

Vendor Evaluation Guide: Questions to Ask AI Infrastructure Providers

A PrivateServers.AI Procurement Tool

Introduction

Selecting the right AI infrastructure provider is one of the most critical decisions your organization will make. This comprehensive evaluation guide provides structured questions and assessment criteria to thoroughly evaluate potential vendors and make informed procurement decisions.

Use this guide to:

- Conduct systematic vendor evaluations
 - Compare competing proposals objectively
 - Identify potential risks and gaps
 - Negotiate favorable contract terms
 - Ensure successful project outcomes
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Evaluation Framework

Scoring Methodology

Rate each vendor response on a 1-5 scale:

- **5 = Excellent** - Exceeds requirements, clear competitive advantage
- **4 = Good** - Meets requirements with additional value
- **3 = Satisfactory** - Meets minimum requirements
- **2 = Marginal** - Partially meets requirements, concerns exist
- **1 = Poor** - Does not meet requirements, significant gaps

Weighting by Importance

- **Critical (25% weight)** - Must-have capabilities, deal-breakers
 - **Important (15% weight)** - Significant impact on success
 - **Moderate (10% weight)** - Valuable but not essential
 - **Nice-to-Have (5% weight)** - Additional benefits
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1. Technical Capabilities (Weight: 25% - Critical)

AI Platform and Framework Support

Q1.1: What AI frameworks and models do you support? (Weight: 25%)

Follow-up Questions:

- ☐ TensorFlow, PyTorch, Hugging Face compatibility?
- ☐ Support for latest language models (GPT, Claude, Llama)?
- ☐ Custom model development and fine-tuning capabilities?
- ☐ Model versioning and lifecycle management?
- ☐ Performance optimization and acceleration tools?

Evaluation Criteria:

- Comprehensive framework support
- Latest model compatibility
- Custom development capabilities
- Performance optimization tools

Q1.2: What are your hardware specifications and performance capabilities? (Weight: 25%)

Technical Requirements:

- ☐ GPU specifications (A100, H100, etc.)
- ☐ CPU performance and memory capacity
- ☐ Storage throughput and capacity
- ☐ Network bandwidth and latency
- ☐ Scalability and expansion options

Evaluation Criteria:

- Meets current performance requirements
- Scalability for future growth
- Latest generation hardware
- Competitive performance benchmarks

Q1.3: How do you handle model deployment, scaling, and management? (Weight: 20%)

Operational Questions:

- ☐ Automated deployment procedures
- ☐ Auto-scaling capabilities
- ☐ Load balancing and high availability
- ☐ Model performance monitoring
- ☐ Version control and rollback procedures

Evaluation Criteria:

- Automated operations capabilities
- Enterprise-grade reliability
- Comprehensive monitoring
- Operational best practices

Q1.4: What integration capabilities do you provide? (Weight: 15%)

Integration Assessment:

- ☐ API design and documentation quality
- ☐ Enterprise system integration (AD, LDAP, etc.)
- ☐ Database connectivity options
- ☐ Workflow and automation tools
- ☐ Third-party application support

Evaluation Criteria:

- Comprehensive API capabilities
- Enterprise integration options
- Clear documentation
- Proven integration track record

Q1.5: What backup, recovery, and disaster recovery capabilities do you offer? (Weight: 15%)

Business Continuity:

- ☐ Automated backup procedures
- ☐ Recovery time and point objectives
- ☐ Disaster recovery testing
- ☐ Geographic redundancy options
- ☐ Data integrity verification

Evaluation Criteria:

- Robust backup and recovery
- Tested disaster recovery procedures
- Meets business continuity requirements
- Clear RTO/RPO commitments

Technical Capabilities Score: __/25

2. Security and Compliance (Weight: 25% - Critical)

Security Architecture and Controls

Q2.1: Describe your security architecture and implementation approach. (Weight: 30%)

Security Assessment:

- ☐ Air-gapped deployment capabilities
- ☐ Network isolation and segmentation
- ☐ Encryption standards (at rest and in transit)
- ☐ Access control and authentication
- ☐ Security monitoring and logging

Evaluation Criteria:

- Defense-in-depth architecture
- Industry-standard encryption
- Comprehensive access controls
- Continuous security monitoring

