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Basic idea behind the usage rules

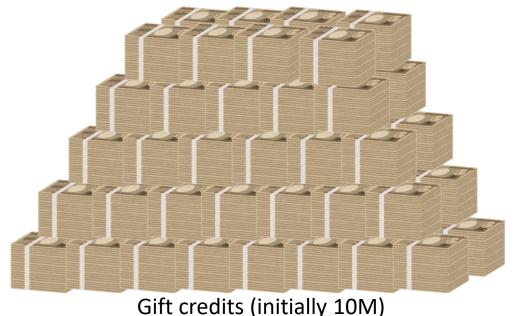
- Minimize paperwork and time lag from application to start of use
- Provide resources that would cost dozens of millions yens and take months to procure quickly
- Welcome and encourage first-time users to try
- Create a community where experts from various fields of the university can easily meet, interact, and collaborate

Possibility of charges

- The gift credits are finite (USD 10M for 5 years) ⇒ we can't say "you can use as much as you want for free"
- Give everybody an opportunity to use it during the 5 year period ⇒ the simplistic first-come-first-serve rule is unacceptable
- The challenge is how to fairly allocate USD 10M to users, without knowing in advance how many will use it and how much
- A common approach is to let users write a research proposal and run a review committee, but it tends to
 - make the entry bar higher
 - and result in unused (or wasted) resources

The basic rule

- At the beginning of each month, decide the amount of gift credits all users can totally use for free ("free tier")
- At the end of each month, divide the free tier fairly to subscriptions
- If the total usage of all subscriptions ≤ the free tier
 - ⇒ no subscriptions are charged for the month





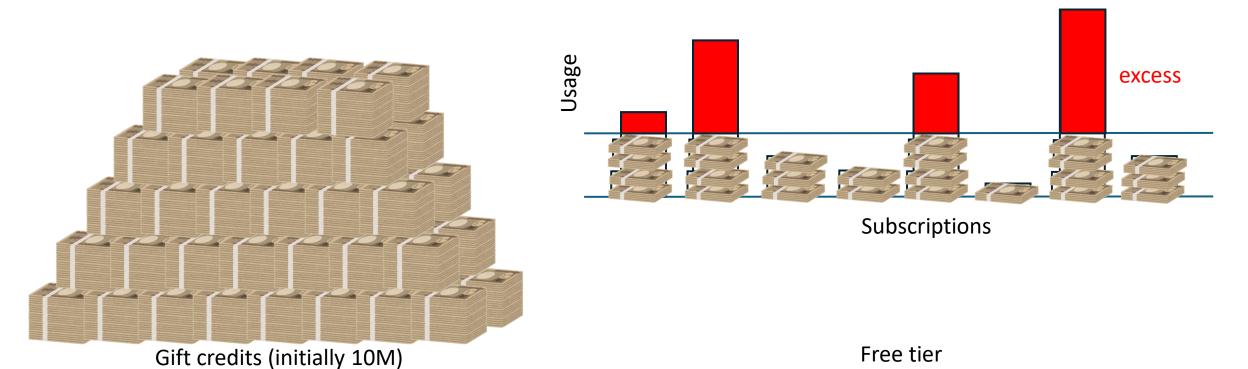
Subscriptions



Free tier

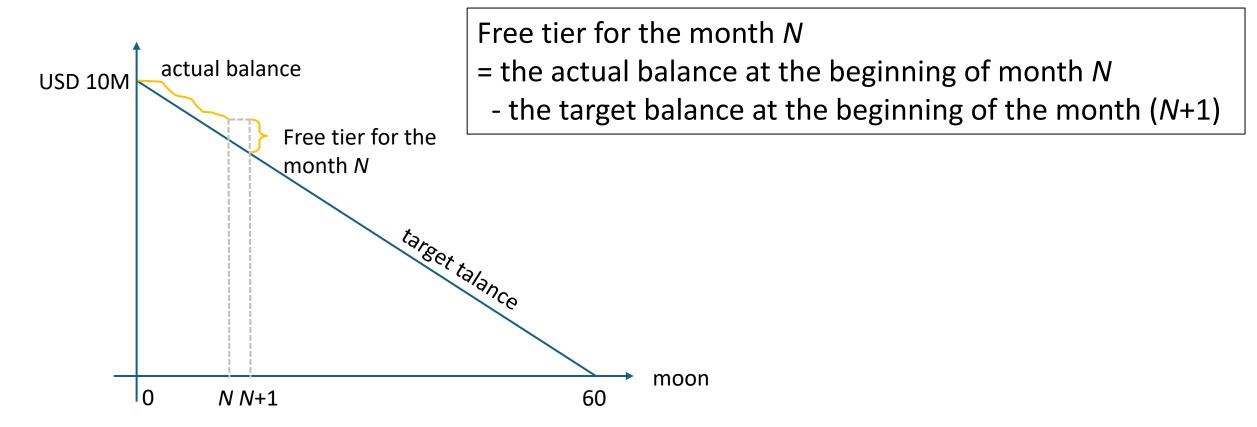
The basic rule

- Otherwise, comp up to a threshold
- Subscriptions that spend more than that are "excessive"
 - The excess may not immediately become your bill (more on that later)



How to determine the free tier?

