The initial report out was led by Chuck Fredrick.

Attendees:
Chuck Fredrick, Chief Information Officer
Ethan Wain, Deputy CIO
David Edinger, Chief Performance Officer
Brendan Hanlon, Budget Director
Scotty Martin, Director of Process Improvement
Theresa Wilson, Budget & Management Office
Dani Brown, Career Service Authority
Chiquita McGowan, Office of Economic Development
All Technology Services Directors were in attendance.
Technology Services (TS) is an enabling service, one that contributes to delivering a world class city by optimizing technology, reaching the top of the service delivery pyramid, and helping the city achieve higher levels of sustainability.

The service pyramid is sequential. In order to move upward (from tactical to strategic), the foundation must be solid. TS has, over the years, focused all levels without first solidifying the foundation, creating instability at all levels.

Q (Brendan Hanlon): Do other cities view the pyramid in the same way?

A: All IT departments have a similar metaphor, but the idea is that IT departments must be proficient at running day-to-day operations to have the credibility and capacity moving up the hierarchy of business needs and value. Gartner’s metaphor is Run, Grow, Transform.
As an enabling service, TS impacts all of the Mayor’s Priorities. However, TS chiefly impacts sustainability – internally (City agencies) and externally (citizen/customer experience). A new strategy could be developed to facilitate greater TS contribution to job creation (open data/software development contests, etc.).
Four Goals (each goal has 4-6 supporting strategies):

1. Employee engagement
2. Operational efficiency
3. Support to agencies (understand business needs)
4. Citizens (access to government)

Service Profit Chain – customers will never be more satisfied with services than employees are with process.

Service Value Chain (government/non-profit equivalent of Service Profit Chain) – start with employee engagement; external value will never outpace internal performance.

Q (Dave Edinger): Are you going to equally prioritize the 4 goals?
A: In the long-term, yes. And you will see us promoting tactics across all four goals in each of the three years of this plan. However, more focus will initially be placed on the first two goals, followed by a gradual shift to the remaining two. We have to become proficient at operations to move up the hierarchy of business value (they pyramid analogy).
Mission Level Metrics - Can We Benchmark?

“In general, the average IT organization with application and infrastructure responsibilities might have 15 "true" services. Each of these services is specifically designed to deliver some business benefit to the service consumers at a price and quality level acceptable to them. These dimensions of benefit, price and quality are captured in service-level agreements (SLAs), which represent absolute performance requirements and service improvement objectives. Services are executed and service-level targets are achieved through processes.

Although every IT organization may offer essentially the same services, the way those services are bundled, positioned, perceived and executed is unique to every business. Thus, standardized service and process metrics essentially don't exist, and IT organizations must design their own.”

TS cannot accurately benchmark to other Cities or other IT organizations, because the role that IT plays differs so much from organization to organization. Investment levels and service offerings (along with service level agreements) are unique to each and every business.

Standardized service metrics simply do not exist.

Instead, TS has developed four sets of mission level metrics:
1. Internal Process Quality
2. Employee Engagement
3. External Service Value
4. Agency and Citizen Satisfaction
In lieu of benchmarking, TS looked at other models by which to measure the ability of an organization to meet its mission. All four of the models above are well established and have merit. TS chose to focus on the Service-Profit Chain Model for its correlation to how we look at our business and relative ease of understanding.
Internal service quality will drive employee satisfaction and productivity which will, in turn, create external service value and a perception of performance. This must be adapted to the public sector, which has different end motives.
Our outcomes are citizen trust, value, and citizen confidence.

Q (Brendan Hanlon): Where do you plan to start work on internal processes?
A: Our strategic plan calls for progress on all aspects of the Value Chain. Work is proceeding now (with more planned in 2012) on key processes related to operational efficiency. TS is currently working on Incident Management and Change Management. TS is replacing our key management tool for incident management (HEAT) with a tool that manages all 22 process areas identified during our process maturity study conducted by Gartner.
Need for incident management tool that is more process focused – to facilitate process improvements and gain efficiencies.

Q (Brendan Hanlon): Is it possible to do sampling or spot checks?
A: In most cases, the answer is ‘no’ – we do not have systems in place to capture data automatically. Spot check exercises would have to be manual processes, which TS does not have the manpower to sustain. This is a key reason why the move to an IT Service Management (ITSM) tool is so crucial – identified as one of the primary tactics chosen to be executed immediately.

