

**SUMMARY for Summer 2015:**

See below for a list of Root Causes for Unplanned Outages.

ITS Changes and outages continue to meet goal.

An average of **39.4%** of all planned changes were documented in IT Request over the summer.

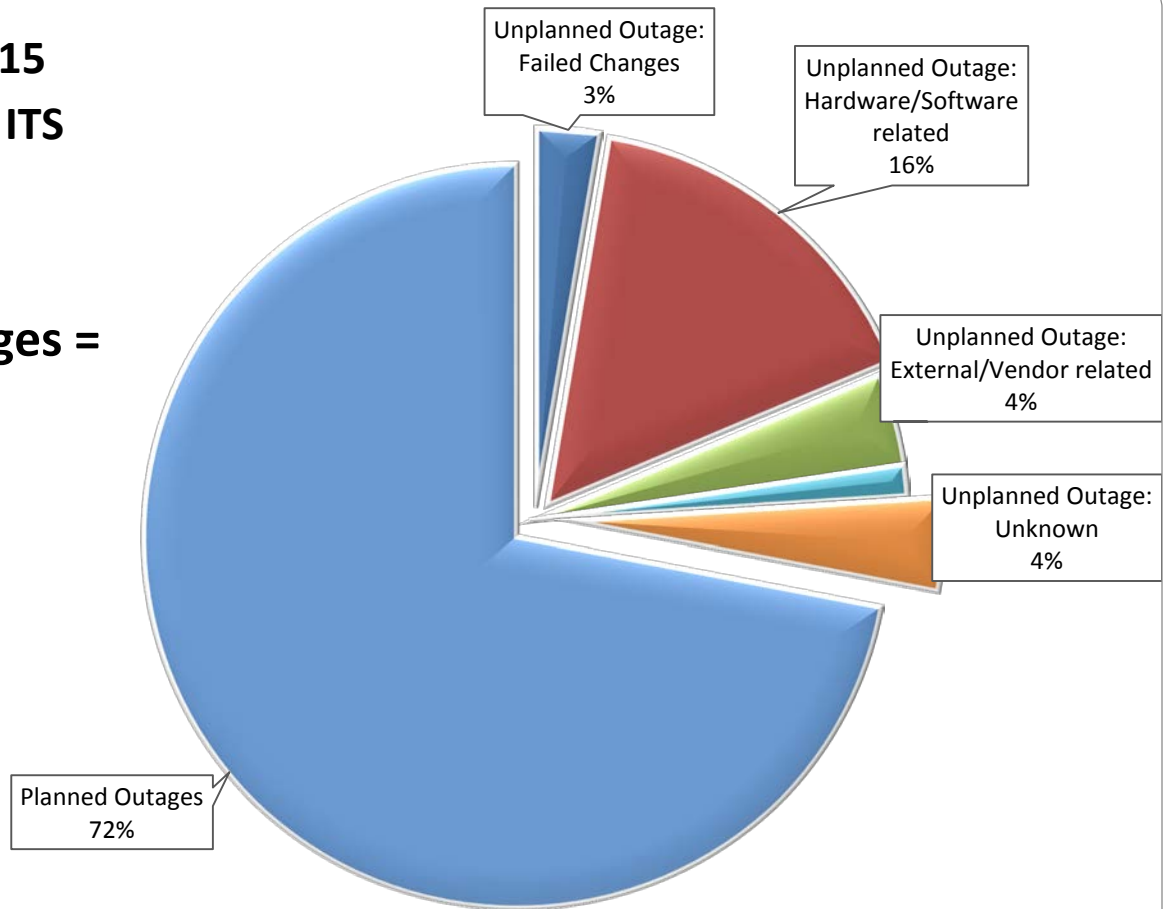
- Ratio of Unplanned to Total Outages & Maintenance Events:

Month	Unplanned to Total Outages	Unplanned to Total Events
July	28%	14%
August	11%	6%
September	19%	11%

