



OREGON | Office of the State

# Chief Information Officer

*Project MUSIC. Deployment Update*

22 May 2018



# Scope and Schedule

## Overview

### **Planning Phase** *Summer 2015*

- Data collection and network assessments
- Deployment planning and preparation

### **Architect & Design Phase** *Fall 2015 – Summer 2016*

- Develop and review system architecture and design
- Deploy, test, and integrate the Voice Core components
- Install, integrate, and troubleshoot the testing environment
- Perform user acceptance testing to demonstrate functionality of Voice Core

### **Pilot Phase** *Winter–Spring 2016*

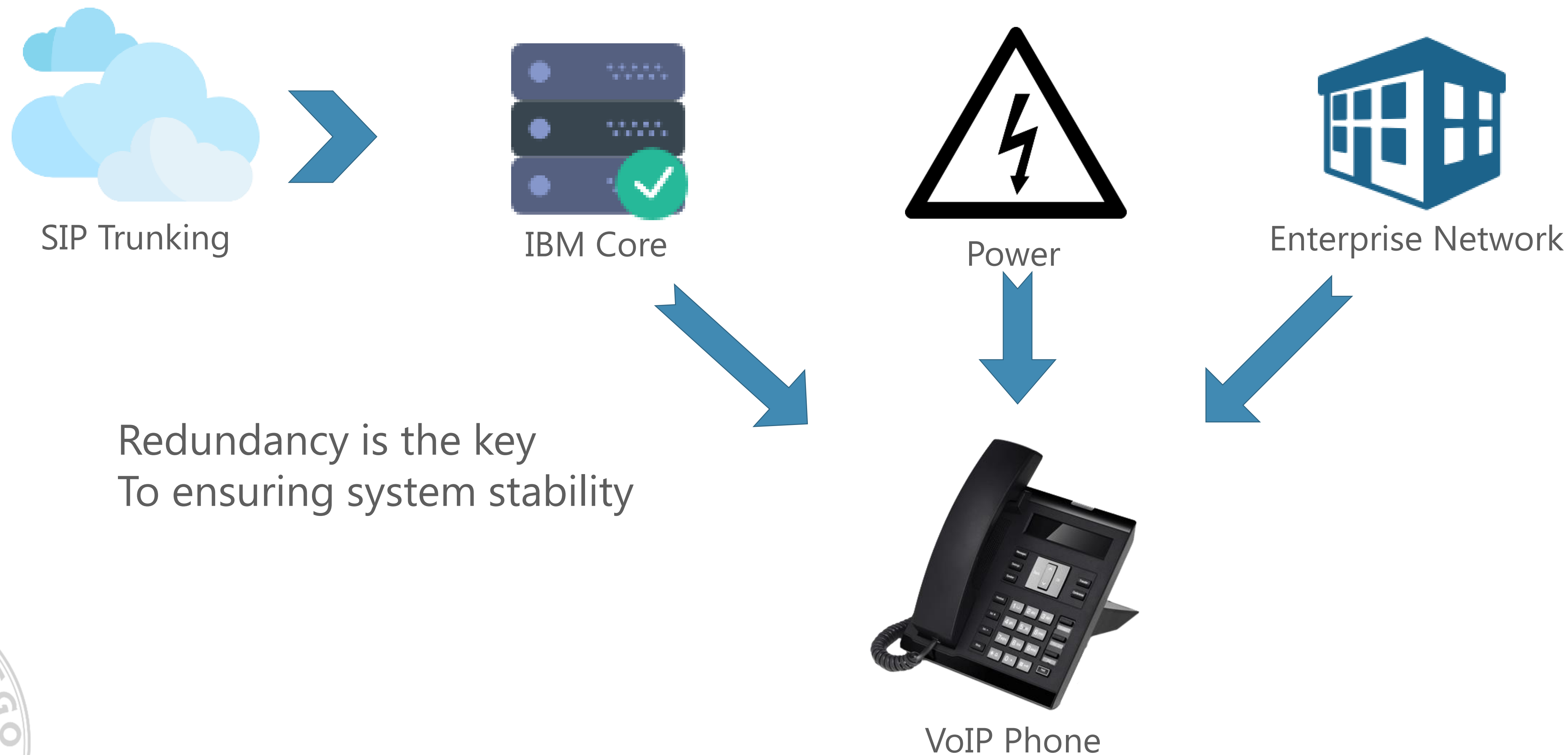
- Deploy ten pilot sites and transition them to managed services
- Perform pilot site testing and acceptance, training, and on-site support