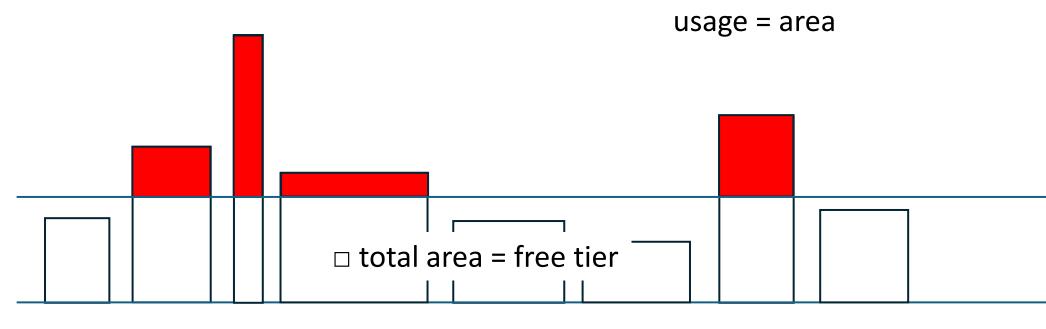
- Set the "target balance" of the credits that decreases in a constant pace
 - i.e., USD 10M in 5 years (60 months) ≈ USD 167K/month



How to divide the free tier *fairly*?

- Roughly,
 - there are 10 subscriptions \Rightarrow each one gets 1/10 of the free tier,
 - except that those who use less than that get up to the amount they actually use (i.e., no roll over)
- In addition, we take into account the number of people (N) registered in the subscription
 - give credits proportionally to the "weights" determined as follows
 - weight of *N*-member subscription = $\frac{N}{1 + \log_{10} N}$
 - slightly less than "N times for N members"

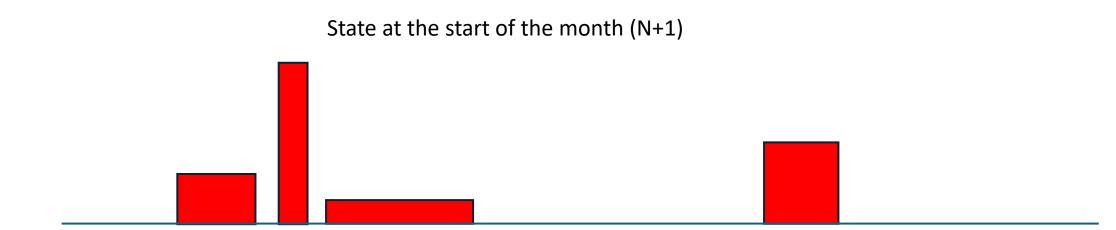
Illustration of how to divide the free tier



subscriptions (weight = width)

Exceeded usages and charges

- Usage beyond the allocated free credits = "excess"
- The excess amount will be carried over to the next month during a semester (= from that month to the next September or March)
 - excess usage may be offset by the free tier of subsequent month(s)
- The excess usage still remaining at the end of September or March becomes the actual charge on you



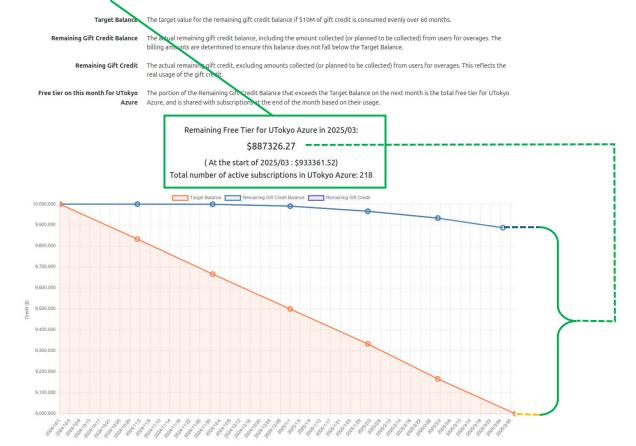
Planning your usage

- In particular, many of you will wonder "How much can I use without being charged?"
- Information you need:
 - How much is the free tier (of the whole university) this month?
 - How many subscriptions (weights, to be more precise) exist this month?
 - How much does it cost to use services you use (price list)?

Free tier of the month

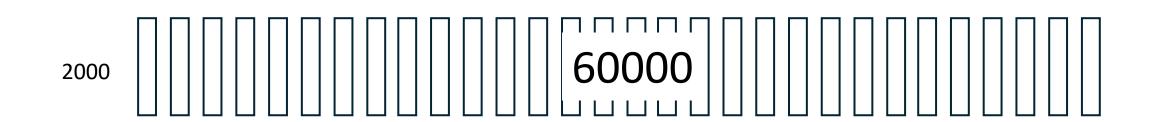
- ⇒ "UTokyo Azure Subscription Management" (on-campus access required) page
 - Remaining Free Tier for UTokyo Azure in XXXX/XX

