Internet of Things

COMPLETE SELF-ASSESSMENT GUIDE



PRACTICAL TOOLS FOR SELF-ASSESSMENT

Diagnose projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices

Implement evidence-based best practice strategies aligned with overall goals

Integrate recent advances and process design strategies into practice according to best practice guidelines

Use the Self-Assessment tool Scorecard and develop a clear picture of which areas need attention

The Art of Service

Internet of Things Complete Self-Assessment Guide

The guidance in this Self-Assessment is based on Internet of Things best practices and standards in business process architecture, design and quality management. The guidance is also based on the professional judgment of the individual collaborators listed in the Acknowledgments.

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About The Art of Service

he Art of Service, Business Process Architects since 2000, is dedicated to helping business achieve excellence.

Defining, designing, creating, and implementing a process to solve a business challenge or meet a business objective is the most valuable role... In EVERY company, organization and department.

Unless you're talking a one-time, single-use project within a business, there should be a process. Whether that process is managed and implemented by humans, Al, or a combination of the two, it needs to be designed by someone with a complex enough perspective to ask the right questions.

Someone capable of asking the right questions and step back and say, 'What are we really trying to accomplish here? And is there a different way to look at it?'

With The Art of Service's Business Process Architect Self-Assessments, Research, Toolkits, Education and Certifications we empower people who can do just that — whether their title is marketer, entrepreneur, manager, salesperson, consultant, Business Process Manager, executive assistant, IT Manager, CIO etc... —they are the people who rule the future. They are people who watch the process as it happens, and ask the right questions to make the process work better.

Contact us when you need any support with this Self-Assessment and any help with templates, blue-prints and examples of standard documents you might need:

http://theartofservice.com service@theartofservice.com

Acknowledgments

This checklist was developed under the auspices of The Art of Service, chaired by Gerardus Blokdyk.

Representatives from several client companies participated in the preparation of this Self-Assessment.

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Mr Champagne can be contacted at http://matthewchampagne.com/

In addition, we are thankful for the design and printing services provided.

Included Resources - how to access

Included with your purchase of the book is the Internet of Things Self-Assessment downloadable resource, which contains all questions and Self-Assessment areas of this book.

Get it now- you will be glad you did - do it now, before you forget.

How? Simply send an email to access@theartofservice.com with this books' title in the subject to get all the Internet of Things Self-Assessment questions in a ready to use Excel spreadsheet, containing the self-assessment, graphs, and project RACI planning - all with examples to get you started right away.

Your feedback is invaluable to us

If you recently bought this book, we would love to hear from you! You can do this by writing a review on amazon (or the online store where you purchased this book) about your last purchase! As part of our continual service improvement process, we love to hear real client experiences and feedback.

How does it work?

To post a review on Amazon, just log in to your account and click on the Create Your Own Review button (under Customer Reviews) of the relevant product page. You can find examples of product reviews in Amazon. If you purchased from another online store, simply follow their procedures.

What happens when I submit my review?

Once you have submitted your review, send us an email at review@theartofservice.com with the link to your review so we can properly thank you for your feedback.

Purpose of this Self-Assessment

This Self-Assessment has been developed to improve understanding of the requirements and elements of Internet of Things, based on best practices and standards in business process architecture, design and quality management.

It is designed to allow for a rapid Self-Assessment of an organization or facility to determine how closely existing management practices and procedures correspond to the elements of the Self-Assessment.

The criteria of requirements and elements of Internet of Things have been rephrased in the format of a Self-Assessment questionnaire, with a seven-criterion scoring system, as explained in this document.

In this format, even with limited background knowledge of

Internet of Things, a facility or other business manager can quickly review existing operations to determine how they measure up to the standards. This in turn can serve as the starting point of a 'gap analysis' to identify management tools or system elements that might usefully be implemented in the organization to help improve overall performance.

How to use the Self-Assessment

On the following pages are a series of questions to identify to what extent your Internet of Things initiative is complete in comparison to the requirements set in standards.

To facilitate answering the questions, there is a space in front of each question to enter a score on a scale of '1' to '5'.

- 1 Strongly Disagree
- 2 Disagree
- 3 Neutral
- 4 Agree
- 5 Strongly Agree

Read the question and rate it with the following in front of mind:

'In my belief, the answer to this question is clearly defined'.

There are two ways in which you can choose to interpret this statement:

 how aware are you that the answer to the question is clearly defined for more in-depth analysis you can choose to gather evidence and confirm the answer to the question. This obviously will take more time, most Self-Assessment users opt for the first way to interpret the question and dig deeper later on based on the outcome of the overall Self-Assessment.

A score of '1' would mean that the answer is not clear at all, where a '5' would mean the answer is crystal clear and defined. Leave emtpy when the question is not applicable or you don't want to answer it, you can skip it without affecting your score. Write your score in the space provided.

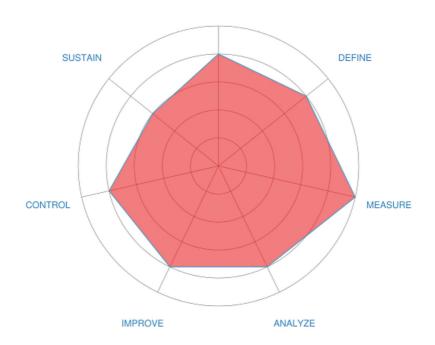
After you have responded to all the appropriate statements in each section, compute your average score for that section, using the formula provided, and round to the nearest tenth. Then transfer to the corresponding spoke in the Internet of Things Scorecard on the second next page of the Self-Assessment.

Your completed Internet of Things Scorecard will give you a clear presentation of which Internet of Things areas need attention.

Internet of Things Scorecard Example

Example of how the finalized Scorecard can look like:

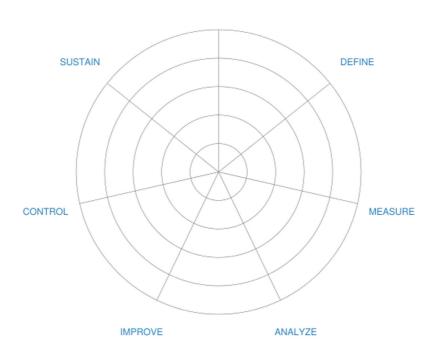
RECOGNIZE



Internet of Things Scorecard

Your Scores:

RECOGNIZE



BEGINNING OF THE SELF-ASSESSMENT:

SELF-ASSESSMENT SECTION START

CRITERION #1: RECOGNIZE

INTENT: Be aware of the need for change. Recognize that there is an unfavorable variation, problem or symptom.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

1. Do we know what we need to know about this topic?

<--- Score

2. What is the smallest subset of the problem we can usefully solve?

<--- Score

3. What customer support will be needed?

4. Do you need to address end-user safety concerns?

<--- Score

5. Why Do we Need an IoT Platform?

<--- Score

- 6. How are the Internet of Things's objectives aligned to the organization's overall business strategy?
- <--- Score
- 7. What do we need to start doing?
- <--- Score

8. What do we need to start doing?

<--- Score

- 9. How much are sponsors, customers, partners, stakeholders involved in Internet of Things? In other words, what are the risks, if Internet of Things does not deliver successfully?
- <--- Score
- 10. What situation(s) led to this Internet of Things Self Assessment?
- <--- Score

11. What training and capacity building actions are needed to implement proposed reforms?

<--- Score

12. What problems are you facing and how do you consider Internet of Things will circumvent those obstacles?

13. Are there Internet of Things problems defined? <--- Score

14. Do we ensure to not add features when theyre not needed and contribute to the insecurity/ fragility of the whole system?

<--- Score

15. Which structures need to be backed up?

<--- Score

16. What else needs to be measured?

<--- Score

17. How are we going to measure success?

<--- Score

18. As a sponsor, customer or management, how important is it to meet goals, objectives?

<--- Score

19. When a Internet of Things manager recognizes a problem, what options are available?

<--- Score

20. Do we put an IAM architect in the IoT center of excellence? Hastily deployed pockets of identity infrastructure need to be maintained for the full lifetime of the devices. You do not want to set a presence of systems with low assurance levels that an organization later must handle. Do you need end-to-end authentication and authorization?

<--- Score

21. What would happen if Internet of Things weren't done?

<--- Score

22. Are there any specific expectations or concerns about the Internet of Things team, Internet of Things itself?

<--- Score

23. Is it clear when you think of the day ahead of you what activities and tasks you need to complete?

<--- Score

24. How do you identify the kinds of information that you will need?

<--- Score

25. Will a response program recognize when a crisis occurs and provide some level of response?

<--- Score

26. What prevents me from making the changes I know will make me a more effective leader?

<--- Score

27. Are controls defined to recognize and contain problems?

<--- Score

28. Think about the people you identified for your Internet of Things project and the project responsibilities you would assign to them. what kind of training do you think they would need to perform these responsibilities effectively?