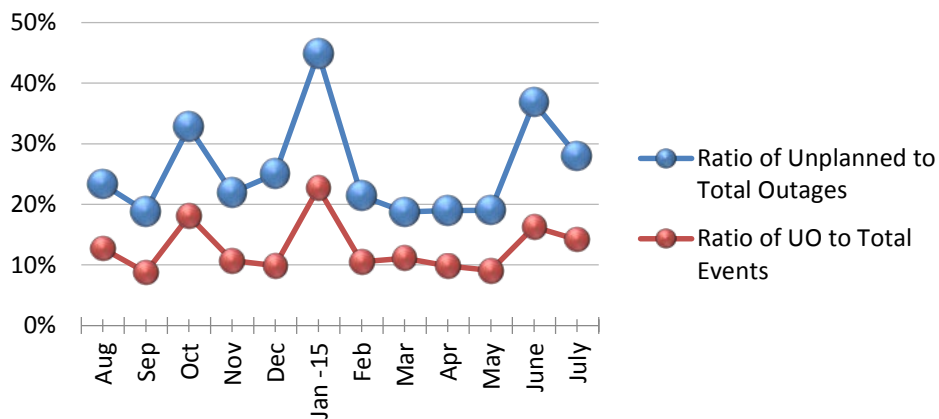
- Goal for 2015-16: 100% of changes documented in IT Request.
  - July                   **Planned: 46%**    **Unplanned: 45.8%**
  - August               **Planned: 42.3%**   **Unplanned: 42.9%**
  - September          **Planned: 30%**     **Unplanned: 31.6%**
- Goal: Outages due to failed changes:  $\leq 9$  per quarter (~5%) **Summer Quarter: 8**
  - Note: Failed Changes include outages caused by unintended consequences of a change. This implies that we could have avoided the unplanned outage if we had planned or executed the change better.
  - July - 2
  - August - 1
  - September - 5
- **July** Unplanned Outages Summary = **21**
  - 6 outage(s) were caused by hardware issues
  - 6 outage(s) were caused by software issues
  - 3 outage(s) is unknown
  - 2 outage(s) were caused by failed changes
  - 2 outage(s) was caused by a power failure
  - 1 outage(s) was caused by vendor issues
  - 1 outage(s) was caused by human error
- **August** Unplanned Outages Summary = **9**
  - 4 outage(s) were caused by software issues
  - 3 outage(s) were caused by hardware issues
  - 1 outage(s) were caused by failed changes
  - 1 outage(s) was caused by a power failure
- **September** Unplanned Outages Summary = **14**
  - 5 outage(s) were caused by failed changes
  - 3 outage(s) was caused by a power failure
  - 3 outage(s) was caused by vendor issues
  - 1 outage(s) were caused by hardware issues
  - 1 outage(s) were caused by software issues
  - 1 outage(s) was caused by human error

