5.2.3 AUDIO CONFERENCING SERVICE (ACS) (L.34.1.5.4, M.2.1.4, C.2.8.2)

Qwest's Audio Conferencing Service provides a fast and flexible way to meet and immediately exchange information among a virtually unlimited number of people domestically and globally.

Qwest's Audio Conferencing Service (ACS) has one of the most extensive lists of teleconferencing features available today in the commercial and Government marketplaces; for example, Agency users will be able to choose operator assistance or automated ACS service. [redacted]

5.2.2.1 Reserved (L.34.1.5.4 (a))

5.2.2.2 Reserved (L.34.1.5.4 (b))

[redacted]

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5.2.3.3 Satisfaction of Technical Service Requirements (L.34.1.5.4 (c))

Qwest's ACS uses the latest conferencing technology, incorporating a multi-server, distributed architecture hosted in several Data Centers worldwide. This conferencing technology is integrated with our worldwide telecommunications network that carries the ACS traffic. This conferencing technology and worldwide network, as depicted in Figure 5.2.3-1, enables Qwest to effectively meet the features and technical requirements of Agencies.

Qwest owns and operates a worldwide telecommunications network, which supports the ACS. Our customer service and technical Help Desk specialize in supporting ACS for Agencies. Both use a variety of metrics to constantly adjust the levels of human and electronic resources so that Agencies always receive the highest quality service and the most up-to-date selection of features.

5.2.3.3.1 Satisfaction of ACS Capabilities Requirements (L.34.1.5.4 (c), C.2.8.2.1.4)

Qwest meets all the Networx capabilities as shown in ***Figure 5.2.3-2.*** Qwest fully complies with all mandatory stipulated and narrative capabilities requirements for ACS. The text in Figure 5.2.3-2 provides the technical description required per L.34.1.5.4(c) and does not limit or caveat Qwest's compliance in any way.

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Figure 5.2.3-2. Approach to Delivering ACS Capabilities

Name of Capability	[redacted]	[redacted]
1. Multipoint Bridging		
2.a.1 ACS (Meet-Me Conference)		
2.a.2 ACS Reservation Service (Pre-Set Conference)		

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Name of Capability	[redacted]	[redacted]
2.b Attendant-Assisted Conference	[redacted]	[redacted]
3. Reservation System	[redacted]	[redacted]

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Name of Capability	[redacted]	[redacted]
	[redacted]	
4. Service Intervals	[redacted]	[redacted]
5. Automatic Port Expansion	[redacted]	[redacted]
6. Announce Late Participant	[redacted]	[redacted]

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Name of Capability	[redacted]	[redacted]
7. Conferee Tones	[redacted]	[redacted]
8. Music On Hold	[redacted]	[redacted]
9. Self Mute	[redacted]	[redacted]
10. Guaranteed Duration of Dial-in Call	[redacted]	[redacted]
11. Listen Only Broadcast Mode	[redacted]	[redacted]

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Name of Capability	[redacted]	[redacted]
12. Mixed Mode		
13. Participant Count		
14. Roll Call		
15. Service Availability		
16. Attendant Assistance		

5.2.3.3.2 Satisfaction of ACS Feature Requirements (L.34.1.5.4 (c), C.2.8.2.2.1)

Qwest's technical approach to meeting the Networx features requirements is shown in ***Figure 5.2.3-3***. Qwest fully complies with all

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mandatory stipulated and features requirements for ACS. The text in Figure 5.2.3-3 provides the technical description required per L.34.1.5.4(c) and does not limit or caveat Qwest's compliance in any way.