<--- Score

29. What prevents me from making the changes I know will make me a more effective Internet of Things leader?

<--- Score

30. Why do we need to keep records?

<--- Score

31. Are there recognized Internet of Things problems? <--- Score

32. What vendors make products that address the Internet of Things needs?

<--- Score

33. Where does the network need to be in 3-5 years?

<--- Score

34. What are the expected benefits of Internet of Things to the business?

<--- Score

35. What is the value proposition for the customer (How well will the product or service solve the problem)?

<--- Score

36. Is there a need/way to authenticate a thing?

<--- Score

37. Extensibility: extensibility could be a huge challenge at the edge of the network, unlike a mobile system, the things in the IoT could be very dynamic. when the owner purchases a new

thing, can it be easily added to the current service without any problem?

<--- Score

38. Will Internet of Things deliverables need to be tested and, if so, by whom?

<--- Score

39. Can Management personnel recognize the monetary benefit of Internet of Things?

40. For your Internet of Things project, identify and describe the business environment. is there more than one layer to the business environment?

41. What are our key showtoppers which will prevent or slow down IoT applications rise?

<--- Score

42. Will new equipment/products be required to facilitate Internet of Things delivery for example is new software needed?

<--- Score

43. If it does need to be more accurate, in what ways should it be more accurate?

<--- Score

44. How will the business operate in the event of a communication or a system component failure?

<--- Score

45. Does our organization need more Internet of Things education?

46. Who defines the rules in relation to any given issue?

<--- Score

47. Who else hopes to benefit from it?

<--- Score

48. What is the identifier of a thing?

<--- Score

49. What should be considered when identifying available resources, constraints, and deadlines?

<--- Score

50. How can auditing be a preventative security measure?

<--- Score

51. How do you identify the information basis for later specification of performance or acceptance criteria?

<--- Score

52. What information do users need?

<--- Score

53. Does Internet of Things create potential expectations in other areas that need to be recognized and considered?

<--- Score

54. What are the key showtoppers which will prevent or slow down IoT applications raise?

<--- Score

55. How does	it fit into	our organi	zational	needs
and tasks?				

56. How to re-issue the secrete key to the device again in case of key leakage to third party?

<--- Score

57. Which functions need not be available at all times?

<--- Score

- 58. What are the business objectives to be achieved with Internet of Things?
- <--- Score

59. Will it solve real problems?

<--- Score

60. What tools and technologies are needed for a custom Internet of Things project?

<--- Score

- 61. How do we Identify specific Internet of Things investment and emerging trends?
- <--- Score
- 62. What does Internet of Things success mean to the stakeholders?

<--- Score

```
Add up total points for this section:
____ = Total points for this section

Divided by: ____ (number of
```

statements answered) = _____ Average score for this section

Transfer your score to the Internet of Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #2: DEFINE:

INTENT: Formulate the business problem. Define the problem, needs and objectives.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

1. Is there a completed SIPOC representation, describing the Suppliers, Inputs, Process, Outputs, and Customers?

<--- Score

2. What are the reputation requirements of an Internet of objects?

<--- Score

3. Has the Internet of Things work been fairly and/

or equitably divided and delegated among team members who are qualified and capable to perform the work? Has everyone contributed?

- <--- Score
- 4. Are team charters developed?
- <--- Score
- 5. Are different versions of process maps needed to account for the different types of inputs?
- <--- Score
- 6. Are business processes mapped?
- <--- Score
- 7. Is Internet of Things currently on schedule according to the plan?
- <--- Score
- 8. Are roles and responsibilities formally defined?
- <--- Score
- 9. What additional principles and requirements are necessary for IoT applications?
- <--- Score
- 10. How can the internet of things represent an innovative use case in our sector?
- <--- Score
- 11. Is full participation by members in regularly held team meetings guaranteed?
- <--- Score
- 12. In what way can we redefine the criteria of choice in our category in our favor, as Method introduced

style and design to cleaning and Virgin America returned glamor to flying?

<--- Score

13. What are the best examples of the Internet of things?

<--- Score

14. What specifically is the problem? Where does it occur? When does it occur? What is its extent? <--- Score

15. Has anyone else (internal or external to the organization) attempted to solve this problem or a similar one before? If so, what knowledge can be leveraged from these previous efforts?

<--- Score

16. What is the minimum educational requirement for potential new hires?

<--- Score

17. What are the Roles and Responsibilities for each team member and its leadership? Where is this documented?

<--- Score

18. Is the current 'as is' process being followed? If not, what are the discrepancies?

<--- Score

19. Are there any constraints known that bear on the ability to perform Internet of Things work? How is the team addressing them?

<--- Score

- 20. Have specific policy objectives been defined? <--- Score
- 21. Has everyone on the team, including the team leaders, been properly trained?

22. Are Required Metrics Defined?

<--- Score

23. Is a fully trained team formed, supported, and committed to work on the Internet of Things improvements?

<--- Score

24. What baselines are required to be defined and managed?

<--- Score

25. Will team members regularly document their Internet of Things work?

<--- Score

26. Is the scope of Internet of Things defined? <--- Score

27. Who are the Internet of Things improvement team members, including Management Leads and Coaches?

<--- Score

28. What are the compelling business reasons for embarking on Internet of Things?

<--- Score

29. Are there different segments of customers?

30. Is Internet of Things linked to key business goals and objectives?

<--- Score

31. What key business process output measure(s) does Internet of Things leverage and how?

<--- Score

32. Is it clearly defined in and to your organization what you do?

<--- Score

33. Who defines (or who defined) the rules and roles?

<--- Score

34. How can the value of Internet of Things be defined?

<--- Score

35. Do we all define Internet of Things in the same way?

<--- Score

36. Are accountability and ownership for Internet of Things clearly defined?

<--- Score

37. How and when will baselines be defined?

<--- Score

38. How to define the iot?

<--- Score

39. Has the improvement team collected the 'voice of

the customer' (obtained feedback – qualitative and quantitative)?

<--- Score

40. Are security/privacy roles and responsibilities formally defined?

<--- Score

41. Have all of the relationships been defined properly?

<--- Score

42. How would one define Internet of Things leadership?

<--- Score

43. When are meeting minutes sent out? Who is on the distribution list?

<--- Score

44. Does Internet of Things include applications and information with regulatory compliance significance (or other contractual conditions that must be formally complied with) in a new or unique manner for which no approved security requirements, templates or design models exist?

45. How and when will be baselines be defined? <--- Score

46. As an example; there are all kinds of innovative new applications and devices that promise to enable the connected home and vehicle, smart city and lifestyle, but how do we define what's IoT and what's not?

47. If substitutes have been appointed, have they been briefed on the Internet of Things goals and received regular communications as to the progress to date?

<--- Score

48. Is there a completed, verified, and validated high-level 'as is' (not 'should be' or 'could be') business process map?

<--- Score

49. Is the improvement team aware of the different versions of a process: what they think it is vs. what it actually is vs. what it should be vs. what it could be?

50. Has a high-level 'as is' process map been completed, verified and validated?

<--- Score

51. Does the team have regular meetings?

<--- Score

52. What customer feedback methods were used to solicit their input?

<--- Score

53. Do the requirements that we've gathered and the models that demonstrate them constitute a full and accurate representation of what we want?

<--- Score

54. Is the team equipped with available and reliable resources?

55. What Organizational Structure is Required?

<--- Score

56. Is there a critical path to deliver Internet of Things results?

<--- Score

57. How often are the team meetings?

<--- Score

58. What are the best Internet of Things use cases?

<--- Score

59. Is the team formed and are team leaders (Coaches and Management Leads) assigned?

<--- Score

60. Are customers identified and high impact areas defined?

<--- Score

61. Do we have Things use cases?

<--- Score

62. In what way can we redefine the criteria of choice clients have in our category in our favor?

<--- Score

63. Do the problem and goal statements meet the SMART criteria (specific, measurable, attainable, relevant, and time-bound)?

<--- Score

64. Is there a Internet of Things management

charter, including business case, problem and goal statements, scope, milestones, roles and responsibilities, communication plan?

65. What does enterprise-class security really mean in the case of an IoT cloud-based platform?

<--- Score

66. How do you keep key subject matter experts in the loop?

<--- Score

67. What would be the goal or target for a Internet of Things's improvement team?

<--- Score

68. What are the rough order estimates on cost savings/opportunities that Internet of Things brings? <--- Score

69. Do you believe that additional principles and requirements are necessary for iot applications?

<--- Score

70. What are the boundaries of the scope? What is in bounds and what is not? What is the start point? What is the stop point?

<--- Score

71. Has a project plan, Gantt chart, or similar been developed/completed?

<--- Score

72. What constraints exist that might impact the team?

73. What sources do you use to gather information for a Internet of Things study?

<--- Score

74. Has/have the customer(s) been identified?

<--- Score

75. What type of training is required for users prior to receiving access to the information?

<--- Score

76. Are task requirements clearly defined?

<--- Score

77. When is the estimated completion date?

<--- Score

78. How did the Internet of Things manager receive input to the development of a Internet of Things improvement plan and the estimated completion dates/times of each activity?

<--- Score

79. Are improvement team members fully trained on Internet of Things?

<--- Score

80. What are the dynamics of the communication plan?

<--- Score

81. Are approval levels defined for contracts and supplements to contracts?

<--- Score

82. Is data collected and displayed to better understand customer(s) critical needs and requirements.

<--- Score

83. Is the team adequately staffed with the desired cross-functionality? If not, what additional resources are available to the team?