### **Deployment Phase** *Spring 2016 – Spring 2018*

- Deployment of VoIP system to state of Oregon executive agency sites
- Transition sites into managed services



# Components of a VoIP Phone



# IBM Outages

Month - Year	Minutes	Downtime	Uptime
September-16	424	0.995%	99.005%
October-16	480	1.126%	98.874%
December-16	317	0.742%	99.258%
January-17	149	0.349%	99.651%
March-17	150	0.351%	99.649%
April-17	50	0.117%	99.883%
January-18	1,800	4.176%	95.824%
March-18	240	0.556%	99.444%

**Total minutes down      3,610**



# CenturyLink Outages

SIP Trunking services\*

Month - Year	Minutes	Downtime	Uptime
November-16	9,167	21.220%	78.780%
January-17	43	0.096%	99.904%
February-17	235	0.583%	99.417%
December-17	105	0.235%	99.765%
January-18	286	0.641%	99.359%
February-18	58	0.144%	99.856%

**Total minutes down                    9,894**

\*SIP Trunking is the enterprise wide path for inbound and outbound call information





# Other Outages

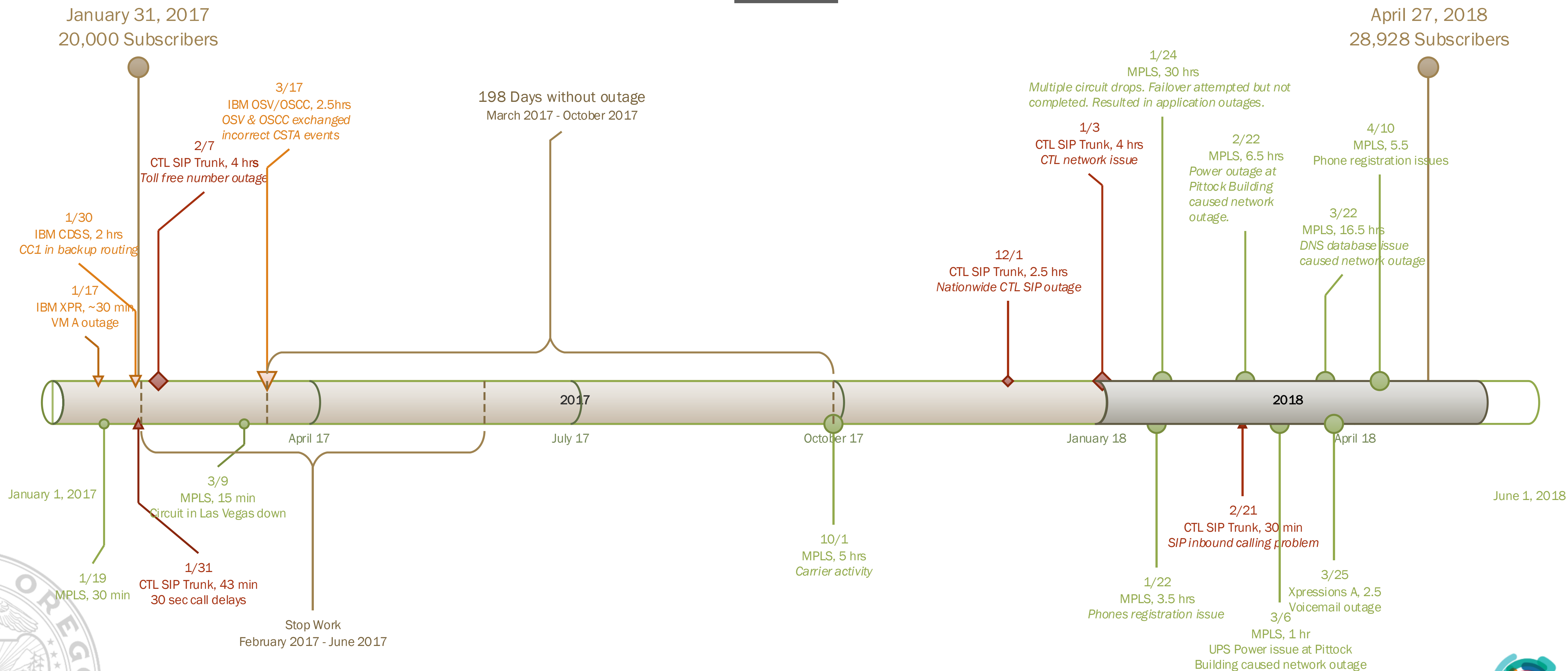
power failures and leased network circuits