Figure 5.2.3-3 Qwest's Technical Approach to ACS Features

ID #	Name of Feature	Description	[redacted]
1	Audio Recording of Call [Optional]	The contractor shall allow recording of the conference call into storage media (for example, disc or cassette tape) for later replay.	[redacted]
2	Access Controlled Call	The contractor shall allow the conference leader to prevent the operator from monitoring the call as well as additional/late participants from joining the call.	[redacted]

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ID #	Name of Feature	Description	[redacted]
3	Language Translation [Optional]	The contractor shall provide language translation to English from other languages (e.g., Spanish) for transcription of a prerecorded audio conference.	[redacted]
4	Moderator Led Questions and Answers	The contractor shall provide conference moderator led questions and answers only.	[redacted]
5	Participant List Report	The contractor shall provide a report of all participants in the conference.	
6	Password Screening	The contractor shall screen password for joining a conference to authorized participants only.	
7	Replay of Pre-recorded Audio Conference [Optional]	The contractor shall allow, under password protection, replaying of a pre-recorded audio conference at a later time and shall allow remote control of the recording with keypad access to functions like pause, rewind, and fast-forward.	

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ID #	Name of Feature	Description	[redacted]
			[redacted]
8	Transcription of Pre-recorded Audio Call [Optional]	The contractor shall provide transcription of pre-recorded audio call.	
9	Temporary Blocking of Ports	The contractor shall allow temporarily blocking audio conference ports in order to remove a subset of participants/Agencies from the conference.	
10	Secured Audio Conference [Optional]	The contractor shall support voice conferencing capability for sensitive voice conferences with end-user encryption to support discussions of a Sensitive-But-Unclassified (SBU) nature between multiple locations with protection from unauthorized interception (i.e., eavesdropping). (Note: Government-furnished encryption unit at the SDP will be based on commercially available	

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ID #	Name of Feature	Description	[redacted]
		encryption devices (Standard: NIST DES/AES). The contractor must synchronize encryption key of similar encryption unit(s) of the audio conference bridge before each conference.)	

5.2.3.3.3 Satisfaction of ACS Interface Requirements (L.34.1.5.4 (c), C.2.8.2.3)

Qwest is fully compliant with the interface requirements in our responses to Voice Services (VS), Frame Relay Service (FRS), and Asynchronous Transfer Mode Service (ATMS). Qwest also offers Internet Protocol Telephony Service (IPTelS) as an additional interface.

5.2.3.4 Achieving Quality of Service Goals (L.34.1.5.4 (d), C.2.8.2.4)

Qwest's Quality of Service (QoS) is inclusive of availability, time to restore and operator assistance response delay. Qwest's network has full redundancy into bridge ports, which are monitored 24x7x365 to ensure network availability of [redacted]. Qwest measures availability consistent with the standard availability formula in the RFP. [redacted]

[redacted] ***Figure 5.2.3-4*** compares the Key Performance Indicators (KPIs) cited in the RFP with Qwest's service standards.

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Figure 5.2.3-4 Qwest exceeds Networx KPIs.

Key Performance Indicator (KPI)	Service Level	Performance Threshold	Acceptable Quality Level (AQL)	[redacted]
Availability	Routine	99.5%	≥ 99.5%	[redacted]
Time to Restore	With Dispatch	8 hours	≤ 8 hours	[redacted]
	Without Dispatch	4 hours	≤ 4 hours	[redacted]
GOS (Operator Assistance Response Delay)	Routine	54 seconds	≤ 54 seconds	[redacted]

5.2.3.5 Proposed Service Enhancements (L.34.1.5.4 (e))

[redacted]

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5.2.3.6 Experience with Audio Conferencing Service Delivery (L.34.1.5.4 (f))

No modifications to Qwest's ACS network are required to meet the Networx technical requirements and the Networx ACS traffic forecast. [redacted] Qwest's ACS experience and our ability to satisfy the technical requirements and traffic

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forecast of Networx will provide Agencies with immediate and comprehensive ACS coverage.

5.2.3.7 Approach to Performance Verification (L.34.1.5.4 (g))

Each bridge port supporting ACS is tested hourly by a voice recording platform device to determine network availability. Service technicians validate system health with daily checklists of board failures and telephony alarms, as well as overall system performance. Our Network Operations Centers (NOCs) monitor all ACS network access methods 24x7x365. If a network T-1 or DS-3 connection is interrupted, an alarm triggers a page alert in the NOC, requiring immediate resolution.

