

## YOU MUST COMPLETE THIS FORM ONLINE

# MAKE PDF VERSION - SCC 2018 Readiness Challenge Application

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Remember to click the SAVE DRAFT while working on your application. Only click the SUBMIT button on the last page when your application is 100% COMPLETED. You can come back and work on your application anytime, but you must submit the application before the deadline of 11:59 PM Pacific Time on Friday, November 10th, 2017.

If you would like a PDF version on this application, you can **download a copy** so you can see the entire application. You will need to submit your information using this online form. NO paper copies will be accepted.

What is your first name? \*

What is your last name ? \*

What is your organization name? \*

Local government officials, external consultants, and other stakeholders are eligible to complete and submit the application. However, the application must include a letter of support from the Applicant's chief executive (e.g. Mayor, City Manager) authorizing the application.

What is your job title \*

What is your email address? \*

This will help us keep in contact during the application process.

What is your phone number? \*

\_\_\_\_\_

**What state or province is the Applicant located in? \***

Please spell out the name of your state or province.

**What is the name of the Applicant? \***

This needs to be the lead local or state government entity for the application.

**What type of entity is the Applicant? \***

**Knowledge Resources - Getting help with your application \***

**KR:** We have provided knowledge resources for most question on the application. These resources are designed to provide you with information that will help you answer the question better and also advance smart cities planning in your city. These knowledge resources are featured in shaded boxes with a blue **KR** mark, like this one.

I understand the content of the KR boxes are meant to provide me with useful guidance, although I will not be awarded any special consideration for following the links.

All required fields must be complete before submitting this application. Fields marked with a \* must be completed before you move to next page.

**Note that brief placeholder answers may be given in order to keep proceeding through the application. The entire application can be edited prior to final submission.**

Welcome to the web-based application for the 2018 Smart Cities Council Challenge Grant Program.

- The application must be submitted no later than 11:59 PM Pacific Time on Friday, November 10th, 2017.
- Applications will be reviewed by Smart Cities Council staff, Partners, and Advisors according to the criteria below out of a total of 100 points.
- All applicants will be notified whether or not they have been selected as finalists by December 11th, 2017 and as winners by January 16th, 2018.
- Finalists will be invited to conduct an interview. Applicants not selected to receive Challenge Grants will be given feedback on their application and provided with other opportunities to receive support from Smart Cities Council.

**Will any other local governments be joining this application?**

We encourage regional participation, although it is not required. However, a given local government can only join a single application. States or provinces may not have any supporting local governments. Multi-state applications are allowed. Local governments should only join if they will be working actively with the Applicant.

**Please list the name of EACH local government supporting this application. (If no, leave blank)**

**What is the total population of the Applicant and all supporting local governments? \***

Please estimate the total population for the Applicant plus the jurisdictions listed above. Do not count double count in the case of overlapping jurisdictions. In order to be eligible to apply, this total population must be at least 100,000. The Applicant does not need to have a larger population than supporting local governments.

**Would the Applicant be interested in participating as a test case for the development of an international smart cities certification process? \***

The Smart Cities Council has begun exploration of a possible smart cities verification and certification process that could greatly benefit from cities willing to test and improve the process. Test local governments may be eligible to seek advanced verification/certification

Yes  No

All required fields must be complete before submitting this application. Fields marked with a \* must be completed before you move to next page.

Winning Applicants will need to gather key stakeholders to activate the regional or statewide smart cities ecosystem. We are looking for Applicants with existing smart cities efforts, long-term stakeholder engagement, and strong leadership support. We also encourage Applicants to provide a venue conducive to a breakthrough event.

**Has the Applicant completed any smart cities projects in the last 2 years? \***

This can include projects completed by supporting jurisdictions as well.

**KR:** Not all projects are smart cities projects. Smart cities projects enhance a city's livability, workability and sustainability. Please [look here for key elements of smart cities projects](#).

Yes  No

around sustainability, social equity, or economic competitiveness. Include rough project amounts when possible. Provide detail on how many citizens were served. (3,000 character limit)

**KR:** Your city will benefit more from a few projects that truly cut across city departments than dozens of siloed projects. Learn how to **adopt a cross-cutting approach** to make your initiatives more successful.

(3,000 character limit)

### Is the Applicant currently undertaking any smart cities projects? \*

This can include projects being undertaken by supporting jurisdictions as well.

**KR:** Please **look here for a definition of smart cities projects**. Not all projects are smart cities projects and not all information and communication projects provide livability, workability and sustainability enhancements.

Yes  No

### Please list smart cities projects currently being undertaken. [4 Points] \*

This can include projects being undertaken by supporting jurisdictions as well. Projects that demonstrate the ability to work across departments or jurisdictions are of particular interest. Please highlight how smart technologies are being used to meet key city goals around sustainability, social equity, or economic competitiveness. Include rough project amounts when possible. Please include the estimated total amount projected to be spent on smart cities projects by all jurisdictions during calendar year 2018. Provide detail on how many citizens were served. (3,000 character limit)

**KR:** You should take a moment to familiarize yourself with some of the **benefits of smart cities projects**. Being able to connect the benefits of smart cities projects to your key city goals will help you complete this question.

(3,000 character limit)

### How will the Applicant implement smart technologies in a way that can be shared with multiple departments or agencies? [4 points] \*

Discuss the Applicant's long-term commitment to integrated back office, data, and computing functions across multiple departments. (3,000 character limit)

**KR:** If you hope to achieve your smart city goals, different technologies from different vendors must be able to work together. In particular, they must be able to exchange information. See why **adhering to open standards** is critical to this effort.

### How will the Applicant drive smart cities innovation? [4 points] \*

**How will the Applicant support a variety of procurement routes? [4 points] \***

Discuss the Applicant's ability to work with a range of procurement vehicles including incentive-based contracting, performance contracting, public private partnerships (PPPs), managed services, and other innovative approaches. (3,000 character limit)

**KR:** Over two dozen approaches are discussed in the [Smart Cities Financing Guide](#).

**Does the Applicant have a smart cities plan or set of policies? \***

This can include plans and policies undertaken by supporting jurisdictions as well.

**KR:** A roadmap is a crucial tool for turning your ideas into actions. Learn how to [build an effective roadmap](#).

Yes  No

**Please upload a copy of the plan or policies. [4 Points] \***

This can include planning efforts for supporting jurisdictions as well. Learn more about [effective smart cities planning efforts](#).

