Substratum Show and Tell – March 8, 2019

Introduction

In February 2019 the Substratum development team began publicizing their weekly Show and Tell for consumption. Show and Tell happens every Friday at 2:00 PM EST and the summary will be prepared for delivery on the following Monday.

The development team has been tweeting about features going to production daily to the open source repositories (Node and TNT). The team also made the weekly show and tell meeting available to Substratum community moderators to help equip them on status and to help them with a more ongoing open Q&A practice with them.

About the Show and Tell

The show and tell deck has the following characteristics.
- The current roadmap
    - Strategic Milestones the team is currently focused on
    - Tactical Milestones the team is currently working on
    - Tactical Horizon items the team will begin weaving in soon
- Burn-up of progress of SubstratumNode V1 that will show an engineering forecasted completion date range that spans between known work and uncertainty. The uncertainty buffer multiplies the number of remaining work by 2.5 times. The numbers reflected in the burn-up will be based on the number of cards known and forecasted.
    - In the burn-up notes, below the chart, the team provides a range of weeks remaining based on the known scope (low end estimation) and the estimated scope with uncertainty buffer (high end estimation). The date range will continue to get tighter and tighter over time as scope settles and work is burned up for MVP.
- Capacity Utilization (% of planned, tech debt, and unplanned)

The Show and Tell

At the most recent show and tell, March 1, 2019, the Substratum development team reinforced what strategic and tactical milestones are currently in play.

Figure 1: Show and tell cover
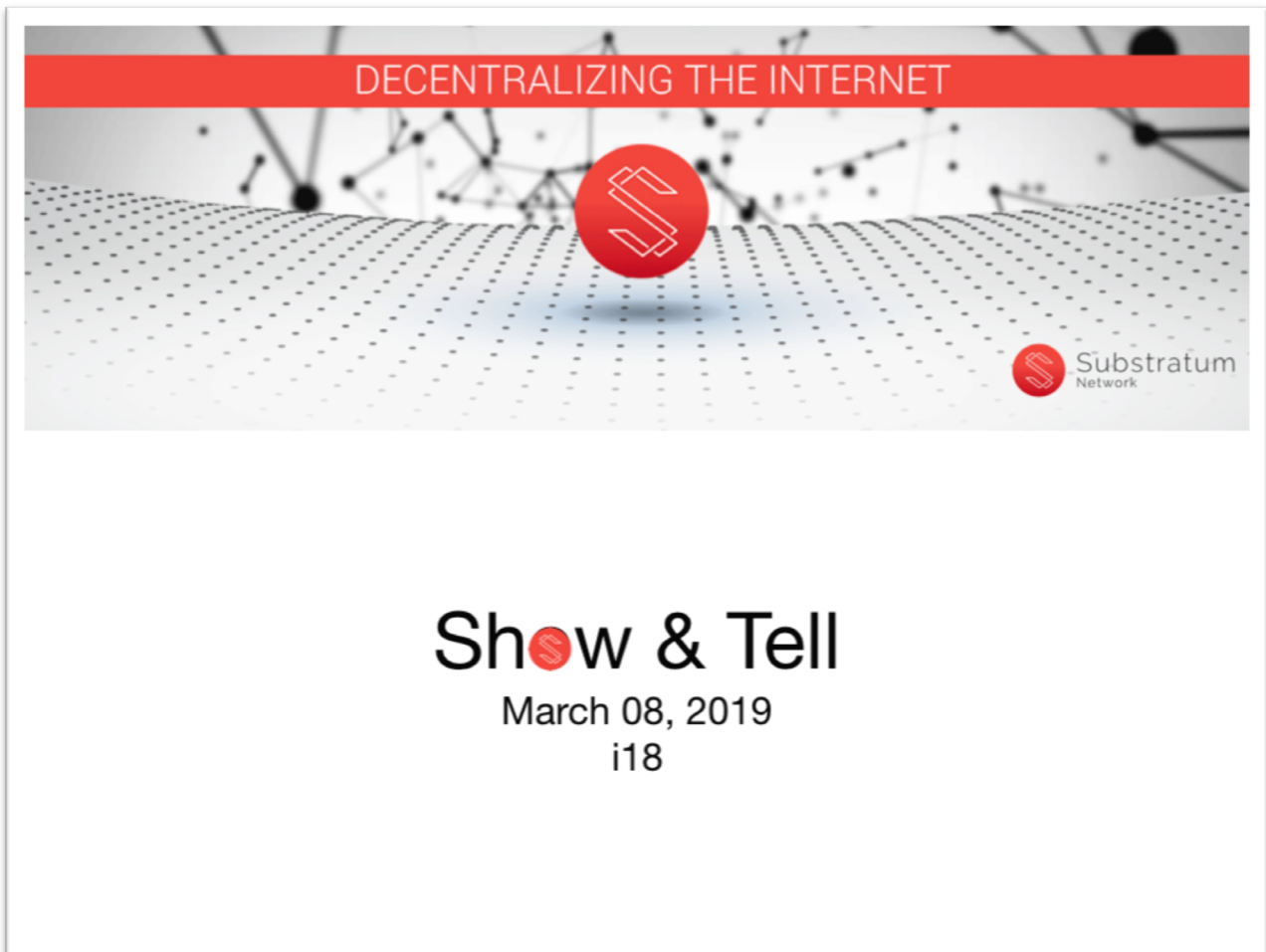
As one could imagine, the strategic milestones, as seen in figure 2, ***make the internet free (as in freedom) and fair*** and ***earn cryptocurrency and change the world*** won't change. These are guiding principles for what the team is working on tactically. Internally, the team has key performance indicators (KPI) that are associated to the strategic priorities that are written in the form of hypotheses. There are placeholders for outcomes to be filled in as the KPI is measurable. The development team wants to be as scientific as possible when delivering the product and scientific learning comes from the line between the hypothesis and the outcome.