<--- Score

84. Have all basic functions of Internet of Things been defined?

<--- Score

85. Is the Internet of Things scope manageable? <--- Score

86. When was the Internet of Things start date? <--- Score

87. How would you define the culture here?

<--- Score

88. Is the team sponsored by a champion or business leader?

<--- Score

89. How will variation in the actual durations of each activity be dealt with to ensure that the expected Internet of Things results are met?

<--- Score

90. Will team members perform Internet of Things work when assigned and in a timely fashion?

<--- Score

91. Has the direction changed at all during the course of Internet of Things? If so, when did it change and why?

<--- Score

92. How will the Internet of Things team and the organization measure complete success of Internet of Things?

<--- Score

93. What defines Best in Class?

<--- Score

94. Are customer(s) identified and segmented according to their different needs and requirements?

95. How was the 'as is' process map developed, reviewed, verified and validated?

<--- Score

96. What critical content must be communicated – who, what, when, where, and how?

<--- Score

97. Has a team charter been developed and communicated?

<--- Score

98. What tools and roadmaps did you use for getting through the Define phase?

<--- Score

99. Is there regularly 100% attendance at the team meetings? If not, have appointed substitutes

attended to preserve cross-functionality and full representation?
<--- Score

100. How is the team tracking and documenting its work?
<--- Score

101. Are audit criteria, scope, frequency and methods defined?
<--- Score

102. How does the Internet of Things manager ensure against scope creep?
<--- Score

103. Have the customer needs been translated into specific, measurable requirements? How? <--- Score

Add up total points for this section:
____ = Total points for this section

Divided by: _____ (number of statements answered) = _____ Average score for this section

Transfer your score to the Internet of Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #3: MEASURE:

INTENT: Gather the correct data.

Measure the current performance and
evolution of the situation.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

1. What are measures?

<--- Score

2. How do we focus on what is right -not who is right?

<--- Score

3. Do we aggressively reward and promote the people who have the biggest impact on creating excellent products?

<--- Score

4. Which methods and measures do you use to determine workforce engagement and workforce satisfaction?

<--- Score

5. Are priorities and opportunities deployed to your suppliers, partners, and collaborators to ensure organizational alignment?

<--- Score

6. How can the Rol of IoT applications be assessed and measured?

<--- Score

7. What methods are feasible and acceptable to estimate the impact of reforms?

<--- Score

8. Does the Internet of Things task fit the client's priorities?

<--- Score

9. How is the value delivered by Internet of Things being measured?

<--- Score

10. What can be measured?

<--- Score

11. Is data collected on key measures that were identified?

<--- Score

12. Are there any easy-to-implement alternatives to

Internet of Things? Sometimes other solutions are available that do not require the cost implications of a full-blown project?

<--- Score

13. What will be measured?

<--- Score

14. What has the team done to assure the stability and accuracy of the measurement process?

<--- Score

15. What potential environmental factors impact the Internet of Things effort?

<--- Score

16. What to measure and why?

<--- Score

17. How will the service discovery platforms that will be needed to deploy sensor networks impact the overall governance of the iot?

<--- Score

18. New objects as the plethora of different device types, devices, gateways and IoT platforms need to be maintained because they are decentralized trust servers of the organizations using them. Management and governance enables organizations to meet both compliance and business requirements. Will your IAM system handle the increased number of relationships between users, devices, services and policies?

<--- Score

19. How do you identify and analyze stakeholders and

their interests?

<--- Score

20. How is Knowledge Management Measured?

<--- Score

21. Is it possible to estimate the impact of unanticipated complexity such as wrong or failed assumptions, feedback, etc. on proposed reforms?

<--- Score

22. How do we effectively analyze all of this data and ensure that meaningful and relevant data and decisions are made?

<--- Score

23. Which customers can't participate in our market because they lack skills, wealth, or convenient access to existing solutions?

<--- Score

24. How to measure variability?

<--- Score

25. Meeting the challenge: are missed Internet of Things opportunities costing us money?

<--- Score

26. Is this an issue for analysis or intuition?

<--- Score

27. Does Internet of Things systematically track and analyze outcomes for accountability and quality improvement?

28. Is data collection planned and executed? <--- Score

29. What startups are focused on the Internet of Things IoT?

<--- Score

30. How will success or failure be measured? <--- Score

31. How do we do risk analysis of rare, cascading, catastrophic events?

<--- Score

32. How to measure lifecycle phases? <--- Score

33. How Will We Measure Success?

<--- Score

34. Have the concerns of stakeholders to help identify and define potential barriers been obtained and analyzed?

<--- Score

35. What is the right balance of time and resources between investigation, analysis, and discussion and dissemination?

<--- Score

36. What particular quality tools did the team find helpful in establishing measurements?

<--- Score

37. Are high impact defects defined and identified in the business process?

<--- Score

38. What does the charts tell us in terms of variation? <--- Score

39. Do we aggressively reward and promote the people who have the biggest impact on creating excellent Internet of Things services/products?

<--- Score

40. How can you measure Internet of Things in a systematic way?

<--- Score

41. Why do measure/indicators matter?

<--- Score

42. What was the projected and actual for each of the following: development time, development cost, and launch date?

<--- Score

43. What are our key indicators that you will measure, analyze and track?

<--- Score

44. Is Process Variation Displayed/Communicated?

<--- Score

45. Is the solution cost-effective?

<--- Score

46. Is key measure data collection planned and executed, process variation displayed and communicated and performance baselined?

47. When developing and capitalizing on IoT solutions, do we as owners consider the societal cost, systemic risk, and risk externality to avoid what may be called designer hubris. In other words, why add features when theyre not needed and contribute to the insecurity/fragility of the whole system?

<--- Score

48. What are the key input variables? What are the key process variables? What are the key output variables? <--- Score

49. Will We Aggregate Measures across Priorities? <--- Score

50. Are we taking our company in the direction of better and revenue or cheaper and cost?

<--- Score

51. What charts has the team used to display the components of variation in the process?

52. Who should be involved in the definition of an iot ethical charter?

<--- Score

53. What are the agreed upon definitions of the high impact areas, defect(s), unit(s), and opportunities that will figure into the process capability metrics?

54. Even the most security-conscious sectors may be unprepared for the security impact that IoT

connected devices can have. So what can we do to protect IoT solutions?

<--- Score

55. How will your organization measure success? <--- Score

56. How large is the gap between current performance and the customer-specified (goal) performance?

<--- Score

57. Have the types of risks that may impact Internet of Things been identified and analyzed?

<--- Score

58. How are you going to measure success?

<--- Score

59. How can we measure the performance?

<--- Score

60. Why identify and analyze stakeholders and their interests?

<--- Score

61. When is Knowledge Management Measured?

<--- Score

62. Who will be responsible for shipping and delivery, including costs?

<--- Score

63. Do staff have the necessary skills to collect, analyze, and report data?

64. How are measurements made?

<--- Score

65. How will measures be used to manage and adapt?

<--- Score

66. Meeting the Challenge: Are Missed Internet of Things opportunities Costing you Money?

<--- Score

67. Is performance measured?

<--- Score

68. How do you measure success?

<--- Score

69. What measurements are being captured?

<--- Score

70. Are you taking your company in the direction of better and revenue or cheaper and cost?

<--- Score

71. Among the Internet of Things product and service cost to be estimated, which is considered hardest to estimate?

<--- Score

72. What are the costs of reform?

<--- Score

73. What safeguard measures are in place to ensure security?

74. Does Internet of Things analysis show the relationships among important Internet of Things factors?

<--- Score

75. Is a solid data collection plan established that includes measurement systems analysis?

<--- Score

76. What are my customers expectations and measures?

<--- Score

77. What is measured?

<--- Score

78. Is long term and short term variability accounted for?

<--- Score

79. Have all non-recommended alternatives been analyzed in sufficient detail?

<--- Score

80. Which Stakeholder Characteristics Are Analyzed? <--- Score

81. What key measures identified indicate the performance of the business process?

<--- Score

82. Does the practice systematically track and analyze outcomes related for accountability and quality improvement?

83. Are there measurements based on task performance?

<--- Score

84. Why do the measurements/indicators matter?

<--- Score

85. Was a data collection plan established?

<--- Score

86. What is an unallowable cost?

<--- Score

87. Who should be involved in the definition of an "loT ethical charter"?

<--- Score

88. Which customers cant participate in our Internet of Things domain because they lack skills, wealth, or convenient access to existing solutions?

