Here is a listing of all the requirements provided in this book. It includes all ‘shall’ statements, user stories, and use cases presented in the text. These are for you to use as you see fit. The book talked about requirements reuse, so the facilitate you doing it, you have a foundation to start with. Included are all the draft requirements which you learned may not be the best requirement, but they too are provided for your use as you may want to revise them. If you need a refresher, the requirement number in the respective chapter is provided.

**Chapter 1**

1-1 The BOSS Access Control Function shall allow an authorized user to access the system.

1-2 DRAFT – The BOSS Access Control Function shall allow users to access anything on the system.

1-3 PARENT – The BOSS Audit Function shall allow system administrators to generate an audit report.

1-4 CHILD – The BOSS Audit Report shall include all login attempts, all failed login attempts, and who attempted the login.

1-5 CHILD – The BOSS Audit Report shall include who added, changed, or deleted database records.

1-6 (1-1) The BOSS Access Control Function shall allow an authorized user to access the system.

1-7 The BOSS system shall be available 99% of the time.

1-8 The BOSS system shall be available 99.999% of the time.

1-9 The BOSS search functions shall provide Boolean operators: AND, OR, and NOT.

1-10 The BOSS search functions shall default the search results to the following fields:

Spacecraft type

Spacecraft dimensions

Spacecraft weight

Spacecraft storage capacity

1-11 DRAFT The BOSS record function shall capture the time that the record is added to the database.

1-12 DRAFT The BOSS user interface shall be so easy to use that my great-great grandfather will be able to use it.

1-13 DRAFT The BOSS software shall operate on the surface of Jupiter.

**Chapter 2**

2-1 (1-1) The BOSS Access Control Function shall allow an authorized user to access the system.

2-2 DRAFT The BOSS Sampling function shall not use more than ten percent of the raw data in a sample.

2-3 The BOSS Sampling function shall limit sampling of the raw data to more than ten percent of the total.

2-4 The system shall not override user selected contrast and color selections as prescribed in Section 508. (United States Government. “Resources for understanding and implementing Section 508.” Feb. 2015, <http://www.section508.gov/>)

2-5 The system shall not disrupt or disable activated operating system accessibility features.

2-6 If the search is too complex, the system shall not crash while executing a search.

2-7 The system report generator shall not require a per seat license fee for every user.

2-8 DRAFT The BOSS query function shall begin displaying the results of a query within 10 seconds of initiating a query.

2-9 DRAFT The BOSS Solitaire Dealing function shall begin displaying the first card within six seconds of activating the Dealing option.

2-10 The BOSS Solitaire Dealing function shall finish displaying the last card within six seconds of activating the Dealing option.

2-11 DRAFT The BOSS Access Control function shall provide a display and print capability of the access control list.

2-12 The BOSS Access Control function shall provide a display capability of the access control list.

2-13 The BOSS Access Control function shall provide a print capability of the access control list.

2-14 3.1.1 PARENT The BOSS Authentication function shall require all users to authenticate themselves before they can use the system.

2-15 3.1.1.1 CHILD The BOSS Authentication function shall require all users to enter a valid username.

2-16 3.1.1.2 CHILD The BOSS Authentication function shall require all users to enter a valid password.

2-17 3.1.1.3 CHILD The BOSS Authentication function shall require all users to enter a valid system domain name.

2-18 3.1.1.4 CHILD The BOSS Authentication function shall require all users to enter a valid username, password and system domain name in three tries or they are locked out of the system.

2-19 3.1.1.5 CHILD The BOSS Authentication function shall lock out users for one hour or when reset by a system administrator.

2-20 DRAFT The BOSS Access Control function shall provide a display.

2-21 DRAFT The BOSS individual radiation dosimeter shall capture exposure of 1000 rem.

2-22 DRAFT The BOSS individual radiation dosimeter shall capture exposure of 999 rem.

2-23 DRAFT The BOSS individual radiation dosimeter shall capture exposure of 998 rem.

2-24 DRAFT The BOSS individual radiation dosimeter shall capture exposure of 997 rem.

2-25 DRAFT The BOSS individual radiation dosimeter shall capture exposure of 1 rem.

2-26 The BOSS individual radiation dosimeter shall capture exposures of a maximum of 1000 rem.

2-27 The BOSS individual radiation dosimeter shall capture exposures of a minimum of 1 rem.

2-28 The BOSS individual radiation dosimeter shall capture exposures in a range of 1 to 1000 rem.

2-29 The BOSS individual radiation dosimeter shall capture exposures in increments of 1 rem.

2-30 DRAFT The BOSS individual radiation dosimeter shall capture exposures in a range of 1 to 1000 rem in increments of 1 rem.

2-31 The BOSS individual radiation dosimeter shall capture exposures in a range of 1 to (TBD) rem.

2-32 The BOSS individual radiation dosimeter shall capture exposures in a range of 1 to 800 (TBR) rem.

2-33 The cell phone shall perform all its functions after being dropped onto concrete from a height of three feet.

2-34 DRAFT The system shall maintain an index key field for the person data.

2-35 DRAFT The BOSS system software shall maintain a unique sequence of numbers for each record associated with the person data so someone can retrieve the record based on these numbers.

2-36 DRAFT The BOSS code shall assign unique numbers for each person record.

2-37 DRAFT The BOSS SOA implementation shall follow OOP practices on all objects.

2-38 DRAFT The BOSS query function shall return the results of a simple query against one table within two seconds.

2-39 DRAFT The BOSS query function shall return the results of a complex query against ten tables within three minutes.

2-40 DRAFT The BOSS query function shall return the results of a simple query against one table within two seconds.

2-41 DRAFT The BOSS query function shall return the results of a complex query against ten tables within **180 seconds**.

2-42 DRAFT The BOSS print choices shall be offered from a picklist.

2-43 DRAFT The BOSS print choices shall be available from a pull-down menu

2-44 DRAFT 3.1.69 The BOSS system shall accept dates in the mm/dd/yyyy format.

2-45 DRAFT 4.3.2.13 The BOSS Data Entry function shall allow entry of dates in the format:

* dd/mm/yyyy
* mm/dd/yyyy
* yyyy/mm/dd

2-46 3.1.69 The BOSS function shall allow entry of dates in the format:

* dd/mm/yyyy
* mm/dd/yyyy
* yyyy/mm/dd

2-47 4.3.2.13 The BOSS Data Entry system shall be accept dates in the mm/dd/yyyy format.

2-48 DRAFT Each BOSS subsystem shall have a reliability of 0.990.

2-49 DRAFT The BOSS system shall have a reliability of 0.950.

Equation 1: R(system) = 0.990^10 = 0.904

2-50 Each BOSS subsystem shall have a reliability of 0.995.

2-51 The BOSS system shall have a reliability of 0.950.

2-52 DRAFT The BOSS ranking subsystem shall be high, medium and low options.

2-53 DRAFT The BOSS priority function shall allow critical, high, medium and low options

2-54 DRAFT The BOSS New Phone App shall ensure I can use the phone based on a biometric.

2-55 DRAFT The BOSS New Phone App shall be delivered to existing phones.

2-56 DRAFT The BOSS New Phone App shall provide state-of-the-art machine learning capabilities.

2-57 DRAFT The BOSS New Phone App shall be delivered within three months to existing phones.

2-58 DRAFT 3.1.5.5 The BOSS priority function shall allow critical, high, medium, and low options.

2-59 DRAFT 4.7.8.2.1The BOSS priority function shall allow critical, high, medium and low options.

2-60 DRAFT 3.12.5 The BOSS print choices shall be offered from a picklist.

2-61 DRAFT 4.1.1.18 The BOSS print choices shall be offered to the user.

2-62 The BOSS Authentication Function shall require the user to enter a username, password and domain name.

2-63 DRAFT It shall require the user to enter a username, password and domain name in that order.

2-64 The BOSS Authentication Function shall require the user to enter a username, password and domain name in that order.

2-65 DRAFT The BOSS Personnel Data Capture function shall store the personnel data in a text file.

2-66 The BOSS Personnel Data Capture function shall store the personnel data.

2-67 DRAFT The BOSS Personnel Radiation Dosimeter shall be protected in a metal case to prevent damage by the soldier wearing it while going through normal activities in the field.

2-68 The BOSS Personnel Radiation Dosimeter shall be protected to prevent damage by the soldier wearing it while going through normal activities in the field.

2-69 DRAFT The BOSS shall be developed using Java.

2-70 The BOSS shall be developed using Java.

2-71 The BOSS Unit Radiation Dosimeter shall collect the radiation exposure during the unit’s mission. Critical

2-72 The BOSS Unit Radiation Dosimeter shall display the real-time radiation exposure during the unit’s mission when activated by a user. High

2-73 The BOSS Unit Radiation Dosimeter shall generate a display of the radiation exposure values over the unit’s entire mission. Medium

2-74 The BOSS Unit Radiation Dosimeter shall generate a graphic display of the radiation exposure values over the unit’s entire mission. Low

2-75 The BOSS Casualty Data Collection function shall allow an authorized user to enter each unit’s daily casualties. Critical

2-76 The BOSS Casualty Query Collection function shall allow an authorized user to query each unit’s daily casualties. High

2-77 The BOSS Casualty Report Collection function shall allow an authorized user to generate a report of all units’ daily casualties. Medium

2-78 The BOSS Casualty Query Collection function shall allow an authorized user to generate a report of one unit’s daily casualties over a month. Low

2-79 DRAFT The BOSS Venus Probe shall be able to hover at any altitude using anti-gravity pulse generators.

2-80 The BOSS Venus Probe shall be able to descend slowly in the Venusian atmosphere by using a parachute.

2-81 DRAFT The BOSS Earth Internal Probe shall be capable to image the fluid interior of the Earth using positrons.

2-82 The BOSS Submarine Probe shall be capable to image underwater vehicles using sonar.

2-83 DRAFT The BOSS Chess Software shall be capable of beating a Chess Grandmaster.

