



Remote Maintenance

Management of shipboard IT infrastructure from shore

Reinhold Lüppen

Director Value Added Services & Maritime Products





Agenda

- ✓ Why Remote Maintenance ?
- ✓ How Remote Maintenance works
- ✓ How expensive is Remote Maintenance ?
- ✓ Customer cases
- ✓ Conclusion



Why Remote Maintenance

- ✓ more expertise needed to operate a fleet
 - ✓ cost pressure to optimize operation processes
 - ✓ processes more complex
 - ✓ more land&ship-based specialized IT-systems

- ✓ less onboard expertise possible
 - ✓ captain cannot be also an IT-expert
 - ✓ onboard IT-experts are expensive
 - ✓ different special IT-system requiring different expertise



Why Remote Maintenance

✓ Upcoming solution:

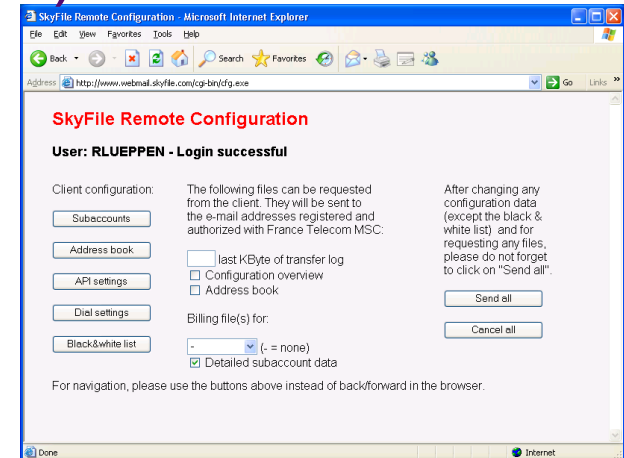
Outsourcing of onboard activities & expertise towards land-based specialists

➡ **Remote Maintenance / Remote control**



How RM works

- ✓ Database synchronisation (e.g. API)
 - ✓ with ship-management systems some elements are outsourced to the land-office
 - ✓ SpecTec Maintenance & Purchase, crew-planning, ...
 - ✓ the databases need to be synchronised with a land-based server
- ✓ Remote Control (e.g. SkyFile Mail)
 - ✓ remote access to onboard email-settings:
 - ✓ adding, changing, deleting onboard-parameters (<5 kBytes)
 - ✓ access to log-files, onboard billing-files