Strategic MVP Milestones

- Priority 1. Make the Internet Free (as in freedom) and Fair.
  - "As a SubstratumNode user I can allocate my spare computing resources so that the internet can be a free and fair place for the entire world."

- Priority 2. Earn Cryptocurrency. Change the world. - "As a SubstratumNode user I earn $SUB as content is routed through my node so that I am incentivized to make the internet free and fair."

Tactical Milestones

Current

- Monetization design, grooming and WIP (Doing)
- Usability and hardening (Doing)
- Routing and Node Intelligence (Doing)
- Terminal intelligence (Moved into Doing)

Horizon

- Node proxying vs DNS subversion only (prioritizing)
- MVP Release
- Security audit and focus
- Masquerading (atleast 1)
- More usability and hardening

The tactical focus is basically everything remaining to get the product to a version 1.0.0 release (v1). It's exciting for the team to be at this stage of the game but the work remaining isn't trivial. Monetization strategy is now being determined, vetted and implemented. The team is working on a graphical user interface (aka: GUI) release that will allow the Node (installable version) to join the Substratum Network much like the command line version can currently. This code is currently in the open source for compilation but will need release distributions created.

Enhancements to routing are happening to support network hardening, security and monetization. This past week the team pulled in the remaining Terminal Intelligence work that will make Node smarter about choosing routes and exit nodes among other things.

The horizon items will continue to enhance security, anonymity, routing, usability and include Node proxying alongside complete DNS subversion.

Tells and Shows

The main spirit behind the show and tell is the following slide as seen in figure 3. This is where the team talks about the work completed and it's only worth a discussion or they show off what the new features

do with a small demonstration. The work has been identified by planned, tech debt and unplanned so that it maps into the capacity utilization more cleanly for greater transparency and connectivity between the show and tell and metrics portions of the meeting.