Todo: 4月始まったら取り直し



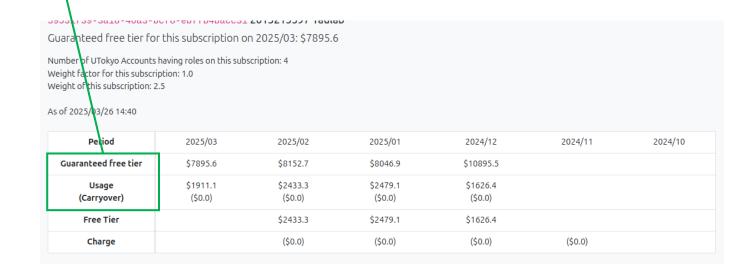
"The guaranteed free tier" of subscription

- Let's say for example that on May 1st...
 - free tier of the month (of the whole university) = USD 60,000, and
 - there are 30 subscriptions (whose weights are all the same for simplicity)
- \Rightarrow At this point, you can deduce that each subscription can use, for free, at least 60,000/30 = USD 2,000 in May
- Note that this can be known at the beginning of a month ⇒ we call it "the guaranteed free credit" of that subscription of that month



How much is the guaranteed free tier of my subscription this month?

- ⇒ "UTokyo Azure Subscription Management" (on-campus access required) page
 - Guaranteed free tier and usage of your subscription
 - notified at the beginning of each month
 - Significance of guaranteed free tier: if your usage of the month is less than this, you won't be charged for that month, no matter how much others use



Alert emails

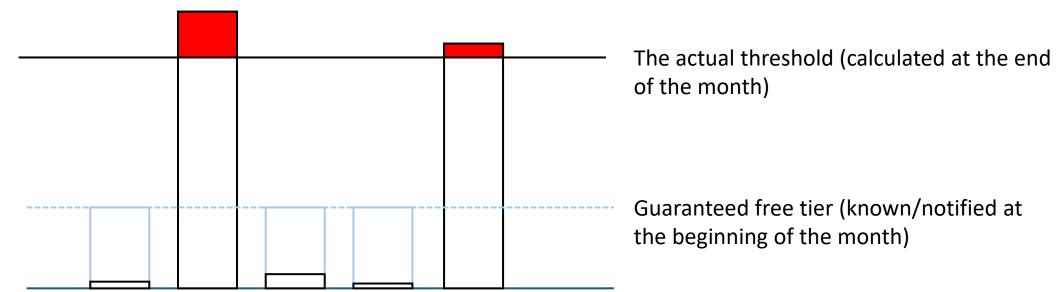
- If the usage of a subscription exceeds a certain threshold (*), an alert email will be sent to its owner
 - Subject: "Notification from UTokyo Azure: Subscription XYZ usage alert"
 - *: 50%, 75%, 90%, 100% of the guaranteed free tier

Important: automatic suspension

- By default, when a subscription uses 90% of the guaranteed free tier, it will be automatically canceled (deleted) and all data will disappear
 - so that you won't be charged in the default setting
- Unless you are OK with losing your work and data, please do the following (→ Part 3)
 - Register a budget to pay for it (payment method)
 - Disable the automatic suspention toggle

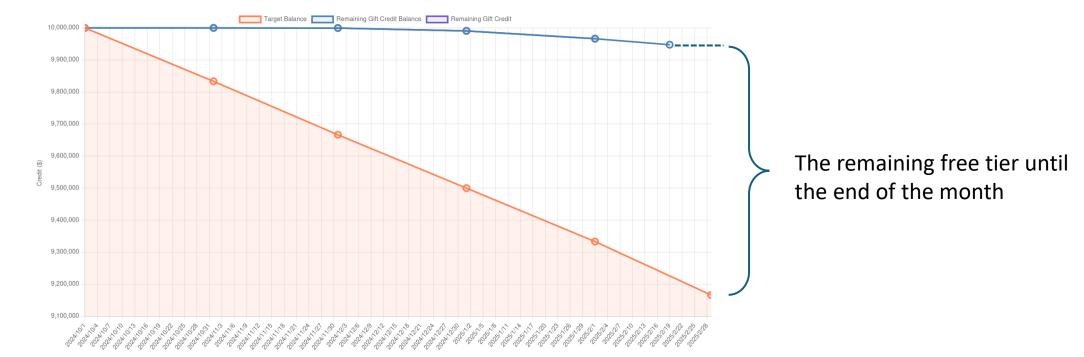
Want to use more than "guaranteed"?

- "The guaranteed free tier" is a conservative estimate, like:
 - if you share a cake with five brothers and sisters, you can surely get 1/5
- In practice, the remainder of underused subscriptions makes other subscriptions free, like:
 - 3 out of 5 didn't eat the cake until the expiration date \rightarrow 2 can eat all



To use more than guaranteed, ...

- On the "UTokyo Azure Subscription Management" (On-campus access required) page, watch the remaining free tier of the month (of the whole university)
- Note that if everyone thinks the same, it may cost you (ouch!)
 - Don't forget to cancel the auto suspension



Tools to keep costs down

- You can calculate the approximate price with Azure's <u>pricing</u> <u>calculator</u>
 - Basis for using any service
- Some services in Azure (such as AI services) have safety valves that terminate after a period of inactivity