<--- Score

89. Who participated in the data collection for measurements?

<--- Score

90. What are the types and number of measures to use?

<--- Score

91. How is progress measured?

<--- Score

92. Why should we expend time and effort to implement measurement?

93. Are the measurements objective?

<--- Score

94. Do we effectively measure and reward individual and team performance?

<--- Score

95. Who should receive measurement reports?

<--- Score

96. Where is it measured?

<--- Score

97. How frequently do we track measures?

<--- Score

98. How will the IoT impact the cloud and other aspects of the future of computing?

<--- Score

99. Is there a Performance Baseline?

<--- Score

100. Why Measure?

<--- Score

101. Are losses documented, analyzed, and remedial processes developed to prevent future losses?

<--- Score

102. Have you found any 'ground fruit' or 'low-hanging fruit' for immediate remedies to the gap in performance?

103. Does Internet of Things analysis isolate the fundamental causes of problems?

<--- Score

104. What should be measured?

<--- Score

105. Can We Measure the Return on Analysis?

<--- Score

106. Are process variation components displayed/communicated using suitable charts, graphs, plots? <--- Score

107. Are the units of measure consistent?

<--- Score

108. How will effects be measured?

<--- Score

109. What data was collected (past, present, future/ongoing)?

<--- Score

110. What is measured?

<--- Score

111. Are key measures identified and agreed upon? <--- Score

112. What evidence is there and what is measured? <--- Score

113. What Relevant Entities could be measured? <--- Score

114. How will you measure your Internet of Things
effectiveness? < Score
115 What massurements are possible practicable

and meaningful?

<--- Score

116. Have changes been properly/adequately analyzed for effect?

<--- Score

117. What about Internet of Things Analysis of results? <--- Score

118. Customer Measures: How Do Customers See Us? <--- Score

119. What are the uncertainties surrounding estimates of impact?

<--- Score

Add up to	otal points for	r this section:
=	Total points	for this section
Divided	by:	(number of

statements answered) = _____ Average score for this section

Transfer your score to the Internet of Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #4: ANALYZE:

INTENT: Analyze causes, assumptions and hypotheses.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

- 1. What other jobs or tasks affect the performance of the steps in the Internet of Things process? <--- Score
- 2. The pharmaceutical industry is also taking advantage of digital progress. It is using IoT for supply chain security in packaging and tracking of drugs. There are new companies using computer chips in pills for tracking adherence to drug regimens and associated biometrics. Using this as an example, how will we use and protect this

sensitive data?

- <--- Score
- 3. Have the problem and goal statements been updated to reflect the additional knowledge gained from the analyze phase?
- <--- Score
- 4. Were Pareto charts (or similar) used to portray the 'heavy hitters' (or key sources of variation)?

5. Do individuals have an opportunity and/or right to decline to provide information?

- <--- Score
- 6. Do your employees have the opportunity to do what they do best everyday?
- <--- Score
- 7. What kind of crime could a potential new hire have committed that would not only not disqualify him/her from being hired by our organization, but would actually indicate that he/she might be a particularly good fit?
- <--- Score
- 8. Have any additional benefits been identified that will result from closing all or most of the gaps? <--- Score
- 9. Was a cause-and-effect diagram used to explore the different types of causes (or sources of variation)?

10. How can we drive IoT at every level?

<--- Score

11. Were there any improvement opportunities identified from the process analysis?

<--- Score

12. Who owns the data?

<--- Score

13. Where is the data coming from to measure compliance?

<--- Score

14. Is the suppliers process defined and controlled?

<--- Score

15. Is the data secured in accordance with FISMA requirements?

<--- Score

16. What did the team gain from developing a subprocess map?

<--- Score

17. An organizationally feasible system request is one that considers the mission, goals and objectives of the organization. key questions are: is the solution request practical and will it solve a problem or take advantage of an opportunity to achieve company goals?

<--- Score

18. What are the revised rough estimates of the financial savings/opportunity for Internet of Things improvements?

19. How often will data be collected for measures? <--- Score

20. What controls do we have in place to protect data? <--- Score

21. How do we promote understanding that opportunity for improvement is not criticism of the status quo, or the people who created the status quo?

<--- Score

22. What are the expectations regarding the protection of the data?

<--- Score

23. What should be our public authorities policy with regards to data access?

<--- Score

24. What types of service platforms are required to deploy event driven applications and to make possible dynamic adaptation of service platforms or application to insertion of sensors with new classes of capabilities?

<--- Score

25. What conclusions were drawn from the team's data collection and analysis? How did the team reach these conclusions?

<--- Score

26. Are there any agreements concerning the security and privacy of the data once it is shared?

27. Were any designed experiments used to generate additional insight into the data analysis?

28. How do you measure the Operational performance of your key work systems and processes, including productivity, cycle time, and other appropriate measures of process effectiveness, efficiency, and innovation?

<--- Score

29. What process should we select for improvement? <--- Score

30. Which data to save?

<--- Score

31. Do our leaders quickly bounce back from setbacks?

<--- Score

32. What project management qualifications does the Project Manager have?

<--- Score

33. Think about some of the processes you undertake within your organization. which do you own?

<--- Score

34. What are the procedures which allow individuals the opportunity to seek access to or redress of their own information?

35. What are your current levels and trends in key measures or indicators of Internet of Things product and process performance that are important to and directly serve your customers? how do these results compare with the performance of your competitors and other organizations with similar offerings?

<--- Score

36. Is the Internet of Things process severely broken such that a re-design is necessary?

<--- Score

37. How was the detailed process map generated, verified, and validated?

<--- Score

38. What tools were used to generate the list of possible causes?

<--- Score

39. Are gaps between current performance and the goal performance identified?

<--- Score

40. Is the gap/opportunity displayed and communicated in financial terms?

<--- Score

41. How does the organization define, manage, and improve its Internet of Things processes?

<--- Score

42. What were the financial benefits resulting from any 'ground fruit or low-hanging fruit' (quick fixes)?

43. Was a detailed process map created to amplify critical steps of the 'as is' business process? <--- Score

44. What is the retention period for the data in the system?

<--- Score

45. What other organizational variables, such as reward systems or communication systems, affect the performance of this Internet of Things process?

<--- Score

- 46. What new requirements emerge in terms of information processing/management to make physical and virtual world data fusion possible?
- 47. Record-keeping requirements flow from the records needed as inputs, outputs, controls and for transformation of a Internet of Things process. ask yourself: are the records needed as inputs to the Internet of Things process available?

<--- Score

- 48. What successful thing are we doing today that may be blinding us to new growth opportunities? <--- Score
- 49. What are the disruptive Internet of Things technologies that enable our organization to radically change our business processes?

50. What will drive Internet of Things change? <--- Score

51. Traditional data protection principles include fair and lawful data processing; data collection for specified, explicit, and legitimate purposes; accurate and kept up-to-date data; data retention for no longer than necessary. Are additional principles and requirements necessary for loT applications?

<--- Score

52. What were the crucial 'moments of truth' on the process map?

<--- Score

53. Is Data and process analysis, root cause analysis and quantifying the gap/opportunity in place? <--- Score

54. Did any additional data need to be collected? <--- Score

55. Is the performance gap determined? <--- Score

56. Do you, as a leader, bounce back quickly from setbacks?

<--- Score

57. What is the cost of poor quality as supported by the team's analysis?

<--- Score

58. What quality tools were used to get through the analyze phase?

<--- Score

59. Identify an operational issue in your organization. for example, could a particular task be done more quickly or more efficiently?

<--- Score

60. Is the suppliers process defined and controlled?

<--- Score

61. How is the way you as the leader think and process information affecting your organizational culture?

62. In the event the database is corrupted, to what level of currency must it be restored?

<--- Score

63. What measures are in place to protect sensitive data?

<--- Score

64. What are the best opportunities for value improvement?

<--- Score

65. What does the data say about the performance of the business process?

<--- Score

66. Fog Computing is internet computing where the devices responsible for the computing surround us. Instead of having a data center where all of the processing and storage occurs, fog computing would allow us to bring the

devices closer to us and these devices would be responsible for their own processing and storage. So how does this concept help us deal with the problems created by the IoT, and what benefits would this provide us that upgrading the cloud infrastructure couldn't?

<--- Score

67. How do mission and objectives affect the Internet of Things processes of our organization?

68. When conducting a business process reengineering study, what should we look for when trying to identify business processes to change?

<--- Score

69. Who is responsible for a data breach?

<--- Score

70. Did any value-added analysis or 'lean thinking' take place to identify some of the gaps shown on the 'as is' process map?

<--- Score

71. Can we clarify what some of our real opportunities in iiot are?

- 72. What auditing measures and technical safeguards are in place to prevent misuse of data?
- 73. Do individuals have an opportunity to consent to particular uses of the information, and if so,

W	hat is	the	proce	dure l	by v	vhich	an i	indivi	dual
w	ould	prov	ide su	ch co	nse	nt?			

<--- Score

74. What tools were used to narrow the list of possible causes?

<--- Score

Add up total points for this section:
____ = Total points for this section

Divided by: _____ (number of statements answered) = _____ Average score for this section

Transfer your score to the Internet of Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #5: IMPROVE:

INTENT: Develop a practical solution.
Innovate, establish and test the
solution and to measure the results.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

- 1. How will the team or the process owner(s) monitor the implementation plan to see that it is working as intended?
- <--- Score
- 2. What are the implications of this decision 10 minutes, 10 months, and 10 years from now? <--- Score

3. What is the risk?

- <--- Score
- 4. What to do with the results or outcomes of measurements?
- <--- Score
- 5. How can we improve Internet of Things?
- <--- Score
- 6. What resources are required for the improvement effort?
- <--- Score
- 7. Who controls key decisions that will be made?
- <--- Score
- 8. What is the implementation plan?
- <--- Score
- 9. For estimation problems, how do you develop an estimation statement?
- <--- Score
- 10. Who will be using the results of the measurement activities?
- <--- Score
- 11. Who will be responsible for making the decisions to include or exclude requested changes once Internet of Things is underway?
- <--- Score
- 12. Does the goal represent a desired result that can be measured?
- <--- Score

13. Is the optimal solution selected based on testing and analysis?

<--- Score

14. Who are the people involved in developing and implementing Internet of Things?

<--- Score

15. lot solutions: whats involved?

