

Tech System 511

Chapter 511 Municipalization and Numbers

As time passed, more and more agency heads rose and delivered their reports. There were no breaks, or even significant pauses, as the emperor himself was present. His face was unchanging and his attention remained focused throughout the marathon council session.

As report after report was delivered, uninvolved people were finally witnessing the scale at which the empire operated. Many agencies were previously completely unknown to most, as their tasks were generally performed in the background, like the imperial waste management agency. Pre-empire, not many people considered the fact that waste management—garbage and recycling pickup, sewage treatment, and so forth—was a function of their local government, but now that every government function had been centralized, it was made apparent.

Along with that, many other things were now operated by the state as well. Things like power, water, and the few remaining places that relied on natural gas had been absorbed into the imperial utility agency. Cellphones and other communications services were rolled into the imperial internet agency, and many, many more functions that had once been under private management were now operated by the empire.

It proved a boon for many people, as governments in general were not-for-profit organizations and had no issues operating at a loss so long as it benefited the citizens. Government organizations were an exception to the truism that monopolies made the people suffer, and as long as corruption remained minimal or nonexistent, there would be no issues like those arising from communist and socialist societies in the mid to late 20th century, BE (Before Empire).

There was naturally still room for capitalism to exist, and for profit to be made by private individuals, but they could no longer profit off things that the empire had deemed as essential to a functioning society. So most of the profit was driven by retail and the service industry, as well as entertainment and media corporations. With most of the research now being done in Research City, where quite literally anyone could open a lab, innovation had already begun booming as people with Big Ideas could now realize those ideas and profit from them.

Even some economists had noted the trend and predicted an invention boom, as the imperial government was handing down things like tax exemptions and credits for innovative inventions that either stimulated the economy or benefited the people in some way, as well as preferential profit splits when it came time to manufacture the new inventions.

Once the smaller agencies had finished their reports, the only agencies left were the true juggernauts: the imperial treasury agency, imperial justice agency, imperial works agency, imperial police agency, and so on. Plus the ministers themselves—exterior, interior, and war.

The only person who would never deliver a public report was the head of the imperial intelligence agency, or The Tourist. He, or she, was also the only person in the council chamber that had their appearance disguised, so that everyone who looked at him or her saw them as a different person. It was a small flex on Nyx's part, and she was quite satisfied by the effect it had in practice.

The head of the treasury was the first juggernaut to report. He rose to his feet and immediately dove into the meat of the matter. "The fiscal year budget has been drafted and preliminarily approved

pending the emperor's signature. The exact breakdown is now available in the Akashic Record, but I'll give a brief overview here.

"Our total expenditure this year is fifty trillion Earth New Dollars. Twenty trillion of that is the public defense burden, of which the imperial family is covering seventy percent, as promised. The remainder of the budget is social welfare and subsidy programs, the details of which you can find in the Akashic Record."

He continued speaking, disclosing the budget allocated to each ministry and how it would be spent on the agency projects under those ministries. The biggest single expenditure was, naturally, the ministry of war—which consumed a whopping forty percent of the total budget—but that was heavily subsidized by Aron's private investment into that budget, thus lowering the public burden to a much more reasonable six trillion END.

The shock people felt wasn't just about Aron's ability to pay 14 trillion END into the public treasury, but also the sheer amount of it. Comparing the spending power of the END to the previous most valuable currency, the USD, the total budget of the Terran Empire was more than the global GDP from before the empire's founding combined!

Economists took that as a good sign of a healthy economy, while laypersons in the general populace were just staggered by the sheer numbers. As most mathematicians could tell you, abstract numbers that can't be easily visualized by people are impossible to understand. Numbers that could be easily visualized, though, were very easy to understand.

For example, the number ten is easily visualized; it's the number of fingers most people have. Twenty is visualized as fingers and toes, twenty-one as fingers, toes, and another part of the anatomy. Maybe people went to school where their classrooms held thirty people, or attended lectures in a lecture hall that held a hundred-odd people.

But dealing with numbers that are too big boils down to generalizing them into categories, like "a lot" or "a whole lot", making numbers of sufficient size too abstract to be useful for anything but mathematicians. And numbers in the trillions absolutely fit the description of a number that's too big to deal with for practically everyone.

When the imperial treasury progress report was done, the councilor yielded the floor back to Gaia and retook his seat.

[Next agency on the docket is the imperial blessings agency. Councilor Ross, the floor is yours,] Gaia announced.

Chapter 512 Infiltrating the Halls of Justice

Mason County Courthouse, Shelton, Washington.

An old, beat-up pickup truck rumbled around to the back of the historic Mason County Courthouse and huffed to a stop. The engine knocked a few times, then, with a puff of black smoke from the tailpipe, rattled to a stop as well. The truck's passenger door opened and a long-legged beauty with strawberry blonde hair tied up in a neat bun at the back of her head stepped out on three-inch stiletto heels.

“Dammit, Tim, when are you finally going to get this old piece of shit running right?” she said as she slammed the door of the truck, rattling the window that was stuck half open.

“I—” Tim began, his knuckles turning white around the steering wheel.

“No more excuses, Tim! Fix it or get rid of it.” Siobhan turned around in a huff and began stomping toward the employee entrance of the courthouse.

“Vonnie! I’ll.... Sigh, and, she’s gone,” Tim muttered, then turned over the ignition. After four tries, it finally caught, and with a loud bang and the squeal of an engine belt in desperate need of replacement, it sputtered off into the distance.

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Siobhan, or “Vonnie” for short, stepped into the courthouse and looked around for the nearest bailiff or other staff member. It was her first day of work, and she was extremely early. It couldn’t be helped, though, as her husband, Tim, worked at the high school and had to be there by the time the first bell rang, which was hours before the courthouse officially opened for business.

Only finding a janitor, she sighed and asked for directions to the staff room. The janitor, an old hispanic man, pointed the way for her. She thanked him and set off, her heels clicking and clacking against the polished floor of the building.