Figure 3: The tells and shows
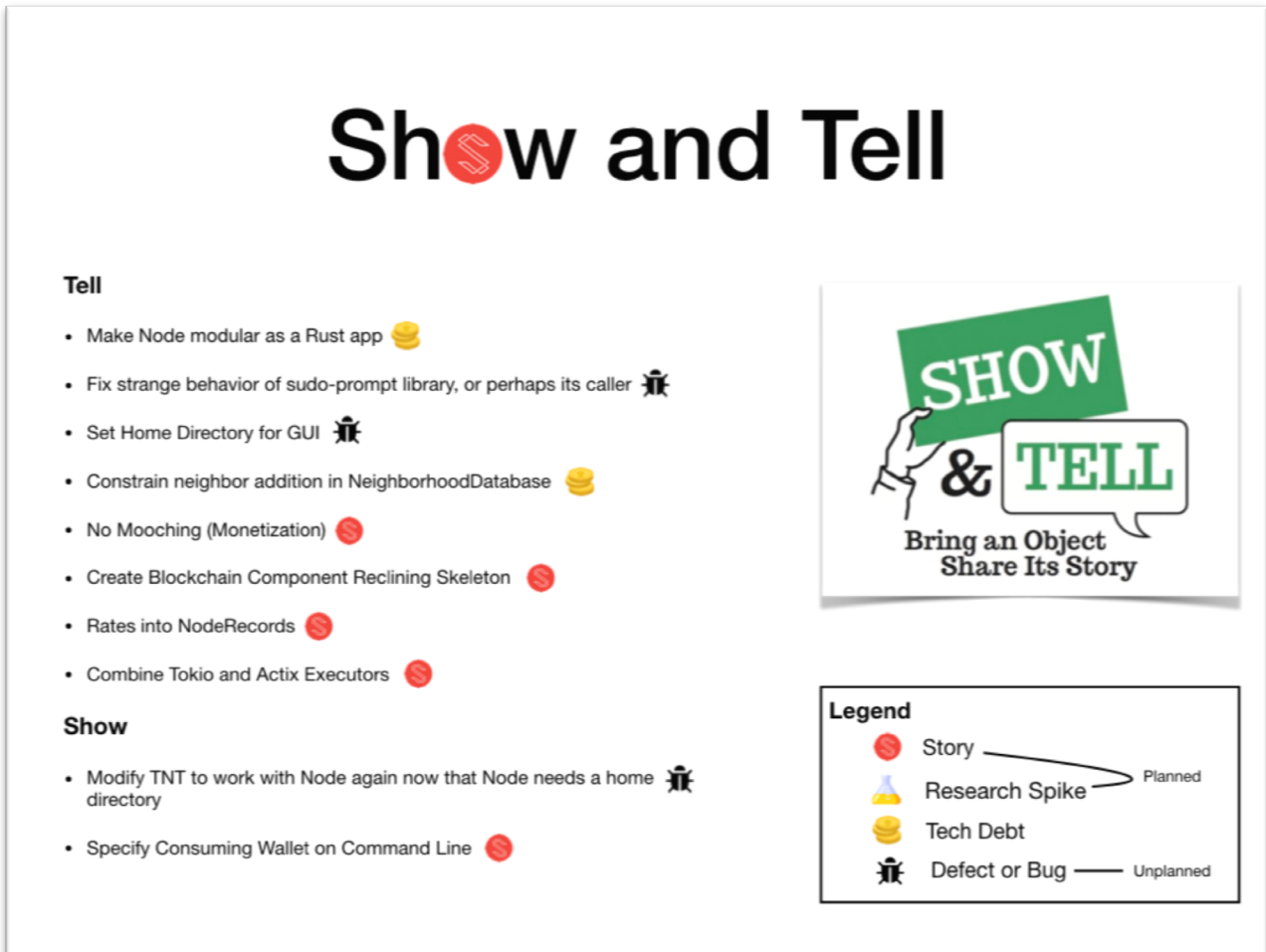
To highlight a few things, the development team was able to knockout 3 more accounts payable cards for monetization. The team also completed the initial work required for a solid GUI release where a Node user can use the updated user interface (installable version) to input the required parameters to join a Substratum Network neighborhood.

The team also performed a handful of tech debt items required for MVP and fixed a routing defect.

All these improvements can be found in the pertinent Github repository https://github.com/SubstratumNetwork.

SubstratumNode V1 Burn-up

When the team talks about SubstratumNode V1 (aka "Node MVP") they are typically only referring to the Node and the Network itself. A Node MVP is a monetized and secure Substratum Network. There will be plenty of work post a Node MVP.