<--- Score

16. Is there a high likelihood that any recommendations will achieve their intended results?

<--- Score

17. What improvements have been achieved?

<--- Score

18. Is a solution implementation plan established, including schedule/work breakdown structure, resources, risk management plan, cost/budget, and control plan?

<--- Score

19. Is pilot data collected and analyzed?

<--- Score

20. What are our risks and challenges in implementing iiot?

<--- Score

21. Do you understand what can accelerate change?

22. What tools were most useful during the improve phase?

<--- Score

23. What is Internet of Things's impact on utilizing the best solution(s)?

<--- Score

24. If you could go back in time five years, what decision would you make differently? what is your best guess as to what decision youre making today you might regret five years from now?

<--- Score

25. Who is responsible for a connected device malfunction or resulting accident?

<--- Score

26. How do you measure progress and evaluate training effectiveness?

<--- Score

27. Will the IoT solution have the capacity for continued operation?

<--- Score

28. How can skill-level changes improve Internet of Things?

<--- Score

29. What does the 'should be' process map/design look like?

<--- Score

30. Risk events: what are the things that could go wrong?

- <--- Score
- 31. How to Improve?
- <--- Score
- 32. How will you measure the results?
- <--- Score
- 33. What is the magnitude of the improvements?
- <--- Score

34. What is the foreseen roadmap of IoT applications with the main milestones?

<--- Score

35. What can we do to protect IoT solutions?

<--- Score

36. Who controls the risk?

<--- Score

37. What tools do you use once you have decided on a Internet of Things strategy and more importantly how do you choose?

<--- Score

38. Why improve in the first place?

<--- Score

39. Is Supporting Internet of Things documentation required?

<--- Score

40. In the past few months, what is the smallest change we have made that has had the biggest positive result? What was it about that small change

that produced the large return? <--- Score

41. How do we keep improving Internet of Things? <--- Score

42. If we were able to design deliver our IoT sensor in a self contained package that is dramatically smaller energy efficient than that available today how would that change our road map?

<--- Score

43. In the past few months, what is the smallest change we have made that has had the biggest positive result? what was it about that small change that produced the large return?

<--- Score

44. What do we want to improve?

<--- Score

45. Is the implementation plan designed?

<--- Score

46. What actually has to improve and by how much?

<--- Score

47. Risk factors: what are the characteristics of Internet of Things that make it risky?

<--- Score

48. Are possible solutions generated and tested? <--- Score

49. How do we measure improved Internet of

Things service perception, and satisfaction?

<--- Score

50. What attendant changes will need to be made to ensure that the solution is successful?

<--- Score

51. How does the team improve its work?

<--- Score

52. Is the solution technically practical?

<--- Score

53. For decision problems, how do you develop a decision statement?

<--- Score

54. Is a contingency plan established?

<--- Score

55. How important is the completion of a recognized college or graduate-level degree program in the hiring decision?

<--- Score

56. Are there any constraints (technical, political, cultural, or otherwise) that would inhibit certain solutions?

<--- Score

57. How do we measure risk?

<--- Score

58. Are improved process ('should be') maps modified based on pilot data and analysis?

59. Was a pilot designed for the proposed solution(s)? <--- Score

60. What tools were used to evaluate the potential solutions?

<--- Score

61. What is the team's contingency plan for potential problems occurring in implementation?

<--- Score

62. Were competing technologies evaluated to assess and compare their ability to effectively achieve system goals?

<--- Score

63. Scalability- define how the solution must respond efficiently to business growth expectations. What is the expected growth in terms of time, magnitude, location?

<--- Score

64. If you could go back in time five years, what decision would you make differently? What is your best guess as to what decision you're making today you might regret five years from now?

<--- Score

65. How will the organization know that the solution worked?

<--- Score

66. Designing internet of things (IoT) solutions can unlock innovation, increase efficiencies and create new competitive advantages. but in an emerging

marketplace of mostly unknown and untested solutions, where do we start?

<--- Score

67. What can we do to improve?

<--- Score

68. How does the solution remove the key sources of issues discovered in the analyze phase?

<--- Score

69. Is there a cost/benefit analysis of optimal solution(s)?

<--- Score

70. How do you improve your likelihood of success? <--- Score

71. Describe the design of the pilot and what tests were conducted, if any?

<--- Score

72. How can we improve performance?

<--- Score

73. How will you know when its improved?

<--- Score

74. Where do you want to be a first mover, a fast follower or wait for industry solutions?

<--- Score

75. Are new and improved process ('should be') maps developed?

76. What error proofing will be done to address some of the discrepancies observed in the 'as is' process? <--- Score

77. How do you improve workforce health, safety, and security? What are your performance measures and improvement goals for each of these workforce needs and what are any significant differences in these factors and performance measures or targets for different workplace environments?

<--- Score

78. Is there a small-scale pilot for proposed improvement(s)? What conclusions were drawn from the outcomes of a pilot?

<--- Score

79. How do we decide how much to remunerate an employee?

<--- Score

80. How will you know that you have improved? <--- Score

- **81. What damage can result from systems failure?** <--- Score
- 82. How do you use other indicators, such as workforce retention, absenteeism, grievances, safety, and productivity, to assess and improve workforce engagement?

<--- Score

83. What procedures are in place to determine which users may access the system and are they

documented?

<--- Score

84. How do we Improve Internet of Things service perception, and satisfaction?

<--- Score

85. Are we Assessing Internet of Things and Risk? <--- Score

86. What should a proof of concept or pilot accomplish?

<--- Score

87. What needs improvement?

<--- Score

88. What evaluation strategy is needed and what needs to be done to assure its implementation and use?

<--- Score

89. Is the measure understandable to a variety of people?

<--- Score

90. How do we go about Comparing Internet of Things approaches/solutions?

<--- Score

91. Can the solution be designed and implemented within an acceptable time period?

<--- Score

92. What went well, what should change, what can improve?

93. What tools were used to tap into the creativity and encourage 'outside the box' thinking?

<--- Score

94. Were any criteria developed to assist the team in testing and evaluating potential solutions?

<--- Score

95. What communications are necessary to support the implementation of the solution?

<--- Score

96. Why favor the use of a cloud-based IoT platform for development?

<--- Score

97. How can we integrate emerging M2M solutions in available platforms?

<--- Score

98. Are the best solutions selected?

<--- Score

99. What lessons, if any, from a pilot were incorporated into the design of the full-scale solution? <--- Score

100. How did the team generate the list of possible solutions?

<--- Score

101. To what extent does management recognize Internet of Things as a tool to increase the results? <--- Score

- 102. How Do We Link Measurement and Risk? <--- Score
- 103. How significant is the improvement in the eyes of the end user?
- <--- Score
- 104. What were the underlying assumptions on the cost-benefit analysis?
- <--- Score
- 105. How will we know that a change is improvement? <--- Score
- 106. How do we improve productivity? <--- Score
- 107. Who will be responsible for documenting the Internet of Things requirements in detail?
- 108. At what point will vulnerability assessments be performed once Internet of Things is put into production (e.g., ongoing Risk Management after implementation)?

Add up total points for this section:
____ = Total points for this section

Divided by: ____ (number of statements answered) = ____ Average score for this section

Transfer your score to the Internet of

Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #6: CONTROL:

INTENT: Implement the practical solution. Maintain the performance and correct possible complications.

In my belief, the answer to this question is clearly defined:

- 5 Strongly Agree
 - 4 Agree
 - 3 Neutral
 - 2 Disagree
- 1 Strongly Disagree

1. What impacts on users, clients and the business must be planned for?

- <--- Score
- 2. What is your quality control system?
- <--- Score
- 3. Is knowledge gained on process shared and institutionalized?
- <--- Score

- 4. What quality tools were useful in the control phase? <--- Score
- 5. What other areas of the organization might benefit from the Internet of Things team's improvements, knowledge, and learning?

- 6. What is your theory of human motivation, and how does your compensation plan fit with that view? <--- Score
- 7. Where do ideas that reach policy makers and planners as proposals for Internet of Things strengthening and reform actually originate? <--- Score
- 8. Why should we learn about IoT?
- <--- Score
- 9. What are the key elements of your Internet of Things performance improvement system, including your evaluation, organizational learning, and innovation processes?
- <--- Score
- 10. Is there a transfer of ownership and knowledge to process owner and process team tasked with the responsibilities.
- <--- Score
- 11. Is a response plan in place for when the input, process, or output measures indicate an 'out-ofcontrol' condition?
- <--- Score

12. Is there a standardized process?

<--- Score

13. Are new process steps, standards, and documentation ingrained into normal operations? <--- Score

14. What are your results for key measures or indicators of the accomplishment of your Internet of Things strategy and action plans, including building and strengthening core competencies?