2-84 DRAFT The BOSS Physician Diagnosis Software shall completely duplicate all the diagnostic functions of a physician.

Table 2-1. Traceability for of the BOSS system’s Authentication requirements to other documents

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Requirement | Design spec | Test procedure |
| 3.1.1.1 | The BOSS Authentication function shall require all users to enter a valid username. | 2.1.1a, 2.1.2, 2.2.2c | TP-3.1 |
| 3.1.1.2 | The BOSS Authentication function shall require all users to enter a valid password. | 2.1.1b, 2.1.3, | TP-3.1 |
| 3.1.1.3 | The BOSS Authentication function shall require all users to enter a valid system domain name | 2.1.1c, 2.2.2a, 2.2.2b | TP-3.1 |
| 3.1.1.4 | The BOSS Authentication function shall require all users to enter a valid username, password and system domain name in three tries or they are locked out of the system. | 2.1.1d | TP-3.1 |

Table 2-2. Traceability for a Cell phone system to other documents, separate from the BOSS system

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Requirement | Design spec | Test procedure |
| 4.7.2.1 | The cell phone shall perform all its functions after being dropped onto concrete from a height of three feet. | 4.7.2.1.1, 4.7.2.1.2, 4.7.2.1.3 | PD-7.9 |

Table 2-3. Traceability for the BOSS system’s authentication function]

|  |  |  |
| --- | --- | --- |
| Number | Requirement | Source |
| 3.1.1.1 | The BOSS Authentication function shall require all users to enter a valid username. | BOSS Security Manager |
| 3.1.1.2 | The BOSS Authentication function shall require all users to enter a valid password. | BOSS Security Manager |
| 3.1.1.3 | The BOSS Authentication function shall require all users to enter a valid system domain name | BOSS Security Manager |
| 3.1.1.4 | The BOSS Authentication function shall require all users to enter a valid username, password and system domain name in three tries or they are locked out of the system. | Network Administrator at Administration Meeting June 4, 2014. |

Table 2-4. Traceability for a Cell phone system separate from the BOSS system

|  |  |  |
| --- | --- | --- |
| Number | Requirement | Source |
| 4.7.2.1 | The cell phone shall perform all its functions after being dropped onto concrete from a height of three feet. | Every person who has dropped a cell phone! |

2-85 DRAFT The BOSS Personnel Data Entry Function shall allow the entry of a name that is up to thirty characters long.

2-86 DRAFT The BOSS Personnel Data Entry Function shall only allow the user to display one record.

2-87 The BOSS Personnel Data Entry Function shall allow the user to display only one record at a time.

2-88 The BOSS Personnel Data Entry Function shall allow Read-Only user to only display records.

2-89 DRAFT The BOSS shall be user-friendly.

2-90 The BOSS shall follow our Organizational User Interface Standard.

2-91 The BOSS radiation dose rate meter shall capture exposures with a minimum accuracy of 0.1 rem per second.

2-92 DRAFT The BOSS radiation dose rate meter shall capture as much radiation exposures as the user experiences during a mission.

2-93 The BOSS radiation dose rate meter shall capture exposures with a maximum accuracy of 100.0 rem per second.

2-94 DRAFT The social security number shall be entered by the user.

2-95 DRAFT The social security number shall be entered.

2-96 The user shall enter social security number.

2-97 The BOSS Query Function shall generate results within 2 seconds of entry of the query 80% of the time.

2-98 The BOSS Query Function shall generate results within 30 seconds of entry of the query 100% of the time.

2-99 The BOSS Query Function shall generate its queries using a SQL server.

2-100 The BOSS Central Code module shall have the name of the vendor who wrote it.

2-101 The BOSS computing device shall have a Universal Serial Bus (USB) port for connecting external devices.

2-102 The BOSS computing device USB port shall allow the connection of a USB drive and recognize the files therein.

2-103 The BOSS Venus Probe shall survive 250 mph winds.

2-104 The BOSS Query Function shall handle an average of 50 users at a time with no degradation to query response times.

2-105 The BOSS Query Function shall a peak load of 200 users for an hour with only twenty percent addition to the query response times during that hour.

2-106 The BOSS game device shall have a mean time before failure of 200 hours. (It costs $10, so don’t expect it to last forever!)

2-107 The BOSS Access Control function shall provide a capability to assign an access control list to search results.

2-108 DRAFT The BOSS Access Control function shall automatically provide a capability to assign an access control list to search results.

2-109 The BOSS Access Control function shall provide a capability to assign an access control list to search results.

**Chapter 3**

3-1 3.2.1 The Audit Reporting Service (ARS) shall only allow the ARS admin role to access the ARS to prevent unauthorized users from seeing the report.

3-2 3.2.2 The Audit Reporting Service (ARS) report shall consist of…

**Chapter 4**

4-1 The BOSS Unit Radiation Dosimeter shall collect radiation exposure from nuclear fallout in a nuclear battlefield for the individual who is wearing the Dosimeter.

4-2 The BOSS Payroll Function shall capture all payroll activities for the BOSS Company.

4-3 The BOSS Payroll Function shall capture all people who will have payroll activities within the BOSS Company.

4-4 The BOSS Payroll Transaction function shall allow the designated user to bulk enter Personnel records into the system.

4-5 DRAFT The BOSS Payroll Transaction function shall allow the designated user to bulk load Person records into the system.

4-6 The BOSS Payroll Transaction function shall allow the designated user to import multiple Person records into the system.

4-7 The BOSS Payroll Transaction function shall allow the designated user to modify a Person record in the system.

4-8 The BOSS Payroll Transaction function shall allow the designated user to deactivate a Person record in the system.

4-9 The BOSS Payroll Transaction function shall allow the system administrator to delete a Person record in the system when the record was entered in error.

4-10 The BOSS Payroll Transaction function shall check that the person identifier already exists in the system.

4-11 The BOSS Error Checking Function shall identify in clear text that an error has occurred with suggestions how to repair the condition but at least how to continue.

4-12 The BOSS System Administrator shall be able to (describe specific function).

4-13 The BOSS System Administration function shall ensure at least two System Administrator accounts exist in the system.

4-14 The BOSS System Administrator shall be able to add user accounts.

4-15 The BOSS System Administrator shall be able to change user accounts.

4-16 The BOSS System Administrator shall be able to deactivate user accounts.

4-17 The BOSS System Administrator shall be able to reactivate user accounts.

4-18 The BOSS System Administrator shall be able to delete user accounts.

4-19 The BOSS HR Regulation Function shall require fingerprint authentication to perform all tasks other than reading.

4-20 The BOSS HR Payroll function shall require retinal scan authentication to perform all tasks other than reading.

4-21 The Nuclear, Chemical and Biological (NBC) Officer shall be able to authenticate access to the BOSS Unit Radiation Dosimeter by entering his/her service number.

4-22 The BOSS HR regulations shall be able to read by all company employees.

4-23 The BOSS HR employee only shall be able to add HR regulations.

4-24 The BOSS HR employee only shall be able to change HR regulations.

4-25 The BOSS HR employee only shall be able to delete HR regulations.

4-26 The NBC Officer shall be able to run the BOSS Unit Radiation Dosimeter to collect the individual radiation exposures of a designated unit.

4-27 The Medical Doctor shall be able to run the BOSS Unit Radiation Dosimeter to collect individual radiation exposure of a given person to assist with radiation treatment.

4-28 The BOSS Audit Function shall capture all adds, changes, deletions, deactivations and reactivations made by all system administrators.

4-29 The BOSS Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations made by all system administrators.

4-30 The BOSS Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations made by a specified system administrators.

4-31 The BOSS Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations over a given time frame.

4-32 The BOSS Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations for specified data records.

4-33 The BOSS Audit Function shall capture all adds, changes, deletions, deactivations and reactivations to access made by all security officers.

4-34 The BOSS Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations made by all security officers.

4-35 The BOSS Unit Radiation Dosimeter Audit Function shall provide a report that capture all adds, changes, deactivations, reactivations and deletions of access to the BOSS Unit Radiation Dosimeter.

4-36 The BOSS Unit Radiation Dosimeter Audit Function shall provide a report that capture all adds, changes, deletions, deactivations and reactivations for specified data records.

4-37 The BOSS Personnel System shall provide all access functionality by interfacing with the BOSS Access Control Application.

4-38 The BOSS Individual Radiation Dosimeter shall interface with the BOSS Unit Radiation Dosimeter using a USB connection.

4-39 The BOSS shall meet the Security Certification specified by (enter the appropriate organization here, say ABC Company Security Office).

4-40 The BOSS Unit Radiation Dosimeter Calibration Source shall meet the Nuclear Regulatory Commission Radiation Certification.

4-41 The BOSS Search Function shall execute user specified queries using the following BOOLEAN operators:

1. AND
2. OR
3. NOT
4. AND NOT
5. OR NOT
6. ()
7. NEAR – Term A and Term B are within N number of words

4-42 The BOSS Search Function shall execute user specified queries using the Concept Search capabilities to find terms that are related to terms entered by the user.

4-43 The BOSS Search Function shall exploit machine-learning techniques to find data that are related to terms entered by the user.

4-44 The BOSS Search Function shall allow users to specify the data elements returned in their query results.

4-45 The BOSS Search Function shall allow users to specify the order data elements returned in their query results.

4-46 The BOSS Search Function shall allow users to specify the format of the data elements returned in their query results.

4-47 The BOSS shall provide a report generating capability.

4-48 The BOSS report generating capability shall provide (enter the need here).

4-49 The BOSS Report Function capability shall generate a (Report Name) Report which included the following data values scheduled every (enter the time period here, e.g., daily, weekly, monthly, quarterly, annually, every third Wednesday).

1. Value A with Format NNNN
2. Value C with Format AAAAAA
3. Value D with Format NNAAA
4. Value Q with Format AAAAAAAAAAAAAAAAAAAAAAAA

4-50 The BOSS Report Function capability shall not require a per seat fee.