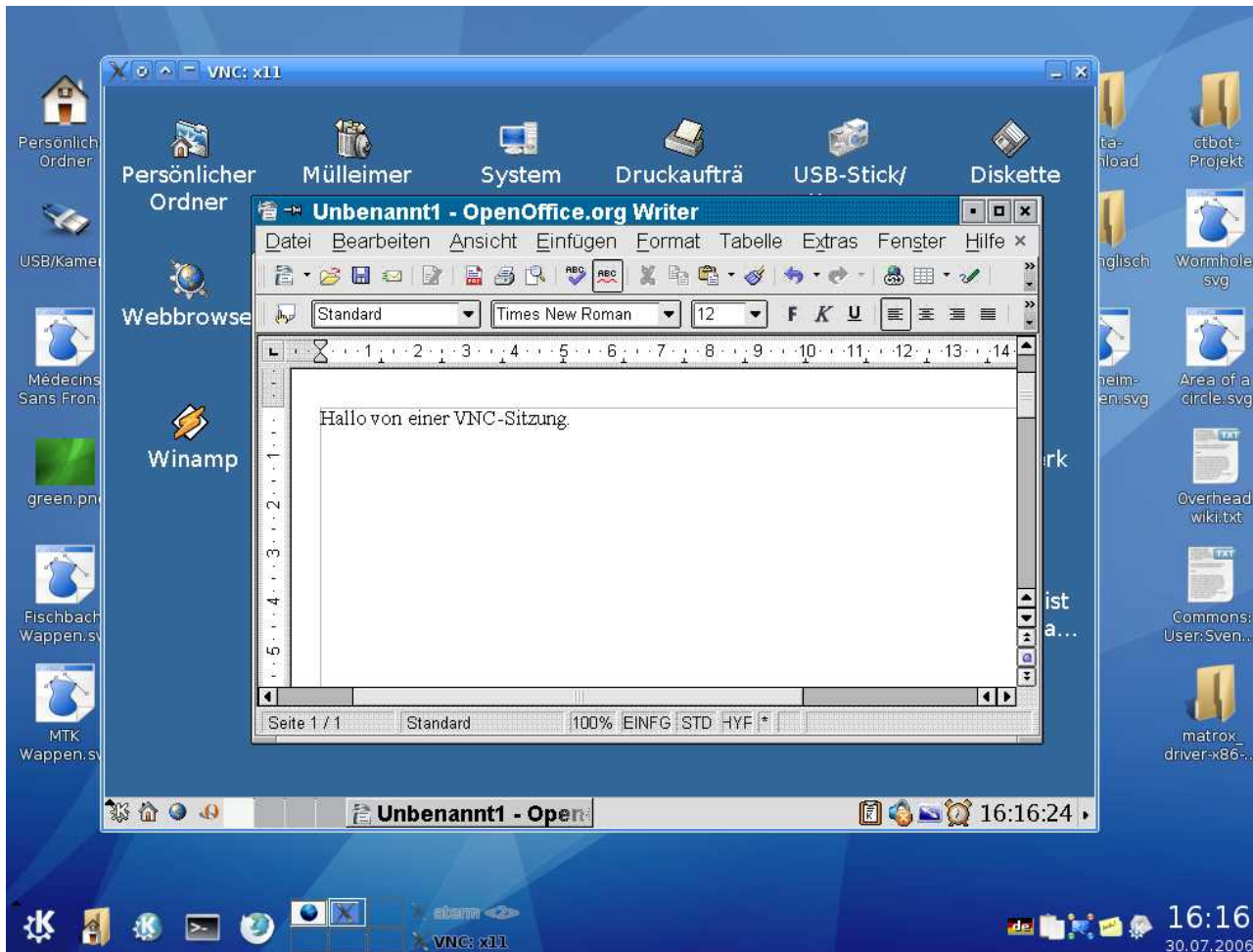


How RM works

- ✓ **Command-Scripts**
 - ✓ remote execution of predefined list of commands
 - ✓ conditional commands possible (if...then...else...)
 - ✓ results, status or error-message are sent back

- ✓ **Remote Maintenance**
 - ✓ gives full real-time access to the onboard PCs
 - ✓ connection to the remote PC in terminal-mode
 - > low bandwidth requirements (>15 kbit/s)
 - ✓ affordable with Inmarsat B-HSD, Fleet-55, Fleet-77

How RM works (terminal mode)



Common RM-tools

- ✓ AnyPlaceControl
- ✓ VNC
- ✓ Citrix Metaframe
- ✓ PC Anywhere
- ✓ NetOp Remote Control



How RM works

✓ Remote maintenance - advantages

The entire onboard IT-system including network, operation system and applications can be maintained or updated from remote

- ✓ without travel costs and wasted time for specialists
- ✓ same number of experts can manage much more vessels, local representatives can be reduced
- ✓ instant help can be given, even if the ship is at sea
- ✓ maintenance can be outsourced directly to the respective expert of the supplier
- ✓ reduced risk that non-skilled “experts” damage the system



How expensive is RM ?

- ✓ Ship in Singapore, IT-provider in Hongkong
- ✓ Expert salary: 100,- US\$ per hour

costs	local expert	supplier expert	remote maintenance
pure problem solving	1 hour	0,5 hour	0,5 hour
busy time (incl. travel)	5 hours	2 days	0,5 hour
expert: salary	500,- US\$	1600,- US\$	50,- US\$
expert: travel expenses	0,- US\$	2000,- US\$	0,- US\$
SatCom costs (Fleet-77)	0,- US\$	0,- US\$	240,- US\$
total	500,- US\$	3600,- US\$	290,- US\$

RM Customer Case



Peter Döhle
Schiffahrts-KG



- ✓ Peter Döhle, 69 vessels, Germany
 - ✓ benefiting from SkyFile Mail “Remote Control”
 - ✓ Mr. Dittmer, IT-manager:

“The SkyFile Mail remote control tool gives us a flexible tool to configure and control the onboard mail-system. Our captains don’t even need to prepare the crew-invoicing anymore. This gives him more time for his original task”



RM Customer Case

- ✓ Stolt-Nielsen, 80 tankers, Netherlands
 - ✓ Benefiting from remote script-based installation plus real-time remote maintenance for fine-tuning
 - ✓ has been used e.g. in urgent case during ship was passing the Suez-Canal
 - ✓ Mr. Tristan Washington
SNTG - Global Solutions Services Group:

Stolt-Nielsen Transportation Group 

“With our script-based update-procedure for our onboard server, we have reduced the time needed for updates from 1.5 man-days to 1/4 man-days. With remote maintenance we can even do the fine-tuning for the server setup. Remote management helps us to manage the increasing number of IT-systems in our fleet without having to increase personnel.”

RM Customer Case



- ✓ Compagnie des Pêches SAINT MALO: Joseph Roty II, France
 - ✓ swimming fish factory
 - ✓ operates at sea up to 6 month without entering a port
 - ✓ remote maintenance of the fish processing system directly by the Scandinavia

An outage of the system would cost considerably more than remote maintenance does!





Conclusions

- ✓ with RM activities and expertise are outsourced towards land-based experts
- ✓ dependent of the complexity of the onboard system RM saves time and money, already!
- ✓ with VSAT, Inmarsat Fleet Broadband (coming Q4-2007) or Thuraya Maritime RM-applications become quicker and cheaper, a perfect fit!



For more information

- ✓ France Telecom MSC offices Dubai & Singapore
 - ✓ sales manager in the **Dubai office**:
 - ✓ Martijn Bos (martijn.bos@ftmsc.com)
 - ✓ Irfan Ali Khan (irfanali.khan@ftmsc.com)
 - ✓ sales manager in the **Singapore office**:
 - ✓ Vivian Quenet (vivian.quenet@ftmsc.com)

- ✓ Reinhold Lüppen
 - ✓ Director Value Added Services & Maritime Products
 - ✓ reinhold.lueppen@ftmsc.com

- ✓ Visit us on our France Telecom MSC booth



Thank you
for your attention!