5.2.3.8 Impact of Delivery of ACS on Network Architecture (L.34.1.5.4 (h))

The delivery of ACS to Agencies will have no impact on Qwest's network architecture.

5.2.3.9 Approach to Satisfying NS/EP Requirements (L.34.1.5.4 (i))

Qwest uses a structured, multi-layered approach to supporting National Security and Emergency Preparedness (NS/EP) that is designed to address each required function. Qwest has integrated risk management and security organizationally and strategically to encompass information technology and physical security. Our priorities are to protect our customers from the physical layer up through the entire Open Systems Interconnect (OSI) stack, including all facets of cyber security.

Our approach ensures that Qwest complies with and provides priority for the Government's telecommunications requirements for NS/EP survivability, interoperability, and operational effectiveness during an emergency threat, whether caused by natural hazards, man-made disasters, infrastructure failures, or cyber events. [redacted]

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[redacted]

Specifically, in accordance with RFP Section C.5.2.2.1, *NS/EP Basic Functional Requirements Matrix for Networx Services*, Qwest supports the following basic functional requirements for ACS.

1. **Enhanced Priority Treatment.** Voice and data services supporting NS/EP missions should be provided preferential treatment over other traffic. ACS supporting NS/EP missions are provided preferential treatment over all other traffic through the application of TSP on the access trunks to the audio conferencing bridge platform.

[redacted]**Secure Networks.** [redacted]

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[redacted]

3. **Non-Traceability.** Selected users must be able to use NS/EP services without risk of usage being traced (i.e., without risk of user or location being identified). ACS users are able to use NS/EP services without risk of usage being traced, because Qwest blocks Automatic Number Identification (ANI) delivery on the access trunks that deliver calls to the ACS bridging platform.
4. **Restorability.** Should a service disruption occur, voice and data services must be capable of being re-provisioned, repaired, or restored to required service levels on a priority basis. All reported end-user issues are resolved in a timely, professional manner following a set protocol. User issues

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requiring more technical assistance are escalated to our Tier 2 and 3 support as needed. In the event that a technical issue impacts an Operations Center, a pre-determined procedure will be executed to maintain conferencing service continuity. Impacted Agencies are identified and contacted. A description of the problem and duration to restore is provided, in addition to providing instructions for how backup services can be accessed as required.

5. **International Connectivity.** Voice and data services must provide access to, and egress from, international carriers. Qwest ACS accepts calls from international locations and will enable the ability to dial out to international locations. Voice and data services must provide access to and egress from international carriers.
6. **Interoperability.** Voice and data services must interconnect and interoperate with other Government or private facilities, systems, and networks, which will be identified after contract award. Qwest supports dial-out to all telephone connection types, Multi-Protocol Label Switching (MPLS) networks and Session Initiation Protocol (SIP). Our hosted Web conferencing solution is browser based and functions using industry standard IP. By adhering to industry standards, we maximize the accessibility of conferencing to the widest range of user agents and, therefore, users. Standards that we adhere to include Hyper Text Transfer Protocol (HTTP), Open Database Connectivity (ODBC), eXtensible Markup Language (XML), Dynamic Hypertext Markup Language D/HTML and Java.
7. **Mobility.** The ability of voice and data infrastructure to support transportable, redeployable, or fully mobile voice and data communications (i.e., personal communications service, cellular, satellite, high frequency radio). Qwest is proposing hosted conferencing solutions.

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There is no mobility incompatibility with the delivery of a hosted conferencing service.