# July 2015 Causes of ITS

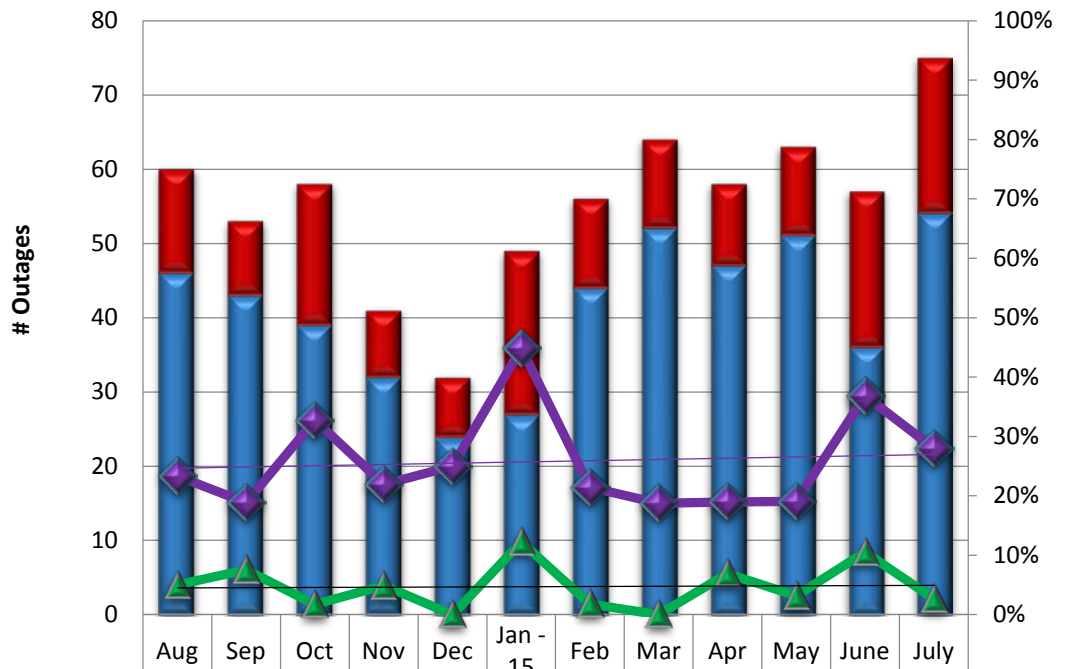
**Total Outages =  
75**



## Ratio Unplanned to Total Events



# ITS Outage Metrics July 2015

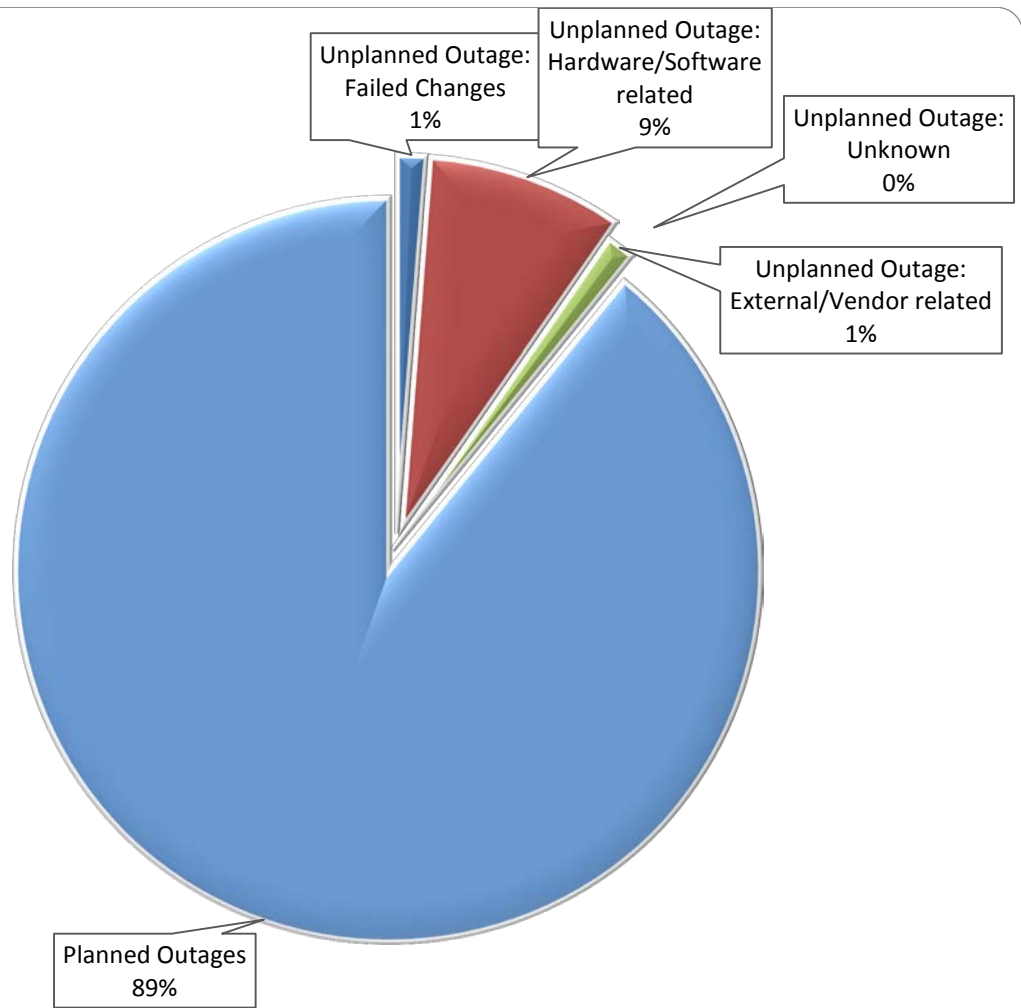


<span style="color: red;">■</span> # Unplanned Outages	14	10	19	9	8	22	12	12	11	12	21	21
<span style="color: blue;">■</span> # Planned Outages	46	43	39	32	24	27	44	52	47	51	36	54
<span style="color: green;">▲</span> Ratio of Unplanned Outages Caused by Failed Changes to Total Outages	5%	8%	2%	5%	0%	12%	2%	0%	7%	3%	11%	3%
<span style="color: purple;">◆</span> Ratio of Unplanned to Total Outages	23%	19%	33%	22%	25%	45%	21%	19%	19%	19%	37%	28%

