



1
00:00:05,910 --> 00:00:02,149
that sounds great and jody thanks very

2
00:00:09,589 --> 00:00:07,990
i'm here in building 4200 with jonathan

3
00:00:11,430 --> 00:00:09,599
pettis marshall's chief information

4
00:00:13,030 --> 00:00:11,440
officer and jonathan when we think about

5
00:00:14,789 --> 00:00:13,040
what your organization does we think

6
00:00:15,910 --> 00:00:14,799
about computers and email systems but

7
00:00:17,590 --> 00:00:15,920
you guys actually have your hands on a

8
00:00:18,950 --> 00:00:17,600
lot of things here at marshall we do we

9
00:00:20,870 --> 00:00:18,960
do those things that you mentioned we

10
00:00:22,630 --> 00:00:20,880
have twelve thousand over twelve

11
00:00:24,390 --> 00:00:22,640
thousand computers or desktop systems

12
00:00:25,830 --> 00:00:24,400
that are used by practically all the

13
00:00:27,990 --> 00:00:25,840

employees here at marshall space flight

14

00:00:29,669 --> 00:00:28,000

center in their daily jobs we're

15

00:00:31,109 --> 00:00:29,679

responsible for the local area network

16

00:00:32,389 --> 00:00:31,119

that connects all those computers

17

00:00:33,910 --> 00:00:32,399

together so that employees can

18

00:00:35,110 --> 00:00:33,920

collaborate and communicate with one

19

00:00:36,790 --> 00:00:35,120

another

20

00:00:38,310 --> 00:00:36,800

we're also responsible for some other

21

00:00:40,310 --> 00:00:38,320

services that are very important to the

22

00:00:42,470 --> 00:00:40,320

center for example what we call

23

00:00:44,229 --> 00:00:42,480

application services which are really

24

00:00:45,830 --> 00:00:44,239

software systems that run on those

25

00:00:47,990 --> 00:00:45,840

computers that

26
00:00:49,350 --> 00:00:48,000
accomplish various kinds of processes

27
00:00:51,110 --> 00:00:49,360
for different kinds of employees

28
00:00:53,990 --> 00:00:51,120
different people here in different areas

29
00:00:55,910 --> 00:00:54,000
for example software solutions that

30
00:00:57,830 --> 00:00:55,920
support the financial management process

31
00:00:59,750 --> 00:00:57,840
here at the center budgeting project

32
00:01:01,910 --> 00:00:59,760
management solutions and also

33
00:01:04,869 --> 00:01:01,920
engineering type solutions we have

34
00:01:06,550 --> 00:01:04,879
actually over 13 million lines of code

35
00:01:07,910 --> 00:01:06,560
in all these software systems that we

36
00:01:09,510 --> 00:01:07,920
support

37
00:01:10,630 --> 00:01:09,520
things like in the engineering area that

38
00:01:12,469 --> 00:01:10,640

i mentioned

39

00:01:14,149 --> 00:01:12,479

systems that capture the requirements

40

00:01:15,510 --> 00:01:14,159

for flight vehicles that we're

41

00:01:17,350 --> 00:01:15,520

developing launch systems that we're

42

00:01:19,590 --> 00:01:17,360

developing systems that are used by our

43

00:01:20,789 --> 00:01:19,600

engineers to design those particular

44

00:01:22,230 --> 00:01:20,799

solutions

45

00:01:24,070 --> 00:01:22,240

we have

46

00:01:25,910 --> 00:01:24,080

application developers or programmers

47

00:01:28,230 --> 00:01:25,920

who support scientists and things like

48

00:01:30,469 --> 00:01:28,240

lightning detection systems so it's

49

00:01:32,230 --> 00:01:30,479

really an integral part of what how the

50

00:01:34,230 --> 00:01:32,240

work gets done here at the center and

51
00:01:35,670 --> 00:01:34,240
you also work on things agency-wide we

52
00:01:38,069 --> 00:01:35,680
do a lot of people are not familiar with

53
00:01:39,510 --> 00:01:38,079
those services that we provide here but

54
00:01:41,190 --> 00:01:39,520
from huntsville here at marshall space

55
00:01:43,190 --> 00:01:41,200
flight center we provide all the wide

56
00:01:45,270 --> 00:01:43,200
area network services that are services

57
00:01:47,109 --> 00:01:45,280
that are used to connect the centers

58
00:01:49,429 --> 00:01:47,119
together and so employees all across the

59
00:01:51,190 --> 00:01:49,439
agency who are working together

60
00:01:53,270 --> 00:01:51,200
to collaborate to work together on

61
00:01:54,789 --> 00:01:53,280
nasa's mission are using that wide area

62
00:01:56,149 --> 00:01:54,799