When she stepped into the staff room, she coughed; apparently it doubled as the employee smoking area and two security officers and a young woman in the same kind of Office Lady uniform as Vonnie were inside, smoking and chatting while watching television. Apparently Vonnie wasn’t the only person who carpooled to work with someone who didn’t necessarily follow regular office hours.

She nodded to the three people in the room, then sat down on the couch and looked up at the television. It was playing a live broadcast of the first Imperial Agency Council meeting, where a strikingly attractive black woman with glowing hair that was floating was delivering a progress report as the head of the Imperial Blessings agency.

“The imperial blessings agency has been tracking crime and vigilantism. The instances of people using their blessings to commit crimes has risen to twelve percent of the total crime rate, not including costumed vigilantes, who consider themselves superheroes and go out to commit crimes in the name of fighting crime,” the woman said, shaking her head in disapproval. “To that end, we’ve broken ground on a number of official academies for the blessed, where people who receive blessings can study and eventually earn a license to become superheroes....”

The report went on in the background, but Vonnie lost interest in it and her eyes glazed over as she accessed her implant to begin taking over the security cameras in and around the courthouse, as well as uploading worms and trojans to the internal computer network in the courthouse. Once those tasks were complete, she took out a makeup compact from her purse and began touching up her makeup, using it as a cover to drop a nondescript object the size of a button on the ground.

She closed her compact and put it back in her purse, looking at the people in the room to ensure they weren't paying her any attention, then sent a command to the object she had just dropped to the floor. Upon receiving the command, the button-

sized object rapidly dissolved and the individual nanites in the nanite colony spread out throughout the courthouse, attaching themselves to various surfaces and using those as conduction microphones.

The entire courthouse was thus bugged, and nobody was the wiser at all.

Vonnie leaned back on the couch and stretched, then stood and got herself a cup of terrible coffee.

"Seems like every government building has the same exact crappy coffee, no?" she quipped to no one in particular.

The other office lady in the room, a prim and proper woman in her early- to mid-twenties laughed and said, "Yeah. You must be new here. I'm Sarah, Judge Maxwell's stenographer."

"Vonnie," Siobhan replied, stretching her arm out to shake Sarah's hand. "And yeah, today's my first day. My husband dropped me off on his way to work, so I'm a bit early. Do you know when the human resources department generally has someone around? I still need to do my inprocessing."

"Sure, Gail should be here in around..." Sarah checked her watch, "twenty minutes or so. Just time enough to 'enjoy' some of our terrible coffee here."

"It only makes it worse that I'm from Seattle, home of Starbucks and hipster huts," Vonnie chuckled.

"I'm sure it does!" Sarah agreed with a laugh. She was a plain-

looking woman, a bit chubby and with mouse-brown hair in a pixie cut that didn't quite suit the shape of her face. But when she laughed, her eyes sparkled and her brilliant smile made her appear quite a bit more attractive, offsetting her severely upturned nose and making her haircut seem to fit her personality more than it did her face.

"So can you tell me about the people I'll be working with? I'm here to clerk for Judge Carlson—how is she to work for?"

Sarah winced on Vonnie's behalf. "Oof. I'm sorry, she's a hardass. Expects you to know everything, even if you don't know it. She's gone through six stenographers in the year and a half since she was appointed to the bench. They call her Cuntson around here, but don't let her hear you say that, and you didn't hear it from me," she said, practically in a whisper.

One of the two security officers in the room looked over and added, "She definitely won't like you. She's old and wrinkled like a prune, and you're, well..." he blushed, "err, not."

"Thanks for the compliment!" Vonnie replied with a beaming smile, though she was inwardly grumbling about her hell-mode difficulty assignment.

The three people continued chatting as the other security guard watched the IAC meeting on the television with laser focus. Vonnie looked over at him from time to time, wondering if she may have just found her first person of interest in the investigation into the cult activity in her area of operations.

Chapter 513 Tim and the Terrible, Horrible, No Good, Very Bad Day

?Shelton High School, Shelton, Washington.

Tim was having a terrible, horrible, no good, very bad day. Not only had he gotten in an argument with his partner early in the day, but he had also been objectively wrong in it. The truck he drove wasn't actually a part of his cover; it'd belonged to his actual father, William Todd, and had been left to him after his dad had passed to prostate cancer. So it actually MEANT something to him on a very personal level.

Thus, he was rather reactive when it came to the venerable piece of Detroit steel and ingenuity. Even though it had... personality, he'd always believed it would come through for him no matter what he put it through on any given day.

That belief had lasted until precisely this day, when the truck he'd always put his faith in had completely broken down. With a resounding bang and a heartwrenching thud, the transmission fell out of the bottom of the chassis and the engine blew the hood back against the window as it did its level best to break the olympic standing high jump record. Tim, or rather, Jason Todd, was completely heartbroken.

Not only that, but the public transportation network in Shelton was very backward and he was nowhere near a stop that would allow him to take the bus to school. Thus, he had to walk a little over five miles to get there. Now, five miles was nothing but a brief jaunt to a reaper like him, but as he was undercover, he had to maintain the standard of an average person. And to an average person, five miles was a long, long way.

It would have been one thing, had his cover been in the Army or Marine Corps, but it'd put him with a history in the US Navy instead. So not only did he have to pretend he had the fitness of an average person, that average person had to be a Navy veteran, none of whom were exactly known for their long-distance run times.

Neither were high school gym teachers, for that matter. Most of them were high school athletes that went to college on athletic scholarships and dreamed of making it in the Big Leagues, only for the harsh jackboot of reality to come stomping down on the fragile flower of their idealized future. Thus, embittered and frustrated, they returned to their glory days as washed up never-weres to "nurture" the next generation.

Long story short, Tim only arrived at his workplace a full half hour after the bell for first period had rung. It was a less than ideal beginning to his fictional career, unlike his "wife", Siobhan, who had arrived hours early thanks to the difference between a high school and a courthouse schedule.

He was met in the parking lot by a skinny, sour-faced old lady whose mouth looked like she had always just eaten a spoonful of pure concentrated citric acid. She had a traditional men's haircut—trimmed short on the sides and back, and to a length of three to four inches on top, combed into a 70/30 part—and her hair was as gray as burned charcoal. She was riding in a golf cart and carrying

a clipboard, patrolling the parking lot and school grounds to catch students in the act of arriving late or leaving early.