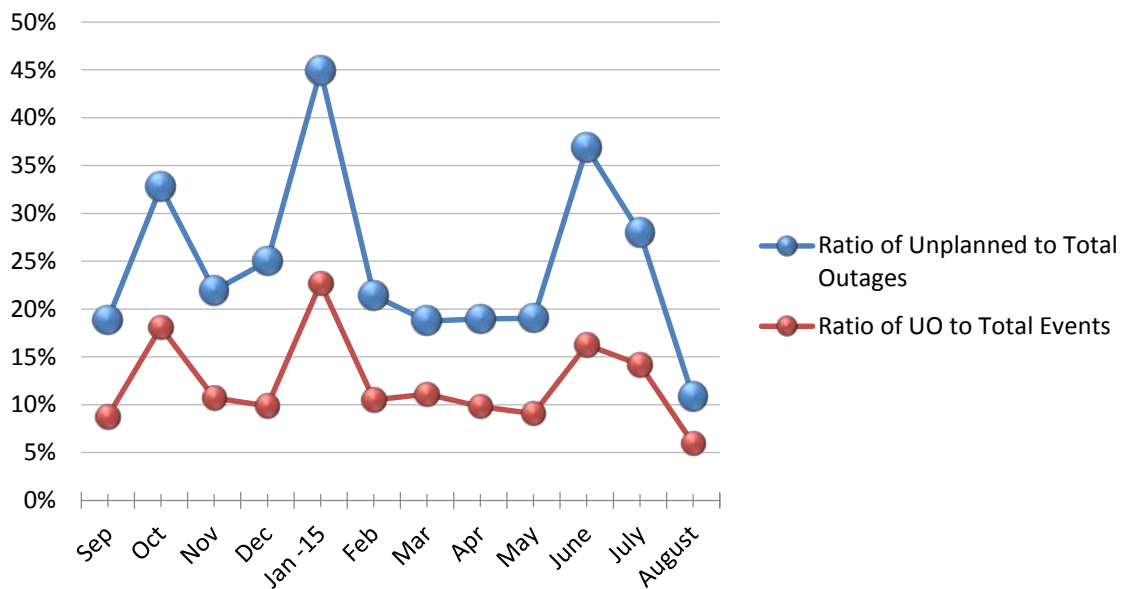
July 2015 Count	Day of Week	Start Date	Time	Coverage Start Time	Duration	Service/ Location	Root Cause	Contact	Comments	Ticket?
1	Thursday	2-Jul-15	All Day	Day	8 days	Voice mail	Software	Tanya Seelandt	Blinking with no messages, cannot be cleared	INC0251712
2	Monday	6-Jul-15	11:30 am - 12 pm	Day	30 minutes	Multiple Services/Campus	Software	Glenn Blackler		INC0250376
3	Tuesday	7-Jul-15	2 am - 3 am	Night	1 hour	Networker Backups	Software	Josh Homan	Server daemon stopped responding at about 0249. 29 hosts did not receive their usual nightly backups.	No
4	Wednesday	8-Jul-15	8:40 am - 9:40 am	Day	20 minutes	Jazzee	Software	Kate Brownfield	Database connection pooling was restarted	INC0251591
5	Wednesday	8-Jul-15	1 pm - 12 am	Night	11 hours	PPS Reports	Vendor	Nicole Liebenthal	UCOP change	No
6	Friday	10-Jul-15	9:35 pm - 10 pm	Night	3 hours	Hosting/Data Center VM Servers	Failed Change	Andrea Lee	VM incorrectly attached to the wrong physical console on a server	No
7	Saturday	11-Jul-15	All Day	Day	3 days	eduroam wireless network service/Campus	Hardware	Robert Cartelli	Multiple locations across campus	INC0252094
8	Sunday	12-Jul-15	All Day	Day	3 days	eduroam wireless network service/Campus	Hardware	Robert Cartelli	Multiple locations across campus	INC0252094
9	Monday	13-Jul-15	All Day	Day	3 days	eduroam wireless network service/Campus	Hardware	Robert Cartelli	Multiple locations across campus	INC0252094
10	Wednesday	15-Jul-15	All Day	Day	7 days	International Scholar and Student Man	Software	Matt Henderson	Service not able to transfer phone numbers up to SEVIS as required. Requires upgrade.	No
11	Wednesday	15-Jul-15	6:15 am - 9:15 am	Day	30 minutes	Telephones/Science Hill	Software	Matt McKenna		No
12	Sunday	19-Jul-15	9 am - 9:30 am	Day	30 minutes	Network/Kerr Hall	Unknown	Unknown		No
13	Sunday	19-Jul-15	9:37 pm - 10:53 pm	Night	1.5 hours	Telephones & Network/Upper Campus	Power Outage	John Haskins		No
14	Monday	20-Jul-15	6:45 am - 8:03 pm	Day	18 minutes	Network & VOIP Telephones/Comm b	Failed change	John Haskins	Line card did not come up following a scheduled firmware upgrade	CHG0033632
15	Monday	20-Jul-15	3:47 pm - 3:59 pm	Day	12 minutes	Library Web Site	Unknown	Unknown		No
16	Tuesday	21-Jul-15	2 pm - 3 pm	Day	1 hour	Oakes	Network	Nigel Jacques	Not validated. Reported by phone to Marian.	INC0253149
17	Wednesday	22-Jul-15	12:11 am - 5:30 am	Night	5.5 hours	SOE and other Services/Campus	Power Outage	Kirk Loftis		No
18	Saturday	25-Jul-15	All Day	Day	All Day	Network/University Town Center	Hardware	Paul Marundee		No
19	Sunday	26-Jul-15	All Day	Day	All Day	Network/University Town Center	Hardware	Paul Marundee		No
20	Monday	27-Jul-15	6:36 am - 9:38 am	Day	3 hours	Network/University Town Center	Hardware	Paul Marundee		No
21	Wednesday	29-Jul-15	7:11 am - 7:12 am	Day	1 minute	Wireless, VPN, GDAD/Campus	Human Error	Mark Boolootian		No