Q (Dave Edinger): What does it mean to be a level 4 or 5?
A: Typically, maturity scales for IT are on a scale of 0 or 1 to 5. The most value is gained when an organization moves to a level ‘3’. Moving to a ‘4’ or a ‘5’ on the maturity scale typically requires more investment and may not provide the best bang for the buck. Where it makes sense for us to move beyond a ‘3’ in our process areas for a reasonable investment, we will. The difference between a maturity level of ‘3’ to a ‘4’ or ‘5’ could be generalized as being proficient to becoming more proactive. For example, organizations that score a ‘5’ display behaviors of anticipating trends and changes in technology and the IT industry, and proactively making adjustments to processes before those changes occur. While this is valuable and worthy goal – the cost to get there, both in time and capital, may not be the best use of funds. We want to achieve a maturity level or have “just enough process” to meet established goals.

Q (Brendan Hanlon): Have you triaged the different areas of the pyramid?
A: Initial changes would concentrate on the bottom elements of the pyramid: managing incidents and requests for service without reworking and managing change effectively to avoid production outages. Process maturity is a leading indicator of our ability to have a stable, reliable, and robust infrastructure, so this is part of the foundational work required to ‘graduate’ to the next level of the pyramid.
Q (Brendan Hanlon): How do we compare to other cities?
A: The second column with numbers is the “State & Local Government” peer group average that Gartner selected for us, based on similar size and scope. Some of our scores are higher, but the majority are lower. It is important to point out that the peer average is not our goal. Only agencies that know that they have process/performance issues pursue a maturity study. Agencies able score 4’s and 5’s in these categories would have no incentive to engage a group like Gartner to complete an assessment.
Q (Dave Edinger): Why is 30% - 40% good on first call resolution? Is it good?
A: The higher we drive this number, the better the outcome is for our customer, and the lower the cost is to the organization. Right now, there is so much variability in our processes, we are not certain what our first call resolution really is. Until we get this measured correctly and consistently, we do not know what our first call resolution should be.

Q (Brendan Hanlon): How much would it cost to buy a new incident management tool?
A: We will not know until we get pricing back from vendors, but best guess is that we would need a net increase of $40K/year. We currently pay maintenance for current tools and those costs would no longer be incurred after we move to a new IT Service Management tool.

Q (Dave Edinger): RFP & implementation this year?
A: RFP should be public within days. Initial implementation of key processes will occur this year. It will take some time (a few years) to fully implement all of the process areas. A mistake made by others that have made similar transitions is to try to implement everything at once. Given the level of risk and change involved, we are taking a moderate and thoughtful approach.

Q (Dave Edinger): What is the value in doing it? Trends in the right direction?
A: Yes, we would be in the position to make data-based decisions, monitor trends, and analyze the data to determine root causes. For example, we would like to be able to create a chart that breaks down help desk calls by subject and by agency. We could then determine if there are recurring themes or problems and adjust accordingly. Hypothetically, if we knew that 30% of our calls were around issues with computer monitors, we might decide to replace old equipment or even switch to a different vendor – whatever the solution would be to cut down on those incidents from even occurring to begin with.
These IT Service Management tools provide a wealth of reporting and analytics capability. Our bigger challenge once a new tool is implemented is to narrow down to the metrics that are most meaningful to our business. This would be a pleasant ‘change in challenge’ as we are severely lacking in our ability to pull good data today.
Q (Dave Edinger): Are you targeting any specific group? Can you move the 4s to 5s?
A: There is a huge distinction between employees scoring a ‘5’ than a ‘4’. The level of commitment and productivity increases in a dramatic way. There is value in helping every employee feel more engaged in their work and the mission of the department, but the extreme ends of the spectrum (those scoring a ‘5’ or ‘1’) are the areas that we want to concentrate on.