Month - Year	Minutes	Downtime	Uptime	Reason
July-16	720	1.692%	98.308%	Power outage at Pittock Mansion
October-16	150	0.352%	99.648%	CenturyLink Outage
January-17	30	0.070%	99.930%	Comcast Outage
March-17	15	0.035%	99.965%	CenturyLink Outage
October-17	300	0.698%	99.302%	Comcast Outage/CenturyLink Outage
January-18	212	0.491%	99.509%	Comcast Outage
February-18	390	0.904%	99.096%	Power outage at Pittock Mansion
April-18	300	0.718%	99.282%	Comcast Outage

**Total minutes down      2,117**



# Outage Timeline



# IBM Contract

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- **Contract Type.** The contract is an enforceable master contract between the State and IBM
- **Contract Relationship.** Establishes IBM as a "*managed service provider*"—responsible for end-to-end service delivery
- **State Protections.** The State's rights are included in the contract and have been utilized to hold IBM accountable for its performance
- **Changes & Remedies.** The contract establishes processes for "Project Change Requests," "*Stop Work Orders*" and "*Notice of Default*"





# Notice of Default

issued January 26, 2018



**Oregon**  
Kate Brown, Governor

**Department of Administrative Services**  
Enterprise Goods & Services - Procurement Services  
1225 Ferry Street  
Salem, Oregon 97301-4285  
PHONE: 503-378-6781  
FAX: 503-373-1626

January 26, 2018

International Business Machines Corporation  
1385 NW Amberglen Parkway  
Hillsboro, Oregon 97006  
Email:

ATTN: Kyle Johnson

With copies to:  
Brenda Harvey  
GM Public Sector  
IBM Global Technology Services  
590 Madison Ave NY, NY 10022

Anthony J. Foster  
Director, Infrastructure Services  
IBM Global Technology Services  
Communications and Public Markets

Michael A. Millburg, PMP  
Communications & Public Sector Portfolio Manager

Re: Information Technology Services Agreement #6755 (Contract)  
Notice of Default

Dear Brenda, Tony, Mike and Kyle,

Pursuant to Sections 11.1.3 and 11.1.4 of the Contract, the Department of Administrative Services (DAS), on behalf of itself, all state agencies and End Users hereby notifies International Business Machines (IBM) that IBM has materially failed to perform in conformance with the specifications and warranties provided in the Contract and that IBM has materially breached the representations, covenants, warranties, obligations and certifications given to the State. IBM's material failures to perform under the Contract include the following:

The Solution:

- IBM has failed to provide the State with a stable, reliable managed communications solution (Solution) and has failed to provide the State with stable, reliable communications services.

*"IBM has failed to provide the State with a stable, reliable managed communications solution (Solution) and has failed to provide the State with stable, reliable communications services."*

*"IBM misstated material facts related to the Solution architecture."*

*"Even after all the effort DAS and IBM expended during the Stop Work period (January 27, 2017 through May 17, 2017), the Solution has not been stable. The State has experienced several outages since the lifting of the Stop Work. (See attached spreadsheet of outages)"*

*"IBM has failed to implement and provide the State with a Solution that actually provides the redundancy or survivability IBM promised."*