<--- Score

15. What are the known security controls?

<--- Score

16. Who is the Internet of Things process owner? <--- Score

17. If there currently is no plan, will a plan be developed?

<--- Score

18. What do we stand for--and what are we against?

<--- Score

19. Will existing staff require re-training, for example, to learn new business processes?

<--- Score

20. Is there a standard or an effort to standardize internet of things?

21. Do the Internet of Things decisions we make today help people and the planet tomorrow?

<--- Score

22. What should we measure to verify effectiveness gains?

<--- Score

23. Is a response plan established and deployed?

<--- Score

24. How do controls support value?

<--- Score

25. Who has control over resources?

<--- Score

26. How might the organization capture best practices and lessons learned so as to leverage improvements across the business?

<--- Score

27. Are there documented procedures?

<--- Score

28. Does Internet of Things appropriately measure and monitor risk?

<--- Score

29. How will input, process, and output variables be checked to detect for sub-optimal conditions?

<--- Score

30. How do you encourage people to take control and responsibility?

31. Does the response plan contain a definite closed loop continual improvement scheme (e.g., plan-do-check-act)?

<--- Score

32. Sensors and the IoT add to the growing amount of monitoring data that is available to a wide range of users. How do we effectively analyze all of this data and ensure that meaningful and relevant data and decisions are made?

<--- Score

33. Does the internet of things need a scale-ofblame to help manage security incidents during the years until technology solves the security problem?

<--- Score

34. How will new or emerging customer needs/ requirements be checked/communicated to orient the process toward meeting the new specifications and continually reducing variation?

<--- Score

35. How do our controls stack up?

<--- Score

36. Were the planned controls in place?

<--- Score

37. Does a troubleshooting guide exist or is it needed?

<--- Score

38. What is the control/monitoring plan?

39. Can/how do the SWE standards work in an IoT environment on a large scale -billions/trillions or more sensors/ things?

<--- Score

40. Is reporting being used or needed?

<--- Score

41. Has the improved process and its steps been standardized?

<--- Score

42. Have new or revised work instructions resulted?

<--- Score

43. Does our wireless sensor network scale?

<--- Score

44. What key inputs and outputs are being measured on an ongoing basis?

<--- Score

45. How will IoT edge devices be monitored, managed and updated?

<--- Score

46. Who controls critical resources?

<--- Score

47. What are we attempting to measure/monitor?

<--- Score

48. Is there a recommended audit plan for routine surveillance inspections of Internet of Things's gains? <--- Score

49. Will any special training be provided for results interpretation?

<--- Score

50. Are documented procedures clear and easy to follow for the operators?

<--- Score

51. Do you monitor the effectiveness of your Internet of Things activities?

<--- Score

52. How will report readings be checked to effectively monitor performance?

<--- Score

53. Is new knowledge gained imbedded in the response plan?

<--- Score

54. Do the decisions we make today help people and the planet tomorrow?

<--- Score

55. Whats the best design framework for Internet of Things organization now that, in a post industrial-age if the top-down, command and control model is no longer relevant?

<--- Score

56. How will the process owner and team be able to hold the gains?

<--- Score

57. What is our theory of human motivation, and

how does our compensation plan fit with that view?

<--- Score

58. Are pertinent alerts monitored, analyzed and distributed to appropriate personnel?

<--- Score

59. What is the recommended frequency of auditing?

<--- Score

60. What can you control?

<--- Score

61. How is identity managed at scale?

<--- Score

62. How will the day-to-day responsibilities for monitoring and continual improvement be transferred from the improvement team to the process owner?

<--- Score

63. What should the next improvement project be that is related to Internet of Things?

<--- Score

64. How can we best use all of our knowledge repositories to enhance learning and sharing?

<--- Score

65. Why is change control necessary?

<--- Score

66. Is there documentation that will support the successful operation of the improvement?

67. Is there a documented and implemented monitoring plan?

<--- Score

68. Who sets the Internet of Things standards?

<--- Score

69. Can we learn from other industries?

<--- Score

70. Are suggested corrective/restorative actions indicated on the response plan for known causes to problems that might surface?

<--- Score

71. Can the company scale its operations as it grows?

<--- Score

72. Were the planned controls working?

<--- Score

73. How do we enable market innovation while controlling security and privacy?

<--- Score

74. Who will be in control?

<--- Score

75. Are controls in place and consistently applied?

<--- Score

76. How will IoT applications affect users control over their own privacy and how will they react?

77. Implementation Planning- is a pilot needed to test the changes before a full roll out occurs?

<--- Score

78. What should we measure to verify efficiency gains?

<--- Score

79. How do we drive a secure solution that is interoperable and scales across a global IoT ecosystem?

<--- Score

80. What other systems, operations, processes, and infrastructures (hiring practices, staffing, training, incentives/rewards, metrics/dashboards/scorecards, etc.) need updates, additions, changes, or deletions in order to facilitate knowledge transfer and improvements?

<--- Score

81. Fog networking: how to connect every component of the fog at large scale, such as IoT?

<--- Score

82. Does job training on the documented procedures need to be part of the process team's education and training?

- 83. Are operating procedures consistent?
- <--- Score
- 84. Does the Internet of Things performance meet the

customer's requirements? <--- Score 85. Against what alternative is success being measured? <--- Score 86. In the case of a Internet of Things project, the criteria for the audit derive from implementation objectives, an audit of a Internet of Things project involves assessing whether the recommendations outlined for implementation have been met. in other words, can we track that any Internet of Things project is implemented as planned, and is it working? <--- Score 87. How will the process owner verify improvement in present and future sigma levels, process capabilities? <--- Score 88. What are the critical parameters to watch? <--- Score 89. Is there a control plan in place for sustaining improvements (short and long-term)? <--- Score Add up total points for this section: ____ = Total points for this section Divided by: ____ (number of statements answered) =

Transfer your score to the Internet of

Average score for this section

Things Index at the beginning of the Self-Assessment.

SELF-ASSESSMENT SECTION START

CRITERION #7: SUSTAIN:

INTENT: Retain the benefits.

In my belief, the answer to this question is clearly defined:

5 Strongly Agree

4 Agree

3 Neutral

2 Disagree

1 Strongly Disagree

- 1. What one word do we want to own in the minds of our customers, employees, and partners?
- <--- Score
- 2. Which individuals, teams or departments will be involved in Internet of Things?
- <--- Score
- 3. How much are companies liable vs. the consumers themselves?
- <--- Score
- 4. Is maximizing Internet of Things protection the

same a	as	minimizing	Internet	of	Things	loss?
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5. How can we take rapid and informed action given the dramatic changes the IoT will make to our traditional business models?

<--- Score

6. How do I stay inspired?

<--- Score

7. Operational - will it work?

<--- Score

8. How would a society benefit from an AI that passes the Turing test?

<--- Score

9. What Is Agent-Based Modeling & Simulation?

<--- Score

10. What is a feasible sequencing of reform initiatives over time?

<--- Score

11. What are the organizations that are using the Internet of Things using it for?

<--- Score

12. Do we underestimate the customer's journey?

<--- Score

13. Agent-based modeling: A revolution?

<--- Score

14. Who are the vendors and startups active in the

Internet of Things?

<--- Score

15. Schedule -can it be done in the given time?

<--- Score

16. What does iiot mean to us?

<--- Score

17. How fast is IoT becoming important?

<--- Score

18. Who is making significant investments in the Internet of Things?

<--- Score

19. What are the business goals Internet of Things is aiming to achieve?

<--- Score

20. How much contingency will be available in the budget?

<--- Score

21. What privacy training is provided to users either generally or specifically relevant to the functionality of the program or system?

<--- Score

22. How do we secure this?

<--- Score

23. Who are four people whose careers I've enhanced? <--- Score

24. Do we think we know, or do we know we know

?

<--- Score

25. How will you access customers?

<--- Score

26. Are there background checks for the **Contractors employees?**

<--- Score

27. What information is shared and for what purpose?

<--- Score

28. What is our formula for success in IIoT?

<--- Score

29. What trouble can we get into?

<--- Score

30. What stupid rule would we most like to kill?

<--- Score

31. Who is the main stakeholder, with ultimate responsibility for driving Internet of Things forward?

<--- Score

32. Computational offloading in mobile edge computing has a couple of challenges: how to split an IoT application?

<--- Score

33. If the Contractor installs, what shall this entail?

<--- Score

34. Are we relevant? Will we be relevant five years

from now? Ten?

35. How has the project, application or website been marketed to potential users?

<--- Score

36. If our customer were my grandmother, would I tell her to buy what we're selling?

<--- Score

37. What are the advantages of internet of things over snmp?

<--- Score

38. Are new benefits received and understood?

<--- Score

39. Which models, tools and techniques are necessary?

<--- Score

40. What do we do when new problems arise?

<--- Score

41. How can we become the company that would put us out of business?

<--- Score

42. Has your organization established leadership for its IoT efforts?

<--- Score

43. How can we incorporate support to ensure safe and effective use of Internet of Things into the services that we provide?

