WORLD OF TANKS CONSOLE

Disrupting the Console Space with Free-to-Play





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22 Years in the Industry



Microsoft Studios























































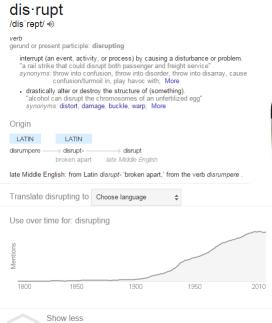


Today's Talk

WARGAMING



Disrupting the Console Space with F2P













What I'm here to talk about

- World of Tanks on Xbox 360, Xbox One, PlayStation 4
- Most successful Free-to-Play console game to date on all three platforms
- How we got here, the challenges we faced, and where we are going



What I'm here to talk about





What I hope you take away

- Understanding some of the challenges of F2P on console
- Learn how to overcome common obstacles
- Keys to success on consoles
- The console space is changing real time around us



Comparisons

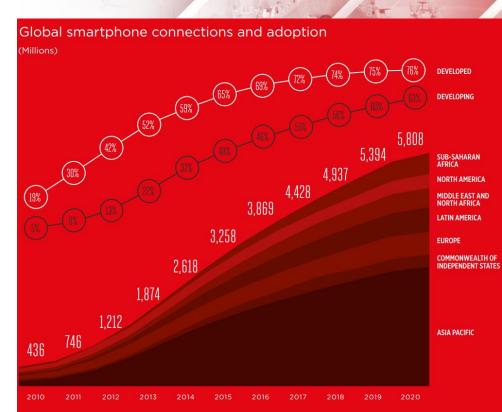
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Comparisons: Potential Gaming Audience

- Windows PC Gamers
 - 825 Million base in 2015
 - WoT PC 110 Million Registered Users (1% of RU pop plays WoT)
- Mobile
 - ~2.3 Billion smartphones base 2015
 - WoT Blitz 45 Million downloads
- Console (Active Online)
 - 360 18mm, XB1 19mm, PS4 36mm





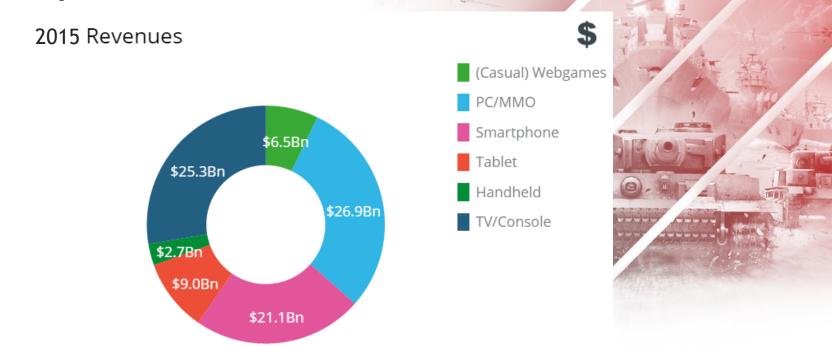
Comparisons: Potential Audience

- Windows PC
 - 1.25 Billion install base in 2014
 - WoT PC 110 Million Unique Active Users (1% of RU)
- Mobile
 - 1.67 Billion smartphones activated in 2014
 - WoT Blitz 40 Million Active Users
- Console
 - 360 26mm, XB1 18mm, PS4 32mm





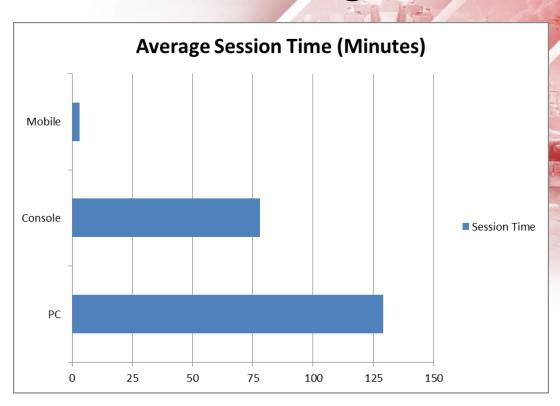
Comparisons: Potential Revenue Market





Comparisons: Session Lengths

- PC
 - 8-12 inches from Screen,
 Keyboard & mouse.
- Mobile
 - Small screen, simple controls
- Console
 - Large screen 1080p resolution, controller (12 inputs)



Comparisons: Console vs PC Dev.

- Requires developer and concept approval
- DevKits can cost up to \$5k
- Testing on closed networks (dev, cert and prod nets)
- Console games require Approval / Certification for beta and full releases (TCR\TRC)
- Platform owners take 30% cut of revenue



Vs.