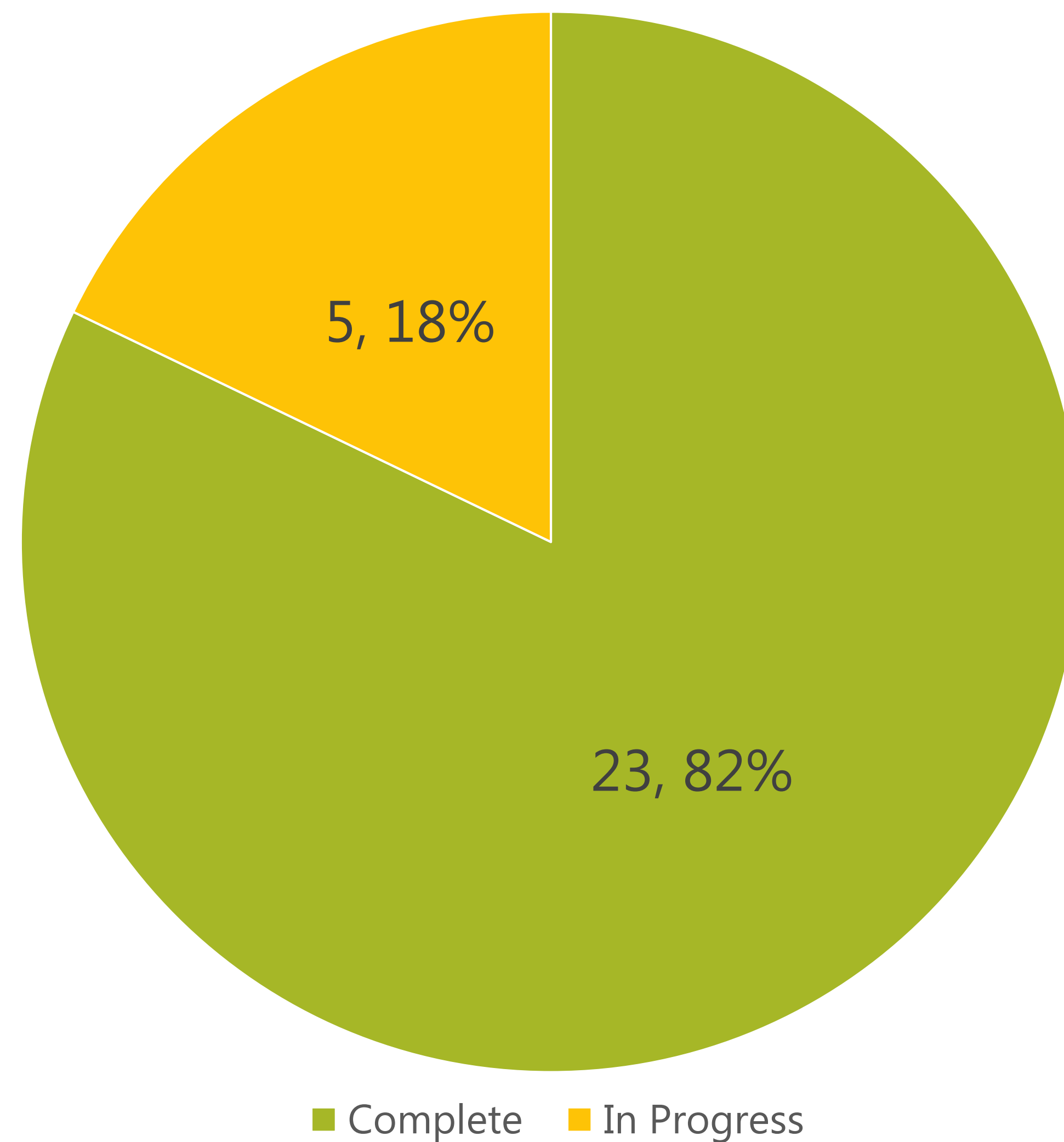


# Remediation

status as of May 4, 2018

Status of 28 remediation measures outlined in IBM's mitigation plan to address the issues identified in the "notice of default."