Q2.2: What compliance certifications and frameworks do you support? (Weight: 25%)

Compliance Verification:

- ☐ SOC 2 Type II certification
- ☐ ISO 27001 compliance
- ☐ FedRAMP authorization (if applicable)
- ☐ Industry-specific certifications
- ☐ Regular compliance audits

Evaluation Criteria:

- Relevant compliance certifications
- Regular audit and validation
- Compliance program maturity
- Industry-specific expertise

Q2.3: How do you handle data privacy and protection? (Weight: 25%)

Privacy Protection:

- ☐ Data classification and handling procedures
- ☐ Privacy by design implementation
- ☐ Data subject rights management
- ☐ Cross-border transfer protections
- ☐ Data retention and deletion policies

Evaluation Criteria:

- Comprehensive privacy controls
- GDPR/CCPA compliance capabilities
- Clear data handling procedures
- Privacy program maturity

Q2.4: What incident response and security monitoring capabilities do you provide? (Weight: 20%)

Security Operations:

- ☐ 24/7 security monitoring
- ☐ Incident detection and response procedures
- ☐ Threat intelligence integration
- ☐ Vulnerability management program
- ☐ Security training and awareness

Evaluation Criteria:

- Proactive security monitoring
- Rapid incident response
- Comprehensive threat management
- Regular security updates

Security and Compliance Score: ___/25

3. Implementation and Support (Weight: 15% - Important)

Project Management and Implementation

Q3.1: Describe your implementation methodology and project management approach. (Weight: 30%)

Implementation Assessment:

- ☐ Proven deployment methodology
- ☐ Project timeline and milestones
- ☐ Risk management procedures
- ☐ Change management support
- ☐ Success metrics and validation

Evaluation Criteria:

- Structured implementation approach
- Realistic timeline and milestones
- Comprehensive risk management
- Strong change management support

Q3.2: What level of professional services and support do you provide? (Weight: 25%)

Professional Services:

- ☐ Technical consulting and architecture design
- ☐ Custom development and integration
- ☐ Training and knowledge transfer
- ☐ Ongoing optimization and tuning
- ☐ Best practices guidance

Evaluation Criteria:

- Comprehensive service offerings
- Experienced professional team
- Proven implementation track record
- Value-added services

Q3.3: What ongoing support and maintenance services do you offer? (Weight: 25%)

Support Services:

- ☐ 24/7 technical support availability
- ☐ Support response time commitments
- ☐ Escalation procedures and contacts
- ☐ Proactive monitoring and maintenance
- ☐ Regular system health checks

Evaluation Criteria:

- Appropriate support levels
- Clear response time commitments
- Experienced support team
- Proactive maintenance approach

Q3.4: How do you handle training and knowledge transfer? (Weight: 20%)

Training Program:

- ☐ Administrator training curriculum
- ☐ End-user training materials
- ☐ Documentation quality and completeness
- ☐ Ongoing education and updates
- ☐ Community and peer support

Evaluation Criteria:

- Comprehensive training program
- High-quality documentation
- Ongoing education support
- Strong user community

Implementation and Support Score: __/15

4. Financial and Commercial (Weight: 15% - Important)

Pricing and Commercial Terms

Q4.1: Provide detailed pricing breakdown and total cost of ownership. (Weight: 30%)

Cost Analysis:

- ☐ Initial implementation costs
- ☐ Ongoing operational costs
- ☐ Licensing and software fees
- ☐ Support and maintenance costs
- ☐ Hidden or additional fees

Evaluation Criteria:

- Transparent pricing model
- Competitive total cost
- Predictable cost structure
- No hidden fees

Q4.2: What are your contract terms and commercial conditions? (Weight: 25%)

Commercial Terms:

- ☐ Contract length and renewal terms
- ☐ Service level agreements
- ☐ Liability and indemnification
- ☐ Intellectual property rights
- ☐ Termination and data return

Evaluation Criteria:

- Favorable contract terms
- Reasonable SLA commitments
- Appropriate liability allocation
- Clear IP ownership

Q4.3: What financing and payment options do you offer? (Weight: 25%)

Financial Flexibility:

- ☐ Lease vs. purchase options
- ☐ Payment schedule flexibility
- ☐ Performance-based payments
- ☐ Upgrade and expansion terms
- ☐ Early termination options