Thankfully, Tim looked nothing like a student.

“Who are you and what are you doing here?” the old lady asked in a combative tone. “I don’t remember you being one of the parents at our school, so you shouldn’t be here!”

“Whoa, whoa, whoa,” Tim replied, raising his hands in a placating gesture. “I’m the new gym teacher, Tim Roberts. My truck broke down a couple miles out and I had to walk the rest of the way, so I’m a bit late.”

The old lady frowned, disapproval obvious in her gaze.

“Can you show me where the office is? I need to let them know that I’m here and meet with the principal, Mr. Dorsey,” Tim politely asked.

“Through the double doors and down the hall to your right. There’s a sign. Not even a gym teacher can miss it,” the old lady spat, then gave him another disapproving look and a cold snort before driving her golf cart away.

“Well she was... pleasant,” Tim muttered under his breath as he headed toward the main entrance of the school.

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Inside the school, the principal, James Dorsey, heard a knock on his door. Glancing at his already overflowing inbox, he sighed and said, “Come in.”

His secretary, Amelia Ford, walked through the door, followed by a tall, muscular man with strong features wearing a matching set of light green Nike sportswear. “I have Mr. Roberts here to see you, Mr. Dorsey,” she belatedly announced.

Inwardly complaining about his idiot secretary, Principal Dorsey could only put on a stern face and say, “I see that, Miss Ford. I have eyes, you know.”

Amelia blushed and stammered an apology.

“Next time, use the intercom. That’s what it’s for, Miss Ford. You’re excused,” the principal reprimanded her. He turned to Tim and said, “You’re late, Mr. Roberts. Not exactly the best first impression.”

“I know, sir.” Tim snapped to attention; that was just the kind of authoritarian vibe he felt from the principal seated in front of him. “No excuses, sir. It won’t happen again, sir.”

“Relax, boy,” the principal chuckled. “I won’t eat you.” He picked up the handset of his phone and dialed a four-digit internal switchboard extension. “Miss Coleman, please come to my office,” he said after the line connected.

Not even four minutes later, a woman in her early thirties with her hair in a high ponytail stepped through the principal's door. She, too, was wearing sportswear, but hers was a black Adidas tracksuit. "You called, boss?" she asked in a chirpy, sickeningly sweet voice. Tim could practically hear the chewing and popping of bubble gum in it, despite her not actually having any gum in her mouth.

"This is Mr. Roberts, the boys' gym teacher. Take him around and show him the ropes," the principal ordered.

"Yes boss, right away boss!" the overly bubbly woman replied.

Tim, on the other hand, felt an oncoming headache. He had already mapped the entire school, thanks to his implants, and he had a feeling that his mission would be far more difficult than the briefing had led him to believe. And far more headache-inducing, as well.

Chapter 514 Flattery and Bootlicking

As Tim and Siobhan were facing the first day of their mission, the imperial agency council meeting finally drew to a close. The meeting had lasted a very long time, as more than a hundred agencies had given their progress reports, each of which lasted anywhere from ten to thirty minutes. All told, the meeting itself was a 25-hour marathon session from the end of Aron's speech to the end of the session itself.

The vast amount of revelations prompted a flood of news articles, each of which focused on a single piece of information. They provided a sort of cliff's notes version of the IAC meeting for those who couldn't remain glued to their screens for the entire duration. As it turned out, the vast majority of humanity was still uninterested in the minutiae of the day-to-day operations of their governments, so even though the full recording of each progress report was available in the Akashic Record, they chose to read the articles instead.

The media, on their end, seemed to have finally learned their lesson. Their reports were as fair and balanced as it was possible to be, despite still subtly being pro-empire in the way they presented the information. That said, though, they couldn't go too far with their flattery and bootlicking, as the Akashic Record contained the unvarnished truth and recordings of the reports themselves.

Still, the transparency in the imperial government caused the empire's approval rating to skyrocket to such an extent that the possibility of a popular revolt taking place had drifted so close to zero as to be functionally the same. Even though most people didn't sit through the meeting telecast, the simple fact that they could see it if they wanted to was enough to highlight just how different, and how much better, their lives were now than they were under their previous governments.

Those that did take an interest, however, were surprised at the many things they discovered when reading through the Akashic Record of the meeting. Like the imperial treasury's report, where the agency head spoke of recovering and redistributing funds that previous governments had created for the citizens. Even though their currencies no longer existed, and most things had been municipalized, funds like Norway's national wealth fund or Saudi Arabia's national oil fund, among others, had been tagged as being created for citizens. Thus, the imperial treasury department had converted the amount in those funds to END and distributed it to imperial citizens who once held citizenship in those now-defunct nations.

That move, however, had caused quite a stir among non-citizens, who protested that they were once citizens of X nation and should have benefited from the disbursement as well. The empire met those protests with a resounding silence until Youssef Al-Mutairi, the Minister of the Exterior, released a statement: “Imperial decisions benefit imperial citizens. You, who have waived your privileges as imperial citizens, enjoy the benefit of not having imperial responsibilities. Thus, you do not share in the imperial benefits, either.”

The rather blunt statement put an end to the protests rather quickly, to say the least, and the non-citizens once again considered whether their initial decision to refuse to join the Terran Empire was in fact the correct one. It was a thought that was always close to the forefronts of their minds, lately.

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Outer space.

Aron was hovering in orbit, surrounded by a runic shield. He was in reality, rather than the simulation, training to use his runes for most situations. As a backup, he was wearing a PAPS, but it was doing nothing other than gathering cosmic dust as he slowly drifted backward away from Earth.

[That’s a good distance, sir,] Nova said.

Though the planet still took up practically his entire view, he still felt the awe of the overview effect. “Despite seeing it in the simulation practically every day, I still can’t get used to this view,” he said, his eyes glittering from the beauty displayed in front of him.

[Sir, you need to start now if you want to finish in time to take your family on the vacation you promised them,] Nova reminded him. There was much to do and little time in which to do it if he still wanted to spend time with his loved ones.