Comparisons: F2P vs Boxed

- Infrastructure is much more complex for F2P
- Running your game as a service
- No "Ship and Forget"
- No retail presence
- Marketing exists primarily on the console
- These concepts are being adopted and are narrowing the gap





Comparisons: Staffing Changes

- Console F2P required positions more common to PC F2P and Mobile apps (new to us)
- Engineering needs: web, python, server, account, databases
- DevOps, Deployment and Release Management
- Datamining and Business Intelligence





Challenges

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Challenges: F2P Design on Consoles

- Common to PC F2P but relatively new to consoles
- F2P is games as a service and lasts for years
- F2P games require a constant influx of new players
- Feedback and education, teaching the value of F2P and progression
- Server controlled game required for gameplay and economy security



Challenges: WoT Console Development

- Needed to create new policies or exemptions with platform holders
 - Security review of all backend services by Microsoft
 - Wargaming account creation took months
 - In game purchase of currency and virtual goods took longer
 - Certification reduced from 10 to 3 days (beta 1 day) for Xbox
 - Certification for patches 1 day for PS4
 - CDN hosted game files and videos (no certification for most updates)
 - Override content packs on new platforms (no cert)



Challenges: Custom Code

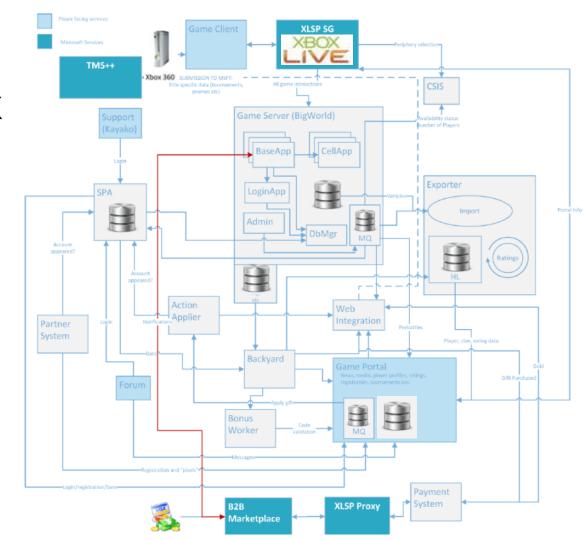
- Custom solutions required for things normally handled by the SDK:
 - Launcher and patching solution
 - Routing all traffic behind the SGs
 - Create own security gateway new platforms
 - 7 day Silver trial and upsell bonus (300+k bonus packages awarded)
 - Custom matchmaking
 - Custom voice solution for cross platform and more simultaneous voices



Challenges: Complexity Xbox

 17 backend services, web, forums, customer support, databases and more





Challenges: Versions

- Moved to 5 source control branches
 - Main: Everyday development must always be ship ready
 - Stable: Lockdown, bug fixes only
 - Cert: Current submission in certification QA
 - Live: What is on the live servers for patching
 - Incoming: For major new features, server upgrades



Challenges: Server Clusters

- 12 multicluster production environments
 - Beta and Core title ID discbuild testing
 - Beta and Core title ID Cert testing
 - Beta and Core title ID Production (Live game)
 - Half dozen multicluster test environments
 - Online services, upcoming versions, env changes



Challenges: Testing

Free-to-Play testing for console games

- 450 tanks, 50 maps, 30 players is already a lot
- 42 QA, 58k test cases, two weeks from stable to cert
- Purchases, all backend services, XBL and PSN services
- Title Update vs Server vs Client files vs Services updates
- 3 environments, PartnerNet, CertNet, ProdNet



Challenges: Supertest

- Created first Supertest program for XBL and PS4 (perpetual beta)
- Requires a second Title ID, essentially another version of your game with all the overhead (x3 for PS4 for regions)
- You have to recruit and talk to Console players
- Players didn't understand iteration
- Not possible to do A/B testing on consoles due to policy
- Due to cert times feedback on supertest can't be addressed until the next patch



Challenges: Datamining

- How to track all the data sets you need but transmit very little on network
- How to store and organize the data (hadoop)
- How to make the data accessible to all that need it (tableau)



Challenges: Release

- You'll get more players at first than you expected (10x)
 - PC\Mobile generally start small and build overtime
 - We had very few ways to gate growth
- Biggest drop-off is during download %50
 - Adding a min download resulted in a 35% increase in retention
- F2P games only make money during uptime
- Differences between Xbox and PS4 launches



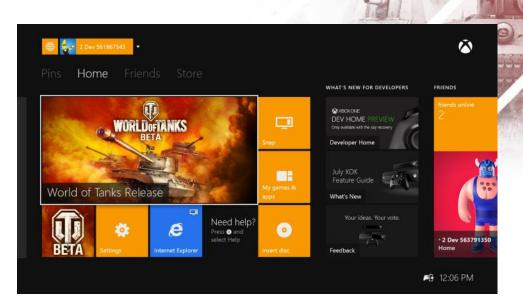
Post Release

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Post Release: Marketing

- Creating awareness will be a challenge
- Dashboard placement most effective
- Automated referral program, incentives
- Xbox vs PS4