**KR:** Before submitting your plans, check to see if they include the [five critical elements of effective roadmaps](#).

Files must be less than 32 MB.

Allowed file types: pdf doc docx ppt pptx xls xlsx.

**Choose File** No file chosen

**Upload**

**Does the Applicant have a dedicated staff position, office, or program area for smart cities? \***

This can include a dedicated staff position, office, or program area for smart cities for supporting jurisdictions as well.

**KR:** Smart cities champions are essential for driving projects forward and keeping them on track. Learn the [qualities of a good smart cities champion](#).

Yes  No

**Please discuss the Applicant's smart cities leadership capacity. [4 Points] \***

This can include dedicated staff, offices, program areas, or other smart cities leadership capacity for Applicant and supporting jurisdictions as well. Please be sure and discuss how the Challenge Grant award, including in-kind products and services and the Smart

(3,000 character limit)

### Key Stakeholders \*

Please discuss how you are working with key stakeholders on smart cities initiatives in an effective long-term engagement process. How will you ensure key stakeholders attend the event and are ready to work hard? How will this grant activate your regional smart cities ecosystem? [4 Points]

Successful smart cities initiatives are sustained by long-term stakeholder engagement across neighborhoods; local, state, and federal governments; regional and international businesses; NGOs; universities; and labs and standards organizations. (3,000 character limit)

**KR:** Stakeholder engagement is critical to coordinating and mobilizing a wide range of resources for smart cities. Get help building [stakeholder engagement here](#).

(3,000 character limit)

### Is the Applicant working closely with a utility on smart cities implementation? \*

Applicants that are working with at least one energy or water utility or major telecommunications provider to implement smart cities technologies will have a greater chance of long-term success. Utilities and telecommunications companies may be either publicly owned or investor owned. If the Applicant selects Yes, it will need to upload a letter of support.

**KR:** Utilities and cities have a great deal to gain by working closely together. The Council has created a [Utilities Advancing Cities Task Force](#) to foster this cooperation.

Yes  No

### Please upload a copy of the letter of support. [4 Points] \*

Please upload a letter of support from an energy or water utility or major telecommunications provider. This letter should demonstrate that the company is working actively with the Applicant in support of its application and be signed at the VP level or above.

Files must be less than 2 MB.

Allowed file types: pdf doc docx.

Choose File No file chosen

Upload

### Which local government leaders will be attending at least two hours of the event? \*

It is vitally important to involve as many key city decision makers as possible in order to build momentum and emerge with a clear sense of responsibility for key action steps.

- City Manager's Office
- Commissioner's Office
- City Councilor's Office
- Department of Innovation
- Energy
- Fire Chief
- Information Technology
- Mayor's Office
- Planning
- Police Chief
- Resilience
- Sustainability
- Transportation
- Water/Wastewater

**Please list at least one organization representing residents or neighborhoods that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem. This could include a neighborhood association. For states or provinces, this organization can provide statewide representation.

**KR:** The traditional top-down approach to city planning may result in a city that few people want to live in. A bottom-up approach is typically much more innovative and inclusive. Check out these [tips for hearing the voices of your citizens](#).

**Please list at least one organization representing workers that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem. This could include a labor union.

**KR:** Engaging with people working in the city is vitally important. Learn more from [Montreal's Smart and Digital City Plan](#).

**Please list at least one organization representing tourists that you would invite to the event. This could include a tourism board. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem.

**Please list at least one organization representing disadvantaged citizens that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem. This could include advocacy groups for low-income, disabled, or homeless citizens.

**KR:** People in low-income neighborhoods are typically left out of bottom-up planning. When people are left out of the discussion and the solution, they are deprived of the infrastructure and resources they need to succeed. Learn what steps you can take to **ensure all voices are heard**.

**Please list at least one organization representing businesses that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem. This could include a chamber of commerce or business improvement district.

**KR:** Making progress typically begins by building consensus. Read this case study to see how progress can be made quickly when everyone from citizens to businesses are **active participants in discussions**.

**Please list at least one academic institution that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem.

**KR:** Engaging regional universities can strengthen and sustain smart cities initiatives. There are good lessons from **the MetroLab Network**.

**Please list at least one utility that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem.

**KR:** Utilities have a key role to play in advancing smart cities. Applicants can find out more about **engaging utilities effectively here**.

**Please list at least one state or federal agency that you would invite to the event. \***

It is very helpful in our evaluation to get a sense of the kinds of organizations you will be engaging with to activate the regional smart cities ecosystem. It is critical to involve multiple levels of government in regional smart cities efforts.

**KR:** Building effective smart cities requires effective linkages across different levels of government, and important resources are available from state and federal



**Is the Applicant prepared to pay for the cost of venue rental, food, audio-visual, and all other direct event expenses? \***

Applicants will need to bear the cost of venue rental, food, audio-visual support, and all other direct event expenses.

Yes  No

You will need a letter from the Mayor's Office or City Manager's Office demonstrating support. This letter must be uploaded at the end of the application prior to certifying completion. You can download a sample letter of support by [clicking here](#). (Word Doc)

All required fields must be complete before submitting this application. Fields marked with a \* must be completed before you move to next page.

**How would you describe your level of engagement with smart cities strategies for the Built Environment? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Buildings are the biggest single source of carbon emissions, accounting for about 40% of the world's carbon footprint, according to the World Business Council for Sustainable Development. Learn why the **built environment** is an essential piece of the smart cities puzzle.

- Select -

**How would you describe your level of engagement with smart cities strategies for the Energy? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Cities can't function without energy. Cities and utilities must work together — regardless of whether the utility is part of local government or a private investor-owned utility that supplies the city's energy. Learn about ICT's role in **more sustainable cities**.

- Select -

**How would you describe your level of engagement with smart cities strategies for Telecommunications? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Ubiquitous broadband telecommunication is a prerequisite for a smart city. Learn how to get starting **building a telecommunications architecture** that can serve as the foundation of a smart city and the foundation for major improvements in livability, workability and sustainability.

- Select -

**KR:** Transportation networks in cities around the world struggle with serious problems, like congestion. By 2030, congestion could rob the U.S. economy of \$186 billion each year. Learn how [how ICT can help](#).

