MONASH University

《Cipher Protocol: Shadow Nexus》-DLC Project Management Plan

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Contents

1. Business rationale

1.1 Background

1.11 Portfolio objectives

1. **Innovative Gameplay:** Key to success, enhances user engagement and satisfaction.
2. **Market Positioning:** ROI anticipated within 12 months, with significant ongoing profits.
3. **Marketing Strategy:** Leverages social media, expos, and influencer collaborations.
4. **Financial Viability:** Expected to break even within 18 months, with robust profitability thereafter.
5. **Risk Management:** Implements proactive measures to mitigate threats.

1.12 Project Background

The innovative gameplay of "Cipher Protocol" is vital for enhancing player retention and satisfaction. Its unique gameplay and level designs not only attract but also engage players over extended periods, as supported by Ferguson (2007) [1].

1.13 Project Fit

This DLC leverages the high demand for cyberpunk themes to attract new users with innovative mechanics and expanded storylines, enhancing the experience for existing players.

1.14 KPI Reason

1. Retention rates for D1, D7, and M3 are targeted at 45%, 30%, and 16%, respectively.
2. New IP to attract users and boost revenues.
3. Features like dynamic levels and moral choices enhance player engagement and retention.

1.15 Value

Cipher Protocol aligns with NexaForge's mission in creativity, storytelling, and design. Its cyberpunk world, complex moral choices, and stunning visuals reflect the company's values, enhancing immersion and playability.

1.2 Current Situation and Problem/Opportunity Statement

1.21 Problem

Despite its critical acclaim, the original game's player retention fell short, particularly in the first month post-release. The DLC offers a chance to leverage the existing user base and reignite interest through new content.

1.22Value Delivery

1. Long-term engagement: Innovative hacker gameplay and deep narrative
2. Dynamic levels: Real-time environment adjustment based on player choices
3. Advanced AI: Intelligent NPC responses to player actions
4. Cutting-edge graphics: Showcase NexaForge's technical prowess

1.3 Option Analysis

Options	Brief Outline	Justification
Option 1: New Storyline Expansion	Increases story depth and character development. Player choices impact the game world.	**Strong Innovation and Retention:** This option scores highest in innovation and retention rate improvement. It offers moderate development costs with a high ROI, making it an attractive choice for enhancing user engagement and expanding the narrative depth of the game.
Option 2: New Map and Level Design	Features open design with multiple paths and	**Unique Gameplay Experiences:** Although this option has higher initial costs, it promises significant returns through unique gameplay

	methods for completion, enhancing vertical exploration.	experiences. Its design complexity might attract new users looking for diverse gaming environments.
Option 3: Customization Enhancements	Allows players to unlock advanced hacking skills, enriching gameplay and mission outcomes.	**Unique Gameplay Experiences:** Although this option has higher initial costs, it promises significant returns through unique gameplay experiences. Its design complexity might attract new users looking for diverse gaming environments.

Using a weighted scoring model for comparison (1-5 scale, 5 being the highest):

Criteria	Weight	Option 1	Option 2	Option 3
Innovation	25%	5 (1.25)	3 (0.75)	2 (0.50)
Retention Rate Improvement	30%	5 (1.50)	3 (0.90)	2 (0.60)
New User Attraction	20%	4 (0.80)	3 (0.60)	1 (0.20)
Financial Return	25%	4 (1.00)	3 (0.75)	2 (0.50)
Total Score	100%	4.55	3.00	1.80

Recommendation: Based on the weighted scoring model, **Option 1: New Storyline Expansion** is recommended due to its highest total score, driven by

its innovation and ability to significantly improve retention rates, which aligns with the strategic goals of enhancing player engagement and expanding the game's narrative depth.

1.4 Project and Deliverables Description

1. Dynamic Level Design System:
    1. Real-time environment generation based on player choices
    2. Goal: 80% player satisfaction with game smoothness
2. Deep Hacking System:
    1. Simulates real-world network intrusion techniques
    2. Goal: 10+ different AI strategies in 100 encounters
3. Moral Choice System:
    1. Player decisions affect game world and storyline
    2. Goal: 5+ major branching storylines, each with 3+ variations

1.5 Quality Metrics and Measurement

1.5.1 **KPI 1: Game Performance Stability**

1. **Quantitative:** Utilize automated tools to ensure 90% of tests maintain a frame rate above 60FPS and loading times under 30 seconds.
2. **Qualitative:** Gather player feedback to achieve 80% satisfaction regarding smoothness.

1.5.2 **KPI 2: AI Behavior Intelligence**

1. **Quantitative:** Monitor AI to display at least 10 different strategies in 100 encounters.
2. **Qualitative:** Have game testers affirm that 85% of AI behavior meets or surpasses industry standards.