Q (Brendan Hanlon): Is there any value in conducting your own survey more frequently?
A: Perhaps, but we would need to invest more in the CSA team that does this survey and more importantly, helps us analyze the results. While we could put out a survey that asks just these nine questions, none of the ‘driver’ or ‘strata’ questions would be available, so we would only know if our score changed, we would not know why. Perhaps this validates our efforts in whole if the score increases, but what would it mean if the score stayed at the same level or decreased? We would not know. CSA advises that doing the surveys too frequently could potentially be counterproductive – employees can feel ‘survey fatigue’ and we may not be able to conduct the survey, analyze results, create action plans, and get to a new outcome before the next survey is launched.
Employee Engagement - Now

- **Technology Services (2010 Survey)**
  - Average % Strongly Agree for nine EE questions: 25.33%

- **City-wide Average (2010 Survey)**
  - Average % Strongly Agree for nine EE questions: 29.33%

- **What should the target be?**
  - CSA advises that the research is incomplete, but generally speaking, organizations can affect the average by a few percentage points.
There is a movement in the research around Employee Engagement to track the ratio of actively engaged to actively disengaged employees. This ratio is very predictive of organizational performance and ultimately customer satisfaction. This could be an area that the City could choose to evolve to as next steps in measuring Employee Engagement. We should note that the nine questions we ask are different (and for a reason) than this example from Gallup, so we could not benchmark our engagement score to other organizations, as it would not be an ‘apples to apples’ comparison.
TS is 14.4% below the average for “Strongly Agree”, and 65% above the average for “Strongly Disagree”, which greatly affects the ratio and paints a more accurate picture than the comparisons on the previous slides.
Q (Chiquita McGowin): Are you counting averages of other agencies, i.e., state and federal systems?
A: No, we do not have the ability to put monitoring agents on systems that the City does not directly support.

### Mission-Level Metrics – External Service Value

<table>
<thead>
<tr>
<th>Proposed Measure</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now</td>
<td></td>
</tr>
<tr>
<td>Count/Trend of Critical Outages</td>
<td>Weekly</td>
</tr>
<tr>
<td>Root Cause Analysis (RCA) of Core Systems</td>
<td></td>
</tr>
<tr>
<td>Future State</td>
<td></td>
</tr>
<tr>
<td>Service Level Agreements (SLAs)</td>
<td>Quarterly?</td>
</tr>
</tbody>
</table>

- We currently do not have actual Service Levels in any of the Service Level Agreements with City Agencies
- Definition of ‘Service’ needs to be changed. We currently have 50+ ‘services’; we should have 10-15.
Q (Chiquita McGowin): Are you counting the averages of the agency’s outages? If your agency pushes an update, are you counting the outages that it causes the agencies?
A: Right now, we are limited in our ability to measure system uptime. It requires us to monitor the uptime of every piece of equipment involved in the delivery of the service (hundreds of servers, thousands of pieces of network gear and end user systems). Part of our plan is to put that measurement capability in place.

Q (Dani Brown): Will you create a hierarchy with the SLAs and catalog?
A: Yes, this is required for us to report out on whether our Service Level Agreements are being met or not.

Q (Chiquita McGowin): Will agencies pay for services? What are the consequences if TS doesn’t follow the SLAs?
A: For the parts of our strategy where services are provided by a hosting vendor, there is typically a financially backed penalty in the contract. Agencies could be in a position to pay for a higher service level, if practical. If you mean whether TS will pay a penalty to an agency for service levels that are not met where we are the service provider, we do not have plans for that. It would be impractical, and could lead to negative momentum. For example, reducing our budget would mean less resources to meet service levels, and could cause us to actually further reduce our ability to meet service level commitments.
What we are in a position to capture now is the number of critical outages. This is done manually and is a substitute for true service level tracking. This has been in place for nine months and gives us a snapshot of trending outages or systems of concern. We’ve shown only an example of the systems we look at every week.
Besides looking at outages, we also conduct root cause analysis to determine if there are themes to our problems – this allows us to make changes that ultimately prevent us from making the same mistake twice. This is still a work in progress in terms of achieving value from this effort.
This is a very simple (and incomplete) example, but what we are highlighting here is the future state where we produce a recurring report to our client agencies on our service level goals and what level we actually achieved. This gives us a fact based approach to having conversations about our performance with our customers.
Q (Brendan Hanlon): Would you consider sending the survey to all employees?
A: We have two surveys in mind – one for tactical support (did you get my problem resolved and level of satisfaction with our customer service). This could be a sampling of all employees we serve. We also plan a survey to discuss our performance at the strategic level, which is mainly geared for Agency heads, elected officials, and executive managers. These questions would be more relationship and strategy based.
This is an example of a simple strategic survey published by Gartner. A simple but powerful way of getting a snapshot of IT’s value to the organization. We have not done an analysis to see if these are the right questions for us, but this provides an idea of what we are thinking.
The impact of the drivers on service satisfaction levels is dramatic: when all five drivers are done well (4-5), the overall service satisfaction scores are more than 8 out of 10. On the other hand, if 1-2 are done poorly, overall satisfaction scores are about 2 out of 10.