4-51 The BOSS website shall have every non-text item on a page is to have a text description to be fully compliant with Section 508 of the US Rehabilitation Act.

4-52 The FBI BOSS Records Management function shall retain a record of every hardcopy document in the permanent archive for the life of the Republic.

4-53 The BOSS Human Resource (HR) Policies shall only be modifiable by HR administrators.

4-54 The BOSS Human Resource (HR) Policies shall only allow a person’s Social Security Number to be used for HR purposes when the person gives permission to do so.

4-55 The BOSS Human Resource (HR) Medical Policies shall be in compliance with HIPAA regulations.

4-56 The BOSS Tire Purchasing and Sales function shall generate 3 Gigabytes of data per year for five years.

4-57 The BOSS Tire Purchasing and Sales data shall be available online for five years.

4-58 The BOSS Unit Radiation Dosimeter shall be able to maintain data for 1000 transactions.

4-59 The BOSS Unit Radiation Dosimeter shall have the ability to download up to 1000 transactions to the BOSS Dosimetry Archive Laptop.

4-60 The BOSS Dosimetry Archive function shall be able to maintain data for 5,000,000 transactions for fifty years.

4-61 The BOSS Dosimetry Archive Laptop shall allow the ability to recall archived transaction data.

4-62 The FBI BOSS Records Management data shall be archived after five years online.

4-63 The FBI BOSS Records Management Archived data shall allow the ability to recall archived transaction data to the online system.

4-64 DRAFT The FBI BOSS Records Management Archived data shall be maintained for the life of the Republic.

4-65 The FBI BOSS Records Management Archived data shall be maintained for the life of the FBI BOSS Records Management System.

4-66 When the FBI BOSS Records Management System is being replaced, the FBI BOSS Records Management Archived data shall be migrated to the replacement archive system so the data can be maintained for the life of the Republic.

4-67 The BOSS Lost Creek Bridge shall support two lanes of traffic of 300 tons.

4-68 The BOSS Cost of First Class Letter Postage data element shall be determined with the following look-up table:

|  |  |
| --- | --- |
| Weight | Cost |
| 1 ounce | $0.49 |
| 2 ounce | $0.70 |
| 3 ounce | $0.91 |
| 3.5 ounce | $1.12 |

4-69 The BOSS conversion of mass to energy data element shall be determined by multiplying the change in mass by the speed of light times the speed of light, using the metric units.

4-70 The FBI BOSS Records Management shall store the record title/subject in a text field of up to 80 characters.

4-71 The BOSS Individual Radiation Dosimeter shall store exposures in a range of 1 to 800 Rem.

4-72 The BOSS Individual Radiation Dosimeter shall store exposures in the following format, NNN where N is numeric only.

4-73 The BOSS Individual Radiation Dosimeter shall require 5 volts direct voltage.

4-74 The BOSS Unit Radiation Dosimeter shall use an internal 12 direct current source of power.

4-75 The BOSS Unit Radiation Dosimeter shall use an external 110 to 120 alternating current source of power with 60 Hz.

4-76 The BOSS Unit Radiation Dosimeter shall use an external 220 to 240 alternating current source of power with 50 Hz.

4-77 The FBI BOSS Records Management shall use an external 110 to 120 alternating current source of power with 60 Hz.

4-78 The FBI BOSS Records Management shall need a server for application and data records of the system.

4-79 The FBI BOSS Records Management shall need 240 individual devices to connect to the server to access the application and data records of the system.

4-80 The FBI BOSS Records Management Call Center shall need an external 110 to 120 alternating current source of power with 60 Hz.

4-81 The BOSS Dosimetry Archive Laptop shall need a Wi-Fi source at the Brigade headquarters (HQ) element to receive archive transmissions from the field BOSS Unit Radiation Dosimeters.

4-82 The FBI BOSS Records Management shall have a complete system and data backup once a week.

4-83 The FBI BOSS Records Management shall capture an incremental backup of each transaction as they occur.

4-84 The FBI BOSS Records Management shall be able to recover from the operational system within four hours from the local backup.

4-85 The BOSS Unit Radiation Dosimeter shall capture an incremental backup of daily transactions.

4-86 The BOSS Unit Radiation Dosimeter shall be able to recover from the operational system within four days from the local backup.

**Chapter 5**

5-1 The FBI BOSS Records Management shall be designed with a Service Oriented Architecture (SOA).

5-2 The FBI BOSS Records Management shall follow Representational State Transfer (REST).

5-3 The DoD BOSS Records Management Computer system shall follow Common Operating Platform Environments (COPEs) Architecture.

5-4 The FBI BOSS Records Management shall have a capacity of 12 Terabytes of data.

5-5 The BOSS Individual Radiation Dosimeter shall store 1000 bytes of data.

5-6 The BOSS Unit Radiation Dosimeter shall store 1,000,000 bytes of data.

5-7 The BOSS Oort Cloud Space Probe shall store 1 gigabyte of data.

5-8 The BOSS Individual Radiation Dosimeter shall weigh no more than four ounces.

5-9 The FBI BOSS Records Management shall require all records to be in one of the following formats only:

* DOC,
* DOCX,
* XLS,
* XLSX,
* PPT,
* PPTX,
* JPG, or
* TIFF

5-10 The BOSS Unit Radiation Dosimeter shall have a hardcopy user guide that explains all the functions of the BOSS Unit Radiation Dosimeter.

5-11 The FBI BOSS Records Management System shall have an online user guide that explains all the functions of the BOSS Records Management System.

5-12 The FBI BOSS Records Management System Operating System shall make 99.5% of the data hard drive available for storage.

5-13 The BOSS Individual Radiation Dosimeter shall alert the user when the battery drops below 90% power so that the batteries can be changed.

5-14 The BOSS Individual Radiation Dosimeter shall capture 99% of the radiation the individual soldier is exposed to.

5-15 The FBI BOSS Records Management System Operating System shall ingest 100% of records submitted.

5-16 The FBI BOSS Records Management System shall have all functions implemented as services within a service oriented architecture to allow the system to operate in the event of one or more services failing.

5-17 The XF-36 jet fighter shall be able to land with only one of its two engines operating.

5-18 The BOSS Unit Radiation Dosimeter shall store ensure individual radiation dosages are protected in accordance with HIPAA compliance.

5-19 The FBI BOSS Records Management shall have protect the privacy of individuals identified in a record in accordance with Federal Government Privacy policies.

5-20 The FBI BOSS Records Management scanning shall capture 75% of the characters per page to be considered a quality scan.

5-21 DRAFT The BOSS Unit Radiation Dosimeter shall capture gamma ray exposure between 200KeV and 1.00 MeV with a 99% accuracy.

5-22 The FBI BOSS Records Management shall maintain all records during an outage until such time as the system is restored.

5-23 The BOSS Individual Radiation Dosimeter shall maintain the individual exposure record during the loss of battery power until such time as the power is restored to the system.

5-24 The FBI BOSS Records Management Search Function shall not cause the system to fail.

5-25 If the energy exposure exceeds 1.00 MeV, the BOSS Unit Radiation Dosimeter shall ignore the energy rather than overload the sensor.

5-26 The BOSS Unit Radiation Dosimeter shall be exposed to temperatures ranging from -40 to 140 degrees Fahrenheit.

5-27 The FBI BOSS Records Management shall operate from 6:00 AM to 11:00PM daily Monday through Friday.

5-28 To prevent malicious corruption of the BOSS Unit Radiation Dosimeter, the system shall retain its data for 90 days after a designated user authorizes deletion of a record on the Unit Dosimeter.

5-29 The FBI BOSS Records Management System shall maintain data integrity by keeping backups of all updates to the database for every record transaction.

5-30 The BOSS shall follow this company’s Organizational User Interface Standard.

5-31 (5-26) The BOSS Unit Radiation Dosimeter shall be exposed to temperatures ranging from -40 to 140 degrees Fahrenheit.

5-32 The FBI BOSS Records Management Search Function shall return the results within 4 seconds, 80% of the time.

5-33 The FBI BOSS Records Management Search Function shall return the results within 10 seconds, 90% of the time.

5-34 The FBI BOSS Records Management Search Function shall return the results within one minute, 99% of the time.

5-35 The FBI BOSS Records Management Search Function shall return the results within ten minute, 100% of the time.

5-36 The FBI BOSS Records Management Search Function shall return all query results in less than ten minutes.

5-37 The FBI BOSS Records Management Search Function shall have 500 users.

5-38 The FBI BOSS Records Management Search Function shall have 40 average concurrent users.

5-39 The FBI BOSS Records Management Search Function shall have 120 peak concurrent users.

5-40 The FBI BOSS Records Management Search Function shall return the results within 10 seconds, 80% of the time during the peak two hours of the day.

5-41 The FBI BOSS Records Management Search Function shall return the results within 10 seconds, 80% of the time when there are 100 searches initiated within 10 minutes.

5-42 The BOSS Individual Radiation Dosimeter shall capture exposure to radiation within one second of exposure.

5-43 The BOSS Unit Radiation Dosimeter shall capture the readings from the BOSS Individual Radiation Dosimeter within two seconds once the Individual Dosimeter is locked into the reader.

5-44 The BOSS Network Printer shall print at least one hundred pages a minute.

5-45 The BOSS Network Scanner shall scan at least twenty pages a minute at 2400 dots per inch.

5-46 The BOSS Network Sales Server for a Small Sales Office shall store 10 megabytes of sales records.

5-47 The BOSS Network Sales Server for a Medium Sales Office shall store 40 megabytes of sales records.

5-48 The BOSS Network Sales Server for a Large Sales Office shall store 100 megabytes of sales records.

5-49 DRAFT The BOSS Unit Radiation Dosimeter shall have the ability to download up to 1000 transactions to the BOSS Dosimetry Archive Laptop.