8. **Nationwide Coverage.** Voice and data services must be readily available to support the National Security leadership and inter- and intra-Agency emergency operations, wherever they are located. Qwest services are accessible from anywhere around the world where an end user has access to a touch-tone telephone and/or computer with Internet connection.
9. **Survivability/Endurability.** Voice and data services must be robust to support surviving users under a broad range of circumstances, from the widespread damage of a natural or man-made disaster up to and including nuclear war. Our robust network configuration, [redacted] and having our technicians manufacturer-certified and available at all times, prevents us from being disabled due to equipment failure, carrier outages, local power failures, and natural or local disasters. Being technology based, many functions inherent in the delivery of our conferencing services are automated. This minimizes the number of individuals required to directly support all our locations. In addition, all bridging and server locations are accessible remotely, enabling a North American team to manage and support European and/or Asia Pacific operations as needed. With geographically dispersed support locations and an interdependent network infrastructure, we have the flexibility and capability to shift human resources to support removed locations as needed.
10. **Voice Band Service.** According to RFP section C.5.2.2.1, this requirement is not applicable to ACS.
11. **Broadband Service.** According to RFP section C.5.2.2.1, this requirement is not applicable to ACS.

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12. **Scaleable Bandwidth.** According to RFP Section C.5.2.2.1, this requirement is not applicable to ACS.
13. **Affordability.** The service must leverage network capabilities to minimize cost (e.g., use of existing infrastructure, commercial off-the-shelf (COTS) technologies, and services). Qwest is proposing hosted conferencing solutions that rely on standard office equipment (i.e., touch-tone telephone and/or computer with Internet connection).

[redacted] **Reliability/Availability.** Services must perform consistently and precisely according to their design requirements and specifications, and must be usable with high confidence. [redacted] Our network infrastructure is monitored locally at each Operations Center and backed by a Global Network Operations Command Center [redacted]. Each Operations Center and the NOC operate 24x7x365 and are staffed by on-site technical personnel, ensuring flawless service [redacted]

5.2.3.10 Approach to Assured Service in the National Capital Region (L.34.1.5.4 (j))

Qwest is already a leading provider of ACS services in the National Capital Region (NCR), with a robust architecture to ensure service continuity in the event of significant facility failures. Qwest has and will continue to engineer critical services to meet the requirements of each Agency to eliminate single points of failure for their network services.

Qwest understands the Government's requirement to assure performance of ACS in and around the NCR. Qwest's platforms are built on a redundant network, providing diverse connections to primary and secondary local and long-distance carriers to assure that any service issues from one

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carrier do not compromise service continuity. Enterprise links between Operations and Data Centers, and redundant switches, bridges and servers, ensure round-the-clock availability of Qwest systems so Agency users can complete conferences without interruption. With a geographically dispersed network, Qwest mitigates the impact of local service outages, in addition to each center maintaining its own Uninterruptible Power Supply (UPS) and generator. Facility redundancy is further enhanced by the ability of each center to redirect traffic to and from one another or to remotely manage any center in real time.

Qwest recently acquired OnFiber, a metro SONET and Ethernet provider with yet another diverse network in the NCR. This gives Qwest at least [redacted] fiber optic networks to use to ensure redundancy and survivability in the greater Washington D.C. area.

[redacted] Infrastructure reports are closely monitored and proprietary algorithms applied to predict usage increase/decrease trends in advance. We also monitor the sales pipeline to proactively identify potential capacity needs and grow capacity prior to demand.

[redacted]

Section 3.5.3 provides further detail regarding our NCR infrastructure and our ability to provide assured service.

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5.2.3.11 Approach to Meeting Section 508 Provisions (L.34.1.5.4 (k))

According to the RFP, Section 508 provisions are not applicable to ACS. Qwest has fully described our approach to satisfying Section 508 requirements for applicable, offered services in Section 3.5.4, *Approach for Meeting Section 508 Provisions*, of this Technical Volume.

5.2.3.12 Approach to Incorporating Technological Enhancements and Improvements (L.34.1.5.4 (l))

Qwest has mature processes that enable us to envision, research, evaluate, engineer, deploy, and operate new or emerging services, including ACS. Driven initially by the Chief Technology Office, Qwest evaluates new products and technologies for incorporation into the Qwest network in partnership with Qwest Product Management.