“How’s the installation of the mana interface coming?” he asked.

A computer-controlled mana interface was foundational to most of his plans moving forward. The process was slow, however, as it had to be printed by the atomic printer in the Cube on Avalon Island and transported to orbit, as his current runic printing tech was still tier one and didn’t allow for intent. It could only print runes themselves, and for higher functions, he had to personally imprint them with the necessary intent.

For simple things, like PAPS, that only performed a single function, that was fine. Imprinting intent wasn’t necessary if the complexity of the runic structure was low. However, a control interface was very much a complex runic structure.

But with him having already bought intermediate runic knowledge, the complexity of the interface was easily within reach for him. That said, he no longer had to do everything himself; he could simply upload the design of the hardware including the runes to carve into it, and have it printed wholesale.

The only issue was the size of the thing—intermediate runic knowledge wasn’t enough to miniaturize runic structures above a certain complexity. Thus his presence in orbit in reality, where he was awaiting the completion of the final steps before he would be required to step in and charge it with his intent.

[Reactor output is connected to the conversion rune. You may proceed when ready, sir,] Nova reported.

“Alright, let’s begin,” he said, then relaxed his body and let his PAPS replace the shield he had been maintaining. What he was about to do required the majority of his attention; a lapse in concentration would definitely be costly.

Chapter 515 Controlled Chaos

Aron extended his hand and a single rune appeared in front of him. Anyone who had seen him using his runes in the past would know what the rune was: the humble, yet mighty, shield rune. It glowed its usual golden color and was its usual small size.

But that didn’t last long, as Aron continued pumping mana into it with the intent of expanding it. The thing he was planning on shielding was enormous, so the rune had to be equally as large to perform its task.

A minute passed and it continued growing... five minutes passed... ten minutes.... Aron continued pushing intent-laden mana into the rune for a full hour before the flood of mana died down to a much more sustainable amount and the rune stopped growing. Now, he was only directing enough mana into it to prevent it from disappearing and forcing him to start the process over again.

But despite that, it still remained inactive, silently hovering in the vast blackness of space outside Earth’s atmosphere. It had reached a gargantuan size of more than a thousand kilometers in diameter, and at that size, Aron could be sure of at least one thing: with the amount of mana he had pumped into the rune, it would surely be enough to cause chaos on the planet’s surface.

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“This year’s budget is fifty trillion END? And for just one year? Where the fuck are they getting all that money!? I’m pretty sure they aren’t getting it from the taxes they haven’t collected yet...” said a young man in his twenties with deep blue eyes and a handsome face. He couldn’t even imagine that amount of money, not with his current income at least.

“That isn’t the important part. The government can issue bonds or something, but the real question is how the royal family has fourteen trillion END to fork out for their share of the defense spending,” another young man replied. He had read the press release, as well as the relevant information in the Akashic Record, and though it had technically answered his questions, something still seemed off to the young men.

“I mean... to be fair, the emperor owns the high-end technology, manufacturing, and food markets. Plus, they’re the sole providers of the military’s gear. So they’ve probably got the money in spades and won’t feel the pinch. After all, he’s just feeding money from one hand to the other, spending the money he earns from his companies to buy gear from another one of his companies. It’s just one big...”

Amidst the conversation, both young men grew distracted as, out of the corner of their eyes, they saw the sky flash with a slight hint of gold. They raised their heads to see what the color was coming from, considering how it had lit up the streets despite it being noon on a sunny day with clear skies.

As they raised their heads and looked for the light source, they saw a massive inscribed circle reflecting, or perhaps generating, light from its golden inscriptions. Though they didn't understand the language it was written in, it was obvious that it was writing, and the light coming from it was enough to dye the sky all the way out to the horizon. They looked at each other, then at the people around them, only to discover that they were the only ones who were looking up at the sky.

Moments after realizing the difference between their reaction and others', they both connected the dots and realized that, whatever that hovering inscribed circle was, it had to be the doing of someone with a blessing.

"Is... is that what I think it is?" they both said in unison, then looked at each other in surprise and low-key panic.

As the runic circle continued growing, it became visible to more and more awakeners around the world. They immediately spread the news in various online social media groups for the blessed, then both awakened and non-awakened people alike began discussing the phenomenon. Some of the awakeners were more artistic than most, and even provided an illustration for those who were unable to see it for themselves.

The imperial blessings agency, having been informed of what was going to happen beforehand by Nova, immediately sent out a press release for immediate distribution while the rune was still in its expansion phase. The explanation was simple: it was a perfectly safe experiment being done outside the atmosphere above the Karman line. And even if it failed, nothing would happen to the planet as the experiment itself was completely harmless.

The explanation was enough to calm some people, but did nothing for others. The runic circle had been continuously expanding over the past 45 minutes and showed no sign of stopping.

Non-awakeners were even more scared than awakeners, as they couldn't see anything and had fallen victim to a rather epic round of the old children's game, "telephone". And had it not been for the empire's announcement, they would have thought they were being pranked by their blessed friends.

The situation gave rise to a few widely watched livestreams, where awakeners were providing a play by play on the current goings-on in low earth orbit. Some of the livestreams even invited experts to discuss what the experiment could possibly be, and what the experimenter hoped his ultimate results would be.

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Aron, taking a momentary pause to catch his breath after spending an hour enlarging the runic circle, turned to Nova and asked, "How's the chaos coming? Is it spreading, or did we manage to stop the spread somewhat?"

{It's manageable, sir,} Nova replied.

"Well then... let's not waste more time, eh?"

Chapter 516 ERD-26 Planetary Shield Generator

Aron closed his eyes and began the process of imprinting his intent into the enormous runic construct he had created over the past hour. It was no easy task, as the necessary intent that would allow the construct to function at full capacity was just as complex as the construct itself, and he had to futureproof it by leaving room for upgrades as his knowledge of the runic language increased.

In order to make that possible, he needed to imbue it with an even more complex second layer of intent that would create “hooks”, so to speak, that would be used in the future to tie in potential upgrades, a task that would be made much more difficult should he ignore it now and leave it for later.