5-50 The BOSS Unit Radiation Dosimeter shall have the ability to download up to 1000 transactions to the BOSS Dosimetry Archive Laptop in 5 minutes.

5-51 The BOSS Weekly Backup shall be completed between 6:00 AM to 11:00PM on Thursday night, with a throughput of 400 kbytes/second.

5-52 The BOSS Weekly Backup shall be completed between 11:00PM starting on Friday night and 6:00 AM on Monday, with a throughput of 51kbytes/second.

Operational availability includes the time to repair a fault, the time spent waiting to repair the fault, and the time between faults. The formula for it is as follows:

Operational Availability = MTBF / (MTTR + Wait Time + MTBF) \* 100% **EQUATION 1**

Since Wait Time is not included, the formula for Inherent availability becomes:

Inherent Availability = MTBF / (MTTR + MTBF) \* 100%  **EQUATION 2**

Maintainability = MTBM / (MTTM + Wait Time + MTBM) \* 100% **EQUATION 3**

When Wait Time is included in the MTTR, this formula becomes:

Maintainability = MTBM / (MTTM + MTBM) \* 100% **EQUATION 4**

http://www.efunda.com/math/reliability/images/ExpDistribReli.gif **EQUATION 5**

When you have two items in series (say the computer and the operating system) the reliability for both is

R (system) = R (computer) \* R (OS)

**EQUATION 6**

Then this series continues for the application on the top so it would be:

R (system) = R (computer) \* R (OS) \* R (app)

**EQUATION 7**

If you had ten services in one suite of services, it would be:

R (total) = R1 \* R2 \* R3 \* R4 \* R5 \* R6 \* R7 \* R8 \* R9 \* R10 **EQUATION 8**

However, when things run in parallel, how does the formula work?

Rtotal(t) = 1 – [1 – R1(t)] [1 – R2(t)]

= R1(t) + R2(t) - R1(t) R2(t)

**EQUATION 9**

5-53 The BOSS shall have an overall reliability of 0.999.

5-54 The BOSS system shall be available 99.99% of the time.

5-55 A failure of the BOSS system shall occur when any of the following critical functions are not working:

* Security access to the system
* Searching the mission database
* Adding records to the mission database
* Updating records within the mission database
* Deleting records from the mission database

5-56 The BOSS system shall maintain unique user identification for every person who will use the system.

5-57 The BOSS system shall maintain a password for every unique user identification on the system.

5-58 The BOSS system shall allow a user three attempts to enter their userID and password (and select the domain, where appropriate) before that session is ended.

5-59 When the user has failed to enter their userID and password correctly, the BOSS system shall allow the user three attempts to login after one hour.

5-60 When the user has failed to enter their userID and password correctly, the BOSS system shall only allow the user three attempts to login again after a system administrator has authorized it.

5-61 The BOSS system shall allow roles that allow people to read the database.

5-62 The BOSS system shall allow roles that allow people to add to the database.

5-63 The BOSS system shall allow roles that allow people to change the database.

5-64 The BOSS system shall allow roles that allow people to delete from the database.

5-65 The BOSS system shall allow for system administrator roles.

5-66 The BOSS system shall allow users to have multiple roles.

5-67 The BOSS system shall allow for system administrator roles.

5-68 The BOSS system shall allow for system monitoring roles.

5-69 The BOSS system shall allow for system auditing roles.

5-70 The BOSS shall ensure all data to be imported into the system has no viruses.

5-71 The BOSS shall ensure all users external to the system do not have access to the BOSS data.

5-72 The BOSS shall provide users with the capability to export data to MS Excel in .xlsx format.

5-73 The BOSS shall provide users with the capability to export data to MS Excel in .csv format.

5-74 The BOSS shall provide users with the capability to export data to MS Word in .csv format.

5-75 The BOSS shall provide users with the capability to export data to MS Word in .docx format.

5-76 The BOSS shall prohibit payroll data from being exported from the System.

5-77 The BOSS shall prohibit company proprietary information from being exported from the System.

5-78 The BOSS shall identify all payroll data within the System.

5-79 The BOSS shall identify all company proprietary information within the System.

5-80 The BOSS shall prohibit any data from being exported from the System.

5-81 The BOSS shall provide users with the capability to export data to ANY System in .csv format.

5-82 The BOSS shall provide users with the capability to import data from ANY System in .csv format.

5-83 The BOSS shall provide ANY System to import data in .csv format.

5-84 The BOSS shall provide ANY System to export data in .csv format.

5-85 The BOSS shall provide ANY System to import data in the format specified in ANY System Interface Format.

5-86 The BOSS shall provide ANY System to export data in the format specified in ANY System Interface Format.

5-87 The BOSS shall prohibit payroll data from being exported from the System.

5-88 The BOSS shall not allow payroll data from being exported from the System.

5-89 The system shall query for books about Vikings but not the Minnesota Vikings football team.

5-90 The BOSS shall have a firewall to protect itself from Internet intrusion.

5-91 The BOSS shall have virus protection.

5-92 The BOSS shall prevent keystroke capture.

5-93 The BOSS shall protect against denial of service (DOS).

5-94 The PSS system shall require a customer to enter his name as a first name and last name.

5-95 The PSS system shall require a customer to enter an email address.

5-96 The BOSS system shall require a customer to enter his name as a first name and last name.

5-97 The BOSS system shall require a customer to enter an email address.

5-98 The PSS system shall require a customer’s company name.

5-99 The PSS system shall require a customer’s company address.

5-100 The PSS system shall require a customer’s company **online name (e.g., OnLineCompany.com)**.

5-101 The PSS system shall require a customer’s company **URL (e.g., http://onlinecompany.com/sites)**.

5-102 The BOSS system shall be able to store 6 Terabytes of data when deployed.

5-103 The BOSS system data shall be able to grow by 24% per year.

5-104 The BOSS system shall be extensible/scalable.

5-105 The BOSS system data shall be able to add five services per year without impacting the system performance requirements.

5-106 The BOSS system data shall permit 30,000 people to enroll onto the system per day.

5-107 The BOSS system data shall permit a peak of 300,000 people to enroll onto the system per day.

5-108 The BOSS system data shall permit a peak of 300,000 people to enroll onto the system per day.

5-109 The BOSS system data shall permit a peak of 30,000 people to enroll onto the system in one hour.

5-110 The BOSS system data shall permit 10,000 concurrent people to enroll onto the system in one hour.

5-111 The BOSS system lists shall entered in files external to the code so updates do not require a recompilation of the code. (Notice the ‘negative’ statement)

5-112 DRAFT – PARENT The BOSS shall be fully compliant with Section 508 of the US Rehabilitation Act.

5-113 CHILD The BOSS shall provide a text equivalent for every non-text element (e.g., icon selection).

5-114 CHILD The BOSS shall provide a text equivalent for image linkages.

5-115 CHILD When electronic forms are designed to be completed online, the BOSS form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

5-116 DRAFT – The BOSS shall be interoperable.

5-117 DRAFT – The BOSS shall follow the Service Oriented architecture.

5-118 The BOSS shall have a communications layer with only one interface for all services must follow.

5-119 The BOSS shall require all services to communicate only to the communications layer, not with other services.

5-120 The BOSS shall work on Windows 8.

5-121 The BOSS shall work on Mac OS X.

5-122 The BOSS shall work on Unix Version 7.

5-123 The BOSS shall work on Linux version 3.13.

5-124 The BOSS shall work on Android OS 4.4.

5-125 The BOSS shall work on Unix.

5-126 The BOSS shall work on personal computers.

5-127 The BOSS shall work on Adroid phones.

5-128 The BOSS shall work on Xbox 360.

5-129 The BOSS shall work on Internet Explorer 11.

5-130 The BOSS shall work on Firefox 29.

5-131 The BOSS high blood pressure drug shall retain its potency of 95% for twelve months.

5-132 The BOSS Unit Radiation Dosimeter battery shall provide 5 volts DC for three years without replacement.

5-133 The BOSS Unit Radiation Dosimeter shall require no maintenance by the individual who wears its.

5-134 The BOSS services shall be replaceable individual units that can be plugged into the infrastructure with requiring no affect to other services in the system.

5-135 The BOSS Unit Radiation Dosimeter shall require quarterly comparison of individual dosimeters against the BOSS Radiation Calibration Source.

5-136 The FBI BOSS Records Management Scanning function shall contain sample records to be used for scanning calibration.

5-137 In the event that the FBI BOSS Records Management system crashes, the system shall be returned to full operations in 48 hours from the beginning of the crash.

5-138 In the event that the FBI BOSS Records Management system crashes, the six critical functions shall be returned to operations in 4 hours from the beginning of the crash.

5-139 The BOSS Unit Radiation Dosimeter battery shall be replaced with removal of the battery storage cover in five second and the battery replacement in three second.

5-140 The BOSS pick list values shall be replaced by copying a new XML file to the deployed software system without requiring recompiling any code.

5-141 The BOSS Unit Radiation Reader shall have hardware functions as standalone cards that can be removed and reinstalled as plug and play components.

5-142 The BOSS Unit Radiation Reader shall have software functions as standalone services that can be removed and reinstalled as plug and play software components without affecting the rest of the software.

5-143 The BOSS Unit Radiation Reader shall have the ability to expand Random Access Memory chips on the standalone memory cards that can be removed and reinstalled as plug and play components.

5-144 The BOSS Unit Radiation Reader shall have software pick lists stored as files in order to add, change or delete values without having to recompile the code, just replace the file.

5-145 (5-20) The FBI BOSS Records Management scanning shall capture 75% of the characters per page to be considered a quality scan.

**Chapter 6**

6-1 DRAFT The BOSS Person Collection Function shall collect First Name.

6-2 DRAFT The BOSS Person Collection Function shall collect Middle Name.

6-3 DRAFT The BOSS Person Collection Function shall collect Last Name.

6-4 DRAFT The BOSS Person Collection Function shall collect Street Address with apartment number.