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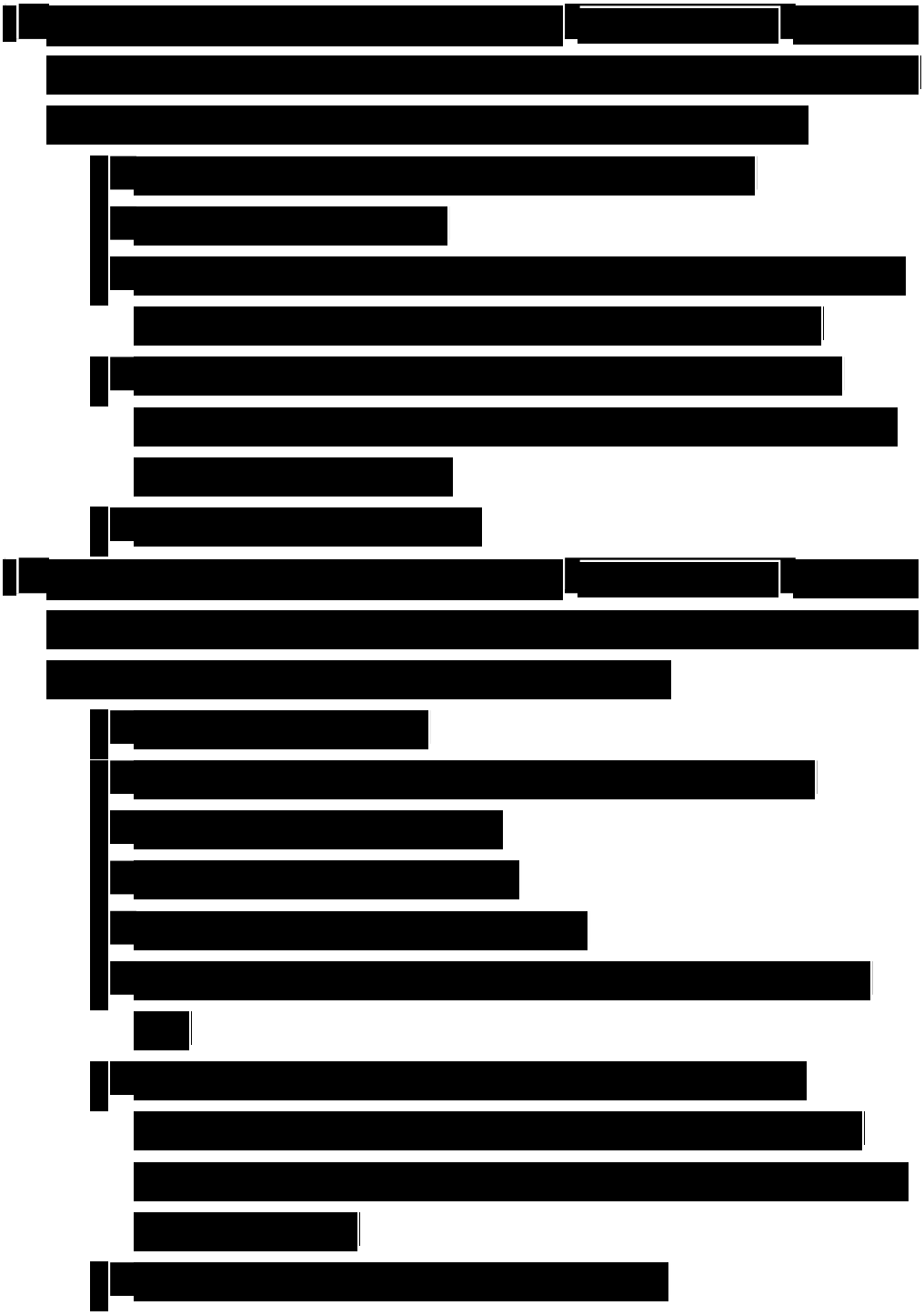