The runic system, he had discovered, was much like a computer. The carved runes in their physical form were like a computer’s hardware, and the intent that allowed them to function was software. The mana itself was the power that allowed the entire system to function. And just like a regular computer program, once it was compiled into a kernel it became much more difficult to modify.

Thus, the time-consuming process of imbuing the runic construct with intent began as, instead of mana, Aron sent his pure mental power cascading down the carved runes like a vast convoy of vehicles traveling along an interstate network.

Over the next two hours, Aron remained completely still, the only sign of life in his body the slight rise and fall of his chest as he breathed. His conscious mind had completely turned inward, continually shaping his mental power into intent and directing it into the runic construct, which began glowing brighter in the areas his intent attached itself to.

As time passed, his eyebrows furrowed so tightly he could crack a walnut between them and veins became visible on his body, starting from his temples and tracing their way down his neck, along his chest and shoulders, and all the way down to his fingertips. He felt like a jackhammer was running unattended in his skull, banging about and ricocheting off the bone, leaving naught but pain in its wake, but he had no choice other than to persevere in his task.

The construct he was imbuing was one of the most important aspects of the layered defenses in the solar system, and if his concentration slipped even for a moment, he would have to begin again from scratch. And, being two-thirds of the way through, he would rather suffer more now than suffer again in the future after his mental state recovered.

Thus, all of his higher-order AI subordinates had assumed direct control of the stealth fleet currently in orbit and deployed it around him, locking down space around him such that even a speck of cosmic dust might have difficulty in slipping between the physical layers of defense set up to protect him. Even the construction of the space elevator came to a halt in order to prevent even the slightest possibility of a disturbance caused by the ongoing construction.

Finally, after three torturous hours, Aron opened his eyes. A slight unwillingness flickered across his face as he prepared himself for what was about to unfold and muttered, “Activate.”

A torrent of mana flowed out of his mana heart like water cascading down from Angel Falls, entering the rune and slowly creeping through it along the path his intent had taken. And as the mana continued flowing, the rune slowly began turning the pure white color of his intent.

“This... is going to cause a commotion,” he said, unconsciously clutching his chest as he watched the rune shed its pure gold color and turn white like the entire thing was a set of dominos toppling from one end to another.

After the entire rune construct turned white, a kilometer-thick shield began spreading out from it and surrounding the Earth in a protective cocoon. It was moving excruciatingly slowly, revealing that there was a bottleneck somewhere in the process, and it was a very unexpected one at that: Aron himself. Although he could draw mana from a vast distance, it was akin to filling a bucket with a fire hose, then pouring that bucket out into an empty swimming pool through a drinking straw.

Essentially, the output of his runic heart simply couldn't keep up with the demand of the runic construct he was empowering, leading to the slow progress of the shield's completion. That was only compounded by the low mana density surrounding the planet; his runic construct was entirely capable of powering itself through its activation via drawing mana from its surroundings, but there simply wasn't enough mana for it to draw within its much more limited range.

That said, he had taken that into account when designing the construct, as well as during the process of imbuing it with intent. The construct wouldn't collapse, it would simply throttle its progression based on the weakest link in the chain. Thus, it was only a matter of time until it was completed and the world would be held safe within its protective embrace. All Aron had to do was wait patiently for the process to be completed.

That said, it only moved slowly in comparison to Aron's usual nigh instantaneous usage of runes. Within thirty minutes, the activation process was completed and Earth was finally shielded. Its task completed, the runic construct faded from view, still present and functioning, but invisible to the naked eye and mana senses; Aron had inverted it so it would only be visible when under a certain operational load, and currently, it was under hardly any pressure at all.

But the people watching from the ground knew nothing about that. All they knew was that an enormous golden circle filled with strange script and diagrams had appeared, turned gold, then turned white, and finally disintegrated. They had no clue what it all meant, and nobody would be stupid enough to publicize it. In fact, Aron himself had moved the construct after it vanished, setting it on a random course around the world in the center of the thick shield, making it even harder to spot.

Chapter 517 Successfully Initialized

Aron, despite the rune construct's activation, continued feeding a steady stream of mana to it to ensure it didn't collapse. Despite it being in a neutral state and receiving no attacks at all, its sheer size meant that it required more than the relatively small amount of ambient mana could provide. So, to prevent it from destabilizing due to the lack, he needed to act as a temporary bridge.

He passed through the shield and headed toward Ceres Station, where an entire bank of massive, hundreds-of-meters-tall fusion reactors had been purpose-built to fuel the enormous runic construct. Nova had calculated the minimum amount of mana required to ensure the shield would remain stable without Aron's intervention and she'd built sixty reactors to handle the load, with a combined output of 112 petawatts of electricity.

The generator bank was connected to the surface of Ceres Station by a conduit spanning ten meters in diameter, lined with a second printed runic construct that would ensure a smooth flow of mana from the integrated electricity-mana conversion rune. It would light Earth up, but over time, it would settle down and normalize with the surrounding mana in the solar system. Besides, they had already been discovered, so what would come would come.

Better to have a shield than not.

{Reactor self-test indicates all green. Powering up... 37%... 51%... 77%... 94%.... Ignition. Fusion reaction stable, initiating electricity generation at ten percent capacity.} Nova continued narrating the step by step process of reactor startup as the immense power bank rumbled to life.

{Electrical output stable. Initiating connection to converter rune. Converter rune is functioning normally with minimal loss. No errors reported. Increasing electrical output... no errors. Reactors are at 56%... 71%... 80% and stable. Safety interlocks engaged, safety systems reporting all green. Electrical output at 91% and holding steady.... No fluctuations detected in the mana flow.

{Sir, I think we can call this a successful ignition,} Nova reported.

“Got it, I’m connecting the mana feed to the shield rune construct now. Start the control interface in the Cube,” Aron ordered.

{Understood, sir,} Nova said and, deep in the bowels of the bottommost basement beneath the Cube, deep within the Earth’s mantle, a bank of quantum computers hummed to life, their soft blue indicator lights shining as the bootup process continued. Soon, the lights turned green as all the computers completed the process.

