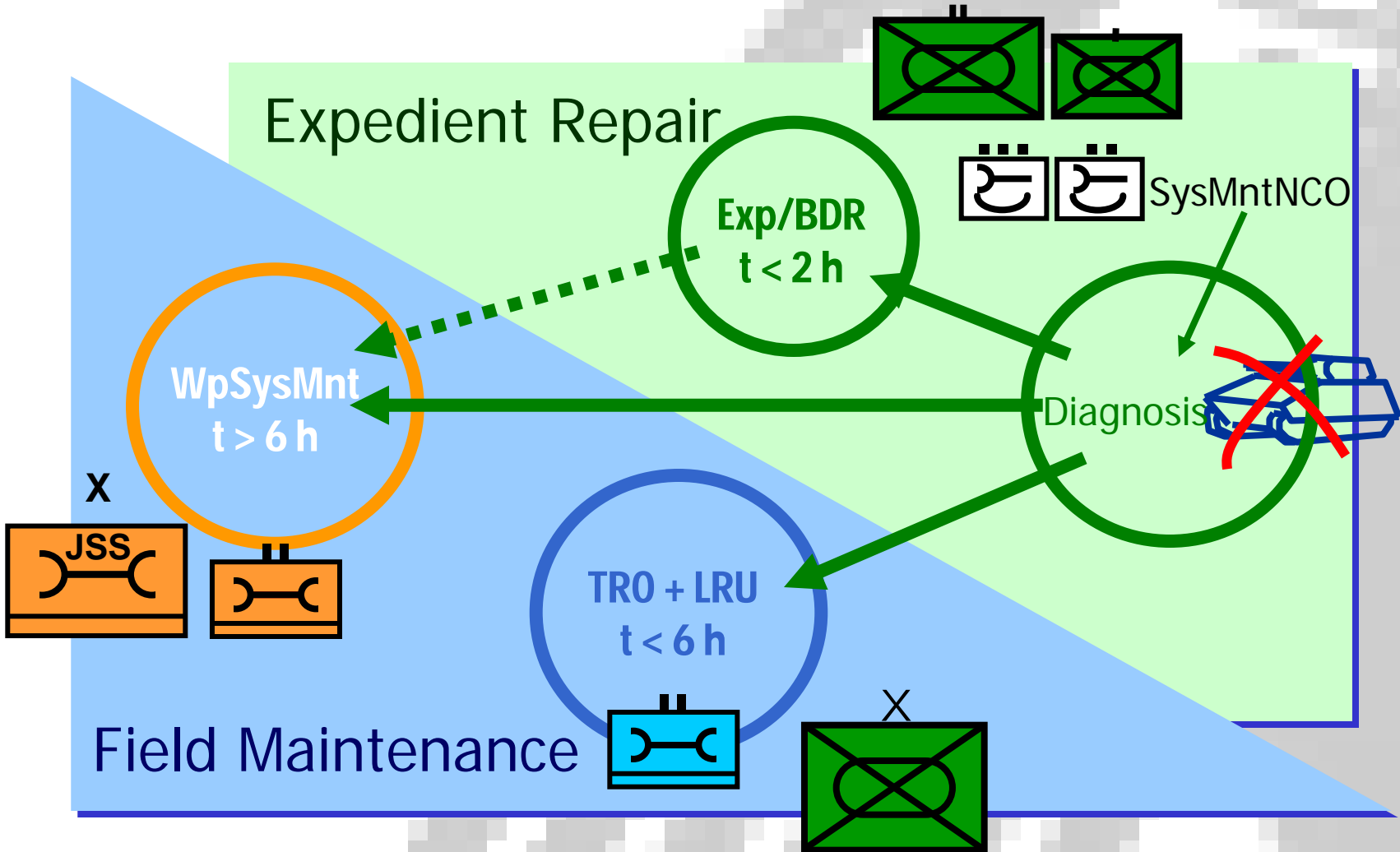
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GEAR Field Maintenance Posture





Field Maintenance Challenges in Current Operations (1)