- Select -

### How would you describe your level of engagement with smart cities strategies for Water and Wastewater? \*

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Water and wastewater is a key city responsibility area including potable water, stormwater management, and wastewater treatment. For more on the application of smart cities technologies to water and wastewater, [look here](#).

- Select -

### How would you describe your level of engagement with smart cities strategies for Waste Management? \*

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Waste management is a key city responsibility area including recycling and design for a circular economy. For more on the application of smart cities technologies to waste management, [look here](#).

- Select -

### How would you describe your level of engagement with smart cities strategies for Health and Human Services? \*

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Health and Human Services are a key city responsibility area including healthcare, education, and a wide range of human services. For more on the application of smart cities technologies to health and human services, [look here](#).

- Select -

### How would you describe your level of engagement with smart cities strategies for Public Safety? \*

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Public Safety is a key city responsibility area including policing and emergency response. For more on the application of smart cities technologies to public safety, [look here](#).

- Select -

### How would you describe your level of engagement with smart cities strategies for Smart Payments and Finance? \*

of smart cities technologies to payments and finance, [look here](#).

- Select -

The **Smart Cities Readiness Guide** provides a detailed framework for assessing smart cities readiness across key universal targets. Please provide a city-wide assessment across these targets. This will help us understand some of your specific challenges and opportunities.

**Instrumentation. How would the Applicant characterize implementation progress for optimal instrumentation? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Instrumentation is the bedrock of smart cities. It provides the key source of data that allows a city to make informed decisions on how to reduce costs and allocate funding. Learn what it means to have **optimal instrumentation and control**.

Complete  Over 50%  Partial  None

**Connectivity. How would the Applicant characterize implementation progress for connectivity? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Once instruments are generating information, they need to be connected so they can communicate to provide data, as well as be able to receive orders. Learn how to **connect devices with citywide, multi-service capability**.

Complete  Over 50%  Partial  None

**Interoperability. How would the Applicant characterize implementation progress for adhering to open standards? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Systems that are loosely coupled don't have components that are dependent on each other, making it easier to swap them in and out. See how **open integration architecture** provide scalability and modernization benefits.

Complete  Over 50%  Partial  None

**Interoperability. How would the Applicant characterize implementation progress for using open integration architecture? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Systems that are loosely coupled don't have components that are dependent on each other, making it easier to swap them in and out. See how **open integration architecture** provide scalability and modernization benefits.

Complete  Over 50%  Partial  None

**Interoperability. How would the Applicant characterize implementation progress for prioritizing use of legacy investments? \***

How to get the most from **retrofitting legacy investments** with sensors and communications.

- Complete  Over 50%  Partial  None

**Security & Privacy. How would the Applicant characterize implementation progress for publishing privacy rules? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Make it a priority to produce clear privacy policies that are easily accessible. Learn how **effective privacy rules** to balance residents' desire for privacy and control with the city's ability to gain access to data to provide better services.

- Complete  Over 50%  Partial  None

**Security & Privacy. How would the Applicant characterize implementation progress for creating a cybersecurity framework? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** A smart city's security policy and risk management framework must be comprehensive, encompassing the cybersecurity as well as the physical security of all assets — from massive infrastructure to tiny mobile devices. Learn how to **create a cybersecurity framework**.

- Complete  Over 50%  Partial  None

**Data Management. How would the Applicant characterize implementation progress for creating a citywide data policy? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** The streams of data that smart cities collect create enormous opportunities, but also require special handling. Smart cities treat public data as a citywide asset. That data needs to be accessible to other systems and stakeholders. Citizens, of course, will expect full access to their own data. Learn how to **create a citywide data policy** that meets all needs.

- Complete  Over 50%  Partial  None

**Computing Resources. How would the Applicant characterize implementation progress for considering a cloud computing framework? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** There are many ways to deploy computing resources, but most cities should **consider cloud computing first**. It is the computing framework best equipped to deliver efficiency and optimization. Applications and services reside in the cloud, where they are accessible from any device.

- Complete  Over 50%  Partial  None

**Computing Resources. How would the Applicant characterize implementation progress for using an open innovation platform? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

Complete  Over 50%  Partial  None

**Computing Resources. How would the Applicant characterize implementation progress for having access to a central GIS system? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Learn what **comprehensive device management** entails and why you need it.

Complete  Over 50%  Partial  None

**Computing Resources. How would the Applicant characterize implementation progress for having access to comprehensive device management? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Learn what **comprehensive device management** entails and why you need it.

Complete  Over 50%  Partial  None

**Analytics. How would the Applicant characterize implementation progress for achieving full situational awareness? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Situational awareness can be delivered in many ways, from dashboards to mobile alerts. The ideal delivery method depends on the unique circumstances of your city. Learn how to **achieve full situational awareness**.

Complete  Over 50%  Partial  None

**Analytics. How would the Applicant characterize implementation progress for achieving operational optimization? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Smart cities combine data from sensors and subsystems with computing power to determine the best path forward. Today, infrastructure and system optimization – if it occurs at all – happens without the ability to truly see the big picture. But in the smart city of tomorrow, optimization will have data from many sensors and subsystems plus the computer power to analyze all of that input to find the best path forward. Learn how to build a plan to **achieve operational optimization**.

Complete  Over 50%  Partial  None

**Analytics. How would the Applicant characterize implementation progress for achieving asset optimization? \***

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Smart cities gain the maximum lifetime value from all of their assets by applying advanced analytics to the data gathered from their instrumentation. In other words, city assets – roads, power poles, transformers, pumps and so on – are equipped with sensors and instrumentation that report their condition. Then asset management systems can analyze that data to optimize asset performance and maximize their lifetime value. Learn how to **achieve asset optimization**.

The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**KR:** Through predictive analytics cities can get a glimpse of what's going to happen next - from where crime is most likely to occur to where streetlights are going to fail to where traffic congestion will stall the morning commute. With predictive analytics you can uncover patterns and associations you might not discover as quickly otherwise. Learn how to [pursue predictive analytics](#).

Complete  Over 50%  Partial  None

All required fields must be complete before submitting this application. Fields marked with a \* must be completed before you move to next page.

Applicants need to choose exactly three sectors out of Built Environment, Energy, Telecommunications, Transportation, Water and Wastewater, Waste Management, Health and Human Services, Public Safety, Smart Payments and Finance, and Other. Each sector is worth 20 points, for a total of 60 points available from the three sectors.