# August 2015 Causes of ITS

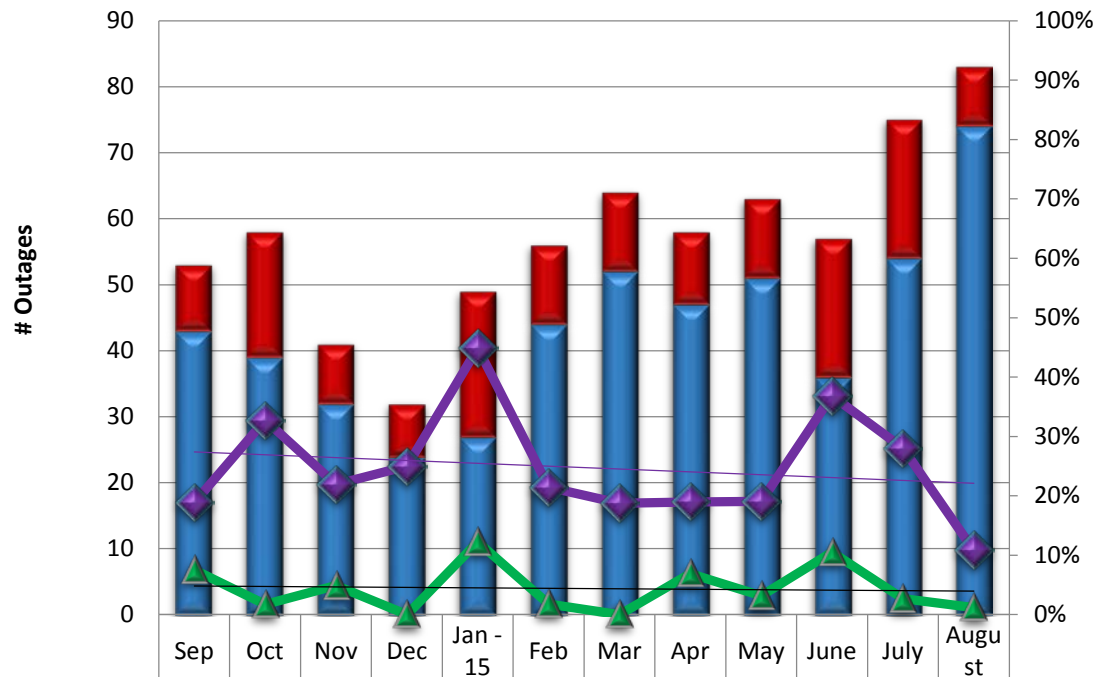
**Total Outages =  
83**



## Ratio Unplanned to Total Events



## ITS Outage Metrics August 2015

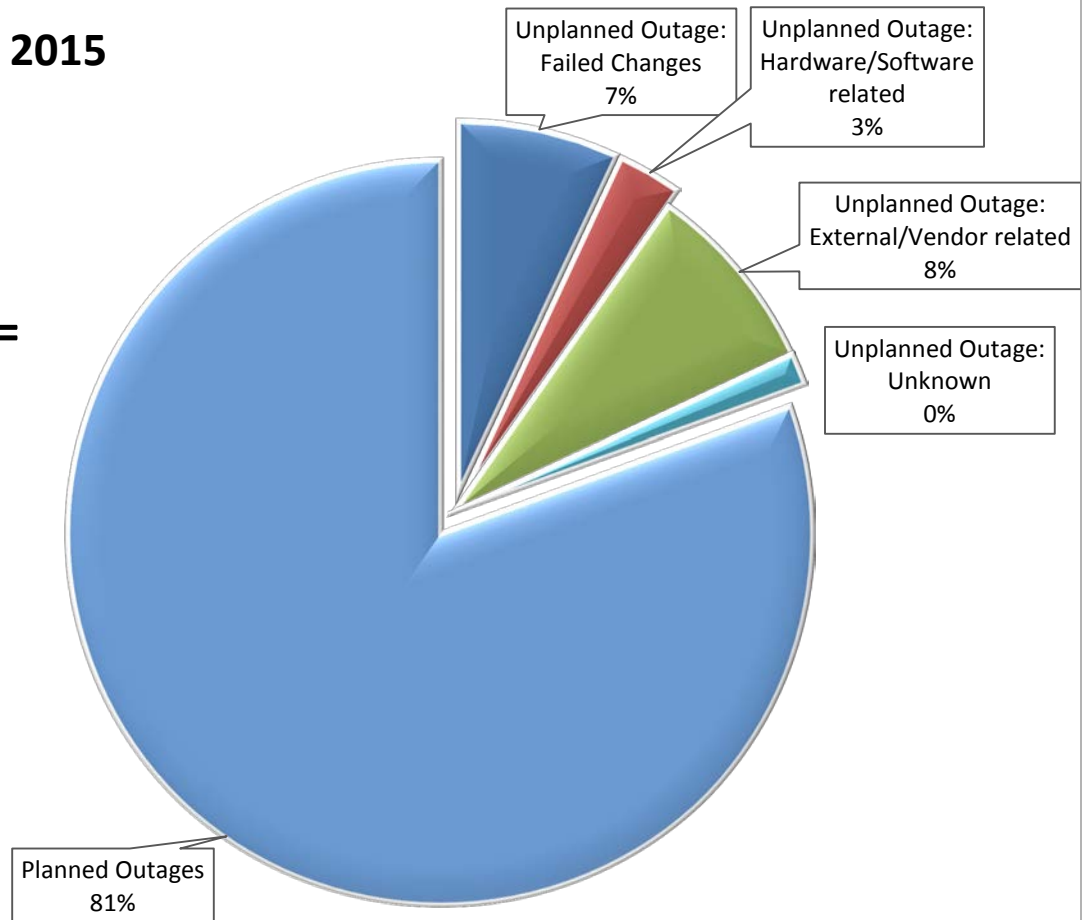


<span style="color: red;">■</span> # Unplanned Outages	10	19	9	8	22	12	12	11	12	21	21	9
<span style="color: blue;">■</span> # Planned Outages	43	39	32	24	27	44	52	47	51	36	54	74
<span style="color: green;">▲</span> Ratio of Unplanned Outages Caused by Failed Changes to Total Outages	8%	2%	5%	0%	12%	2%	0%	7%	3%	11%	3%	1%
<span style="color: purple;">◆</span> Ratio of Unplanned to Total Outages	19%	33%	22%	25%	45%	21%	19%	19%	19%	37%	28%	11%