Figure 4: SubstratumNode V1 Burn-up
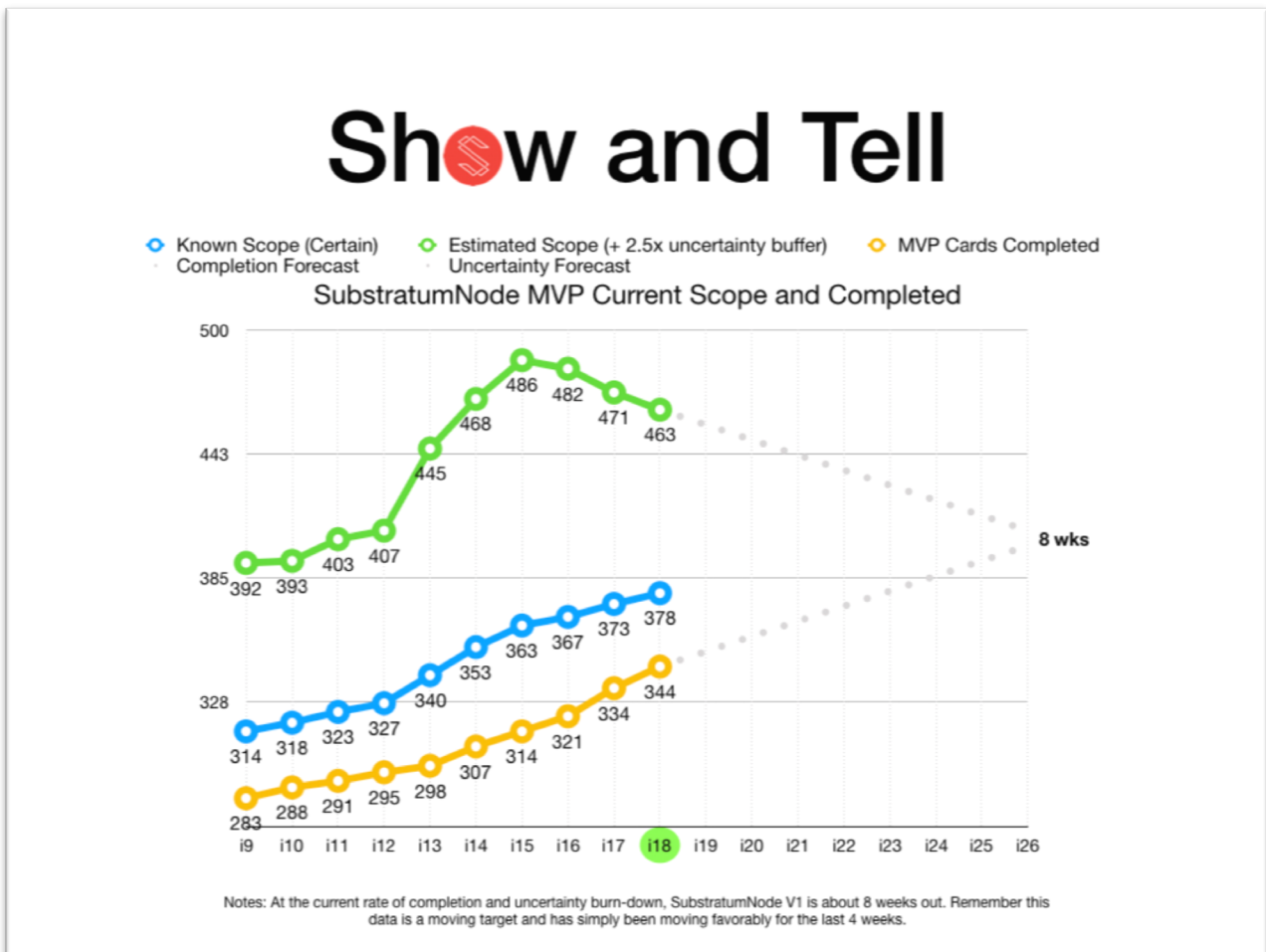
The known or "certain scope", currently at 378, is all MVP work items that the team has identified and documented in the system of record.

The estimated scope reduced to 463 from 471 last week. The estimated scope is calculated by taking the remaining known scope, multiplying it by 2.5, and then adding it to the total completed scope. This scope settles decreases over time as work is completed and MVP scope settles down by not adding tons of new items each week like between iteration 12 and 15.

If the team changes, velocity changes, or scope changes, these engineering targets will certainly change. That's why the team forecasts new targets weekly and makes hard decisions about what's in or out of MVP. The good news from this past week was the scope continues to settle and when triangulated with the completed work we can see that we are about 8 weeks out from MVP completion.

The MVP cards completed, currently at 344, show us how many items were completed and how steady the completion rate is over time.

Substratum Dev Team Capacity Utilization

Capacity utilization is measured by looking at how the team wants to plan work as seen in figure 5. The team uses simple abstractions like planned, tech debt and unplanned to gauge whether or not the iteration was healthy and if next iteration needs to have some adjustments. To ensure a team is working on the right kind of things.