Evaluation Criteria:

- Flexible financing options
- Reasonable payment terms
- Growth accommodation
- Risk mitigation options

Q4.4: How do you handle pricing for future expansions and upgrades? (Weight: 20%)

Growth Planning:

- ☐ Expansion pricing model
- ☐ Technology refresh policies
- ☐ Upgrade migration support
- ☐ Capacity planning assistance
- ☐ Long-term cost predictability

Evaluation Criteria:

- Transparent expansion pricing
- Technology refresh support
- Capacity planning assistance
- Long-term cost control

Financial and Commercial Score: ___/15

5. Vendor Stability and Experience (Weight: 10% - Moderate)

Company Background and Track Record

Q5.1: Provide company background, financial stability, and market position. (Weight: 30%)

Company Assessment:

- ☐ Years in business and market experience
- ☐ Financial stability and funding
- ☐ Market position and competitive landscape
- ☐ Growth trajectory and strategic direction
- ☐ Key partnerships and alliances

Evaluation Criteria:

- Established market presence
- Strong financial position
- Clear strategic direction
- Strategic partnerships

Q5.2: What is your experience with similar implementations in our industry? (Weight: 30%)

Industry Experience:

- ☐ Number of similar implementations
- ☐ Industry-specific expertise
- ☐ Regulatory compliance experience
- ☐ Case studies and references
- ☐ Lessons learned and best practices

Evaluation Criteria:

- Relevant industry experience
- Regulatory expertise
- Proven track record
- Strong customer references

Q5.3: Describe your team's qualifications and expertise. (Weight: 25%)

Team Assessment:

- ☐ Technical team qualifications
- ☐ AI and ML expertise depth
- ☐ Industry certifications
- ☐ Project management experience
- ☐ Customer success track record

Evaluation Criteria:

- Highly qualified technical team
- Deep AI/ML expertise
- Relevant certifications
- Strong project management

Q5.4: What is your product roadmap and development strategy? (Weight: 15%)

Future Development:

- ☐ Product roadmap and timeline
- ☐ Research and development investment
- ☐ Technology innovation approach
- ☐ Customer input in development
- ☐ Backward compatibility commitment

Evaluation Criteria:

- Clear product roadmap
- Strong R&D investment
- Customer-driven development
- Innovation leadership

Vendor Stability and Experience Score: __/10

6. Customer References and Case Studies (Weight: 10% - Moderate)

Proof of Success

Q6.1: Provide detailed case studies of similar implementations. (Weight: 40%)

Case Study Analysis:

- ☐ Similar organization size and complexity
- ☐ Comparable use cases and requirements
- ☐ Implementation challenges and solutions
- ☐ Performance and ROI results
- ☐ Lessons learned and recommendations

Evaluation Criteria:

- Relevant case studies
- Detailed implementation insights
- Proven ROI and success metrics
- Transferable lessons learned

Q6.2: Provide customer references we can contact directly. (Weight: 35%)

Reference Validation:

- ☐ At least 3 recent customer references
- ☐ Similar industry and use cases
- ☐ Implementation and ongoing satisfaction
- ☐ Vendor relationship assessment
- ☐ Recommendation and lessons learned

Evaluation Criteria:

- Strong customer references
- High satisfaction levels
- Positive vendor relationship
- Strong recommendations

Q6.3: What customer success metrics and outcomes can you demonstrate? (Weight: 25%)

Success Metrics:

- ☐ Customer retention rates
- ☐ Implementation success rates
- ☐ Time to value achievement
- ☐ Performance improvement metrics
- ☐ Customer satisfaction scores

Evaluation Criteria:

- High customer retention
- Successful implementation rate
- Fast time to value
- Strong satisfaction scores

Customer References Score: __/10

Overall Vendor Evaluation Scorecard

Weighted Score Calculation

| Category | Weight | Score (1-5) | Weighted Score |
|----------------------------|--------|-------------|----------------|
| Technical Capabilities | 25% | ___/5 | ___/25 |
| Security and Compliance | 25% | ___/5 | ___/25 |
| Implementation and Support | 15% | ___/5 | ___/15 |
| Financial and Commercial | 15% | ___/5 | ___/15 |
| Vendor Stability | 10% | ___/5 | ___/10 |
| Customer References | 10% | ___/5 | ___/10 |
| Total Weighted Score | 100% | | ___/100 |