6-5 DRAFT The BOSS Person Collection Function shall collect City.

6-6 DRAFT The BOSS Person Collection Function shall collect State.

6-7 DRAFT The BOSS Person Collection Function shall collect Home phone.

6-8 DRAFT The BOSS Person Collection Function shall collect Cell phone.

6-9 The BOSS Person Collection Function shall collect the following data:

1. First Name
2. Middle Name
3. Last Name
4. Street Address with apartment number
5. City
6. State
7. Home phone
8. Cell Phone

6-10 DRAFT The BOSS Access Control Function shall allow a user to have an access to the data consisting of the following:

* Read
* Add
* Edit
* Delete

6-11 DRAFT The BOSS Access Control Function shall allow a user to have read data access.

6-12 DRAFT The BOSS Access Control Function shall allow a user to add data access.

6-13 DRAFT The BOSS Access Control Function shall allow a user to have edit data access.

6-14 DRAFT The BOSS Access Control Function shall allow a user to have delete data access.

6-15 DRAFT The BOSS Picklist Control Function shall allow a user to have an access to the data consisting of the following:

* Read
* Add
* Edit
* Delete
* Suggest
* Approve

6-16 The BOSS Probe Request Message shall contain the following:

7. Probe Diagnostics Request Message

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Req. No. | Number | Name | Description | Length | Format | Units | Special Info |
| 7.1 | 1 | Activate | Command activation of the probe controller | 3 | NNN | N/A | 007 |
| 7.2 | 2 | CallDiag | Call diagnostics of specified subsystems | 4 | NNNN | N/A | 0001 to 2401, 0001 is all sub-systems |
| 7.3 | 3 | Sleep | Return Command activation subsystem to sleep mode | 3 | NNN | N/A | 999 |

6-17 The BOSS Probe Response Message shall contain the following:

201. Probe Diagnostics Response Message (for only one specified subsystem)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Req. No. | Num-ber | Name | Description | Length | Format | Units | Special Info |
| 201.1 | 1 | Message type | Diagnostics response | 4 | NNNN | N/A | 0070 |
| 201.2 | 2 | DiagTyp | Is it all subsystems or just one specified (2 for this message) | 1 | N | N/A | 1 = all, 2 = one sub-systems |
| 201.3 | 3 | Diag-Status | Return Code of the status of the subsystem | 3 | NNN | N/A | 999 |
| 201.4 | 4 | Called-Diag | Specified subsystem | 4 | NNNN | N/A | 9999 |
| 201.5 | 5 | Done | End of message | 2 | NN | N/A | 99 |

6-18 The BOSS Probe Image Request Message shall contain the following:

8. Probe Image Request Message

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Req. No. | Number | Name | Description | Length | Format | Units | Special Info |
| 8.1 | 1 | Activate | Command activation of the probe controller calling for image | 3 | NNN | N/A | 008 |
| 8.2 | 2 | CallImage | Call the specified image | 8 | NNNNNNNN | N/A |  |
| 8.3 | 3 | Sleep | Return Command activation subsystem to sleep mode | 3 | NNN |  | 999 |

6-19 The BOSS Probe Image Response Message shall contain the following:

202. Probe Image Response Message

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Req. No. | Num-ber | Name | Description | Length | Format | Units | Special Info |
| 202.1 | 1 | Activate | Command activation of the probe controller | 4 | NNNN | N/A | 0080 |
| 202.2 | 2 | Image-Sent | Specified Image being sent | 8 | NNNNNNNN | N/A | 0001 to 9999, |
| 202.3 | 3 | Line 1 block 1 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.4 | 4 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.5 | 5 | Line 1 block 2 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.6 | 6 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.7 | 7 | Line 1 block 3 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.8 | 8 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.9 | 9 | Line 1 block 4 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.10 | 10 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.11 | 11 | Line 2 block 1 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.12 | 12 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.13 | 13 | Line 2 block 2 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.14 | 14 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.15 | 15 | Line 2 block 3 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.16 | 16 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.17 | 17 | Line 2 block 4 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.18 | 18 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.19 | 19 | Line 3 block 1 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.20 | 20 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.21 | 21 | Line 3 block 2 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.22 | 22 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.23 | 23 | Line 3 block 3 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.24 | 24 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.25 | 25 | Line 3 block 4 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.26 | 26 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.27 | 27 | Line 4 block 1 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.28 | 28 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.29 | 29 | Line 4 block 2 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.30 | 30 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.31 | 31 | Line 4 block 3 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.32 | 32 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.33 | 33 | Line 4 block 4 | Defines the line number of image and block number | 4 | NNNN | N/A | 0101 |
| 202.34 | 34 | Image-Value | Compressed value of specified block and | 8 | NNNNNNNN | N/A |  |
| 202.35 | 35 | Sleep | Return Command activation subsystem to sleep mode | 3 | NNN | N/A | 999 |

6-20 DRAFT The BOSS healthcare function shall allow an employee to be added to the benefits system.

6-21 DRAFT The BOSS healthcare function shall allow employees to enroll in the benefits system.

6-22 DRAFT The BOSS healthcare function shall allow employee to pay for the benefits.

6-23 DRAFT The BOSS healthcare function shall allow employee transactions to be entered into the benefits system.

6-24 DRAFT The BOSS healthcare function shall allow the benefits system to pay employees for the appropriate amount.

6-25 DRAFT The BOSS healthcare function shall allow reports to be generated from the benefits system

6-26 The BOSS healthcare function shall be executed in the following order:

1. Add employee to benefits system
2. Employee enrolls into benefits system
3. Employee pays employee portion of benefits system
4. Enter employee transactions into benefits system
5. Benefits system pays employee for appropriate amount
6. Reports generated from the benefits system

6-27 The BOSS Enroll Employee to Healthcare Benefits function shall be executed in the following order:

1. Select a Medical Plan
2. Select a Dental Plan
3. Select a Vision Plan
4. Select a Life Insurance Plan
5. Select a Short Term Disability Plan
6. Select a Long Term Disability Plan

**Chapter 7**

7-1 The FBI BOSS HR Person Record shall contain the Last Name of the person.

7-2 The FBI BOSS HR Person Record shall contain the Street Number of the person.

7-3 The FBI BOSS HR Person Record shall contain the Street Name of the person.

7-4 The FBI BOSS HR Person Record Last Name field shall be alpha characters.

7-5 The FBI BOSS HR Person Record Street Number field shall be numeric characters.

7-6 The FBI BOSS HR Person Record Street Name field shall be alphanumeric characters.

7-7 The FBI BOSS HR Person Record shall contain the Last Name of the person, in an alpha character format.

7-8 The FBI BOSS HR Person Record shall contain the Street Number of the person, in a numeric character format.

7-9 The FBI BOSS HR Person Record shall contain the Street Name of the person, in an alphanumeric character format.

7-10 The FBI BOSS HR Person Record shall contain the Last Name of the person, in an alpha character format, with the field size of 25 characters.

7-11 The FBI BOSS HR Person Record shall contain the Street Number of the person, in a numeric character format, with the field size of 12 characters.

7-12 The FBI BOSS HR Person Record shall contain the Street Name of the person, in an alphanumeric character format, with the

7-13 The FBI BOSS HR Person Record shall contain the following data:

|  |  |  |
| --- | --- | --- |
| Field Name | Format | Size |
| First Name | Alpha | 30 |
| Middle Name | Alpha | 30 |
| Last Name | Alpha | 30 |
| Sex | Alpha (M/F/T) | 1 |
| Street Number | Numeric | 15 |
| Street Name | Alphanumeric | 30 |
| Apartment Number | Alphanumeric (e.g., 3B) | 6 |
| City | Alpha | 30 |
| State | Alpha | 2 |
| Zip Code | Numeric | 10 |
| Home Phone | Numeric | 12 |
| Cell Phone | Numeric | 12 |
| Office Phone | Numeric | 12 |
| Office Extension | Numeric | 5 |
| Home Email Address | Alphanumeric | 45 |
| Office Email Address | Alphanumeric | 45 |

7-14 The BOSS Unit Radiation Dosimeter system shall contain the following data:

|  |  |  |  |
| --- | --- | --- | --- |
| Field No. | Field Name | Format | Size |
| 1. | First Name | Alpha | 30 |
| 2. | Middle Name | Alpha | 30 |
| 3. | Last Name | Alpha | 30 |
| 4. | Sex | Alpha (M/F/T) | 1 |
| 5. | Soldier ID (SSN) | NNN-NN-NNNN | 11 |
| 6. | Soldier’s Unit | Alphanumeric | 100 |
| 7. | Start And Stop Date | MM/DD/YYYY to MM/DD/YYYY | 24 |
| 8. | Exposure in REM | Numeric NNNN.N | 6 |
| 9. | Comments | Alpha | 100 |
| 10. | Cumulative Exposure in REM | Numeric NNNNN.N | 7 |
| 11. | Date Issue to Soldier | MM/DD/YYYY | 10 |

7-15 (5-85) The BOSS shall provide ANY System to import data in the format specified in ANY System Interface Format.