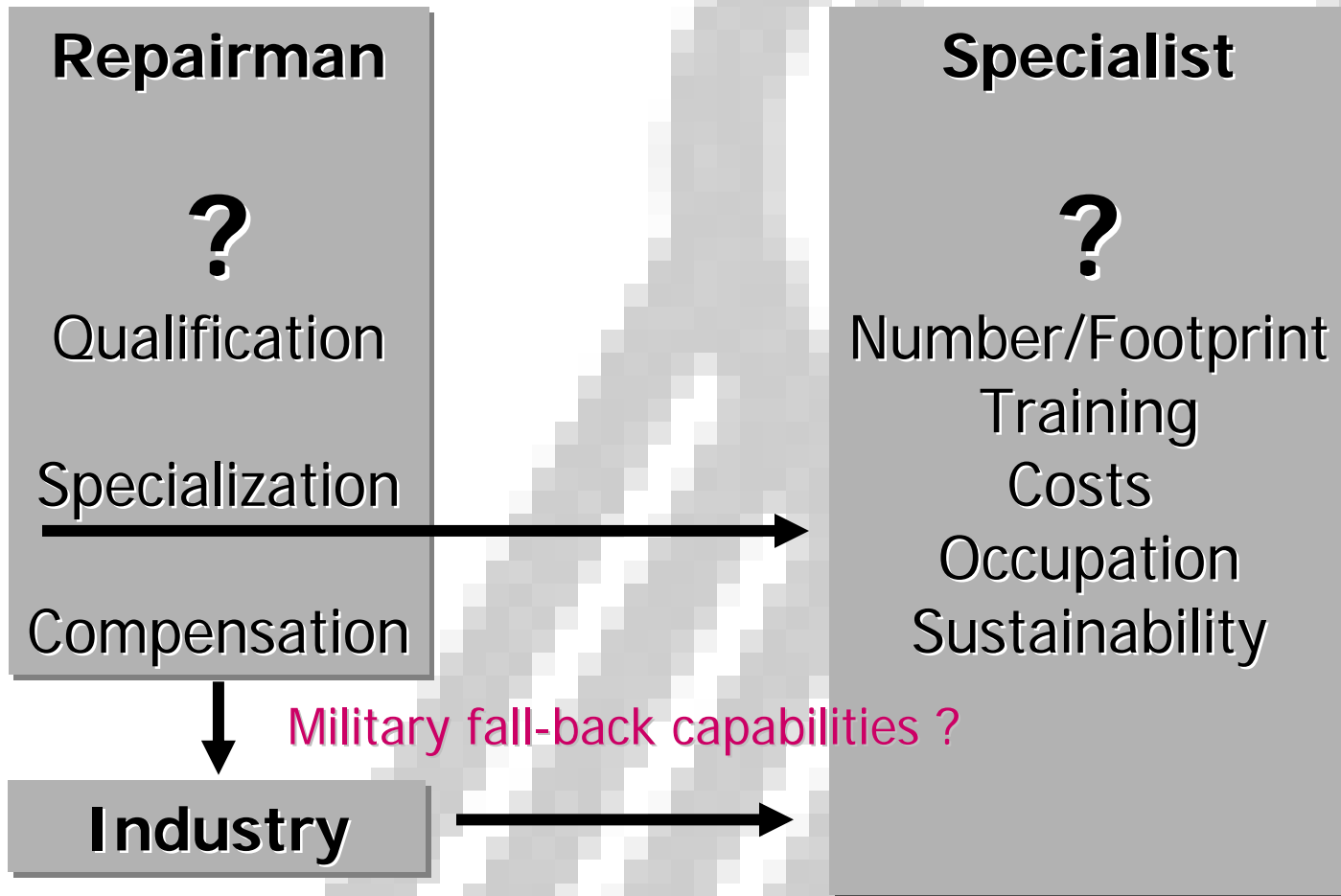
- front line support
- environmental conditions
- operational requirements (e.g. time)
- readiness requirements
- inappropriate use of equipment
-



Field Maintenance Challenges in Current Operations (2)

- Land systems diversity
- Small numbers
- Complex Technology
- Aged beside new land systems
- Life Cycle extension/aging products
- UOR > MOTS products
- COTS products
-

Field Maintenance Challenges in Current Operations (3)





Make your well trained repairman a specialist through the provision of expert knowledge from the outside just as needed in time!



Telemaintenance



Smart Approach to Field Maintenance

Foresighted log support

PROGNOSIS

MONITORING

Permanent health status
monitoring



DIAGNOSIS

Exact fault isolation;
Quick decision on scope
and place of repair

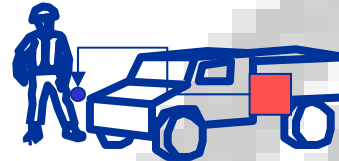
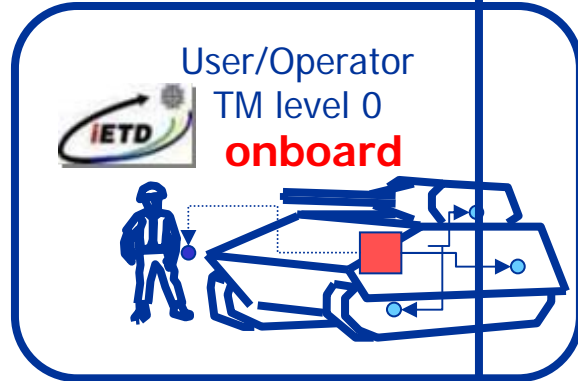
REPAIR