Scoring Interpretation

- **90-100:** Excellent vendor, strongly recommended
 - **80-89:** Good vendor, recommended with minor reservations
 - **70-79:** Acceptable vendor, address identified gaps
 - **60-69:** Marginal vendor, significant concerns exist
 - **Below 60:** Poor vendor, not recommended
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Red Flags and Deal Breakers

Critical Warning Signs

Technical Red Flags:

- ☐ Proprietary technology with no migration path
- ☐ Unproven or beta technology for critical functions
- ☐ Inadequate performance for your requirements
- ☐ No disaster recovery or business continuity plan
- ☐ Poor API design or limited integration capabilities

Security Red Flags:

- ☐ No relevant security certifications
- ☐ Inadequate encryption or security controls
- ☐ No compliance with required regulations
- ☐ Poor incident response capabilities
- ☐ Shared infrastructure with inadequate isolation

Commercial Red Flags:

- ☐ Unstable pricing or hidden fees
- ☐ Unreasonable contract terms or liability allocation
- ☐ No performance guarantees or SLAs
- ☐ Poor financial stability or market position
- ☐ No customer references or case studies

Operational Red Flags:

- ☐ Inadequate support coverage or response times
- ☐ No proven implementation methodology
- ☐ Poor documentation or training materials
- ☐ High customer churn or dissatisfaction
- ☐ No clear escalation procedures

Automatic Disqualification Criteria

- Cannot meet critical security requirements
- No compliance with required regulations
- Inadequate technical performance capabilities
- Unreasonable commercial terms or pricing
- Poor financial stability or market position
- No relevant experience or customer references

Due Diligence Checklist

Financial Due Diligence

- Review audited financial statements (3 years)
- Assess debt-to-equity ratio and cash flow
- Verify insurance coverage and liability limits
- Check credit ratings and financial stability
- Assess key customer concentration risk
- Review major vendor dependencies
- Evaluate business continuity planning

Technical Due Diligence

- Conduct proof of concept or pilot project
- Review technical architecture documentation
- Validate performance claims with benchmarks
- Test integration capabilities with your systems
- Assess scalability under realistic loads
- Review disaster recovery and backup procedures
- Validate security controls and implementation

Legal Due Diligence

- Review standard contract terms and conditions
- Assess intellectual property ownership
- Evaluate liability and indemnification terms
- Review data protection and privacy terms
- Assess termination and data return procedures
- Validate compliance certifications
- Review insurance and bonding requirements

Operational Due Diligence

- Interview key technical and support personnel
- Review support procedures and escalation paths
- Assess training materials and documentation
- Validate customer references through interviews
- Review implementation methodology and timeline
- Assess change management and communication
- Evaluate ongoing relationship management

Contract Negotiation Guidelines

Key Terms to Negotiate

Service Level Agreements

Performance Metrics:

- ☐ System availability (99.9%+ uptime)
- ☐ Response time commitments
- ☐ Incident resolution timeframes
- ☐ Planned maintenance windows
- ☐ Performance degradation thresholds

Penalty Structure:

- ☐ Service credits for SLA violations
- ☐ Escalating penalties for repeated failures
- ☐ Right to terminate for persistent issues
- ☐ Performance bonus opportunities
- ☐ Regular SLA review and adjustment

Data Protection and Security

Security Requirements:

- ☐ Specific security control implementation
- ☐ Regular security assessments and audits
- ☐ Incident notification timeframes
- ☐ Data breach response procedures
- ☐ Compliance reporting requirements

Data Rights:

- ☐ Data ownership and control
- ☐ Data return and deletion procedures
- ☐ Cross-border transfer restrictions
- ☐ Subprocessor approval requirements
- ☐ Data portability guarantees

Financial Protection

Cost Controls:

- ☐ Price increase limitations
- ☐ Transparent billing and reporting
- ☐ Dispute resolution procedures
- ☐ Budget predictability guarantees
- ☐ Volume discount structures

Risk Mitigation:

- ☐ Performance bonds or guarantees
- ☐ Liability caps and indemnification
- ☐ Insurance requirements
- ☐ Escrow arrangements for source code
- ☐ Termination and transition assistance