**PLEASE NOTE: Unchecking a box after you have completed that section will erase all data you have entered for that section.**

**Please pick three Sectors \***

- Built Environment
- Energy
- Telecommunications
- Transportation
- Water and Wastewater
- Waste Management
- Health and Human Services
- Public Safety
- Smart Payments and Finance
- Other City Responsibility Area

The questions for the three sectors that you have selected in the boxes above will be shown below. You will see each sector has a clickable orange header for each sector you have selected. You can click on the header to expand and collapse the list of questions for each sector to make it easier to focus on each of the sections. **Please make sure you answer all questions in each section.**

**KR:** Buildings are the biggest single source of carbon emissions, accounting for about 40% of the world's carbon footprint, according to the World Business Council for Sustainable Development. Learn why the **built environment** is an essential piece of the smart cities puzzle.

**What is the Applicant's biggest challenge around the built environment? [5 Points] \***

Applicants should be able to briefly and clearly discuss the current pain points and challenges around the built environment. (1,500 character limit)

**KR:** Built environment is a key city responsibility area including buildings, roads, and other large-scale infrastructure. In order to successfully address this question on the application of smart cities technologies to the built environment, **look here**.

(1,500 character limit)

**How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's built environment? [10 points] \***

Applicants need to demonstrate approaches to deploying smart technologies to the built environment that support their existing plans and strategies around the built environment. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, ease of accessing services, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. high levels of carbon reduction, air quality, biodiversity), and **resilience** (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

**How will the Applicant deploy smart technologies in the built environment in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \***

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city." Get ideas and suggestions for making your city **more compassionate**.

How would the Applicant characterize implementation progress for these items in the Built Environment:

#### Instrumentation & Control \*

**KR:** Buildings that use smart devices to monitor conditions like water use and heating and cooling can capture data that building managers can use to make better decisions about managing resources. Learn more about [instrumentation and control](#).

Complete  Over 50%  Partial  None

#### Connectivity \*

**KR:** Once you've deployed smart sensors and systems in a building, the next step is to allow them to communicate the information they gather. Learn what you need to do to provide the [connectivity](#) they need.

Complete  Over 50%  Partial  None

#### Interoperability \*

**KR:** Interoperability targets ensure that your built environment plays nicely with others. Building technology must adhere to the same communications standards as all other smart city gear, and it must also contend with standards unique to the built environment. Learn more about using standards to [ensure interoperability](#).

Complete  Over 50%  Partial  None

#### Security & Privacy \*

**KR:** important to remember that information coming from buildings is often extremely sensitive. Be sure to consider your city's built environment when planning your citywide privacy policies. Get help developing practices to ensure [security and privacy](#).

Complete  Over 50%  Partial  None

#### Data Management \*

**KR:** The information that can be gleaned from buildings is invaluable for city goals such as energy efficiency, carbon footprint reduction, economic development, transit planning and land use planning. It is crucial that your built environment initiatives adhere to a careful data architecture so that information can flow seamlessly as needed. Learn more about [data management](#).

Complete  Over 50%  Partial  None

#### Computing Resources \*

**KR:** Computing resources in the built environment can support effective building management systems and monitor a whole portfolio of buildings in different neighborhoods. A robust geographic information system (GIS) is invaluable for many city functions related to buildings, including maintenance, public works, parks, building codes, planning and many more. Learn more about [computing resources](#).



... smart buildings use analytics to create smart buildings resources usage is efficient. With the power of analytics, buildings can also optimize their conditions to ensure the continued health, productivity and comfort of occupants. Get suggestions for how to leverage **analytics**.

Complete  Over 50%  Partial  None

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## Energy

Energy is a key city responsibility area, whether handled by a municipally or privately owned utility.

Cities can't function without energy. Cities and utilities must work together — regardless of whether the utility is part of local government or a private investor-owned utility that supplies the city's energy. Learn about ICT's role in **more sustainable cities**.

### What is the Applicant's biggest challenge around energy? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around energy. (1,500 character limit)

**KR:** Energy is a key city responsibility area, whether handled by a municipally or privately owned utility. In order to successfully address this question on the application of smart cities technologies to energy, **look here**.

(1,500 character limit)

### How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's energy systems? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to energy that support their existing plans and strategies around energy. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling.(3,000 character limit)

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, ease of accessing services, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. high levels of carbon reduction, renewable energy, smart grids), and resilience (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

provide a more inclusive city. (5,000 character limit)

**KR:** A smart city is also a "compassionate city." Get ideas and suggestions for making your city **more compassionate**.

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for energy. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**How would the Applicant characterize implementation progress for these items in Energy:**

#### Instrumentation & Control \*

**KR:** Thanks to real-time information supplied by smart devices, system operators can predict, diagnose and mitigate issues that might previously have caused an outage or blackout. Examples of energy instrumentation include the deployment of smart meters and distribution system sensors. Learn more about **instrumentation and control**.

Complete  Over 50%  Partial  None

#### Connectivity \*

**KR:** Connectivity allows data collected throughout the smart energy network to be transmitted for analysis and action. For example, connectivity might mean that your smart meters, distribution system sensors and utility are connected through two-way communications. Learn about how to provide the **connectivity** needed.

Complete  Over 50%  Partial  None

#### Interoperability \*

**KR:** Adhere to open standards to increase choice and decrease costs. Enable distributed generation with interconnection standards. Learn how to **leverage standards to ensure interoperability**.

Complete  Over 50%  Partial  None

#### Security & Privacy \*

**KR:** There are many compelling reasons why smart cities take security and privacy seriously in the context of energy. Learn the key elements to ensure **security and privacy**.

Complete  Over 50%  Partial  None

#### Data Management \*

## Computing Resources \*

**KR:** Cloud computing, GIS and a comprehensive device management system are all critically important for energy systems. Learn about the **computing resources** that can help.

Complete  Over 50%  Partial  None

## Analytics \*

**KR:** Analytics are absolutely critical to smart city success and perhaps nowhere is that more evident than in a smart energy network that powers so much of what a city is and does. This is particularly important for automated fault management and segmenting and personalizing programs for customers. Learn about leveraging **analytics**.