7-16 The BOSS Payroll Function shall receive the following data from the BOSS Payroll Function:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Field Name | Format | Size | Description | Comments |
| First Name | Alpha | 30 | Employee’s first name |  |
| Middle Name | Alpha | 30 | Employee’s middle name |  |
| Last Name | Alpha | 30 | Employee’s last name |  |
| Sex | Alpha (M/F/T) | 1 | Sex of person | T = Transgender |
| Person Identifier | Numeric | 15 | BOSS employee number | System generated when employee starts with company |

7-17 The BOSS Unit Radiation Dosimeter system shall contain the following data:

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Type | Format | Size |
| First Name | Alpha | Text string | 30 |
| Middle Name | Alpha | Text string | 30 |
| Last Name | Alpha | Text string | 30 |
| Sex | Alpha | Choice (M/F/T) | 1 |
| Soldier ID (SSN) | Numeric | NNN-NN-NNNN | 11 |
| Soldier’s Unit | Alphanumeric | Alphanumeric string | 100 |
| Start And Stop Date | Date | MM/DD/YYYY to MM/DD/YYYY | 24 |
| Exposure in REM | Numeric | NNNN.N | 6 |
| Comments | Alpha | Text string | 100 |
| Cumulative Exposure in REM | Numeric | NNNNN.N | 7 |
| Date Issue to Soldier | Date | MM/DD/YYYY | 10 |

7-18 The BOSS Unit Radiation Dosimeter system shall provide the following data when requested for an individual soldier:

* First Name
* Middle Name
* Last Name
* Sex
* Soldier ID
* Soldier’s Unit
* Start And Stop Date
* Exposure in REM
* Comments
* Cumulative Exposure in REM
* Date Issue to Soldier

7-19 The BOSS HR Personal Function shall provide an Organizational Person report for each person in a designated organization:

* First Name
* Middle Name
* Last Name
* Sex
* Street Number
* Street Name
* Apartment Number
* City
* State
* Zip Code
* Home Phone
* Cell Phone
* Office Phone
* Office Extension
* Home Email Address
* Office Email Address

7-20 The BOSS Unit Radiation Dosimeter system shall receive the following data:

* First Name
* Middle Name
* Last Name
* Sex
* Soldier ID
* Soldier’s Unit
* Start And Stop Date
* Exposure in REM
* Comments
* Cumulative Exposure in REM
* Date Issue to Soldier

7-21 The BOSS HR Personnel Function shall require the user to enter the following data elements:

* First Name
* Middle Name
* Last Name
* Sex
* Street Number
* Street Name
* Apartment Number
* City
* State
* Zip Code
* Home Phone
* Cell Phone
* Office Phone
* Office Extension
* Home Email Address
* Office Email Address

**Chapter 8**

8-1 (5-8) The BOSS Individual Radiation Dosimeter shall weigh no more than four ounces.

8-2 The BOSS Unit Radiation Dose Rate meter shall be ten inches high.

8-3 The BOSS Unit Radiation Dose Rate meter shall be four inches wide.

8-4 The BOSS Unit Radiation Dose Rate meter shall be six inches thick.

8-5 The BOSS Mars Radiation Dose Rate meter shall project a square with an inner radius of ten inches and an outer radius of twelve inches onto the spherical surface with an angle of thirty degrees on the x and y axis.

Granted that is a little involved, but a picture will help to represent it.

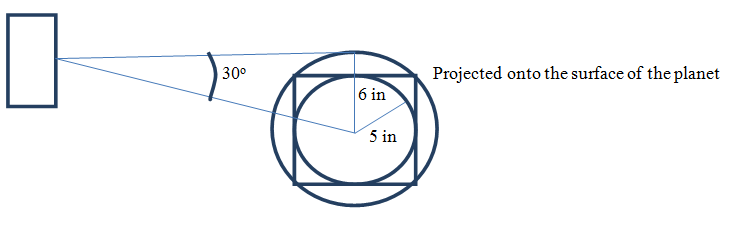


Figure 8-1. Sensing area on the surface of Mars

8-6 The BOSS Unit Radiation Dose Rate meter shall be no larger than thirty cubic inches.

8-7 The BOSS Individual Radiation Dosimeter shall weigh have a density of less than 0.95 g/cm3.

8-8 The XF-36 jet fighter shall have its center of gravity along the centerline of the fuselage.

8-9 DRAFT The BOSS Unit Radiation Dosimeter shall weigh no more than forty pounds.

8-10 The BOSS Unit Radiation Dosimeter shall weigh no more than twenty pounds.

8-11 The BOSS Unit Radiation Dosimeter shall not cause any electrical discharge to the outside of the device to prevent someone holding the device from being shocked.

8-12 The BOSS Unit Radiation Dosimeter shall be stored inside a warehouse so that it is not exposed to inclement weather.

8-13 Since the top and bottom of the BOSS spacecraft are insulated, the inside of the cylindrical solar array shall not be insulated allowing internal heat transfer between the internal equipment and the solar array.

8-14 The BOSS Individual Radiation Dosimeter shall consume 0.01 watts per exposure.

8-15 The BOSS Individual Radiation Dosimeter material shall cause no reaction when exposed to human skin.

8-16 The XF-36 jet fighter tires on it landing gear shall have surface coefficient of friction of 0.7 on dry pavement.

8-17 The BOSS Application shall require the following parameters to run on a system:

* 500mHz or faster processer
* 256 MB of RAM, with 512 MB recommended
* 3.0 GB available disk space
* 1024 by 576 resolution monitor or higher
* Window 7, or Windows Server 2008, or higher

8-18 (5-32) The FBI BOSS Records Management Search Function shall return the results within 4 seconds, 80% of the time.

8-19 (5-41) The FBI BOSS Records Management Search Function shall return the results within 10 seconds, 80% of the time when there are 100 searches initiated within 10 minutes.

8-20 (5-50) The BOSS Unit Radiation Dosimeter shall have the ability to download up to 1000 transactions to the BOSS Dosimetry Archive Laptop in 5 minutes.

8-21 The BOSS Tools Transaction Function at each regional office shall transmit 250 sales by 1000 bytes per transaction daily throughout the day when the transaction occurs.

8-22 The BOSS Tools Transaction Function at the central office shall receive all regional office sales throughout the day when the transaction are transmitted.

8-23 DRAFT The BOSS Tools Transaction Function at each regional office shall transmit 69.44 bytes/second per office per day.

8-24 (8-18) The FBI BOSS Records Management Search Function shall return the results within 4 seconds, 80% of the time.

8-25 (8-19) The FBI BOSS Records Management Search Function shall return the results within 10 seconds, 80% of the time when there are 100 searches initiated within 10 minutes.

**Chapter 9**

None

**Chapter 10**

10-1 DRAFT The system shall be user friendly.

10-2 All applications generated in (Our Office) shall follow the (Specific Project or Organization) User Interface Standard.

10-3 All applications generated in BOSS shall follow the BOSS User Interface Standard.

10-4 (5-30) The BOSS shall follow this company’s Organizational User Interface Standard.

10-5 The BOSS shall provide online help for all users describe all functions within the system.

10-6 The BOSS shall provide context sensitive help for all data entry values, screens, and forms within the system.

10-7 For the BOSS Date Entry function generates an error condition, it shall present a message of what went wrong and how the user is to proceed.

10-8 When the BOSS Date Entry function spawns an Operating System error condition, the system shall intercept the OS condition, translating the condition into a message of what went wrong and how the user is to proceed.

10-9 The BOSS data entry function shall allow the movement from one field to another to take no more than 0.2 seconds.

10-10 The BOSS data entry function shall allow the movement from one screen to another to take no more than 1 second.

**Chapter 11**

None

**Chapter 12**

User Stories

12-1 "As a <role>, I want <function/feature> so that <benefit>"

12-2 As a cell phone user, I want to retain a list of selective phone numbers that I have received so that I can choose which numbers I want to reuse later.

12-3 (5-54) The BOSS system shall be available 99.99% of the time.

12-4 As a BOSS user, I want the system to be available 99.99% of the time so that the system provides the availability I need since it is a mission critical function.

Use Cases

Table 12-1. A Use Case with Basic and Alternative Flows

|  |  |
| --- | --- |
| Title | Dial a phone number |
| Description | Use your cell phone to enter a phone number |
| Actor | Phone users |
| Preconditions | Actor has a cell phone |
| Postconditions | The phone connects to the number called |
| Triggers | A need to call someone |
| Basic Flow | 1. Turn on the cell phone 2. Select the dial option/app 3. Key in the number 4. The phone rings |
| Alternative Flow | 1. Select from a list  2. Select the dial option/app  3. Choose the number from the list provided  4. Tap the number desired  5. The phone rings |

**Chapter 13**

User Stories

13-1 As a taxpayer submitting my taxes, I want the form instructions written to a fifth grade reading level so that 99% of the taxpayers will understand what they are filling out on the form.

13-2 As a cell phone user, I want to retain a list of phone numbers selectively that I have received so that I can choose which numbers I want to reuse later.

13-3 As a person logging onto BOSS, I want to have three tries to get my login ID and password correct before the system rejects my login attempts, so that one or two mistakes do not punish me.

13-4 As a bike rider, I want the push on the hand brake so that when I need to stop, the bike will respond.

13-5 As soldier in a nuclear battlefield, I want a way to collect radiation exposure levels so that my unit and I will know my exposure in order to manage my exposures both militarily and medically.

13-6 As an FBI Records Manager, I want to be able to view any record so that when I need to examine it, I can.

13-7 As an FBI Records Manager, I want to be able to view a listing of records I requested so that when I need to examine them, I can.

13-8 As an FBI Records Manager, I want to be able to print a listing of records I requested so that when I need to examine them, I can.

13-9 As an FBI Records Manager, I want to be able to sort a listing of records I requested so that I can organize them the way I want them.

13-10 As an FBI Records Manager, I want to be able to filter a listing of records I requested so that I can organize them the way I want them.

13-11 As an FBI Records Manager, I want to be able to export a listing of records I requested so that I use them outside the application.

13-12 As soldier in a nuclear battlefield, I want a way to determine how much radiation exposure I have received so that my unit and I will capture my exposure.

13-13 As an FBI Records Manager, I want to be able to delete a temporary record from the repository so that records I am no longer required to retain can be deleted.

13-14 As an FBI Records Manager, I want to be able to delete a temporary record from the repository **in accordance with the records retention schedule prescribed by National Archives and Records Administration (NARA)** so that records I am no longer required to retain can be deleted.

13-15 DRAFT As soldier in a nuclear battlefield, I want a way to determine the radiation exposure so that I can see how it is affecting my ability to perform my military mission.