Rapid and targeted repair
with little personnel

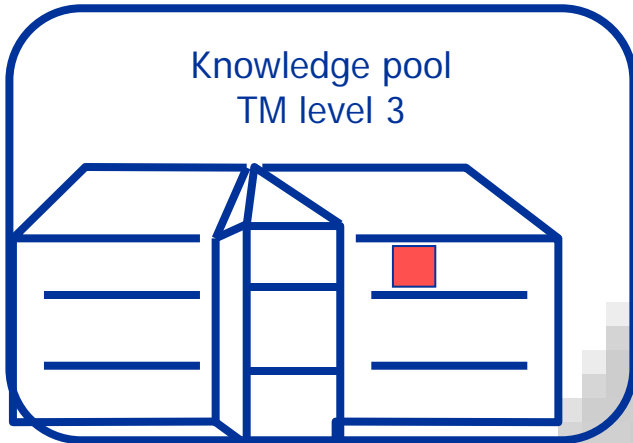
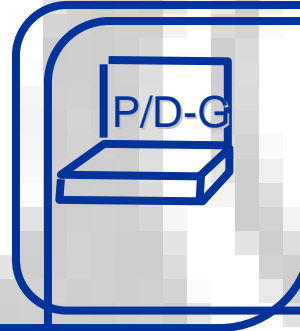
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Telemaintenance Sketch

