Problem Management Checklist

Frame the Problem

1. Identify the problem you're talking about. This ensures everyone understands the purpose of the discussion.
2. Classify the problem in terms of number of people affected, areas (buildings) affected, likely components (system, network, cabling, fiber, etc...) severity of the problem and priority of the problem.
3. Describe the symptoms of the problems that have been reported via incident management so the manifestations are well understood by the group.

Develop a Timeline

1. Once the problem is framed and understood by everyone in the meeting establish a timeline that includes any events that could be significant to the problem.
2. Make sure to collect information from different perspectives that will help correlate changes in the related systems to the occurrence and reporting of incidents at the service desk.

Develop Hypothesis

1. After the timeline is established the group should start developing hypotheses based on the currently understood facts.
2. As hypothesis' come up write them all down so you can evaluate them later.
3. Begin to narrow the possibilities based on the group knowledge of the problem and suggestions.
4. Don't be too quick to throw away ideas. They all bear some level of scrutiny to ensure you don't get too narrowly focused.

Develop Solution Options

1. Once you feel that you've got a manageable hypothesis of the problem brainstorm some options for solving the problem.
2. Narrow the options down to a few that are feasible. No more that 4 options at this point.
3. Make sure each option is detailed out enough to ensure they are clearly understood.
4. Identify the people and systems that need to be involved in each possible solution.
5. Make sure to address the requirements of all constituencies in each solution. If some constituencys requirements cannot be met by a particular solution then either the solution is thrown out or concessions are made on the requirements. These concessions can only be made by the group that has the requirement(s).
6. Decide on one or two of the solutions and assign the task of architecting the implementation of the solution(s). This includes very specific actions regarding what will be done, when it will be done and in what order (as necessary) and who will do each piece of work.

Develop a Controlled Test Plan

1. Ensure that everyone understands the test steps.
2. Ensure that only one or two changes are made at a time so verification of test results is simplified.
3. Ensure everyone understands their role in the test and when they should be doing what actions.
4. Make sure to account for backing out any changes put in place to accommodate the testing.
5. Plan for following up on the test results - with the appropriate urgency.

Develop an Implementation Plan

1. If the test results are as expected then outline how you will proceed with implementing the architected solution.
2. Identify all issues that need to be addressed based on the chosen solution.
3. Identify any inter-depencies between issues so order of work is clearly understood.
4. Make sure the right people are involved in the implementation if they are different from those involved so far.
5. Control the scope of the proposed implementation so that changes do not compromise the overall results of the fix.
6. Ensure that no other changes are put in place between planning and implementation that would

negatively affect the outcome of the fix.
7. Prepare a request for change with the appropriate urgency, etc...

Implement the Change to Fix the Problem

1. In advance of the planned change/fix deliver proper notification to interested constituencies, including the help desk. (We might want to think about creating some predefined distribution lists for this purpose.)
2. On the predetermined date (from the RFC) execute the implementation steps outlined in the architecture/design and implementation plan.
3. Test all known problem use-cases to verify that the change/fix resolved the problem.

Post Implementation Review (PIR)

1. Review the implementation to ensure everything is operating as expected.
2. Address any issues that might arise as a result of implementing the change.
3. Perform a root-cause analysis on the original problem and document the lessons learned from the entire process.

Although this appears to be a lengthy and detailed process, the steps outlined here up to, but not including, developing an implementation plan, should be able to be completed in a one-hour meeting. Many of the items outlined here are simple lists or questions presented to the group to ensure that each area of concern is given appropriate consideration.