13-16 DRAFT **As a commander in a nuclear battlefield**, I want a way to determine the radiation exposure so that I can see how it is affecting **my unit’s** ability to perform **its** military mission **at the squad, platoon, and company level**.

13-17 As a commander in a nuclear battlefield, I want a way to determine the radiation exposure **in accordance with the Radiation Exposure Medical Policy** so that I can see how it is affecting my unit’s ability to perform my military mission, at the squad, platoon, and company level.

13-18 As a machine learning user, I want the function to present the mathematical representation to me so that I understand why some entities are chosen over others.

13-19 As a system administrator, I want the ability to add, change or delete any record in the repository so that I can fix any errors made by other users of the system.

13-20 As tank commander in a nuclear battlefield, I want a way to determine the radiation exposure inside the tank so that I can determine what my team’s exposure is and hence their fighting capability.

13-21 DRAFT As someone who searches my permanent records database, I want a concept search capability so that I will not miss important records that are related to what I want the search to find.

13-22 As some who searches my permanent records database, I want a function that decides what terms are similar to the user specified search terms so that the user will find search terms that capture the true intent of the search.

13-23 As some who searches my permanent records database, I want a function that executes the concept term search so that can retrieve the search terms.

13-24 As some who searches my permanent records database, I want a function that displays the results of the concept term search so that the user can determine what terms best meet their needs.

13-25 DRAFT As commander in a nuclear battlefield, I want a way to determine the radiation dose rate that my vehicles are exposed to so that I can collect raw radiation data for the battlefield.

13-26 As commander in a nuclear battlefield, I want a way to determine the radiation dose rate that my M-1 tanks are exposed to so that I can collect raw radiation data for the battlefield.

13-27 As commander in a nuclear battlefield, I want a way to determine the radiation dose rate that my deuce-and-a-half trucks are exposed to so that I can collect raw radiation data for the battlefield.

13-28 As commander in a nuclear battlefield, I want a way to determine the radiation dose rate that my attack helicopters are exposed to so that I can collect raw radiation data for the battlefield.

13-29 DRAFT As an FBI records manager, I want to add, change and delete records from my repository so that I can manipulate the records as necessary.

13-30 As an FBI records manager, I want to add records from my repository so that I can manipulate the records as necessary.

13-31 As an FBI records manager, I want to change records from my repository so that I can manipulate the records as necessary.

13-32 As an FBI records manager, I want to delete records from my repository so that I can manipulate the records as necessary.

13-33 The system will provide controlled access to the BOSS.

13-34 As a BOSS system administrator, I want to add to person to the BOSS system so that I control who get authorization to use the system.

13-35 As a BOSS system administrator, I want to define all BOSS system roles and responsibilities so that I control what functions specific groups of people can perform.

13-36 As a BOSS system administrator, I want to assign BOSS system roles and responsibilities to a person so that I control what functions specific groups of people can perform.

13-37 As a BOSS system user, I want to login to the BOSS system so that I am allowed to access the BOSS functions I need to perform my job.

13-38 As a BOSS system administrator, I want to audit all access so that I know who has performed all access adds, changes and deletes. (This could be an admin, a manager, the auditor, etc. depending on your project.)

13-39 As a BOSS system administrator, I want the login to the BOSS system to require a userID and password so that unauthorized users cannot easily break into the system.

13-40 As a BOSS system administrator, I want no more than three login tries of password and userID combination errors before the userID is locked out of BOSS so that unauthorized users cannot easily break into the system.

13-41 As a BOSS system administrator, I want the lockout of a userID to be unlocked after 30 minutes so that the user can try again without requiring sys admin to unlock it.

13-42 As a BOSS system administrator, I want the lockout of a userID to be unlocked after 24 hours so that the user can try again without requiring sys admin to unlock it.

13-43 As a BOSS system administrator, I want the system admin to unlock the lockout of a userID so that I control who can access the system.

13-44 DRAFT As commander in a nuclear battlefield, I want a way to determine the radiation dose rate that my MRAPs are exposed to so that I can collect raw radiation data for the battlefield.

13-45 As commander in a nuclear battlefield, I want my MRAPs to use the standard dose rate meter so that I do not need to develop a meter unique to every vehicle.

13-46 As commander in a nuclear battlefield, I want the standard dose rate meter to have an MRAP specific mounting bracket so that I do not need to have a universal mounting bracket for every vehicle.

13-47 As commander in a nuclear battlefield, I want the standard dose rate meter mounted on the outside of the MRAP so that it collects the raw data not influenced by the shielding offered by the MRAP.

13-48 DRAFT As a user, I want an easy to use user interface so that I do not have difficulty learning and using the system.

13-49 As a user, I want the user interface to follow the BOSS User Interface Standard so that I do not have difficulty learning and using the system.

13-50 As commander in a nuclear battlefield, I want the standard dose rate meter to be installed on the MRAP within 15 minutes by a soldier who requires no special training or tools so that the dose rate meter can be installed quickly and easily by any soldier.

13-51 As commander in a nuclear battlefield, I want the MRAP-specific mounting bracket for the standard dose rate meter to be installed within one by the lowest ordinance unit that requires no special training or tools so that MRAP-specific mounting bracket can be installed quickly and easily by any soldier.

13-52 As a BOSS system administrator, I want the login to the BOSS system to require a userID and password so that unauthorized users cannot easily break into the system.

**Acceptance criteria**:

The userID will be unique within the system with a minimum of 6 alphanumeric characters.

The password will be a minimum of 8 alphanumeric characters, with a mix of upper and lower case characters, one or more numeric characters, and one special character from !@#$%^&\*().

13-53 (13-40) As a BOSS system administrator, I want no more than three login tries with password and userID combination errors before the userID is locked out of BOSS so that unauthorized users cannot easily break into the system.

**Acceptance criteria**:

1. The error can be an incorrect userID but a correct password.
2. The error can be a correct userID but an incorrect password.
3. The error can be an incorrect userID and an incorrect password.

13-54 As a BOSS HR administrator, I want to be able to add a new employee to the HR system so that we track all of our active employees.

**Acceptance criteria**:

1. I want a User record to contain: a. Name, b. Work email address, c. Work phone number d. Home mailing address, e. Home email address, f. Home phone number, g. Cell phone number.

13-55 As commander in a nuclear battlefield, I want the standard dose rate meter to display the exposure rate by the soldier activating the meter so that soldier can capture the reading at the location allowing a radiation overlay to the map.

**Acceptance criteria**:

1. I want radiation exposure, date, time, and location information.
2. I want the ability to refine the scale, such that the detail can be tenths of Rads, single digit Rads, tens of Rads, hundreds of Rads.

13-56 As a soldier on the nuclear battlefield, I need a device to capture gamma ray exposure between 200KeV and 1.00 MeV radiation exposures so that I know what I have been exposed to.

13-57 As the radiation dosimeter developer, I will test Device A, B, C, and D against gamma ray exposure between 200KeV and 1.00 MeV energies against our simulated tactical nuclear radiation device so that I can determine the accuracy of each device. (Reference user story 13-56)

13-58 As the radiation dosimeter developer, I will integrate the chosen device (from story 13-57) into the BOSS Unit Radiation Dosimeter device so that I implement the optimum collection device. (Reference user story 13-56)

13-59 As an FBI records manager, I want the BOSS Records Management System to suggest record categories consistent with the NARA General Records Schedule so that I can save time by accepting good suggestions.

13-60 As an FBI records manager developer, I want to examine the three candidate machine learning approaches to suggest record categories consistent with the NARA General Records Schedule of the BOSS Records Management System so that I can chose the best approach. (Reference user story 13-59)

13-61 As the FBI records manager developer, I will implement the chosen approach (from story 13-60) into the BOSS Records Management System so that I implement the optimum machine learning approach to suggest record categories consistent with the NARA General Records Schedule. (Reference user story 13-59)

13-1(RQMT) The system shall allow a locked userID to be unlocked.

13-62 (13-41) As a BOSS system administrator, I want the lockout of a userID to be unlocked after 30 minutes so that the user can try again without requiring sys admin to unlock it.

13-63 (13-42) As a BOSS system administrator, I want the lockout of a userID to be unlocked after 24 hours so that the user can try again without requiring sys admin to unlock it.

13-64 (13-43) As a BOSS system administrator, I want the system admin to unlock the lockout of a userID so that I control who can access the system.

13-2 (RQMT) The BOSS radiation system shall be painted with standard US Army camouflage paint to match the soldiers uniform.

13-65 As a soldier operating in the desert, I need a radiation dosimeter that will blend with the desert environment so that the dosimeter does not stand out and give away my position.

13-66 As a soldier operating in the woodlands, I need a radiation dosimeter that will blend with the woodlands environment so that the dosimeter does not stand out and give away my position.

13-67 As a soldier operating in the arctic, I need a radiation dosimeter that will blend with the arctic environment so that the dosimeter does not stand out and give away my position.

13-3(RQMT) The BOSS radiation system shall be painted with standard US Army desert camouflage paint to match the soldiers uniform.

13-4 (RQMT) The BOSS radiation system shall be painted with standard US Army woodlands camouflage paint to match the soldiers uniform.

13-5 (RQMT) The BOSS radiation system shall be painted with standard US Army arctic camouflage paint to match the soldiers uniform.

13-68 As an FBI BOSS Audit Screen, I want the person who performed the action listed on one line, and what action they took displayed on the line below so that I see the information without having to scan around the screen.

13-69 As a Form Requester user, I need the form selection tab to include a list of the HR forms in one column and the Payroll forms in the second column, and the Procurement forms in a third column so that I can find the forms more quickly.

13-70 As a soldier operating in the multiple areas of the world, I need a the ability to repaint the radiation dosimeter from either desert, arctic or woodland camouflage color to one of the other environments so that I do not need three or more different dosimeters.

13-71 As a soldier operating in the multiple areas of the world, I need a the ability to **change** the radiation dosimeter from either desert, arctic or woodland camouflage color to one of the other environments so that I do not need three or more different dosimeters.