Sys Maint & Mtr Sgt and
BDR/Maint Team
TM level 1b



MobileEngine

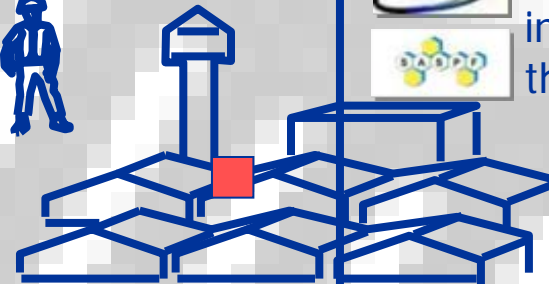


back end



Server

Knowledge pool
TM level 3

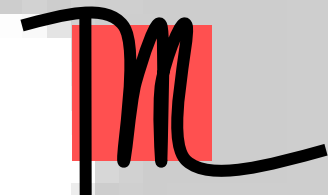


on site

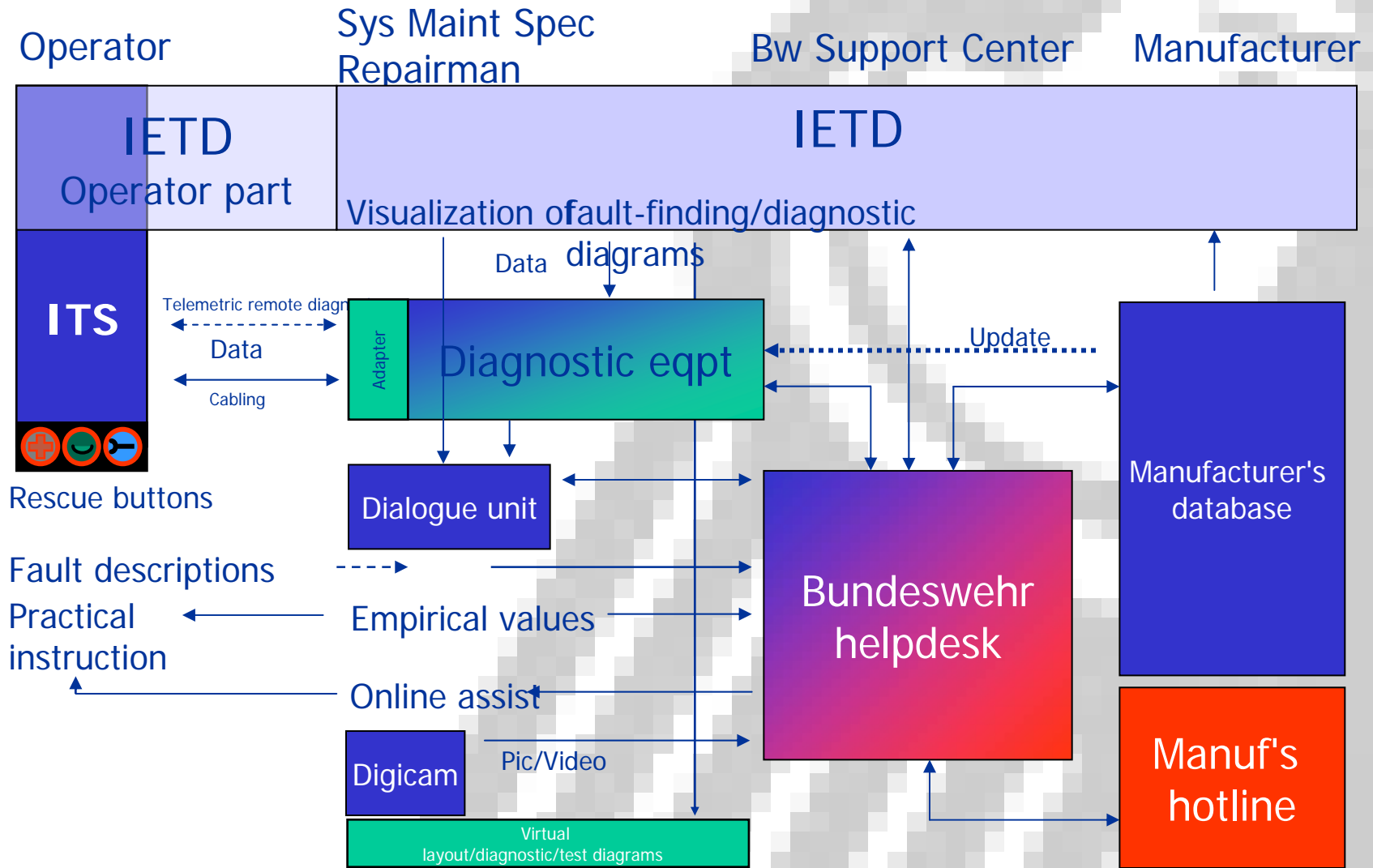


Server