network when they're using their i.t

63
00:01:58,389 --> 00:01:56,159

systems

64

00:02:01,030 --> 00:01:58,399

also we provide a set of business

65

00:02:03,270 --> 00:02:01,040

applications that the agency uses to

66

00:02:05,190 --> 00:02:03,280

manage its finances to manage its

67

00:02:06,870 --> 00:02:05,200

procurement acquisition processes those

68

00:02:09,270 --> 00:02:06,880

systems were implemented and are managed

69

00:02:11,350 --> 00:02:09,280

here out of marshall and you also

70

00:02:13,190 --> 00:02:11,360

mentioned the i t systems but you guys

71

00:02:15,430 --> 00:02:13,200

protect our information here at marshall

72

00:02:17,589 --> 00:02:15,440

with that right we do and that's a major

73

00:02:19,510 --> 00:02:17,599

focus area for us today there's a lot of

74

00:02:21,430 --> 00:02:19,520

visibility on how well we protect our

75

00:02:22,869 --> 00:02:21,440

information from the federal government

76

00:02:25,350 --> 00:02:22,879

across the board

77

00:02:27,670 --> 00:02:25,360

here at marshall we really are focusing

78

00:02:29,589 --> 00:02:27,680

on how to ensure that people understand

79

00:02:31,430 --> 00:02:29,599

the kinds of information that they store

80

00:02:33,190 --> 00:02:31,440

and use in their systems and what are

81

00:02:35,350 --> 00:02:33,200

the appropriate mechanisms to protect

82

00:02:37,750 --> 00:02:35,360

that information we actually do a lot in

83

00:02:39,350 --> 00:02:37,760

terms of safeguarding our information as

84

00:02:41,350 --> 00:02:39,360

far as threats that may come into the

85

00:02:44,309 --> 00:02:41,360

center we have a facility where we

86

00:02:46,150 --> 00:02:44,319

monitor all of the potential threats

87

00:02:48,470 --> 00:02:46,160

that can occur from an external

88

00:02:50,869 --> 00:02:48,480

perspective into our center well can we

89

00:02:53,190 --> 00:02:50,879

go check that out you can

90

00:02:55,110 --> 00:02:53,200

and i did finish my i.t security

91

00:02:57,430 --> 00:02:55,120

training just so we own it

92

00:02:59,190 --> 00:02:57,440

we're at building 4629 and are joined by

93

00:03:00,710 --> 00:02:59,200

david black who's the manager of i.t

94

00:03:02,470 --> 00:03:00,720

security here at marshall and he's

95

00:03:04,309 --> 00:03:02,480

giving us a behind-the-scenes look

96

00:03:06,390 --> 00:03:04,319

starting with well this room what goes

97

00:03:08,710 --> 00:03:06,400

on here this is the information mission

98

00:03:10,470 --> 00:03:08,720

control center for the agency we monitor

99

00:03:12,309 --> 00:03:10,480

the entire wide area network for

100

00:03:14,229 --> 00:03:12,319

security issues that might be happening

101
00:03:16,550 --> 00:03:14,239
at the various centers if something is

102
00:03:18,949 --> 00:03:16,560
identified that may be a security threat

103
00:03:20,550 --> 00:03:18,959
then this room here will notify the iot

104
00:03:21,990 --> 00:03:20,560
security manager at that center so that

105
00:03:23,830 --> 00:03:22,000
we can take action

106
00:03:25,589 --> 00:03:23,840
if we're notified of a threat here at

107
00:03:27,430 --> 00:03:25,599
marshall then as the iot security

108
00:03:28,790 --> 00:03:27,440
manager our incident response team here

109
00:03:30,550 --> 00:03:28,800
will respond

110
00:03:32,630 --> 00:03:30,560
analyze the threat and decide what needs

111
00:03:34,710 --> 00:03:32,640
to be done to protect the center and be

112
00:03:36,229 --> 00:03:34,720
sure that all the resources here are

113
00:03:37,589 --> 00:03:36,239

properly protected

114

00:03:39,190 --> 00:03:37,599

let's start with what kind of things you

115

00:03:40,390 --> 00:03:39,200

look for here

116

00:03:42,390 --> 00:03:40,400

well they're looking for any kind of

117

00:03:44,070 --> 00:03:42,400

traffic that would indicate some type of

118

00:03:45,750 --> 00:03:44,080

problem either on the internal network

119

00:03:47,190 --> 00:03:45,760

or from the outside it could be an

120

00:03:49,270 --> 00:03:47,200

outsider threat trying to get in and

121

00:03:51,750 --> 00:03:49,280

break in and you know get access to some

122

00:03:54,149 --> 00:03:51,760