Figure 5: Substratum Dev Team Capacity Utilization
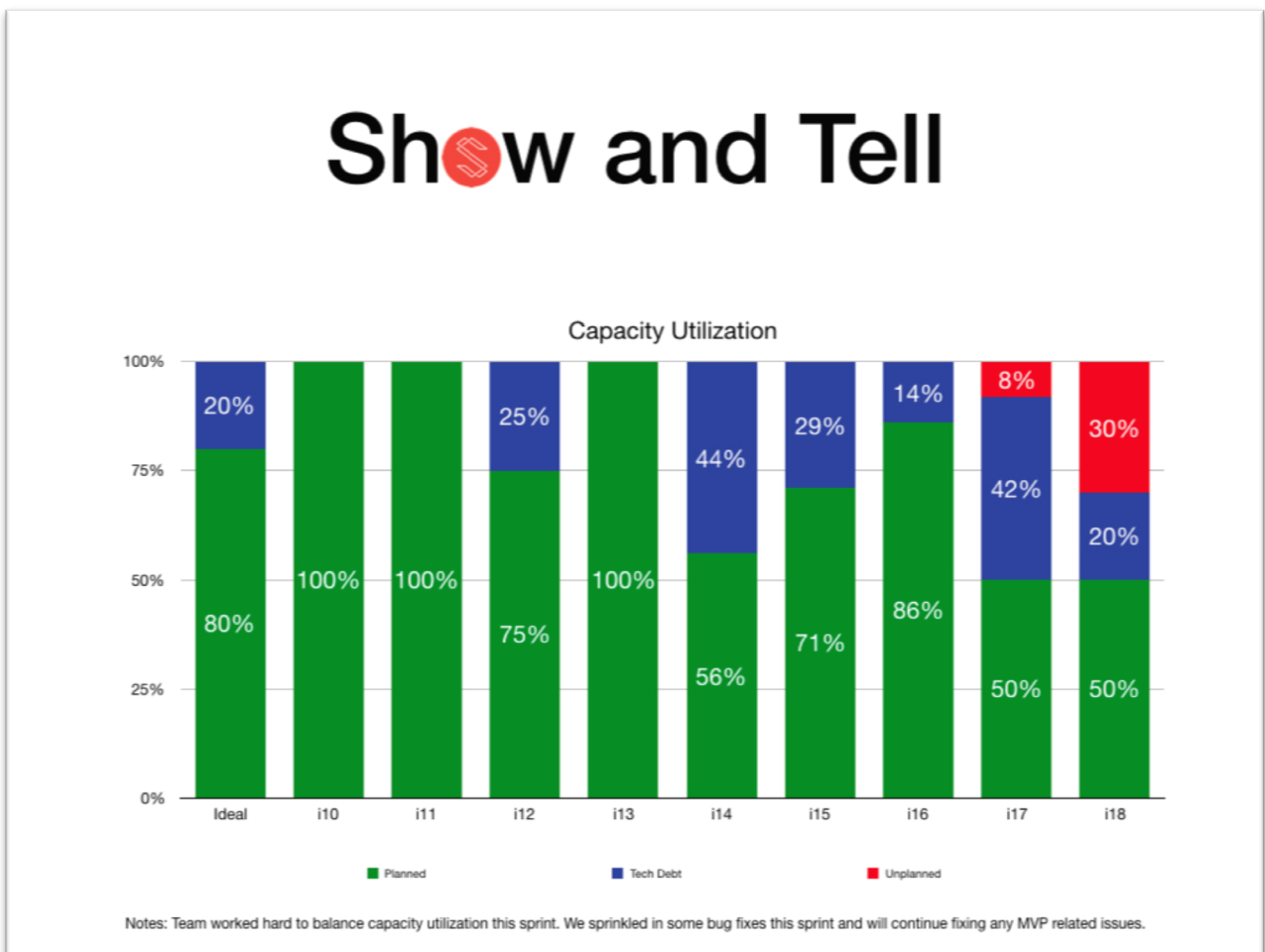
Capacity utilization starts with an ideal bar. It's healthy to know what ideal looks like when trying to plan what to work on each week. The team feels that 80% planned work (stories and spikes), 20% tech debt, and 0% unplanned work (production defects) is ideal. So, when work is planned each iteration these percentages are respected. In practical terms the team plays 1 tech debt every 5 story or research cards and hopes to never see production defects. If production defects happen, they will need to be prioritized against everything else and will most likely impact some of the planned or tech debt capacity.

Summary

Well that's all for this week! As you can see, the team has continued to make solid progress over time and will continue. We hope this kind of information is helpful and isn't too overwhelming. We would love your helpful feedback. Thanks so much for your interest in the Substratum Network!