1.5.3 **KPI 3: Narrative Depth and Player Choice Impact**

1. **Quantitative:** Document 5 major story branches with at least 3 variations each.
2. **Qualitative:** Surveys[4] to confirm 75% of players feel their choices significantly alter the game.

1.6 Post-Release Support

1.6.1 Player Support: Regular updates, bug fixes, and content expansions. Support team for issues and feedback.

1.6.2 Content Expansion: New missions, characters, features. Seasonal events and challenges.

2.Schedule Estimation, Budget Estimation, and Financial Analysis

2.1 Schedule Estimation

Project estimated duration: 12-month development cycle, including design, implementation, and testing phases.

2.1.1 Major milestones:

Start Date	01/09/2024		
	Start	**End**	**Example Milestones**
1.0 Initiation(Pre-production)	01/09/2024	30/11/2024	Develop core concepts, outline narrative, and design key mechanics.
2.0 Planning	01/12/2024	31/12/2024	Detailed project planning and resource allocation.
3.0 Execution	01/01/2025	31/03/2025	Core development phase, integrating all project components
3.1 Analysis	01/01/2025	10/01/2025	Conduct requirement analysis and technical assessments.
3.2 Design	11/01/2025	20/01/2025	Design architecture, interfaces, and database schemas.
3.3Implementation(Production)			
(Build/Dev)	21/01/2025	31/03/2025	Refine Alpha, prepare Beta version for comprehensive testing.
Support (Alpha Testing)	01/04/2025	15/05/2025	Conduct public tests to refine gameplay.
(Deploy)	16/05/2025	16/05/2025	Launch game and commence post-release support with updates and community management
3.4 Support			
(Review)	17/05/2025	21/05/2025	Post-deployment review and feedback collection.
4.0 Closing	22/05/2025	23/05/2025	Execute marketing and finalize preparations.

2.1.2 Feasibility Analysis:

1. Schedule: 24-month cycle for a 50-person team will employ agile methods, use JIRA for real-time tracking.
2. Budget: $3.5 million AUD adequately covers all phases.
3. Scope: Clearly defined tasks and timelines ensure adherence to budget and schedule.

2.2 Preliminary Cost Estimation:

【View **Appendix**】

2.3 Growth Expectations:

1. Revenue Growth: Annual revenue growth projected to exceed 30% over the next five years, driven by "Cipher Protocol" sales, DLC releases, and sequel development.
2. Profit Growth: Expected annual profit growth of 35-40%.
3. Market Share: Target 10-15% share in cyberpunk game market, with plans for expansion.
4. Technology Accumulation: Invest 15-20% of annual revenue in R&D to sustain technological leadership.

3.Development Methodology

"Cipher Protocol" will use a hybrid agile approach, combining Scrum and Kanban. This ensures flexibility, continuous delivery, and effective management of the complex game development process while aligning with NexaForge's values.

3.1 Team Background

1. Creative: Game vision, story, characters, mechanics
2. Technical: Engine, coding, system integration
3. Art: Game assets, visuals
4. Audio: Music, sound effects, voice-overs
5. Production: Project management
6. QA: Testing and quality assurance

3.2 SWOT Analysis

3.2.1 Strengths:

1. Solid market foundation from the original "Cipher Protocol."

2. Innovative gameplay with new dynamic levels and hacking mechanics.

3.2.2 Weaknesses:

1. High initial investment in innovation and dynamic content.

2. Risk of delays and budget overruns from developing innovative features.

3.2.3 Opportunities:

1. Growing market demand for cyberpunk themes to expand market share.

2. Potential for cross-media expansion into graphic novels and animated series.

3.2.4 Threats:

1. Fierce competition from numerous similar cyberpunk-style games.

2. Economic conditions potentially impacting consumer spending on games.

3.3 **Quality Assurance**

1. **Continuous Integration/Continuous Deployment (CI/CD):**

   1.1 Automate build and test processes.

   1.2 Ensure quick issue resolution with daily builds.

2. **Test-Driven Development (TDD):**

   2.1 Develop unit tests for core systems to ensure code quality.

   2.2 Focus on maintainability.

3. **Automated Testing:**

   3.1 Simulate player interactions using automated tools.

   3.2 Perform regular stress and performance evaluations.

4. **Code Review:**

   4.1 Enforce peer reviews to enhance code reliability.

   4.2 Utilize static analysis tools for quality assurance.

4 Risk and Quality

4.1 **Uncertainty and Risk Analysis**

1. **Technical Risk:** Development delays from new tech.

   Countermeasure: Create a pre-research team and set phased milestones.