Complete  Over 50%  Partial  None

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## Telecommunications

Telecommunications is a key city responsibility area including backbone communications networks that provide underlying smart cities connectivity.

**KR:** Ubiquitous broadband telecommunication is a prerequisite for a smart city. Learn how to get starting **building a telecommunications architecture** that can serve as the foundation of a smart city and the foundation for major improvements in livability, workability and sustainability.

## What is the Applicant's biggest challenge around telecommunications? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around telecommunications. (1,500 character limit)

**KR:** Telecommunications is a key city responsibility area including backbone communications networks that provide underlying smart cities connectivity. In order to successfully address the application of smart cities technologies to telecommunications, **look here**.

(1,500 character limit)

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## How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's telecommunications systems? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to telecommunications that support their existing plans and strategies around

resilience (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

### How will the Applicant deploy smart technologies in telecommunications systems in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \*

Applicants need to demonstrate their commitment to smart technologies that help create **compassionate cities**. Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city." Get ideas and suggestions for making your city **more compassionate**.

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for telecommunications. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

### How would the Applicant characterize implementation progress for these items in Telecommunications:

#### Instrumentation & Control \*

**KR:** Smart cities ensure best-of-breed, high-speed broadband access across their geography to all or most buildings. A citywide wireless network ensures that people – whether at work, at play or otherwise on the go – are not tethered to stationary points of Internet access. Cellular, WiFi, RF mesh, and other interconnected networks empower a city and everyone in it, creating competitive advantage and convenience. Learn more about how to leverage **instrumentation and control**.

Complete  Over 50%  Partial  None

#### Connectivity \*

**KR:** Regardless of the telecommunications technology you choose for device connectivity, strive to make it a "multi-service" network. That is, try to use it for a variety of purposes across different city departments. Follow the **connectivity** best practices.

Complete  Over 50%  Partial  None

**interoperability** to get the most from your telecommunications networks.

Complete  Over 50%  Partial  None

### Security & Privacy \*

**KR:** Creating a security framework is especially important to telecommunications, since the telecommunications network is one of the “access points” for cyber criminals. There is no point in hardening the rest of the city if the telecommunications system has its door unlocked. Learn about what you need to do to ensure **security and privacy**.

Complete  Over 50%  Partial  None

### Data Management \*

**KR:** Thanks to real-time information supplied by smart devices, system operators can predict, diagnose and mitigate issues that might previously have caused an outage or blackout. Examples of energy instrumentation include the deployment of smart meters and distribution system sensors. Follow the **data management** suggestions to ensure you get the real-time information you need.

Complete  Over 50%  Partial  None

### Computing Resources \*

**KR:** Telecommunications networks can link a wide range of devices with powerful computing resources. Follow the **computing resources** for help and suggestions for your implementation.

Complete  Over 50%  Partial  None

### Analytics \*

**KR:** Analytics can be used to optimize the effectiveness of multi-service telecommunications networks. Learn about how to leverage **analytics**.

Complete  Over 50%  Partial  None

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## Transportation

Transportation is a key city responsibility area currently undergoing rapid disruption from trends like electric vehicles, shared fleets, and autonomous vehicles.

**KR:** Transportation networks in cities around the world struggle with serious problems, like congestion. By 2030, congestion could rob the U.S. economy of \$186 billion each year. Learn how **how ICT can help**.

What is the Applicant's biggest challenge around transportation? [5 Points] \*

In order to successfully address the application of smart cities technologies to transportation, [look here](#).

(1,500 character limit)

**How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's transportation systems? [10 points] \***

Applicants need to demonstrate approaches to deploying smart technologies to transportation that support their existing plans and strategies around transportation. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, autonomous vehicles, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. high levels of carbon reduction, electric vehicles, shared fleets), and resilience (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

**How will the Applicant deploy smart technologies in transportation in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \***

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city." Get ideas and suggestions for making your city **more compassionate**.

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for transportation. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**How would the Applicant characterize implementation progress for these items in Transportation:**

**Instrumentation & Control \***

**KR:** Deploying the right devices in the right places — covering all modes of transport

Complete  Over 50%  Partial  None

### Connectivity \*

**KR:** It's not enough to embed smart devices throughout a transportation network. The data the devices gather needs to be channeled through a citywide communications system so it can be analyzed and acted upon. Learn more about building the **connectivity** you need.

Complete  Over 50%  Partial  None

### Interoperability \*

**KR:** As cities add intelligence to their transportation network, it makes sense to use existing equipment and systems whenever possible to avoid unnecessary spending and stranding assets. One goal of a smart transportation system is to encourage people to use it, so making it incredibly convenient will be a big factor. Learn how **interoperability** plays a crucial role and the steps you can take to develop it.

Complete  Over 50%  Partial  None

### Security & Privacy \*

**KR:** The security and privacy concerns that apply to other city infrastructures are equally important in the realm of public transportation. Smart transportation systems collect all manner of data that could make them vulnerable to cyber attack – from smart card payment information to ridership details. Having strong cybersecurity measures in place will help ward off trouble. Learn how to ensure **security and privacy**.

Complete  Over 50%  Partial  None

### Data Management \*

**KR:** With smart sensors, smart payment systems, GPS and all the other intelligent devices that are gathering data as part of a smart transportation system, the city and its residents are all better off when there's a plan for managing it. Follow these **data management** suggestions.

Complete  Over 50%  Partial  None

### Computing Resources \*

**KR:** Transportation systems involve a lot of data, a lot of logistics and a lot of detail that ICT can help cities get under control. A lot of cities are seeing amazing results with open innovation platforms that empower developers to create apps that city residents can use. Study these **computing resources** best practices for ideas.

Complete  Over 50%  Partial  None

### Analytics \*

**KR:** When it comes to optimizing transportation operations, the goal is to make sure the optimization takes place across all modes, in or near real time depending on circumstances. Improved mobility is important to residents, of course, but is also critical for businesses that move people or goods around a city. Learn how to leverage **analytics**.

## Water and Wastewater

Water and wastewater is a key city responsibility area including potable water, stormwater management, and wastewater treatment.

**KR:** Water and wastewater is a key city responsibility area including potable water, stormwater management, and wastewater treatment. For more on the application of smart cities technologies to water and wastewater, [look here](#).

