



**Internet Corporation for Assigned Names and Numbers**

**Root DNSSEC  
Crypto Officer Rotation  
Thursday August 14, 2014**

**ICANN KSK Facility@Equinix LA3  
1920 East Maple Avenue, El Segundo, CA 90245**

**This operation and maintenance is executed under the  
DNSSEC Practices Statement for the Root Zone KSK Operator Version A Revision 1358**

## AbbreviationsDraft

**TEB** = Tamper Evident Bag (AMPAC, item #GCS1013 small or #GCS1216 large or MMF Industries, item #2362010N20 small or #2362011N20 large)  
**SO**= Security Officer      **OP**= Operator  
**HSM** = Hardware Security Module      **FD** = Flash Drive      **CA** = Ceremony Administrator  
**IW** = Internal Witness      **CO**= Crypto Officer      **SA** = System Administrator  
**SSC** = Safe Security Controller      **MC** = Master of Ceremony      **IKOS** = ICANN KSK Operations Security  
**KSR**= Key Signing Request      **SKR**= Signed Key Response      **RZM**= Root Zone Maintainer  
**AUD**= Third Party Auditor      **EW**= External Witness      **CO5 Successor** = New CO5  
**CO5 Predecessor** = Retiring CO5

## Participants

**Instructions:** At the end of the ceremony, participants sign on IW1's copy. IW1 records time upon completion.

Title	Printed Name/Citizenship	Signature	Date	Time
CA	Francisco Arias / ICANN		14 August 2014	
IW1	Kim Davies / ICANN			
SA1	Connor Barthold / ICANN			
SSC1	Selina Harrington / ICANN			
SSC2	Leo Vegoda / ICANN			
CO2	Dmitry Burkov / RU			
CO4	Carlos Martinez / UY			
CO5 Successor	Olafur Gudmundsson / IS			
CO7	Subramanian Moonesamy / MU			
CO5 Predecessor	Edward Lewis / US			
RZM	Alejandro Bolivar / Verisign			
RZM	Sanju Varghese / Verisign			
AUD	Tyson Thomas / PricewaterhouseCoopers			
AUD	Mike Sobhanian / PricewaterhouseCoopers			
SA2	Brian Martin / ICANN			
IW2	Dalini Khemlani / ICANN			
EW1	Martin Levy / CloudFlare			
EW2 / CA2	Richard Lamb / ICANN			
EW3	Ashwin Rangan / ICANN			
EW4	Flauribert Takwa / ICANN			
EW5 / IW3	Alberto Duero / ICANN			
EW6 / IW4	Andres Pavez / ICANN			
IKOS / CA3	Tomofumi Okubo / ICANN			

**Note: By signing this script, you are declaring that this is a true and accurate record of the Root DNSSEC KSK ceremony to the best of your knowledge.**

Note: Dual Occupancy enforced. CA leads ceremony. Only CAs, IWs, or SAs can enter ceremony room and/or escort other participants. Only CA+IW can enter safe room and/or escort other participants. CAs, SAs or IWs may let individuals out of the ceremony room but only when CA+IW remain in the ceremony room. No one may leave when CA+IW are in safe room. Participants must sign in and out of ceremony room and leave any credentials assigned to them (keys, cards) in the ceremony room if leaving before completion of the ceremony. The SA starts filming before the participants enter the room.

Some steps during the ceremony require the participants to tell and/or confirm identifiers composed of numbers and letters. When spelling identifiers, the phonetic alphabet shown below will be used:

<b>A</b>	Alfa	AL-FAH
<b>B</b>	Bravo	BRAH-VOH
<b>C</b>	Charlie	CHAR-LEE
<b>D</b>	Delta	DELL-TAH
<b>E</b>	Echo	ECK-OH
<b>F</b>	Foxtrot	FOKS-TROT
<b>G</b>	Golf	GOLF
<b>H</b>	Hotel	HOH-TEL
<b>I</b>	India	IN-DEE-AH
<b>J</b>	Juliet	JEW-LEE-ETT
<b>K</b>	Kilo	KEY-LOH
<b>L</b>	Lima	LEE-MAH
<b>M</b>	Mike	MIKE
<b>N</b>	November	NO-VEM-BER
<b>O</b>	Oscar	OSS-CAH
<b>P</b>	Papa	PAH-PAH
<b>Q</b>	Quebec	KEH-BECK
<b>R</b>	Romeo	ROW-ME-OH
<b>S</b>	Sierra	SEE-AIR-RAH
<b>T</b>	Tango	TANG-GO
<b>U</b>	Uniform	YOU-NEE-FORM
<b>V</b>	Victor	VIK-TAH
<b>W</b>	Whiskey	WISS-KEY
<b>X</b>	Xray	ECKS-RAY
<b>Y</b>	Yankee	YANG-KEY
<b>Z</b>	Zulu	ZOO-LOO
<b>1</b>	One	WUN
<b>2</b>	Two	TOO
<b>3</b>	Three	TREE
<b>4</b>	Four	FOW-ER
<b>5</b>	Five	FIFE
<b>6</b>	Six	SIX
<b>7</b>	Seven	SEV-EN
<b>8</b>	Eight	AIT
<b>9</b>	Nine	NIN-ER
<b>0</b>	Zero	ZEE-RO

# Act 1. Initiate CO Rotation

## Participants Arrive and Sign into Key Ceremony Room

Step	Activity	Initial	Time
1.	SA starts video recording and online streaming. SAs or IWs escort participants into the Ceremony Room and all participant sign into the Ceremony Room log.		