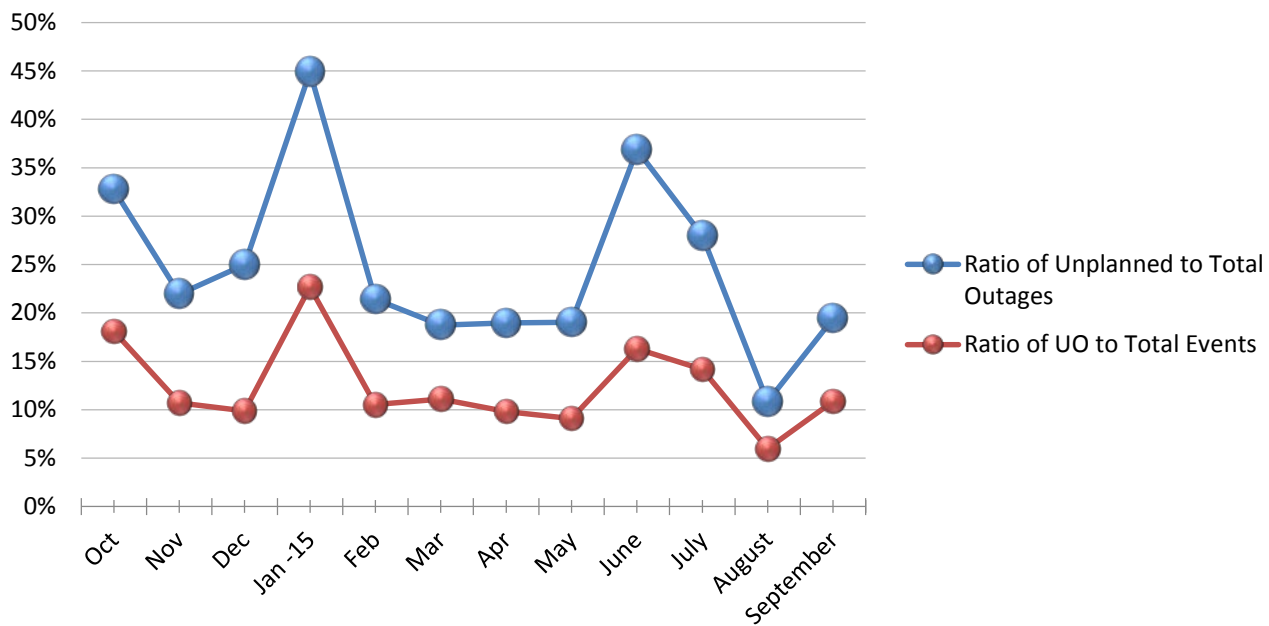
August 2015 Count	Day of Week	Start Date	Time	Coverage Start Time	Duration	Service/ Location	Root Cause	Contact	Comments	Ticket?
1	Saturday	1-Aug-15	All Day	Day	3 days	Network/Carriage House and EH&S	Hardware	Vic Rempillo		INC0254807
2	Sunday	2-Aug-15	All Day	Day	2 days	Network/Carriage House and EH&S	Hardware	Vic Rempillo		INC0254807
3	Monday	3-Aug-15	8:40 pm - 9:15 pm	Night	35 minutes	Network/Campus	Software	Mark Boolootian	DNS and login issues	INC0255003
4	Thursday	6-Aug-15	9:45 pm - 12 am	Night	2.5 hours	Network/Campus & DARC	Power Outage	Vic Rempillo	no impact to telephone service	INC0255499
5	Sunday	9-Aug-15	6:30 am - 10 am	Day	3.3 hours	WCMS	Software	Andre Daniels	Memory leak	INC0255750
6	Sunday	16-Aug-15	5:47 pm - 8:47 pm	Night	3 hours	SOE services	Hardware	Tim Gustafon	cooling issue	No
7	Thursday	20-Aug-15	10:51 am - 2 pm	Day	3 hours	Resource 25 (R25)	Software	Glenn Blackler		INC0327300
8	Friday	21-Aug-15	All Day	Day	5 days	IPTV/Campus and University Town Center	Failed change	Mark Boolootian	missing piece of the multicast configuration on the new border routers.	No
9	Monday	31-Aug-15	8:55 am - 10:37 am	Day	2 hours	Library website	Software	Byrn Kanar	Caused by unrestricted indexing by googlebots which overloaded both the max connections on the sql DB and the resources on the web server. Issue has been corrected with google.	No