in
theater

Manufacturer; TM level 4

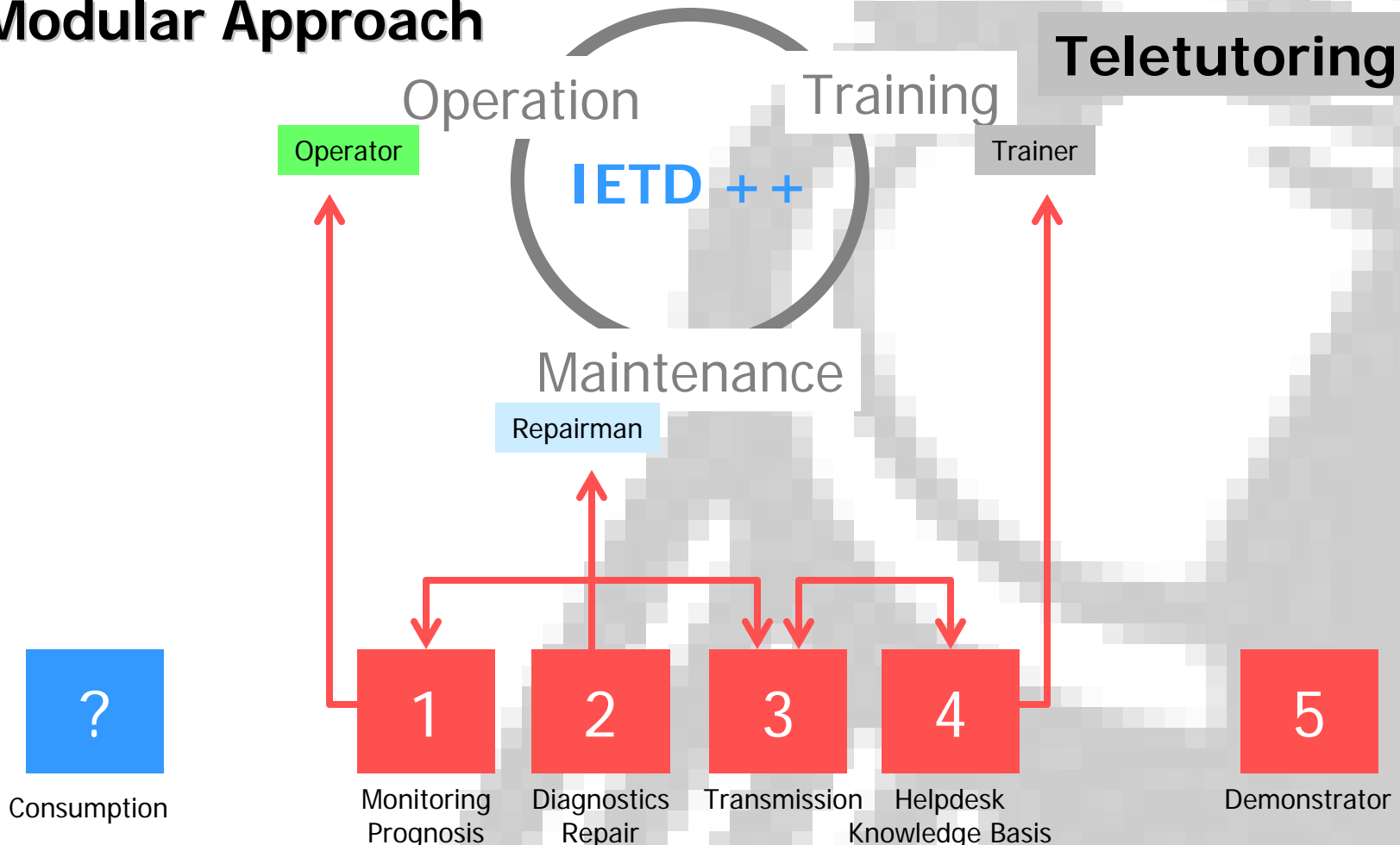


Telemaintenance Functional Model





Modular Approach



Teletutoring

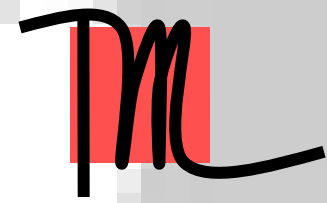
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Consumption