2. **Schedule Risk:** Delays due to complex systems.

   Countermeasure: Implement agile methodologies for flexibility.

3. **Quality Risk:** Potential issues from innovation, like bugs.

   Countermeasure: Early extensive testing and ongoing QA monitoring.

4. **Team Risk:** Impact of losing key staff on quality.

   Countermeasure: Offer competitive benefits and focus on team culture.

4.2 Ethical Considerations and Impacts

4.2.1 Content Ethics: The game incorporates hacking and morally ambiguous choices. Integrating moral reflection in design is crucial to avoid trivializing illegal actions and promote ethical thinking in players (Sicart [2]).

4.2.2 Data Privacy:

1. Consideration: Follow Floridi's (2013) [3] information ethics principles
2. Response: Implement transparent policies, ensure player data control, comply with GDPR

4.2.3 Game Addiction:

1. Consideration: Balance attraction and healthy habits (Yee, 2006)
2. Response: Implement time reminders, encourage moderation, provide parental controls

4.2.4 Cultural Sensitivity:

1. Consideration: Apply Kellner's (1995)[5] multicultural criticism approach
2. Response: Diverse team, cultural advisors, ensure fair representation

4.2.5 Legal Considerations

4.2.5.1 Intellectual Property: "Cipher Protocol" protected by IP laws, including trademarks for name, logo, and characters. All original content copyright protected against unauthorized use.

4.2.5.2 Regulatory Compliance: Comply with ESRB and PEGI standards. Undergo testing and certification for content classification and market approval.

4.3 **Financial Risk Response**

1. **Cost Overrun Risk**

   1. Risk: Development may exceed budget.

   2. Countermeasure: Apply strict cost controls, conduct regular budget reviews, and establish early warning systems.

2. **Exchange Rate Risk**

   1. Risk: Fluctuations may affect international sales[3].

   2. Countermeasure: Hedge with financial instruments like forward contracts and potentially establish local subsidiaries.

4.4 Quality Assurance Process

4.4.1 Continuous Integration and Automated Testing:

1. Use Jenkins for daily builds and automated tests.
2. Target 80% coverage with unit, integration, and system tests.

4.4.2 Performance Optimization Cycles:

1. Conduct performance optimization sprints late in development.
2. Use tools to identify and fix performance bottl

4.4.3 Security and Stability Testing:

1. Perform penetration tests for network security.
2. Conduct stress tests to simulate high-load performance.

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Appendix 1: Detailed Budget Breakdown

1. Labor costs align with HAYS IT Contractor Rate Guide and market rates.
2. Software licensing costs from vendor quotes.

Labor Costs (2.4 million AUD)

1.1 Core Development Team (1.8 million AUD)

1. Chief Programmer (1 person): 200,000 AUD/year × 2 years = 400,000 AUD
2. Senior Programmers (4 people): 150,000 AUD/year × 4 people × 2 years = 1,200,000 AUD
3. Mid-level Programmers (5 people): 100,000 AUD/year × 5 people × 2 years = 1,000,000 AUD
4. Junior Programmers (5 people): 60,000 AUD/year × 5 people × 2 years = 600,000 AUD

1.2 Art Team (400,000 AUD)

1. Art Director (1 person): 160,000 AUD/year × 2 years = 320,000 AUD
2. Senior Artists (2 people): 120,000 AUD/year × 2 people × 2 years = 480,000 AUD
3. Mid-level Artists (2 people): 80,000 AUD/year × 2 people × 2 years = 320,000 AUD

1.3 QA Team (200,000 AUD)

1. QA Manager (1 person): 120,000 AUD/year × 2 years = 240,000 AUD
2. QA Testers (2 people): 80,000 AUD/year × 2 people × 2 years = 320,000 AUD

Software Licenses (300,000 AUD) 2.1 Game Engine License (200,000 AUD)

Unreal Engine 5 License: 200,000 AUD (based on revenue-sharing model)

2.2 Development Tools and Middleware (100,000 AUD)

1. 3D Modeling Software (Maya): 30,000 AUD
2. Texture Creation Tool (Substance Painter): 20,000 AUD
3. Audio Middleware (Wwise): 20,000 AUD
4. Version Control System (Perforce): 15,000 AUD

5. Project Management Tool (JIRA): 15,000 AUD

Marketing (800,000 AUD) 3.1 Digital Advertising (400,000 AUD)

1. Social Media Advertising: 200,000 AUD
2. Gaming Media Website Advertising: 150,000 AUD
3. Search Engine Marketing: 50,000 AUD

3.2 Game Exhibitions and Events (250,000 AUD)

1. E3 Participation: 100,000 AUD
2. Gamescom Participation: 100,000 AUD
3. PAX Participation: 50,000 AUD

3.3 Influencer Collaborations (150,000 AUD)

1. YouTube Gaming Influencer Collaborations: 80,000 AUD
2. Twitch Streamer Collaborations: 70,000 AUD

Total Budget: 3.5 million AUD

Appendix 2: NPV/ROI Calculation

NPV and ROI Analysis: The positive NPV of $1,680,579 AUD suggests that the project will generate significant value. The expected ROI is 30.58% within five years, highlighting strong profitability.

