

# Texas Department of Information Resources

## Holistic Remediation Strategy

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### I. Findings and Recommended Strategy

#### General Disclaimer

The findings and options presented in this report are based on our professional opinions and derived from the information discovered during interviews and document reviews conducted in our performance of the other workstreams in this project. The interviews conducted and documents reviewed were limited by the time available for the development of this deliverable (see list of persons interviewed and documents reviewed), and no claim is made that every potentially relevant document was reviewed or every person with information or a perspective on the matters considered was interviewed. However, the documents and interviewees were selected in collaboration with DIR and are believed to be representative. DIR has accepted the deliverables for the three major workstreams upon which this report relies for its conclusions: Contracts & Finance; Technology Selection, Deployment and Usage; and Governance, Oversight and Service Provider Performance.

#### Root Cause Analysis

The basic premise – that IT infrastructure services could and should be consolidated across a large number of State agencies to obtain economies of scale and scope and to drive improvements in performance and resilience – is sound. A number of other states have conducted the same analysis and reached the same conclusion. EquaTerra would not hesitate to recommend a similar strategy and we are confident that the Data Center Consolidation Project can be made successful.

In our opinion, the primary reason that the Data Center Consolidation Project has experienced serious issues and challenges, and that these issues and challenges have proven very difficult to remediate, is that the contract does not align the original business intent of the project with the organizational, financial and operational realities of the State's complex operating environment. This misalignment establishes dysfunctional relationship dynamics that are enshrined in the very processes prescribed in the contract for governance, oversight and service management, effectively driving the delays and performance issues experienced to date and at the same time assuring that tactical remediation initiatives will fail.

The situation is exacerbated by an agreement that is unbalanced. Successful client-vendor relationships are inherently balanced – that is, they are mutually beneficial in nature with reciprocal obligations and mechanisms designed explicitly to adjust and maintain alignment between the parties as circumstances change or as unanticipated flaws in the original concept emerge.

It is unlikely that either DIR or IBM could have anticipated this misalignment during the contracting process. DIR had little to no prior exposure to either large-scale managed services or complex multi-

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agency infrastructure projects. And IBM had limited experience in conducting such arrangements in the context of a state government environment such as the one operated in Texas.

### Overall Findings from Prior Workstreams

IBM is providing service to 27 independently-managed state agency end-customers through a contract with DIR. That being said, DIR has but limited influence over state agencies. The contract sets up DIR as the single voice for the agencies; however, DIR is not empowered to fulfill this function. The contract is predicated on a one-size-fits-all solution that does not map well to the diverse portfolio of genuine business needs across state agencies. This paradigm causes contention between all parties. While the contract is prescriptive about governance, and the governance functions have largely been established in accordance with the contractual provisions, governance is ineffective in securing the performance and benefits anticipated from the services because the contractually mandated governance mechanisms are not appropriate to the reality of the situation. With regard to the provision of services, the service management mechanisms established by the contract are not viable because:

- They do not provide any genuine solution for inter-agency prioritization;
- They contain enterprise-wide service performance commitments that are unattainable in aggregate because of the diversity of demand and the delays in attaining consolidation; and
- They do not take account the obsolescence endemic in the legacy environment or the changing patterns of demand for service over time.

At the operational level, morale is low. State agencies, DIR and IBM team members involved in using, managing and delivering the services are exhausted and highly stressed. They are trapped in a situation that they cannot resolve, despite giving extraordinary levels of effort and commitment, because the root causes, until this point in time, have not been well understood. Tactical remediation, focused on symptoms rather than root causes, has not helped because problems suppressed in one area just result in the emergence of equally challenging issues in other areas. This combination of low morale and intractable issues – set in a contract structure that mitigates against success and within a governance framework that does not fit the dynamics of the complex set of relationships involved -- has resulted in the emergence of hostile and sometimes aggressive behaviors by team members from all sides. It has also resulted in a large and growing backlog of unresolved contract disputes and unfulfilled requests for service. Transformation, which is critical to the economic and operational success of the project and to the benefits anticipated by the State in letting the contract, is not on a viable timeline. And the transformation planning and server migration processes as currently established do not appear likely to place it on a viable timeline.

In the final analysis, the current relationship is not sustainable. Texas has yet to realize all the benefits the state anticipated from this initiative, and we believe IBM has yet to reach even a financial break-even point. Both of these issues must be resolved in order for the Data Center Consolidation Project to

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be successful. Without immediate remediation, far more significant financial and performance issues are likely to be experienced.