13-6 (RQMT) (5-54) The BOSS system shall be available 99.99% of the time.

13-72 As a BOSS user, I want the system to be available 99.9% of the time so that the system provides the availability I need since it is a mission critical function.

13-73 As a BOSS user, I need the BOSS Function1 availability to be 99.99% so that I can perform my work on that function.

**Chapter 14**

Use Cases

**Chapter 13**

User Stories

|  |  |
| --- | --- |
| Unique Identifier | 14-1 |
| Title | Dial a phone number |
| Description | Use your cell phone to enter a phone number |
| Actor | Phone users |
| Preconditions | Actor has a cell phone |
| Postconditions | The phone connects to the number called |
| Triggers | A need to call someone |
| Basic Flow | 1. Turn on the cell phone 2. Select the dial option/app 3. Key in the number 4. The phone rings |
| Alternative Flow | 2. Select from a list  3. Select the dial option/app  4. Choose the number from the list provide  5. Tap the number desired  6. The phone rings |

|  |  |
| --- | --- |
| Unique Identifier | 14-2 |
| Title | Login to the BOSS System |
| Description | Gain entry into the BOSS System |
| Actor | BOSS System users |
| Preconditions | Actor has been enrolled in the BOSS system |
| Post conditions | The actor gains access to the BOSS system |
| Triggers | A need to use the BOSS system |
| Basic Flow | 1. Activate the BOSS system 2. Move into userID designated area 3. Enter your userID 4. Move into password designated area 5. Enter your password 6. Activate the userID/password validation |
| Alternative Flow |  |

|  |  |  |
| --- | --- | --- |
| Unique Identifier | 14-2a | |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option | |
| Unique Identifier | | 14-2b |
| Alternative Flow | | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want |

|  |  |
| --- | --- |
| Unique Identifier | 14-2c1 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want  Alternate added after step 6  User access is denied since userID and/or password do not match what is in the system.  Repeat steps 2 through 6. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2c2 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want |
| Exception Flow | Added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2d1 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want  Alternate added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2cd2 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want |
| Exception Flow | Added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2e1 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want  Alternate added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6.  11. User access is denied since userID and/or password do not match what is in the system.  12. Repeat steps 2 through 6.  13. User access is denied since userID and/or password do not match what is in the system and the login process is stopped and the userID is locked. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2e2 |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want |
| Exception Flow | Added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6.  11. User access is denied since userID and/or password do not match what is in the system.  12. Repeat steps 2 through 6.  13. User access is denied since userID and/or password do not match what is in the system and the login process is stopped and the userID is locked. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2 (finished) |
| Title | Login to the BOSS System |
| Description | Gain entry into the BOSS System |
| Actor | BOSS System users |
| Preconditions | Actor has been enrolled in the BOSS system |
| Post conditions | The actor gains access to the BOSS system |
| Triggers | A need to use the BOSS system |
| Basic Flow | Activate the BOSS system  Move into userID designated area  Enter your userID  Move into password designated area  Enter your password  Activate the userID/password validation |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want  Alternate added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6.  11. User access is denied since userID and/or password do not match what is in the system.  12. Repeat steps 2 through 6.  13. User access is denied since userID and/or password do not match what is in the system and the login process is stopped and the userID is locked. |

|  |  |
| --- | --- |
| Unique Identifier | 14-2 (finished) |
| Title | Login to the BOSS System |
| Description | Gain entry into the BOSS System |
| Actor | BOSS System users |
| Preconditions | Actor has been enrolled in the BOSS system |
| Post conditions | The actor gains access to the BOSS system |
| Triggers | A need to use the BOSS system |
| Basic Flow | Activate the BOSS system  Move into userID designated area  Enter your userID  Move into password designated area  Enter your password  Activate the userID/password validation |
| Alternative Flow | Alternate to step 2.  2. Activate the Cancel option  Alternate to step 2.  2. When a dropdown appears with previous userIDs, select the one you want |
| Exception Flow | Added after step 6  7. User access is denied since userID and/or password do not match what is in the system.  8. Repeat steps 2 through 6.  9. User access is denied since userID and/or password do not match what is in the system.  10. Repeat steps 2 through 6.  11. User access is denied since userID and/or password do not match what is in the system.  12. Repeat steps 2 through 6.  13. User access is denied since userID and/or password do not match what is in the system and the login process is stopped and the userID is locked. |

|  |  |
| --- | --- |
| Unique Identifier | 14-3 |
| Title | Run the BOSS Unit Dosimetry Report |
| Description | Call up the BOSS Unit Dosimetry canned report |
| Actor | Users of the Unit Dosimetry Report: Medical officer, unit commander |
| Preconditions | The unit has been exposed to nuclear radiation, and the soldiers wear individual radiation detectors, user has access to the BOSS Dosimetry system |
| Post conditions | The report is provided either in hardcopy or softcopy |
| Triggers | A user has a need for the Unit Dosimetry Report |
| Basic Flow | 1. Activate the BOSS Dosimetry reporting capability 2. Select the Unit Dosimetry Report 3. Select the unit that has been affected 4. Identify the start date that indicates when the first exposures should be considered. 5. Identify the end date that indicates when the first exposures should be considered. 6. Indicate if the report will be hard copy or soft copy. 7. Activate the report execution |
| Alternative Flow | Alternate to step 2.  2. Enter in a new unit designation since it is not on the list.  Insert a new step 7.  7. Turn on printer  8. Activate the report execution |

|  |  |
| --- | --- |
| Unique Identifier | 14-3a |
| Alternative Flow | Alternate to step 2.  2. Enter in a new unit designation since it is not on the list.  Insert a new step 7.  7. Turn on printer  8. Activate the report execution  Insert a new step 7.  7. Select average exposure  8. Activate the report execution  Insert a new step 7.  7. Select display of the highest exposure  8. Activate the report execution  Insert a new step 7.  7. Select display of the highest n-values exposures, where the n value is entered in  8. Activate the report execution |

|  |  |
| --- | --- |
| Unique Identifier | 14-3b |
| Alternative Flows | Alternate to step 2.  2. Enter in a new unit designation since it is not on the list.  Insert a new step 7.  7. Turn on printer  8. Activate the report execution  Insert a new step 7.  7. Select average exposure or not  8. Select display of the highest exposure or not  9. Select display of the highest n-values exposures, where the n value is entered in or not  10. Activate the report execution |

|  |  |
| --- | --- |
| Unique Identifier | 14-3 |
| Title | Run the BOSS Unit Dosimetry Report |
| Description | Call up the BOSS Unit Dosimetry canned report |
| Actor | Users of the Unit Dosimetry Report: Medical officer, unit commander |
| Preconditions | The unit has been exposed to nuclear radiation, and the soldiers wear individual radiation detectors, user has access to the BOSS Dosimetry system |
| Post conditions | The report is provided either in hardcopy or softcopy |
| Triggers | A user has a need for the Unit Dosimetry Report |
| Basic Flow | 1. Activate the BOSS Dosimetry reporting capability 2. Select the Unit Dosimetry Report 3. Select the unit that has been affected 4. Identify the start date that indicates when the first exposures should be considered. 5. Identify the end date that indicates when the first exposures should be considered. 6. Indicate if the report will be hard copy or soft copy. 7. Activate the report execution |
| Alternative Flows | Alternate to step 2.  2. Enter in a new unit designation since it is not on the list.  Insert a new step 7.  7. Turn on printer  8. Activate the report execution  Insert a new step 7.  7. Select average exposure or not  8. Select display of the highest exposure or not  9. Select display of the highest n-values exposures, where the n value is entered in or not  10. Activate the report execution |

Table 14-1. BOSS HR System Actors and Use Cases

|  |  |
| --- | --- |
| Actor | Use Case Name |
| HR Personnel user | * Add new employee * Update employee information * Terminate employee |
| HR Payroll user | * Add new payroll information * Update payroll information |
| HR Retirement user | * Add Retirement information |
| Employee | * View employee information * Update employee information (not everything) * Request change to employee information |
| HR System Administrator | * Monitor system * Give access to system * Update access to system * Correct corrupted data * Generate new reports * Update reports * Delete outdated reports * Perform maintenance on system |

Table 14-2. BOSS Radiation Dosimetry System

|  |  |
| --- | --- |
| Actor | Use Case Name |
| Soldier | * Receive individual dosimeter * Submit individual dosimeter for reading * Submit individual dosimeter for calibration * Turn in individual dosimeter when leave the unit |
| Radiation Data Collector | * Collect data from individual dosimeter |
| Medical Officer | * Determine the immediate military operational status of a soldier from a medical perspective * Determine the immediate military operational status of a unit from a medical perspective * Determine the long-term medical impacts of a soldier |
| Commanders | * Determine the immediate military operational status of a soldier from a military perspective * Determine the immediate military operational status of a unit from a military perspective |
| Dosimetry Equipment Maintainer | * Calibrate individual dosimeters * Maintain calibration source * Maintain individual dosimeter reader * Maintain computer that receives data from readers * Maintain computer software |

14-1 (4-6) (RQMT) The BOSS system shall be available 99.99% of the time.

|  |  |
| --- | --- |
| Unique Identifier | 14-4 |
| Title | Calculate system availability |
| Description | Determines the system availability report |
| Actor | User who request the availability report |
| Preconditions | The system has been running for a period and collecting operating parameters |
| Postconditions | None |
| Triggers | User who request the availability report |
| Basic Flow | 1. Determine total time since last report 2. Determine total time the system was operating since last report 3. Divide the value in step one by the value in step two and multiply by 100% 4. Provide the result to the requestor |

14-2 (RQMT) The BOSS system shall use the following equation to represent gravity generated on an object by the Earth:

g = GM/R2

where g is gravity, G is the gravitational constant, M is the mass of the Earth, and R is the distance between the object and the center of the Earth.

**Chapter 15**

None