### What is the Applicant's biggest challenge around water and wastewater? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around water and wastewater. (1,500 character limit)

**KR:** Applicants should measure current performance to understand where deficiencies are. Learn how to [use standards](#) to conduct that assessment accurately.

(1,500 character limit)

### How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's transportation systems? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to water and wastewater that support their existing plans and strategies around water and wastewater. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing [livability](#) (e.g. quality of life, ease of accessing services, citizen engagement), [workability](#) (economic competitiveness), [sustainability](#) (e.g. high levels of carbon reduction, watershed health, water quality), and resilience (e.g. increasing ability to anticipate floods or droughts.)

(3,000 character limit)

### How will the Applicant deploy smart technologies in water and wastewater in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \*

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** Optimize water systems to ensure they are available for all. To learn how, [look here](#).

(3,000 character limit)



around the 7 key technology enablers for water and wastewater. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

### How would the Applicant characterize implementation progress for these items in Water and Wastewater:

#### Instrumentation & Control \*

**KR:** A smart water network uses sensors to capture data on the condition of the water and the equipment. These devices are installed in both traditional and non-traditional segments of the watershed – from the pipes and pumps to green water systems in gardens or rooftops that collect storm runoff or grey water. Follow the [Instrumentation & Control](#) link for more information.

Complete  Over 50%  Partial  None

#### Connectivity \*

**KR:** Most cities should not build a communications network just for smart water purposes. Instead, they should seek to piggyback on an existing network. Or share costs with other departments to build a system they all can use. For instance, in Tianjin China, a single communications network carries the signals for smart meters of several different kinds. Follow the [Connectivity](#) link for more information.

Complete  Over 50%  Partial  None

#### Interoperability \*

**KR:** Hydrologic data collections and sensor feeds are notoriously non-interoperable. Use open standards such as the new OGC WaterML 2.0 Encoding Standard to quickly [understand and compare](#) diverse collections of data and share them between computer models.

Complete  Over 50%  Partial  None

#### Security & Privacy \*

**KR:** The security and privacy concerns that apply to other city infrastructures are equally important for water and wastewater systems. Having strong cybersecurity measures in place are essential. Follow the [Security & Privacy](#) link for more information.

Complete  Over 50%  Partial  None

#### Data Management \*

**KR:** Cities may not own their own municipal water utility, but they will want to have access to overall usage data provided by the local utility. It's important to ensure that the data conforms to the citywide data management policy, even if it originated elsewhere. Cities will also want to encourage utilities to grant water customers access to their own consumption data so they can see hour-by-hour how, when and where they use water. Follow the [Data management](#) link for more information.

Complete  Over 50%  Partial  None

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records and boosts resiliency of key assets. Follow the [Computing Resources](#) link to learn how.

Complete  Over 50%  Partial  None

### Analytics \*

**KR:** Situational awareness means getting a complete view of what's happening across a watershed. Such insight is essential for cities that want to "close the loop" and promote sustainability. A smart water network can automate many parts of the leak management process. By analyzing the data from a smart water infrastructure and combining it with weather data, cities can predict problems, such as areas prone to flooding. Follow the [Analytics](#) link for more information.

Complete  Over 50%  Partial  None

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## Waste Management

Waste management is a key city responsibility area including recycling and design for a circular economy.

**KR:** Waste management is a key city responsibility area including recycling and design for a circular economy. For more on the application of smart cities technologies to waste management, [look here](#).

### What is the Applicant's biggest challenge around waste management? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around waste management. (1,500 character limit)

**KR:** Waste management is a key city responsibility area and includes recycling and design for a circular economy. [Look here](#) to learn how to apply smart cities technologies to waste management.

(1,500 character limit)

### How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's waste management systems? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to waste management that support their existing plans and strategies around waste management. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, ease of accessing services, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. high levels of carbon reduction, increased recycling levels, design for a circular economy where products are designed to be disassembled and

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**How will the Applicant deploy smart technologies in the other city responsibility area in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \***

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city". Applicants can find important resources to answer this question [here](#).

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for waste management. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**How would the Applicant characterize implementation progress for these items in Waste Management:**

**Instrumentation & Control \***

**KR:** New types of instrumentation are gaining traction in the waste management world. RFID tags embedded in recycling bins help identify the types of refuse generated by citizens and help track customer participation in sorting programs. Sensors are also becoming key components in waste processing. Scanners and optical sensors at material recovery facilities enable efficient recyclables sorting. Follow the [Instrumentation & Control](#) link for more information.

- Complete  Over 50%  Partial  None

**Connectivity \***

**KR:** Data collected by waste technology sensors requires transmission to servers or web services for storage, viewing, monitoring and analysis. Learn why communications are essential in new waste technologies and [how to connect devices](#) for citywide, multi-service communications.

- Complete  Over 50%  Partial  None

**Interoperability \***

**KR:** Interoperability is an important technology enabler for waste management. Follow the [Interoperability](#) link for more information.

- Complete  Over 50%  Partial  None
- 
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- Complete  Over 50%  Partial  None

### Data Management \*

**KR:** Data management is an important technology enabler for waste management. Follow the [Data Management](#) link for more information.

- Complete  Over 50%  Partial  None

### Computing Resources \*

**KR:** Smart waste management solutions may require that cities expand their in-house computing capabilities. Learn how [solution vendors may also help](#) waste authorities connect to their applications via web services or APIs, eliminating the necessity of onsite IT deployments.

- Complete  Over 50%  Partial  None

### Analytics \*

**KR:** With the expanded use of RFID tags, sensors and GPS data, cities now have the opportunity to apply data analytics for optimizing waste collection, recycling and waste processing. Follow the [Analytics](#) link for more information.

- Complete  Over 50%  Partial  None

## Health and Human Services

Health and Human Services are a key city responsibility area including healthcare, education, and a wide range of human services.

**KR:** Health and Human Services are a key city responsibility area including healthcare, education, and a wide range of human services. For more on the application of smart cities technologies to health and human services, [look here](#).

### What is the Applicant's biggest challenge around health and human services? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around health and human services. (1,500 character limit)

**KR:** Cities need to provide healthcare, education and other human services. Please look here to learn [how to apply](#) smart cities technologies to meeting those critical needs.

(1,500 character limit)

How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's health and human services? [10 points] \*

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, ease of accessing services, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. air quality, access to parks), and resilience (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

### How will the Applicant deploy smart technologies in the health and human services in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \*

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city." Get ideas and inspiration for **making your city more compassionate**.