### **Recommended Holistic Remediation Strategy**

We believe that the only way to successfully remediate the Data Center Consolidation Project is to address the root cause identified above – the misalignment between the business intent and the organizational and operational reality – and to tackle holistically the serious issues and challenges to which it has given rise in the context of resolving this misalignment. More control over and more accountability for the outcome must be placed in the hands of state agencies, in an owner-operated model, and the role that DIR plays must become more of a shared-services provider and owners' agent. This will require collaboration by and between all of the impacted state agencies, and a willingness to address issues and prioritize services at the 'enterprise' level across agencies.

Our recommendation is that the holistic remediation initiative should have the following three primary areas of focus:

#### **1. Realignment**

*Key Principles: Owner Operation, Relationship & Service Alignment*

- Revise the Agreement to drive a closer alignment between the business intent it seeks to serve and the organizational and operational realities that constrain how this intent may be realized;
- Adjust the multi-dimensional relationships between the state agencies, DIR and IBM to facilitate attainment of the business intent; and
- Revise the services defined in the Agreement to more closely reflect the diverse needs of the state agencies that are the end-customers.

#### **2. Resolution**

*Key Principles: Pragmatism, Materiality, Urgency*

- Identify, review, categorize, prioritize and dispose of the backlog of open disputes;
- Identify, investigate, categorize, prioritize and resolve the backlog of open issues;
- Identify, evaluate, categorize and prioritize the backlog of open service requests; and
- Fulfill open service requests based on the priorities set and the resources available.

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### **3. Implementation**

*Key Principles: Outcome Orientation, Transparency*

- Redesign, staff, and train revised governance, transformation and service delivery organizations for the state agencies, DIR and IBM;
- Redesign, document, and implement revised governance, transformation and service delivery processes to map to the revised organizations; and
- To the extent necessary, design and implement revised technology solutions for key areas such as back-up/recovery, networks and transformation approach.

We propose to structure the holistic remediation initiative into four phases of activity, with a strong focus on reaching agreement in principle by the end of the year, and an equally strong focus on fully realizing this agreement by the end of February. Although the detailed implementation of the agreed solution will take the balance of 2010 to complete, this rapid early pace is essential to create the momentum necessary to carry through the implementation period and ensure a successful outcome. These four phases of activity are set out as a timeline below:

#### **1. November/December 2009**

- Create an agency ownership team and devise a viable approach to maintaining inter-agency alignment;
- Conduct intensive multilateral discussions to reach an Agreement in Principle in order to realign the Agreement;
- Resolve in principle the backlog of disputes and open issues;
- Identify Interim Remediation Activities to commence January 1<sup>st</sup>; and
- Simultaneously sign the Agreement in Principle and release issue resolutions.

#### **2. January/February 2010**

- Complete all activities necessary to negotiate, agree and incorporate the details underlying the Agreement in Principle from December 31<sup>st</sup> into a revised Agreement;
- Complete the Interim Remediation Activities that commenced January 1<sup>st</sup>;

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- Identify Additional Remediation Activities to commence March 1<sup>st</sup> that are required to fully remediate current issues; and
- Sign and announce the revised Agreement.

### **3. March/December 2010**

- Complete Additional Remediation Activities that commenced March 1<sup>st</sup>;
- Institutionalize all process changes from the revised Agreement; and
- Complete transformation of DIR, agency and IBM governance, oversight and service delivery organizations.

### **4. January 2011 to end of contract**

- Assure continued service performance, objective realization and relationship alignment.

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### **II. Supporting Details**

The supporting details for this deliverable comprise the supporting details from the prior deliverables, where the facts we discovered, the risks we highlighted, and the conclusions we drew with respect to each area of focus were documented. No new facts or conclusions were drawn with respect to the causes or consequences of the issues and challenges experienced with the Data Center Consolidation Project in the course of constructing this deliverable.

### **Information Sources**

The documents reviewed and persons interviewed in constructing this deliverable comprise those documented in this section of the deliverables from the prior workstreams. Additional discussions have taken place with some of the Agency, DIR and IBM leaders previously interviewed, to validate conclusions and test recommendations, but no new sources were added.

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### III. Summary of Specific Risks and Issues for Remediation

In the deliverables from the individual workstreams, a number of specific risks and issues were identified that must at a minimum be addressed in the context of the holistic remediation initiative. In the course of the holistic remediation initiative, we expect that one or more of the state agencies, DIR or IBM will identify additional risks and issues. These new risks and issues will have to be added to the lists below. All risks and issues will all be addressed as part of either the Interim Remediation Activities or the Additional Remediation Activities described above.

#### Risks

##### Contract Risks

###### Third Party Contracts (*liability risk*)

- Potential gaps exist in obtaining the appropriate consents, rights to use and assignments for managed and assigned agreements.

