Ticketing System

Following document of requirements:

- projektbeschrieb_entwurf.pdf

It is feasible and based on your document i propose following implementation:

1. adapting NIS touch panel interface for managing ticketing system (call on downtime, call without downtime, trace of time/state of maintenance evolution)
2. adapting NIS Andon Board to show ticketing current state of the line
3. implementing a simple GUI for announcing the creation of new ticket to maintenance worker, for assigning a ticket (*), for tracing a ticket (the best is as an APP for smart-device: the maintenance worker will receive the ticket list on his smart-phone every-where he will be and he will select himself a ticket using the same)
4. implementing some reports extending the actual version of the same in NIS, and a page for managing ticket by managers users
5. implementing standard interface for receiving / sending information to other Maintenance Software (for example using Rest-Service technology)

(*) in the future the system could use same algorithm of AIOCAP to select the best maintenance worker for specific problem... In the document i saw that you talk about "e-mail" for signaling creation of a ticket; in general the e-mail is an asyncronous way for exchanging information with medium time of response, i think for a ticketing system for maintenance of industrial machine the time of response should be "immediate" so i think it's better a real-time / bothering system that continue to signal the event until someone take in care it. In each case it's possible to send e-mail attaching a link to the ticket web-page.

Regarding costs we could estimate the following:

1. Costs for implementation of a prototype (one-shot: from 15k€ to maximum 20k€)
2. Costs for integration with other maintenance system (one-shot-for-each-different-maintenance system to integrate: from 2k€ to 4k€)
3. Costs for extending to other lines (one-shot-for-each-line: from 0,2k€ to 0,5k€)
4. Costs for extending to other plants (one-shot-for-each-plant: from 3k€ to 5k€)

Regarding timing we could estimate the following:

- 2 months for prototype
- 2 weeks for testing the extention on some other lines in the same plant of the prototype
- 2 weeks for integration of other maintenance system (for each different maintenance system)
- 4 days for starting a new plant (more than one plant could be started at the same time)
- 1 day for starting 2 new lines

No hardware / cables estimated, this is a first budgetary evaluation, it's required to go deeper to refine it.