44. What is our competitive advantage?

<--- Score

45. How are individuals notified of the procedures for seeking access to or amendment of their information?

<--- Score

46. What knowledge, skills and characteristics mark a good Internet of Things project manager?

<--- Score

47. Do we have bad profits?

<--- Score

48. Where can we break convention?

<--- Score

49. Legal and contractual - are we allowed to do this?

<--- Score

50. If we got kicked out and the board brought in a new CEO, what would he do?

<--- Score

51. How likely is it that a customer would recommend our company to a friend or colleague?

<--- Score

52. What are the constraints that massive deployment of objects/sensor at the network periphery do put on network capabilities and architectures?

53. How could FCC rules be changed to make it easier for small businesses to participate in the Internet of Things?

<--- Score

54. What does a good Internet of Things strategy include?

<--- Score

55. What information is to be collected?

<--- Score

56. Have new benefits been realized?

<--- Score

57. Exit strategy. what happens if the contract must be terminated?

<--- Score

58. Instead of going to current contacts for new ideas, what if you reconnected with dormant contacts—the people you used to know? If you were going reactivate a dormant tie, who would it be?

<--- Score

59. What are the disruptive aspects of IoT?

<--- Score

60. To whom do you add value?

<--- Score

61. How will you motivate the dishwashers?

62. If you were responsible for initiating and implementing major changes in your organization, what steps might you take to ensure acceptance of those changes?

<--- Score

63. Are we paying enough attention to the partners our company depends on to succeed?

<--- Score

64. Design for networking agnosticism: Whats in a thing?

<--- Score

65. Ask yourself: how would we do this work if we only had one staff member to do it?

<--- Score

66. Which is your favorite internet of things hardware?

<--- Score

67. How would our PR, marketing, and social media change if we did not use outside agencies?

<--- Score

68. How will the Internet of Things affect the Smartgrid?

<--- Score

69. What are the top 3 things at the forefront of our Internet of Things agendas for the next 3 years?

<--- Score

70. What is it like to work for me?

71. How fast is IoT becoming important for us? <--- Score

72. How can we implement Internet of things? <--- Score

73. How is the information transmitted or disclosed?

<--- Score

74. What may be the consequences for the performance of an organization if all stakeholders are not consulted regarding Internet of Things?

<--- Score

75. Stakeholder organizations will all have their own objectives and channels to market and this provides them with a challenge. How do they manage their piece of the overall ecosystem and benefit from it whilst also contributing to the greater good of society at large?

<--- Score

76. How are we doing compared to our industry? <--- Score

77. How can Arduino be used to explore the Internet of Things?

<--- Score

78. Will IT be a partner, driving business value, building an IoT architecture and collaborating on greenfield projects?

79. What happens if a contract must be terminated?

<--- Score

80. How do you govern and fulfill your societal responsibilities?

<--- Score

81. What would I recommend my friend do if he were facing this dilemma?

<--- Score

82. For each recipient component or office, what information is shared and for what purpose?

<--- Score

83. We've already invested in PKI how can we reuse it for mobility and internet of things?

<--- Score

84. What are the success criteria that will indicate that Internet of Things objectives have been met and the benefits delivered?

<--- Score

85. What does a sensor look like?

<--- Score

86. What is the go-to -market strategy?

<--- Score

87. Is the impact that Internet of Things has shown?

<--- Score

88. You may have created your customer policies

at a time when you lacked resources, technology wasn't up-to-snuff, or low service levels were the industry norm. Have those circumstances changed?

<--- Score

89. Did my employees make progress today?

<--- Score

90. Which applications and services will be expected?

<--- Score

91. What will be the consequences to the business (financial, reputation etc) if Internet of Things does not go ahead or fails to deliver the objectives?

<--- Score

92. How is business? Why?

<--- Score

93. Among our stronger employees, how many see themselves at the company in three years? How many would leave for a 10 percent raise from another company?

<--- Score

94. How to Secure Internet of Things?

<--- Score

95. What happens if you do not have enough funding?

<--- Score

96. What are internet of things products with commercial success?

97. Is there any reason to believe the opposite of my current belief?

<--- Score

98. What are the critical success factors which will support the expansion and wide adoption of IoT applications?

<--- Score

99. Reliability: When the availability of the system is challenged, how does it respond?

<--- Score

100. What have we done to protect our business from competitive encroachment?

<--- Score

101. Are customers going to gravitate specific technologies?

<--- Score

102. What are strategies for increasing support and reducing opposition?

<--- Score

103. Were lessons learned captured and communicated?

<--- Score

104. Who do we want out customers to become?

<--- Score

105. In the past year, what have you done (or could you have done) to increase the accurate perception of

this company/brand as ethical and honest? <--- Score

106. What is the minimum acceptable level of reliability?

<--- Score

107. With which internal components of our organization is the information shared?

<--- Score

108. Is Internet of Things dependent on the successful delivery of a current project?

<--- Score

109. Who are you going to put out of business, and why?

<--- Score

110. What are specific Internet of Things Rules to follow?

<--- Score

111. What are we challenging, in the sense that Mac challenged the PC or Dove tackled the Beauty Myth?

112. Am I failing differently each time?

<--- Score

113. Why are Internet of Things skills important?

<--- Score

114. Have you established a Center of Excellence (COE) for the IoT?

115. What happens when a new employee joins the organization?

<--- Score

116. What potential megatrends could make our business model obsolete?

<--- Score

117. Who, on the executive team or the board, has spoken to a customer recently?

<--- Score

118. What role does communication play in the success or failure of a Internet of Things project?

<--- Score

119. What are we trying to achieve?

<--- Score

120. Does the system evolve toward a stable mix of agent types?

<--- Score

121. If I had to leave my organization for a year and the only communication I could have with employees was a single paragraph, what would I write?

<--- Score

122. How can you negotiate Internet of Things successfully with a stubborn boss, an irate client, or a deceitful coworker?

<--- Score

123. Do you have an implicit bias for capital investments over people investments?

124. What counts that we are not counting?

<--- Score

125. What is the future of wireless mesh networks in your opinion?

<--- Score

126. What middlewares are used in Internet of things?

<--- Score

127. Do we do Agent-Based Modeling and Simulation?

<--- Score

128. What is your BATNA (best alternative to a negotiated agreement)?

<--- Score

129. Do we seem to be indifferent towards research on the internet of things as compared to peers?

<--- Score

130. What are the gaps in my knowledge and experience?

<--- Score

131. What is our Internet of Things Strategy?

<--- Score

132. How long will it take to change?

133. Who uses our product in ways we never expected?

<--- Score

134. How do we go about Securing Internet of Things?

135. Who are the key stakeholders?

<--- Score

136. How are the networks changing?

<--- Score

137. What are the challenges?

<--- Score

138. Can we maintain our growth without detracting from the factors that have contributed to our success?

<--- Score

139. Will contractors install the necessary equipment?

<--- Score

140. Which user group(s) will have access to the system?

<--- Score

141. Will there be any necessary staff changes (redundancies or new hires)?

<--- Score

142. Why Is IoT Important?

143. Who will be the leading companies of the internet of things?

<--- Score

144. How do you address back-end system integration?

<--- Score

145. Are assumptions made in Internet of Things stated explicitly?

<--- Score

146. What is an unauthorized commitment?

<--- Score

147. How do we foster innovation?

<--- Score

148. How can sluggish supply chains be empowered by IoT to make them more transparent and responsive?

<--- Score

149. Does the ecosystem enable end to end security?

<--- Score

150. Has the investment re-baselined during the past fiscal year?

<--- Score

151. Who is responsible for errors?

<--- Score

152. Can we remove maintenance?

153. Why is the information being collected?

<--- Score

154. Which functions and people interact with the supplier and or customer?

<--- Score

155. If our company went out of business tomorrow, would anyone who doesn't get a paycheck here care? <--- Score

156. Does our system use "roles" to assign privileges to users of the system?

<--- Score

157. How do we provide a safe environment -physically and emotionally?

<--- Score

158. How do we maintain Internet of Things's Integrity?

<--- Score

159. How do we Lead with Internet of Things in Mind? <--- Score

160. If you had to rebuild your organization without any traditional competitive advantages (i.e., no killer a technology, promising research, innovative product/service delivery model, etc.), how would your people have to approach their work and collaborate together in order to create the necessary conditions for success?

161. What are your most important goals for the strategic Internet of Things objectives?

<--- Score

162. From whom is the information collected?

<--- Score

163. Are there any provisions in place for auditing the recipients' use of the information?

<--- Score

164. Will it be accepted by users?

<--- Score

165. What trophy do we want on our mantle?

<--- Score

166. Whom among your colleagues do you trust, and for what?

<--- Score

167. Are you ready to be an Insurer of Things?

<--- Score

168. Are we making progress? and are we making progress as Internet of Things leaders?

<--- Score

169. In retrospect, of the projects that we pulled the plug on, what percent do we wish had been allowed to keep going, and what percent do we wish had ended earlier?

<--- Score

170. Political -is anyone trying to undermine this project?

171. When information truly is ubiquitous, when reach and connectivity are completely global, when computing resources are infinite, and when a whole new set of impossibilities are not only possible, but happening, what will that do to our business?