###### Change Process (*compliance risk*)

- There appear to be some miscategorizations of Service Requests, Change Requests, Scope Issues, Formal Correspondence and Notices; and
- Potentially some of the resolution and accords reached as part of the Service Requests, Change Requests, Scope Issues, Formal Correspondence and Notices should be memorialized as Contract amendments rather than merely logged and tracked.

###### Personnel (*performance risk*)

- Turnover of Service Provider staff seems to be running at approximately 30 percent against a contractual target of 15 percent.
- Staffing levels are higher than the PPM, suggesting the Service Provider may have economic issues in some areas of service provision.

##### Financial Risks

###### Pricing Methodology (*billing reconciliation risk*)

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- Acceptance or confirmation of Transformation completed and in service needs to be completed.
- Acceptance or confirmation of new hardware implemented and in service needs to take place.
- Validation of volume counts at an agency level is needed.
- The Configuration Management Data Base (CMDB) should be made accurate and complete.

### **Technology Risks**

#### Backup/Recovery (business continuity risk)

- The current infrastructure and processes do not produce consistently reliable back-ups in the non-transformed environment that are sufficient for state agency business.
- When combined with the aging inventory (see point below), there is a real risk of non-recoverable data loss for some agency applications.
- For servers that are backed up, evidence is neither readily available to DIR or the agencies that those backups have been executed successfully nor is there any indication that recovery can be routinely performed.
- This presents a real risk of data loss and of extended recovery delays in the event of a server outage where the original data is not recoverable.
- Additionally, there appears to be only one backup approach, which is an end-of-day process, which inevitably means intra-day data is lost in the event of an outage where the original data is not recoverable.
- This may not be a problem for some applications, but is sure to be a problem in others.

#### Network (business continuity and business performance risks)

- The network (wide area network (WAN)/local area network (LAN)) appears to have some fragility. In addition, the way responsibility for the management and operation of the network is split between multiple entities increases the risk that significant outages will occur. It also means that restoration may take longer than desired as these entities try to evaluate the problem without any one of them having a complete picture of the end-to-end network.

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- The network appears to have capacity constraints that may impact performance with respect to the movement of very large files within the data center, across the WAN, and between the WAN and agency LANs.
- This situation would potentially be exacerbated in the event of an outage that required a larger than usual number of very large files to be moved across the network, delaying recovery for all network users.
- Note that some agencies create large numbers of very large files, such as GIS documents, and the number of such large files and the frequency with which they must be moved across the network will only likely increase with time.

### Aging Inventory (business continuity and performance risk)

- Much of the hardware that has not been transformed/refreshed is beyond its supportable life, and extending into a phase where failures will occur with increasing regularity and the mean time between failures for individual servers will decrease rapidly.
- The longer transformation takes to complete, the worse this problem will become.
- When combined with a patchy backup regime and unproven recoverability from backups (see point above), this has the potential to drive serious business disruption and adversely impact agency services to their customers.

### Governance Risks

#### Process

- Multiple issues logs for non-operational issues (i.e. not incidents) exist. There is no single shared view of issues, prioritization and the progress being made to resolution between DIR, the agencies and IBM.
- A clearly defined and broadly supported issue escalation process does not exist.

#### Communications

Stakeholder communications are poor and inconsistent.

#### Organization

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- The State's organization and its people have limited expertise in the governance of large-scale projects.
- There is a misalignment of decision rights, roles, responsibilities and accountabilities across the DIR organization and between DIR and the agencies.
- Overall, the DIR organization is designed for a centrally managed service provided to a customer with common enterprise-wide service requirements, which is not the business environment in which the State operates.

### Personnel Burn-out

- Many of the team members, across all stakeholder groups, have been working diligently for an extended period of time in a highly stressful and challenging business environment. They have had little success to celebrate or received much appreciation for their hard work by others. It is not uncommon, in such circumstances, for even high-performing personnel to lose focus or motivation, or to develop cynical, hostile or aggressive work styles. Such responses may further degrade overall performance and harden negative attitudes between the service provider and the client.

### Issues

#### Contract

- More rigor should be applied to the dispute process to foster better resolution. The long-stop date of 31 days for all disputes, before they may be escalated to Texas statutory remedies (in addition to the now 20 days for billing invoice resolution), should be reviewed and potentially altered or changed to create a quarterly or semi-annual settlement process for resolution of **all** issues in the prior quarter/half year and/or escalation to the next layer of decision makers.
- More rigor should be applied to the Formal Correspondence, Dispute, Issue Log, Scope Issue and Change Processes as many of the issues in these processes appear to be *Issues/Disputes*. The issues should also be appropriately categorized and memorialized so that there is a formal, contractually mandated, time-banded mechanism to bring them to closure. The resolution of many of the items in these processes should be formally documented in a Contract Amendment. The process related to the

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categorization of items and issues in this broad realm should be formally documented in the Policy and Procedures Manual.