Aron, meanwhile, had linked the runic shield construct to the outflow of mana from Ceres Station and was finally able to rest. He wiped the sweat from his forehead and rested for a few minutes before rolling over and falling head-first into Earth’s gravity well, aiming to land on the roof of the Cube on Avalon Island.

As he freefell back to the surface, Nova was busy running tests and checks to ensure that the shield was operating perfectly. As check after check returned all green, she finally reported the successful installation and initialization of the ERD-26 Planetary Shield Generator and Aron relaxed.

‘At least the final line of defense is in place,’ he thought as he rolled over to gaze at the planet that was rapidly growing in his field of view.

“When will the space elevator tether be connected to the anchor point on the surface?” he asked out of idle curiosity. He had been too busy with the construction of the planetary shield over the past few days to keep current on the space elevator’s construction progress, but he knew it should be connected soon; the tether was only a few hundred meters away from the caldera of the extinct volcano on Elysium Island that had been tentatively named Olympus Minor.

The preparatory work on the island had already been completed, and the anchor sunk from the volcano’s caldera to the very bottom of the Earth’s crust. All that remained was for the carbon nanotube weave of the elevator’s tether to be molecularly bonded to the waiting anchor point on the surface.

{Within two weeks, assuming nothing goes wrong,} Nova replied.

Aron grunted an acknowledgement, then fell silent again as his freefall from orbit continued. After a few minutes, he mused, “From up here, everything on the ground just seems so... petty. Petty and shortsighted. Humanity is a truly fickle species that fluctuates between ‘but I want it now!’ and ‘so what have you done for me lately then?’”

“Tell me, Nova. If it were up to you, what would you do?” he asked.

Nova was lost for an answer, a first for her. {I’m not sure, sir. Human nature is the driving force behind its development as a species, so I don’t think I would change anything,} she finally said. She wasn’t sure, but she thought she felt a twinge of annoyance at her inability to immediately answer the question she was asked. Aron was her creator, her father, her brother, her patient, and many other things to her, and her attachment to him bordered on the absolute.

“I think... I agree, as much as I don’t want to,” Aron sighed, then changed topics.

“How’s the shield interface?”

{I’ve completed the diagnostics and everything’s green, sir,} she answered. {The computer bank is functioning normally and is currently operating at peak efficiency with connections to all 188,901,753 shield lattice nodes.}

The shield was designed as a layered honeycomb lattice, with each node reinforcing and being reinforced by those around it. It ensured that there were no gaps or weak points in the shield, and the flexible structure was excellent at dispersing impacts over a wide area without shattering.

“Excellent,” Aron said. Avalon Island was finally visible to him without augmenting his vision, and he made minor adjustments to his trajectory to ensure he would land where he wanted. He would make more during the remainder of his freefall; it was something of a competition he had with himself to land as close to his desired target as possible with each of his entries from orbit, and he was determined to win this first bout in reality.

“I look forward to seeing it in reality,” he added after ensuring he was on target.

Chapter 518 Wargames and Reservations

John was in the shower, getting ready for a night with his ladies, when he received a priority notification. Since only Aron, Gaia, and Athena could ping him when his availability was registered as “do not disturb”, it was important enough for him to immediately check it. Thus, he stepped out of the shower, and without even drying off, he simply wrapped a towel around his waist and found the nearest chair he could drop his ass into and sat down.

He logged in to the simulation and called for his AI butler, Jotunn. “Catch me up on the situation,” he ordered.

{His Imperial Majesty erected a global shield. The information hasn’t been made widely public yet and it’s still classified pending testing. His order is for you to hold wargames and test the shield to failure in the simulation. As our VR game hasn’t been made public yet, we have no staff for our space navy, so the wargames will be between you and Athena with simulated crew....} Jotunn

continued briefing John as he threw him a data packet containing the official orders with Nova's signature on them.

They had already been authenticated and verified, and everything checked out. Even though the way the orders had been delivered assured their authenticity, protocol was still important and must be followed. Otherwise, Mnemosyne would throw an absolute hissy fit, and after experiencing one of those, nobody would want to suffer through another. That particular AI was so pedantic that she essentially redefined the word and her tongue was sharper than monomolecular scalpels!

John opened the official orders and carefully read through them line by line. Even though Jotunn was giving him a top-level briefing on them, that was still just a summary and the devil was often in the details.

After he finished reading, he said, "Okay. Call my planning staff. Just because the crews will all be simulated doesn't mean the people at the top making the plans will be."

He raised his head and looked up, then called for Athena to join him.

She chose to appear as though she had taken a Star Trek teleporter to John's study. {You rang?} she asked. {And are you aware that you're, umm... less than fully dressed?}

"Yes, I did, and yes, I am," he replied. "Did you get the wargames order?"

{I did, yes. Shall we lay down the rules of engagement then?}

The pair, one human and one AI, spent the next several hours hashing out the boundaries for the simulated war game. John would be the first to defend while Athena attacked, then Athena would defend against John's simulated invasion. As it was meant to stress test the shield to failure, both agreed to refrain from using saboteurs, quislings, and blockade runners. It would be a head-on spear vs shield battle for the first round.

For the second round, Athena would be joined by Nyx to use every possible means both fair and foul to bring down the shield, while John would be joined by the entire planning staff of ARES, including Poseidon and Aeolus, to defend. Then they would switch again, and John's team would try to take down the shield while Athena and her partner Nyx would defend.

The two rounds of attack and defense should give a rather well-rounded overview of the planetary shield's strength, as well as provide an excellent opportunity to train the human cadre at the top of ARES in space battles. If it weren't for the training opportunity, Nova would have simply run the simulations herself and crunched the numbers.

The one complaint that John had was that the timing of the shield activation was rather out of place. He had been read in on and participated in plans to create VR "games" for people that would provide initial screening and training for space fleet candidates. He well knew Nova's capabilities, and the sheer numerical strength of the shield had probably already been determined by her. The wargames were likely meant as a backup and to introduce an element of human creativity into the simulation that she simply couldn't add herself.