172. Is any form of notice provided to the individual prior to collection of information?

<--- Score

173. How will the main business actors of applications interact?

<--- Score

174. Do I know what I'm doing? And who do I call if I don't?

<--- Score

175. Are there any disadvantages to implementing Internet of Things? There might be some that are less obvious?

<--- Score

176. Do certain types of agents dominate?

<--- Score

177. How can the principle of right to silence, aka silence of the chips, that allows individuals to disconnect from any application, be integrated into those systems?

<--- Score

178. If we do not follow, then how to lead?

179. What information is critical to our organization that our executives are ignoring?

<--- Score

180. Why don't our customers like us?

<--- Score

181. What management system can we use to leverage the Internet of Things experience, ideas, and concerns of the people closest to the work to be done?

<--- Score

182. What should we stop doing?

<--- Score

183. Do you keep 50% of your time unscheduled?

<--- Score

184. What are the major components of IoT?

<--- Score

185. What are the rules and assumptions my industry operates under? What if the opposite were true? <--- Score

186. What are the critical success factors?

<--- Score

187. What is the overall business strategy?

<--- Score

188. What design choices were made to enhance privacy?

189. With which external recipient(s) is the information shared?

<--- Score

190. What is our Big Hairy Audacious Goal?

<--- Score

191. What is the expected growth in terms of time, magnitude, location?

<--- Score

192. Do we have industrial internet-of-things (iiot) on our radar?

<--- Score

193. What would have to be true for the option on the table to be the best possible choice?

<--- Score

194. Do we say no to customers for no reason?

<--- Score

195. How do I find sensor services?

<--- Score

196. Think about the kind of project structure that would be appropriate for your Internet of Things project. should it be formal and complex, or can it be less formal and relatively simple?

<--- Score

197. How do we engage the workforce, in addition to satisfying them?

198. Where Are the TPMs?

<--- Score

199. How will we build a 100-year startup?

<--- Score

200. Are there Internet of Things Models?

<--- Score

201. Why is it important to have senior management support for a Internet of Things project?

<--- Score

202. If we weren't already in this business, would we enter it today? And if not, what are we going to do about it?

<--- Score

203. What is something you believe that nearly no one agrees with you on?

<--- Score

204. If there were zero limitations, what would we do differently?

<--- Score

205. What applications will first become mainstream and under which business model will they operate?

<--- Score

206. What current systems have to be understood and/or changed?

207. Who else should we help?

<--- Score

208. But is your business prepared?

<--- Score

209. Who have we, as a company, historically been when we've been at our best?

<--- Score

210. How should we bring in consultants, for which jobs and for how long?

<--- Score

211. How can we become more high-tech but still be high touch?

<--- Score

212. Is the social web being irreversibly corrupted by automation tools?

<--- Score

213. What is a thing?

<--- Score

214. How will you know that the Internet of Things project has been successful?

<--- Score

215. How are conflicts dealt with?

<--- Score

216. How are the actual assignments of roles and rules verified according to established security and auditing procedures?

217. Is the IoT a reality?

<--- Score

218. Why should enterprise it departments care about IoT?

<--- Score

219. How can we best leverage cloud computing and obtain security?

<--- Score

220. Who is responsible for ensuring appropriate resources (time, people and money) are allocated to Internet of Things?

<--- Score

221. If no one would ever find out about my accomplishments, how would I lead differently? <--- Score

222. What is the effect of agent diversity on the system?

<--- Score

223. How do we ensure that memory bandwidth is keeping up?

<--- Score

224. We picked a method, now what?

<--- Score

225. Do we have the right people on the bus? <--- Score

226. Are the criteria for selecting recommendations stated?

<--- Score

227. How will it help your business compete in the context of Digital Marketing?

<--- Score

228. How to deal with Internet of Things Changes? <--- Score

229. What did we miss in the interview for the worst hire we ever made?

<--- Score

230. In a project to restructure Internet of Things outcomes, which stakeholders would you involve? <--- Score

231. Do we prepare for the future where the internet will move significantly beyond relying on handheld devices and computer terminals towards a more massively integrated web of things?

<--- Score

232. What is the worst that could happen, or the worst that happened?

<--- Score

233. lot = the future of the internet?

<--- Score

234. Who will manage the integration of tools?

<--- Score

235. Do we have enough freaky customers in our

portfolio pushing us to the limit day in and day out? <--- Score

236. What will the next killer app be for the Internet of Things?

<--- Score

237. Will contractors have access to the system?

<--- Score

238. How will IPv6 affect the internet of things?

<--- Score

239. What is Disruptive with IoT?

<--- Score

240. What market segment(s) are served by the company?

<--- Score

241. Will we find gold in iiot?

<--- Score

242. How will the information collected from individuals or derived from the system, including the system itself be checked for accuracy?

<--- Score

243. If you had to rebuild your organization without any traditional competitive advantages how would your people have to approach their work and collaborate together in order to create the necessary conditions for success?

<--- Score

244. Who will provide the final approval of Internet of

Things deliverables?

<--- Score

245. What can a single chip embedded deep within a device do for the enterprise at large?

<--- Score

246. What does the internet of things mean for the future of our industry?

<--- Score

247. What does your signature ensure?

<--- Score

248. Will IoT or industrial internet-of-things (iiot) be another bubble?

<--- Score

249. Why should people listen to you?

<--- Score

250. How does Internet of Things integrate with other business initiatives?

<--- Score

251. How to effectively and fairly allocate resources among a collection of competing users?

<--- Score

252. What are the Key enablers to make this Internet of Things move?

<--- Score

253. What am I trying to prove to myself, and how might it be hijacking my life and business success?

254. Can I live with the built-in capabilities of the IoT platforms?

<--- Score

255. What is Effective Internet of Things?

<--- Score

256. Do we have the right capabilities and capacities?

<--- Score

257. Are our executives are aware of the transformational potential of the Internet of Things?

<--- Score

258. Who will be responsible for deciding whether Internet of Things goes ahead or not after the initial investigations?

<--- Score

259. Are we changing as fast as the world around us? <--- Score

260. Has implementation been effective in reaching specified objectives?

<--- Score

261. What are some good open source projects for the internet of things?

<--- Score

262. What is our formula for success in Internet of Things?

263. Are we / should we be Revolutionary or evolutionary?

<--- Score

264. Who will determine interim and final deadlines? <--- Score

265. How would we network them?

<--- Score

266. Have benefits been optimized with all key stakeholders?

<--- Score

267. Whose voice (department, ethnic group, women, older workers, etc) might you have missed hearing from in your company, and how might you amplify this voice to create positive momentum for your business?

<--- Score

268. What kinds of security mechanisms are available?

<--- Score

269. How will you sell your product or service (distributors, internet)?

<--- Score

270. IoT-based offerings are no longer one-off product hardware sales. Instead, manufacturers will embark on new relationships with customers that last for the entire lifecycle of the hardware product. Through over-the-air (OTA) communications, firmware updates and feature

enhancements can be delivered to IoT products for as long as they are installed. Given this shift, how should we price our IoT offerings?

<--- Score

271. When do we use agent modeling?

<--- Score

272. What are your key business, operational, societal responsibility, and human resource strategic challenges and advantages?

<--- Score

273. What was the last experiment we ran?

<--- Score

274. How do we foster the skills, knowledge, talents, attributes, and characteristics we want to have?

<--- Score

275. What is an Agent?

<--- Score

276. What happens at this company when people fail? <--- Score

277. How will the company generate revenue for its product or service?

<--- Score

278. How do you determine the key elements that affect Internet of Things workforce satisfaction? how are these elements determined for different workforce groups and segments?

279. Do you see more potential in people than they do in themselves?

<--- Score

280. Who will determine interim and final deadlines?

<--- Score

281. What business benefits will Internet of Things goals deliver if achieved?

<--- Score

282. In what ways are Internet of Things vendors and us interacting to ensure safe and effective use?

<--- Score

283. Disaster recovery site--what happens if contractors server is destroyed?

<--- Score

284. Would you rather sell to knowledgeable and informed customers or to uninformed customers? <--- Score

285. Are you satisfied with your current role? If not, what is missing from it?

<--- Score

286. If a component fails what (if any) functions must the application continue to provide?

<--- Score

287. What External Factors Influence Our Success?

288. Why will customers buy your product or service over the competition?

<--- Score

289. What specific legal authorities, arrangements, and/or agreements authorize the collection of information?

<--- Score

290. What are some available APIs for the Internet of Things?

<--- Score

291. What is our question?

<--- Score

292. What is the range of capabilities?

<--- Score

293. How do we ensure that implementations of Internet of Things products are done in a way that ensures safety?

<--- Score

294. Are the assumptions believable and achievable?

<--- Score

295. Does our security contain security theater?

<--- Score

296. An Open Internet of Things What does this concept mean to you?

297. Who do we think the world wants us to be? <--- Score

298. Can the Contractor equipment be modified, and if so, by other Contractors?

<--- Score

299. Is our strategy driving our strategy? Or is the way in which we allocate resources driving our strategy? <--- Score

300. How does life-cycle management work for IoT?

<--- Score

301. Economic -do we have the time and money? <--- Score

302. How far will we go?

<--- Score

Add up total points for this section:
____ = Total points for this section

Divided by: _____ (number of statements answered) = _____
Average score for this section

Transfer your score to the Internet of Things Index at the beginning of the Self-Assessment.

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