of our systems unauthorized access it

123

00:03:56,070 --> 00:03:54,159

could be a policy violation by some user

124

00:03:57,990 --> 00:03:56,080

on our network doing some type of

125

00:04:00,390 --> 00:03:58,000

activity that's not that's prohibited

126

00:04:02,390 --> 00:04:00,400

and therefore will you know indicate

127

00:04:03,830 --> 00:04:02,400

on our sensors here that uh it's it's

128

00:04:05,910 --> 00:04:03,840

against policy and we'll have to take

129

00:04:07,589 --> 00:04:05,920

action based on that if it ends up being

130

00:04:09,270 --> 00:04:07,599

a policy violation then a lot of times

131

00:04:11,830 --> 00:04:09,280

we'll have to do computer forensics on

132

00:04:13,030 --> 00:04:11,840

those boxes to see exactly what happened

133

00:04:14,869 --> 00:04:13,040

document it and see what kind of

134

00:04:16,789 --> 00:04:14,879

recovery needs to be done and any

135

00:04:18,550 --> 00:04:16,799

improvements in security to prevent that

136

00:04:19,990 --> 00:04:18,560

from happening again well you touched on

137

00:04:22,390 --> 00:04:20,000

something that i think we need to follow

138

00:04:23,990 --> 00:04:22,400

up on next is that i t security is more

139

00:04:25,430 --> 00:04:24,000

than what happens in this room what

140

00:04:27,110 --> 00:04:25,440

other types of things do you guys work

141

00:04:29,110 --> 00:04:27,120

on that's correct the stuff that happens

142

00:04:31,350 --> 00:04:29,120

in this room is mostly reactionary in

143

00:04:33,030 --> 00:04:31,360

other words after the fact we do the

144

00:04:35,110 --> 00:04:33,040

entire program here at the center for

145

00:04:36,710 --> 00:04:35,120

i.t security covers

146

00:04:39,030 --> 00:04:36,720

from the beginning when you're creating

147

00:04:40,390 --> 00:04:39,040

a new i.t system

148

00:04:41,990 --> 00:04:40,400

what type of information you're going to

149

00:04:43,430 --> 00:04:42,000

have on it we assist in figuring out

150

00:04:45,510 --> 00:04:43,440

what kind of type of security you need

151
00:04:48,230 --> 00:04:45,520
to protect that information all the way

152
00:04:50,390 --> 00:04:48,240
to authorizing that system to operate

153
00:04:52,550 --> 00:04:50,400
at that point we provide other services

154
00:04:54,710 --> 00:04:52,560
like being sure that the patches are

155
00:04:56,870 --> 00:04:54,720
properly installed on those systems we

156
00:04:58,070 --> 00:04:56,880
have metrics that we track in all areas

157
00:05:00,150 --> 00:04:58,080
of the program to be sure that our

158
00:05:02,070 --> 00:05:00,160
program is effective we coordinate

159
00:05:03,590 --> 00:05:02,080
audits and assessments to ensure that

160
00:05:05,110 --> 00:05:03,600
the program is being effective and

161
00:05:06,629 --> 00:05:05,120
healthy at the center and across the

162
00:05:08,230 --> 00:05:06,639
agency

163
00:05:10,230 --> 00:05:08,240

and of course we do i.t security

164

00:05:11,990 --> 00:05:10,240

training too and that includes the

165

00:05:13,909 --> 00:05:12,000

annual i.t security awareness training

166

00:05:16,310 --> 00:05:13,919

that's mandatory that lori mentioned

167

00:05:18,310 --> 00:05:16,320

earlier i think yeah i have to take mine

168

00:05:21,029 --> 00:05:18,320

but uh how did lori do on that in fact

169

00:05:23,110 --> 00:05:21,039

well i was looking at that bill and uh

170

00:05:24,310 --> 00:05:23,120

she actually didn't do too well i'm not

171

00:05:28,390 --> 00:05:24,320

sure we're going to be able to pass her

172

00:05:31,590 --> 00:05:29,909

well bill that motor test at night was

173

00:05:32,950 --> 00:05:31,600

just incredible and i didn't know the

174

00:05:34,390 --> 00:05:32,960

office of the cio covered so many

175

00:05:35,909 --> 00:05:34,400

different areas but we'll be visiting

176

00:05:37,510 --> 00:05:35,919

more of those areas in future editions

177

00:05:38,710 --> 00:05:37,520

of the program hey what do you say about

178

00:05:40,150 --> 00:05:38,720

my test

179

00:05:42,230 --> 00:05:40,160

we'll see you next time as we focus on

180

00:05:44,390 --> 00:05:42,240

marshall i can't tell you tell me no i