- The differences, if any, between IBM's delivery obligations pre- and post-Transformation, as related to Service Levels and the Statement of Work, should be more clearly delineated. Service Levels and Statements of Work should be re-examined with regard to the actual business requirements of the agencies and potentially broken into tiers of service, as appropriate. Further, there should be a defined date for the delivery obligation of Future Mode Operation (FMO) Service Levels.
- The Service Level formulaic equations, that define how performance is measured, should be reviewed and updated so as to remove ambiguity.
- Bring clarity to the Agreement by clearly defining what is a billable project and what is a non-billable project, and develop mechanisms to manage both categories of work; potentially, an Exhibit could be added to detail the process surrounding all "Projects" as well as to provide a template Project Definition Report.

### Financial

- The large backlog of disputes and financial issues logs should be reviewed, prioritized and resolved. The persistence and scale of this backlog is a constant source of contention between DIR, IBM and the agency customers that acts against collaboration.
- The chargeback and Hardware Service Charge (HSC) methodology should be reviewed and revised in order to better align the expectations of the DIR, IBM and the agencies. Currently, there is significant disagreement amongst the parties on what is billable and what should be billable, as well as when billing should occur. As a point of example, the lack of agreed, formal acceptance criteria for new hardware deployment between the parties contributes to the lack of alignment.
- A comprehensive Market Scan should be conducted to further analyze the detailed prices for all Pricing Units, and confirm market alignment (or highlight exceptions) as a baseline for holistic remediation.

### Technology

- A detailed transformation master plan should be created that takes into account the business priorities of the agencies and that is organized by application and sequenced to accelerate the benefits of consolidation. Further, the transformation processes should

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be redesigned such that they are more predictive and reduce re-work by engaging in more effective preparation.

- Back-up requirements should be documented for every application operating in both the transformed and non-transformed environments, and a set of back-up options developed that fulfill these requirements. The backup requirements should take into account statutory data retention policies as well as agency business requirements around the preservation of data integrity. In parallel, in-place backup practices should be documented and, where backups are being performed, their efficacy should be tested. Once the inventories of business requirements and current practices are complete, a gap analysis should be conducted and any adjustments made to bring back-up coverage into compliance. If any contract or pricing changes are needed to accommodate a broader set of back-up options, these should be negotiated as part of the holistic contract remediation process discussed in the Contract and Financials Workstream report.
- Options should be explored to bring operation and management of the end-to-end network under the control of a single entity, to eliminate the delays in provisioning and problem resolution arising out of having entities each operating segments of the network.

### Governance

- Governance roles, responsibilities and decision rights across DIR and the agencies should be reviewed to determine the most appropriate way in which to govern the IBM agreement consistent with the realities of the State's unique operating environment. There is also a need to define operating principles by which DIR and the agencies can clearly and jointly engage, ensuring clear accountability for both parties in the governance of the IBM agreement. The revised DIR organization should be capable of flexibly engaging agencies in the governance processes depending on each agency's ability and capacity to commit appropriately skilled resources towards the governance effort. Agency organizations should also be configured for optimal participation in the governance process, depending on their needs and the skills they have in-house. The reconfigured DIR/agency governance operation should work as a seamless team to manage services. DIR and the agencies should understand that some roles and responsibilities will likely change; some old positions will likely be eliminated and new positions created; and, significant training and role development coaching will likely be

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required to effect the necessary changes. IBM should be a party to the redesign process, and should reconfigure its own account and service delivery management structures to map to the revised DIR/Agency governance model.

- Both DIR and the agencies should review all outstanding issues and develop a jointly agreed upon and fairly prioritized resolution plan. They should also establish a single common governance issue repository, accessible by all participants with levels of transparency and access determined by role and responsibilities. The issue escalation and resolution process should be fully communicated to all agencies and IBM, and the agencies should participate in determining appropriate escalation paths and then commit to operating within the process. IBM should be proactively engaged to ensure that any concerns it may have regarding issue escalation and resolution are addressed in the improved process.
- Committee charters, structures, membership, decision rights, and accountabilities in providing effective oversight to the IBM relationship should be reviewed. The balance of decision-making authority implemented in the current committee structure does not reflect the realities of the business environment.
- While communications are the responsibility of all stakeholders, there is an opportunity for DIR to establish a more robust communications program that would support any organizational and contract changes needed to drive effective governance and oversight of the agreement. Informal communications and cross-team collaboration should be encouraged, and opportunities to co-locate personnel from DIR, agencies and IBM to foster such collaborations should be explored.