Drivers of service satisfaction vary in order of importance by the type of service and by the service channel used.

Type of service:

• Recreational Services (Libraries, etc.) order of importance:
  Courtesy, Knowledge/Competence, Timeliness, and Outcome
• Taxation Services order of importance:
  Timeliness, Knowledge/Competence, Informed how to get service

Channel:

• Telephone Service order of importance:
  Timeliness, Staff went the extra mile, Clear accurate information, and Outcome
• Office Visit Service order of importance:
  Timeliness, Courtesy, Competence, and Outcome
• Internet Service Order of importance:
  Ease of finding what I am looking for, I got what I needed, it is visually appealing, and Has all the information I need

Drivers of Service Quality (Tactical)

<table>
<thead>
<tr>
<th>Driver</th>
<th>Survey Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>“How Satisfied were you with the time it took to get the service?”</td>
</tr>
<tr>
<td>Knowledge/Competence</td>
<td>“Staff were knowledgeable and competent”</td>
</tr>
<tr>
<td>Courtesy/comfort</td>
<td>“Staff were courteous and made me feel comfortable”</td>
</tr>
<tr>
<td>Fair treatment</td>
<td>“I was treated fairly”</td>
</tr>
<tr>
<td>Outcome</td>
<td>“In the end, did you get what you needed?”</td>
</tr>
</tbody>
</table>

Source: Citizens First 3 Survey (2002)
Two examples of tactical surveys. One on the left is simple, the one on the right – a bit more informative. We should send something like this out to all users after we close a help desk ticket when solving a problem or providing a service. Looking at the trending of this, say every month, would be a good indicator if we are on the right track.
The next two slides are an example of a simple web survey for Denvergov.org. Note that the state of California is asking questions very similar to the driver analysis explained on Slide 24. Again, simple, but a powerful tool to collect feedback, which should give us insight into our ability to enhance our services. This type of investment would benefit all agencies – we all get feedback about content and the ease to reaching our services.
Citizen Satisfaction – Tactical

3. If not, what were you looking for?

4. Suggestions, comments, or ideas for the CA.gov website.

5. Email (if you want a response)

Finished? Submit your Survey
Q (Dave Edinger): What do you mean by adequate training?
A: Gartner came back with a recommendation through the Process Maturity study that indicates we should meet the industry average, which is 40 hours of training per employee, per year. The average cost of a week-long technical class is $2,500. However, we have been bringing in instructors onsite, which is a cheaper alternative when we have a big need around a specific skill. We will continue this practice so we can meet the 40 hour benchmark, but at a reduced cost. Regardless, this will still be a significant ongoing investment in funds to pull off this strategic plan.
Goal 1 Strategies – Key Tactics

1.3 Execute a plan to address deficiencies and opportunities identified in the 2010 Employee Survey
   – Communicate the goals, strategies, and tactics to the department
   – Tie individual performance expectations to strategic plan goals via PEPs
   – Identify and communicate department-consistent performance standards to all TS teams
   – Address the issue of low accountability

1.5 Invest in employee technical training in support of this strategic plan, and consistent with industry best practices
   – Advocate for adequate training for all employees (40 hrs/person/year)
   – Provide transition support and training for employees taking on new roles
Q (Theresa Wilson): Can we educate the customers to free up space?
A: Yes, and we do that on occasion. The newly reinvigorated focus on Records Retention policy will also help. But given the 180% yearly growth rate, compounded, these efforts will not be enough. More data is being collected, file sizes are growing, and video demand is increasing. We cannot scale our storage solution at the same exponential curve that we are seeing on the demand side. We have some good options here.
Goal 2: Master operational efficiency, so that we can shift our time and resources to be more impactful to our clients