„Telemaintenance“
 Expertknowledge for the Professional

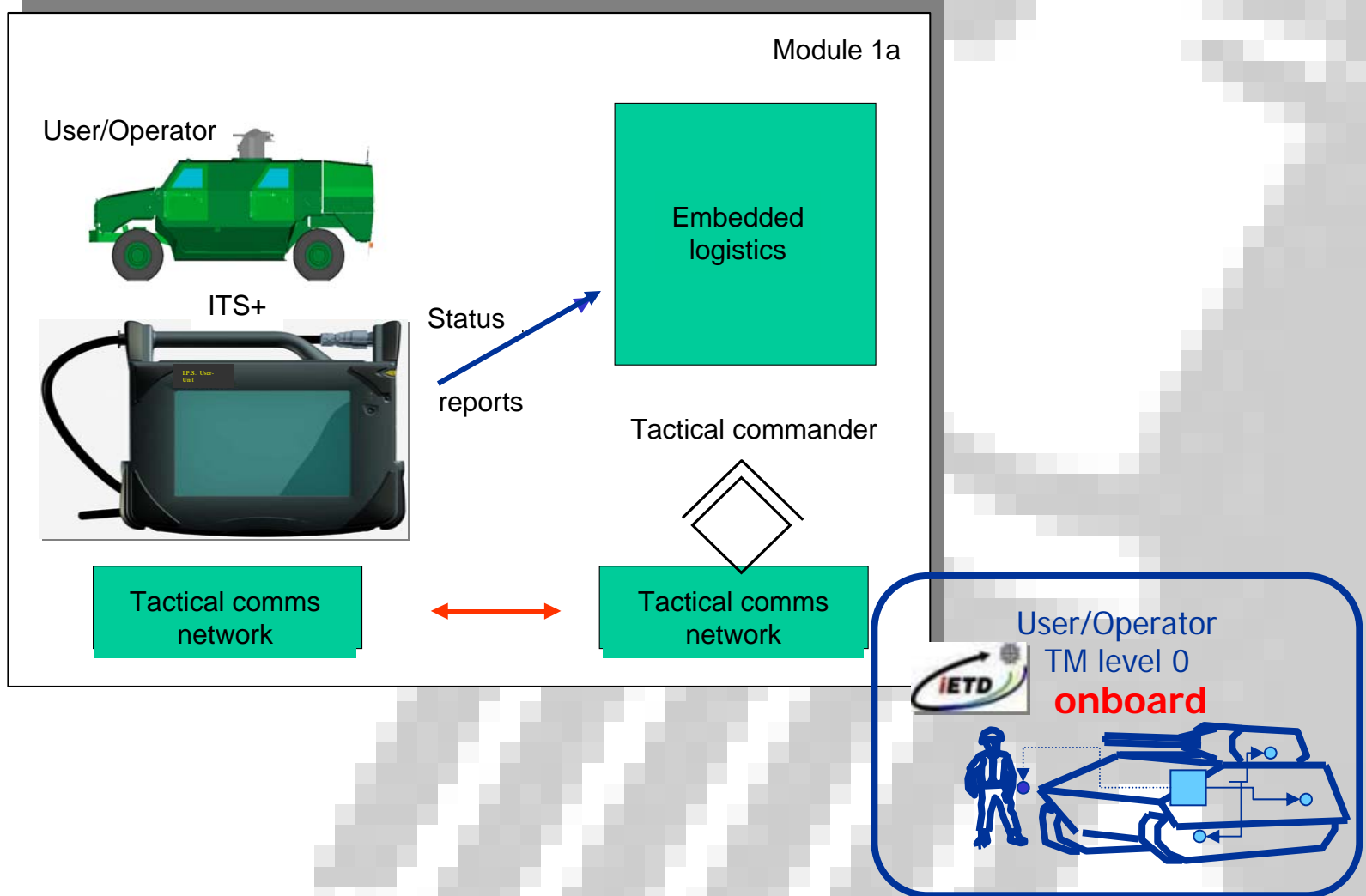
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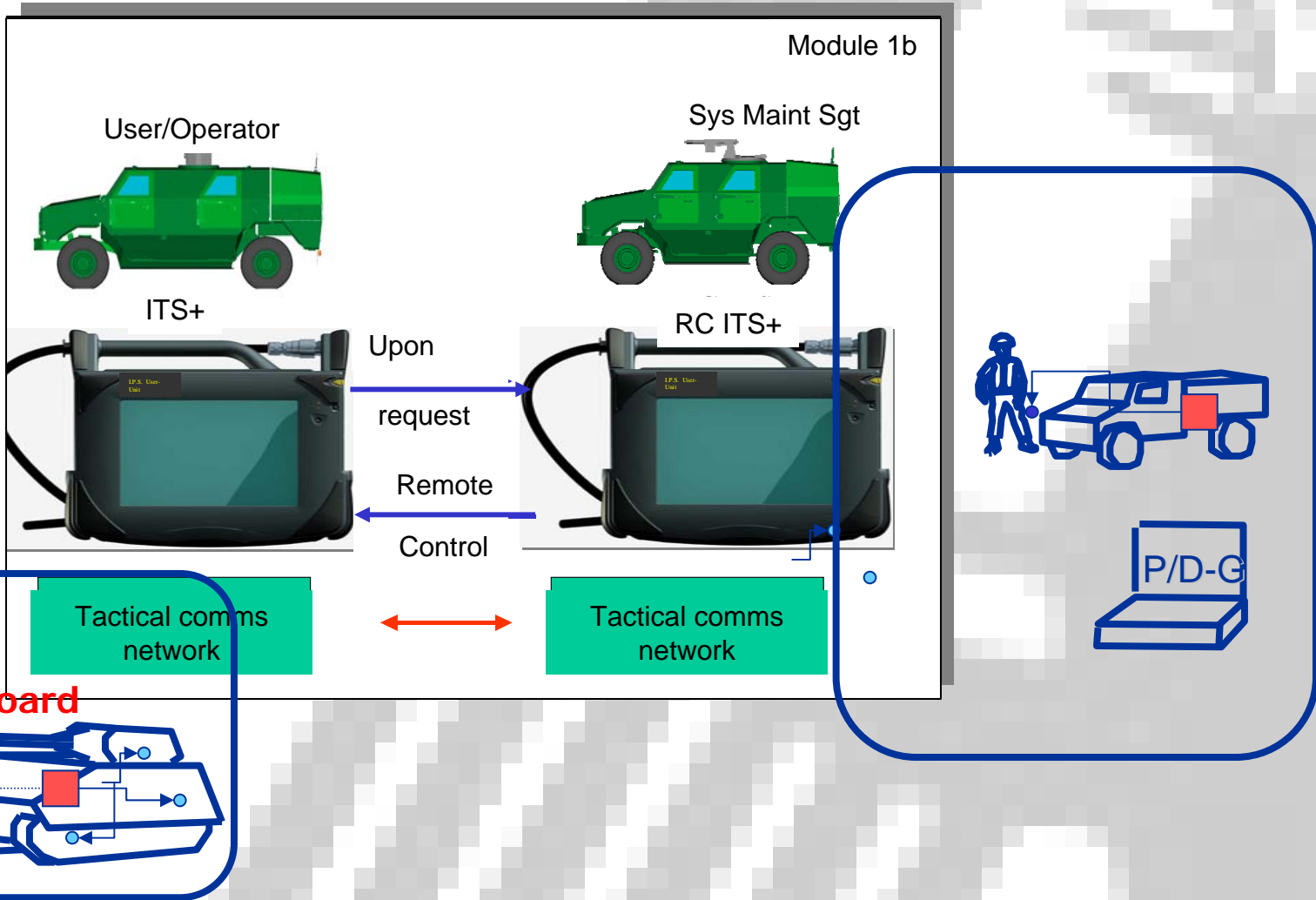