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for health and human services. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

### How would the Applicant characterize implementation progress for these items in Health and Human Services:

#### Instrumentation & Control \*

**KR:** Implement optimal devices and other instrumentation for each human service. Implementing the right data-capturing devices across all of a city's health and human services responsibility areas is the objective here. Given the new and different types of services involved, different kinds of instrumentation will be required. Learn how to **optimize instrumentation and control**.

Complete  Over 50%  Partial  None

#### Connectivity \*

**KR:** One key to improving public health outcomes is smart devices deployed around cities for public health data-capture and connected to a citywide communications system. Water quality monitors that detect a chemical leak that could contaminate a popular swimming beach aren't useful unless the information is communicated in real time to all city departments involved. Learn more about **communications systems and options** that can help your city.

Complete  Over 50%  Partial  None

are still emerging, and cities have a stake in their outcome. Learn how you can **use standards** to assess your implementation progress.

Complete  Over 50%  Partial  None

### Security & Privacy \*

**KR:** While technologies give us new products and services they also raise privacy concerns, particularly in the healthcare field. Citizens need to be able to trust that their personal information is protected and private. Learn more about how your city can ensure **the security of personal data**.

Complete  Over 50%  Partial  None

### Data Management \*

**KR:** Create and adhere to a citywide data management, transparency and sharing policy. Again, due to the sensitive nature of data involving health and human services, it goes without saying that a policy needs to be very explicit about who owns which data sets, who has access, how it can be shared and when it should not be shared. Follow the **Data Management** link for more information.

Complete  Over 50%  Partial  None

### Computing Resources \*

**KR:** Cloud computing has become more affordable and more prevalent. Smart cities of all sizes may see advantages in the cloud's scalability, reliability and cost. But before uploading personally identifiable health and human services data to the cloud, steps must be taken to "de-identify" it. Find out how to add **safeguarding sensitive information** to your healthcare planning.

Complete  Over 50%  Partial  None

### Analytics \*

**KR:** Smart cities use monitoring devices to take the pulse of the city and its people. Situational awareness aids that effort by increasing the reliability and resiliency of the public health infrastructure and those monitoring devices, allowing for quick response to incidents that threaten public health and well-being. Follow the **Analytics** link for more information.

Complete  Over 50%  Partial  None

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## Public Safety

Public Safety is a key city responsibility area including policing and emergency response.

**KR:** Public Safety is a key city responsibility area including policing and emergency response. For more on the application of smart cities technologies to public safety, **look here**.

Applicants should be able to briefly and clearly discuss the current pain points and challenges around public safety. (1,500 character limit)

**KR:** To prepare for this question, you will want to learn the **four ways data and intelligence improve public safety** in smart cities.

(1,500 character limit)

**How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's public safety? [10 points] \***

Applicants need to demonstrate approaches to deploying smart technologies to public safety that support their existing plans and strategies around public safety. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing **livability** (e.g. quality of life, ease of accessing services, citizen engagement), **workability** (economic competitiveness), **sustainability** (e.g. high levels of carbon reduction, air quality), and **resilience** (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

**How will the Applicant deploy smart technologies in the public safety area in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \***

Applicants need to demonstrate their commitment to smart technologies that help create **compassionate cities**. Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city". Applicants can find important resources to answer this question **here**.

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for public safety. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**How would the Applicant characterize implementation progress for these items in Public Safety:**

devices such as video feeds that can transmit data to storage. Follow the [Instrumentation & Control](#) link for more information.

Complete  Over 50%  Partial  None

### Connectivity \*

**KR:** To be effective – and that's what a smart city wants in its public safety system – two-way communication is essential. Learn why a [citywide communications system](#) that loops in all the personnel, smart devices, databases and ICT systems that have a role in public safety is essential too.

Complete  Over 50%  Partial  None

### Interoperability \*

**KR:** Interoperability is key in smart public safety because it opens up the world of data and helps generate integrated intelligence. Additionally, by requiring open standards in the procurement of public safety systems and equipment, cities increase the choices available to them and decrease costs. Follow the [Interoperability](#) link for more information.

Complete  Over 50%  Partial  None

### Security & Privacy \*

**KR:** By its nature, there is the potential for privacy red flags in much of the day-to-day work that public safety is responsible for. Learn why it is so important to address the legal, privacy and ownership issues with a [comprehensive privacy policy](#) in place.

Complete  Over 50%  Partial  None

### Data Management \*

**KR:** Data management policies make it clear what city departments can and can't do with the data they collect. This alleviates confusion, improves data accuracy, eliminates unnecessary duplication and reduces the likelihood of privacy or security breaches. Follow the [Data Management](#) link for more information.

Complete  Over 50%  Partial  None

### Computing Resources \*

**KR:** Public safety's focus on location and on being able to act decisively in time-sensitive situations makes GIS critically important. Learn how GIS can improve [decision-making capabilities](#), enable efficiency gains through more intelligent scheduling and routing, improve accuracy of essential records and boost key asset resiliency.

Complete  Over 50%  Partial  None

### Analytics \*

**KR:** Full situational awareness allows cities to allocate their resources more efficiently for incident response and management. And they can simulate, for example, a potential natural disaster and take steps to mitigate some of the likely



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## Smart Payments and Finance

Smart payments and finance are a key city responsibility area including efficient on-line government services and payment transactions.

**KR:** Smart payments and finance are a key city responsibility area including efficient on-line government services and payment transactions. For more on the application of smart cities technologies to payments and finance, [look here](#).

### What is the Applicant's biggest challenge around smart payments and finance? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around smart payments and finance. (1,500 character limit)

**KR:** Citizens expect convenient, efficient payment systems and access to online government services. Click the link for guidance on how to provide [smart payments and related services](#).

(1,500 character limit)

### How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's smart payments and finance? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to smart payments and finance that support their existing plans and strategies around smart payments and finance. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing [livability](#) (e.g. quality of life, ease of accessing services, citizen engagement), [workability](#) (economic competitiveness), [sustainability](#) (e.g. high levels of carbon reduction, air quality), and resilience (e.g. increasing ability to respond to short-term shocks and long-term transformation.)

