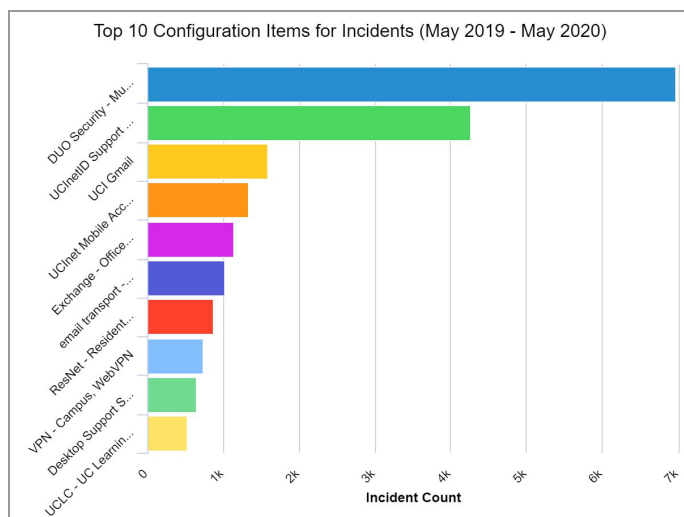


Research

Quantity of Duo Incidents:

Duo became a requirement for UCI employees beginning May 1, 2019. One year after Duo's rollout, the Help Desk received 6,976 Duo-related incidents, which constituted 24.7% of all incidents.



Right now, only UCI employees are required to use Duo. After making Duo a requirement for students as well, it can be estimated that the Help Desk will receive 12,854 Duo incidents per year, which will take up 41.9% of all incidents.

Calculations used for this estimation:

Number of employees currently enrolled in Duo (including student employees) : 34,436

Number of students not enrolled in Duo (excluding student employees): 29,020

Source: <https://uci.edu/university-facts/>

Eventually, OIT plans to make Duo a requirement for all users, including all students. This would add 29,020 additional users. It can be estimated what impact this will have by using statistics from the previous year: May 2019 - May 2020.

Yearly Incident Statistics (Statistics gathered from ServiceNow reports)

Year	Duo Incidents	Total Incidents
May 2015 - May 2016	NULL	12751
May 2016 - May 2017	NULL	20625
May 2017 - May 2018	NULL	16747
May 2018 - May 2019	NULL	17924
May 2019 - May 2020	6976	28165 (21189 when excluding Duo incidents)
Average:	6976 per year	19242 per year

Statistics from May 2019 - May 2020 (1 year):
6,976 Duo-related incidents
28,163 Total incidents

$6,976 \text{ Duo incidents} / 34,436 \text{ enrolled users} = 0.2026 \text{ incidents per user}$
 $0.2026 \text{ incidents per user} * 29,020 \text{ new users} = 5,878 \text{ additional Duo incidents from new users}$
 $6,976 + 5,878 = 12,854 \text{ Duo incidents per year}$

Averaging the amount of incidents from the past five years *excluding Duo incidents*, the amount of incidents the next year can be estimated to be 17847. But this does not include Duo, which was previously estimated to be 12854 total incidents. After adding Duo incidents, it can be estimated that the Help Desk will receive 30701 total incidents per year, and Duo incidents would constitute 41.9% of them.

Quantity of Duo Calls:

Based on call statistics from the past 6 months (February - July), the Help Desk averages at 466 Duo calls per month, and averages to be 13.8% of all calls.

After UCI makes Duo a requirement for all students, it can be estimated that the Help Desk will average at 857 Duo calls per month, constituting 22.8% of all calls.

Calculations used for this estimation:

Number of employees currently enrolled in Duo (including student employees) : 34,436

Number of students not enrolled in Duo (excluding student employees): 29,020

Source: <https://uci.edu/university-facts/>

Eventually, OIT plans to make Duo a requirement for all users, including all students. This would add 29,020 additional users. It can be estimated what impact this will have by using statistics from the past six months.

Monthly Call Statistics from 2020 (Statistics received from UCI Telecom Engineers)

Month	Duo Calls	Total Calls
February	558	3689
March	604	4484
April	411	3040
May	427	2599
June	480	3388
July	321	3057
Average:	466 per month	3376 per month

Statistics from the past 6 months (February 2020 - July 2020):

Average number of Duo calls per month: 466

$466 \text{ Duo calls} / 34,436 \text{ enrolled users} = 0.0135 \text{ calls per user}$
 $0.014 \text{ calls per user} * 29,020 \text{ new users} = 391 \text{ additional Duo calls from new users}$
 $466 + 391 = 857 \text{ Duo calls per month}$

Averaging the amount of calls from the past six months, and adding 391 to account for new users, it can be calculated that the Help Desk will 3767 calls per month. Duo calls will consist of 22.8% of all calls.