2.1 Initial Investment and Costs

1. Initial Investment: 3.5 million AUD
2. Annual Maintenance Cost: 500,000 AUD per year starting from the first year

2.2 Revenue Projection

1. Based on a DLC price of 59.99 AUD, with developers receiving 70% of sales revenue, the first year's DLC revenue is 1,034,035 AUD.
2. Revenue grows at a rate of approximately 30% each year, with the fifth year reaching 2,953,289 AUD.

2.3 Cost Projection

1. **First Year Cost:** Total 4 million AUD (including initial investment and annual maintenance fee)
2. **Second to Fifth Year Costs:** 500,000 AUD per year (annual maintenance)

2.4 Growth Expectations and Annual Revenue Increase

1. **Second Year Revenue:** Expected to grow by approximately 30%, reaching 1,344,246 AUD.
2. **Subsequent Years:** Continue growing at a rate of approximately 30% each year.

Discount rate set at 10%, using the formula

Formula

$$\mathrm{NPV} = \frac{R_t}{(1+i)^t}$$

NPV = net present value
R_t = net cash flow at time t
i = discount rate
t = time of the cash flow

Discount rate	10%	110%	210%	310%	410%	510%	
Discount factor	1.00	0.93	0.86	0.79	0.74	0.68	
Year	0	1	2	3	4	5	TOTAL
《Cipher Protocol: Shadow Nexus》							
Costs (cash outflows)	$3,500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$6,000,000.00
Benefits (cash inflows)	$0	$1,034,035	$1,344,246	$1,747,520	$2,271,776	$2,953,289	$9,350,866.00
Net cash flow	($3,500,000)	$534,035	$844,246	$1,247,520	$1,771,776	$2,453,289	
Discounted costs	$3,500,000	$462,963	$428,669	$396,916	$367,515	$340,292	$5,496,355.02
Discounted benefits	$0	$957,440	$1,152,474	$1,387,238	$1,669,823	$2,009,959	$7,176,933.86
Discounted cash flow	($3,500,000)	$494,477	$723,805	$990,322	$1,302,308	$1,669,667	$1,680,578.84
Cumulative disc cash flow	($3,500,000)	($3,005,523)	($2,281,718)	($1,291,397)	$10,912	$1,680,579	
NPV	$1,680,579						
ROI	30.58%						

2.5 Financial Calculations

1. **NPV Calculation Result:** $1,680,579 AUD.

   ROI =(total discount benefits - total discounted cost)/total discounded costs

2. ROI calculation method: (NPV / Initial Investment) * 100% = (1,680,579 / 5,496,355) * 100% = 30.58%

Appendix 3: Long-term Value Prediction

1. Revenue Diversification

1.1 **DLC Sales:** The primary revenue source for the first two years, driven by quarterly content releases and an expected adoption rate of 40%.
1.2 **In-game Purchases:** Decorative items introduced through DLCs are projected to contribute 15-20% to the total revenue, enhancing player engagement and monetization.

2. Brand Value Enhancement

2.1 **Core Player Base:** Continuous updates to "Cipher Protocol: Shadow Nexus" will expand and retain the player base, particularly targeting hardcore players aged 18-35.
2.2 **Industry Reputation:** Regular DLC releases and high-quality content updates are designed to boost NexaForge Studios' credibility and standing within the gaming industry.

3. Technology and Community Development

3.1 **Technology Accumulation:** Ongoing innovation in level design and AI systems will be supported by reinvesting 15-20% of annual revenue into research and development (R&D).
3.2 **Community Engagement:** Regular updates and DLCs will enhance player community interaction, thereby extending the lifecycle of the game and fostering a loyal player base.

4. Long-term Financial Outlook

4.1 **Years 1-2:** Expected peak revenue generation from both DLC sales and in-game purchases.
4.2 **Years 3-5:** Expansion into new intellectual properties (IPs) and markets, with additional revenue streams from sequels and licensing opportunities.

Overall Strategy: This strategy underscores NexaForge Studios' commitment to sustained growth and market differentiation by diversifying revenue streams and investing in technological advancements.