2.1 Document and execute repeatable operational processes, consistent with industry best practices
   – Document and improve the maturity of the incident management process
   – Document and improve the maturity of the change management process
   – Document and improve the maturity of the service management process

2.2 Develop or procure tools to effectively manage operational systems and processes
   – Replace HEAT with an IT Service Management Tool
   – Formalize tool used for knowledge capture and management
Goal 2: Master operational efficiency, so that we can shift our time and resources to be more impactful to our clients

2.3 Adopt a ‘cloud-first’ strategy for services or infrastructure where hosted services are a higher value
   – Publish a cloud strategy
   – Determine network improvements (and costing) to implement this strategy
   – Implement IT Service Management as a hosted solution
   – Determine a roadmap for Mobile Device Management as a hosted solution

2.4 Modernize Data Centers and Infrastructure where doing so improves service or reduces risk
   – Create a plan to address Data Center and System Disaster Recovery shortcomings, including feasibility of hosted options
   – Create a plan to address storage growth in a sustainable manner
   – Implement LTE 4G wireless for public safety (pursue grant funding)
   – Develop and cost a plan to improve infrastructure security
Q (Brendan Hanlon): How do you promote balanced conversations and manage expectations for agencies?

A: We need to complete analysis and “extra communicate” the costs and benefits. Transparency on costs and benefits is the key. For example, around mobility, we need to ask the right questions. We need to determine the different types of users out there requesting tablet devices, and determine the return on investment for those user types. For example, the ROI for a field worker is going to be inherently different than a knowledge worker, or perhaps executive management. We need to know the demand for each user base out there, understand the ROI, and invest most heavily in the areas with the biggest return on investment. We also have to make sure that we have the backend infrastructure and support processes in place. If we can put out a model for all of this, this can help the City make an informed decision on where the sweet spot is for costs of mobile devices vs. the demand (and corresponding return on that investment).
Goal 3: Understand, quantify, and improve the productivity and satisfaction of City Agencies to enable them to improve and transform their business

3.2 Develop Portfolio and Project Management Processes consistent with Industry Standards
   – Improve and document the project intake process
   – Devise strategy for Project Management standards, compliance, and metrics
   – Enhance and document resource demand/capacity planning process

3.4 Facilitate work anytime, anywhere – mobility and collaboration
   – Complete a mobility study and pilot
   – Develop a roadmap for Mobility for the City and County of Denver
   – Develop and cost a plan for Collaboration Tools (site, IM, web conferencing)
2012 Goals and Strategies

Goal 4: Put government information and services in the hands of Citizens, anytime, anywhere, any channel, so that they receive the best experience possible

Strategies: (with 32 supporting tactics)

1. Transform Denver 8 to a “media services” model
2. Prepare and equip 311 to engage citizens proactively and through multiple online channels.
3. Improve access to government information
4. Improve Citizen Outreach capabilities
5. Create a comprehensive strategy and further leverage social media
6. Invest in delivery of information and services to mobile devices

*Blue highlights major strategies of focus in 2012 (not inclusive of all 2012 activities)
Goal 4: Put government information and services in the hands of Citizens, anytime, anywhere, any channel, so that they receive the best experience possible

4.1 Transform Denver to a “media services” model
   – Complete a media services business plan (new services and costing)

4.2 Prepare and equip 311 to engage citizens proactively and through multiple contact channels
   – Identify the best-value SLA for 311 metrics affecting Citizen Satisfaction (average speed to answer, etc.)

4.3 Improve access to government information
   – Develop a strategy for “Open Data” and educate city agencies on opportunities

4.6 Invest in delivery of information and services to mobile devices – anytime, anywhere access for Citizens
   – Ensure every new custom application is written with a mobile component
   – Develop a roadmap for mobile applications available for download
Improvement Efforts

Opportunities:

- Communication to employees and clients
- Tie Strategic Plan to individual job duties
- Complete human and financial Strategic Resource Alignment
- Determine a list for considerations for a possible budget supplemental in 2012
- Further Lean Six Sigma
- Finish 30 tactics already in progress, and tackle the 38 additional tactics planned for 2012!
Next review

- Next Performance Review: End of Q2
- Update on projects and opportunities