So it would be best to add proper human crews to the game. But orders were orders, and John had been benched for so long that his hands were itchy anyway. He would raise the issue of properly crewing the ships for the games during the after action review.

But until then, he had a war to plan.

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Two weeks later.

The awakened had finally calmed down after The Circle had faded and nothing bad had happened. Everyone on Earth was, understandably, a little bit gunshy, as so many things had happened since the founding of the empire. So anything out of the ordinary was first seen as a threat and met with panic and fear, and the empire's silence about the appearance of the runic construct in the sky had done nothing to ameliorate that fear.

However, the empire had instead pushed news of the impending completion of the space elevator, and imperial citizens and noncitizens alike were now glued to their screens, watching as the tether crept the last few inches to the ground. Once it reached completion, it was met by a full battalion of GEMbots, who welded the woven carbon nanotubes to the waiting anchor point in the Olympus Minor caldera.

Soon, the operation was declared a success and the head of the imperial press agency, Olivia Foster, announced that they would begin taking reservations for facility rentals in the Olympus Minor waystation and Ceres Station. Reservations were first-come, first-served, so everyone from major theme parks and hotel chains to space-focused companies like the struggling SpaceX and Blue Origin rushed to reserve space in both ends of the tether.

Following close on the heels of the space elevator news was another piece of news that shocked people out of their complacency. Every imperial citizen in the top twenty cities of the pre-empire countries received a notification that the empire was hiring construction workers to build the new fortress cities.

The notification surprised them, as they thought the construction wouldn't begin quite so soon, not to mention that they thought the construction would be completed by Hephaestus Heavy Industries without any outside labor. But when they considered it further, they realized it was a gesture from the empire that let them have some sweat equity in their new homes, as well as paid them to work on them instead of keeping everything flowing to the emperor's pockets.

Economists immediately took to Pangea to praise the initiative, as with the consolidation of positions making quite a few jobs redundant, opening up jobs in a new sector—like construction—would head the incipient unemployment crisis off at the pass and prevent the still-fragile economy from collapsing under its own weight before it could build a stable foundation.

Chapter 519 Model Employees and Model Cities

The announcement informed everyone that anyone interested would be employed under a temporary contract with Hephaestus Heavy Industries that came with some truly hefty perks. For twelve months, they would be employed with a salary of a thousand END per month, a per-diem meal allowance of a hundred and fifty END per month, free on-site housing, and each employee would receive a credit for a free future visit to a medical pod, should they ever require one.

Not only that, they would be given priority access to advanced courses and certification as electricians, plumbers, HVAC technicians, welders, and so on, should they choose to take that path. And with the first full month being essentially a paid vacation while they waited for the cities' foundations to be laid, it was an excellent proposition. So they would be paid 12,000 END for the

entire job, all while gaining an essential, marketable skill to prevent them from being unemployed in the future.

Once the realization sank in, billions of people rushed to the website to sign up for job placements with the construction crews. They knew that not everyone would be hired in the first round, but with a construction round beginning every month as the foundation crew moved from city site to city site, everyone would eventually get their turn. After all, with fifty thousand fortress cities slated for construction to house the seven billion imperial citizens, there was plenty of work to go around.

Along with the hiring of construction crews, more people would be hired, or kept on, as maintenance engineers responsible for cleaning, inspection, and minor repairs of the new cities. There was no experience requirement for either position, either, just that whoever signed up must be willing to work, and work hard, to complete the tasks in the time given and up to the standard required.

In the meantime, a model city had been “constructed” in the public simulation that they could go and tour, should they choose to do so. All of the cities would be built along the same general design; the only things that would differ were the individualized condos that people would be buying, or the detached houses for the more affluent.

Nearly everyone who was free at that moment rushed to the model city to take instanced tours of it, looking with wonder at all of the futuristic buildings and conveniences. And for those who were otherwise occupied at the time they were pinged with the announcements, they were busily making plans with friends to tour it together at their first opportunity.

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When the people logged in, they rushed to the new model city. As they approached it, unrelated people began fading from view, shifted into different instances of the simulation to reduce the overcrowding from the hundreds of millions of people swarming a city that was designed for dozens of millions, at best. If they stopped to consider for a moment, it would be odd that the groups who intended to tour the city together had remained together, none of them being shunted into different instances.

But they didn’t stop to consider that, being too focused on rushing to the pristine white towers reaching to the sky, decorated with hints of reflective metalwork and the glinting reflection of laminated glass.

The city was surrounded by a tall wall with four gates in it, each connected to its opposite gate by an eight-lane highway. There was a buffer layer of 25 kilometers between the wall and the first buildings rising from the ground in the distance, two-thirds of which was farmland, and the other third was virgin forest, left mostly untouched by human hands and surrounded by a tall fence, separating the wildlife in the forest from the humans outside of it.

As they approached the city proper, they were given an introduction by the city’s VI, which showed a top-down view.

The designers of the city had gone with a ring design, with twenty rings from the center to the outermost ring, the distance between them increasing as the distance from the city center increased. In the direct center of the city was the government tower, which rose into the lowest cloud layer and housed all of the necessary infrastructure facilities to support a city of such an immense size.

Surrounding the government tower out to the second ring road was a large, well-manicured park with many walking paths, biking paths, and attractions like carnival rides and games. It would be open all year round to everyone as a public service.

Leading from the first ring road to the government tower was a pristine walking boulevard separated by a long reflecting pool in the middle, which was made of black basalt rock polished to a mirror finish before being filled with clear water to twenty inches deep in order to promote reflectivity. Trees and decorative topiary bushes lined the sides of the boulevard, blocking the view of other maintenance structures and focusing visitors' gaze on the government tower itself, which was a marvel of engineering that was narrow at the bottom, then gradually flared out and tapered to a point at the top, like a spear point thrusting from the ground.

Mirroring the rest of the city's white and chrome design, it almost seemed to defy the laws of physics, especially compared to more "normal" skyscrapers that were angular and as broad at the base as they were at the roof, if not more so. The only other difference, beyond the design itself, was that it was a windowless edifice meant to project the prestige of the empire and protect the secrets held within.