## Remediation Progress

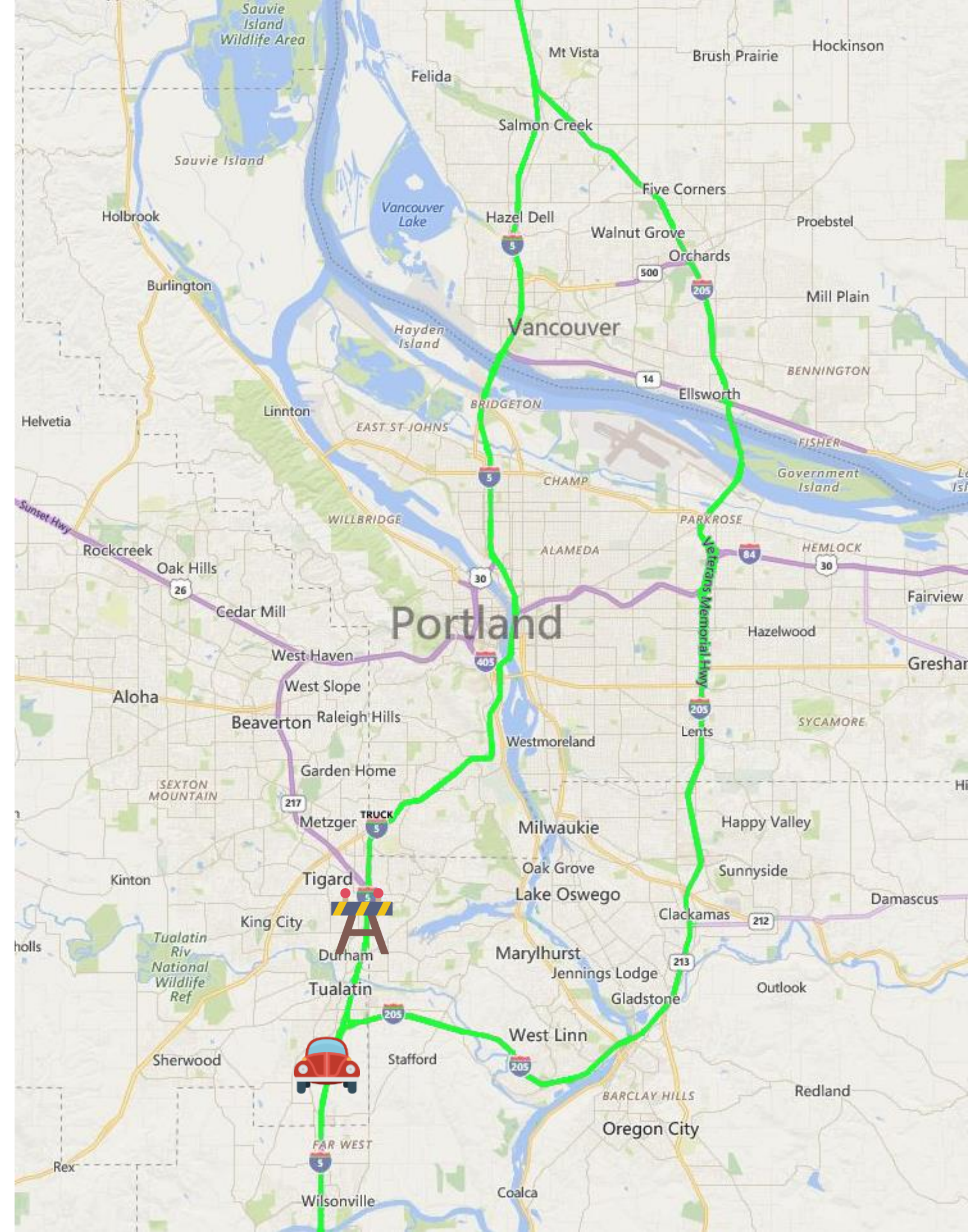
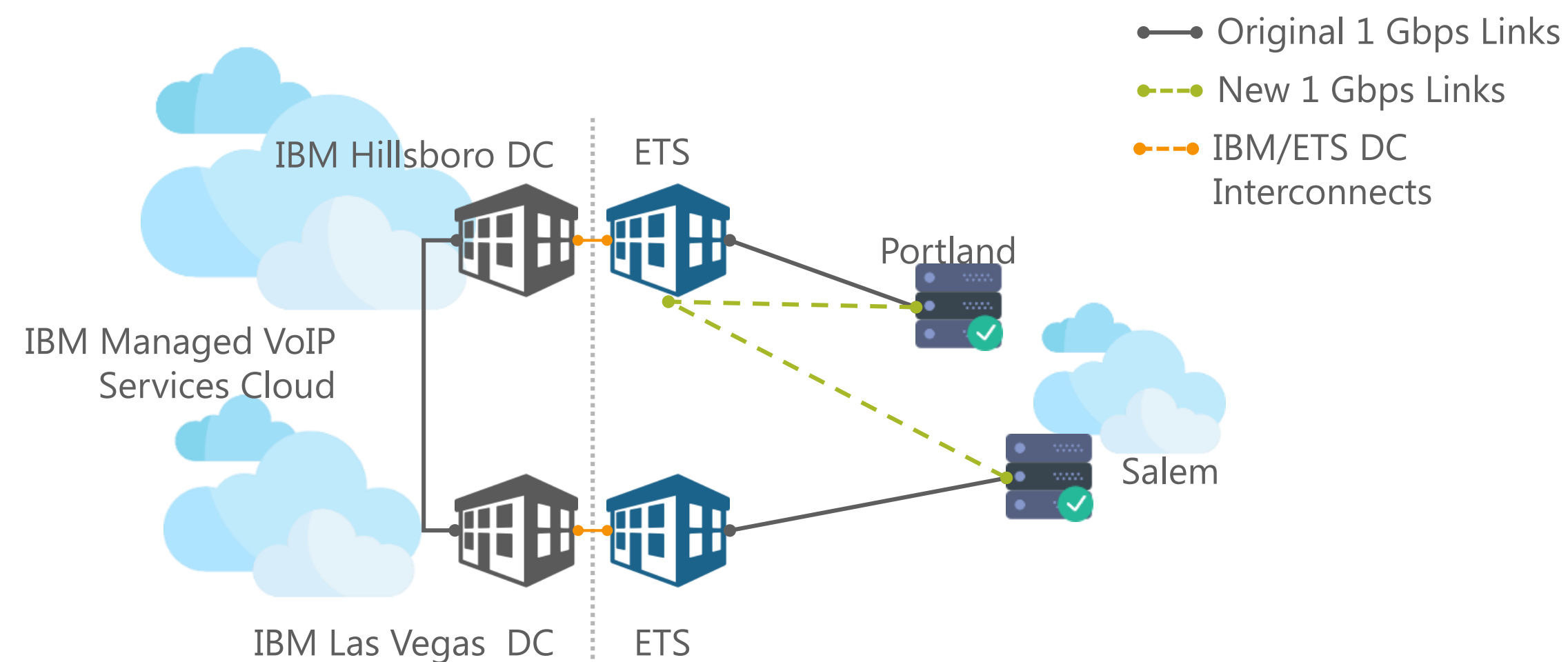