## Emergency Evacuation Procedures

Step	Activity	Initial	Time
2.	CA or IW reviews emergency evacuation procedures with participants.		

## Verify Time and Date

Step	Activity	Initial	Time
3.	IW1 enters UTC date (day/month/year) and time using a reasonably accurate wall clock visible to all in the Ceremony Room:  Date and time: _____  All entries into this script or any logs should follow this common source of time.		

## Confirm the Trusted Community Representative Declaration and transfer key

Step	Activity	Initial	Time
4.	IW and CA confirm the <i>Trusted Community Representative Declaration</i> is signed and submitted by the <b>CO5 Successor</b> .		
5.	CO5 Predecessor hands the safe deposit box keys to the CO5 Successor.		

## Act 2. Verify OP and SO Credentials

### Open Credential Safe #2

Step	Activity	Initial	Time
1.	CA and IW1 escort SSC2, <b>CO5 Successor</b> , <b>CO5 Predecessor</b> the safe room together. CA brings a flashlight when entering the safe room.		
2.	SSC2, while shielding combination from camera, opens Safe #2.		
3.	SSC2 takes out safe log and prints name, date, time, signature, and reason (i.e. "open safe") in safe log. IW1 initials this entry. <b>Note: If log entry is pre-printed, verify the entry, record time of completion and sign.</b>		

### CO5 Predecessor and CO5 Successor verifies the OP and SO credentials together

Step	Activity	Initial	Time
4.	<p><b>CO5 Successor</b> checks the OP/SO cards together with the <b>CO5 Predecessor</b> and retrieves both cards following the steps shown below</p> <ul style="list-style-type: none"> <li>a) With the assistance of CA (and his/her common key), <b>CO5 Successor</b> opens the safe deposit box. # Common Key is bottom lock and CO Key is top lock</li> <li>b) <b>CO5 Successor</b>, together with the <b>CO5 Predecessor</b> verifies integrity of contents by reading out box number and TEB # for OP and SO cards which should match below.</li> <li>c) Makes an entry in safe log indicating OP and SO TEB removal with box #, printed name, date, time and signature.</li> </ul> <p><b>Note: If log entry is pre-printed, verify the entry, record time of completion and sign.</b> IW1 initials this entry.</p> <p><b>CO 5: Olafur Gudmundsson</b> <b>Box # 1790 (Old box)</b> <b>OP TEB # BB21820436</b> <b>SO TEB # BB21907264</b></p>		

**CO5 Successor Receive New Safe Deposit Box Keys and Returns OP and SO Cards**

Step	Activity	Initial	Time
5.	<p><b>CO5 Successor:</b></p> <ul style="list-style-type: none"> <li>a) Opens the safe deposit box, using one of the keys already in place, with assistance of CA who uses his/her common key, and looks into the box with a flashlight to verify that the box is empty.</li> <li>b) Closes and locks the box and opens and closes it once again to test his/her second key, with the assistance of the CA and his/her common key.</li> <li>c) <b>CO5 Successor</b> makes an entry into the safe log indicating the return of OP and SO card including Box #, TEB #, card type, printed name, date, time, and signature. IW1 initials the entry after verifying contents and integrity of the TEB and comparing TEB# s and card type to his/her script.</li> </ul> <p><b>Note: If log entry is pre-printed, verify the entry, record time of completion and sign.</b></p> <ul style="list-style-type: none"> <li>d) <b>CO5 Successor shows the bag to the camera</b> and then places his/her TEB into his/her box and locks the safe deposit box with the help of the CA.</li> <li>e) Enters the box #, printed name, date, time and signature here on IW1's script:</li> </ul> <p style="margin-left: 40px;"> <b>Box #</b>                1789 (New box)  <b>Printed Name</b>    Olafur Gudmundsson  <b>Date</b>                 August 14, 2014   <b>Time</b>                 _____   <b>Signature</b>           _____ </p>		

**Close Credential Safe #2**

Step	Activity	Initial	Time
6.	<p>Once all safe deposit boxes are closed and locked, SSC2 makes an entry that includes printed name, date, time and signature into the safe log indicating closing of the safe. IW1 initials this entry.</p> <p><b>Note: If log entry is pre-printed, verify the entry, record time of completion and sign.</b></p>		
7.	<p>SSC2 puts log back in safe and locks Safe #2 (spin dial at least two full revolutions each way, counter clock wise then clock wise). CA and IW1 verify that the safe is locked and card reader indicator is green.</p>		
8.	<p>IW1, CA, SSC2, <b>CO5 Successor</b> and <b>CO5 Predecessor</b> leaves safe room, closing the door behind them.</p>		

**Participant Signing of IW1’s Script**

Step	Activity	Initial	Time
9.	One by one, all participants come to the front of the room, confirms printed name and date. <b>Then, the participant declares that this script is a true and accurate record of the ceremony by signing on IW1’s script coversheet.</b> IW records the completion time once all participants have signed the coversheet. Note: If entry is pre-printed, verify the entry and sign.		
10.	CA reviews IW1’s script and signs it.		

**Continue to Root DNSSEC KSK Ceremony 18**