Module 1A: Monitoring and Prognosis



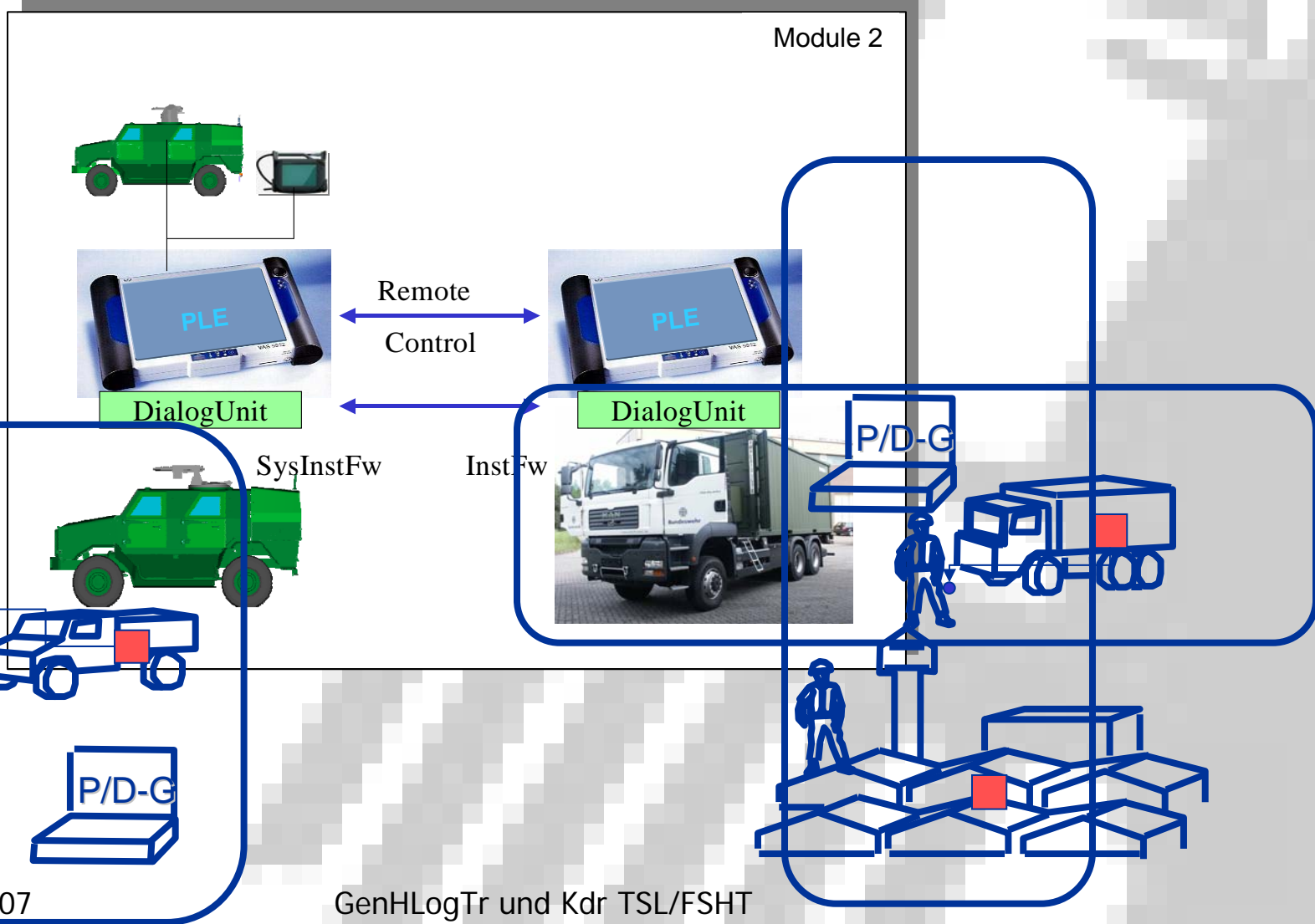


Module 1B: Monitoring and Prognosis



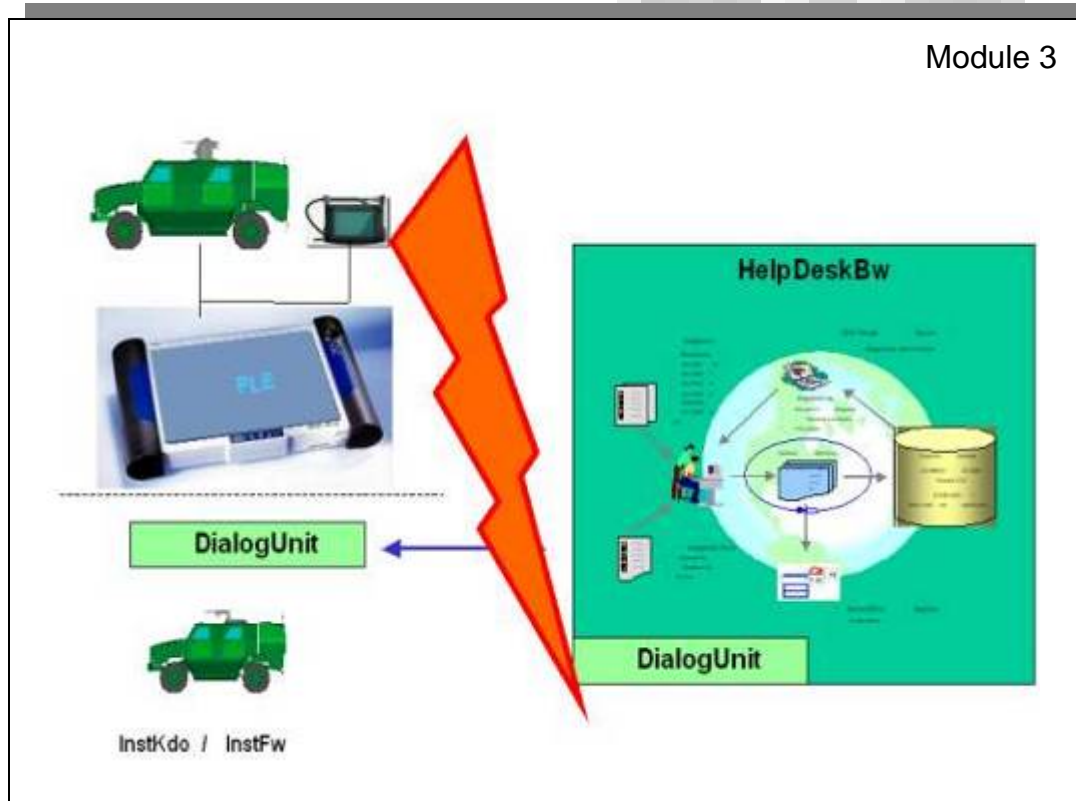


Module 2: Diagnostics and Maintenance



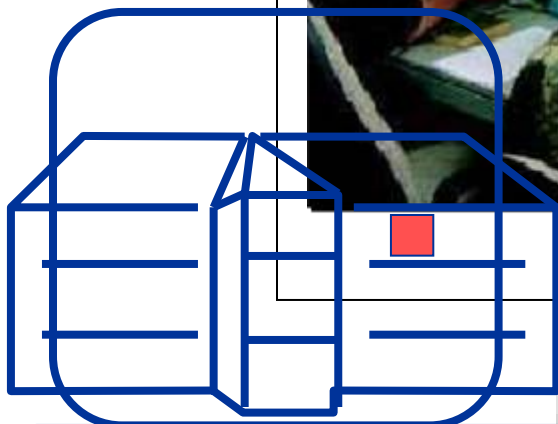
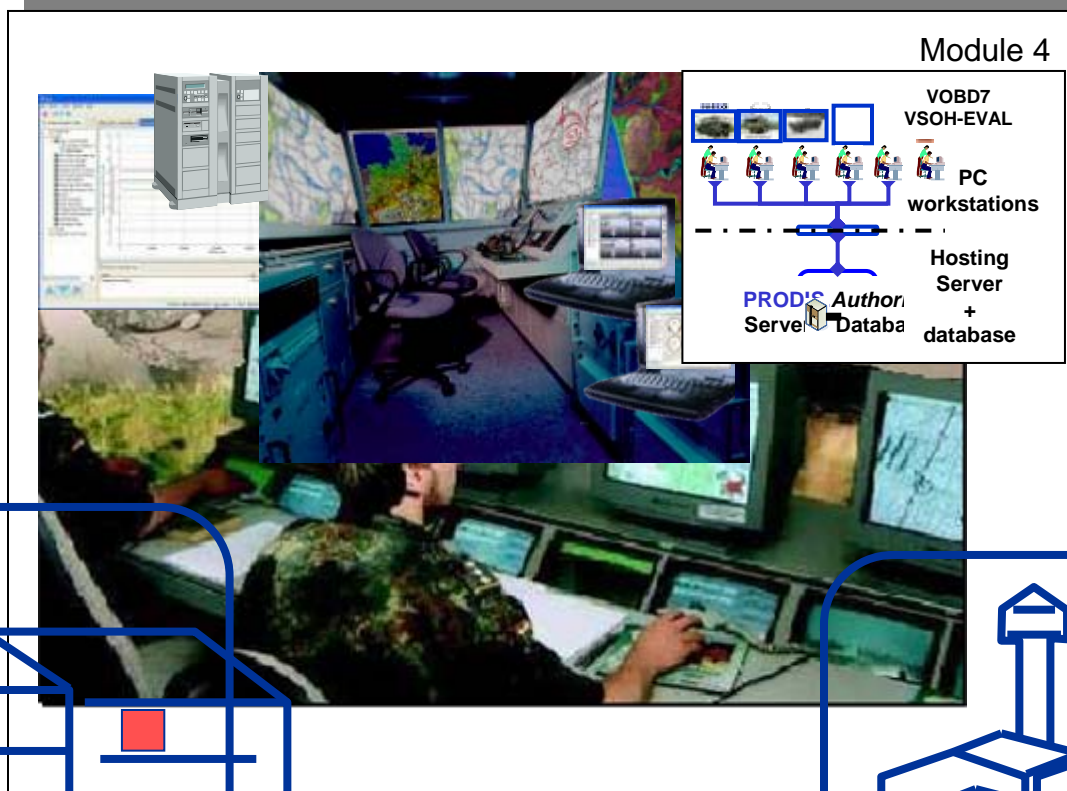


Module 3: Transmissions

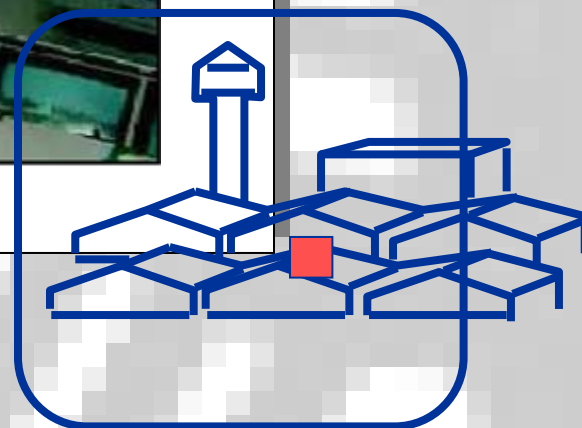




Module 4: Helpdesk and Knowledge Database



Manufacturer; TM level 4





Module 5: Operational Demonstrator

- Gain experience
- Collect data on Comms
- Fine tune project
- Build-up expert knowledge





Telemaintenance

Way Forward

- Telemaintenance enters CPM Process;
- Telemaintenance components to be fielded to ISAF;
- Work on operational telemaintenance demonstrator to be continued;
- Telemaintenance capabilities integrated into new products, such as BOXER, PUMA;
- Knowledge management to be studied;
- ‚Future Repairman concept‘ to be developed.



Telemaintenance

- The future project of the GEAR Maintenance Corps
- The core element of the 'Future Repairman Concept'
- Will revolutionize the approach to training and to the repair of complex materiel



Logistic
Capabilities

Military fall-back capabilities

Logistic
Footprint



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