RS-64

In its response to staff's data request RS-11, the company states that the "system is geographically redundant and is designed to failover between core processing sites." Please answer the following:

a. If the Englewood ECMC exceeded its administered threshold, why was the Miami ECMC able to take analog CAMA connected traffic?

RESPONSE:
The numeric range in question is separate and distinct between the two ECMC (core processing) sites. Each ECMC has its own range it draws from. The numeric value is incremented for each call delivered to a CAMA PSAP from the given ECMC.

Respondent: Intrado

b. The company states that "The system is geographically redundant and is designed to failover between core processing sites." Because of the Englewood failure it would appear that the threshold counter was not part of the geographic redundant design to failover to the Miami ECMC. Are there any other areas of the system controlled by the company's contractor that do not provide failover capability between the core processing sites?

RESPONSE:
An inspection of the system architecture revealed no other instances where a failure would result in the call not failing over to another ECMC. Furthermore, as part of the lessons learned and corrective actions, the system was modified in April 2014 such that this situation now results in a failover of calls to the other ECMC.

Respondent: Intrado

c. Does the company have any plans to evenly distribute or designate the primary core processing sites of the Washington PSAPs to reduce the risk of relying too heavily on one core processing site?

RESPONSE:
Yes, the deployment will be modified such that call processing is distributed across ECMCs for Washington State. Architecture discussions are underway to identify the best approach for implementation of redistribution of call traffic.

Respondent: Intrado

d. Has the company identified any other software or hardware issues that would result in the 911 call not automatically failover to the other core processing site? If the answer is yes, please give a detailed explanation of each incident where a failover would not occur.

RESPONSE:
An inspection of the system architecture revealed no other instances where a failure would result in the call not failing over to another core processing site. Furthermore, as part of the lessons learned and corrective actions, the system was modified in May 2014 such that this situation now results in a failover of calls to another core processing site.

Respondent: Intrado

e. Staff was notified by one VoIP provider that it rerouted its 911 calls away from the Englewood ECMC. Please answer why that entity is not listed in your response to data request RS-4a.

RESPONSE:
We understand that the "VoIP provider" referenced in this question and in RS-65 was Comcast. Comcast uses TCS, a third-party VoIP Server Provider (VSP), to deliver its VoIP-based calls. Intrado sees TCS customers, including Comcast, as "TCS", thus included them within the carrier listing of "TCS" in the response to RS-12.

Respondent: Intrado

f. Generally, other systems staff is familiar with that have redundant systems also mirrored core processors and data systems to mitigate failover issues. That does not appear to be the case with this 911 system administered by the contractor. Please give a detailed explanation of why these 911 core processors do not need to have mirrored systems.

RESPONSE:
All ECMC elements of the architecture have duplicate processing elements at the same ECMC. In some cases, such as disks, mirror techniques are utilized. All processing capabilities are duplicated across different ECMCs, providing redundancy and failover. The preferred architecture is an active–active configuration such that all elements of the architecture are always being exercised and therefore are known to function, as opposed to waiting for an event to occur before they are brought into service. The flaw that was present in the routing application logic that caused the outage was an anomaly and generally active-active processing systems can be very reliable. A mirrored solution would not have prevented this outage.

Respondent: Intrado