Contract Red Flags to Avoid

- Unlimited liability exposure
 - No performance guarantees or SLAs
 - Restrictive intellectual property terms
 - Limited termination rights
 - Excessive price increase provisions
 - Inadequate data protection terms
 - No source code escrow arrangements
-

Post-Selection Implementation Planning

Transition Planning

Pre-Implementation:

- ☐ Detailed project plan and timeline
- ☐ Resource allocation and team assignment
- ☐ Risk assessment and mitigation planning
- ☐ Communication and change management plan
- ☐ Success criteria and measurement plan

Implementation Phase:

- ☐ Regular project status reviews
- ☐ Issue tracking and resolution
- ☐ Quality assurance and testing
- ☐ Training and knowledge transfer
- ☐ Performance validation and optimization

Post-Implementation:

- ☐ Go-live support and monitoring
- ☐ User adoption and feedback collection
- ☐ Performance measurement and reporting
- ☐ Continuous improvement planning
- ☐ Relationship management and review

Success Metrics Definition

Technical Metrics:

- ❑ System performance and availability
- ❑ User adoption and satisfaction
- ❑ Integration success and stability
- ❑ Security compliance and incidents
- ❑ Backup and recovery validation

Business Metrics:

- ❑ Time to value achievement
- ❑ ROI and cost savings realization
- ❑ Productivity improvement measurement
- ❑ Risk reduction and compliance
- ❑ Strategic objective achievement

Relationship Metrics:

- ❑ Vendor performance assessment
- ❑ Service quality and responsiveness
- ❑ Issue resolution effectiveness
- ❑ Communication and collaboration
- ❑ Long-term partnership value

Conclusion

This comprehensive vendor evaluation guide provides the structure and rigor necessary to make informed AI infrastructure procurement decisions. By systematically evaluating each vendor across these critical dimensions, you can:

Minimize Risk:

- Identify potential vendor weaknesses early
- Ensure comprehensive due diligence
- Negotiate favorable contract terms
- Plan for successful implementation

Maximize Value:

- Select the best-fit vendor for your requirements
- Optimize total cost of ownership
- Ensure long-term strategic alignment
- Build strong vendor partnerships

Ensure Success:

- Set clear expectations and success metrics
- Plan for effective implementation
- Establish ongoing relationship management
- Create foundation for continuous improvement

Remember: The vendor selection process is as important as the technology itself. Invest the time and resources necessary to make the right choice—your organization's AI success depends on it.

Vendor Comparison Template

Quick Comparison Matrix

| Evaluation Criteria | Vendor A | Vendor B | Vendor C |
|----------------------|----------|----------|----------|
| Technical Score | ___/25 | ___/25 | ___/25 |
| Security Score | ___/25 | ___/25 | ___/25 |
| Implementation Score | ___/15 | ___/15 | ___/15 |
| Financial Score | ___/15 | ___/15 | ___/15 |
| Stability Score | ___/10 | ___/10 | ___/10 |
| References Score | ___/10 | ___/10 | ___/10 |
| Total Score | ___/100 | ___/100 | ___/100 |
| Ranking | — | — | — |

Key Differentiators

Vendor A Strengths:

- ☐ _____
- ☐ _____
- ☐ _____

Vendor A Weaknesses:

- ☐ _____
- ☐ _____
- ☐ _____

Vendor B Strengths:

- ☐ _____
- ☐ _____
- ☐ _____

Vendor B Weaknesses:

- ☐ _____
- ☐ _____
- ☐ _____

Vendor C Strengths:

- ☐ _____
- ☐ _____
- ☐ _____

Vendor C Weaknesses:

- ☐ _____
- ☐ _____
- ☐ _____

Final Recommendation

Selected Vendor: _____

Rationale:

Key Success Factors:

Risk Mitigation Plan:

About PrivateServers.AI

PrivateServers.AI provides comprehensive AI infrastructure solutions designed to meet the most stringent security, compliance, and performance requirements. Our vendor-agnostic approach ensures you get the best solution for your specific needs.

For assistance with vendor evaluation or AI infrastructure planning, contact us at ai@PrivateServers.AI or visit PrivateServers.AI.

This vendor evaluation guide is based on industry best practices and procurement experience. Customize the criteria and weighting based on your organization's specific requirements and priorities.