additional measures undertaken by the State

***Diverse paths and redundancy.*** Adding two 1 Gbps circuits that link the IBM datacenter in Hillsboro to Salem and Portland locations

*Imagine the 1 Gbps connections are like I-205. The next time you're travelling from Oregon to Washington, if I-5 is closed you can switch to I-205. Diverse pathways allow traffic to choose the best path, even if one route is closed.*





# External Assessment

*quality management and advisory services*



*Gartner was engaged to perform quality management and advisory services. Gartner is tasked with the following deliverables:*

## Independent Verification & Validation (IV and V) of Master Test Plan

- This task ensures that the System and its components, as delivered by the MSP, are complete, functional, stable, and secure.

## Risk Assessment Report

- Identify risks and provide recommendations for risk avoidance and mitigation strategies.
- Assessment will include a review of the following:
  - Root Cause Analysis
  - Architecture Review
  - Fail Over Plan



# Migration Milestones

*current status*

Month	End Users	Sites	% Complete
Total as of September 2017	22,260	259	78%
October 2017	1,504	25	83%
November 2017	449	22	85%
December 2017	1,615	17	90%
January 2018	664	13	93%
February 2018	567	14	95%
March 2018	137	8	95%
April 2018	1,182	20	99%
May 2018	252	3	100%
<b>Grand Total</b>	<b>28,630</b>	<b>381</b>	<b>100%</b>





# Savings & Pricing

cumulative *savings* and handset pricing

Month	Lines Disconnected	Monthly Savings	Cumulative Savings
January	1,677	\$54,877.94	\$309,711.97
February	1,760	\$56,988.63	\$366,700.60
March	1,884	\$60,141.95	\$426,842.55
April	2,426	\$61,693.18	\$488,535.73
May	2,726	\$69,322.18	\$557,857.91
June	3,026	\$76,951.18	\$634,809.09
July	3,255	\$82,647.50	\$717,456.59
August	3,426	\$87,123.18	\$804,579.77
September	3,481	\$88,521.83	\$893,101.60
October	3,537	\$89,945.91	\$983,047.51
November	3,743	\$95,184.49	\$1,078,232.00
December	3,747	\$95,286.21	\$1,173,518.21
January	3,825	\$97,269.75	\$1,270,787.96
February	3,825	\$97,269.75	\$1,368,057.71
March	3,901	\$99,202.43	\$1,467,260.14
April	4,119	\$104,746.17	<b>\$1,572,006.31</b>

## ***Handset Pricing:***

Previous CTL Handset Pricing:

**\$25.43**

Current IBM Handset Pricing:

**\$26.81**

