# WTG Forecast Simulation: Minecraft GSP Launch (Conservative)

## 1. Simulation Parameters & Realistic Constraints

This forecast specifically models the launch of **Minecraft GSPs**, as they will likely be your primary volume driver.

### A. The "Bin Packing" Reality (New Constraint)

You cannot fill a Kubernetes node to 100% capacity without risking server crashes or severe lag (OOM errors).

* **System Overhead:** Kubernetes itself requires CPU/RAM on every node.
* **Buffer:** You need ~10-15% free resources to handle spikes in player activity (e.g., TNT explosions, many chunks loading at once).
* **Applied Constraint:** We will apply an **85% Efficiency Factor** to all Civo nodes.
  + *Standard MC-Nano Cost (Ideal):* $2.16/month
  + *Effective MC-Nano Cost (Real):* $2.16 / 0.85 = \*\*$2.54/month\*\*

### B. Unit Economics (Adjusted for Realism)

| **User Type** | **Monthly Revenue** | **Effective Cost (85% Eff.)** | **Gross Profit (Contribution)** |
| --- | --- | --- | --- |
| **Free User (Ad Grinder)** | $3.00 (200 Ads @ $15 eCPM) | $2.54 | \*\*$0.46\*\* |
| **Subscriber ($3.99)** | $3.99 (Fixed Fee) | $2.54 (Waived Server) | **$1.45** |

### C. Conservative Growth Assumptions

* **Initial Launch:** 100 active users in Month 1.
* **Monthly Growth:** +50 new active users per month.
* **Free-to-Paid Conversion:** **3%** (Standard gaming benchmark is 2-5%).
* **Subscription Churn:** **8%** per month (Standard gaming benchmark is 5-9%).
* **Central Business Costs:** **$65/month** (Fixed).

## 2. 12-Month Forecast Simulation (Minecraft Only)

| **Month** | **Total Active Users** | **Active Free Servers** | **Active Subscribers** | **Ad Revenue ($3/free)** | **Sub Revenue ($3.99/sub)** | **Infrastructure Costs ($2.54/unit)** | **Gross Profit** | **Central Costs** | **NET PROFIT** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | 100 | 97 | 3 | $291 | $12 | $254 | $49 | $65 | **-$16** |
| **2** | 150 | 145 | 5 | $435 | $20 | $381 | $74 | $65 | **+$9** |
| **3** | 200 | 193 | 7 | $579 | $28 | $508 | $99 | $65 | **+$34** |
| **4** | 250 | 241 | 9 | $723 | $36 | $635 | $124 | $65 | **+$59** |
| **5** | 300 | 289 | 11 | $867 | $44 | $762 | $149 | $65 | **+$84** |
| **6** | 350 | 337 | 13 | $1,011 | $52 | $889 | $174 | $65 | **+$109** |
| **9** | 500 | 480 | 20 | $1,440 | $80 | $1,270 | $250 | $65 | **+$185** |
| **12** | 650 | 623 | 27 | $1,869 | $108 | $1,651 | $326 | $65 | \*\*+$261\*\*</span> |

## 3. Critical Analysis of the Forecast

### A. Sustainability Confirmed

Even with the **85% bin-packing inefficiency** and **conservative growth**, the model is sustainable.

* It crosses into standard profitability in **Month 2**.
* By Month 6, you have a **healthy buffer ($109 net profit)** that can be reinvested into marketing to accelerate growth.

### B. The "Razor Thin" Free Margin

Notice how tight the margin is on free users due to the bin-packing reality:

* You only make **$0.46** per free server.
* If your eCPM drops from $15 to \*\*$12\*\*, your revenue drops to $2.40, and you are suddenly **losing $0.14** on every free server.
* **Mitigation:** This reinforces why the **Dynamic Ad-Labor Model (v3.0)** is vital. If eCPM drops, you *must* increase the GC price of GSPs to maintain that $0.46 margin.

### C. The Power of Subscriptions

While Free Users provide the volume (and the ad revenue that pays the massive infrastructure bill), Subscribers provide the **stability**.

* In Month 12, your 27 subscribers alone contribute **$39.15** in pure gross profit.
* Increasing your conversion rate from 3% to **5%** would nearly double your Net Profit by Month 12.

## 4. Conclusion

The WTG economy model is viable under realistic, imperfect technical conditions. The key to long-term survival is rigorously monitoring your **Bin Packing Efficiency** (aiming to get it from 85% to 90%+) and protecting your **$15 eCPM** average.