## September 2015 Causes of ITS

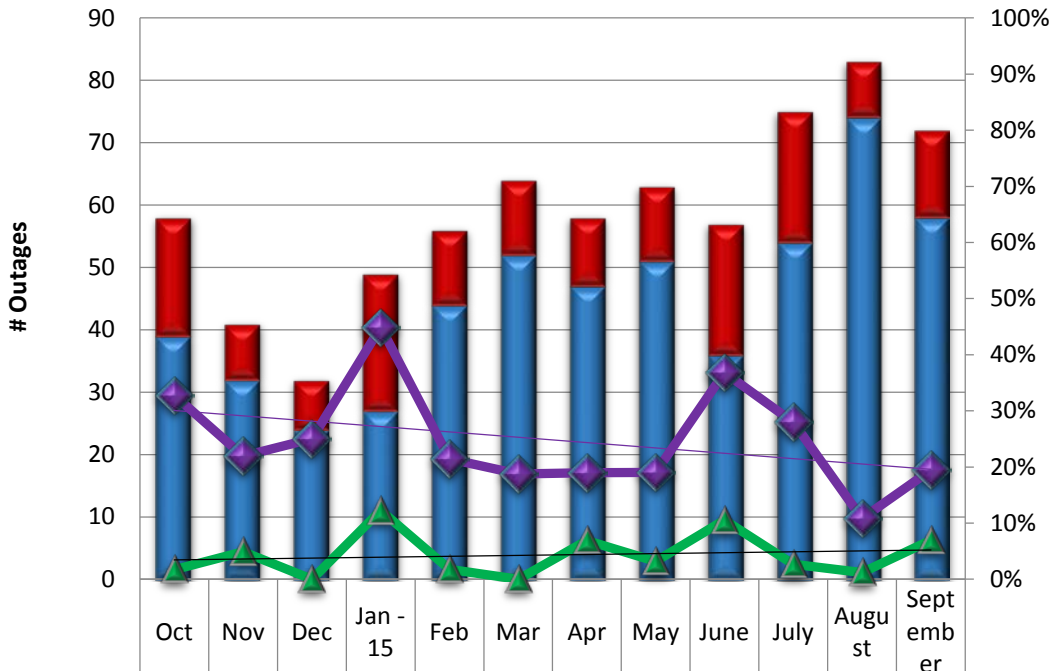
**Total Outages =  
72**



## Ratio Unplanned to Total Events



# ITS Outage Metrics September 2015



<span style="color: red;">■</span> # Unplanned Outages	19	9	8	22	12	12	11	12	21	21	9	14
<span style="color: blue;">■</span> # Planned Outages	39	32	24	27	44	52	47	51	36	54	74	58
<span style="color: green;">▲</span> Ratio of Unplanned Outages Caused by Failed Changes to Total Outages	2%	5%	0%	12%	2%	0%	7%	3%	11%	3%	1%	7%
<span style="color: purple;">◆</span> Ratio of Unplanned to Total Outages	33%	22%	25%	45%	21%	19%	19%	19%	37%	28%	11%	19%

Sept 2015 Count	Day of Week	Start Date	Time	Coverage Start Time	Duration	Service/ Location	Root Cause	Contact	Comments	Ticket?
1	Tuesday	1-Sep-15	2:40 pm - 2:50 pm	Day	10 minutes	network/Shibboleth login	Failed change	George Holbert	mz-3 was holding up to the load OK all by itself. But of course, when the daemons on idm-prod-dmz-3 came down for patch prep, the VIP ran out of responsive DMZs.	CHG0033786/ INC0346121
2	Saturday	5-Sep-15	All Day	Day	4 days	BSOE file server	Hardware	Tim Gustafon	boot drive failure on primary file server	No
3	Tuesday	8-Sep-15	10 pm - 12 am	Night	2 hours	University Extention Online Student E	Vendor	Dave Van Unen	issue is contained within the new code Authorize.net implemented in that it is converting our Response/Receipt URL from CaMeL case (a URL that contains both upper and lower case characters) to all lower case characters. In our case our relay URL DOES contain both upper and lower case characters, and it is case sensitive.	No
4	Wednesday	9-Sep-15	12 am - 5 pm	Day	17 hours	University Extention Online Student E	Vendor	Dave Van Unen		No
5	Saturday	12-Sep-15	All Day	Day	3 days	Multiple Services/campus wide, then (	Power Outage	John Haskins	multiple ITS services affected	No
6	Monday	14-Sep-15	1:30 pm - 2:45 pm	Day	1.25 hours	FixIt, Community Housing and Educati	Software	Glenn Blackler	Rebooted ColdFusion	INC0347512
7	Wednesday	16-Sep-15	9:30 am - 3:30 pm	Day	6 hours	Student Housing Online (SHO), Fixit, D	Failed change	Glenn Blackler	LDAP cutover (from OpenLDAP/FreeBSD to OpenDJ/Solaris).	INC0347906
8	Wednesday	16-Sep-15	All Day	Day	3 days	Massmail service	Failed change	Josh Homan	LDAP cutover (from OpenLDAP/FreeBSD to OpenDJ/Solaris). 4 users impacted over two days.	No
9	Wednesday	16-Sep-15	12:30 pm - 2:30 pm	Day	2 hours	Campus VPN login	Failed change	Glenn Blackler	LDAP cutover (from OpenLDAP/FreeBSD to OpenDJ/Solaris). Cisco AnyConnect client	No
10	Friday	18-Sep-15	9 am - 3 pm	Day	6 hours	Google account provisioning	Failed change	Troy Wright	LDAP cutover (from OpenLDAP/FreeBSD to OpenDJ/Solaris). no new email accounts are created or disabled properly	INC0348124
11	Saturday	19-Sep-15	7:22 am - 8:52 am	Day	1.5 hours	Residential network	Power Outage	Naomi Gunther	due to power work by PP&C	No
12	Saturday	19-Sep-15	1:06 pm - 1:18 pm	Day	12 minutes	ResNet	Power Outage	Naomi Gunther	due to power work by PP&C	No
13	Thursday	24-Sep-15	10am - 5 pm	Day	7 hours	InCommon Certificate Service	Vendor	Julie Goldstein		No
14	Friday	25-Sep-15	9:30 am - 9:45 am	Day	15 minutes	Network & Telephones/Science Hill	Human Error	Matthew McKenna	Cause was an electrical fault caused by a dropped screw in a circuit breaker panel	No