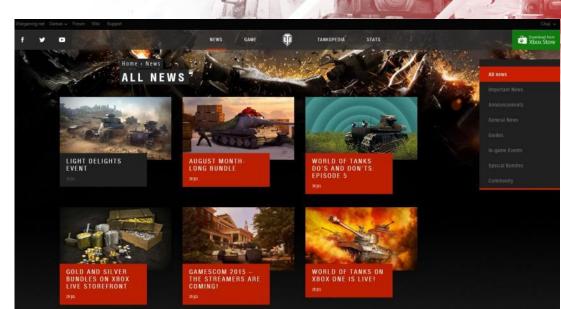




Post Release: Never-ending Updates

- Its exhausting, so plan well
- Its also fantastic and rewarding
- Over 40 feature or content updates in 2015
- Weekly content and promotions
- Work 2 months ahead of the game
- Iterate and cut what's not working early





Post Release: Staffing\Structure 2.0

- Dedicated Live engineering team for all issues
- Created a Live team from QA to support the game, community and publishing
- Expand teams to meet demand of the game
- Very few additional resources for additional platforms



Post Release: What we learned

- Don't panic, seasonality, game releases, even sporting events affect CCU
- Automated monitoring and alert system a must
- Be open and honest with players about problems
- You can still fix things
- Watch your data constantly (you're always learning)





Post Release: Community

- There are no whales, it's a community of diverse players
- Your loudest critics love your game
- Listen to what the community wants but test it against data
- Involve your core community in decisions
- Community, take care of them and they take care of you





Xbox 360 before World of Tanks









Relative size based on revenue estimates. Sources: HIS, DFC, Wedbush Securities, Newzoo

Xbox 360 after World of Tanks





















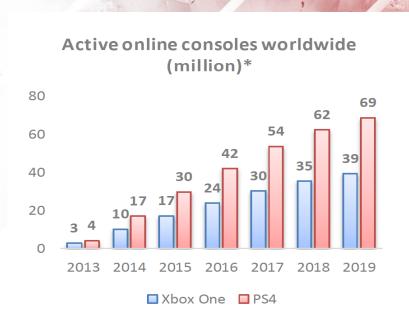
Relative size based on revenue estimates.

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Stats

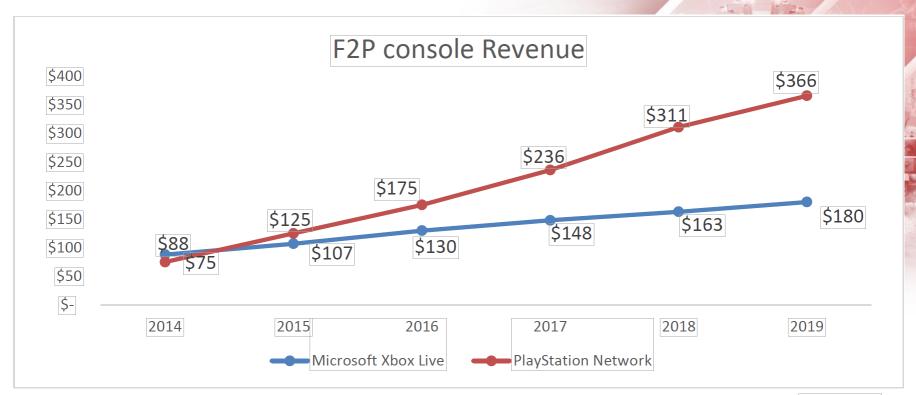
- 18%+ account penetration, by all active installs
- 50%+ of Xbox: 360 F2P total market share
- 35%+ of Xbox One F2P total market share
- PS4 is still being calculated





Sources: Superdata Dec 2015, IDG Consulting, IHS

F2P Market Revenue



Source: IDG

What's Next

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What's Next: New Platforms, New Challenges

- How Platforms differ from each other now
- We decided to allow cross play and cross voice
- HD everything means >50 GB games
- Emerging social features should be fully integrated.
- PlayStation 4 much stronger in EU and Asia







What's Next: Hope for the Future

- No regional barriers
- No hardware segregation
- It's our audience
- Seamless interactivity
- Stream anywhere
- Remove friction





Take-Away

- Understand your audience
- Understand the challenges of the platform
- Understand games as a service
- Be ahead of the curve with your content / updates
- Keep calm and keep iterating
- Whatever you do...



Take-Away





- Thank you for listening
- Questions?