(3,000 character limit)

### How will the Applicant deploy smart technologies in the smart payments and finance area in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \*

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for smart payments and finance. The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

## How would the Applicant characterize implementation progress for these items in Smart Payments and Finance :

### Instrumentation & Control \*

**KR:** Parking meters, ATMs, utility meters, vending machines and point-of-sale terminals are increasingly used to make payments. Acceptance networks must adapt to emerging payment methods, such as contactless cards and phones, as well as electronic wallets. Follow the [Instrumentation & Control](#) link for more information.

Complete  Over 50%  Partial  None

### Connectivity \*

**KR:** Connectivity and telecommunications are crucial for the development of smarter financial systems. Follow the link to learn how to keep them [safe and secure](#).

Complete  Over 50%  Partial  None

### Interoperability \*

**KR:** Adopting open standards has significant advantages. It ensures fast and broad participation, minimizes risk and drives procurement efficiency (via greater choice and lower prices). It also encourages participation by foreign consumers, tourists and business travelers. Learn how standards can also help you chart your [implementation progress](#).

Complete  Over 50%  Partial  None

### Security & Privacy \*

**KR:** A key goal of a payment system – smart or otherwise – is to enforce trust between participants. Similarly, a city gathers significant amounts of financial data from citizens and businesses when they apply for permits, licenses and other services. Cities should publish and enforce clear rules on privacy that apply equally to financial data. Follow the [Security & Privacy](#) link for more information.

Complete  Over 50%  Partial  None

### Data Management \*

**KR:** Given the sensitivity of financial data, we want to emphasize the importance of a citywide policy for how data is governed, stored and made accessible. Best practices call for a clear governance directive that establishes the chain of authority and control over data assets and spells out who makes access decisions and who

### Computing Resources \*

**KR:** With close to three trillion payment transactions globally every year, payments involve large volumes of data. True value can be derived from payment systems if that data can be analyzed. Follow the [Computing Resources](#) link for more information.

- Complete  Over 50%  Partial  None

### Analytics \*

**KR:** Analytics based on payments data can have a significant positive impact on local commerce. It can also inform and improve government policies. Follow the [Analytics](#) link for more information.

- Complete  Over 50%  Partial  None
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## Other City Responsibility Area

There are a variety of additional important city responsibility areas including food, advanced manufacturing, ecosystem health, and others. Applicants may specify an "Other City Responsibility Area" as one of their three sectors.

### What is the other city responsibility area Applicant will address? \*

Must be five words or less

### What is the Applicant's biggest challenge around this other city responsibility area? [5 Points] \*

Applicants should be able to briefly and clearly discuss the current pain points and challenges around this other key theme. (1,500 character limit)

(1,500 character limit)

### How will the Applicant deploy smart technologies to accelerate the livability, workability, sustainability and resilience of Applicant's other city responsibility area? [10 points] \*

Applicants need to demonstrate approaches to deploying smart technologies to the other key theme that support their existing plans and strategies around the other key theme. Applicants should also discuss innovative financing and business models that will support long-term project viability and scaling. (3,000 character limit)

**KR:** This should include explicitly addressing [livability](#) (e.g. quality of life, ease of

(3,000 character limit)

**How will the Applicant deploy smart technologies in the other city responsibility area in a way that helps vulnerable or marginalized people or neighborhoods? [5 points] \***

Smart technologies should help enhance social equity, close the digital divide, and provide a more inclusive city. (3,000 character limit)

**KR:** A smart city is also a "compassionate city". Applicants can find important resources to answer this question [here](#).

(3,000 character limit)

This group of questions allows the Applicant to assess its own state of progress around the 7 key technology enablers for other city responsibility area". The Readiness Program will be tailored to the Applicant's current maturity level, and points are not awarded for any particular answer.

**How would the Applicant characterize implementation progress for these items in the Other Sector they are proposing:**

**Instrumentation & Control \***

**KR:** Follow the [Instrumentation & Control](#) link for more information.

- Complete  Over 50%  Partial  None

**Connectivity \***

**KR:** Follow the [Connectivity](#) link for more information.

- Complete  Over 50%  Partial  None

**Interoperability \***

**KR:** Follow the [Interoperability](#) link for more information.

- Complete  Over 50%  Partial  None

**Security & Privacy \***

**KR:** Follow the [Security & Privacy](#) link for more information.

- Complete  Over 50%  Partial  None

### Computing Resources \*

KR: Follow the [Computing Resources](#) link for more information.

Complete  Over 50%  Partial  None

### Analytics \*

KR: Follow the [Analytics](#) link for more information.

Complete  Over 50%  Partial  None

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All required fields must be complete before completing this application.  
Fields marked with a \* must be completed before you move to next page.

### Can you confirm that Applicant has read and agrees to the privacy policy presented here for this application? \*

From time to time, the Council works with outside experts with deep knowledge of particular issues and technologies. In order to provide you with custom advisory services that truly meets your needs, we may share limited information about your priorities and work-to-date with such third parties to maximize the effectiveness of our assistance toward your specific goals.

Yes, I agree.

### Please upload a letter from the Mayor's Office or City Manager's Office demonstrating support. [4 points] \*

This letter should demonstrate significant support and tie to other Applicant initiatives and activities. It should also discuss how the results of the Workshop will inform ongoing smart cities planning and budgeting.

You can download a sample letter of support by [clicking here. \(Word Doc\)](#)

Files must be less than 32 MB.  
Allowed file types: pdf doc docx.

No file chosen

### Can you confirm that Applicant agrees to have the Readiness Event adhere to the core principles of the Smart Cities Council? \*

The Readiness Event will be informed by the Smart Cities Council Readiness Guide and its principles of livability, workability, and sustainability. The Council is also committed to enhancing resiliency and supporting inclusive, compassionate cities.

Yes - We will adhere to the core principles of the Smart Cities Council.

### Can you certify that the Application is complete in all respects and ready for submission? \*

Yes must be selected for the application to be formally submitted with no possibility of making changes. Please submit several days before the deadline if possible to avoid

submission.

Are you authorized to submit this application on behalf of the Applicant?

\*

Yes - I am authorized to submit this application.

If you are not ready to submit this application you can press [Save Draft]. Then you can come back at anytime and update this application before the deadline of Novemeber 10th, 2017 11:59PM Pacific Time. You application is not submitted for consideration until you press the [SUBMIT] button located on this page.

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