Naturally, it wasn't open for public viewing.

The residential buildings began at the second ring road, across the street from the park district. Those on the second ring road itself were nearly as tall as the government building, perhaps losing out in height by a hundred feet or so. That trend continued as the buildings grew further from the city center, preserving an unobstructed view for people living in the top levels of each building, until the 40th ring road, which was populated by detached houses and compounds for the ultra-rich, which was a departure from previous city planning. In the current city structures, the closer one was to the city center, the more valuable their homes would be. But in the fortress cities, it was the opposite.

When the curious wanderers finally entered each towering skyscraper, they discovered that they were self-contained worlds unto themselves. The first floor was filled with luxuries and entertainment venues, essentially a large and varied shopping mall, with restaurants, movie theaters, and showrooms for entertainers and the like. Going up a level to the second floor, it was populated by necessities, like grocery stores, clinics, police stations, and so on.

The third floor and above were residential floors, and each person that entered a residence saw the floor plan and interior decorations that they had chosen when they were designing their dream living spaces.

It was a tour that was only made possible by being in the public simulation, and it was a resounding success. Everyone who toured the model city came out of the tour with a great anticipation for their new home.

Chapter 520 War Games: Strength

Deep below the Cube on Avalon Island, kilometers below the surface and near the border of the crust and mantle of the planet, was ARES Central Command. In contrast with the usual understated elegance or futuristic decor of the Terran Empire, the command structure was very, very barebones. So barebones, in fact, that it was a simple cavern that'd been dug out of the ground and had workstations placed in it for the military high command to issue orders, make plans, and track the progress of ongoing operations.

Not that it really mattered, to be honest, as augmented reality could make even a cesspit look like a palatial garden.

Currently within the rooms carved out of the rock, a planning session was taking place between John and the rest of the human leadership of ARES.

“It’s strength against strength this round. Our defense fleets are limited, and we won’t have reinforcements. We also have to work with simulated crews, so our orders will be followed exactly to the letter, but only to the letter,” John said, his face grim. Even though he knew he was only participating in a stress test to failure for the new shield, he still wanted to put up a good showing. He was a military man through and through, but with the opponents the empire had been facing, he’d had no opportunity to show his abilities; the technological advantage had made any approach other than overwhelming force the incorrect approach.

This was his chance to earn his stripes, so to speak.

“I understand that, sir... I think we all do. So why not put on our thinking caps and figure out how we can best defend the shield if it were to be attacked in reality? The action plans we come up with for the defensive effort now can be used as our standard operating procedure in the future in the case of a last stand scenario,” Lieutenant Colonel Simbarashe Sithole, the head of the ARES think tank, suggested.

“That’s the idea, colonel. So, gentlemen... suggestions?” John asked, looking around the conference table at the leaders seated there.

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Three days later.

John was in the simulation with the rest of the ARES leadership, hunkered down in the center of Ceres Station. He had a thousand full fleets at his disposal, all of them configured for various different defensive roles. In front of him was a hard light hologram displaying the planet below him and the shield above. Beyond the shield, he had laid a minefield of deactivated missiles, which would activate and attack the nearest detected enemy ship when they came within the missiles’ terminal maneuvering range.

The shield itself was configured for one-way operations, allowing things out but not in. Even though it was weaker than the full operational configuration, which would allow nothing in or out, he had chosen to use the weaker option until his fleets were degraded or his active defenses became overwhelmed. And there were many active defenses; he had spent his three days of preparation time building layer after layer of defense fields that stretched all the way from the exterior of the kilometer-thick shield to the orbit of the moon, up to and including the base on the dark side of the moon, all of which were perpetually in random motion so the incoming enemy couldn’t simply blast a path through them.

Soon, the countdown timer hit zero and the war games began.

The war games were designed as a wave assault for this first round. The incoming enemy attack would start small, in the neighborhood of hundreds of ships, with each additional wave coming two hours after the appearance of the previous. And each wave would double in numbers.

The first assault wave was only a hundred ships and was unlucky enough to be randomly inserted into the area of operation directly in front of the moon base. Before the ships could even move, they were vaporized by the heavy guns on the moon base.

The second, third, fourth, and fifth waves were stopped by the outer defenses as well, though the time it took to kill each incoming wave was growing longer and longer, allowing John less and less time to replenish his active defense layers.

Finally, the sixth wave broke through the outermost defensive layer and entered the second. It was quickly obliterated by the laser installations in the second defensive layer, as were the seventh, eighth, and ninth waves.

But then it happened. The tenth wave arrived before the ninth wave had been completely obliterated. Almost sixty thousand attackers swarmed the second defensive layer, about fifty thousand of which were completely fresh and undamaged. Athena consolidated the two waves and made a concerted push, ramming through the second defensive layer and into the minefield of the third layer.

By sacrificing the remainder of her damaged ships, she soon penetrated the minefield and was in the last layer of active defenses: the “parked” missiles.

The makeshift maneuvering mines proved only minimally effective, despite what most science fiction novels had led John to believe. Missiles relied on initial velocity in addition to terminal maneuvering, after all, and starting from a velocity of zero allowed Athena’s point defenses to completely dominate that layer.

Having penetrated all the way to the shield, Athena chose to cordon off a safe path through the layered defenses and await the next incoming wave of attack vessels before beginning her final assault on the shield. In the meantime, the remaining vessels of the tenth attack wave were sent out in small groups to clear the defenses along a broad corridor. The eleventh wave would consist of over a hundred thousand attackers, after all, so they would require a lot of maneuvering room, even if they were to maintain a close formation.

In the end of the first round, the shield was taken down in wave fifteen, with John’s heroic defense and sacrificial tactics sufficing to take out three entire waves—the eleventh, twelfth, and thirteenth wave. After that, he had no more fleets and was forced to order the shield to its third configuration and hunker down until the inevitable destruction came two waves later, with almost three million attacking ships constantly degrading the shield faster than the available power could repair it.

Once Ceres Station exploded, the first round of the wargames was over, nearly 32 hours after the first wave began.