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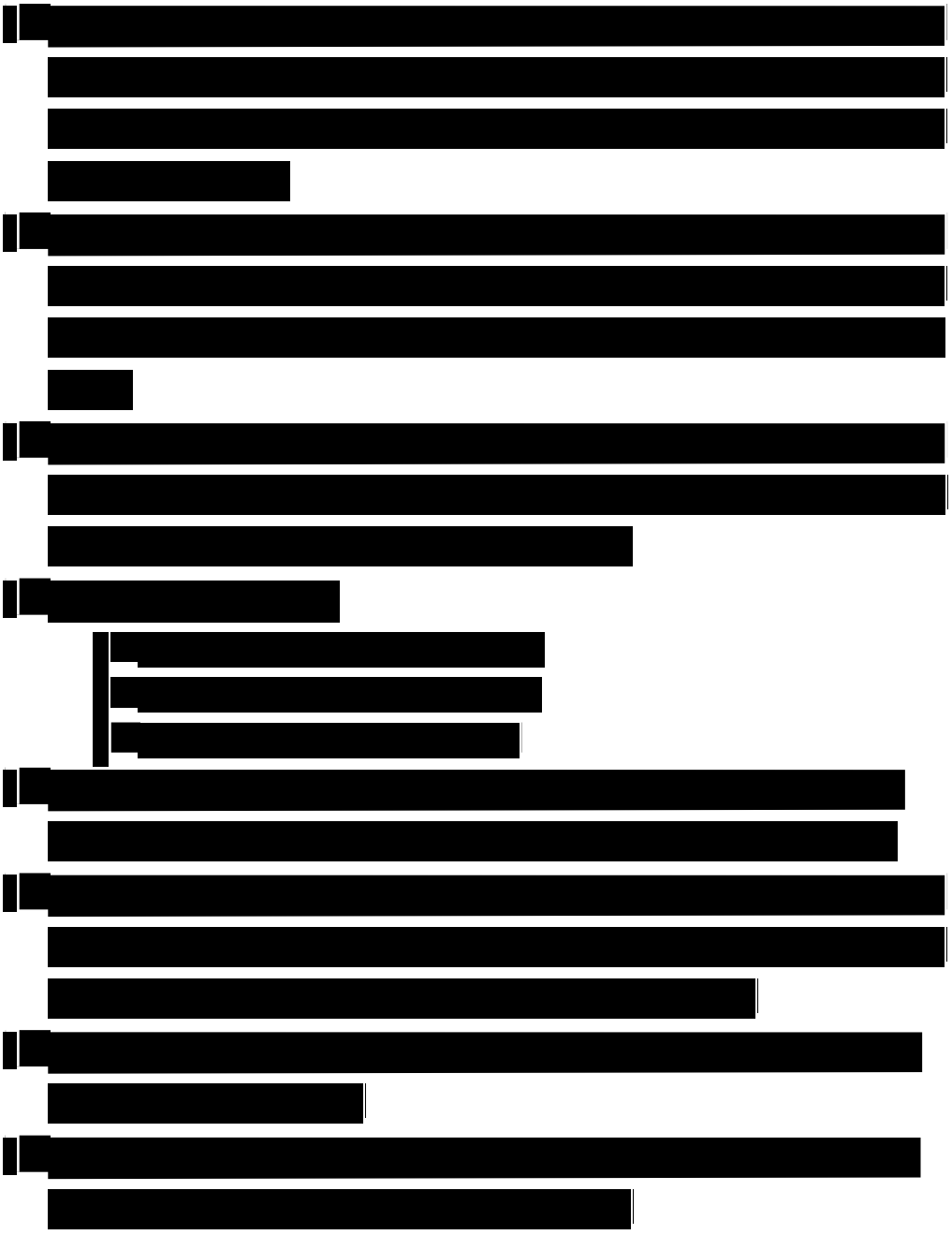

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